

WEBINAR:

February 24th, 10 - 11am

Securing Your Safety



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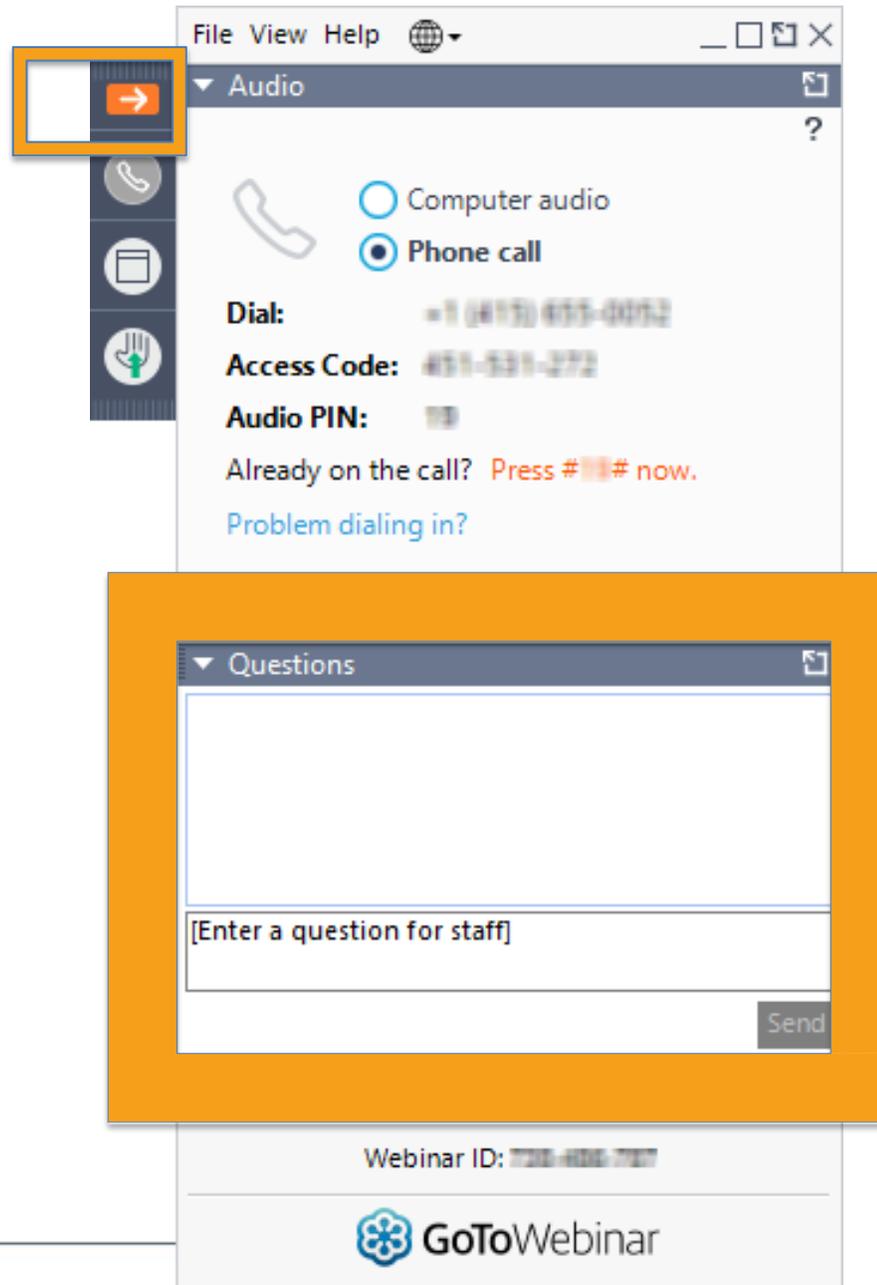


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BENEFITS



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Safety
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Custom
Safety
Program



Reduce
Costly
Incidents

Don't forget to check out:

