

Cargo securement is a fundamental part of safe and reliable trucking operations. Each load presents different challenges based on the cargo being transported, the equipment being used, and the conditions expected during the trip. A consistent approach helps carriers manage those variables and reduce the chance of preventable issues in transit.

This guide provides practical considerations to help trucking carriers review and strengthen their cargo securement practices.

## Understanding the Risk

When cargo is not properly secured, it can move during braking, acceleration, cornering, lane changes, uneven road conditions, or emergency manoeuvres. Even a small amount of movement can affect vehicle stability, change weight distribution, place stress on securement equipment, or allow the cargo to become unstable.

**When cargo movement occurs, it can create several types of exposure for trucking carriers, including:**

- **Driver and public safety:** If cargo shifts or falls from the trailer, the primary concern is potential for serious bodily injury to the driver, other road users, and pedestrians.
- **Damaged equipment:** Load movement can damage trailers, vehicle structures, doors, bulkheads, tiedowns, anchor points, securement hardware, and related handling equipment.
- **Freight damage:** Cargo that shifts or falls from the trailer may be damaged prior to delivery. In turn, this can result in rejected loads, clean-up costs, and freight replacement costs.
- **Reputational impact:** A cargo securement failure can lead to delayed deliveries and customer disputes, in turn leading to loss of confidence in the carrier's ability to move freight safely and reliably.
- **Regulatory action:** Cargo securement deficiencies can result in roadside violations, out-of-service conditions, and increased scrutiny of the carrier's safety practices.

### Roadside enforcement snapshot

During the Commercial Vehicle Safety Alliance (CVSA) 2025 International Roadcheck, conducted from May 13 to 15, cargo securement was the third most common vehicle out-of-service violation in Canada. Canadian inspectors recorded 293 cargo securement out-of-service violations, representing 15.1% of vehicle out-of-service violations.

These violations are often preventable. Common contributing factors include insufficient tiedowns, loose securement, damaged equipment, missing edge protection, poor load re-checks, or securement methods that do not match the cargo being transported.

# Risk Mitigation Strategies

Cargo securement is most effective when it is treated as a coordinated operating practice, not a single task completed at the loading point. Carriers should focus on selecting the right securement system, defining driver responsibilities, and supporting consistent execution through management controls.

## Securement systems

The securement system should be selected before dispatch and should reflect the cargo, vehicle, and conditions expected during transport. The objective is to ensure the load is properly contained, immobilized, or restrained before the vehicle leaves the loading area.

**The following considerations can help carriers apply a more consistent and effective securement approach:**

- ✓ **Confirm applicable requirements:** Carriers should confirm the securement requirements that apply to each load, including National Safety Code (NSC) requirements for Canadian operations and Federal Motor Carrier Safety Administration (FMCSA) requirements where U.S. operations apply. This includes determining whether general securement practices are sufficient or load-specific methods are required.
- ✓ **Select the right securement method:** Match the method to the cargo’s weight, dimensions, stability, centre of gravity, surface friction, and movement potential. This may include tiedowns, blocking, bracing, dunnage, chocks, cradles, load bars, friction mats, or vehicle structures.
- ✓ **Confirm securement strength:** Securement devices, anchor points, and related components should be properly rated and suitable for the cargo being transported. Working load limit markings should be visible, and the weakest component should be considered when assessing the overall strength of the securement system.
- ✓ **Protect tiedowns from damage:** Edge protection should be used where tiedowns contact sharp or abrasive surfaces. This helps prevent cutting, abrasion, or concentrated pressure that can compromise the securement system during transport.
- ✓ **Verify equipment condition:** Securement equipment should be checked before use to confirm it is fit for service. Damaged, worn, or unmarked components should be removed from service immediately, nor should they ever be considered a temporary substitute.

### FAQ: When do “load-specific” requirements apply?

Certain cargo types require additional planning, equipment, or securement attention before dispatch, including:

- Logs
- Paper rolls
- Vehicles
- Dressed lumber
- Concrete pipes
- Roll-on/roll-off and hook-lift containers
- Metal coils
- Intermodal containers
- Boulders

Before dispatch, carriers should review the applicable NSC and FMCSA cargo securement requirements for the specific commodity being transported.

