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10-10-10

CHAIN SLINGS

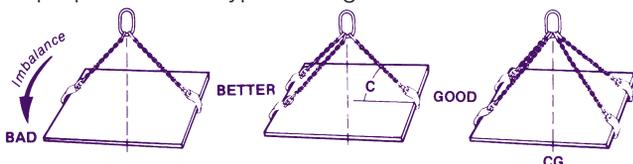
Recommended Chain Sling Use

Follow these Recommendations for Safer Chain Sling Use

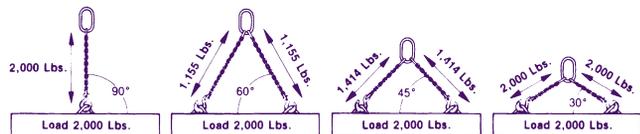
1. Visually examine the sling before each use. Look for stretched, gouged, bent or damaged links and components, including hooks, with opened throats, cracks or distortion. If damaged, remove from service.



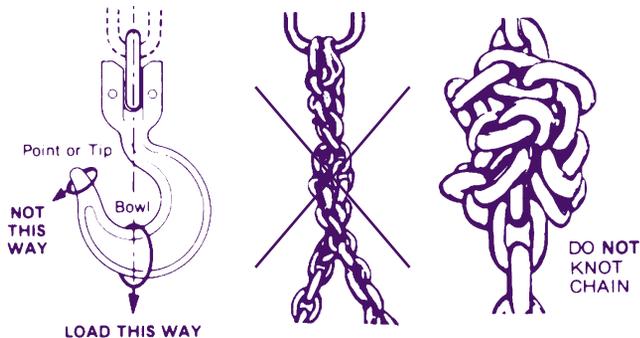
2. Know the load — determine the weight, center of gravity, angle of lift and select the proper size and type of sling.



3. Never overload the sling — check the working load limit on the identification tag. Always consider the effect of Angle of Lift — the tension on each leg of the sling is increased as the angle of lift, from horizontal, decreases. Use the charts in this catalog or in the Acco Chain Sling User's Manual for this purpose.



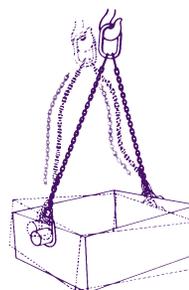
4. Do not point load hooks — load should bear on the bowl of hook.
5. Make sure chain is not twisted, knotted or kinked before lifting the load.
6. Slings should not be shortened with knots, bolts or other makeshift devices.



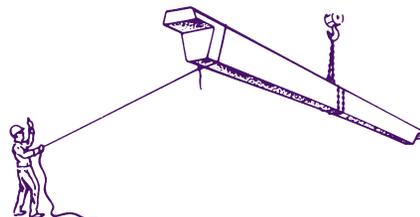
7. Protect chain with padding when lifting sharp edged loads.



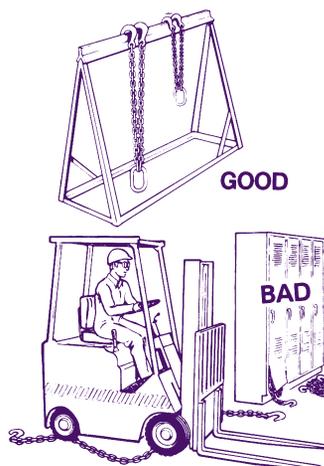
8. Lift and lower loads smoothly, do not jerk.



9. Hands and fingers should not be placed between the sling and load while sling is being tightened around the load. When lifted, the load should not be pushed or guided by employee's hands directly on the load.



10. Do not expose A8A alloy chain or slings to temperatures above 500°F.
11. Protect chain slings from corrosion during storage.
12. Store slings properly on an A-Frame.



CHAIN SLINGS

Chain Sling Inspection

Daily Inspection — as shown in No. 1

Recommendations — should be conducted by a competent person designated by the employer.

Periodic Inspection — OSHA specifies that all alloy steel chain slings shall have a thorough periodic inspection, by a competent person, at least once every 12 months. These inspections must be recorded and maintained for each individual sling.

The inspection schedule should be based on frequency of sling use, severity of service conditions, nature of lifts being made and experience gained on service life of slings used in similar circumstances.

Inspection

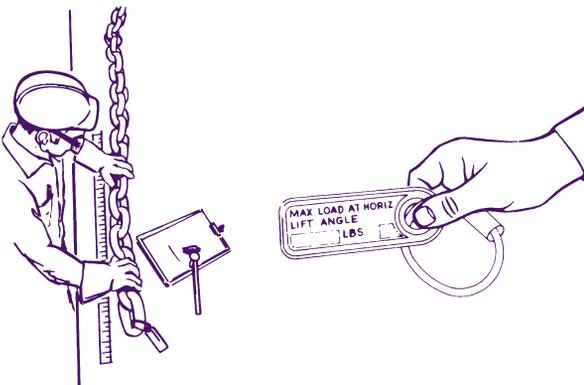
1. Clean chain prior to inspection, to more easily see damage or defects.



overloading or excessive wear.

3. Make a link-by-link inspection of the chain slings for:

- a. Excessive wear — If the wear on any portion of any link exceeds the allowable wear shown in Table of Wear remove from service.
- b. Twisted, bent, gouged, nicked, worn or



dangerous.

- d. Severe corrosion.

4. Check master links and hooks for all of the above faults — hooks especially for excessive throat opening. Slings showing any of the faults described above should immediately be removed from service and returned to the manufacturer for repair.

