

# WARNINGS AND APPLICATION INSTRUCTIONS FOR LOAD BINDERS

## The Crosby Group, Inc.

### Mechanical Advantage

Lever Type Binder = 25 : 1

Ratchet Type Binder = 50 : 1

Example: 100 pounds of effort applied to the binder results in the following force on the binder.

#### Lever Type:

2500 (100 lbs. x 25) lbs. of force

#### Ratchet Type:

5000 (100 lbs. x 50) lbs. of force

### Instructions — Lever Type Load Binders

- Hook load binder to chain so you can operate it while standing on the ground. Position load binder so its handle can be pulled downward to tighten chain. Be aware of ice, snow, rain, oil, etc. that can affect your footing. Make certain your footing is secure.
- The Crosby Group, Inc. specifically recommends AGAINST the use of a handle extender (cheater pipe). If sufficient leverage cannot be obtained using the lever type load binder by itself, a ratchet type binder should be used.
- If the above recommendation is disregarded and a cheater pipe is used, it must closely fit the handle and must slide down the handle until the handle projections are contacted. The pipe should be secured to the handle, for example, by a pin, so that the pipe cannot fly off the handle if you lose control and let go. The increased leverage, by using a cheater pipe, can cause deformation and failure of the chain and load binder.
- During and after tightening chain, check load binder handle position. Be sure it is in the locked position and that its bottom side touches the chain link.

- Chain tension may decrease due to load shifting during transport. To be sure the load binder remains in proper position: Secure handle to chain by wrapping the loose end of chain around the handle and the tight chain, or tie handle to chain with soft wire.
- When releasing load binder, remember there is a great deal of energy in the stretched chain. This will cause the load binder handle to move very quickly with great force when it is unlatched. Move handle with caution. It may whip — Keep body clear.
- Never use a cheater pipe or handle extender to release handle. Use a steel bar and pry under the handle and stay out of the path of handle as it moves upward.
- If you release the handle by hand, use an open hand under the handle and push upward. Do not close your hand around the handle. Always keep yourself out of the path of the moving handle.

### Instructions — Ratchet Load Binders

- Position ratchet binder so it can be operated from the ground.
- Make sure your footing is secure.

### Maintenance of All Load Binders

- Routinely check load binders for wear, bending, cracks, nicks, or gouges. If bending or cracks are present — Do not use load binder.
- Routinely lubricate pivot and swivel points of Lever Binders, and pawl part and screw threads of Ratchet Binders to extend product life and reduce friction wear.

#### WARNING:

- Failure to use this load binder properly may result in serious injury or even death to you or others.
- Do not operate load binder while standing on the load.
- Move handle with caution. It may whip — Keep body clear.
- Keep yourself out of the path of the moving handle.
- You must be familiar with state and federal regulations regarding size and number of chain systems required for securing loads on trucks.
- Always consider the safety of nearby workers as well as yourself when using load binder.
- While under tension, load binder must not bear against an object, as this will cause side load.
- Do not throw these instructions away. Keep them close at hand and share them with any others who use this load binder.

# LOAD BINDERS



## EFFICIENT & ERGONOMIC LOAD SECUREMENT TECHNOLOGY

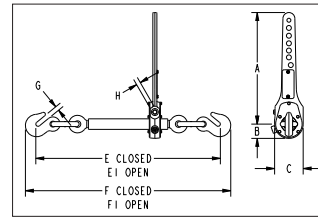
Speedbinders is changing the load binder industry with its patented Torque Drive technology. Our line of products provide considerable time saving benefits for drivers as well as enhanced benefits by eliminating repetitive, straining operations.



