

CHAIN

844-4SLINGS • 844-475-4647 TX - 254-732-7572

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Visit us at our Website

## Safe Lift, Safe Life

American Industrial Lifting Products is an American company headquartered in Flat Rock, Michigan within Metro Detroit, as well as a manufacturing facility in Waco, Texas. We manufacture a full line of lifting slings and cargo securement made right here in the USA. We use only the best materials and technology in our fabrication process to create a product that, we as the manufacturer, can be proud of.

As the manufacturer, we can custom make slings and tie downs to your exact specifications. Most of our products ship within a few business days. From web slings to chain slings to auto hauling straps, we can make it. We sell through a network of distributors and resellers around the country that can help you find the best lifting and securement options available.

## Quality

Our commitment to quality is what separates us from the rest. We have focused our time and energy to build a state-of-the-art manufacturing facility. Our goal is to make the best and safest products around.

We back this commitment to quality with the foremost equipment to get the job done. Our manufacturing facility includes premier programmable cutting and marking machines to insure that exact specifications are met for every job. We have automatic industrial sewing machines and manual industrial sewing machines ran by our experienced operators. We possess horizontal and vertical load test machines to guarantee product safety in our fabrication process.

This technology, along with trained employees who care about their work, allow us to reach our goal.





## AMERICAN

## INDUSTRIAL

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## **SLING INSPECTION**

This is an overview of the sling inspection we offer to users of lifting slings and rigging hardware. We offer this sling inspection service to assist users in identifying when slings and related lifting hardware are not in safe working condition and need to be removed from service.

This inspection is required under The American Society of Mechanical Engineers (ASME) B30.9 standard for all synthetic slings including webbing (flat) and fiber yarns in a protective cover (round), alloy steel chain slings, wire rope slings, and metal mesh slings. There are three types of inspections referenced in this ASME standard.

Initial Inspection – Prior to use, all new, altered, modified, or repaired slings shall be inspected by a designated person to verify compliance with applicable safety standards.

Frequent Inspection – A visual inspection for damage shall be performed by the user or other designated person each day or shift that the sling is used. Slings that do not meet applicable safety standards shall be removed from service and not returned to service until approved by a qualified person. Written records are not required for frequent inspections.

Periodic Inspection – A complete inspection for damage of the sling shall be periodically performed by a qualified person to determine if the sling meets applicable safety standards. Periodic inspection intervals shall not exceed 1 year. A written record of the most recent periodic inspection shall be maintained and be available for examination.

Guidelines for the time intervals of the periodic inspection are:

- 1) Normal service yearly
- 2) Severe service monthly to quarterly
- 3) Special service as recommended by a qualified person

The frequency of periodic inspections should be based on:

- 1) Frequency of sling use
- 2) Severity of service conditions
- 3) Nature of lifts being made
- 4) Knowledge gained on the service life of slings used in similar circumstances

It is also required under Occupational Safety and Health Administration (OSHA) part 1910.184 to perform a thorough periodic inspection of alloy steel chain slings. OSHA requires maintaining a record of the most recent month in which each alloy steel chain sling was thoroughly inspected, and shall make such records available for examination.



## **SLING INSPECTION (cont.)**

The products inspected during our standard sling inspection service are:

- Synthetic Web Slings
- Synthetic Round Slings
- Alloy Chain Slings
- Wire Rope Slings
- Metal Mesh Slings
- Sling Hardware such as hooks, links, etc
- Shackles
- Hoist Rings

The following products, by the request of the customer, can be inspected are:

- Certain Fall Protection such as harnesses, lanyards, etc
- Plate Clamps
- Eyebolts
- Manual hoists such as lever hoists and chain falls
- Web tie downs such as ratchet straps
- Binding chain such as grade 70 chain assemblies

American Industrial Lifting Products (AILP) will inspect the items in this section to the common industry guidelines or manufacturer's guidelines, if known. AILP will not disassemble any products in this section as part of our standard sling inspection service. Our inspector will give a thorough visual inspection to the best of his/her knowledge and include in the report the visual results. If requested by the customer, product in this section in need of disassembly may be taken to an AILP facility for a more detailed inspection, for a fee.

The following products are not inspected in our standard sling inspection service:

- Cranes such as bridge, gantry, jib, etc
- Crane cables
- Electrical hoisting units
- Winches
- Spreader Beams
- Specialty Lifting Devices such as vacuum lifters, c-hooks, pallet lifters, etc
- "Homemade" lifting devices
- Certain Fall Protection such as lifeline systems, scaffolding systems, etc

Some of the products in this section may be able to be inspected by AILP, but would be setup separately and quoted accordingly.

The inspection result, which states that a product is suitable for use, does not suggest the length of service for which the product will remain suitable for continued service. It is the responsibility of the users and their supervisors to review and revise their inspection frequency and requirements necessary to assure that only safe lifting products are being used between inspection intervals.

## TRAINING CLASSES

American Industrial Lifting Products has partnered up with Royal Arc Industrial Services to provide training courses that give true life scenarios and hands-on visuals for enhanced comprehension. Even the correct equipment becomes dangerous when used incorrectly. Learn the proper rigging procedures for a "Safe Lift, Safe Life."

These OSHA compliant training courses are available at our training centers or on-site at your facility.

#### Basic Crane & Rigging Training Course Code: BCRT-101

This course is our most popular and presents general safety instructions and operations including:

	3
Qualifications required for crane operation	Using Hand Signals
Proper Crane Operations (Do's & Don'ts)	Proper usage of Crane Controls
Injury prevention	Inspection Requirements
Proper lift setup	Overview Rigging & Hitching
Basic Load Physics	Overview Chains & Slings
Crane Terminology	



IN HOUSE TRAINING

#### **Our Full list of Course Offerings**



ON SITE TRAINING



Course Number	Description	Approx Class Length			
OSHA-10	OSHA 10 HR	10 hours (2 days)			
OSHA-30	OSHA 30 HR	30 hours (4 days)			
BCRT-101	Basic Crane/Rigging Operator	6 hours (1 day)			
ECT-102	Extensive Crane/Rigging	16 hours (2 days)			
ICMT-103	Industrial Crane & Maintenance	24 hours (3 days)			
ACMT-104	Advanced Crane/Rigging	24 hours (3 days)			
MC-103	3 Day Mobile Crane	24 hours (3 days)			
LOT-101	Lock Out / Tag Out	4 hours (1 day)			
CSE-101	Confined Space Entry	4 hours (1 day)			
FPT-101	Fall Protection	4 hours (1 day)			
AFT-101	Arc Flash	4 hours (1 day)			
ALT-101	Aerial Lift	4 hours (1 day)			
NCCCO-MC	NCCCO Mobile Crane	24 hours (3 days)			
NCCCO-RSP	NCCCO Qualified Rigger / Signalperson	16 hours (2 days)			
	Course Add-Ons				
TT	Train-the-Trainer				
HOI	Hands-On Instruction				

Please contact customer service at (844)-4SLINGS for more information on any training course and we will be happy to help.



## OSHA SAFE OPERATING PRACTICES (OSHA 1910.184)

- Safe operating practices. Whenever any sling is used, the following practices shall be observed:
- Slings that are damaged or defective shall not be used.
- Slings shall not be shortened with knots or bolts or other makeshift devices.
- Sling legs shall not be kinked.
- Slings shall not be loaded in excess of their rated capacities.
- Slings used in a basket hitch shall have the loads balanced to prevent slippage.
- Slings shall be securely attached to their loads.
- Slings shall be padded or protected from the sharp edges of their loads.
- Suspended loads shall be kept clear of all obstructions.
- All employees shall be kept clear of loads about to be lifted and of suspended loads.
- Hands or fingers shall not be placed between the sling and its load while the sling is being tightened around the load.
- Shock loading is prohibited.
- A sling shall not be pulled from under a load when the load is resting on the sling.
- Employers must not load a sling in excess of its recommended safe working load as
  prescribed by the sling manufacturer on the identification markings permanently
  affixed to the sling.
- Employers must not use slings without affixed and legible identification markings.



## **GENERAL SAFETY INFORMATION**

Sling Angle Reduction Factor & Tension Factor FOR BASKET & BRIDLE HITCHES

#### **METHOD 1- DETERMINE REDUCTION TO RATED CAPACITY**

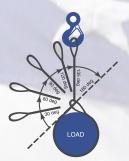
- 1. Calculate the Sling to Load Angle.
- 2. Determine the associated reduction factor (see chart).
- 3. Multiply the rated capacity for the basket hitch as indicated on the sling tag by the reduction factor.
- 4. The result is the safe capacity designation for that sling in that rigging configuration.

Sling Angle - Reduction Factor & Tension Factor													
Reduction Factor	1.000	0.996	0.985	0.966	0.940	0.906	0.866	0.819	0.766	0.707	0.643	0.574	0.500
Sling to Load Angle	90°	85°	80°	75°	70°	65°	60°	55°	50°	45°	40°	35°	30°
Tension Factor	1.000	1.004	1.015	1.035	1.064	1.104	1.155	1.221	1.305	1.414	1.555	1.742	2.000

#### METHOD 2- DETERMINE INCREASED TENSION/EFFECTIVE WEIGHT OF THE LOAD

- 1. Calculate the Sling to Load Angle.
- 2. Determine the associated tension factor (see chart).
- 3. Multiply the load weight by the tension factor.
- 4. The result is the Effective Weight of the load in that rigging configuration be sure to select a sling with adequate capacity. (A longer sling will increase the Sling to Load angle, thereby reducing the tension factor/effective weight of the load.)

Angle of Choke	Rated
Degree	Capacity
Over 120	100%
90-120	87%
60-89	74%
30-59	62%
0-29	49%









Hitch 60 Degree



Hitch 45 Degree Angled Basket

**HITCH TYPES** 

#### FOR CHOKER HITCHES

When a load is rigged using a choker hitch- if the choke angle is less than 120°, then the rated capacity of the sling must be reduced.

- Calculate the angle of choke (see 1) illustration).
- 2) Determine the associated reduction factor (see chart).
- 3) Multiply the rated capacity for the choker hitch as indicated on the sling tag by the reduction factor.
- 4) The result is the safe capacity rating for that sling in the rigging configuration.



## **AMERICAN**

#### INDUSTRIAL

## PRODUCT GROUPS







#### Web Slings

A Flat Sling made of polyester webbing. These versatile, economical slings are lighter for easier handling.

#### **Round Slings**

Round Slings are made of polyester core yarn covered by a double jacket tube.

#### Chain Slings

Chain Slings are made of alloy steel, which allows for use under high temperatures or rugged conditions.

#### Wire Rope Slings

Wire Rope Slings feature 6x19 or 6x37 construction, extra improved plow steel wire rope with an independent wire rope core.

#### Cargo Securement

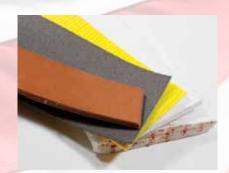
Tie down assemblies are easy to use and quickly tighten to the contour of any load. The assemblies are fabricated with polyester webbing and treated for abrasion resistance.

#### **Wear Pads**

Wear Pads can be fabricated as sliding sleeves or quick sleeves and give the sling and/or load extra protection from cutting and abrasion. Wear Pads can be made from a variety of materials including Leather, Polyester, Felt and Cordura.







## GENERAL SYNTHETIC SLING INFORMATION

All American Industrial slings meet or exceed ASME B30.9 and OSHA standards and regulations.

Chemical Factor Chart									
	Nylon	Polyester							
Maximum Temp. (F)	194°	194°							
Stretch at Rated Load	8 - 10%	5 - 7%							
Acids	NO	*							
Alcohols	OK	OK							
Aldehydes	OK	NO							
Strong Alkalis	OK	**							
Bleaching Agents	NO	OK							
Dry Cleaning Solvents	OK	OK							
Ethers	OK	NO							
Halogenated Hydro-Car- bons	ОК	ОК							
Hydro-Carbons	OK	OK							
Ketones	OK	OK							
Oils Crude	OK	OK							
Oils Lubricating	OK	OK							
Soap & Detergents	OK	OK							
Water & Seawater	OK	OK							
Weak Alkalis	OK	OK							

<sup>\*</sup> Disintegrated by concentrated sulfuric acid. \*\* Degraded by strong alkalis at elevated temperatures.

## **Premium Tagging System**



#### TAG FEATURES:

- High Performance Polymer Window Designed to outlast the Competition.
- Laser Printed For Maximum Readability
- Continuously Sewn for Maximum Durability
- UV Resistant
- Private Labeling Available

## Web Sling Part Number Breakdown



NOTE: 2 letter code (AA, AB, AC, etc...) after material code will be used to specify custom slings.



## WEB SLING REMOVAL CRITERIA

Synthetic Web Slings (ASME B30.9) - A synthetic web sling shall be removed from service if conditions such as the following are present:

- 1. Missing or illegible sling identification.
- 2. Acid or caustic burns.
- 3. Melting or charring of any part of the sling.
- 4. Holes, tears, cuts, or snags.
- 5. Broken or worn stitching in load bearing splices.
- 6. Excessive abrasive wear.
- 7. Knots in any part of the sling.
- 8. Discoloration and brittle or stiff areas on any part of the sling, which may mean chemical or ultraviolet/sunlight damage.
- 9. Fittings that are pitted, corroded, cracked, bent, twisted, gouged, or broken.
- 10. For hooks, removal criteria as stated in ASME B30.10
- 11. Other conditions, including visible damage, that cause doubt as to the continued use of the sling.