Certex offers a chain sling inspection service performed by our own qualified inspectors.



Worn Links



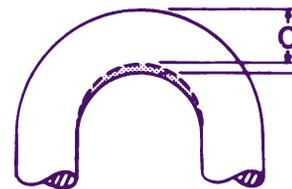
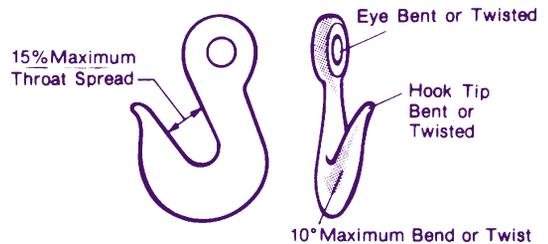
Bent links



Gouged Links



Stretched Links



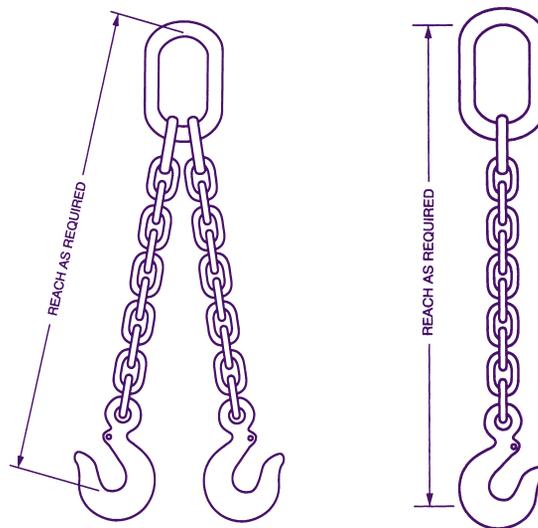
CHAIN SLINGS

Types of Chain Slings

How to Order

The following information should be given on orders or inquiries for chain slings.

- 1. SIZE:** This is specified by the size of the material from which the chain is made, determined by working load limit required.
- 2. REACH:** This is the length, including attachments, measured from bearing point to bearing point.
- 3. TYPE:** Select and specify proper type of sling from list shown. EXAMPLES: S—single, O—oblong link, S—sling hook.
- 4. ATTACHMENTS:** Unless otherwise specified standard master links and hooks as given herein will be used. When other than standard master links or hooks are required, we should be given a complete description or a drawing of the requested substitute.



| Single Chain Slings | | |
|------------------------|-------------|---------------|
| Attachments | | |
| Type | One End | Opposite End |
| SG | Plain | Grab Hook |
| SOS | Oblong Link | Single Hook |
| SOG | Oblong Link | Grab Hook |
| SGS | Grab Hook | Sling Hook |
| SGG | Grab Hook | Grab Hook |
| SSS | Sling Hook | Sling Hook |
| SOF | Oblong Link | Foundry Hook |
| CO | Oblong Link | Oblong Link |
| Double Chain Slings | | |
| DOS | Oblong Link | Sling Hooks |
| DOG | Oblong Link | Grab Hooks |
| DOF | Oblong Link | Foundry Hooks |
| DOP | Oblong Link | Plate Hooks |
| Triple Chain Slings | | |
| TOS | Oblong Link | Sling Hooks |
| TOG | Oblong Link | Grab Hooks |
| TOF | Oblong Link | Foundry Hooks |
| Quadruple Chain Slings | | |
| QOS | Oblong Link | Single Hooks |
| QOG | Oblong Link | Grab Hooks |
| QOF | Oblong Link | Foundry Hooks |

WARNING:

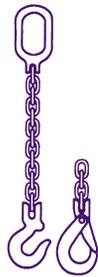
Failure to read, understand and follow the instructions, working load limits and specifications in this and other publications could result in serious injury or property damage.

CHAIN SLINGS

Single Chain Slings



CO



SOS** or SOSH



SOG



SOF



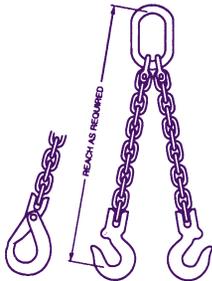
Choke Hook
Note: Not limited to Single Chain Sling Applications



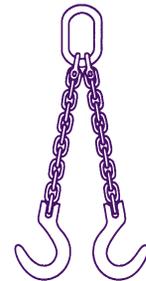
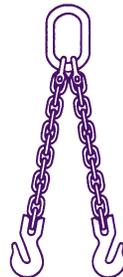
Plain End

| Size of Chain | | Specifications | |
|---------------|----|--|---|
| In. | mm | Grade 80 Working Load Limits* Lbs. at 90° | Grade 100 Working Load Limits* Lbs. at 90° |
| 9/32 | 7 | 3,500 | 4,300 |
| 3/8 | 10 | 7,100 | 8,800 |
| 1/2 | 13 | 12,000 | 15,000 |
| 5/8 | 16 | 18,100 | 22,600 |
| 3/4 | 20 | 28,300 | 35,300 |
| 7/8 | 22 | 34,200 | 42,700 |
| 1 | 26 | 47,700 | — |
| 1-1/4 | 32 | 72,300 | — |

