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TIE DOWN AND LOAD SECUREMENT TRAINING

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CARGO CONTROL & ACCESSORIES AGENDA

- Overview
- Terminology & Chain Grades
- U.S. Regulations & Standards
- How to Comply
- Top 10 Cargo Securement Violations
- Cargo Tie Downs – Applications & Calculations
- Cargo Control Products & Accessories
- Inspection Procedures

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CARGO CONTROL OVERVIEW

- Breadth and depth of products to satisfy your chain and accessory needs
- Industry leader and innovator – many patented products
- Grade 70 chain stamped with Working Load Limit
- Customization to meet customer requirements

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WHY DO WE SECURE LOADS?

- Prevent damage
- Protect the public
- Protect ourselves
- Comply with DOT regulations

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BASIC TERMINOLOGY

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BASIC TERMINOLOGY

CARGO SECUREMENT SYSTEM - means the method by which cargo is contained or secured and includes vehicle structures, securing devices and all components of the system.

WORKING LOAD LIMIT (WLL) – The “Working Load Limit” (rated capacity) is the maximum load, which at any time or under any condition should ever be applied to chain or sling components when the load is evenly applied in direct tension to an undamaged straight length of chain, strap or fittings.

PROOF TEST – The “Proof Test” (manufacturing test force) is a term designating the minimum tensile force which has been applied to a chain under constantly increasing force in direct tension during the manufacturing process. These loads are manufacturing integrity tests and shall not be used as criteria for service or design purposes.

MINIMUM BREAKING FORCE – The “Minimum Breaking Force” is the minimum force at which the chain during manufacture has been found by testing to break when a constantly increasing force is applied in direct tension. Breaking force values are not guarantees that all chain segments will endure these loads. This test is a manufacturer’s attribute acceptance test and shall not be used as a criteria for service or design purposes.

AGGREGATE WORKING LOAD LIMIT - The load securement system must be at least 50% of the weight of the cargo being secured. From the Federal Motor Carrier Safety Administration (FMCSA) Driver’s Handbook on Cargo Securement.

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BASIC TERMINOLOGY

IMMOBILIZE - Doesn't move at all. Testing shows almost impossible.

RESTRAIN - Most common way, means to "limit or hold back any movement."

CONTAIN - Involves packaging, shipping containers, various shipping structures.
Cargo can move freely within a space or zone, but can't leave the space or zone.
However, the container itself must be able to withstand the cargo's movement.

ANCHOR POINT - Means the part of the structure, fitting or attachment on a vehicle or cargo to which a tie down is attached.

BRACING - Means a structure, device, or article placed against another structure, device or article to prevent tipping.

EDGE PROTECTOR - Means or device put on the exposed edge of an article of cargo:

- –To protect tie downs & article from damage
- –To distribute tie downs forces over a greater area

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BASIC TERMINOLOGY

GRADE 100 ALLOY CHAIN: Premium quality, high(er) strength alloy chain, heat treated, used in a variety of sling and tie down applications. For overhead lifting applications, only alloy chain should be used.

GRADE 80 ALLOY CHAIN: Premium quality, high strength alloy chain, heat treated, used in a variety of sling and tie down applications. Only alloy chain should be used for overhead lifting applications.

P7 – GRADE 70 (Transport Tie Down or Binding Chain): A high-strength, light-weight carbon steel chain designed for load binding applications. Grade 70 is **not** for overhead lifting.

P4 – GRADE 43 (High Test Chain): This light-weight, higher carbon steel chain is significantly stronger than Grade 30, meaning that a lighter chain can often do similar work. Grade 43 is **not** for overhead lifting.

P3 – GRADE 30 (Proof Coil Chain): A low carbon steel general utility chain used great for many everyday applications. Grade 30 is **not** for overhead lifting.

GRADE 30 PROOF COIL CHAIN

- Carbon steel chain
- Self-colored, zinc or galvanized finishes
- General purpose chain used in a wide range of applications
- Available in 3/16” – 1”
- NOT TO BE USED FOR OVERHEAD LIFTING

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GRADE 30 PROOF COIL CHAIN

- Trailer manufacturing
- Signs
- Playground equipment
- Hammocks
- Tailgate chains
- Hog/Dairy farm equipment
- NOT TO BE USED FOR OVERHEAD LIFTING

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GRADE 43 HIGH TEST CHAIN

- High strength carbon steel chain
- Self-colored finish or galvanized
- Used in industry, construction, agriculture and logging
- Available in sizes 1/4” - 1”
- NOT TO BE USED FOR OVERHEAD LIFTING

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GRADE 43 HIGH TEST CHAIN

- Farm equipment
- Ag farm equipment
- Livestock control
- Towing/logging
- Construction equipment
- NOT TO BE USED FOR OVERHEAD LIFTING

GRADE 70 TRANSPORT CHAIN

- High quality
- Heat-treated, high strength carbon steel
- Iridescent finish (yellow chromate)
- Used for load securement and OEM applications
- Available in sizes 1/4” – 5/8”
- NOT TO BE USED FOR OVERHEAD LIFTING

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GRADE 70 TRANSPORT CHAIN

- High quality
- Heat-treated, high strength carbon steel
- Iridescent finish (yellow chromate)
- Used for load securement, tow chain, log chain
- Available in sizes 1/4” – 5/8”
- Not to be used for overhead lifting

Made in USA G70 Chain
5/16”, 3/8” & 1/2” WLL and date code stamped every 10 links

MADE IN USA

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ALLOY CHAIN

- Heat-treated alloy steel
- Highest strength to weight ratio
- Recommended for overhead lifting
- Grade 80 (9/32” - 1-1/4”)
  - embossed “P8” every 8-12 links
- Grade 100 (9/32” - 1”)
  - embossed “P10” every 10 links