#### **MELTING OR CHARRING**



**KNOTS** 



CUTTING



ABRASIONS OR PUNCTURE



## TRIANGLE/CHOKER • TRIANGLE/TRIANGLE

Part	Web	# of	Working Load Limit (LBS)						
Number	Width (in)	# 01 Plies	Vertical	Choker	V. Basket				
TC1-902P	2	1	3,200	2,560	6,400				
TC2-902P	2	2	6,400	5,120	12,800				
TC1-903P	3	1	4,800	3,840	9,600				
TC2-903P	3	2	8,800	7,040	17,600				
TC1-904P	4	1	6,400	5,120	12,800				
TC2-904P	4	2	11,500	9,200	23,000				
TC1-906P	6	1	9,600	7,680	19,200				
TC2-906P	6	2	17,000	13,600	34,000				
TC1-908P	8	1	12,800	10,240	25,600				
TC2-908P	8	2	22,400	17,920	44,800				
TC1-910P	10	1	16,000	12,800	32,000				
TC2-910P	10	2	25,000	20,000	50,000				
TC1-912P	12	1	19,000	15,200	38,000				
TC2-912P	12	2	30,000	24,000	60,000				

Triangle-Choker (TC or TCA) Type 1
This sling utilizes steel or aluminum end fittings to allow the sling to be easily used in a basket or choker configuration. These fittings help reduce wear and allow easier connection to hooks.

When ordering specify: Length, Steel or Aluminum Fittings Length is measured bearing point to bearing point



#### Triangle-Triangle (TT or TTA) Type 2

This sling utilizes steel or aluminum end fittings and is most often used in a basket configuration, but can also be used in a vertical hitch. They cannot be used as a choker. These fittings help reduce wear and allow easier connection to hooks.

When ordering specify
Length, Steel or Aluminum Fittings
Length is measured
bearing point to bearing point.



Part	Web	# of	# of Working Load Limit (LB		it (LBS)
Number	Width (in)	# 01 Plies	Vertical	Choker	V. Basket
TT1-902P	2	1	3,200	2,560	6,400
TT2-902P	2	2	6,400	5,120	12,800
TT1-903P	3	1	4,800	3,840	9,600
TT2-903P	3	2	8,800	7,040	17,600
TT1-904P	4	1	6,400	5,120	12,800
TT2-904P	4	2	11,500	9,200	23,000
TT1-906P	6	1	9,600	7,680	19,200
TT2-906P	6	2	17,000	13,600	34,000
TT1-908P	8	1	12,800	10,240	25,600
TT2-908P	8	2	22,400	17,920	44,800
TT1-910P	10	1	16,000	12,800	32,000
TT2-910P	10	2	25,000	20,000	50,000
TT1-912P	12	1	19,000	15,200	38,000
TT2-912P	12	2	30,000	24,000	60,000



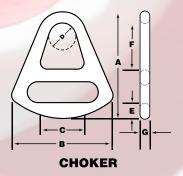
## TRIANGLE HARDWARE

Triangle Choker - Steel											
Part			Weight	Work Load							
Number	A	В	C	D	E	F	G	(lbs)	Limit (lbs)		
NSC-2	6	5 1/2	2 1/8	2	1 1/16	2 1/4	1/2	2.00	6,600		
NSC-3	7 1/12	7	3 1/8	2	1 3/16	3 3/16	1/2	2.90	8,900		
NSC-4	9 5/16	9 9/16	4 1/8	2 1/2	1 13/16	3 1/2	1/2	6.00	11,600		
NSC-5	10 9/16	11 5/8	5 1/8	2 3/4	2 1/16	4 7/16	1/2	7.00	14,000		
NSC-6	12	12 3/4	6 1/8	2 7/8	2 11/16	4 9/16	1/2	9.80	16,800		
		NE NA				IOLON	0 0 D				



P	LEAS	SE NC	TE - 2	2-PLY	DIME	NOISK	<b>S &amp; D</b>	ATA GIV	EN

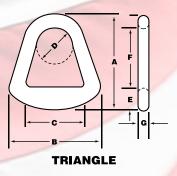
	Triangle Choker - Aluminum									
	Part Inches								Weight	Work Load
i	Number	A	В	C	D	E	F	G	(lbs)	Limit (lbs)
	FAC-2	6 1/8	5 1/4	2 1/8	1 3/4	15/16	2 3/8	9/16	0.73	3,360
	FAC-3	7 1/2	7 1/8	3 1/8	2	1 1/8	3 5/16	5/8	1.30	5,000
	FAC-4	8 3/4	8 3/4	4 1/8	2 3/8	1 7/16	4	11/16	1.90	6,700
	FAC-6	11 5/16	11 3/4	6 1/8	3 1/8	1 3/4	5 1/2	15/16	5.10	9,700



	Triangle - Steel													
Part		Weight												
Number	A	В	C	D E I		F	G	(lbs)	Limit (lbs)					
NST-2	3 7/8	3 3/4	2 1/8	1 3/4	1	2 5/16	1/2	1.00	6,600					
NST-3	5 3/16	5	3 1/16	2	1 1/4	3 5/16	1/2	1.60	8,900					
NST-4	6 7/16	6 5/8	4 5/16	2	1 5/8	3 7/8	1/2	2.70	11,600					
NST-5	7 7/8	7 15/16	5 3/16	2 1/2	2	4 15/16	1/2	3.50	14,000					
NST-6	9	9 1/4	6 1/8	2 3/4	2 5/16	5 9/16	1/2	5.30	16,800					
	PLEAS	SE NO	TE - 2-	PLY C	IMEN	SIONS	5 & D	ATA GIV	EN					



	Triangle - Aluminum													
Part		Weight	Work Load											
Number	A	В	C	G	(lbs)	Limit (lbs)								
FAT-2	4	3 5/8	2 3/4	1 3/4	15/16	2 3/8	9/16	0.31	3,360					
FAT-3	5 3/4	5	3 1/4	2	1 3/16	3 5/16	5/8	0.75	5,000					
FAT-4	6 3/4	6 5/8	4 3/8	2 3/8	1 7/16	4	11/16	1.10	6,700					
FAT-6	8 9/16	8 7/8	6 3/8	3 1/8	1 3/4	5 1/2	15/16	2.70	9,700					



EYE & EYE FLAT (EE) Type 3

This is one of the most popular sling types and can be used in all three types of hitches. Eyes are formed as the material is folded back and sewn flat to the sling body.



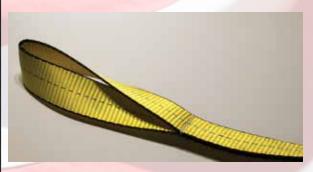
David Named	Mat Wille C	" - 6 Di:-	Worl	king Load Lim	nit (LBS)
Part Number	Web Width (in)	# of Plies	Vertical	Choker	V. Basket
EE1-901P	1	1	1,600	1,280	3,200
EE2-901P	1	2	3,200	2,560	6,400
EE4-901P	1	4	6,400	5,120	12,800
EE1-902P	2	1	3,200	2,560	6,400
EE2-902P	2	2	6,400	5,120	12,800
EE4-902P	2	4	11,500	9,200	23,000
EE1-903P	3	1	4,800	3,840	9,600
EE2-903P	3	2	8,800	7,040	17,600
EE4-903P	3	4	17,000	13,600	34,000
EE1-904P	4	1	6,400	5,120	12,800
EE2-904P	4	2	11,500	9,200	23,000
EE4-904P	4	4	22,800	18,240	45,600
EE1-906P	6	1	9,600	7,680	19,200
EE2-906P	6	2	17,000	13,600	34,000
EE4-906P	6	4	30,000	24,000	60,000
EE1-908P	8	1	12,800	10,240	25,600
EE2-908P	8	2	22,400	17,920	44,800
EE4-908P	8	4	40,000	32,000	80,000
EE1-910P	10	1	16,000	12,800	32,000
EE2-910P	10	2	25,000	20,000	50,000
EE4-910P	10	4	50,000	40,000	100,000
EE1-912P	12	1	19,000	15,200	38,000
EE2-912P	12	2	30,000	24,000	60,000
EE4-912P	12	4	60,000	48,000	120,000
NOTE: Fol	ded Eyes Standa	rd on 3 inch to	12 inch sling	ıs; 3 ply sling:	s available



## EYE & EYE TWISTED (EET) TYPE 4

Twisted eye slings are designed specifically to improve use of the choker hitch, but can be used in any type of hitch. Eyes are formed by turning the webbing 180 degrees before sewing to sling body.

			Workin	g Load Limit	(I RS)
Part Number	Web Width (in)	# of Plies	Vertical	Choker	V. Basket
EET1-901P	1	1	1,600	1,280	3,200
EET2-901P	1	2	3,200	2,560	6,400
EET4-901P	1	4	6,400	5,120	12,800
EET1-902P	2	1	3,200	2,560	6,400
EET2-902P	2	2	6,400	5,120	12,800
EET4-902P	2	4	11,500	9,200	23,000
EET1-903P	3	1	4,800	3,840	9,600
EET2-903P	3	2	8,800	7,040	17,600
EET4-903P	3	4	17,000	13,600	34,000
EET1-904P	4	1	6,400	5,120	12,800
EET2-904P	4	2	11,500	9,200	23,000
EET4-904P	4	4	22,800	18,240	45,600
EET1-906P	6	1	9,600	7,680	19,200
EET2-906P	6	2	17,000	13,600	34,000
EET4-906P	6	4	30,000	24,000	60,000
EET1-908P	8	1	12,800	10,240	25,600
EET2-908P	8	2	22,400	17,920	44,800
EET4-908P	8	4	40,000	32,000	80,000
EET1-910P	10	1	16,000	12,800	32,000
EET2-910P	10	2	25,000	20,000	50,000
EET4-910P	10	4	50,000	40,000	100,000
EET1-912P	12	1	19,000	15,200	38,000
EET2-912P	12	2	30,000	24,000	60,000
EET4-912P	12	4	60,000	48,000	120,000
NOTE: Folde	ed Eyes Standard	on 3 inch to	12 inch slings;	3 ply slings	available



	EYE LENGTH CHART												
# of Plies		Sling Width (inches)											
	1	1 2 3 4 6 8 10 12											
1	8	10	11	12	16	20	24	24					
2	8	10	11	12	16	20	24	24					
3	10	12	14	16	18	24	24	24					
4	10	12	14	16	18	24	24	24					

	EYE WIDTH CHART												
# of Plies		Sling Width (inches)											
	1	1 2 3 4 6 8 10 12											
1	1	2	1 1/2	2	3	4	5	6					
2	1	2	1 1/2	2	3	4	5	6					
3	1	2	1 1/2	2	3	4	5	6					
4	1	2	1 1/2	2	3	4	5	6					

## **ENDLESS (EN) TYPE 5**

This sling is versatile with an endless design for stronger load ratings. The sling can be used with any type of hitch.



Part	Web Width	# of Plies		<b>Load Limit</b>	(LBS)
Number	(in)		Vertical	Choker	V. Basket
EN1-901P	1	1	3,200	2,560	6,400
EN2-901P	1	2	6,200	4,960	12,400
EN4-901P	1	4	10,000	8,000	20,000
EN1-902P	2	1	6,400	5,120	12,800
EN2-902P	2	2	12,400	9,920	24,800
EN4-902P	2	4	19,800	15,840	39,600
EN1-903P	3	1	8,800	7,040	17,600
EN2-903P	3	2	16,300	13,040	32,600
EN4-903P	3	4	26,700	21,360	53,400
EN1-904P	4	1	11,500	9,200	23,000
EN2-904P	4	2	20,700	16,560	41,400
EN4-904P	4	4	35,600	28,480	71,200
EN1-906P	6	1	16,500	13,200	33,000
EN2-906P	6	2	28,600	22,880	57,200
EN4-906P	6	4	50,500	40,400	101,000
EN1-908P	8	1	19,200	15,360	38,400
EN2-908P	8	2	30,700	24,560	61,400
EN4-908P	8	4	57,600	46,080	115,200
EN1-910P	10	1	22,400	17,920	44,800
EN2-910P	10	2	33,600	26,880	67,200
EN4-910P	10	4	67,200	53,760	134,400
EN1-912P	12	1	26,900	21,520	53,800
EN2-912P	12	2	37,600	30,080	75,200
EN4-912P	12	4	80,700	64,560	161,400
	3	PLY SLING	S AVAILABLE		



## REVERSED EYE (RE) TYPE 6

The reversed eye sling is a modified rugged endless sling, reinforced and protected on all sides including both sides of body and eyes with Cordura®. Superior choke hitch grips load securely.

When ordering specify Length.



Part Number	<b>Body Width</b>	# of	Eye	Eye	Working Load Limit (lbs)			
Part Number	(in) Plies Wid	Width (in)	Length (in)	Vertical	Choker	V. Basket		
RE1-902P	2	1	1	9	4,500	3,600	9,000	
RE2-902P	2	2	1	9	6,500	5,200	13,000	
RE1-904P	4	1	2	12	7,700	6,200	15,400	
RE2-904P	4	2	2	12	13,000	10,400	26,000	
RE1-906P	6	1	3	15	11,000	8,800	22,000	
RE2-906P	6	2	3	15	20,000	16,000	40,000	



## **WIDE BODY SLINGS**



Wide Body Slings are designed for use in stabilizing and protecting loads over a wide surface area.

