MHSA

A SAFER WORKPLACE STARTS HERE

AMTA Alberta Motor Transport Association

SAFETY SCOOP

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.

Material Handling & Transfer

Safe material handling is essential for workplaces that ship and transfer products.

There are many **factors and variables** to consider when handling and moving material. Whether it be across a workshop, or across Canada.

Hazard Assessment

Prior to handling product, a hazard assessment must be conducted to **understand the risks** involved and to better select **hazard controls to prevent incident**.

Some **factors for consideration**:

- Ground condition
- Thresholds
- Load Securement
- Handling equipment
- Danger Zones

Ground Condition

Assess ground conditions for variables that could be hazardous such as:

- Snow/ice/water
- Gravel & other loose materials
- Spills (oil, chemicals, fuel)
- Glass, cables, tools, chains & other trip hazards
- Potholes, uneven ground & other slip/fall hazards

Thresholds

Doorways, ramps, sloped ground, steps, tight spaces, low visibility, changing environmental conditions and cracked concrete or asphalt **in and around thresholds** must be taken into consideration when moving materials in and out of buildings.

Load Securement

Securing all goods for transport is **essential to eliminating the risk** of dislodgement, fall objects, spill and crush hazards.

Consider the **appropriate tiedowns and securement devices** for the type of cargo. Including:

- Strap, cord, chain or rope
- Shackles, D-rings, winches & grab hooks
- Rigging
- Dunnage & softeners

Material Handling Equipment

Equipment such as overhead cranes, forklifts, front-end loaders and straddle lifts are often utilized to **help safely load and unload** materials for transport.

Each of these pieces of equipment, while useful, come with their own **risks**.

Material Handling Equipment

Prior to starting work, it is **essential to understand** each equipment's:

- Range of motion/articulation
- Blind spots
- Capacity (WLL)

Workers must adhere to manufacturer's specifications, legislated requirements, industry standards and company operating procedures when using **material handling equipment**.

Danger Zones

The areas **directly beneath or beside** equipment where materials are being moved, loaded or unloaded, where a worker could be **struck or crushed** are the most hazardous.

These are called **danger zones**.

Danger Zones

To **avoid entering** danger zones, the use of signs, floor markings or spotters are often used to ensure workers do not encounter suspended loads or falling objects.

Hazard Assessment

The **item(s)** being transported should also be considered, so that workers can better protect themselves against hazards.

Consider things such as:

- Weight of the load
- Temperature of the load
- Chemical composition of the load
- Type of securement required (ie: tie-downs, wrap, etc.)
- Labels required (per the TDG Act)
- The destination

Hazard Controls

Applying appropriate hazard controls is **fundamental** to the health and safety of workers.

Hazard controls should be considered using the **hierarchy of controls** to minimize exposure to hazards and eliminate risk of injury.

Stability & Load Placement

The **placement of the load** for transfer also plays a huge role in maintaining safety on a worksite or during cargo transport.

Workers must ensure the load:

- Is within the equipment's WLL
- Has low center of gravity
- Has an adequate base support size
- Is placed in a manner that will allow it not to shift during movement.

Strapping & Unstrapping

Loads can **shift significantly** during movement.

Is it essential to consider load securement during the **initial movement** or strapping of a load as well as when **unstrapping a load** once has reached its destination.

Strapping & Unstrapping

Many workers have been injured and even killed by **improperly secured objects** when unloading product after transfer.

This is due to products shifting during transport or a result of poor securement prior to transport.

Strapping & Unstrapping

There are many methods for securing products for transfer.

On a trailer:

- Strapping
- Fasteners
- Dunnage
- Lashing

On a fork-truck:

- Proper stacking
- Wrapped
- Palletized
- Banding

Legislation

Workers must also take into consideration the legislation, industry standards and company safe operating procedures.

Material Handling regulations to be familiar with include:

- Alberta OHS Act, Regulation & Code
- National Safety Code for Motor Carriers – Standard 10

Conclusion

If it is your job to handle materials or transport cargo, be aware of the hazard controls and safe work practices to follow to keep yourself fand others safe.

Conclusion

Find all of this and MORE in the Alberta Motor Transport Association's **free** *"Situational Awareness in Material Handling"* online course.

https://www.amta.ca/courses/amta-elearning

Have Questions? Contact us!

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

Thank you!

Resources

https://www.amta.ca/courses/amta-elearning

OHS Code Section 12
OHS Code Section 155
OHS Code Section 189
OHS Code Section 258
OHS Code Part 21

National Safety Code Standard 10