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U.S. REGULATIONS & STANDARDS

Federal Motor Carrier Safety Administration

Department of Transportation United States of America

Commercial Vehicle Safety Alliance CVSA

Web Sling & Tie Down Association

TTMA Truck Trailer Manufacturers Association

National Association of Trailer Manufacturers NATM

NACM National Association of Chain Manufacturers

- FMCSA- Federal Motor Carriers Safety Association
- 49 CFR Parts 392 & 393
- DOT-Department of Transportation
- State DOT
- CVSA – Commercial Vehicle Safety Alliance
- SAE J684 Trailer Couplings, Hitches, and Safety Chains
- ANSI/ASAE S338.5 – Field Equipment for Agriculture – Safety Chain for Towed Equipment
- WSTDA – Web Sling & Tie Down Association
  - Recommended Standard for Synthetic Web Tie Downs (T-1)
  - Recommended Standard for Load Binders Used with Chain Tie Downs (T-6)
- TTMA- Truck & Trailer Mfg Association
- NATM- National Association of Trailer Mfg
- NACM- National Association of Chain Mfg

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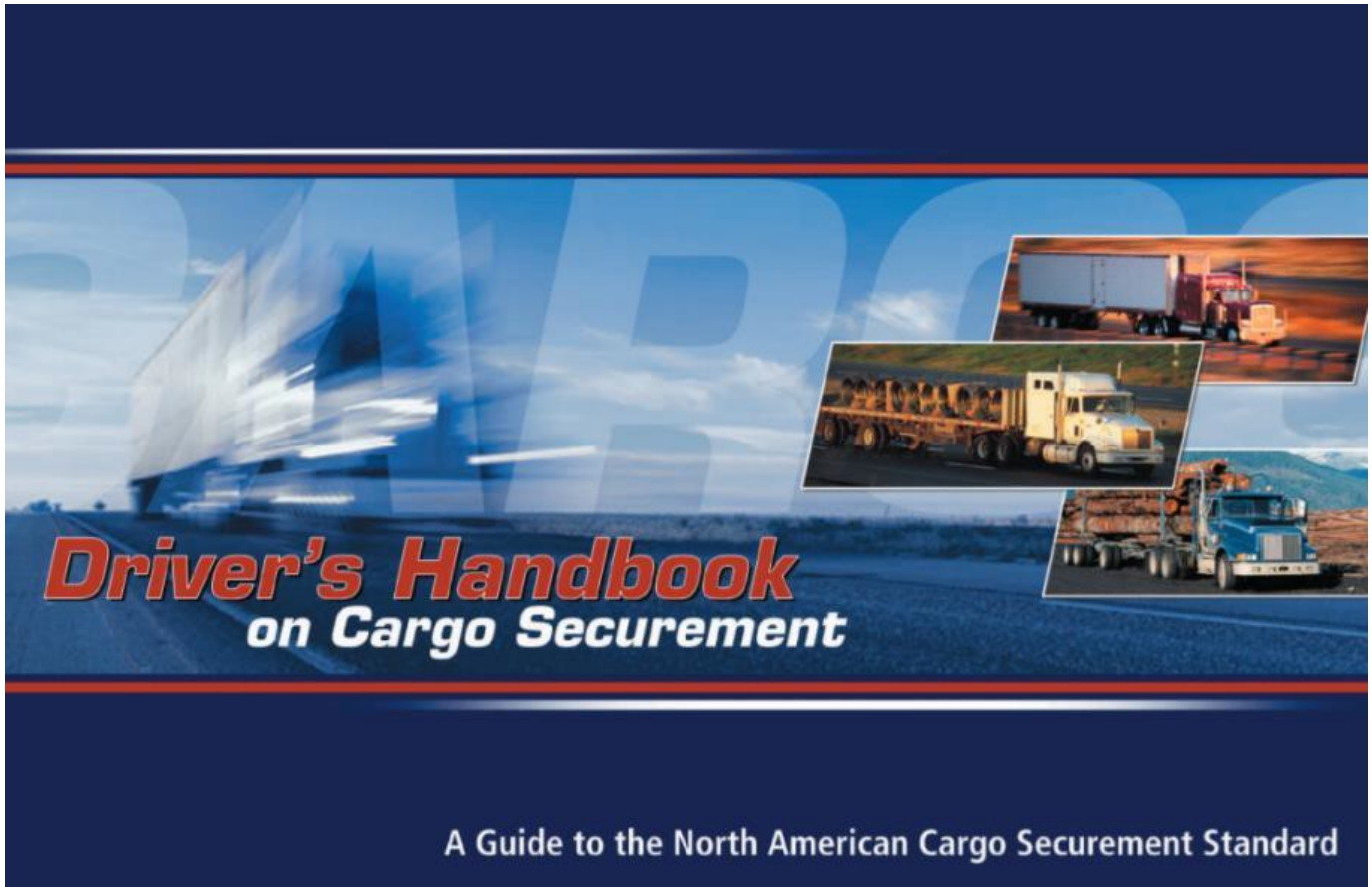

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CARGO CONTROL

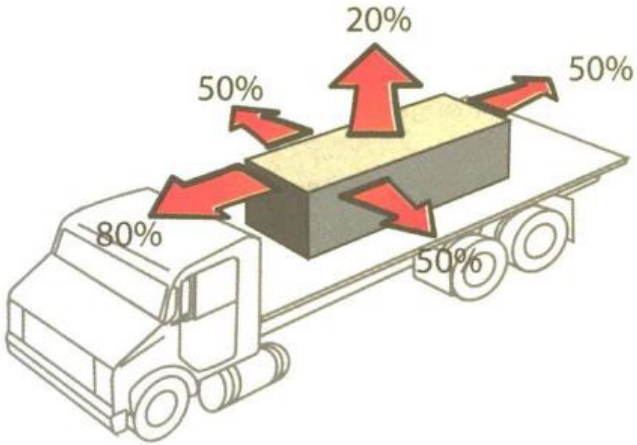
§ 393.100 Which types of commercial motor vehicles are subject to the cargo securement standards of this subpart, and what general requirements apply?