Part Number	Body Width (in)	# of Plies	Eye Length (in)	Min Sling Length (in)	V. Basket - Working Load Limit (LBS)
WB1-906P	6	1	9	40	15,400
WB1-908P	8	1	12	45	20,400
WB1-912P	12	1	18	60	30,800
WB1-916P	16	1	24	72	38,000
WB1-920P	20	1	30	88	45,000
WB1-924P	24	1	36	100	52,000
WB2-906P	6	2	9	40	28,600
WB2-908P	8	2	12	45	38,000
WB2-912P	12	2	18	60	57,200
WB2-916P	16	2	24	72	75,000
WB2-920P	20	2	30	88	90,000
WB2-924P	24	2	36	100	110,000



## ATTACHED EYE WIDE BODY SLING



Attached Eye Wide Body Slings special eye construction allows the slings to be used with small hooks. The combination of small eye widths and wide body widths provide for efficient handling of light loads.

Part Number	Body Width (in)	Eye Length (in)	Eye Width (in)	Eye Plies	Min Sling Length (in)	V. Basket - Working Load Limit (LBS)
1AWB2-906P	6	6	1	2	50	6,000
1AWB2-908P	8	8	1	2	50	6,000
1AWB2-912P	12	12	1	2	56	6,000
2AWB2-916P	16	12	2	2	56	12,000
2AWB2-920P	20	18	2	2	68	12,000
2AWB2-924P	24	18	2	2	72	12,000
2AWB2-930P	30	22	2	2	74	12,000
2AWB2-936P	36	27	2	2	84	12,000
2AWB2-948P	48	36	2	2	102	12,000

## WEB BRIDLE SLINGS

Bridle slings feature combination of links and hook hardware. Hardware connections provide for the efficient handling of loads with fixed lifting points.



	347 1	" .			01.1	O11 11 1	1
Part Number	Web Width (in)	# of Plies	Number of Legs	Capacity (lbs.) @ 90°	Oblong Link (Dia.)	Sling Hook Size	Eye Dimensions (W X L) (in)
SOS-EE1-901P	1	1	1	1,600	5/8	1 1/2T (7/32)	N/A
SOO-EE1-901P	1	1	1	1,600	5/8	N/A	N/A
SOE-EE1-901P	1	1	1	1,600	5/8	N/A	1 X 8
SOS-EE2-901P	1	2	1	3,100	5/8	1 1/2T (7/32)	N/A
SOO-EE2-901P	1	2	1	3,100	5/8	N/A	N/A
SOE-EE2-901P	1	2	1	3,100	5/8	N/A	1 X 8
SOS-EE2-902P	2	2	1	6,400	3/4	4.5T (3/8)	N/A
SOO-EE2-902P	2	2	1	6,400	3/4	N/A	N/A
SOE-EE2-902P	2	2	1	6,400	3/4	N/A	2 X 10

Part Number	Web Width (in)	# of Plies	Number of Legs		Capacity (lbs.) @ 45°	Capacity (lbs.) @ 30°	Oblong Link (Dia.)	Sling Hook Size	Eye Dimensions (W X L) (in)
DOS-EE1-901P	1	1	2	2,770	2,260	1,600	3/4	1-1/2T (7/32)	N/A
DOO-EE1-901P	1	1	2	2,770	2,260	1,600	3/4	N/A	N/A
DOE-EE1-901P	1	1	2	2,770	2,260	1,600	3/4	N/A	1 X 8
DOS-EE2-901P	1	2	2	5,540	4,520	3,200	3/4	2.75T (9/32)	N/A
DOO-EE2-901P	1	2	2	5,540	4,520	3,200	3/4	N/A	N/A
DOE-EE2-901P	1	2	2	5,540	4,520	3,200	3/4	N/A	1 X 8
DOS-EE2-902P	2	2	2	10,300	8,400	6,000	1	4.5T (3/8)	N/A
DOO-EE2-902P	2	2	2	10,300	8,400	6,000	1	N/A	N/A
DOE-EE2-902P	2	2	2	10,300	8,400	6,000	1	N/A	2 X 10

Part Number	Web Width (in)	# of Plies	Number of Legs	Capacity (lbs.) @ 60°	Capacity (lbs.) @ 45°	Capacity (lbs.) @ 30°	Top Ob- long Link (Dia.)	Master Sub Link (Dia.)	Bottom Oblong Link (Dia.)	Sling Hook Size	Eye Dimensions (W X L) (in)
QOS-EE1-901P	1	1	4	5,540	4,520	3,200	3/4	1/2	5/8	1-1/2T (7/32)	N/A
QOO-EE1-901P	1	1	4	5,540	4,520	3,200	3/4	1/2	5/8	N/A	N/A
QOE-EE1-901P	1	1	4	5,540	4,520	3,200	3/4	1/2	5/8	N/A	1 X 8
QOS-EE2-901P	1	2	4	10,300	8,400	6,000	3/4	1/2	5/8	2.75T (9/32)	N/A
QOO-EE2-901P	1	2	4	10,300	8,400	6,000	3/4	1/2	5/8	N/A	N/A
QOE-EE2-901P	1	2	4	10,300	8,400	6,000	3/4	1/2	5/8	N/A	1 X 8
QOS-EE2-902P	2	2	4	20,700	16,900	12,000	1	3/4	5/8	4.5T (3/8)	N/A
QOO-EE2-902P	2	2	4	20,700	16,900	12,000	1	3/4	5/8	N/A	N/A
QOE-EE2-902P	2	2	4	20,700	16,900	12,000	1	3/4	5/8	N/A	2 X 10



## WEB LADDER SLING

Part Number	Overall Width (in)	Length (ft)	Ladder Spacing (in)	V. Basket Capacity (lbs.)
2LS1-908PX8	8	8	12	12,800
2LS1-908PX12	8	12	12	12,800
2LS1-908PX16	8	16	12	12,800
2LS1-908PX20	8	20	12	12,800
2LS1-912PX8	12	8	12	12,800
2LS1-912PX12	12	12	12	12,800
2LS1-912PX16	12	16	12	12,800
2LS1-912PX20	12	20	12	12,800
2LS1-916PX8	16	8	12	12,800
2LS1-916PX12	16	12	12	12,800
2LS1-916PX16	16	16	12	12,800
2LS1-916PX20	16	20	12	12,800



Ladder slings provide support to a wider area for better balance on large loads. Ladder slings are used in basket hitch applications only.

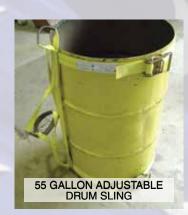
	Part Number	Overall Width (in)	Length (ft)	Ladder Spacing (in)	V. Basket Capacity (lbs.)
1	4LS1-912PX8	12	8	12	23,000
	4LS1-912PX12	12	12	12	23,000
	4LS1-912PX16	12	16	12	23,000
	4LS1-912PX20	12	20	12	23,000
	4LS1-916PX8	16	8	12	23,000
	4LS1-916PX12	16	12	12	23,000
	4LS1-916PX16	16	16	12	23,000
	4LS1-916PX20	16	20	12	23,000



## **CUSTOM WEB SLINGS**

Custom web slings are developed for unique applications and help eliminate unsafe lifting practices.

















AMERICAN

INDUSTRIAL

## **WEAR PADS**

Wear Pad Part Number Breakdown

# CWP V2 3 x 4

**Polyester**Extra layer of protection *Model PWP* 

#### **Felt**

Good cut resistance. *Model FWP* 

#### Velcro

Allows for easy addition and removal of wear pad, 1 or 2 inch Model V1 & V2

#### **Cordura®**

Great protection from abrasive surfaces *Model CWP* 

#### **Dyneema®**

Superior Strength using the world's strongest fiber. Best option for cut & abrasion resistance. Light Duty or Heavy Duty Model LDWP or HDWP

#### Leather

Very rugged, good cut resistance. Velcro not available with leather.

Model LWP

#### **Edge Guard**

Helps protect the edges of the sling *Model EG* 

#### TYPE OF WEAR PAD

PWP, CWP, LWP, FWP EG, LDWP, HDWP

#### **PAD WIDTH**

2", 3", 4", 5" 6", 8", 10", 12"

#### **VELCRO OPTION**

V1, V2

#### PAD LENGTH

Any length desired for the application.



#### **A WARNING**

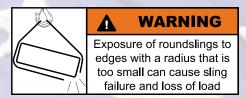
The top cause of synthetic sling failure is cutting. When a sling is cut, property damage and personal injury or death could result. Wear pads can help reduce this problem by supplying a buffer between the load edge and the sling. Be sure to inspect wear pads for damage. If the wear pad is damaged, the sling may also be damaged.

## **ROUND SLING SAFETY INFORMATION**

#### **Protect Sling from Damage**

ALWAYS protect roundslings from being cut or damaged by corners, edges and protrusions using protection sufficient for each application. Do not ignore warning signs of misuse. Cut marks detected during any sling inspection serve as a clear signal that sling protection must be added or improved.

#### Exposure of slings to edges



Edges do not need to be "sharp" to cause failure of the sling. Chamfering or cutting off edges is not an acceptable substitute for fully rounding the edges to the minimum radius. Slings can also be damaged from contact with edges or burrs at the sling connection.



#### **Sling Hardware and Connections**

Connection surfaces must be smooth to avoid abrading cutting or roundslings. Roundslings can also be damaged or weakened excessive by compression between the sling and the connection points if the size of the attachment hardware or connection area is not large enoughtoavoidthisdamage.



Select and use proper connection hardware that conforms to the size requirements listed for choker and vertical hitches, or for basket hitches in the charts below.

## Minimum hardware dimensions suitable for use with roundslings.

	Single	Part	Double	Part
Size	Min. Stock Dia (in)	Min. Width (in)	Min. Stock Dia (in)	Min. Width (in)
EN30	7/16	1	9/16	1 3/8
EN60	5/8	1 3/8	7/8	1 7/8
EN90	3/4	1 3/4	1 1/16	2 3/8
EN120	7/8	1 7/8	1 1/4	2 1/2
EN150	1	2	1 3/8	2 7/8
EN180	1 1/8	2 1/8	1 5/8	3
EN240	1 3/16	2 5/8	1 5/8	3 3/4
EN360	1 1/2	3 1/4	2	4 1/2
EN600	2	4	2 3/4	5 5/8
EN800	2 1/8	4 5/8	3	6 1/2
EN1000	2 1/2	5 1/4	3 1/2	7 3/8



## **ROUND SLING REMOVAL CRITERIA**

Polyester Round Slings (ASME B30.9) - A synthetic round sling shall be removed from service if conditions such as the following are present:

- 1. Missing or illegible sling identification.
- 2. Acid or caustic burns.
- 3. Evidence of heat damage.
- 4. Holes, tears, cuts, abrasive wear, or snags that expose the core yarns.
- 5. Broken or damaged core yarns.
- 6. Weld splatter that exposes core yarns.
- 7. Round slings that are knotted.
- 8. Discoloration and brittle or stiff areas on any part of the slings, which may mean chemical or ultraviolet/sunlight damage.
- 9. Fittings that are pitted, corroded, cracked, bent twisted, gouged, or broken.
- 10. For hooks, removal criteria as stated in ASME B30.10
- 11. Other conditions, including visible damage, that cause doubt as to the continued use of the sling.

## **Melting or Charring**



Knots



Illegible Tag



**Snags & Punctures** 



## **ENDLESS ROUND SLINGS**



Roundslings are lightweight and high capacity alternative to heavier wire rope and chain. They are flexible and easy to handle with a seamless tubular construction. Capacities are classified by color code for quick identification of capacity.

## Round Sling Part Number Breakdown

EN 60 x 10

TYPE OF SLING EN, EE, SOS, DOS, QOS SLING SIZE CODE 30, 60, 90, 120

30, 60, 90, 120 150, 180, 240 300, 360, 400 LENGTH

3 Foot Through 20 Foot Standard

300, 360, 400 600, 800, 1000 NOTE: 2 letter code (AA, AB, AC, etc...) after size code will be used to specify custom slings.



When ordering specify Length • Features Double Wall Jacket • Design factor is minimum 5 to 1



## **EYE TO EYE ROUND SLINGS**

All the features of an endless but with an additional jacket creating two color coded lifting eyes. The protective jacket can extend the life of the sling if abrasion to the body is a problem.



Part	Color	Body Width	Minimum	Standard Eye Length	Working L	Working Load Limit (		
Number	Code	at Load (in)	Length (ft)	(in)	Vertical	Choker	V. Basket	
EE30	Purple	2 1/4	4	10	2,600	2,100	5,200	
EE60	Green	2 1/2	4	10	5,300	4,200	10,600	
EE90	Yellow	2 1/2	4	12	8,400	6,700	16,800	
EE120	Tan	3 1/2	5	12	10,600	8,500	21,200	
EE150	Red	3 1/2	5	14	13,200	10,600	26,400	
EE180	White	3 3/4	7	16	16,800	13,400	33,600	
EE240	Blue	4 1/4	7	16	21,200	17,000	42,400	
EE300	Orange	5	7	20	25,000	20,000	50,000	
EE360	Orange	6	7	20	31,000	24,800	62,000	

When ordering specify Length • Features Double Wall Jacket • Design factor is minimum 5 to 1

## **ROUND SLING BRIDLES & HOOKS**

Bridle slings feature combinations of links and hook hardware. Hardware connections provide for the efficient handling of loads with fixed lifting points.