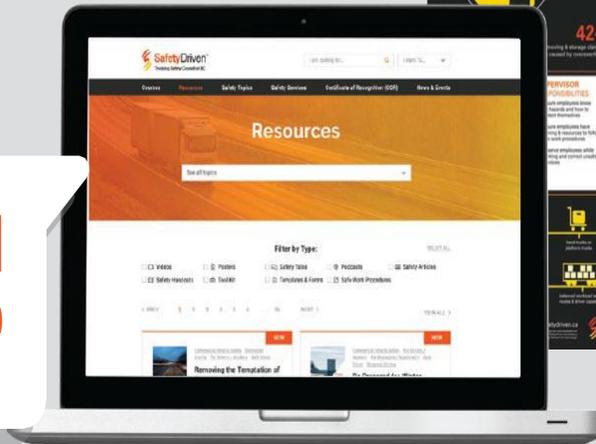
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Today's webinar partner



About CoreCode

- Provides professional service and support to the transportation and regulatory sector.
- Assist and train companies on best practices and due diligence processes above and beyond the minimum standards.
- Provides administrative advice and services for companies to build and maintain their safety programs.
- Corecode Safety & Compliance is an Associate Member of the Commercial Vehicle Safety Alliance, (CVSA).

Introducing today's presenters



Steve Bauer
CoreCode
Founder



Cole Delisle
CoreCode
Founder

Steve Bauer Speaking



Steve Bauer
CoreCode
Founder



A thin vertical black line is positioned to the left of the text, extending from the top of the first line of text to the top of the second line of text.

Introduction to Cargo Securement

Poll Question

How comfortable are you in your cargo securement knowledge?

- 1) Very comfortable
- 2) I'm pretty sure I know what I need to know
- 3) I have a lot to learn

Poll Question

What type of work vehicle do you, or your company, mainly operate that requires securing of work equipment, tools or loads?

- 1) Flatbed truck
- 2) Cargo van
- 3) Tractor-trailer
- 4) Passenger vehicle
- 5) Pick-up truck

Poll Question

Please describe what best suits your position in vehicle operations?

1. Employee who operates a business vehicle
2. Employer that oversees a company with work vehicles
3. I only use for personal and recreational purposes.

Introduction to Cargo Securement

OVERVIEW

- What is Cargo
- Vehicle weight
- Applicable Laws
- Why Cargo Securement is important
- Basic Physics and Practical Application
- Elements and Methods of Cargo Securement
- Types of Securement Devices
- Driver Inspections
- Vehicles over 5000kg LGVW





WHAT IS CARGO?

- **CARGO** - goods carried on a ship, aircraft, or motor vehicle.
- **GOODS** - merchandise or possessions.
- **POSSESSIONS** - the state of having, owning, or controlling something. An item of property; something belonging to one



Vehicle Weight & Cargo Securement



BC Utility Trailer License Plate-



BC Commercial Trailer License Plate

Vehicle Registration	
Certificate Number	
Registration Number	
Licence Plate Number	20
Year	2019
Make	Ford
Model	F150
Body Style	Crew Cab
VIC	YD6BB7
Colour	Grey
VIN	1FTEW1E
Fuel Type	Gasoline
Net Weight (kg)	2,131
GVW (kg)/Disp. (cc)	3,197
Seating Capacity	
Vehicle Type	COMMERCIAL
Anti-Theft Device	PASSIVE IMMOBILIZER
Vehicle Status	NORMAL
Import Code	
Right-Hand Drive	NO
ORV	NO

Customer Copy

MINIMUM STANDARDS

ACTS & REGULATIONS



Applicable Laws

- BC Motor Vehicle Act Regulations Division 35
 - Applies to all vehicles
- National Safety Code Standard 10 – Cargo Securement-
 - Applies to larger Commercial Vehicles
- OHS Regulations
- Workers Compensation Act