(a) Applicability. The rules in this subpart are applicable to trucks, truck tractors, semitrailers, full trailers, and pole trailers.

(b) Prevention against loss of load. Each commercial motor vehicle must, when transporting cargo on public roads, be loaded and equipped, and the cargo secured, in accordance with this subpart to prevent the cargo from leaking, spilling, blowing or falling from the motor vehicle.

(c) Prevention against shifting of load. Cargo must be contained, immobilized or secured in accordance with this subpart to prevent shifting upon or within the vehicle to such an extent that the vehicle's stability or maneuverability is adversely affected.

VEHICLE DYNAMICS & DRIVING HABITS



The forces shown are what a vehicle is likely to be subject to and so the method used to SECURE CARGO, must be able to withstand those forces: driving habits, road conditions, weather, any unforeseen possibilities.

To avoid the complexity of G-force calculations, the industry distinguishes the type of cargo, cargo weight, and tie down system working load limit to determine the number of tie downs.

INSPECTION CARGO & TIE DOWN CHAINS

- Cargo Inspection Intervals (A MUST FOR COMPLIANCE)
  - Before taking the vehicle on the road
  - Within 50 miles from the start of trip
  - At regular intervals based on whichever occurs first:
    - Every 150 miles
    - Every 3 hours of driving
    - Each duty status change

LOAD SPECIFIC APPLICATIONS

The Standard sets forth specific securement requirements for certain loads. When transporting these commodities, you must use the specific requirements for that commodity:

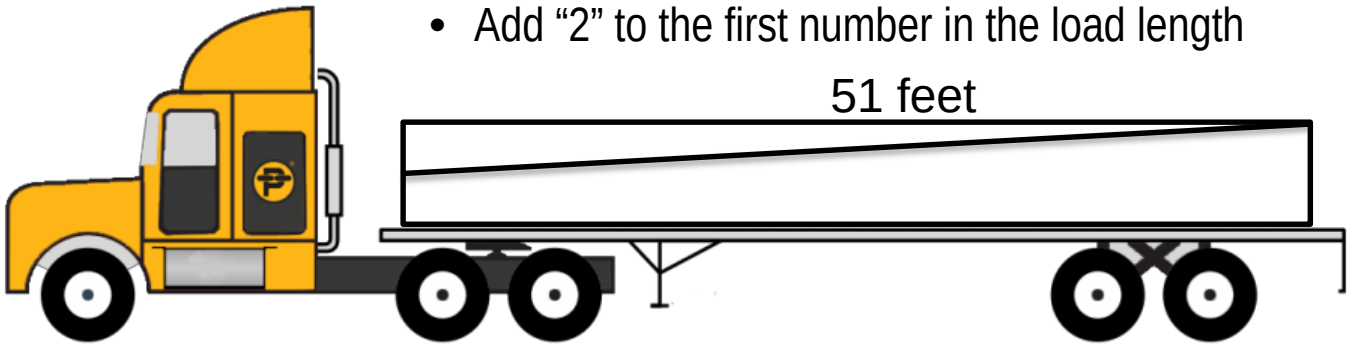
- Logs
- Dressed Lumber and Similar Building Products
- Metal Coils
- Paper Rolls
- Concrete Pipe Loaded Crosswise on a Platform Vehicle
- Intermodal containers
- Automobiles, Light Trucks, and Vans
- Heavy Vehicles, Equipment, and Machinery
- Flattened or Crushed Vehicles
- Roll-on/Roll-off and Hook-Lift Containers
- Large Boulders

CALCULATE DOT MINIMUMS

The length of your cargo determines the number of tie downs:

- 5 feet or less 1,100 pounds or less = 1 tie down
- Over 1,100 pounds but 5 feet or less = 2 tie downs
- 5-10 feet = 2 tie downs
- Longer than 10 feet = 2 + 1 for every additional 10 feet or fraction thereof.

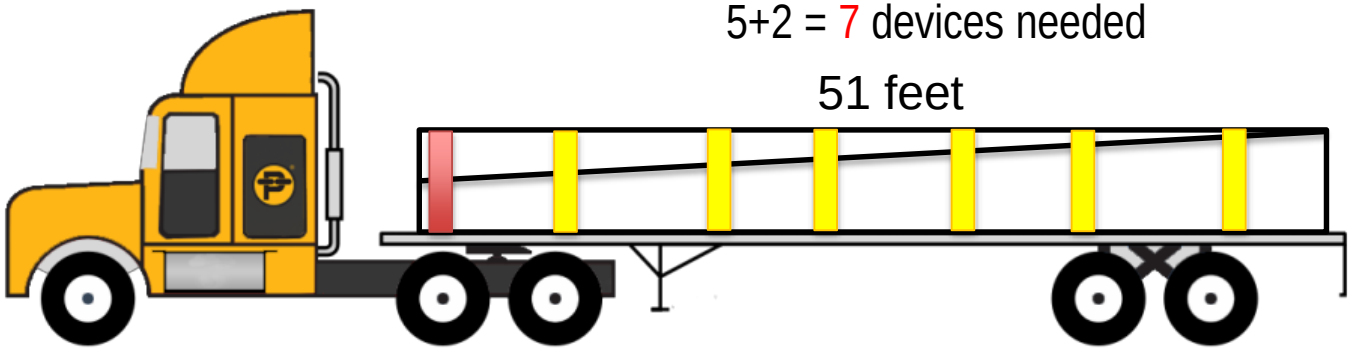
- Example: Load is 51' long
  - How many devices are needed?
  - Add “2” to the first number in the load length