Part Number	Color	olor Number Mi		Color Number Minimum		Capacity	Capacity (lbs.)		Sling Hook
Part Number	Code	of Legs	Reach (ft)	Vertical	Basket	Dia. (in.)	Size		
SOS-EN30	Purple	1	4	2,600	5,200	5/8	2.75T (9/32)		
SOS-EN60	Green	1	4	5,300	10,600	3/4	4.5T (3/8)		
SOS-EN90	Yellow	1	4	8,400	16,800	7/8	7T (1/2)		
SOS-EN120	Tan	1	4	10,600	21,200	7/8	11T (5/8)		
SOS-EN150	Red	1	5	13,200	26,400	1	11T (5/8)		



	Color Number		Number Minimum		pacity (	lbs.)	Oblong	Sling
Part Number	Code	of Legs	Reach		45°	30°	Link Dia. (in.)	Hook Size
DOS-EN30	Purple	2	4	4,500	3,600	2,600	3/4	2.75T (9/32)
DOS-EN60	Green	2	4	9,100	7,400	5,300	7/8	4.5T (3/8)
DOS-EN90	Yellow	2	4	14,500	11,800	8,400	1	7T (1/2)
DOS-EN120	Tan	2	5	18,300	14,900	10,600	1 1/4	11T (5/8)
DOS-EN150	Red	2	5	22,800	18,600	13,200	1 1/2	11T (5/8)



	Color	Number	Minimum	Сар	acity (I	bs.)	Oblong	Sling Hook
Part Number	Code	of Legs	Reach (ft)	60°	45°	30°	Link Dia. (in.)	Size
QOS-EN30	Purple	4	4	9,000	7,300	5,200	1	2.75T (9/32)
QOS-EN60	Green	4	4	18,300	14,900	10,600	1 1/4	4.5T (3/8)
QOS-EN90	Yellow	4	5	29,100	23,700	16,800	1 1/2	7T (1/2)
QOS-EN120	Tan	4	5	36,700	29,900	21,200	1 3/4	11T (5/8)
QOS-EN150	Red	4	5	45,700	37,300	26,400	2	11T (5/8)



## **Roundsling Hooks**

	-		
Part Number	Color	Weight (lbs)	WLL (lbs.)
RSHP	Purple	1.54	2,600
RSHG	Green	2.65	5,300
RSHY	Yellow	4.85	8,400
RSHR	Red	9.9	13,200



Round sling hooks attach quickly and easily to the round sling. No tools or special parts needed to install hook. Please request round sling hook when ordering round sling bridle if preferred by adding RSH to end of part number.

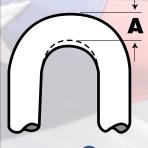


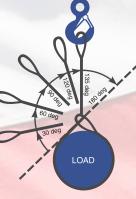
## **CHAIN SLING SAFETY INFORMATION**

	Grade 100 Heat Conditions							
Temperature exposure to chain (F)	Reduction of Working Load Limit while at Temperature	Reduction of Working Load Limit after exposure to Temperature						
Below 400°	None	None						
400°	15%	None						
500°	25%	5%						
600°	30%	15%						
700°	40%	20%						
800°	50%	25%						
900°	60%	30%						
1000°	70%	35%						
Over 1000°	Remove from Service	Remove from Service						

Chain Size (in)	Minimum Allowable Thickness - A (in)
7/32	0.189
9/32	0.239
3/8	0.342
1/2	0.443
5/8	0.546
3/4	0.687
7/8	0.75
1	0.887
1 1/4	1.091

Angle of Choke Degree	Rated Capacity %
Over 120	100
90-120	87
60-89	74
30-59	62
0-29	49





#### General Hook & Latch Guidelines Important Safety Information

- Always inspect hook & latch before using.
- Never use a latch that is distorted or bent.
- Always make sure the spring will force the latch against the tip of the hook.
- Always make sure hook supports the load.
- Do not point load hooks load should bear on the bowl of hook. The latch must NEVER support the load. (See Figure 1 & 2).
- Latches are intended to retain a loose sling or devices under slack conditions.
- Latches are not intended to be an anti-fouling device.





Fig. 2

## **CHAIN SLING REMOVAL CRITERIA**

Alloy Steel Chain Slings (ASME B30.9) - An alloy steel chain sling shall be removed from service if conditions such as the following are present:

- 1. Missing or illegible sling identification.
- 2. Cracks or breaks
- 3. Excessive wear, nicks, or gouges.
- 4. Stretched chain links or components
- 5. Bent, twisted, or deformed chain links or components.
- 6. Evidence of heat damage.
- 7. Excessive pitting or corrosion.
- 8. Lack of ability of chain or components to hinge (articulate) freely.
- 9. Weld spatter.
- 10. For hooks, removal criteria as stated in ASME B30.10
- 11. Other conditions, including visible damage, that cause doubt as to the continued use of the sling.

#### Weld Spatter



**Stretched Master Link** 



**Excessive Wear, Nicks or Gouges** 



Bent, Twisted or Deformed Hardware





## **GENERAL CHAIN SLING INFORMATION**

Chain slings are made of grade 100 alloy steel.

They have maximum abrasion and corrosion resistance.

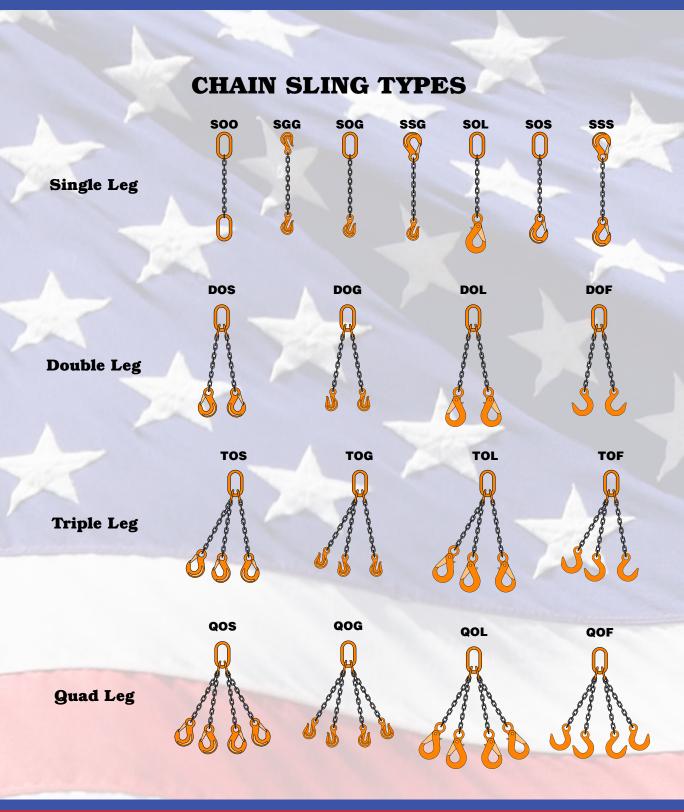
All alloy chain slings meet or exceed ASME B30.9, OSHA and NACM standards.

	GRADE 80									
Chain Size	Single Leg	D	Double Le		Triple & Quad Leg					
(in.)	90°	60°	45°	<b>30°</b>	60°	45°	<b>30°</b>			
7/32	2,100	3,600	3,000	2,100	5,500	4,400	3,200			
9/32	3,500	6,100	4,900	3,500	9,100	7,400	5,200			
3/8	7,100	12,300	10,000	7,100	18,400	15,100	10,600			
1/2	12,000	20,800	17,000	12,000	31,200	25,500	18,000			
5/8	18,100	31,300	25,600	18,100	47,000	38,400	27,100			
3/4	28,300	49,000	40,000	28,300	73,500	60,000	42,400			
7/8	34,200	59,200	48,400	34,200	88,900	72,500	51,300			
1	47,700	82,600	82,600 67,400		123,900	101,200	71,500			
1 1/4	72,300	125,200	102,200	72,300	187,800	153,400	108,400			

	GRADE 100										
Chain Size				g	Triple & Quad Leg						
(in.)	90°	60°	45°	30°	60°	45°	30°				
7/32	2,700	4,700	3,800	2,700	7,000	5,700	4,000				
9/32	4,300	7,400	6,100	4,300	11,200	9,100	6,400				
3/8	8,800	15,200	12,400	8,800	22,900	18,700	13,200				
1/2	15,000	26,000	21,200	15,000	39,000	31,800	22,500				
5/8	22,600	39,100	32,000	22,600	58,700	47,900	33,900				
3/4	35,300	61,100	49,900	35,300	91,700	74,900	53,000				
7/8	42,700	74,000	60,400	42,700	110,900	90,600	64,000				
1	59,600	103,200	84,200	59,600	154,800	126,400	89,300				

#### Chain Sling Part Number Breakdown SIZE OF CHAIN TOP FITTING REACH 7/32", 9/32", 3/8", S,0,G **Desired Distance** STYLE (IF ANY) 1/2", 5/8", 3/4", **Between Bearing Points** A=Attached Close to Coupling Link 7/8", 1", 1 1/4" B=Any Chain Length Specified (12" Chain Length is Standard) **CHAIN GRADE** NUMBER **END** 8=Grade 80 OF LEGS **FITTING** 10=Grade 100 S=Single, D=Double S,O,G,F,L,P,W T=Triple, Q=Quad







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## CHAIN SLING TYPES - MAGNET CHAIN SLINGS

Single & Double Basket Slings

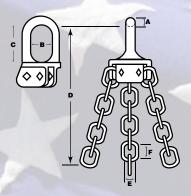


Chain Adjuster Styles



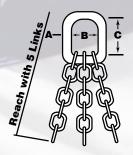


Steady Lift Magnet Chain



Part Number	Size of Chain	WLL (lbs.)	No. of Links	A (in)	B (in)	C (in)	D (in)	E (in)	F (in)	Assy. Wt. (lbs.)	Fits Magnet Diameter (in.)
537101600	1	100,000	5	2 1/4	7	12	43	3	7	235	Up to 60
537102000	1 1/4	150,000	7	2 1/2	7	12	55	3	7	375	60 and over

## Standard Magnet Slings





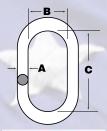




	Ci 4 WILL		5 Link		Master Link			nd Link		
Part Number	Size of Chain (in)	WLL (lbs.)	Reach (in.)	A (in)	B (in)	C (in)	A (in)	B (in)	C (in)	Fits Magnet Diameter (in.)
537301000	5/8	47,000	30 5/8	1 3/4	6	10	7/8	2 1/4	5 1/2	Up to 40
537301200	3/4	73,500	34	2	6	10	1	2 1/2	6	Up to 45
537301400	7/8	88,900	36 7/8	2 1/4	6 1/2	11 1/2	1	2 1/2	6	Up to 48
537301600	1	123,900	40	2 1/4	6 1/2	11 1/2	1 1/4	3	7	Up to 60
537302000	1 1/4	187,800	45 1/2	2 1/2	6 1/2	12 3/4	1 1/2	3	7	60 and over

## **CHAIN HARDWARE**

### Oblong Master Links (O)





	Part Number	Single Leg (in.)	Double Leg (in.)	WLL (lbs.)	A (in)	B (in)	C (in)	Weight (lbs/pc)
	AX13	9/32	7/32	6,000	0.51	2.36	4.33	0.75
	AX16W	5/16	9/32	8,600	0.63	3.15	5.51	1.47
	AX18W	3/8	5/16	12,900	0.71	3.54	5.91	2.02
	AX22	1/2	3/8	17,600	0.87	3.54	6.30	3.3
	AX26	5/8	1/2	30,000	1.02	3.94	7.09	5.06
4	AX32	3/4	5/8	39,100	1.26	4.33	7.87	8.58
	AX36	7/8	3/4	61,100	1.42	5.51	10.24	13.97
	AX45	1	7/8	74,000	1.77	7.09	13.39	28.16
	AX51	1 1/4	1	103,400	2.01	7.48	13.78	37.84

## Sub-Assemblies (O)

Part Number	Chain Size (in.)	WLL (lbs.)	A (in)	B (in)	C (in)	A1 (in)	B1 (in)	C1 (in)	Weight (lbs/pc)
AKX1813W	9/32	11,200	0.70	3.54	5.91	0.51	0.98	2.12	2.90
AXK2618	3/8	26,000	1.02	3.93	7.08	0.70	1.57	3.34	7.40
AKX3222	1/2	39,000	1.26	4.33	7.87	0.86	1.96	4.52	13.24
AKX3626	5/8	58,700	1.41	5.51	10.23	1.02	2.55	5.51	21.90
AKX5132	3/4	91,700	2.00	7.48	13.78	1.26	2.75	5.90	51.40
AKX5136	7/8	110,900	2.00	7.48	13.78	1.41	2.95	6.69	56.76
AKX5740	1	155,100	2.24	7.87	15.74	1.57	3.15	6.69	77.44





#### Grade 100 Bulk Chain



Chain Size (in.)	WLL (lbs.)	Feet Per Full Drum	Feet Per Half Drum
9/32	4,300	800	400
5/16	5,700	500	250
3/8	8,800	500	250
1/2	15,000	300	150
5/8	22,600	200	N/A
3/4	35,300	100	N/A
7/8	42,700	100	N/A
1	59,700	50	N/A



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## **CHAIN HARDWARE**

Clevis Sling Hook w/Latch (S)

	Part Number	Chain Size (in)	WLL (lbs)	Reach (in)	Throat Opening w/Latch (in)	Weight (lbs/pc)
	CBX06SF	7/32	3,000	2.71	0.74	0.55
	CBX07SF	9/32	4,300	3.74	1.02	1.1
	CBX10SF	3/8	8,800	4.33	1.22	2.21
	CBX13SF	1/2	15,000	5.35	1.57	3.75
	CBX16SF	5/8	22,600	6.10	1.77	7.06
١	CBX20SF	3/4	35,300	7.28	2.09	11.03
	CBX22SF	7/8	42,700	8.27	2.44	27.12