BC Motor Vehicle Act Regulations (MVAR) Division 35

Prohibitions respecting equipment and cargo MVAR 35.03

- Carrier must not permit a person to drive or operate a business vehicle or commercial vehicle
- A person must not drive a business vehicle or commercial vehicle
- A person must not drive a vehicle that is not a business or commercial vehicle (private passenger vehicle)





Vehicle Must Be Equipped And Cargo:

must be contained, immobilized or secured so that it cannot:

- leak, spill, blow off, fall from, fall through or otherwise be dislodged from the vehicle.
- Shift on or within the vehicle in a manner that affects the stability or maneuverability of the vehicle.
- Aggregate loads must be covered, and the covers tightly fastened.



NSC Standard 10- Cargo Securement

- Adopted in BC Motor Vehicle Act Regulations
- In BC applies to Vehicles with LGVW over 5000kg (in other Canadian jurisdictions 4500kg)
- Very detailed and specific on requirements for:
 - General Performance Criteria
 - Requirements for Cargo Securement Systems
 - Tiedowns
 - Front End Structures
 - Specific Securement by Cargo type.

Workers Compensation Act

Every employer must

- ensure the health and safety of all workers working for that employer, and any other workers present at a workplace at which that employer's work is being carried out.....

Every worker must

- Take reasonable care to protect the worker's health and safety and the health and safety of other persons who may be affected by the worker's acts or omissions at work.....

Every supervisor must

- Ensure the health and safety of all workers under the direct supervision of the supervisor.....

Occupational Health and Safety

Workers' Compensation Act

- “workplace” means any place where a worker is or is likely to be engaged in any work and includes any vessel, vehicle or mobile equipment used by a worker in work;

Occupational Health and Safety Regulations

- 2.2 General Duty “Despite the absence of a specific requirement, all work must be carried out without undue risk of injury or occupational disease to any person”.

OHS Cargo Securement

- 16.34 Start of Shift Inspections
- 16.35 Securing tools and equipment
- 16.37 Securing elevated loads
- 16.44 Securing Loads
- 16.45 Restraint of cylinder objects
- 16.46 Lift truck loads

Quick Statistics - Contraventions

Contraventions

[Background on the data](#)

Data as of: April 30, 2020

Contraventions processed in B.C. under the Motor Vehicle Act, Motor Vehicle Act Regulation and Criminal Code of Canada as reported by ICBC

For more details on offences, please see [Motor Vehicle Act \(MVA\)](#), [Motor Vehicle Act Regulation \(MVR\)](#), and [Criminal Code of Canada \(CCC\)](#).

While contravention section codes in this report are based on the MVA, MVR and CCC, ICBC's database removes the number "0" from some section codes. Therefore, **section codes may not appear exactly as presented in the MVR, MVA and CCC** (for example, MVR section 3.011 is displayed as 3.11 in this report). For this reason, please refer to the related section description for clarification. If you have additional questions, please contact one of the media contacts listed in the [icbc.com newsroom](#).

Related links:

[Motor Vehicle Act \(MVA\)](#)

[Motor Vehicle Act Regulation \(MVR\)](#)

[Criminal Code of Canada \(CCC\)](#)

Other driving offences contraventions processed by violation act and section code

Violation Act	Section Code	Section Description	2015	2016	2017	2018	2019
MVR	35.4B	Vehicle equipment/cargo contained doesn't shift on/with v..	0	0	2	0	0
	35.32	Carrier permits operation without proper equipment/with ..	8	6	3	13	5
	35.33	Driver operates commercial vehicle without proper equip..	750	670	750	840	910
	35.34	Driver operates non-commercial vehicle without proper eq..	240	260	260	350	280

Category

Other driving offences

Violation Act

MVR

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QUESTIONS

Poll question

- Have you experienced the impacts of a shifting load, loss or partial loss of a load?
 - 1) Yes - shifting
 - 2) Yes - partial or full loss of load
 - 3) No to either



Why is it important that cargo is secured properly?

