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A SAFER WORKPLACE STARTS HERE

AMTA Alberta Motor Transport Association

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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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.

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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

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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

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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.

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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

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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**.

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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**.

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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**.

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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.

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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

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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.

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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.

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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.

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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.

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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

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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

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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.

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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

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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/

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Thank you!

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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

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