### Eye Sling Hook w/Latch (S)

Part Number	Chain Size (in)	WLL (lbs)	Reach (in)	Throat Opening w/Latch (in)	Weight (lbs/pc)
CAX06SF	7/32	3,000	3.18	0.74	0.55
CAX08SF	9/32 - 5/16	5,700	3.97	1.02	1.1
CAX10SF	3/8	8,800	5.15	1.22	2.14
CAX13SF	1/2	15,000	6.26	1.57	4.19
CAX16SF	5/8	22,600	7.20	1.77	7.28
CAX20SF	3/4	35,300	7.99	2.08	9.92
CAX22SF	7/8	42,700	8.81	2.44	15.66
CAX26SF	1	59,700	10.11	2.87	26.46

#### **Safety Latch Kits**

Part Number	Chain Size (in)	Use with part #'s
CKSX06	7/32	CBX06SFX, CAX06SF
CKSX08	9/32	CBX07SFX, CAX08SF
CKSX10	3/8	CBX10SFX, CAX10SF
CKSX13	1/2	CBX13SFX, CAX13SF
CKSX16	5/8	CBX16SFX, CAX16SF
CKSX20	3/4	CBX20SFX, CAX20SF
CKSX22	7/8	CBX22SFX, CAX22SF
CKSX26	1	CAX26SF



## Eye & Clevis Foundry Hook (F)



Eye Type Part Number	Clevis Type Part Number	Chain Size (in)	WLL (lbs)	Reach (in)	Throat∖ Opening (in)	Weight (lbs/pc)
CYX08	CYFX07	9/32	4,300	3.58	2.52	2.43
CYX10	CYFX10	3/8	8,800	5.16	2.99	3.75
CYX13	CYFX13	1/2	15,000	5.83	3.50	7.94
CYX16	CYFX16	5/8	22,600	7.81	3.98	12.35
CYX20	N/A	3/4	35,300	10.23	4.48	16.76

## **CHAIN HARDWARE**

## Coupling Link Particle



Part Number	Chain Size (in)	WLL (lbs)	Reach (in)	Weight (lbs/pc)
CLX06	7/32	3,000	1.77	0.15
CLX07	9/32	4,300	1.98	0.31
CLX10	3/8	8,800	2.83	0.77
CLX13	1/2	15,000	3.44	1.63
CLX16	5/8	22,600	4.13	2.56
CLX20	3/4	35,300	4.45	5.51
CLX22	7/8	42,700	5.23	6.84
CLX26	1	59,700	7.55	14.99

Cradle Clevis Grab Hook (G)

	art nber	Chain Size (in)	WLL (lbs)	Reach (in)	Throat Opening (in)	Weight (lbs/pc)	
CF	X06	7/32	3,000	2.03	0.31	0.44	
CF	X07	9/32	4,300	2.62	0.39	0.97	
CF	X10	3/8	8,800	3.14	0.51	2.12	
CF	X13	1/2	15,000	4.15	0.66	4.63	
CF	X16	5/8	22,600	4.40	0.74	7.5	
CF	X20	3/4	35,300	4.64	0.92	11.47	
CF	X22	7/8	42,700	6.06	1.02	17.2	



Cradle Eye Grab Hook (G)



Part Number	Chain Size (in)	WLL (lbs)	Reach (in)	Throat Opening (in.)	Weight (lbs/pc)
CDX06	7/32	3,000	2.11	0.31	0.4
CDX08	9/32 - 5/16	5,700	2.76	0.39	0.88
CDX10	3/8	8,800	3.40	0.51	1.94
CDX13	1/2	15,000	4.35	0.66	4.3
CDX16	5/8	22,600	5.07	0.74	7.06
CDX20	3/4	35,300	6.02	0.92	10.8
CDX22	7/8	42,700	7.24	1.02	16.54
CDX26	1	59,700	8.38	1.2	28.66

Cradle Eye Grab Shortening Hook w/Clevis Attachment (A)

Part Number	Chain Size (in)	WLL (lbs)	Reach (in)	Weight (lbs/pc)
CDFX06	7/32	3,000	3.48	0.60
CDFX07	9/32-5/16	4,300	4.60	1.35
CDFX10	3/8	8,800	5.82	2.69
CDFX13	1/2	15,000	7.28	5.62
CDFX16	5/8	22,600	9.13	10.80





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# **CHAIN HARDWARE**

Clevis Self Locking Hook (L)



Part Number	Chain Size (in.)	WLL (lbs.)	Reach (in.)	Throat w/Latch Open (in.)	Weight (lbs/pc)
CRFX06	7/32	3,000	3.70	1.10	1.1
CRFX07	9/32	4,300	4.84	1.33	2.09
CRFX10	3/8	8,800	5.63	1.77	3.53
CRFX13	1/2	15,000	7.08	2.00	7.06
CRFX16	5/8	22,600	8.46	2.36	13.23
CRFX20	3/4	35,300	9.96	2.75	21.61
CRFX22	7/8	42,700	11.29	3.22	31.75

Eye Self Locking Hook (L)

				_	
Part Number	Chain Size (in.)	WLL (lbs.)	Reach (in.)	Throat w/Latch Open (in.)	Weight (lbs/pc)
CROX06	7/32	3,000	4.29	1.10	1.1
CROX08	9/32	4,300	5.31	1.33	2.12
CROX10	3/8	8,800	6.61	1.77	3.64
CROX13	1/2	15,000	8.07	2.00	7.17
CROX16	5/8	22,600	9.88	2.36	13.45
CROX20	3/4	35,300	11.41	2.75	21.61
CROX22	7/8	42,700	12.67	3.15	31.75



Swivel Self Locking Hook (W)



Ξ	(11)								
	Part Number	Chain Size (in.)	WLL (lbs.)	Reach (in.)	Throat w/Latch Open (in.)	Weight (lbs/pc)			
	CRGX06	7/32	3,000	6.22	1.10	1.32			
	CRGX08	9/32	5,700	7.16	1.33	2.43			
	CRGX10	3/8	8,800	8.54	1.77	4.41			
	CRGX13	1/2	15,000	10.66	2.12	8.82			
	CRGX16	5/8	22,600	12.59	2.44	14.99			

Plate Hook (P)

Part Number	Chain Size (in.)	WLL (lbs.)	Weight (lbs/pc)
PHA028	9/32	4,200	2.80
PHA038	3/8	7,400	5.70
PHA050	1/2	13,000	13.00
PHA063	5/8	20,400	26.50
PHA075	3/4	30,000	42.00
PHA088	7/8	40,000	65.00



# WIRE ROPE SLING REMOVAL CRITERIA

Wire Rope Slings (ASME B30.9) - A wire rope sling shall be removed from service if conditions such as the following are present:

- 1. Missing or illegible sling identification.
- 2. Broken Wires:
  - For strand-laid and single-part slings, ten randomly distributed broken wires in one rope lay, or five broken wires in one stand in one rope lay.
  - For cable-laid slings, 20 broken wires per lay.
  - For six-part braided slings, 20 broken wires per braid
  - For eight-part braided slings, 40 broken wires per braid.
- 3. Severe localized abrasion or scraping.
- 4. Kinking, crushing, bird caging, or any other damage resulting in damage to the rope structure.
- 5. Evidence of heat damage.
- 6. End attachments that are cracked, deformed, or worn to the extent that the strength of the sling is substantially affected.
- 7. Severe corrosion of the rope, end attachments, or fittings.
- 8. For hooks, removal criteria at stated in ASME B30.10.
- 9. Other conditions, including visible damage, that cause doubt as to the continued use of the sling.

### **Abrasion or Scraping**



**Stretched Master Link** 



**Kinking or Crushing** 



Bent, Twisted or Deformed Hardware





# WIRE ROPE SLINGS

Wire rope slings are rugged and reliable with Flemish eye splice and carbon steel sleeves that offer safety for your lift application. Thimbles greatly improve sling longevity by protecting the rope at connection points. All wire rope slings meet or exceed ASME B30.9 and OSHA standards.

Wire Rope Sling Part Number Breakdown

ROPE DIAMETER W1/4, W5/16, W3/8, W1/2 W5/8,W3/4, W7/8, W1

TYPE OF SLING EE, TT, EH, TH SOS, DOS, TOS, QOS

### ROPE CONSTRUCTION

619=6x19 IWRC 637=6x37 IWRC LENGTH

Any length desired for the application.

NOTE: Include a D at end of number for domestic rope.





Eye & Eye (EE)

Eye & Hook (EH)



### Single Leg Wire Rope Sling Capacity Chart

				EIPS IWRC F	Rated Capa	city (tons)	
Wire Rope Class	Rope Dia. (in.)	Eye Size (in.)	Min. Sling Length (ft.)	Vertical	Choker	V. Basket	Hook (tons)
	1/4	2 x 4	1'-6"	0.65	0.48	1.3	1
	5/16	2-1/2 x 5	2'-0"	1	0.75	2	1
	3/8	3 x 6	2'-0"	1.4	1.1	2.9	2
6x19	1/2	4 x 8	2'-6"	2.5	1.9	5.1	3
EIPS IWRC	5/8	5 x 10	3'-0"	3.9	2.9	7.8	4.5
	3/4	6 x 12	3'-6"	5.6	4.1	11	7
	7/8	7 x 14	4'-0"	7.6	5.6	15	7.5
	1	8 x 16	4'-6"	9.8	7.2	20	10

# WIRE ROPE BRIDLE SLINGS

Wire rope bridle slings provide better load control and balance while allowing easier rigging when hooking into fixed lifting points. Wire rope bridle slings are measured by the leg length.



### **Double Leg Wire Rope Sling Capacity Chart**

Rope Minimum Leg		Rate	d Capacity in		Hook	
Dia (in)	Length	60 deg	00 deg 45 deg 30 deg		Oblong Link Size (in)	(tons)
1/4	1'-3"	1.1	0.9	0.7	1/2	1
3/8	1'-8"	2.5	2.0	1.4	1/2	2
1/2	2'-0"	4.4	3.6	2.5	3/4	3
5/8	2'-4"	6.8	5.5	3.9	1	4.5
3/4	2'-9"	9.7	7.9	5.6	1 1/4	7
7/8	3'-3"	13.0	11.0	7.6	1 1/4	7.5
1	3'-6"	17.0	14.0	9.8	1 1/2	10

### **Triple Leg Wire Rope Sling Capacity Chart**

Rope	Minimum Leg	Rate	d Capacity in	Tons	Oblong Link Size (in)	Hook	
Dia (in)	Length	60 deg	45 deg	30 deg	Oblong Link Size (in)	(tons)	
1/4	1'-3"	1.7	1.4	1.0	1/2	1	
3/8	1'-8"	3.7	3.0	2.2	3/4	2	
1/2	2'-0"	6.6	5.4	3.8	1	3	
5/8	2'-4"	10.0	8.3	5.9	1 1/4	4.5	
3/4	2'-9"	15.0	12.0	8.4	1 1/2	7	
7/8	3'-3"	20.0	16.0	11.0	1 1/2	7.5	
1	3'-6"	26.0	21.0	15.0	1 3/4	10	

# **Quad Leg Wire Rope Sling Capacity Chart**

Rope	Minimum Leg	Rate	d Capacity in	Tons	Oblong Link Size (in)	Hook
Dia (in)	Length	60 deg	45 deg	30 deg	Oblong Link Size (in)	(tons)
3/8	1'-8"	5.0	4.1	2.9	3/4	2
1/2	2'-0"	8.8	7.1	5.1	1	3
5/8	2'-4"	14.0	11.0	7.8	1 1/4	4.5
3/4	2'-9"	19.0	16.0	11.0	1 1/2	7
7/8	3'-3"	26.0	21.0	15.0	1 3/4	7.5
1	3'-6"	34.0	28.0	20.0	2	10



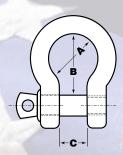
# **ANCHOR SHACKLES**

- Meet or Exceed FED SPEC RR-C-271 Hot Dip Galvanized to ASTM A153
- Meet ASME B30.26 Requirements
- Proof Load at 2 times the Working Load Limit
- Forged Carbon or Alloy Steel Body
- Ultimate Load at 6 times the Working Load Limit

### **Screw Pin Anchor Shackles**

Ideal for applications where frequent pin removal is needed. Forged, Quenched and Tempered Galvanized Alloy Steel Body and Pins.



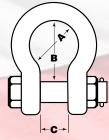


Part Number	Size (in.)	WLL (ton)	Pin Diameter (in.)	A (in)	B (in)	C (in)
SPAA250	1/4	3/4	5/16	3/4	1 1/8	7/16
SPAA312	5/16	1	3/8	13/16	1 1/4	1/2
SPAA375	3/8	2	7/16	15/16	1 9/16	5/8
SPAA500	1/2	3 1/3	5/8	1 3/16	1 7/8	13/16
SPAA625	5/8	5	3/4	1 1/2	2 7/16	1 1/16
SPAA750	3/4	7	7/8	1 3/4	2 7/8	1 1/4
SPAA875	7/8	9 1/2	1	2	3 5/16	1 1/2
SPAA100	1	12 1/2	1 1/8	2 5/16	3 3/4	1 11/16
SPAA1250	1 1/4	18	1 3/8	2 7/8	4 11/16	2 3/16
SPAA1500	1 1/2	30	1 5/8	3 3/8	5 3/4	2 3/8
SPAA1750	1 3/4	40	2	4 1/2	7	2 7/8
SPAA200	2	50	2 1/4	5 1/4	7 3/4	3 1/4

### **Safety Pin Anchor Shackles**

Complete with bolt, nut and cotter pin; Overhead lifting applications where pin removal is minimal. Forged, Quenched and Tempered Galvanized Carbon Steel Body and Alloy Pins.