Double Chain Slings



DOSH or DOS



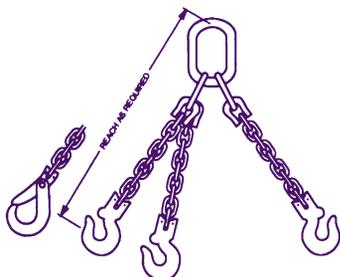
DOF

| Size of Chain | | Specifications | |
|---------------|----|--|---|
| In. | mm | Grade 80 Working Load Limits* Lbs. at 60° | Grade 100 Working Load Limits* Lbs. at 60° |
| 9/32 | 7 | 6,100 | 7,400 |
| 3/8 | 10 | 12,300 | 15,200 |
| 1/2 | 13 | 20,800 | 26,000 |
| 5/8 | 16 | 31,300 | 39,100 |
| 3/4 | 20 | 49,000 | 61,100 |
| 7/8 | 22 | 59,200 | 74,000 |
| 1 | 26 | 82,600 | — |
| 1-1/4 | 32 | 125,200 | — |

*** WARNING:**
Working Load Limits should not be exceeded.
Do not point load hooks.

CHAIN SLINGS

Triple Chain Slings



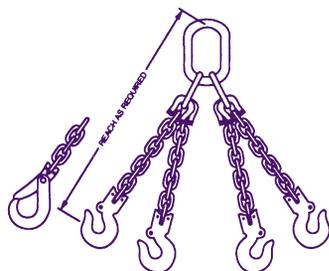
TOSH or TOS
TOG (same as above with Grab Hooks)



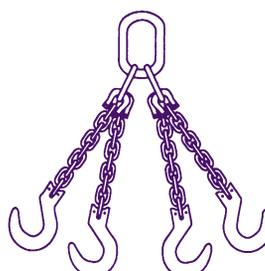
TOF

| Size of Chain | | Specifications | |
|---------------|----|--|---|
| In. | mm | Grade 80 Working Load Limits* Lbs. at 60° | Grade 100 Working Load Limits* Lbs. at 60° |
| 9/32 | 7 | 9,100 | 11,200 |
| 3/8 | 10 | 18,400 | 22,900 |
| 1/2 | 13 | 31,200 | 39,000 |
| 5/8 | 16 | 47,000 | 58,700 |
| 3/4 | 20 | 73,500 | 91,700 |
| 7/8 | 22 | 88,900 | 110,900 |
| 1 | 26 | 123,900 | — |
| 1-1/4 | 32 | 187,000 | — |

Quadruple Chain Slings



QOSH or QOS
QOG (same as above with Grab Hooks)



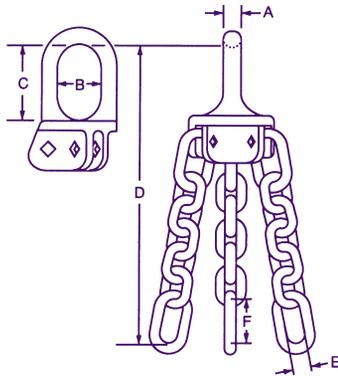
QOF
QOG (same as above with Grab Hooks)

| Size of Chain | | Specifications | |
|---------------|----|--|---|
| In. | mm | Grade 80 Working Load Limits* Lbs. at 60° | Grade 100 Working Load Limits* Lbs. at 60° |
| 9/32 | 7 | 9,100 | 11,200 |
| 3/8 | 10 | 18,400 | 22,900 |
| 1/2 | 13 | 31,200 | 39,000 |
| 5/8 | 16 | 47,000 | 58,700 |
| 3/4 | 20 | 73,500 | 91,700 |
| 7/8 | 22 | 88,900 | 110,900 |
| 1 | 26 | 123,900 | — |
| 1-1/4 | 32 | 187,000 | — |

*** WARNING:**
Working Load Limits should not be exceeded.
Do not point load hooks.

CHAIN SLINGS

Steady-Lift Magnet Chains (3-Point Suspension)

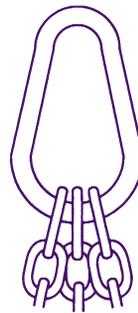
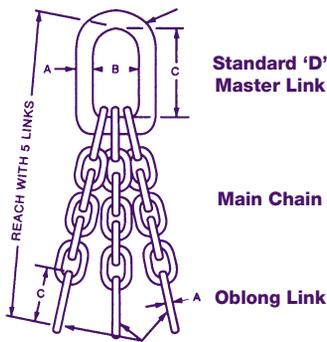


Eliminates Costly Down Time With Lift After Lift, Built-In Dependability

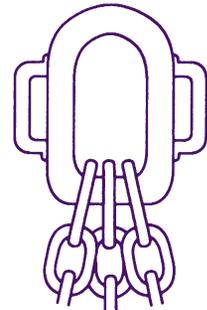
- Ease of Use — Designed so bail stands up while chain rests on floor, there is no wrestling with the bail for hook-up.
- Balanced Loading — Three point suspension offers superior stability.
- Wearability — Engineered and built for increased service life, with heat treated bail, pins, alloy chain and end links.
- Less Down Time — Easy inspection, replaceable pins, legs and bail mean more time on the job and fewer off-site repairs.