## Driver responsibilities

Drivers play a critical role in cargo securement because they are closest to the load during transport. Conditions can change once the vehicle is in motion, making driver checks an important part of keeping cargo stable throughout the trip.

### The following practices should be built into the driver's securement routine:

- ✓ **Pre-departure verification:** Before the vehicle moves, drivers should confirm that cargo is properly contained, immobilized, or restrained. Tiedowns should be tight and correctly positioned, blocking and bracing should be secure, and doors, tarps, spare tires, tools, and operating equipment should be properly secured.
- ✓ **Initial in-transit recheck:** Drivers should recheck the cargo and securement system shortly after the trip begins. As a practical standard, this should be completed within the first 80 km after leaving the loading point, with adjustments made as needed.
- ✓ **Ongoing securement monitoring:** Drivers should continue checking the cargo and securement system throughout the trip. As a practical standard, loads should be rechecked at each change in duty status, every three hours, or every 240 km, whichever occurs first.
- ✓ **Address concerns before continuing:** Any issue identified during a check should be corrected before the trip continues. If the driver is uncertain whether the load remains secure, they should stop in a safe location, reassess the cargo and securement system, and obtain assistance or direction before proceeding.
- ✓ **Document inspection activities:** Inspection records help protect both the driver and the carrier. Drivers should record inspection times, locations, adjustments made, and any concerns identified. Photos at loading and inspection points can provide useful evidence during roadside inspections, claims reviews, or incident investigations.

## Management controls

Cargo securement should be supported by carrier-level controls that make expectations clear, repeatable, and verifiable. Management is responsible for ensuring that drivers and operational staff have the procedures, training, equipment, and oversight needed to secure loads consistently.

### Key management controls include:

- ✓ **Written securement procedures:** Carriers should maintain written procedures for the cargo types they regularly transport. Procedures should outline approved securement methods, required equipment, inspection expectations, recheck requirements, and steps to follow when a load appears unsafe, unstable, or improperly secured.
- ✓ **Training and education:** Drivers, dispatchers, supervisors, and loading personnel should be trained on the carrier's cargo securement expectations. Training should address general securement principles, load-specific requirements, working load limits, equipment inspection, driver recheck expectations, and when to stop or escalate concerns.
- ✓ **Equipment management:** Carriers should maintain a reliable supply of properly rated fit-for-purpose securement equipment for the loads they transport. Equipment standards should address inspection, storage, maintenance, replacement, and removal from service when equipment is damaged, worn, or unmarked.
- ✓ **Audits and spot-checks:** Carriers should periodically inspect loaded units at terminals, yards, or during supervisory ride-alongs. Findings should be used to reinforce expectations, identify recurring gaps, and improve procedures or training.
- ✓ **Review and improvement:** Carriers should periodically review cargo-related claims, roadside violations, incidents, near misses, and load securement audits. When gaps are identified, carriers should review whether current procedures, training, equipment standards, or dispatch and loading practices need to be updated.

## In Summary

Cargo securement should be treated as a consistent operating practice, not a one-time task at the loading point. By selecting the right securement system, verifying the load during transport, and supporting drivers with clear procedures, training, equipment, and oversight, carriers can reduce the likelihood of load movement, equipment damage, freight loss, regulatory action, and serious road safety incidents.

## References

Federal Motor Carrier Safety Administration | Cargo Securement Rules

<https://www.fmcsa.dot.gov/regulations/cargo-securement/cargo-securement-rules>

National Safety Code for Motor Carriers | Standard 10 – Cargo Securement

[https://www.cvse.ca/nacs/NSC\\_10\\_Cargo%20Securement.pdf](https://www.cvse.ca/nacs/NSC_10_Cargo%20Securement.pdf)

Commercial Vehicle Safety Alliance | CVSA Releases 2025 International Roadcheck Results

<https://cvsa.org/news/2025-roadcheck-results/>

Canadian Council of Motor Transport Administrators | NSC Standard 10 – Guidance and Interpretations

[https://www.ccmta.ca/web/default/files/PDF/Interpretations\\_and\\_Guidance\\_2016.pdf](https://www.ccmta.ca/web/default/files/PDF/Interpretations_and_Guidance_2016.pdf)

Transports Quebec | Cargo Securement Guide

<https://www.transports.gouv.qc.ca/en/camionnage/arrimage-cargaisons/Documents/cargo-securement-guide-2017.pdf>