Part Number	Size (in.)	WLL (tons)	Pin Diameter (in.)	A (in)	B (in)	C (in)
SAS250	1/4	1/2	5/16	3/4	1 1/8	7/16
SAS312	5/16	3/4	3/8	13/16	1 1/4	1/2
SAS375	3/8	1	7/16	15/16	1 7/16	5/8
SAS500	1/2	2	5/8	1 3/16	1 7/8	13/16
SAS625	5/8	3 1/4	3/4	1 1/2	2 7/16	1 1/16
SAS750	3/4	4 3/4	7/8	1 3/4	2 7/8	1 1/4
SAS875	7/8	6 1/2	1	2	3 5/16	1 7/16
SAS100	1	8 1/2	1 1/8	2 5/16	3 3/4	1 11/16
SAS1250	1 1/4	12	1 3/8	2 7/8	4 11/16	2 3/16
SAS1500	1 1/2	17	1 5/8	3 3/8	5 3/4	2 3/8
SAS1750	1 3/4	25	2	4 1/2	7	2 7/8
SAS200	2	35	2 1/4	5 1/4	7 3/4	3 1/4

# CARGO SECUREMENT SAFETY INFORMATION RECOMMENDED OPERATING PRACTICES FOR TIE-DOWNS

- Select a synthetic web tie-down having suitable characteristics for the type of load, environment and attachment to vehicle anchor point. Fittings shall have the required shape and size to attach properly to the vehicle anchor points.
- Identify the working load limit (WLL) marked on the synthetic web tie-down by the manufacturer. If the required markings are illegible or missing, remove from service. Read all warnings and/or instructions provided by the manufacturer.
- Identify the working load limit (WLL) of the vehicle anchor points. If no rating is visible contact the vehicle manufacturer for tie-down instructions. The lesser-rated working load limit (WLL), whether that is the anchor point or the synthetic web tie-down, shall determine the working load limit (WLL) of the securement system.
- Synthetic web tie-downs shall be attached to the vehicle and positioned in accordance with applicable regulations for the commodity being transported to prevent against shifting and/or loss of cargo.
- Synthetic web tie-downs should not be dropped or dragged on the floor, ground or any abrasive surface.
- Synthetic web tie-downs shall not be shortened, joined, repaired or lengthened by being tied into knots.
- Synthetic web tie-downs should not be pulled from under cargo when the cargo is resting on the tie-down.
- Synthetic web tie-downs shall always be protected from corners, edges, protrusions, and abrasive surfaces with edge protection that resists abrasion, cutting or crushing.
- Synthetic web tie-downs designed to secure cargo shall not be used for lifting, lowering or suspending cargo or for towing.
- Before operating any synthetic web tie-down assembly the user shall secure his footing to prevent slipping or falling. In adverse weather conditions, including freezing temperatures, additional weather conditions, including freezing temperatures, additional caution should be exercised.
- When using winch or ratchet straps a minimum of two (2) and a maximum of four (4) wraps of webbing shall be on the winch or ratchet mandrel. Excessive wraps of webbing on the mandrel may reduce the working load limit (WLL) of the synthetic web tie-down and may interfere with proper operation.
- Synthetic web tie-downs shall be used, inspected and adjusted during the transportation of cargo per applicable federal, state, provincial, local and industry regulations.

### ADDITIONAL TIEDOWNS REQUIRED

Additional tie-downs may be required based on the specific vehicle, cargo, tie-downs, and securement configuration involved. The individual securing the load ultimately takes responsibility for proper cargo securement.

If the cargo is prevented from moving forward by a headerboard, bulkhead, other secured cargo, or other appropriate blocking devices, then you must use at least one tie-down for every 10 feet of cargo or part thereof.

If forward movement is NOT prevented, then you must use at least the following number of tie-downs, based on 49 CFR §393.110(b);

IF THE ARTICLE IS	USE AT LEAST
5 Feet or Shorter and 1,100 Pounds or Lighter	1 Tiedown
5 Feet or Shorter and Over 1,100 Pounds	2 Tiedowns
Longer than 5 Feet but less than or equal to 10 Feet No Matter the Weight	2 Tiedowns
Longer than 10 Feet	2 Tiedowns, plus 1 additional for every additional 10 feet or part thereof



# CARGO SECUREMENT REMOVAL CRITERIA

The entire tie down must be inspected before each use and it shall be removed from service if ANY of the following are detected:

- If tie down identification tag is missing or not readable.
- Holes, tears, cuts, snags or embedded materials.
- Broken or worn stitches in the load bearing splices.
- Knots in any part of the webbing.
- Acid or alkali burns.
- Melting, charring or weld spatters on any part of the webbing.
- Excessive abrasive wear or crushed webbing.
- Signs of ultraviolet (UV) light degradation.
- Distortion, excessive pitting, corrosion or other damage to buckles or end fitting(s).
- Any conditions which cause doubt as to the strength of the tie down.



# 1 & 2 INCH RATCHET STRAPS

Ratchet Straps are easy to use and quickly tighten to the contour of the load. Our ratchet straps are fabricated with high strength polyester webbing that has been treated for abrasion resistance. All ratchet straps are labeled to meet CVSA guidelines, CHP standards, DOT regulations and WSTDA recommended standards.



### 1 Inch Ratchet Straps

Part Number	Strap Length	Buckle Style	End Fittings	Working Load Limit (lbs.)			
R2706SH	6'	Ratchet	Coated S-Hook	800			
R2710SH	10'	Ratchet	Coated S-Hook	800			
R2715SH	15'	Ratchet	Coated S-Hook	800			
R2706WH	6'	Ratchet	Coated Wire Hook	800			
R2710WH	10'	Ratchet	Coated Wire Hook	800			
R2715WH	15'	Ratchet	Coated Wire Hook	800			
CB506SH	6'	Cam	Coated S-Hook	500			
CB510SH	10'	Cam	Coated S-Hook	500			
CB515SH	15'	Cam	Coated S-Hook	500			
CB506WH	6'	Cam	Coated Wire Hook	500			
CB510WH	10'	Cam	Coated Wire Hook	500			
CB515WH	15'	Cam	Coated Wire Hook	500			

### 2 Inch Ratchet Straps

Part Number	Strap Length	Buckle Style	End Fittings	Working Load Limit (lbs.)
R5027FH	27'	Long Wide Ratchet	Flat Hook	3,335
R5030FH	30'	Long Wide Ratchet	Flat Hook	3,335
R5027WH	27'	Long Wide Ratchet	Wire Hook	3,335
R5030WH	30'	Long Wide Ratchet	Wire Hook	3,335
R5027CE	27'	Long Wide Ratchet	18" Chain Extension	3,335
R5030CE	30'	Long Wide Ratchet	18" Chain Extension	3,335
R5027FSH	27'	Long Wide Ratchet	Flat Snap Hook	3,335
R5030FSH	30'	Long Wide Ratchet	Flat Snap Hook	3,335
R5027TSH	27'	Long Wide Ratchet	Twisted Snap Hook	3,335
R5030TSH	30'	Long Wide Ratchet	Twisted Snap Hook	3,335
R5027DR	27'	Long Wide Ratchet	Stamped D-Ring	3,335
R5030DR	30'	Long Wide Ratchet	Stamped D-Ring	3,335

### Self Contained Ratchet Straps

Son Consumor Husbird Straps						
Part Number	Web Width	Strap Length	End Fittings	Working Load Limit (lbs.)		
SCR2706SH	1"	6'	Coated S-Hook	800		
SCR2715SH	1"	15'	Coated S-Hook	800		
SCR5027FH	2"	27'	Flat Hook	3,335		
SCR5030FH	2"	30'	Flat Hook	3,335		
SCR5027WH	2"	27'	Wire Hook	3,335		
SCR5030WH	2"	30'	Wire Hook	3,335		
SCR5027CE	2"	27'	Chain Extension	3,335		
SCR5030CE	2"	30'	Chain Extension	3,335		



### **Motorcycle Tiedowns**



Part Number	Description	Working Load Limit (lbs.)
R2706SH-MS	1" X 6' Motorcycle Ratchet Strap w/ 12" Extension Soft Loop from S-Hook; 9" fixed end length	800
CB506SH-MS	1" X 6' Motorcycle Cam Buckle Strap w/ 12" Extension Soft Loop from S-Hook; 9" fixed end length	500
MST118	1" X 18" Soft Loop	1,000



# 3 & 4 INCH RATCHET STRAPS

### 3 Inch Ratchet Straps

### **4 Inch Ratchet Straps**

Part Number	Strap Length	Buckle Style	End Fittings	Working Load Limit (lbs.)	
R7527FH	27'	Long Handle Ratchet	Flat Hook	5,400	
R7530FH	30'	Long Handle Ratchet	Flat Hook	5,400	
R7527WH	27'	Long Handle Ratchet	Wire Hook	5,400	
R7530WH	30'	Long Handle Ratchet	Wire Hook	5,400	
R7527CE	27'	Long Handle Ratchet	18" Chain Extension	5,400	
R7530CE	30'	Long Handle Ratchet	18" Chain Extension	5,400	
R7527DR	27'	Long Handle Ratchet	Forged D-Ring	5,400	
R7530DR	30'	Long Handle Ratchet	Forged D-Ring	5,400	

Part Number	Strap Length	Buckle Style	End Fittings	Working Load Limit (lbs.)
R10027FH	27'	Long Handle Ratchet	Flat Hook	5,400
R10030FH	30'	Long Handle Ratchet	Flat Hook	5,400
R10027WH	27'	Long Handle Ratchet	Wire Hook	6,600
R10030WH	30'	Long Handle Ratchet	Wire Hook	6,600
R10027CE	27'	Long Handle Ratchet	18" Chain Extension	5,400
R10030CE	30'	Long Handle Ratchet	18" Chain Extension	5,400
R10027DR	27'	Long Handle Ratchet	Forged D-Ring	5,400
R10030DR	30'	Long Handle Ratchet	Forged D-Ring	5,400

### **Ordering Notes**



When ordering 1" straps, a 9" fixed end is standard. Standard webbing color is Black; other colors including Blue and Camo are available.

When ordering 2", 3", or 4" straps, an 18" fixed end is standard, except the chain extension straps which have a 33" fixed end. Standard webbing color is a highly visible yellow webbing. All our 2", 3" and 4" tie-down straps are made of polyester webbing with special edge yarns that provide superb resistance to wear for longer assembly life.

All American Industrial working load limits are based on 1/3 of the assembly breaking strength. All ratings are based on a straight tensile pull.

# **▲ WARNING**

U.S. Department of Transportation regulations, 49 CFR, Part 393, Paragraph 393.102(b) requires that: "The aggregate working load limit of the tie down assemblies used to secure an article against movement in any direction must be at least 1/2 times the weight of that article."

# **WINCH STRAPS**

				WINCI
Part Number	Web Width	Strap Length	End Fitting	Working Load Limit (lbs.)
WS227FH	2"	27'	Flat Hook	3,335
WS230FH	2"	30'	Flat Hook	3,335
WS227WH	2"	27'	Wire Hook	3,335
WS230WH	2"	30'	Wire Hook	3,335
WS227CE	2"	27'	18" Chain Extension	3,335
WS230CE	2"	30'	18" Chain Extension	3,335
WS227DR	2"	27'	Stamped D-Ring	3,335
WS230DR	2"	30'	Stamped D-Ring	3,335
WS327FH	3"	27'	Flat Hook	5,400
WS330FH	3"	30'	Flat Hook	5,400
WS327WH	3"	27'	Wire Hook	5,400
WS330WH	3"	30'	Wire Hook	5,400
WS327CE	3"	27'	18" Chain Extension	5,400
WS330CE	3"	30'	18" Chain Extension	5,400
WS327DR	3"	27'	Stamped D-Ring	5,400
WS330DR	3"	30'	Stamped D-Ring	5,400
WS327	3"	27'	For winch to winch	5,400
WS330	3"	30'	For winch to winch	5,400
WS427FH	4"	27'	Flat Hook	5,400
WS430FH	4"	30'	Flat Hook	5,400
WS427WH	4"	27'	Wire Hook	6,600
WS430WH	4"	30'	Wire Hook	6,600
WS427CE	4"	27'	18" Chain Extension	5,400
WS430CE	4"	30'	18" Chain Extension	5,400
WS427DR	4"	27'	Stamped D-Ring	5,400
WS430DR	4"	30'	Stamped D-Ring	5,400
WS427	4"	27'	For winch to winch	5,400
WS430	4"	30'	For winch to winch	5,400

Winch straps provide the strength and durability demanded in flatbed tiedown applications. All winch straps are labeled to meet CVSA guidelines, CHP standards, DOT regulations and WSTDA recommended standards.



### **MARNING**

U.S. Department of Transportation regulations, 49 CFR, Part 393, Paragraph 393.102(b) requires that: "The aggregate working load limit of the tie down assemblies used to secure an article against movement in any direction must be at least 1/2 times the weight of that article."



# **E-SERIES LOGISTIC STRAPS & HARDWARE**

Logistic straps are designed for use in interior van loading requirements.