| CERTEX Cat. Ref. No. | Specifications | | | | | | | | | | | | | | |
|-------------------------|----------------|--------------|--------------|-------------|-------------|-------------|---------------|-----------------|-----------------|-----------------|----------------------|---------------|---------------------|------------------|---------------------|
| | Size of Chain | *W.L.L. Lbs. | No. of Links | A Mtl. Dia. | B Yoke Wth. | C Yoke Lgh. | D Vert. Reach | E End Link Wth. | F End Link Lgh. | G End Link Dia. | Comp. Assy. Wt. Lbs. | Yoke Wt. Lbs. | Chain Leg. Wt. Lbs. | Pin Wt. Lbs. Ea. | Magnet Diameter In. |
| CX06-0261 | 1 | 100,000 | 5 | 2-1/4 | 7 | 12 | 3'-7" | 2-5/8 | 7 | 1-1/4 | 220 | 110 | 31 | 5.0 | up to 60 |
| CX06-0262 | 1-1/4 | 150,000† | 7 | 2-1/2 | 7 | 12 | 4'-7" | 2-3/4 | 7 | 1-1/2 | 350 | 155 | 60 | 5.5 | 60 and over |

Standard Magnet Chains



Pear Shape Master Link Optional



Handles Optional

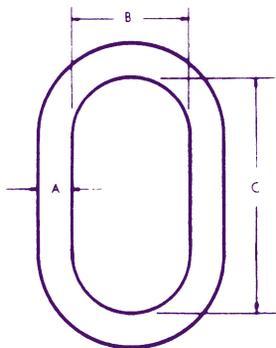
| CERTEX Cat. Ref. No. | Chain Size | | Working Load Limit* Lbs. at 60° | Master Link | | | Oblong Link | | | 5 Link Reach In. | Magnet Diameter In. |
|-------------------------|------------|----|------------------------------------|-----------------|--------------------|---------------------|-----------------|--------------------|---------------------|------------------|---------------------|
| | In. | mm | | A Dia. Mtl. In. | B Inside Width In. | C Inside Length In. | A Dia. Mtl. In. | B Inside Width In. | C Inside Length In. | | |
| | | | | | | | | | | | |
| CX06-0263 | 5/8 | 16 | 47,000 | 1-3/4 | 6 | 10-1/2 | 3/4 | 2-1/8 | 6 | 32-1/2 | up to 40 |
| CX06-0264 | 3/4 | 20 | 73,500 | 2 | 6 | 10-1/2 | 7/8 | 2-1/8 | 6 | 35 | up to 45 |
| CX06-0265 | 7/8 | 22 | 88,900 | 2-1/8 | 6 | 10-1/2 | 1 | 2-1/8 | 6 | 36 | up to 48 |
| CX06-0266 | 1 | 26 | 123,900 | 2-1/4 | 6-1/2 | 11-1/4 | 1-1/4 | 2-3/4 | 7 | 40 | up to 60 |
| CX06-0267 | 1-1/4 | 32 | 187,800 | 2-1/2 | 6-1/2 | 12-3/4 | 1-1/2 | 2-3/4 | 7 | 45-1/2 | 60 and over |

† Values shown are grade 63, embossed 'AS'

*** WARNING:**
Working Load Limits should not be exceeded.

CHAIN SLING FITTINGS

Oblong Master Link

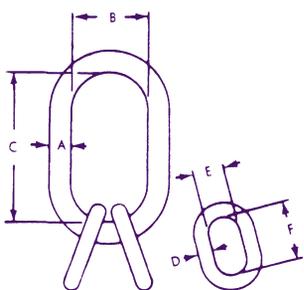


| Working Load Limit (lbs.)* † | CERTEX Cat. Ref. No. | Link Size (inches) | | | Type & Size of Chain Sling on Which Used | | | | Weight Each (lbs.) |
|------------------------------|----------------------|---------------------|----------------|-----------------|--|---------------|---------------|-------------|--------------------|
| | | Diameter Material A | Inside Width B | Inside Length C | Single Type S & C | Double Type D | Triple Type T | Quad Type Q | |
| 3,600 | CX06-0268 | 13/32 | 1 1/2 | 3 | 7/32 | 7/32 | — | — | .33 |
| 6,100 | CX06-0269 | 1/2 | 2 1/2 | 5 | 9/32 | 9/32 | 7/32 | 7/32 | .8 |
| 12,300 | CX06-0270 | 3/4 | 2 3/4 | 5 1/2 | 3/8 | 3/8 | 9/32 | 9/32 | 2.1 |
| 20,800 | CX06-0271 | 1 | 3 1/2 | 7 | 1/2 or 5/8 | 1/2 | 3/8 | 3/8 | 4.6 |
| 31,300 | CX06-0272 | 1 1/4 | 4 3/8 | 8 3/4 | 3/4 | 5/8 | 1/2 | 1/2 | 9.2 |
| 49,000 | CX06-0273 | 1 1/2 | 5 1/4 | 10 1/2 | 7/8 | 3/4 | 5/8 | 5/8 | 15.7 |
| 73,500 | CX06-0274 | 1 3/4 | 6 | 12 | 1 | 7/8 | 3/4 | 3/4 | 24.5 |
| 88,900 | CX06-0275 | 2 | 7 | 14 | 1 1/4 | 1 | 7/8 | 7/8 | 37.3 |
| 125,200 | CX06-0276 | 2 1/4 | 8 | 16 | — | 1 1/4 | 1 | 1 | 54.0 |
| 187,800 | CX06-0277 | 2 3/4 | 9 | 16 | — | — | 1 1/4 | 1 1/4 | 84.8 |

† Working load limit of master link only.