CALCULATE DOT MINIMUMS

1 securement device for every 10' of length

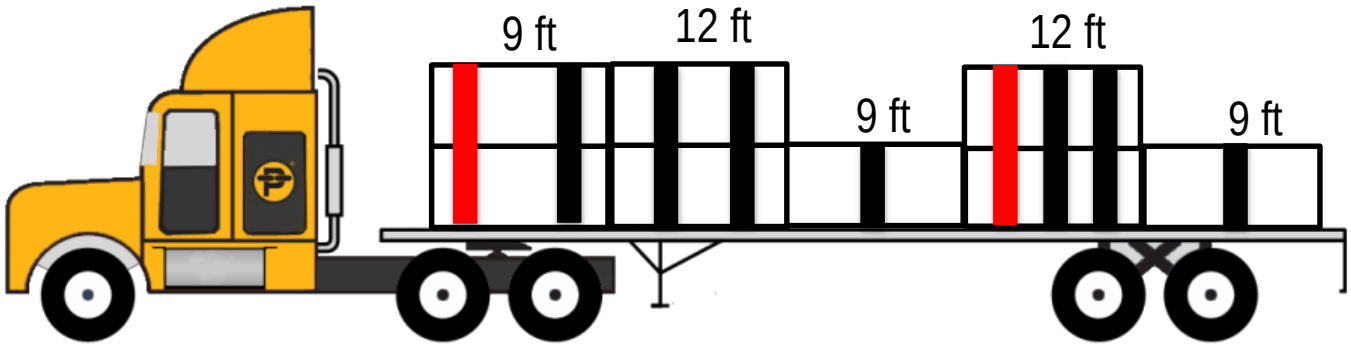
- Example: Load is 51' long
  - How many devices are needed?
  - Add “2” to the first number in the load length
  - 5+2= 7 devices needed



CALCULATE DOT MINIMUMS

What if the load is multiple pieces?

The second stack is considered as the first piece on the trailer.



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TOP 10 CARGO SECUREMENT VIOLATIONS

Rank	Violation Code	Violation Description	% of OOS Cargo Violations	Comments
1	392.9A2	Failing To Secure Vehicle Equipment	14%	Securement of equipment pertaining to the vehicle.
2	393.100A	Failing To Load/Equip Vehicle To Prevent Load Shifting/Falling	12%	General cargo securement
3	393.100B	Leaking/Spilling/Blowing/Falling Cargo	10%	Prevention of loss of load
4	393.110B	Insufficient Tie Downs; Without Headerboard/Blocking	8%	Insufficient tie downs.
5	392.9A	Failing To Secure Load	7%	Securement of equipment pertaining to the vehicle.
6	393.104F3	Loose/Unfastened Tie Down	6%	Loose tie down
7	393.130	No/Improper Heavy Vehicle/Machine Securement	5%	Heavy equipment cargo securement
8	393.104B	Damaged Securement System/Tie Downs	5%	Damaged tie downs
9	392.9A1	Failing To Secure Cargo	4%	Load distribution and securement
10	392.9	Driver Load Secure	3%	Broad category pertaining to inspection of cargo systems.

CARGO TIE DOWNS
APPLICATIONS & CALCULATIONS

- Chain
- Web straps or synthetic
- Rope, natural or synthetic
- Wire rope or cable
- Steel strapping

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TIE DOWN CHAIN AND LOADBINDER SPCIFICATIONS

CHAIN GRADE	CHAIN SIZE INCHES	CHAIN SIZE MM	WORKING LOAD LIMIT (WLL) LBS.	WORKING LOAD LIMIT (WLL) KG.	Net weight of cargo to be secured in Lbs. (kg.) 10,000 (4,540)	15,000 (6,800)	20,000 (9,070)	25,000 (11,334)	30,000 (13,608)	35,000 (15,876)	40,000 (18,144)	45,000 (20,412)	50,000 (22,680)
ALLOY G100	9/32	7	4,300	1,950	2	2	3	3	4	4	5	6	6
	5/16	8	5,700	2,600	1	2	2	3	3	4	4	4	5
	3/8	10	8,800	4,000	1	1	2	2	2	2	3	3	3
	1/2	13	15,000	6,800	1	1	1	1	1	2	2	2	2
	5/8	16	22,600	10,300	1	1	1	1	1	1	1	1	2
ALLOY G80	9/32	7	3,500	1,570	2	3	3	4	5	5	6	7	8
	5/16	8	4,500	2,000	2	2	3	3	4	4	5	5	6
	3/8	10	7,100	3,200	1	2	2	2	3	3	3	4	4
	1/2	13	12,000	5,400	1	1	1	2	2	2	2	2	3
	5/8	16	18,100	8,200	1	1	1	1	1	1	2	2	2
TRANSPORT G70	1/4	7	3,150	1,430	2	3	4	4	5	6	7	8	8
	5/16	8	4,700	2,130	2	2	3	3	4	4	5	5	6
	3/8	10	6,600	2,990	1	2	2	2	3	3	4	4	4
	1/2	13	11,300	5,130	1	1	1	2	2	2	2	2	3
	5/8	16	15,800	7,170	1	1	1	1	1	2	2	2	2
HIGH TEST G43	1/4	7	2,600	1,180	2	3	4	5	6	7	8	9	10
	5/16	8	3,900	1,770	2	2	3	4	4	5	6	6	7
	3/8	10	5,400	2,450	1	2	2	3	3	4	4	5	5
	1/2	13	9,200	4,170	1	1	2	2	2	2	3	3	3