All standard logistic straps have a 4' fixed end and adjustable ends are sewn captivated.

Logistic strap webbing is color coded to length: 12 ft = Yellow, 16 ft = grey, 20 ft = Blue.

Part Number	Web Width (in)	Strap Length (ft)	Buckle Style	End Fittings	Working Load Limit (lbs.)
R5312SEF	2	12	Interior Ratchet	Spring E-Fitting	1,466
R5316SEF	2	16	Interior Ratchet	Spring E-Fitting	1,466
R5320SEF	2	20	Interior Ratchet	Spring E-Fitting	1,466
CB312SEF	2	12	Cam	Spring E-Fitting	800
CB316SEF	2	16	Cam	Spring E-Fitting	800
CB320SEF	2	20	Cam	Spring E-Fitting	800







Part Number	art Number Description	
RTO-6	6" Rope Tie-Off w/ spring e-fitting & d-ring	4,400
EFR-2	EFR-2 E-track fitting w/ 2" Round Ring	
HET-5P 5 foot section of 12 gauge steel horiz e-track (painted)		
WBES Wood beam end socket		
SEF1017 1 pc spring e-fitting		4,400







# **AUTO TRANSIT & AXLE STRAPS**



Car hauler wheel straps go over the tire and utilize three cleated rubber blocks that mesh with the tread to keep the strap centered and secured. Auto transit ratchet straps are used in combination with our Axle straps and provide your vehicle security on the road.

Axle Straps are designed to wrap around a car's rear axle, chassis or other attachment point and provide you a quick and easy anchoring point for keeping your car secure.

Part Number	Description	Web Width (in)	Strap Length (ft)	Buckle Style	End Fittings	Working Load Limit (lbs.)	
R5406FSH	Auto Transit	2	6	Short Handle Ratchet	Flat Snap Hooks	3,335	
R5408FSH	Auto Transit	2	8	Short Handle Ratchet	Flat Snap Hooks	3,335	
R5406TSH	Auto Transit	2	6	Short Handle Ratchet	Twisted Snap Hooks	3,335	
R5408TSH	Auto Transit	2	8	Short Handle Ratchet	Twisted Snap Hooks	3,335	
AXLE 2	2' Axle Strap w/ cordura wear pad	2	2	N/A	Stamped D-Rings	3,335	
AXLE 3	3' Axle Strap w/ cordura wear pad	2	3	N/A	Stamped D-Rings	3,335	
AT-SJ100X10	Car Hauler Wheel Strap w/ (3) rubber blocks captivated, (1) swivel j-hook	2	10	N/A	Swivel J-Hook	3,335	
AT-SJ100X12	Car Hauler Wheel Strap w/ (3) rubber blocks captivated, (1) swivel j-hook	2	12	N/A	Swivel J-Hook	3,335	
AT-SJ100X14	Car Hauler Wheel Strap w/ (3) rubber blocks captivated, (1) swivel j-hook	2	14	N/A	Swivel J-Hook	3,335	
AT-SJ200X10	Car Hauler Wheel Strap w/ (3) rubber blocks captivated, (1) fixed swivel hook, (1) floating	2	10	N/A	Swivel J-Hook	3,335	
AT-SJ200X12	Car Hauler Wheel Strap w/ (3) rubber blocks captivated, (1) fixed swivel hook, (1) floating	2	12	N/A	Swivel J-Hook	3,335	
AT-SJ200X14	Car Hauler Wheel Strap w/ (3) rubber blocks captivated, (1) fixed swivel hook, (1) floating	2	14	N/A	Swivel J-Hook	3,335	
AT-WH100X10	Car Hauler Wheel Strap w/ (3) rubber blocks captivated, (1) wire hook	2	10	N/A	Wire Hook	3,335	
AT-WH100X12	Car Hauler Wheel Strap w/ (3) rubber blocks captivated, (1) wire hook	2	12	N/A	Wire Hook	3,335	
AT-WH100X14	Car Hauler Wheel Strap w/ (3) rubber blocks captivated, (1) wire hook	2	14	N/A	Wire Hook	3,335	
AT-WH200X10	Car Hauler Wheel Strap w/ (3) rubber blocks captivated, (1) fixed wire hook, (1) floating	2	10	N/A	Wire Hook	3,335	
AT-WH200X12	Car Hauler Wheel Strap w/ (3) rubber blocks captivated, (1) fixed wire hook, (1) floating	2	12	N/A	Wire Hook	3,335	
AT-WH200X14	Car Hauler Wheel Strap w/ (3) rubber blocks captivated, (1) fixed wire hook, (1) floating	2	14	N/A	Wire Hook	3,335	
R50-AT- SJ300X10	Car Hauler Ratchet Strap w/ (3) rubber blocks captivated, (2) fixed swivel hooks, (1) floating, R50 ratchet, 9" fixed end	2	10	Long Wide Handle Ratchet	Swivel J-Hook	3,335	
R50-AT- SJ300X12	Car Hauler Ratchet Strap w/ (3) rubber blocks captivated, (2) fixed swivel hooks, (1) floating, R50 ratchet, 9" fixed end	2	12	Long Wide Handle Ratchet	Swivel J-Hook	3,335	
R50-AT- SJ300X14	Car Hauler Ratchet Strap w/ (3) rubber blocks captivated, (2) fixed swivel hooks, (1) floating, R50 ratchet, 9" fixed end	2	14	Long Wide Handle Ratchet	Swivel J-Hook	3,335	
R50-AT- WH300X10	Car Hauler Ratchet Strap w/ (3) rubber blocks captivated, (2) fixed wire hooks, (1) floating, R50 ratchet, 9" fixed end	2	10	Long Wide Handle Ratchet	Wire Hook	3,335	
R50-AT- WH300X12	Car Hauler Ratchet Strap w/ (3) rubber blocks captivated, (2) fixed wire hooks, (1) floating, R50 ratchet, 9" fixed end	2	12	Long Wide Handle Ratchet	Wire Hook	3,335	
R50-AT- WH300X14	Car Hauler Ratchet Strap w/ (3) rubber blocks captivated, (2) fixed wire hooks, (1) floating, R50 ratchet, 9" fixed end	2	14	Long Wide Handle Ratchet	Wire Hook	3,335	



# INDUSTRIAL

# TIE DOWN HARDWARE





	1 INCH TIE DOWN HARDWARE							
	Part Number	Break Strength (lbs.)						
	SH250P	Coated S-Hook	2,400					
	SH253P	Light Duty Coated S-Hook	1,500					
5	CB5	Standard Cam Buckle	1,500					
J	CB6	Light Duty Cam Buckle	550					
4	SCR27	Self Contained Wide Handle Ratchet	4,400					
	R27	Wide Handle Ratchet	3,300					

2 INCH TIE DOWN HAR Description	DWARE Break Strength (lbs.)
-	Break Strength (lbs.)
E1.1111	
Flat Hook	11,000
Flat Snap Hook	11,000
Twisted Snap Hook	11,000
18" Chain Extension	16,200
Grab Hook w/ Pear Link	16,200
Wire Hook	6,600
Wire Hook (3 3/8" ovr)	11,000
Wire Hook (4 3/8" ovr)	11,000
Swivel J-Hook	11,000
Rubber Block	N/A
Web Adjuster	10,000
Stamped D-Ring	10,000
Cluster Hook	11,000
Cam Buckle	2,420
If Contained Wide Handle Ratchet	11,000
Long Wide Handle Ratchet	11,000
Wide Handle Ratchet	11,000
de Handle Ratchet w/ Swivel Hook	11,000
Interior Wide Handle Ratchet	4,400
Short Standard Handle Ratchet	11,000
	Twisted Snap Hook  18" Chain Extension  Grab Hook w/ Pear Link  Wire Hook  Wire Hook (3 3/8" ovr)  Wire Hook (4 3/8" ovr)  Swivel J-Hook  Rubber Block  Web Adjuster  Stamped D-Ring  Cluster Hook  Cam Buckle  f Contained Wide Handle Ratchet  Long Wide Handle Ratchet  Wide Handle Ratchet  de Handle Ratchet w/ Swivel Hook  Interior Wide Handle Ratchet



# **TIE DOWN HARDWARE**



3 Inch Hardware				
Part Number	Description	Break Strength (lbs.)		
FH-043	Flat Hook	17,600		
WH-075	Wire Hook	22,000		
3-CE18-DR	18" Chain Extension	16,200		
DR3	Forged Delta Ring	18,000		
R75	Long Handle Ratchet	22,000		









4 Inch Hardware							
Part Number	Description	Break Strength (lbs.)					
FH-043	Flat Hook	17,600					
WH-076	Wire Hook	22,000					
4-CE18-DR	18" Chain Extension	16,200					
DR4	Forged Delta Ring	20,000					
R100	Long Handle Ratchet	22,000					





# **FLATBED ACCESSORIES**

We offer a variety of Flatbed accessories including: plastic & steel corner protectors, coil racks, coil eye protectors, rubber tarp ties, anti-slip mats and more.











Part Number	Description
HJ-105	4" x 4" Steel corner protector for chain
PCP-25	4" Plastic corner protector
PCP-48	4 Foot section of heavy duty plastic corner protector
CR-26	Heavy duty coil rack 3" wide x 34" Ovr. Length
CC1419	Coil eye edge protector - High impact strength plastic (sold in pairs) Fits coil I.D. of 14" to 19"
CC1926	Coil eye edge protector - High impact strength plastic (sold in pairs) Fits coil I.D. of 19" to 26"
ASFM	Anti-Slip Friction Rubber Black Mat - 2mm thick 12" wide X 60" length is standard (custom sizes available)
RTS-9	9" Rubber Tarp Ties EPDM construction.
RTS-15	15" Rubber Tarp Ties EPDM construction.
RTS-21	21' Rubber Tarp Ties EPDM construction.
RTS-31	31" Rubber Tarp Ties EPDM construction.
RTS-41	41" Rubber Tarp Ties EPDM construction.

### Winch & Winch Bars

Winches provide a method for securing cargo on flatbed trailers and other vehicles. All winches are designed to meet DOT regulations, WSTDA standards and Canadian 905 regulations. Winch bars feature a knurled non-slip handle and a tapered head for easy operation.

Part Number	Description
TW410	Standard weld on winch 5,500 LB WLL
TW411	Standard portable winch 5,500 LB WLL
SCWB	35 inch Standard chrome winch bar
7001-24	24" Tie Down Bar For Car Hauler
7001-28	28" Tie Down Bar For Car Hauler
7001-34	34" Tie Down Bar For Car Hauler
7001-39	39" Tie Down Bar For Car Hauler



# **G70 TRANSPORT CHAIN**

Versatile and quality made chain assemblies offer heavy duty transport securement. All our grade 70 transport chain meets or exceeds National Association of Chain Manufactures (NACM) standards. G70 transport chain is also available in bulk drums.

DOMESTIC								
Part Number	Description	WLL (lbs.)	Weight (lbs/pc)					
5261163	5/16" x 16'	4700	17					
5261363	5/16" x 20'	4700	21					
5261463	5/16" x 25'	4700	26					
5262163	3/8" x 16'	6600	24					
5262363	3/8" x 20'	6600	30					
5262463	3/8" x 25'	6600	37					
8605182	1/2" x 20'	11,300	51					

IMPORT								
Part Number	Description	WLL (lbs.)	Weight (lbs/pc)					
LB032-16	5/16" x 16'	4700	17					
LB032-20	5/16" x 20'	4700	21					
LB032-25	5/16" x 25'	4700	26					
LB033-16	3/8" x 16'	6600	24					
LB033-20	3/8" x 20'	6600	30					
LB033-25	3/8" x 25'	6600	37					
LB034-20	1/2" x 20'	11,300	51					



G70 HOOKS								
Part Number	Description	Size of G70 Chain (in.)	WLL (lbs.)	Weight (lbs/pc)				
CGHG70-516	Clevis Grab Hook	5/16"	4,700	0.72				
CGHG70-38	Clevis Grab Hook	3/8"	6,600	1.15				
CGHG70-12	Clevis Grab Hook	1/2"	11,300	2.61				
CSHLG70-516	Clevis Slip Hook with Latch	5/16"	4,700	0.87				
CSHLG70-38	Clevis Slip Hook with Latch	3/8"	6,600	1.3				
CSHLG70-12	Clevis Slip Hook with Latch	1/2"	11,300	2.85				





Part Number	Chain Size (in.)	Size (in.) WLL Feet Per (lbs.) Full Drum		Drum Weight (lbs.)
516X550G70	5/16	4,700	550	561
38X400G70	3/8	6,600	400	552
12X200G70	1/2	11,300	200	486

### **G70 CHAIN REFERENCE CHART**

This chart indicates the minimum number of indirect tie-downs (tie-downs with both ends attached to opposite sides of vehicle) needed to secure a load based only on the loads weight. Note: Additional tie-downs may be needed based on the size of the load and/or your overall securement system.