TD-66



- Blue marking
- Common applications: Light equipment transport & logging
- 3:1 design factor



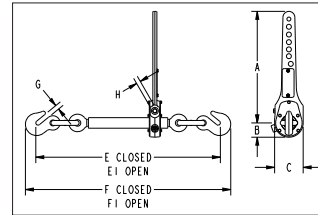
Model	Stock No.	Min-Max Chain Size (in)	Working Load Limit (lb)	Proof Load (lb)	Weight Each (lb)	Dimensions (in)									
						A	B	C	E	E1	F	F1	G	H	
TD-66	3674481	5/16-3/8	6,600	9,900	14.3	14.06	1.80	3.60	23.02	32.02	25.26	34.26	0.51	0.53	



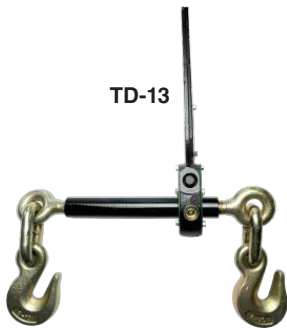
TD-92



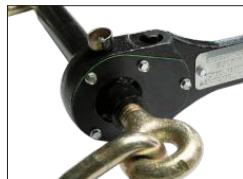
- Red marking
- Common applications: Equipment transport, heavy towing & steel coil transport
- 3:1 design factor



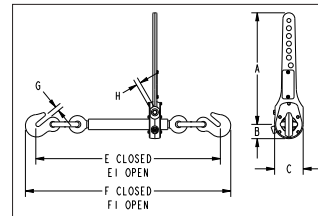
Model	Stock No.	Min-Max Chain Size (in)	Working Load Limit (lb)	Proof Load (lb)	Weight Each (lb)	Dimensions (in)									
						A	B	C	E	E1	F	F1	G	H	
TD-92	3674490	3/8-1/2	9,200	13,800	16.0	14.06	1.80	3.60	23.26	32.26	25.88	34.88	0.56	0.53	



TD-13



- Green marking
- Common applications: Equipment transport, heavy hauling & steel coil transport
- 3:1 design factor



Model	Stock No.	Min-Max Chain Size (in)	Working Load Limit (lb)	Proof Load (lb)	Weight Each (lb)	Dimensions (in)									
						A	B	C	E	E1	F	F1	G	H	
TD-13	3674499	1/2-5/8	13,000	19,500	19.9	14.06	1.80	3.60	26.41	35.41	29.53	38.53	0.72	0.53	

Spare drive bolts and grease zerks available

APPLICATION AND WARNING INFORMATION SECTION 17

## GOLD-TIP Series

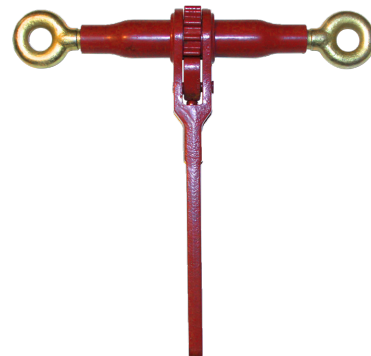
### Premium Ratchet Load Binders

#### GOLD-TIP® Series

- Tapered, heavy duty barrel
- Fittings are yellow zinc plated
- Powder coated handle and barrel
- All load bearing fittings are forged
- Quenched and tempered
- One piece handle



(Grab-Grab)



(Eye-Eye)

#### GRAB-GRAB

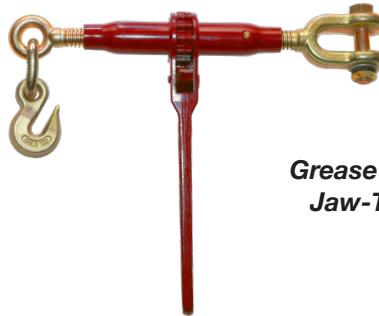
Stock Number	Chain Size	Take-Up	Barrel Length	Handle Length	Screw Diameter	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
GT7300	5/16" - 3/8"	8"	10"	15.5"	1"	25" - 33"	7,300	14,600	13
GT8800	5/16" - 3/8"	8"	10"	15.5"	1"	25" - 33"	8,800	17,600	13
GT12000	3/8" - 1/2"	8"	10"	15.5"	1"	26" - 34"	12,000	24,000	14
GT13000	1/2" - 5/8"	8"	10"	15.5"	1"	26" - 34"	13,000	26,000	16

#### EYE-EYE

Stock Number	Take-Up	Barrel Length	Handle Length	Screw Diameter	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
GT13000EE	8"	10"	15.5"	1"	14" - 22"	13,000	26,000	10