Impacts

Driver

- Feels safer in a safe work environment
- Feels more confident handling the vehicle
- Reduced risks to personal and public safety
- Reduced liability

Carrier

- Promoting a culture of safety at work
- Better safety record
- Improves business competitiveness
- Maintains company reputation
- Reduced liability

The public

- Road Safety
- More confident sharing the road

Shippers/Receiver

- No Lost productivity
- Customer satisfaction
- Reduced waste
- Reduced liabilities

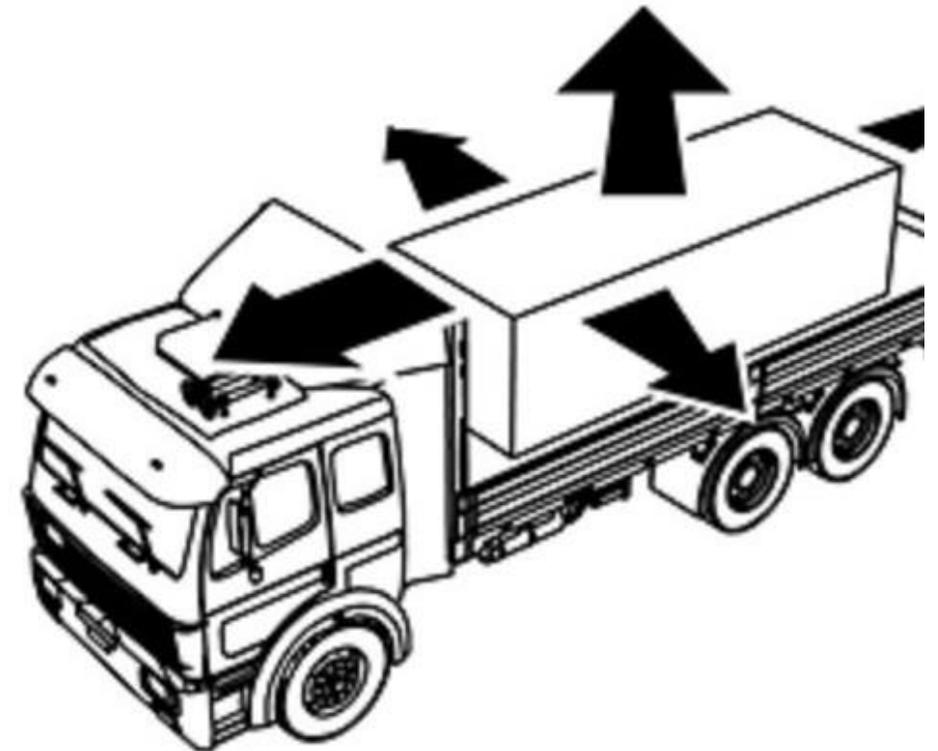
Basic Physics and Practical Application

Physics

- An object at rest will stay at rest
- An object in motion will stay in motion
- Objects change their motion when they are subjected to a force
- The heavier the cargo the more force generated

Practical Application:

- The Load should be secured from moving forwards, rearwards, side to side and upwards.





Effects of Lateral Forces on Cargo

Elements of Securement System

The vehicle structure



The securing devices



Blocking and bracing.



Cargo Securement Methods

IMMOBILIZED

- By structures of adequate strength
- or a combination of structures, blocking and bracing

RESTRAINED

- Cargo is immobilized on or within a vehicle to prevent shifting or tipping.