GRADE OF	SIZE	WLL	L Weight of Load (lbs.)									
CHAIN	(in.)	(lbs.)	5,000	10,000	15,000	20,000	25,000	30,000	35,000	40,000	45,000	50,000
	5/16	4,700	1	2	2	3	3	4	4	5	5	6
Grade 70 Transport	3/8	6,600	1	1	2	2	2	3	3	4	4	4
Hanoport	1/2	11,300	1	1	1	1	2	2	2	2	2	3



INDUSTRIAL

# **CHAIN LOAD BINDERS**

	DB LOAD BINDERS									
Part Number	Туре	Size of G70 Chain (in)	TakeUp (in)	Handle Length (in)	WLL (lbs)	Weight (lbs/pc)				
DB-II	Lever	5/16-3/8	4.5	16	5,400	9				
DF-7100	Lever	5/16-3/8	4.5	16	7,100	9				
DB-III	Lever	3/8-1/2	4.5	18	9,200	13				
DB-IV	Lever	1/2-5/8	4.5	18	13,000	16				
LDR-38-10+	Ratchet	5/16-3/8	8	12.75	7,100	9.4				
DR-1-7300	Ratchet	5/16-3/8	8	15.5	7,300	12.2				
LDR-12-10+	Ratchet	3/8-1/2	8	12.75	9,200	12.5				
DR-2	Ratchet	3/8-1/2	8	15.5	12,000	14.6				
DR-3	Ratchet	1/2-5/8	8	15.5	13,000	15.8				

Chain Load Binders are made of formed steel, providing a quality chain binder at a competitive price. They are for use with Grade 70 transport chain assemblies. They are available in Lever, Compression Spring and Ratchet models. All load binders meet or exceed NACM, FMCSA & CVSA standards.







IMPORT LOAD BINDERS									
Part Number									
LLB-38	Lever	5/16-3/8	4.5	16	5,400	8			
LLB-12	Lever	3/8-1/2	4.5	18	9,200	12			
RLB-38	Ratchet	5/16-3/8	8	12.75	5,400	10			
RLB-12	Ratchet	3/8-1/2	8	12.75	9,200	12			

# **RECOVERY & TOW STRAPS**

Recovery straps are made from heavy duty polyester webbing with sewn eyes wrapped with Cordura® for abrasion resistance.



					Market Street,	CHARLES CO. STORY SALES
Part Number	Description	Web Width	Strap Length	End Fittings	Capacity (lbs.)	Tensile Strength (lbs.)
RAW-2-220	2 PLY Recovery Strap w/ CORDURA® reinforced eyes for wear	2"	20'	Eyes	13,066	39,200
RAW-2-230	2 PLY Recovery Strap w/ CORDURA® reinforced eyes for wear	2"	30'	Eyes	13,066	39,200
RAW-2-320	2 PLY Recovery Strap w/ CORDURA® reinforced eyes for wear	3"	20'	Eyes	19,600	58,800
RAW-2-330	2 PLY Recovery Strap w/ CORDURA® reinforced eyes for wear	3"	30'	Eyes	19,600	58,800
RAW-2-420	2 PLY Recovery Strap w/ CORDURA® reinforced eyes for wear	4"	20'	Eyes	26,133	78,400
RAW-2-430	2 PLY Recovery Strap w/ CORDURA® reinforced eyes for wear	4"	30'	Eyes	26,133	78,400
RAW-4-220	4 PLY Recovery Strap w/ CORDURA® reinforced eyes for wear	2"	20'	Eyes	26,133	78,400
RAW-4-230	4 PLY Recovery Strap w/ CORDURA® reinforced eyes for wear	2"	30'	Eyes	26,133	78,400
RAW-4-320	4 PLY Recovery Strap w/ CORDURA® reinforced eyes for wear	3"	20'	Eyes	39,200	117,600
RAW-4-330	4 PLY Recovery Strap w/ CORDURA® reinforced eyes for wear	3"	30'	Eyes	39,200	117,600
RAW-4-420	4 PLY Recovery Strap w/ CORDURA® reinforced eyes for wear	4"	20'	Eyes	52,266	156,800
RAW-4-430	4 PLY Recovery Strap w/ CORDURA® reinforced eyes for wear	4"	30'	Eyes	52,266	156,800

### WARNING

Inspect before each use. Do not use a damaged strap. Avoid dragging the strap. Do not tie strap into knots. Do not attach strap to bumpers. Avoid contact with hot exhaust systems. Do not exceed Strap Work Load Limits. Attachment points must be suitable for the application and should exceed the break strength of the strap. Detached connection points can become deadly projectiles. Stand far away from the vehicle and strap while under tension. Never stand near or in line of a strap under tension. DO NOT SHOCK LOAD THE STRAP. You must take into account all factors such as suction and incline to ensure that you maintain control of all materials and components used for recovery, including dynamic loading and tension if you are not capable of determining loading factors, use load measuring devices or equipment controls to avoid overloading. If these options are not available, DO NOT USE THE VEHICLE STRAP. IMPROPER USE MAY RESULT IN INJURY, DEATH AND/OR PROPERTY DAMAGE. Avoid edges or surfaces that could damage the strap. Use protection to prevent damage to the strap. Store strap in a cool, dark, dry location, free of environmental and mechanical damage. Remove the strap from service and do not use for any application, if any of the following are visible: Acid or Caustic Burn, Melting or Charring of any part of the strap, Ultraviolet/Sunlight Damage, Broken or worn stitching, Excessive Abrasive, Wear Holes, Tears, Cuts, Snags or Punctures and/or other visible damage that causes doubt as to the strength of the strap.



## MANUAL HOIST SAFETY INFORMATION

### **Inspection Checklist**

The first step in finding any abnormalities in the equipment is a visual inspection, which should be a part of a hoist owner's daily operation. During an inspection, the following checkpoints for manually operated chain hoists are vital to ensuring proper operation. Read the hoist user's manual for the specific requirements of your equipment.

- Check to ensure that hoists are not tagged, "Out of Service".
- Verify hoist nameplates are present and complete.
- Ensure that all warning and safety labels are not missing and are legible.
- Test run to ensure that all motions agree with control device markings.
- Run the hoist through the full range of motions, all the way up and down.
- Check to make sure that there is no load drift; the hoist must hold load without any drift.
- Check for hook damage. Inspect for: cracks, nicks, gouges, twisting, deformation of the throat opening and wear on saddle or load bearing point. Refer to the owner's manual provided by the original manufacturer.
- Check hook latch operation and inspect for wear or deformation. The latch must be present and operational.
- Deformation between the hook fitting and shank.
- Load chain inspection. Check for: nicks, gouges, deformation, flaws, heat damage, bent links, wear, stretch, corrosion, pitch elongation and proper lubrication.
- Inspect Hand Chain for deformation and pitch elongation.
- Reeving: Ensure that the chain is properly reeved and that the chain is not twisted around each other.
- Limit Switches: Check to ensure that the upper limit device stops the lifting motion of the hoist load block before striking any part of the hoist.
- Deformation and corrosion of the body frame, gear case, gears, sheaves, bearings and chain stopper pin.
- Presence of bolts and nuts.
- Wear of brake screws, linings and ratchet wheels.
- Check for any sign of oil leakage on the hoist and/or on the ground beneath the hoist.
- Check for any unusual sounds from the hoist mechanism while operating the hoist.



# HAND CHAIN HOISTS & MANUAL TROLLEYS

### **Hand Chain Hoist**

AMH<sup>TM</sup> (MA) model hand chain hoist features lightweight and durable all steel construction with powder coated finish and plated external components to resist corrosion; premium grade 80 Zinc plated alloy load chain; sealed ball bearing on the chain wheel maximize efficiency and serviceability; self adjusting double pawl disc type mechanical load brake insures positive load control.

Optional: Overload protection is new design one directional clutch that will only slip in the lift direction. All hand chain hoists meet ASME B30.16 and OSHA standards.

	MA SERIES HAND CHAIN HOIST									
Part Number	Capacity (lbs)	Capacity (tons)	Standard Lift (ft)	Min. Headroom (in)	Number of Falls	Pull Force Lift Capacity (lbs)	Weight for 10' lift (lbs)			
MA005	1,100	1/2	10, 15, 20	13.8	1	56	20			
MA010	2,200	1	10, 15, 20	15.1	1	64	26			
MA015	3,300	1 1/2	10, 15, 20	17.4	1	69	36			
MA020	4,400	2	10, 15, 20	19.1	1	77	44			
MA030	6,600	3	10, 15, 20	21.8	1	84	72			
MA050	11,000	5	10, 15, 20	27.1	2	84	93			
MA100	22 000	10	10 15 20	30.1	4	86	165			





	BADGER™ HAND CHAIN HOIST													
Part Number	Capacity (lbs)	Capacity (tons)			Number of Falls	Pull Force Lift Capacity (lbs)	Weight for 10' lift (lbs)							
CB005	1,100	1/2	10, 20, 30	10.6	1	49	22							
CB010	2,200	1	10, 20, 30	12.5	1	72	26							
CB015	3,300	1 1/2	10, 20, 30	15.7	1	81	42							
CB020	4,400	2	10, 20, 30	16.3	1	82	44							
CB030	6,600	3	10, 20, 30	18.3	2	87	59							
CB050	11,000	5	10, 20, 30	24.3	2	98	101							
CB100	22,000	10	10, 20, 30	31.4	4	98	183							

### **Manual Push Trolleys**

Machined cast iron wheels with universal tread design to fit flat or tapered beam flanges. Trolleys meet ASME B30.16 and OSHA standards.



	MANUAL PUSH TROLLEYS												
Part Num- ber	Capacity (Tons)	Beam Flange Adjustment (in)	Minimum Radius (in)	Weight (lbs)									
PT005	1/2	2.52 - 8.66	36	18									
PT010	1	2.52 - 8.66	40	24									
PT020	2	3.46 - 8.66	48	40									
PT030	3	4.02 - 8.66	52	69									
PT050	5	4.49 - 8.66	56	94									
PT100	10	4.9 - 12	79	198									



# LEVER HOISTS & BEAM CLAMPS

### **Lever Hoists**

AMH<sup>TM</sup> (LA) model lever hoist features lightweight and durable all steel construction with powder coated finish and plated external components to resist corrosion; premium grade 80 Zinc plated alloy load chain; self adjusting double pawl disc type mechanical load brake insures control; horseshoe chain guard allows operation in any orientation.

Optional: Overload protection is new design one directional clutch that will only slip in the lift direction. All lever hoists meet ASME B30.21 and OSHA standards.

		LA	SERIES LEV	/ER CHAIN	HOIST			
Part Number	Capacity (tons)	Standard Lift (in)			Lever Length (in)	Pull Force Lift Capacity (lbs)	Weight for 5' lift (lbs)	
LA008	3/4	5, 10, 15, 20	13.4	1	10.5	47	14.9	
LA010	1	5, 10, 15, 20	13.4	1	12.1	51	15.3	
LA016	1 3/4	5, 10, 15, 20	15.7	1	14.0	66	24.1	
LA032	3 1/2	5, 10, 15, 20	20.5	1	16.5	72	44.8	
LA063	7	5, 10, 15, 20	25.2	2	16.5	74	66.3	





	BADGER™ LEVER CHAIN HOIST													
Part Number	Capacity (lbs)	Capacity (tons)			Number of Falls	Lever Length (in)	Weight for 5' lift (lbs)							
LC008	1,650	3/4	5, 10, 20	12.6	1	11.4	17							
LC015	3,300	1 1/2	5, 10, 20	15.0	1	16.5	26							
LC030	6,600	3	5, 10, 20	18.9	1	16.5	46							
LC060	13,200	6	5, 10, 20	24.4	2	16.5	70							

### Mini Hand Chain Hoist & Lever Hoists

Their small size allows operation and storage in tight places.

MINI MM HAND CHAIN HOIST & ML LEVER CHAIN HOIST													
	Part Number	Part Number Capacity (lbs)		Standard Lift (ft)	Min. Headroom (in)	Number of Falls	Lever Length (in)	Weight for 5' lift (lbs)					
	MM003-08-06	550	1/4	8	9.1	1	N/A	7.7					
	ML003-05	550	1/4	5, 10	8.5	1	6.2	4.4					
	ML005-05	1,100	1/2	5, 10	10.0	1	7.1	7.7					





	BEAM CLAMPS												
Part Number	Capacity (lbs)	Beam Flange Adjustment (in)	Weight (lbs)										
BC-01	2,200	3.1 - 9.4	7.7										
BC-02	4,400	3.1 - 9.4	9.9										
BC-03	6,600	3.5 - 12.2	20.9										
BC-05	11,000	3.5 - 12.2	24.2										
BC-10	22,000	3.5 - 12.6	35.2										

### **Beam Clamps**

Beam clamps are easy an easy way to install a fixed hoist mount or rigging point. Simple installation by hand, no tools required. All beam clamps meet ASME B30 and OSHA standards.

# FRACTION AND DECIMAL CONVERSION TABLE

Fraction	Inches	Millimeters
1/32	0.031	0.8
1/16	0.063	1.59
3/32	0.094	2.38
1/8	0.125	3.18
5/32	0.156	3.97
3/16	0.188	4.76
7/32	0.219	5.56
1/4	0.25	6.35
9/32	0.281	7.14
5/16	0.313	7.94
11/32	0.344	8.73
3/8	0.375	9.53
13/32	0.406	10.32
7/16	0.438	11.11
15/32	0.469	11.91
1/2	0.5	12.7

Fraction	Inches	Millimeters
17/32	0.531	13.49
9/16	0.563	14.29
19/32	0.594	15.08
5/8	0.625	15.88
21/32	0.656	16.67
11/16	0.688	17.46
23/32	0.719	18.26
3/4	0.75	19.05
25/32	0.781	19.84
13/16	0.813	20.64
27/32	0.844	21.43
7/8	0.875	22.23
29/32	0.906	23.02
15/16	0.938	23.81
31/32	0.969	24.61
1	1	25.4

# **UPS GROUND DELIVERY TIMES**



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# Sling and Rigging Inspection Report

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Serial #										
Description										
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