(Eye-Grab)



(Grab-Jaw)

*Grease Fittings on all Jaw-Type Binders*

#### EYE-GRAB

Stock Number	Take-Up	Barrel Length	Handle Length	Screw Diameter	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
GT7300EH	8"	10"	15.5"	1"	19" - 27"	7,300	14,600	12
GT12000EH	8"	10"	15.5"	1"	19" - 27"	12,000	24,000	15

#### GRAB-JAW

Stock Number	Grab Hook Size	Take-Up	Barrel Length	Handle Length	Screw Diameter	Jaw Throat Opening	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
GT7300HJ	3/8"	8"	10"	15.5"	1"	1 1/8"	21" - 29"	7,300	14,600	13

# LOAD BINDERS

## GOLD TIP Series

Premium Ratchet Load Binders



(Eye-Jaw)

(Grab-Slip)

(Grab-Grab/Slip)

### EYE-JAW

Stock Number	Take-Up	Barrel Length	Handle Length	Screw Diameter	Eye Diameter	Jaw Throat Opening	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
GT13000EJ	8"	10"	15.5"	1"	1"	1 1/8"	17" - 25"	13,000	26,000	14

### GRAB-SLIP

Stock Number	Hook Size	Take-Up	Barrel Length	Handle Length	Screw Diameter	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
GT12000GS	1/2" G - 1/2" S	8"	10"	15.5"	1"	26" - 34"	12,000	24,000	17
GT12000GS625	1/2" G - 5/8" S	8"	10"	15.5"	1"	27" - 35"	12,000	2,4000	18

- Grab Hook fits 3/8" or 1/2" chain
- Throat Opening: GT12000GS 1 5/8"  
GT12000GS625 2"

### GRAB-GRAB/SLIP & SLIP-SLIP

Stock Number	Hook Size	Take-Up	Barrel Length	Handle Length	Screw Diameter	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
GT8800GGS	3/8" G - 1/2" S	8"	10"	15.5"	1"	26" - 34"	8,800	17,600	16
GT15000GGS	1/2" G - 5/8" S	8"	10"	15.5"	1"	28.5" - 36.5"	15,000	30,000	20
GT11300LSS	1/2" S - 1/2" S	8"	10"	15"	7/8"	26" - 34"	11,300	22,600	16

- Grab Hook fits 3/8" or 1/2" chain



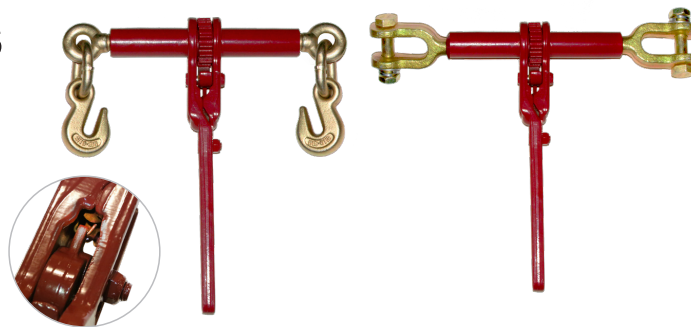
# LOAD BINDERS

## LOK-DOWN® Series

### Premium Ratchet Load Binders

#### LOK-DOWN® Series

- Straight, heavy duty barrel
- Fittings are yellow zinc plated
- Powder coated handle and barrel
- All load bearing fittings are forged
- Quenched and tempered
- Easy-Clean-out handle avoids gear freezing
- Two piece handle



(Grab-Grab)

(Jaw-Jaw)

#### GRAB-GRAB

Stock Number	Chain Size	Take-Up	Barrel Length	Handle Length	Screw Diameter	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
LKD8800	5/16" - 3/8"	8"	10"	15.5"	1"	24" - 32"	8,800	17,600	13
LKD12000	3/8" - 1/2"	8"	10"	15.5"	1"	25" - 33"	12,000	24,000	14
LKD18100	1/2" - 5/8"	8"	10"	15.5"	1"	26" - 34"	18,100	36,200	16