CONTAINED

- the cargo fills a sided vehicle,
- every article is in contact with or close to a wall or other articles,
- the cargo cannot move or tip;



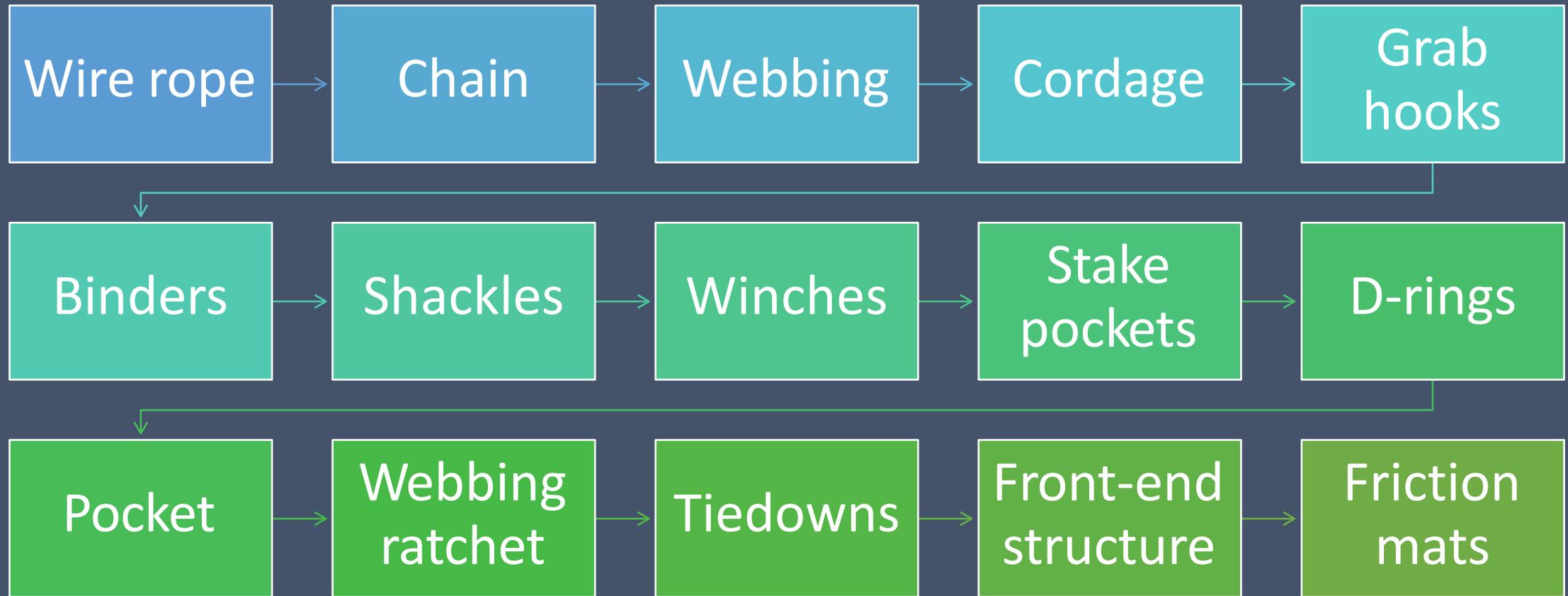
How often have you seen this



GRAVITY IS
NOT CARGO
SECUREMENT



What are the types of securement devices?







CARGO INSIDE VEHICLE



Tarping

- Aggregate loads
- Landscape material

Cargo net tiedowns

- Works well with products of similar shape and size
- Great at unitizing a load





Tiedowns

- Works for products of different sizes
- Good option for heavy products
- Affordable and adaptable to different load types

Fabricating Vehicles

- Good for transporting the same material, tools, equipment
 - Fire trucks
 - Mechanics
 - Service vehicle
 - Traffic Control vehicle



7,25 bar

Driver Inspections

1

Inspect the vehicle to confirm: Tailgate, tailboard, doors, tarpaulins, spare tire and other equipment used in its operation are secured

2

Ensure all cargo is secured and does not interfere with the driver's ability to drive safely

3

Ensure the cargo does not interfere with the free exit of a person from the cab or drivers' compartment

Vehicles Over
5000kg LGVW





Driver Inspection Requirements over 5000kg LGVW- NSC Standard 10

- Drivers must inspect cargo securement at specified intervals and make adjustments as necessary. Inspect as often as necessary to maintain tiedown tension but at least:
- Before driving the vehicle
- Within first 80 km (50 miles)
- When the duty status of the driver changes
- After 3 hours or after 240 km (150 miles), whichever happens first
- Make adjustments as needed at any inspection
- Add additional devices as need to ensure the load is properly secured



Vehicles Over 5000 LGVW- NSC Standard 10

Except for steel strapping, tiedowns must be designed, constructed, and maintained so the driver can tighten them.