Oblong Master Link Sub-Assembly**

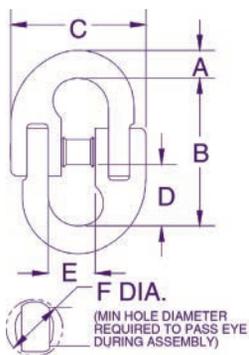
For triple and quad branch chain slings



| Oblong Master Link Size (inches) | | | CERTEX Cat. Ref. No. | Master Coupling Link Size (inches) | | | Weight (lbs.) | HA Chain (in.) |
|----------------------------------|-------|--------|----------------------|------------------------------------|-------|--------|---------------|----------------|
| A | B | C | | D | E | F | | |
| 1/2 | 2 1/2 | 5 | CX06-0278 | 11/32 | 5/8 | 1 1/8 | 1.0 | 7/32 |
| 3/4 | 2 3/4 | 5 1/2 | CX06-0279 | 15/32 | 7/8 | 1 9/16 | 2.6 | 9/32 |
| 1 | 3 1/2 | 7 | CX06-0280 | 21/32 | 1 1/4 | 2 1/4 | 6.1 | 3/8 |
| 1 1/4 | 4 3/8 | 8 3/4 | CX06-0281 | 29/32 | 1 3/4 | 3 1/8 | 13.3 | 1/2 |
| 1 1/2 | 5 1/4 | 10 1/2 | CX06-0282 | 1 5/32 | 2 1/4 | 4 | 24.3 | 5/8 |
| 1 3/4 | 6 | 12 | CX06-0283 | 1 9/32 | 2 3/8 | 4 3/8 | 36.1 | 3/4 |
| 2 | 7 | 14 | CX06-0284 | 1 17/32 | 2 3/4 | 5 1/4 | 57.4 | 7/8 |
| 2 1/4 | 8 | 16 | CX06-0285 | 1 25/32 | 3 | 6 | 83.9 | 1 |
| 2 3/4 | 9 | 16 | CX06-0286 | 2 1/32 | 3 1/2 | 7 | 129.7 | 1 1/4 |

** Consisting of oblong master link and two welded master coupling links.

LOK-A-LOY® 10 Alloy Connecting Link



| Chain Size | | A-1337 Stock No. | Pkg. Qty. | Weight Each (lbs.) | Working Load Limit (lbs.)* | Dimensions (in.) | | | | | |
|------------|------|------------------|-----------|--------------------|----------------------------|------------------|------|------|------|------|------|
| (in.) | (mm) | | | | | A | B | C | D | E | F |
| 9/32 (1/4) | 7 | 1015104 | 60 | .26 | 4300 | .38 | 1.94 | 1.90 | .81 | .69 | .57 |
| 5/16 | 8 | 1015113 | 50 | .35 | 5700 | .37 | 2.35 | 2.07 | .99 | .72 | .64 |
| 3/8 | 10 | 1015122 | 40 | .75 | 8800 | .48 | 2.70 | 2.47 | 1.12 | .90 | .78 |
| 1/2 | 13 | 1015136 | 12 | 1.60 | 15000 | .68 | 3.45 | 3.31 | 1.44 | 1.12 | .97 |
| 5/8 | 16 | 1015145 | 10 | 2.68 | 22600 | .81 | 4.13 | 3.90 | 1.72 | 1.35 | 1.14 |
| 3/4 | 20 | 1015154 | 1 | 5.00 | 35300 | .93 | 4.62 | 4.62 | 2.03 | 1.62 | 1.28 |
| 7/8 | 22 | 1015163 | 1 | 7.50 | 42700 | 1.06 | 5.46 | 5.46 | 2.27 | 2.00 | 1.49 |
| 1 | 25 | 1015172 | 1 | 11.03 | 59700 | 1.22 | 5.98 | 6.13 | 2.44 | 2.25 | 1.76 |
| 1-1/4 | 32 | 1015181 | 1 | 20.38 | 90400 | 1.50 | 7.43 | 7.59 | 3.07 | 2.56 | 2.23 |

*Ultimate Load is 4 times the Working Load Limit.

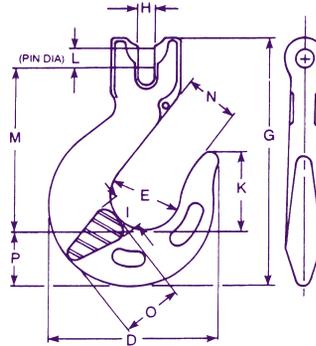
*** WARNING:**

Do not exceed working load limit.
Use only alloy chain and attachments for overhead lifting.