#### JAW-JAW

Stock Number	Take-Up	Barrel Length	Handle Length	Screw Diameter	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
LKD16000JJ	8"	10"	15.5"	1"	17" - 25"	16,000	32,000	14

## BIG-FOOT®

### Premium HIGH CAPACITY



#### BIG-FOOT® Series

- Designed for EXTREME loads
- Tapered, heavy duty barrel
- Fittings are clear zinc plated
- Powder coated handle and barrel
- All load bearing fittings are forged
- Quenched and tempered
- One piece handle

## GOLD TIP HD

### HEAVY DUTY Series



#### GOLD-TIP® HEAVY DUTY Series

- Tapered, heavy duty barrel
- Fittings are yellow zinc plated
- Powder coated handle and barrel
- All load bearing fittings are forged
- Quenched and tempered
- One piece handle

#### BIG-FOOT® GRAB-GRAB

Stock Number	Chain Size	Take-Up	Barrel Length	Handle Length	Screw Diameter	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
BFT15000	3/8" - 1/2"	8"	10"	15.5"	1"	26" - 34"	15,000	30,000	16
BFT16000	1/2" - 5/8"	8"	10"	15.5"	1"	27" - 35"	16,000	32,000	18

#### GOLD TIP JAW-JAW

Stock Number	Take-Up	Barrel Length	Handle Length	Screw Diameter	Jaw Throat Opening	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
GT13000JJ	8"	10"	15.5"	1"	1.125"	16.5" - 24.5"	13,000	26,000	16



# LOAD BINDERS

## GOLD TIP LITE Series

Gold-Tip® One Piece Handle Premium Ratchet Load Binders



(GT3500L)



(GT4700L)



(GT7100L)



(GT11300L)

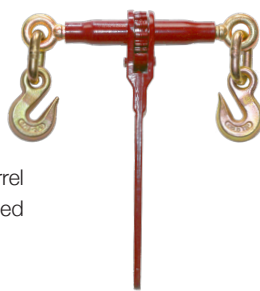
### GRAB-GRAB

Stock Number & Chain Size	Grab Hook Size	Take-Up	Barrel Length	Handle Length	Screw Diameter	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
GT3500L 3/16" - 1/4"	1/4"	4"	6"	8"	1/2"	16" - 20"	3,500	7,000	8
GT4700L 1/4" - 5/16"	5/16"	8"	10"	12"	1/2"	20" - 28"	4,700	9,400	9
GT7100L 5/16" - 3/8"	3/8"	8"	10"	15"	7/8"	25" - 33"	7,100	14,200	12
GT11300L 3/8" - 1/2"	1/2"	8"	10"	15"	7/8"	26" - 34"	11,300	22,600	16

## GOLD TIP LITE Short Barrel Series

### GOLD-TIP® LITE Series

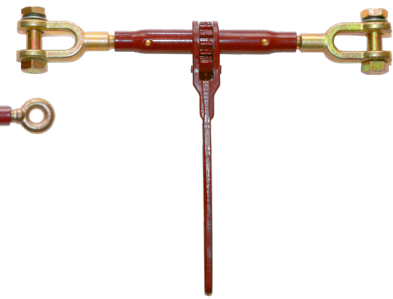
- Tapered, short barrel
- Fittings are yellow zinc plated
- Powder coated handle and barrel
- All load bearing fittings are forged
- Quenched and tempered
- One piece handle



(Grab-Grab)



(Eye-Eye)



(Jaw-Jaw)

### GRAB-GRAB

Stock Number	Chain Size	Take-Up	Barrel Length	Handle Length	Screw Diameter	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
GT7100L8	5/16" - 3/8"	6"	8"	15"	7/8"	23" - 29"	7,100	14,200	10

### EYE-EYE

Stock Number	Take-Up	Barrel Length	Handle Length	Screw Diameter	Eye Diameter	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
GT10000LEE	6"	8"	15"	7/8"	7/8"	11.25" - 17.25"	10,000	20,000	10

### JAW-JAW

Stock Number	Take-Up	Barrel Length	Handle Length	Screw Diameter	Jaw Throat Opening	Bearing to Bearing (Closed-Open)	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
GT13000LJJ	8"	10"	15"	7/8"	1"	16.5" - 24.5"	13,000	26,000	14