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TWO BASIC TYPES OF APPLICATIONS

1. INDIRECT TIE DOWNS
   - Do not attach to cargo
   - Create force on an object to “restrain” it against the vehicle
   - Must be kept tight to do their job
   - Don’t lose or gain tension when an article tried to move
   - Rely on friction to do their job and they must be tight to do their job

ALERT: EVERY TIE DOWN MUST HAVE A WAY FOR A DRIVER TO TIGHTEN & RETIGHTEN IT AND SOME MEANS TO PREVENT IT FROM BECOMING UNFASTENED WHILE THE VEHICLE IS ON THE HIGHWAY. THIS IS KNOWN AS A “SECONDARY LOCK.”

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TWO BASIC TYPES OF APPLICATIONS

2. DIRECT TIE DOWNS

- One end is attached to the vehicle and the other end is attached to the cargo
- Can be positioned between an article and vehicle structure
- Can be positioned around an article and attached back to the same side of the vehicle
- Don't need to be tight to do their job
- Become weaker if they are over tightened
- Increase or decrease in tension when article tries to move

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CALCULATING THE MINIMUM NUMBER OF TIE DOWNS TO USE

$$\text{Direct Securement} = \frac{\text{Weight of load}}{\text{WLL}}$$

$$\text{Indirect Securement} = \frac{\text{Direct Securement}}{2}$$

Similar to load length multiples of 10 feet, you must always round your tie down decimal point up (4.1 would round up to 5).

CALCULATE DOT MINIMUMS

Example: Wheeled cargo weighs 28,750 lbs.

- Apply 5/16” G70 chain, how many direct tie downs?
- Apply 3/8” G70 chain, how many direct tie downs?
    - 28,750 / 4,700 = 6.11 = 7 of the 5/16” G70 chain direct attach
    - 28,750 / 6,600 = 4.35 = 5 of the 3/8” G70 chain direct attach
- Where to place securement?
    - Any DOT required securement methods?
    - Load is Commodity Specific – on wheels > 10,000 lbs.

FMCSA CALCULATION METHOD

$$\text{Aggregate Working Load Limit} = \frac{\text{Total cargo weight}}{2}$$

The aggregate working load limit of any securement system must be at least 50% of the weight of the cargo being secured.

$$\text{Minimum \# of load binders} = \frac{\text{Aggregate WLL}}{\text{Tie down WLL}}$$

- Note that you must always round your tie down decimal point up (4.1 would round up to 5).

and

- Note that total # of tie downs by length requirement must also be met.

CHAIN EXAMPLES: 5/16” G70 (4700 WLL) – 3/8” G70 (6600 WLL)

$$\text{Aggregate Tie Down WLL} = \frac{\text{Total cargo weight}}{2}$$

** Note that total # of tie downs by length requirement must also be met.*

$$\text{Minimum \# of Load Binders} = \frac{\text{Aggregate WLL}}{\text{Tie down WLL}}$$

Example: 42,000 Lb Steel Bars x 40 Ft

- 3/8” G70 Weight Calculation: $\frac{\left(\frac{42{,}000}{2}\right)}{6{,}600}$ = 3.2 tie downs = round up to 4 tie downs.
- 5/16” G70 Weight Calculation: $\frac{\left(\frac{42{,}000}{2}\right)}{4{,}700}$ = 4.5 tie downs = round up to 5 tie downs.

Length Calculation: Greater than 5’ = 2 tie downs. Add another tie down if greater than 10’ and for each 10’ after that = 5 tie downs.

Answer = 5 tie downs due to length calculation, can use 5/16” or 3/8”.

Indirect Tie Down			Direct Tie Down		
	Angle	Effect		Angle	Effect
	90°	100%		60°	50%
	60°	85%		45°	70%
	45°	70%		30°	86%
	30°	50%		25°	90%
	15°	25%		0°	100%

The effectiveness of direct and indirect tie downs depends on their angle. Indirect tie downs are more effective at steeper angles. Direct tie downs are more effective at low angles.

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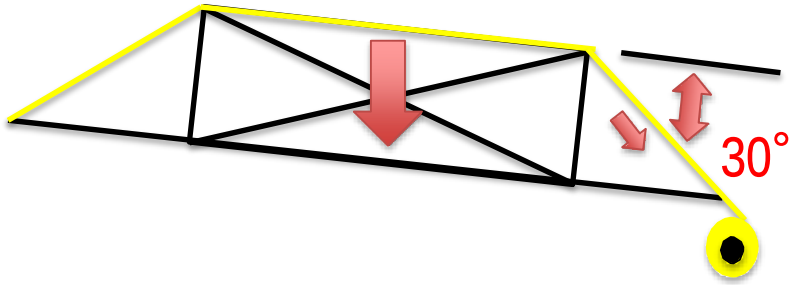
DIRECT TIE DOWNS & CORRECT USE

- Work best at low angles
- Angles of 25 degrees or less are ideal
- The direct tie down will have 90% of its strength at this angle
- As tie downs become steeper in angle the tie down strength drops
- A direct tie down at a 60 degree angle will have less than 50% of its strength
- In addition to reduction in strength, steeper angles also allow more cargo movement

ANGLES & INDIRECT TIE DOWNS



ALERT: AS A GENERAL RULE, THE ANGLE OF AN INDIRECT TIE DOWN SHOULD ALWAYS BE AT LEAST 30 DEGEES

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PRODUCTS

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CARGO CONTROL

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GRADE 70 BINDER CHAIN ASSEMBLIES