CHAIN SLING FITTINGS

Columbus McKinnon Corporation

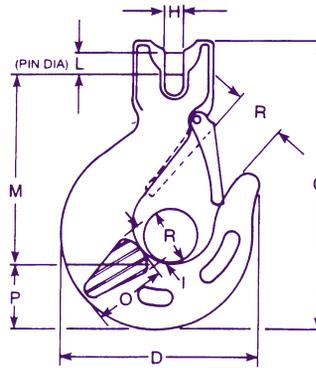
Clevlok® Sling Hook Without Latch**



| Chain Size | | Working Load Limit (lbs.)* | Dimensions (inches) | | | | | | | | | | | Weight Each (lbs.) |
|------------|------|----------------------------|---------------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| (in.) | (mm) | | D | E | G | H | I | K | L | M | N | O | P | |
| 9/32 | 7 | 4,300 | 3.500 | 1.500 | 5.156 | 0.328 | 0.734 | 1.594 | 0.357 | 3.437 | 1.187 | 1.203 | 1.051 | 0.64 |
| 3/8 | 10 | 8,800 | 4.343 | 1.875 | 6.672 | 0.453 | 0.953 | 2.187 | 0.507 | 4.468 | 1.437 | 1.453 | 1.281 | 1.91 |
| 1/2 | 13 | 15,000 | 5.500 | 2.250 | 8.000 | 0.593 | 1.172 | 2.562 | 0.625 | 5.265 | 1.781 | 1.938 | 1.656 | 4.33 |
| 5/8 | 16 | 22,600 | 6.281 | 2.625 | 9.687 | 0.750 | 1.438 | 2.281 | 0.750 | 6.078 | 2.031 | 2.375 | 2.188 | 5.20 |
| 3/4 | 20 | 35,300 | 7.827 | 3.000 | 11.688 | 0.875 | 1.688 | 3.437 | 0.906 | 7.344 | 2.500 | 2.828 | 2.563 | 11.40 |

** Latches available either as an option or in kit form.
User must determine whether latch is required on the hook.

Clevlok® Sling Hook With Latch



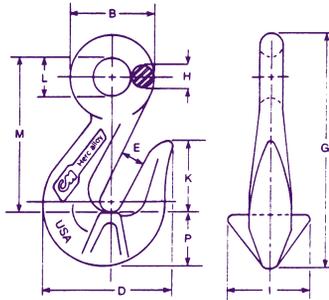
| Chain Size | | Working Load Limit (lbs.)* | Dimensions (inches) | | | | | | | | | | Weight Each (lbs.) |
|------------|------|----------------------------|---------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| (in.) | (mm) | | D | G | H | I | L | M | O | P | R | | |
| 9/32 | 7 | 4,300 | 3.500 | 5.156 | 0.328 | 0.734 | 0.357 | 3.437 | 1.203 | 1.051 | 1.062 | 0.80 | |
| 3/8 | 10 | 8,800 | 4.343 | 6.672 | 0.453 | 0.953 | 0.507 | 4.468 | 1.453 | 1.281 | 1.312 | 2.03 | |
| 1/2 | 13 | 15,000 | 5.500 | 8.000 | 0.593 | 1.172 | 0.625 | 5.265 | 1.938 | 1.656 | 1.562 | 4.50 | |
| 5/8 | 16 | 22,600 | 6.281 | 9.687 | 0.750 | 1.438 | 0.750 | 6.078 | 2.375 | 2.188 | 1.750 | 6.50 | |
| 3/4 | 20 | 35,300 | 7.827 | 11.688 | 0.875 | 1.688 | 0.906 | 7.344 | 2.828 | 2.563 | 2.187 | 11.80 | |

*** WARNING:**
Do not exceed working load limit.
Use only alloy chain and attachments for overhead lifting.

CHAIN SLING FITTINGS

Columbus McKinnon Corporation

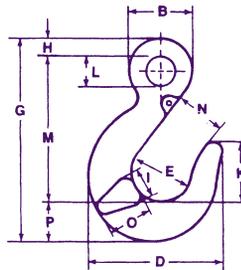
Cradle Grab® Hook



| Chain Size | | Working Load Limit (lbs.)* | Dimensions (inches) | | | | | | | | | | Weight Each (lbs.) |
|------------|------|----------------------------|---------------------|------|------|-------|------|------|------|------|-------|------|--------------------|
| (in.) | (mm) | | B | D | E | G | H | I | K | L | M | P | |
| 7/32 | 5.5 | 3,200 | 1.19 | 1.75 | 0.36 | 2.69 | 0.38 | 1.19 | 0.96 | 0.63 | 1.63 | .70 | 0.35 |
| 9/32 | 7 | 4,410 | 1.38 | 1.81 | 0.36 | 3.44 | 0.38 | 1.19 | 0.99 | 0.63 | 2.36 | .70 | 0.40 |
| 3/8 | 10 | 8,800 | 1.78 | 2.63 | 0.45 | 4.67 | 0.50 | 1.75 | 1.48 | 0.78 | 3.11 | 1.06 | 1.06 |
| 1/2 | 13 | 15,000 | 2.28 | 3.34 | 0.59 | 5.86 | 0.63 | 1.88 | 1.98 | 1.03 | 3.94 | 1.30 | 2.26 |
| 5/8 | 16 | 22,600 | 2.75 | 4.08 | 0.75 | 7.13 | 0.75 | 2.25 | 2.63 | 1.25 | 4.78 | 1.59 | 4.36 |
| 3/4 | 20 | 35,300 | 3.19 | 4.88 | 0.88 | 8.25 | 0.88 | 2.88 | 3.06 | 1.44 | 5.50 | 1.88 | 6.70 |
| 7/8 | 22 | 34,200 | 3.75 | 5.69 | 1.00 | 9.63 | 1.00 | 3.00 | 3.75 | 1.75 | 6.50 | 2.12 | 10.40 |
| 1 | 26 | 47,000 | 4.31 | 7.00 | 1.19 | 12.44 | 1.22 | 3.88 | 4.31 | 1.88 | 8.09 | 3.12 | 20.90 |
| 1 1/4† | 32 | 72,300 | 5.38 | 8.25 | 1.50 | 15.56 | 1.56 | 2.50 | 5.50 | 2.25 | 10.50 | 3.50 | 40.00 |

† Not cradle type.