## GOLD TIP Lever Load Binders



### LEVER TYPE

Stock Number	Chain Size	Working Load Limit (lbs.)	Weight/Piece (lbs.)
LBNDR250	1/4" Grade 30, 1/4" Grade 43	2,600	4
LBNDR375	5/16" Grade 70, 3/8" Grade 70	6,600	7
LBNDR500	3/8" Grade 70, 1/2" Grade 43	9,200	13

### SAFETY RECOILLESS

Stock Number	Chain Size	Take-Up	Handle Length	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
LBNDR6600RECOIL	5/16" - 3/8"	4.5"	16"	6,600	13,200	10
LBNDR9200RECOIL	3/8" - 1/2"	4.5"	16"	9,200	18,400	11

### COMPRESSION SPRING

Stock Number	Chain Size	Take-Up	Handle Length	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
LBNDR6600SPRING	5/16" - 3/8"	4.5"	16"	6,600	13,200	15
LBNDR9200SPRING	3/8" - 1/2"	4.5"	18"	9,200	18,400	19

### CLAW-CLAW

Stock Number	Chain Size	Take-Up	Handle Length	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
LBNDR6600CC	5/16" - 3/8"	4.5"	16"	6,600	13,200	11

### LIGHT DUTY

Stock Number	Take-Up	Handle Length	Working Load Limit (lbs.)	Proof Load Limit (lbs.)	Weight/Piece (lbs.)
LBNDRLIGHTDUTY	3"	9.5"	375	750	2

# CARGO CONTROL

## Synthetic Cargo Tiedowns and Hardware

CERTEX offers a full line of synthetic tiedown assemblies and related hardware for all the tough demands of the flatbed and van trailer industry. Also available is a full line of pickup and smaller trailer straps used for securing loads. These straps are made from a specially treated polyester webbing for minimal stretch, environmental considerations and resistance to wear. The soft polyester webbing protects material surfaces and conforms to the shape of the load at any angle. These assemblies are available in 1, 2, 3 and 4 inch widths with a variety of end fittings and working load limits (WLL). CERTEX tiedown assemblies are manufactured to strict quality guidelines according to the latest government standards.

CERTEX strongly recommends that these products be used in accordance with all local, state and Department of Transportation regulations. Users of tiedown assemblies should review and comply with all federal, state and local regulations relative to the proper securement of cargo being transported. Securement strength requirements should take into consideration “G” forces and all other contributing factors affecting the material being transported. Tiedown assemblies should not be used for overhead lifting.

For further information please consult the Web Sling and Tiedown Association’s Recommended Standard Specification for Synthetic Web Tiedowns and the Recommended Standard Specification for Synthetic Web Tiedown Winches.

## Recommended Operating Practices

### Mechanical Considerations

Determine weight of the cargo to be secured, including expected Gravity “G” forces.

Select tiedown having suitable characteristics for the type of load and environment.

Tiedowns shall not be loaded in excess of the Working Load Limit (WLL). Consideration should be given to the angle from the vertical (cargo tiedown to load angle) which affects working load capacity.

Tiedown shall be attached to provide control of the load and positioned in accordance with applicable regulations.

Tiedowns shall not be dragged on the floor, ground, or over an abrasive surface.

Tiedowns shall not be tied into knots, or joined by knotting.

Tiedowns shall not be pulled from under loads when the load is resting on the tiedown.

Tiedowns shall always be protected from being cut by corners, sharp edges, protrusions or abrasive surfaces.

Tiedowns with metal fittings shall not be dropped.

The opening in fittings shall be the proper shape and size to insure that the fitting will seat properly in the anchorage point or other attachments. If the anchor point is inadequate to support the force of the tiedown

system, then the load rating of the tiedown will be limited to the strength of the anchor point.

Tiedowns shall not be used for lifting.

### Environmental Considerations

Tiedowns should be stored in a dry and dark place, and should not be exposed to sunlight when not in use.

Chemically active environments can effect the strength of synthetic web tiedowns in varying degrees ranging from little to total degradation. The tiedown manufacturer should be consulted before tiedowns are used or stored in chemically active environments.