MADE IN USA

5/16" x 16' G70 ASSEMBLY w/ self colored CLEVIS GRAB HOOKS	5261163	25/Drum	4,700
5/16" x 20' G70 ASSEMBLY w/ self colored CLEVIS GRAB HOOKS	5261363	25/Drum	4,700
5/16" x 25' G70 ASSEMBLY w/ self colored CLEVIS GRAB HOOKS	5261463	25/Drum	4,700
3/8" x 16' G70 ASSEMBLY w/ self colored CLEVIS GRAB HOOKS	5262163	25/Drum	6,600
3/8" x 20' G70 ASSEMBLY w/ self colored CLEVIS GRAB HOOKS	5262363	25/Drum	6,600
3/8" x 25' G70 ASSEMBLY w/ self colored CLEVIS GRAB HOOKS	5262463	20/Drum	6,600
1/2" x 20' G70 ASSEMBLY w/ self colored CLEVIS GRAB HOOKS	8605182	10/Drum	11,300

GRADE 70 BINDER CHAIN ASSEMBLIES - IMPORT SHORT LINK

5/16"x16' S-7 ASSEMBLY w/ CLEVIS GRAB HOOKS	H3226-5120	30/Drum	4,700
5/16"x20' S-7 ASSEMBLY w/ CLEVIS GRAB HOOKS	H3226-5220	25/Drum	4,700
5/16"x25' S-7 ASSEMBLY w/ CLEVIS GRAB HOOKS	H3226-5320	20/Drum	4,700
3/8"x16' S-7 ASSEMBLY w/ CLEVIS GRAB HOOKS	H3226-5520	20/Drum	6,600
3/8"x20' S-7 ASSEMBLY w/ CLEVIS GRAB HOOKS	H3226-5620	20/Drum	6,600
3/8"x25' S-7 ASSEMBLY w/ CLEVIS GRAB HOOKS	H3226-5820	15/Drum	6,600
1/2"X20' G70 S-7 ASSEMBLY w/ CLEVIS GRAB HOOKS	H3226-6220	10/Drum	11,300

GRADE 70 BINDER CHAIN ASSEMBLIES- IMPORT LONG LINK

5/16"x20' NACM S-7 ASSEMBLY w/ CLEVIS GRAB HOOKS	H3275-5220	25/Drum	4,700
3/8"x20' NACM S-7 ASSEMBLY w/ CLEVIS GRAB HOOKS	H3275-5620	20/Drum	6,600

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QuikBinder®

- Easier to install
- Higher working load limits, for Grade 70 or T-80
- 3-Position Pawl w/ Neutral position
- Vinyl Coated Barrel for strong comfortable grip
- Locking provision, hooks pinned in for safety
- Tested to 75% of working capacity
- Meets all DOT / CVSA / CCMTA requirements
- Three sizes to choose from:

H4927-3030

3 position pawl.

PATENTED !

Stock #	Chain Grade and Size (in.)			Working Load Limit
	G70	G80	G100	
H5125-0658	5/16 & 3/8	5/16 & 3/8	5/16	7,100 Lbs.
H5125-0858	3/8 & 1/2	3/8 & 1/2	3/8	12,000 Lbs.
H5125-0958	1/2 & 5/8	1/2 & 5/8	1/2	18,100 Lbs.

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FEATURES AND BENEFITS

	Ancra Standard Ratchet Binder 5/16" G70 - 3/8" G43	Peerless QuikBinder™ H5125-0658 5/16" - 3/8" G70 & T80
Working Load Limit	5,400 lbs (2,449.4 kgs)	7,100 lbs (3,220.5 kgs)
Weight	10.4 lbs (4.7 kgs)	11.0 lbs (4.99 kgs)
Design Factor	3.5:1 or 18,900 lbs (8,572.9 kgs)	4:1 or 28,400 lbs (12,882.0 kgs)
Capabilities	5/16" G70 up to 3/8" G43	5/16" - 3/8" G70 & T80
Features and Benefits	Standard	3-Position Pawl with Neutral Position, Locking Provision, and Vinyl coated barrel for strong comfortable grip
Testing	Tested to 50% of Working Capacity	Tested to 75% of Working Capacity
Warranty	90 days from shipment	1 year Material and Workmanship

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RATCHET BINDER PLUS

- Higher working load limits, for Grade 70 or T-80
- Tested to 75% of working capacity
- Meets all DOT / CVSA / CCMTA requirements
- Three sizes to choose from:

Stock #	Chain Grade and Size (in.)			Working Load Limit
	G70	G80	G100	
H5121-4158	5/16 & 3/8	5/16 & 3/8	5/16	7,100 Lbs.
H5121-4258	3/8 & 1/2	3/8 & 1/2	3/8	12,000 Lbs.
H5121-4458	1/2 & 5/8	1/2 & 5/8	1/2	18,100 Lbs.

