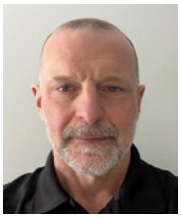


BCFSC Anatomy of a Tip-Over Workshop

By Dorian Dereshkevich, Manager, Transportation and Northern Safety

Timber harvesting operations across British Columbia continue to shift towards more challenging terrain and steeper slopes, making it increasingly difficult to safely and efficiently access fibre. The introduction of winch-assist harvest systems and advancements in specialized steep slope conventional ground-based equipment has helped reduce hazards and improve overall safety. However, operators and equipment are being pushed to their safe operating limits and there has been an increase in the number of tip-over incidents as a result.

Licensee-Initiated Training

Mosaic Forest Management (Mosaic) has emerged as an industry leader in addressing this issue and has developed an internal "Anatomy of a Tip-Over (AoT) Workshop" to raise awareness among frontline workers. The workshop focuses on the causes that contribute to tip-overs and strategies to prevent these types of incidents. The target audience includes equipment operators and supervisors, accompanied by licensee operations staff and senior layout engineers.

The workshops are designed to be interactive with participants encouraged to share their experiences and strategies for safely operating on steep slopes. To date, fifteen workshops have been delivered, and Mosaic has experienced a notable reduction in the number of tip-over incidents in their five-year data trend.

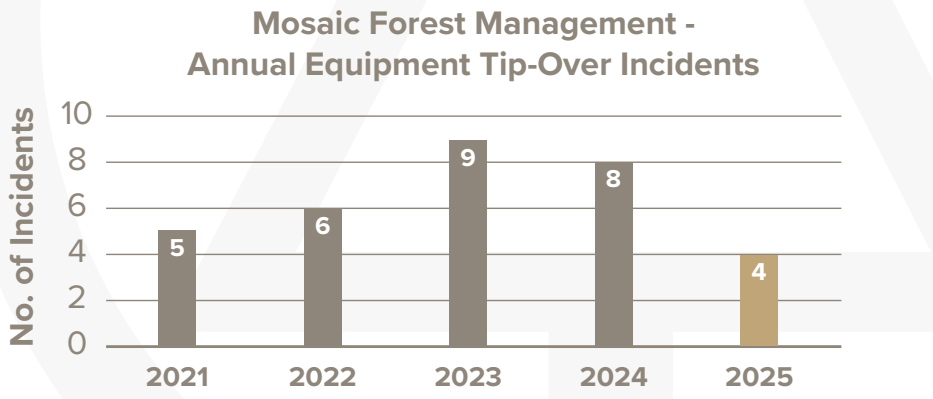
Expanding the Program

Mosaic has authorized the BC Forest Safety Council (BCFSC) to use their AoT workshop materials to develop an industry-wide training and awareness initiative. The BCFSC AoT workshop materials are currently being developed with sessions planned for delivery in spring 2026. Building upon the success of the original Mosaic workshop program, the BCFSC training materials are being developed with a focus on:

- Identifying contributing factors that lead to equipment tip-overs
- Hazard and risk assessment procedures
- Planning and layout standards
- Equipment and human limitations
- Best practices to prevent tip-over events

Workshops will be facilitated by an experienced operator who can relate to the challenges attendees face while performing their job duties. To encourage active engagement, workshop size will be capped at a maximum of 20 participants. Sessions are anticipated to run 3–4 hours, depending on the level of participant engagement.

If you are interested in hosting an AoT workshop session, please contact BCFSC Transportation Safety at transport.admin@bcforestsafe.org or call 250-562-3215.



Directional Winter Tire Basics:

All motorists in British Columbia should be aware that the Motor Vehicle Act and associated regulations require passenger vehicles to use winter tires from October 1 through April 30 on most highways throughout the province.To be compliant, passenger vehicles and light trucks must be equipped with tires that have the 3-peaked mountain and snowflake symbol or “M+S” on the sidewall.

Winter Tire Characteristics:

Winter tires are engineered to perform optimally in cold weather conditions providing enhanced safety and performance significantly improving traction, braking and handling compared to all-season tires.At temperatures below 7°C, all-season and summer tires begin to lose elasticity, leading to reduced traction, while winter tires maintain their elasticity and grip.

This increased performance is due to characteristics of winter tires such as, softer more flexible rubber compounds that remain pliable in freezing temperatures, deeper tread patterns and larger grooves designed to push snow and ice out of the tire tread and sipes (small slits in the tread) that enhance grip by increasing the tires surface area contact.

What is a Directional Winter Tire?

Directional tires are one of three main tire tread patterns (asymmetrical, directional and symmetrical) and are distinguished by their unique tread pattern that is designed to run optimally in one direction of travel.

This directional tire tread incorporates deep grooves and aggressively slanted or “V”-shaped channels that create a defined, arrow-like direction of rotation.This design aids in effectively pushing away slush, snow and water from the tire’s contact patch, ensuring that the tire maintains maximum contact and grip with the road surface resulting in better control and responsiveness, even in adverse weather conditions.This enhanced performance is a primary reason why many tire manufacturers incorporate directional tread patterns into their dedicated winter/snow tires.

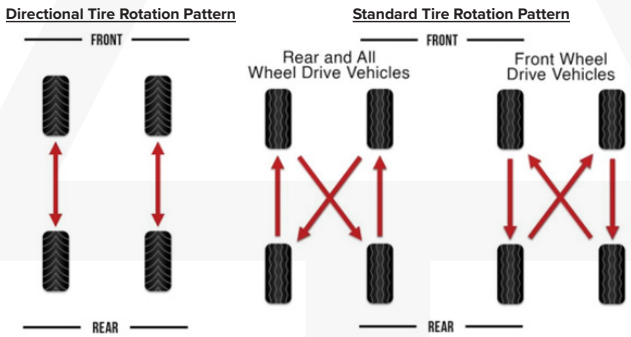
Mounting and Installation of Directional Tires.