#### A. Acids

1. Nylon is subject to degradation in acids, ranging from little to total degradation.
2. Polyester is resistant to some acids, but is subject to degradation ranging from little to moderate with other acids
3. Each application shall be evaluated, taking into consideration the following:
  - i. Type of Acid
  - ii. Exposure Conditions
  - iii. Concentration
  - iv. Temperature

#### B. Alkalis

1. Polyester is subject to degradation by alkalis, ranging from little to total degradation.



# CARGO CONTROL

2. Nylon is resistant to some alkalis, but is subject to degradation ranging from little to moderate with other alkalis.
3. Each application shall be evaluated, taking into consideration the following:
  - i. Type of Alkali
  - ii. Exposure Conditions
  - iii. Concentration
  - iv. Temperature

Nylon and polyester webbing shall not be used at temperatures in excess of 194 degrees F (90 degrees C). Both types are routinely used at temperatures as low as -40 degrees F (-40 degrees C).

Tiedowns incorporating aluminum fittings shall not be used where fumes, vapors, sprays, mists or liquids of alkalis and/or acids are present.

Environments in which synthetic webbing tiedowns are continuously exposed to ultra-violet light can affect the strength of synthetic webbing tiedowns in varying degrees ranging from slight to total degradation.

- A.** Factors which can determine the degree of strength loss are:
  1. Length of time of continuous exposure
  2. Webbing construction and design
  3. Other environmental factors such as weather conditions and geographic location.
- B.** Suggested procedures to minimize the effects of ultra-violet light.
  1. Store webbing tiedowns in a cool, dry and dark place when not being used for prolonged periods of time.
  2. Inspect webbing tiedowns weekly or more often, depending on frequency of use.
  3. Impregnate a coating into the webbing.
- C.** Visual indications of possible ultra-violet degradation are:
  1. Bleaching out of webbing.
  2. Increased stiffness of webbing material.
  3. Surface abrasion in areas not normally in contact with the load.

**Caution:** Degradation can take place without visible indications.

## Inspection

### Type of Inspection

- A.** Initial Inspection — Before any tiedown is placed in service it shall be inspected to insure that the correct tiedown is being used as well as to determine that the tiedown meets the requirements of the application.
- B.** Frequent Inspection — This inspection shall be made by the person handling the tiedown each time it is used.
- C.** Periodic Inspection — This inspection shall be conducted by designated personnel. Frequency of inspection shall be based on:
  1. Frequency of use
  2. Severity of service conditions
  3. Experience gained on the service life of tiedowns used in similar applications.
  4. Inspection should be conducted at least monthly.

### Inspection Records

Tiedown inspection records shall be established by the user.

### Tiedown Replacement

- A.** Tiedown shall be removed from service if any of the following, are visible.
  - a. Acid or alkali burns.
  - b. Melting, charring, or weld spatter of any part of the webbing.
  - c. Holes, tears, cuts, snags or embedded particles.
  - d. Broken or worn stitching in load bearing stitch patterns.
  - e. Excessive abrasive wear.
  - f. Knots in any part of the webbing.
  - g. Distortion and excessive pitting or corrosion or broken fittings.
  - h. Other apparent defects which cause doubt as to the strength of the tiedown.

### Repair of Tiedown Webbing

No repairs of webbing, fittings, or stitching shall be permitted.

# CARGO CONTROL

## Cargo Control Straps



(YELLOW, BLACK & BLUE WITH VINYL S-HOOK)



(YELLOW WITH WIRE J-HOOK)



(YELLOW WITH SHORT TAIL)



(BLACK WITH FLOATING D-RING KEEPER)