Each tiedown must be attached and secured so it does not become loose or unfastened while the vehicle is in transit

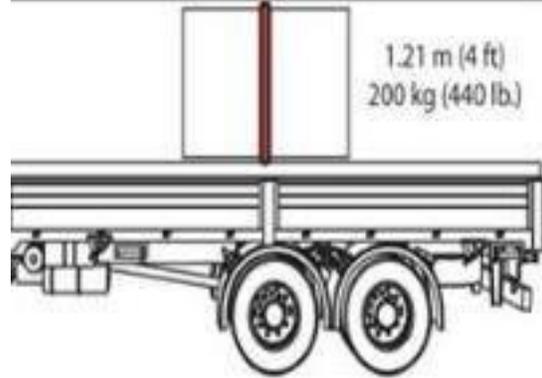
Tiedowns or a component of the tiedown must be marked with the manufacturers working load limit.

Must be in good working condition

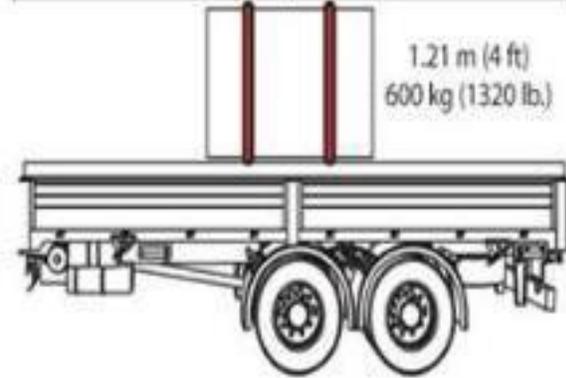


If cargo is not prevented from forward movement secure the cargo according to the following requirements

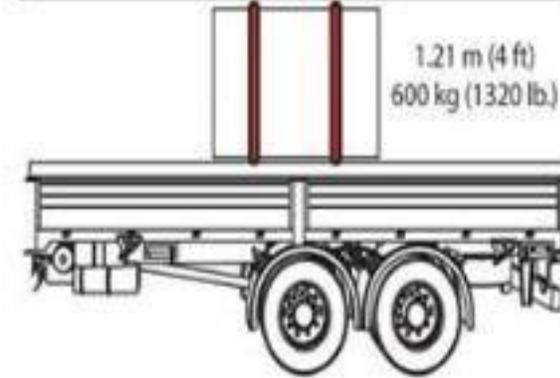
Article Description	Minimum # of Tiedowns
1.52 m (5 ft) or shorter 500 kg (1,100 lb.) or lighter	1



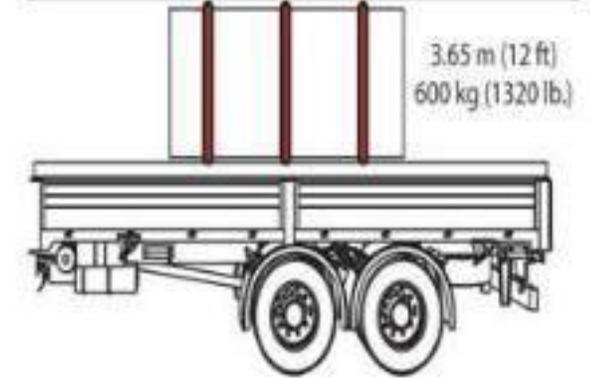
Article Description	Minimum # of Tiedowns
➤ 1.52 m (5 ft) or shorter ➤ Over 500 kg (1,100 lb.)	2