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STANDARD RATCHET LOAD BINDER

- H5123-4052 ~ 3,900 Lb. WLL1/4” G-70 or 5/16” G-43
- H5123-4152 ~ 5,400 Lb. WLL5/16” G-70 or 3/8” G-43
- H5123-4252 ~ 9,200 Lb. WLL 3/8” G-70 or 1/2” G-43
- H5123-4452 ~ 13,000 Lb. 1/2” G-70 or 5/8” G-43

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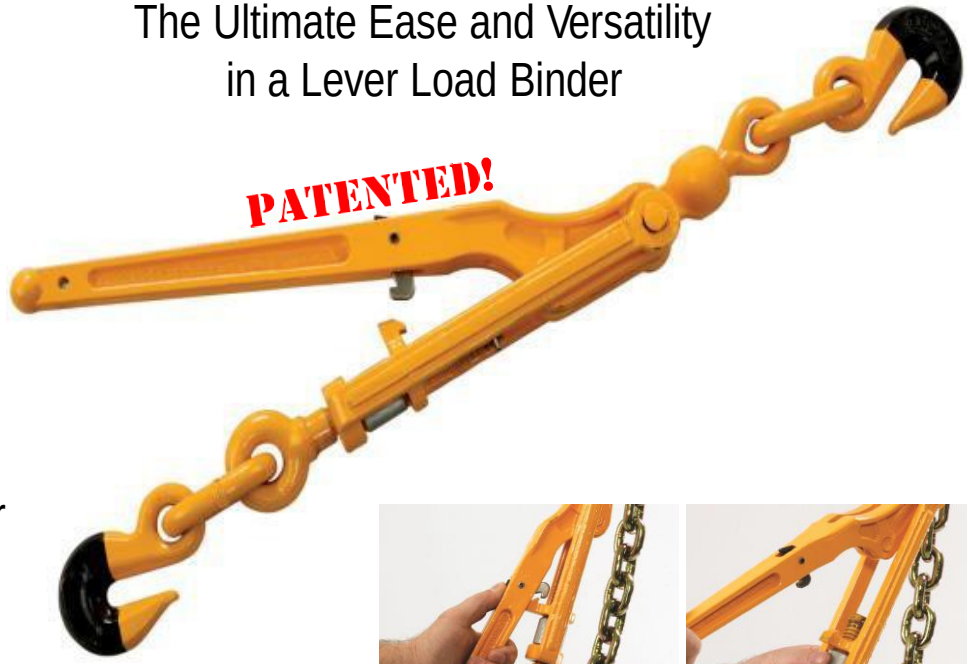
A KITO GROUP COMPANY

ProLok66™

The Ultimate Ease and Versatility
in a Lever Load Binder

- Built in knurled adjustable nut
- Full 2” adjustment for optimum link location
- Built in safety latch in handle to keep handle in the closed position
- Easy thumb release lever has no loose parts to misplace
- Upgraded working Load Limit of 6,600 lbs for use with G70 5/16” & G70 3/8” Chain



H5025-0652, 5/16 or 3/8 G70 6,600lb WLL

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SAFETY RELEASE LEVER LOAD BINDER ANTI KICKBACK

- **H5250-0658 ~ 6,600 Lb. WLL**
  5/16” or 3/8” G-70

DOUBLE SWIVEL LEVER LOAD BINDER

- **H5023-4152 ~ 5,400 Lb. WLL**
  5/16” G-70 or 3/8 G-43
- **H5023-4252 ~ 9,200 Lb. WLL**
  3/8” G-70 or 1/2” G-43
- **H5023-4452 ~ 13,000 Lb. WLL**
  1/2” G-70 or 5/8” G-43

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LEVER LOAD BINDERS
Additional Information

- Lever Load Binders are a legacy cargo securement product.
- Ratchet Load Binders offer enhanced safety and usability.
- OSHA documents load binder injures, primarily Lever Load Binders used in combination with a cheater bar.
- Examples of the lever load binder injuries:
  - Cheater bar slipped off lever, slipped onto open binder. Result: Loss of eye.
  - Shift in load during securement, lever popped open, struck in the head and neck. Result: Loss of life.
  - Lost grip on cheater bar, striking her in the head and face. Result: Hospitalized for fractured jaw and nose.

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ACCESSORIES

Appropriate Grade Coupling links and Clevis links are the only acceptable repair method for transport chain.

CAUTION: Chain and component assemblies should be rated according to the working load limit of the weakest component. Care should be taken to select attachments of the same type, grade, size, and working load limit.

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SmartBar™

The most versatile loadlock on the market!

- The SCC Smartbar™ is designed for use in trailers with flexible walls. The feet have extra cushioning to compensate for the flex of some trailers.
- Up to 20% more holding power than conventional loadlocks
- Adjusts continuously from 48” – 108”. Securement range from small truck bed to full high cube trailer width.
- Optional E-track attachment (#CC5015), it can easily be adapted for use in A & E track, doubling the front to back holding power.

E-track adapter kit & Replacement parts

SecureBAR

A versatile loadlock for light truck & passenger vehicles!

- Durable square tubing provides added strength. It is versatile and can be used in pickups, SUV’s, vans and passenger cars. The soft rubber feet provide excellent grip and won’t mar surfaces.
- Adjusts continuously from 44” to 78”
- Easy operation – Positive locking lever action and quick thumb release
- Zinc Plated for maximum rust protection

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- Ratchets are now standard with wide handles
- Premium yellow polyester webbing for maximum durability

CC5695 Strap Winder

Wide Handle Ratchet - With Flat Hooks

Stock #	Color	Length (Feet)	Qty. Per Package	Lbs. Per Package	Working Load Limit Lbs.	Working Load Limit Kgs.
CC2627	Yellow	27	8	46	3,300	1,497
CC2630	Yellow	30	8	49	3,300	1,497
CC2640	Yellow	40	4	26	3,300	1,497

Wide Handle Ratchet - With J-Hooks

Stock #	Color	Length (Feet)	Qty. Per Package	Lbs. Per Package	Working Load Limit Lbs.	Working Load Limit Kgs.
CC2827	Yellow	27	8	45	3,300	1,497
CC2830	Yellow	30	8	48	3,300	1,497

CC4130

CC4530

CC4230

Flat Hook Strap Assembly

Stock # Yellow	Length (Feet)	Qty. Per Package	Lbs. Per Package	Working Load Limit Lbs.	Working Load Limit Kgs.
CC4027	27	8	46	5,400	2,268
CC4030	30	8	47	5,400	2,268
CC4060	60	4	41	5,400	2,268