### 1" POLYESTER RATCHET TIE-DOWNS

SIZE	STOCK NUMBER	COLOR	DESCRIPTION	END FITTING	WORKING LOAD LIMIT (LBS.)	WEIGHT/PIECE (LBS.)
1" x 8'	STRAP1X8	Yellow	Standard	Black Vinyl S-Hook	1,000	1.8
1" x 8'	STRAP1X8B	Black	Standard	Black Vinyl S-Hook	1,000	1.8
1" x 12'	STRAP1X12	Yellow	Standard	Black Vinyl S-Hook	1,000	2.0
1" x 15'	STRAP1X15	Yellow	Standard	Black Vinyl S-Hook	1,000	2.3
1" x 15'	STRAP1X15B	Black	Standard	Black Vinyl S-Hook	1,000	2.3
1" x 15'	STRAP1X15BLU	Blue	Standard	Black Vinyl S-Hook	1,000	2.3
1" x 15'	STRAP1X15J	Yellow	Standard	Yellow Zinc Wire J-Hook	1,000	2.3
1" x 15'	STRAP1X15BJST	Yellow	Short Tail	Yellow Zinc Wire J-Hook	1,000	2.3
1" x 16'	STRAP1X16BJD	Black	Standard with Keeper	Yellow Zinc Wire J-Hook	1,000	2.5



(RATCHET STRAP WITH WIRE J-HOOK)



(RATCHET STRAP WITH FLAT HOOK)



(RATCHET STRAP WITH CHAIN GRAB HOOKS)

### 2" YELLOW POLYESTER RATCHET TIE-DOWNS

SIZE	STOCK NUMBER	END FITTINGS	RATCHET	WORKING LOAD LIMIT (LBS.)	WEIGHT/PIECE (LBS.)
2" x 8'	STRAP2x8RJH	J-Hooks	Long/Wide Handle	3,335	4
2" x 15'	STRAP2x15RFH	Flat Hooks	Long/Wide Handle	3,335	5
2" x 15'	STRAP2x15RJH	J-Hooks	Long/Wide Handle	3,335	5
2" x 27'	STRAP2x27RFH	Flat Hooks	Long/Wide Handle	3,335	6
2" x 27'	STRAP2x27RJH	J-Hooks	Long/Wide Handle	3,335	6
2" x 27'	STRAP2x27RCG	Chain Grab Hooks	Long/Wide Handle	3,335	14
2" x 30'	STRAP2x30RFH	Flat Hooks	Long/Wide Handle	3,335	7
2" x 30'	STRAP2x30RJH	J-Hooks	Long/Wide Handle	3,335	7

### 3" YELLOW POLYESTER RATCHET TIE-DOWNS

SIZE	STOCK NUMBER	HOOKS	RATCHET	WORKING LOAD LIMIT (LBS.)	WEIGHT/PIECE (LBS.)
3" x 30'	STRAP3x30RFH	Flat Hooks	Long Handle	5,400	15
3" x 30'	STRAP3x30RJH	J-Hooks	Long Handle	5,400	15

### 4" YELLOW POLYESTER RATCHET TIE-DOWNS

SIZE	STOCK NUMBER	HOOKS	RATCHET	WORKING LOAD LIMIT (LBS.)	WEIGHT/PIECE (LBS.)
4" x 30'	STRAP4x30RFH	Flat Hooks	Long Handle	6,600	19
4" x 30'	STRAP4x30RJH	J-Hooks	Long Handle	6,600	19
4" x 30'	STRAP4x30RCG	Chain Grab Hooks	Long Handle	6,600	22

## Truck & Trailer Parts



(2" Lashing Winch)



(4" Low Profile Weld-On Winch)



(4" Combination Slot / Post Winch)



(4" Slider Notched/High Capacity Weld-On Winch)



(Weld On Leg Combination Winch)



(4" Standard Weld-On Winch)



(4" Standard Portable Winch)



(4" Low Profile Slider Notched Winch)



(4" Low Profile Combination Winch)



(4" Low Profile Portable Winch)



(4" Low Profile Portable Combination Winch)

### TRAILER WINCHES

STOCK NUMBER	DESCRIPTION	PIECE/BOX
16L	2" Lashing Winch, Tighten with Hex Bar	10
16SL	4" Low Profile Weld On	5
16SP	4" Combination Slot/Post	5
18SN	4" Slider Notched/High Cap. Weld On	5
16WC	Weld On Leg Combination	4
16S	4" Standard Weld On	5
16P	4" Standard Portable	5
18SN-LP	4" Low Profile Slider Notched	5
16SPL	4" Low Profile Combination	5
16PL	4" Low Profile Portable	5
16PPL	4" Low Profile Portable Combination	4