The correct rotation of a directional tire can easily be identified by an arrow or other markings on the tire’s sidewall (Note: these markings only appear on one side of the tire). To maintain their performance and safety advantages, it’s crucial to mount them correctly, ensuring that all four tires rotate in the intended direction.When correctly mounted, the arrow points toward the front of the vehicle.Incorrectly mounted directional tires lead to reduced effectiveness, decreasing the tires hydroplaning resistance, handling and traction benefits.

Directional Tire Rotation

Regular tire rotations should be a part of a vehicle maintenance schedule to help extend the life of the tires and even out wear experienced due to road conditions, driving patterns and different drivetrains. Always refer to the vehicle’s owner’s manual or tire manufacturer information for suggested rotation intervals. A suggested best practice is to rotate your tires approximately every 8,000km or six months.

Unlike other standard tires, directional tires can only be rotated front-to-back, not side-to-side. Failing to follow this procedure can lead to uneven wear, significantly reduce performance advantages and safe handling of the vehicle.If transferring directional tires to opposite sides of the vehicle is required for any reason, the tires must be taken off the rims, flipped and remounted.



Extreme Cold Events and Planning for Worker Safety

Winter officially begins December 21st, and with it brings plunging temperatures, snow, ice and frosty winds that can increase risks for workers. In addition to extremely cold temperatures, wet, cool conditions also pose a significant risk of cold stress and hypothermia.

Between 2013 and 2023, there were 167 accepted claims for short-term or long-term disability benefits for injuries related to cold stress in BC, including frostbite, hypothermia and abrasions. More work-related motor vehicle crashes occur in November, December and January than in any other three-month period.

To address the risk of cold stress, you need a plan that outlines the risks, who is at risk and the safe work practices and other control strategies you will use to keep workers safe. Communicate your plan to everyone in the workplace.

Use the information below to refine your plan (or start building one) for controlling these top four winter risks.

1. Cold Stress and Hypothermia

Cold stress, the inability to maintain core body temperature, can lead to frostbite and hypothermia, which can be life-threatening. Employees who work outside part or all the time are at risk. Your cold stress prevention program should include:

- Training on the hazards, health effects and prevention of cold-related illness. This includes safe work practices, rewarming procedures, proper clothing and personal protective equipment, how to recognize cold stress/frostbite and signs and symptoms of hypothermia.

Cold stress can lead to hypothermia. This is a gradual process. Because it happens slowly, workers may not realize they are in danger until it's too late. Feeling cold is the most important warning sign to note. If workers feel cold, their bodies are likely losing heat faster than they are producing it. Wet clothing can dramatically reduce the body's ability to retain heat.

There are three stages of hypothermia. Here are the key warning signs for each stage:

- Mild – Shivering, grogginess and confusion
- Moderate – Violent shivering, confusion, shallow breathing and slurred speech
- Severe – Loss of consciousness, little or no breathing, weak, irregular or nonexistent pulse

If you or someone you work with is suffering from hypothermia:

- Seek medical care
- Evaluate responsiveness and breathing
- Provide CPR if the worker is unresponsive and not breathing normally
- Quickly move out of the cold
- Remove wet clothing
- Warm with blankets, warm clothing and external heat sources
- Offer warm drinks (only if the person is alert and can swallow easily)
- Do not consume or give alcohol or caffeine
- In all but mild cases, contact 911 immediately

2. Frostbite

Even protected skin can be subject to frostbite. It's the most common injury resulting from exposure to severe cold and usually occurs on fingers, toes, nose, ears, cheeks and chin. If caught early, permanent damage can be prevented. If not, frostbite can lead to tissue death and amputation.

Symptoms:

- Redness or pain in a skin area
- White or greyish-yellow skin
- Skin that feels abnormally firm or waxy

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Transportation Safety

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Symptoms:

- Numbness
- Blisters
- Black, dead skin and tissue (gangrene) in severe cases
- Warm the frostbitten area in lukewarm water (35°C to 40°C) for 20 to 30 minutes only if medical care is delayed and there is no danger of the skin refreezing

If you suspect frostbite:

- Move to a warm place
- Remove wet clothing and constricting items
- Seek medical attention as soon as possible

3. Slips, Trips and Falls

Raise awareness of hazards related to slips, trips and falls through safety talks and other forms of communication. This includes recognizing and monitoring environmental conditions that increase risk (e.g. freeze-thaw cycles, freezing rain), and providing prevention tips such as wearing proper footwear (low heels, warm, waterproof and good traction) and using ice cleats.

4. Winter Driving

Communicate the following safety tips to everyone in the workplace who drives (not only those who drive for work):

- Use snow tires
- Use tire chains when necessary
- Slow down and adjust speed for weather and road conditions
- Check road and weather conditions before heading out
- Allow more time to reach your destination
- Keep a safe distance from other vehicles
- Carry winter survival gear including a blanket, first aid kit, non-perishable food (e.g. granola bars), water, matches, extra clothing and boots, shovel, flashlight, flares and booster cables
- Have a check-in system for staff working alone
- Reschedule trips if conditions are dangerous

Employers and workers are responsible for taking proactive steps as weather conditions change, including conducting regular risk assessments and implementing appropriate control measures. If you haven't already, it's time to put your workplace's Winter Safety Plan into action.

Resources

- BCFSC Winter Safety Resources
- WorkSafeBC Winter Hazards.