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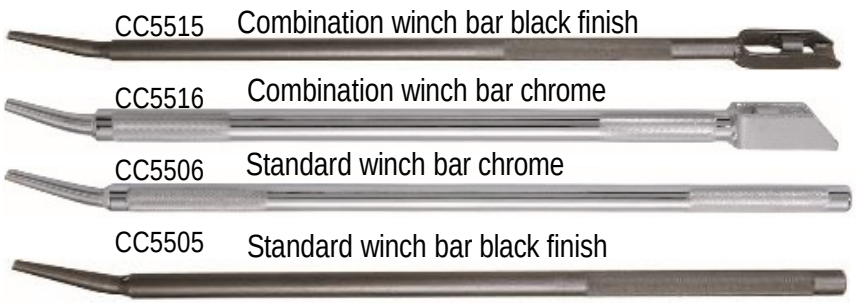
WINCHES, WINCH BARDS, & CARGO GUARD

- Meet all DOT, CVSA and the CCMTA requirements
- For use with 2”, 3” & 4” webbing



4” Rubber protector
CC5634

4” Plastic Corner
CC5680

CC5965
Portable Winch

CC5850
Standard Bottom
Mount

CargoGuard™
For 2” & 4” straps
CC5682

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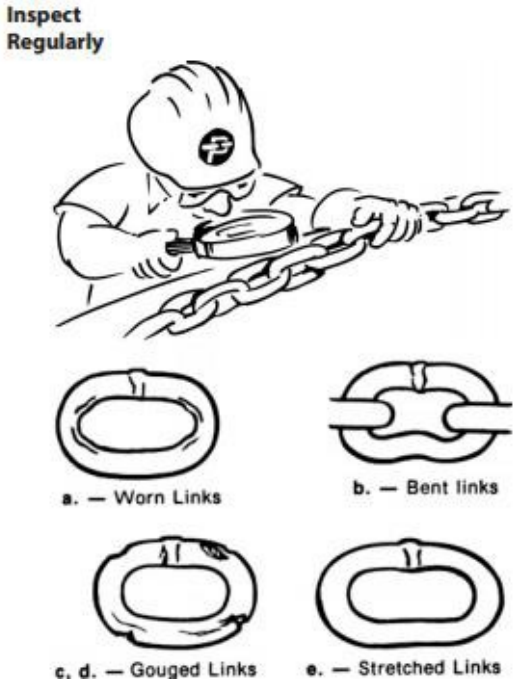
INSPECTION PROCEDURES



Inspect For:

A. Worn links
B. Bent Links
C. Gouged Links
D. Stretched Links

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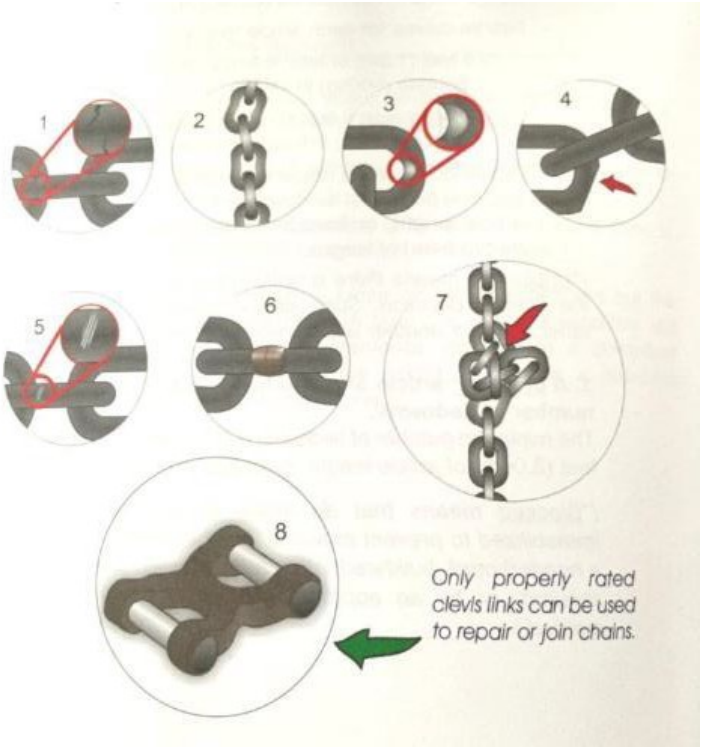
CHAIN TIE DOWN INSPECTION



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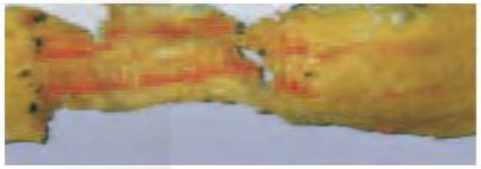
US DOT AND THE CVSA

Criteria for placing vehicles out of service at roadside inspections

A vehicle will be placed out of service if 25% or more of its tie downs are loose, missing, or defective. Synthetic web tie downs shall be removed from service if any of the following are visible:

Excessive abrasive wear

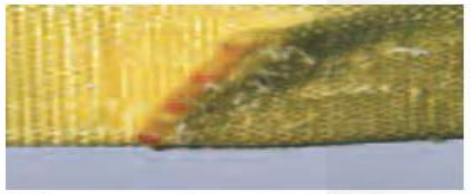
Melting or charring of the tiedown, or weld splatter on the tiedown



Chemical burns

Holes, tears, cuts, snags

Tear in webbing or fitting



Broken or worn stitching in load bearing sew patterns

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THANK YOU!

For more load securement training options, email:
jlonsky@ccsharrow.com

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