Article Description	Minimum # of Tiedowns
More than 1.52 m (5 ft) but 3.02 m (10 ft) or less	2



Article Description	Minimum # of Tiedowns
Longer than 3.02 m (10 ft)	2 + 1 tiedown for every additional 3.02 m (10 ft), or part thereof



Minimum Tiedown Numbers

When cargo is prevented from forward movement secure cargo to the following requirements (note the single item blocked against the front item)

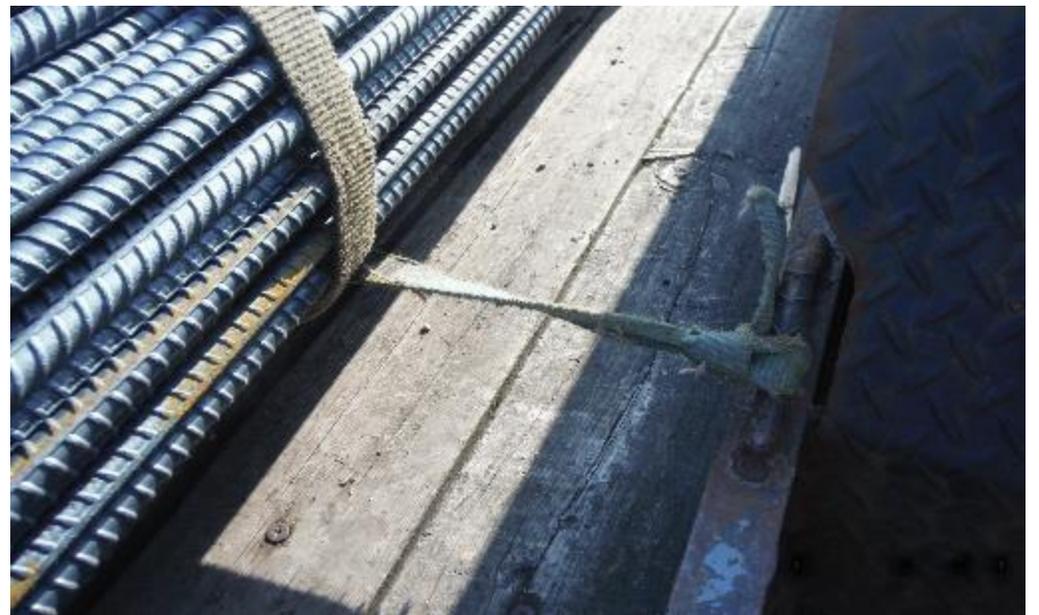
Article Description	Minimum # of Tiedowns
All Cargo	1 tiedown for every 3.04m (10ft) or part thereof

3.65 m (12 ft)
600 kg (1320 lb.)

1.21 m (4 ft)
600 kg (1320 lb.)

Minimum Tiedown Numbers
Cont'd

Strap Width	Maximum Defect Width
4 inch	3/4 inch
3 inch	5/8 inch
2 inch	3/8 inch
1 inch	3/8 inch



Chain Defects

- Broken, cracked, twisted or stretched
- Excessive wear, or abrasions
- Any link welded other than the original manufacturer welds
- Chains that are knotted
- Improper repair links



Commodity Specific Section



- Logs
- Lumber/Building supplies
- Metal Coils
- Paper Rolls
- Intermodal Containers
- Concrete Pipe
- Vehicles (light/heavy/crushed)
- Roll-on, Roll-off & Hook lift
- Boulders

Questions



Contact us with your questions



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rwalters@roadsafetyatwork.ca



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Thank You!

See next slide for a list of links to resources
mentioned in this webinar

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Links to various resources mentioned in this webinar

[BC Motor Vehicle Regulation
Division 35 Cargo Securement](#)

[NSC Standard 10 Cargo
Securement \(Vehicles of
5000kg LGVW- BC\)](#)

[Commercial Vehicle Safety &
Enforcement](#)

Note: Links have not been updated
since this webinar was presented