Sling Hook** Without Latch



| Chain Size | | Working Load Limit (lbs.)* | Dimensions (inches) | | | | | | | | | | | Weight Each (lbs.) | |
|------------|------|----------------------------|---------------------|------|------|-------|------|------|------|------|------|------|------|--------------------|------|
| (in.) | (mm) | | B | D | E | G | H | I | K | L | M | N | O | | P |
| 7/32 | 5.5 | 2,700 | — | 3.31 | 1.44 | 4.30 | 0.38 | 0.78 | 1.25 | 0.75 | 3.06 | 1.25 | 1.00 | 0.86 | 0.7 |
| 9/32 | 7 | 4,300 | 1.62 | 3.50 | 1.50 | 5.25 | 0.44 | 0.73 | 1.59 | 0.75 | 3.75 | 1.19 | 1.20 | 1.05 | 1.1 |
| 3/8 | 10 | 8,800 | 2.06 | 4.34 | 1.88 | 6.64 | 0.56 | 0.95 | 2.19 | 0.94 | 4.78 | 1.44 | 1.45 | 1.28 | 1.9 |
| 1/2 | 13 | 15,000 | 2.63 | 5.50 | 2.25 | 8.16 | 0.75 | 1.17 | 2.56 | 1.13 | 5.69 | 1.78 | 1.94 | 1.66 | 4.5 |
| 5/8 | 16 | 22,600 | 3.06 | 6.34 | 2.63 | 9.66 | 0.88 | 1.44 | 2.63 | 1.31 | 6.50 | 2.03 | 2.38 | 2.19 | 7.3 |
| 3/4 | 20 | 35,300 | 3.50 | 7.83 | 3.00 | 11.38 | 1.00 | 1.69 | 3.44 | 1.50 | 7.81 | 2.50 | 2.83 | 2.51 | 11.4 |

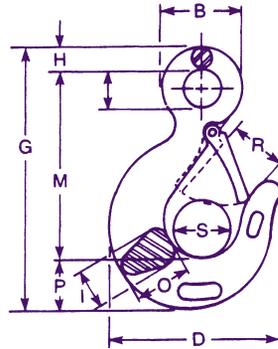
** Available from stock with/without latch. Replacement latch kits are also available. User must determine if latch is required on the hook.

*** WARNING:**
Do not exceed working load limit.
Use only alloy chain and attachments for overhead lifting.

CHAIN SLING FITTINGS

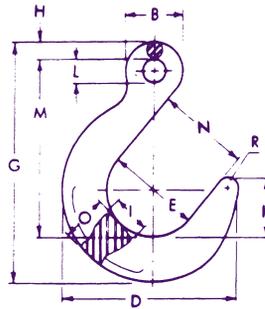
Columbus McKinnon Corporation

Sling Hook With Latch



| Chain size | | Working load limit (lbs.)* | Dimensions (inches) | | | | | | | | | | | | | Weight each (lbs.) |
|------------|------|----------------------------|---------------------|------|------|-------|------|------|------|------|------|------|------|------|------|--------------------|
| (in.) | (mm) | | B | D | E | G | H | I | K | L | M | N | O | P | R | |
| 7/32 | 5.5 | 2,700 | — | 3.31 | 1.44 | 4.30 | 0.38 | 0.78 | 1.25 | 0.75 | 3.06 | 1.25 | 1.00 | 0.86 | 1.11 | 0.7 |
| 9/32 | 7 | 4,300 | 1.63 | 3.50 | 1.50 | 5.25 | 0.44 | 0.73 | 1.59 | 0.75 | 3.75 | 1.19 | 1.20 | 1.05 | 1.06 | 1.1 |
| 3/8 | 10 | 8,800 | 2.06 | 4.34 | 1.88 | 6.64 | 0.56 | 0.95 | 2.19 | 0.94 | 4.78 | 1.44 | 1.45 | 1.28 | 1.31 | 1.9 |
| 1/2 | 13 | 15,000 | 2.63 | 5.50 | 2.25 | 8.16 | 0.75 | 1.17 | 2.56 | 1.13 | 5.69 | 1.78 | 1.94 | 1.66 | 1.56 | 4.5 |
| 5/8 | 16 | 22,600 | 3.06 | 6.34 | 2.63 | 9.66 | 0.88 | 1.44 | 2.63 | 1.31 | 6.50 | 2.03 | 2.38 | 2.19 | 1.75 | 7.3 |
| 3/4 | 20 | 35,300 | 3.50 | 7.83 | 3.00 | 11.38 | 1.00 | 1.69 | 3.44 | 1.50 | 7.81 | 2.50 | 2.83 | 2.51 | 2.19 | 11.4 |