Painted Standard



Chrome Standard



Tube Style



Painted Box Head Style



Chrome Box Head Style



Box Head

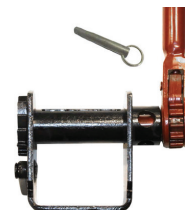
10/Box

### WINCH BARS

STOCK NUMBER	FINISH	DESCRIPTION	HEAD STYLE
WB1	Painted	Standard Winch Bar	Standard
WB3	Painted	Combination Winch Bar	Box Head
WC2	Chrome	Standard Winch Bar	Standard
WC4	Chrome	Combination Winch Bar	Tube
WC3	Chrome	Combination Winch Bar	Box Head
WC3XL	Chrome	Combination 40" Winch Bar	Box Head

### RATCHETING WINCH BARS

STOCK NUMBER	FINISH	LENGTH	WEIGHT/PIECE (LBS.)
GTWBR-H15	Powder Coated	15"	5
GTWBR-H28	Powder Coated	28"	11



# CARGO CONTROL

## Recommended Operating Practices

### Mechanical Considerations

All winches shall be installed so the user can see the pawl to ensure proper engagement. Additionally, the winch shall be positioned so the pawl drops into the ratchet wheel by gravity. Winches shall never be installed so the user cannot see the pawl engagement or in a position where the user shall hold the pawl to engage the ratchet tooth. Portable winches shall be removed and stored when not in use. All winches, except portable and sliding styles, shall be welded to the trailer frame. Minimum welding requirements are to be specified by the manufacturer.

Winches shall be attached to vehicle structural members. If winches are installed in track, the track shall be attached to vehicle structural members.

When tightening or loosening winches, always maintain a firm grip on the winch bar. Never release a winch bar without checking the pawl to ensure that it is fully engaged between ratchet teeth. Releasing a winch bar without the pawl being properly engaged can cause serious injury to the user or bystanders. The use of non-slip handle winch bar specifically designed to tighten or loosen winches is recommended.

Set screws on portable winches are designed to position the winch while the tiedown assembly is tightened and shall be snug tightened only. Overtightening of screws may cause bracket to bend, weakening the winch and causing it to fail.

Winches shall not be loaded in excess of their Working Load Limit.

Only winch bars designed to be used with winches shall be used to tension and release tiedown assemblies. "Cheater Bars" shall not be used with the winch bars.

### Environmental Considerations

Winches are subjected to dirt, mud, snow, ice, road salt, cleaning solutions, etc. And therefore require inspection and cleaning to insure they are always in operating condition prior to each use.

Winches that can be removed from the vehicle, when not in use, should be stored in a dry location.

## Inspection

### Type of Inspection

- A.** Initial inspection — before any winch is placed in service it shall be inspected to insure that it is the correct winch, as specified by the vehicle manufacturer. Also verify that all moving parts operate freely and the pawl drops into the ratchet wheel by gravity.
- B.** Frequent inspection — this inspection shall be made by the person operating the winch prior to each use.
- C.** Periodic inspection — this inspection shall be conducted by designated personnel.

Frequency of inspection shall be based on:

1. Frequency of use
2. Severity of Service Conditions
3. Experience gained on the service life of winches used in similar applications.
4. Inspection should be conducted at least quarterly.

### Winch Replacement

A winch shall be removed from service if any of the following conditions exist:

- a. Reel bar is not free to rotate.
- b. Pawl is not free to drop into the ratchet wheel by gravity.
- c. Winch has been deformed due to overloading.
- d. Winch bar holes are deformed and will not permit use of standard winch bar.
- e. Ratchet wheel is distorted.
- f. Pawl/pawl pin is distorted.
- g. Weld on winch is cracked.
- h. Weld of winch to vehicle is cracked.
- i. Winch track shall be replaced if it is deformed in the area that transfers the winch load to the track.
- j. Other apparent defects which cause doubt as to the strength of the winch.

### Inspection Records

Winch inspection records should be established by the user.

### Repair of Winches

No repairs of the winch shall be permitted.