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A SAFER WORKPLACE STARTS HERE

SAFETY SCOOP

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Disclaimer

The information presented in this publication is not a definitive guide to government regulations and **does not** relieve persons using this publication from their **responsibilities under applicable legislation**. The appropriate OHS legislation should be **consulted**.

Individual counselling and advice is available from the Manufacturers' Health & Safety Association.

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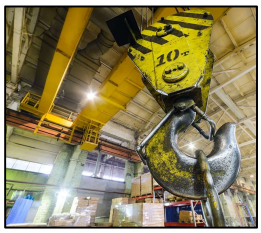
Lift Planning

Hazards associated with loads being moved by overhead cranes include:

- being crushed by a falling load or between the load and a stationary object
- being struck by a moving, swinging or rotating load



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Lift Planning

Overhead Crane safety starts will lift planning

LIFT EVALUATION FORM

GENERAL

Location: _____ **Lift Date & Time:** _____

Work Order #: _____ **Lift Supervisor:** _____

Description of Item to be Lifted *(if multiple items are being lifted, they must be identical in all ways in order for this lift plan to apply)*: _____

Has the crew performed this lift before? Y ☐ N ☐

LIFT EVALUATION - Check all that apply.

HAZARDS TO PERSONNEL

Y ☐ N ☐ Does the lift require personnel lifting devices (scissor lifts, personnel platforms, etc.)?

Y ☐ N ☐ Will load handling personnel be in hazardous locations (pinch points, crush points)?

Y ☐ N ☐ Will the load being lifted be in close proximity to other work areas?

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Lift Planning – Factors to Consider

Potential Danger to Workers

a) Workers in or near the load path
b) Blind spots or doorways
c) Moving equipment such as forklift trucks
d) Slipping or tripping hazards

How do these factors apply at this workplace?

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Lift Planning – Factors to Consider

Complexity of the Lift

a) Potential for load **instability** due to:
- Shape, load integrity
- Centre of gravity of load relative to pick points
- Shifting of load weight e.g. liquid filled, moveable parts

b) Obstructions or tight-fitting areas

How do these factors apply at this workplace?

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Lift Planning – Factors to Consider

Complexity of the Lift (cont…)

c) If load needs to be **turned over**, **rotated** or **tilted**
d) Tandem lift (multiple crane or dual hoist lift)
e) Type of lift is **unique** or **infrequently** done
f) Special **means or access** required for attaching and removing rigging

How do these factors apply at this workplace?

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Lift Planning – Factors to Consider

Crane Capacity

a) Load is significant compared to crane capacity
b) Factors that could affect maximum crane capacity
- Increased loading when **separating** a load, or **releasing** a stuck load
- **Dynamic loading** during sudden acceleration
- **Accuracy** of load weight calculation
- Potential **load shift**
- **Weight distribution** between multiple cranes

How do these factors apply at this workplace?

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Lift Planning – Factors to Consider

Rigging Capacity

a) **Side loading** of rigging hardware and attachment points
b) **Complexity** of rigging arrangement
c) **Weight distribution** or transfer of load within rigging arrangement
d) **Environmental conditions** such as temperature or chemically active environment

How do these factors apply at this workplace?

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Lift Planning – Factors to Consider

Adverse Commercial Impact

a) If the load has **significant** replacement time or cost

b) If failure to complete the lift could create **project delays** or **work shutdown**

Repetitive Lifts

a) **Complacency**, fatigue, **inattention**, lack of concentration and **distractions** of lift personnel

How do these factors apply at this workplace?

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Lift Planning

Operators must:

- Review the Formal Hazard Assessment for operating a crane in their specific area
- Complete a Field Level Hazard Assessment (FLHA) when **new** or additional hazards are present

Where is our Crane Operator Hazard Assessment?

Who here has read it?

Who here has filled out a FLHA?

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Personnel Needed

- **Identify tasks** to be completed before, during and after the lift and the **personnel needed** to complete each task including:
  - ❑ Rigger(s)
  - ❑ Crane Operator(s)
  - ❑ Spotter(s)
  - ❑ Signaller(s)
  - ❑ Tag line handler(s)
- Ensure the **competency** of **all** involved personnel

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Operator Competency

Operators must:

- Be **knowledgeable and experienced** in the type of lift they are assigned to do
- Be familiar with **manufacturer's specifications**
- Be familiar with the **controls and operating characteristics** of the crane, such as pushbutton response, travel speeds and stopping distances

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Operator Competency

Operators must:

- Ensure the **load weight** is within the crane's **capacity** and that rigging is **securely attached** to the load
- Stand in a **safe position** with **full view** of the load and load path
- Give **audible warning** before lifting or travelling with the load

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Operator Competency

Alberta OHS Code

Part 6 Cranes, Hoists and Lifting Devices.

*An employer must ensure that a lifting device is only operated by a **competent** worker **authorized** by the employer to operate the equipment.*

***Emphasis** added

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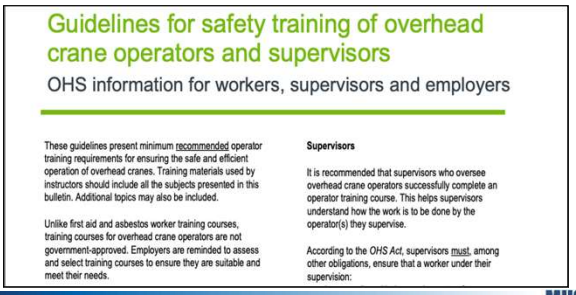
Crane Operator Training

Employers need to follow:



Guidelines for safety training of overhead crane operators and supervisors

OHS information for workers, supervisors and employers

These guidelines present minimum recommended operator training requirements for ensuring the safe and efficient operation of overhead cranes. Training materials used by instructors should include all the subjects presented in this bulletin. Additional topics may also be included.

Unlike first aid and asbestos worker training courses, training courses for overhead crane operators are not government-approved. Employers are reminded to assess and select training courses to ensure they are suitable and meet their needs.

Supervisors

It is recommended that supervisors who oversee overhead crane operators successfully complete an operator training course. This helps supervisors understand how the work is to be done by the operator(s) they supervise.

According to the *OHS Act*, supervisors must, among other obligations, ensure that a worker under their supervision:

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Crane Operator Training

*"These guidelines present **minimum recommended** operator training requirements for **ensuring the safe and efficient operation** of overhead cranes."*

*Emphasis added

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Crane Operator Training

*"**Successful completion** of training that meets these guidelines **should ensure** that operators are **suitably trained** to **safely operate overhead cranes**"*

*Emphasis added

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Crane Operator Training

*"It is **recommended** that **supervisors** who oversee overhead crane operators **successfully complete an operator training course**. This helps supervisors understand how the work is to be done by the operator(s) they supervise"*

Guidelines for safety training of overhead crane operators and supervisors

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*Emphasis added

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Crane Operator Training

The MHSA ***"Overhead Crane Operator and Supervisor Safety Training"*** course meets the requirements of these Guidelines.

Guidelines for safety training of overhead crane operators and supervisors

OHS information for workers, supervisors and employers

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Conclusion

- **Lift planning** is required for all lifts.
- A **formal hazard assessment** must be understood and followed by each crane operator.
- Crane operators and **all lift personnel** must be **competent** for the type of lift they are making.
- **Supervisors** should complete an Overhead Crane Operator Training course.

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Resources

- MHSA Rigging Essentials course info
- MHSA Overhead Crane Operator course info
- MHSA Hazard Assessment course info
- OHS Guidelines for Safety Training of Overhead Crane Operators and Supervisors

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Have Questions? Contact us!

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To register for a course we offer, or to access our other Safety Scoops visit https://www.mhsa.ab.ca/

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Thank you!

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