Foundry Hook



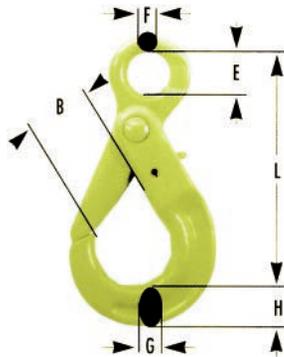
| Chain size | | Working load limit (lbs.)* | Dimensions (inches) | | | | | | | | | | | | Weight each (lbs.) |
|------------|------|----------------------------|---------------------|------|------|-------|------|------|------|------|------|------|------|------|--------------------|
| (in.) | (mm) | | B | D | E | G | H | I | K | L | M | N | O | R | |
| 9/32 | 7 | 4,300 | 1.56 | 4.75 | 2.50 | 6.45 | 0.47 | 1.00 | 1.56 | 0.63 | 4.75 | 2.50 | 1.23 | 0.25 | 2.4 |
| 3/8 | 10 | 8,800 | 2.00 | 5.75 | 3.00 | 7.88 | 0.63 | 1.27 | 1.88 | 0.75 | 5.75 | 3.00 | 1.50 | 0.31 | 4.5 |
| 1/2 | 13 | 15,000 | 2.50 | 6.75 | 3.50 | 9.38 | 0.75 | 1.50 | 2.22 | 1.00 | 6.88 | 3.50 | 1.75 | 0.37 | 7.1 |
| 5/8 | 16 | 22,600 | 3.00 | 7.81 | 4.00 | 10.97 | 0.88 | 1.81 | 2.63 | 1.25 | 8.06 | 4.00 | 2.03 | 0.43 | 11.6 |
| 3/4 | 20 | 35,300 | 3.50 | 9.13 | 4.50 | 12.81 | 1.00 | 2.20 | 3.00 | 1.50 | 9.25 | 4.50 | 2.56 | 0.50 | 20.0 |

*** WARNING:**

Do not exceed working load limit.
Use only alloy chain and attachments for overhead lifting.

Gunnebo-Johnson Corp

Alloy BK Self Locking Hooks (Eye Type)



Latch closes automatically under load. Hook will not open under load.

The release trigger will only operate when hook is unloaded.

All three hooks are equipped with Stainless Steel springs.



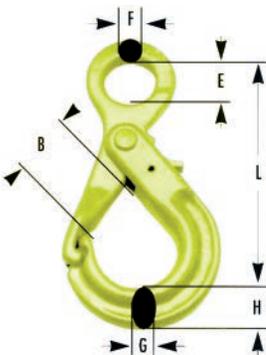
Heat number identification allows full product traceability.

BK

| CERTEX Cat. Ref. No. | Gunnebo-Johnson Code | Chain Size | Grade | Working Load Limit *(Lbs) | Dimensions (Inches) | | | | | | Weight Each (Lbs) |
|----------------------|----------------------|------------|-------|---------------------------|---------------------|-----|-----|-----|-----|-----|-------------------|
| | | | | | L | B | E | F | G | H | |
| CX06-0537 | BK-6-10 | 7/32 | 100 | 2,700 | 4.3 | 1.1 | .87 | .39 | .55 | .75 | .9 |
| CX06-0538 | BK-7/8-10 | 9/32 | 100 | 4,300 | 5.4 | 1.4 | .99 | .43 | .67 | .91 | 1.6 |
| CX06-0539 | BK-10-10 | 3/8 | 100 | 8,800 | 6.6 | 1.7 | 1.3 | .51 | .98 | 1.1 | 3.3 |
| CX06-0540 | BK-13-10 | 1/2 | 100 | 15,000 | 8.2 | 2.1 | 1.6 | .63 | 1.1 | 1.5 | 5.9 |
| CX06-0541 | BK-16-10 | 5/8 | 100 | 22,600 | 10.0 | 2.5 | 2.0 | .79 | 1.5 | 1.9 | 12.0 |
| CX06-0542 | BK-18/20-8 | 3/4 | 100 | 35,300 | 12.6 | 3.1 | 2.8 | .95 | 1.9 | 2.4 | 25.0 |
| CX06-0543 | BK-22-8 | 7/8 | 80 | 34,200 | 12.6 | 3.1 | 2.8 | .95 | 1.9 | 2.4 | 25.0 |
| CX06-0544 | BK-26-8 | 1 | 80 | 47,700 | 13.6 | 3.9 | 3.1 | 1.0 | 2.0 | 2.7 | 32.0 |
| CX06-0545 | BK-28-8 | 1 1/8 | 80 | 55,100 | 15.8 | 4.7 | 3.5 | 1.1 | 2.4 | 3.2 | 48.0 |

* Design factor 4:1 Proof tested and certified.

Self Locking OBK With Grip Latch (Eye Type)



Grip latch locks into point of hook.

Latch is protected and will act as a gauge to signal an unsafe bent hook or latch.

All three hooks are equipped with Stainless Steel springs.



Heat number identification allows full product traceability.

OBK

| CERTEX Cat. Ref. No. | Gunnebo-Johnson Code | Chain Size | Grade | Working Load Limit *(Lbs) | Dimensions (inches) | | | | | | Weight Each (Lbs) |
|----------------------|----------------------|------------|-------|---------------------------|---------------------|-----|-----|-----|-----|-----|-------------------|
| | | | | | L | B | E | F | G | H | |
| CX06-0546 | OBK-7/8-10 | 9/32 | 100 | 4,300 | 5.1 | 1.3 | .99 | .39 | .67 | .79 | 1.5 |
| CX06-0547 | OBK-10-10 | 3/8 | 100 | 8,800 | 6.4 | 1.7 | 1.3 | .49 | .83 | .97 | 2.7 |
| CX06-0548 | OBK-13-10 | 1/2 | 100 | 15,000 | 7.7 | 2.0 | 1.6 | .59 | 1.0 | 1.2 | 4.5 |
| CX06-0549 | OBK-16-10 | 5/8 | 100 | 22,600 | 9.3 | 2.4 | 2.0 | .75 | 1.2 | 1.5 | 7.7 |
| CX06-0550 | OBK-18/20-8 | 3/4 | 80 | 28,300 | 11.5 | 2.8 | 2.3 | 1.1 | 1.4 | 1.9 | 10.2 |

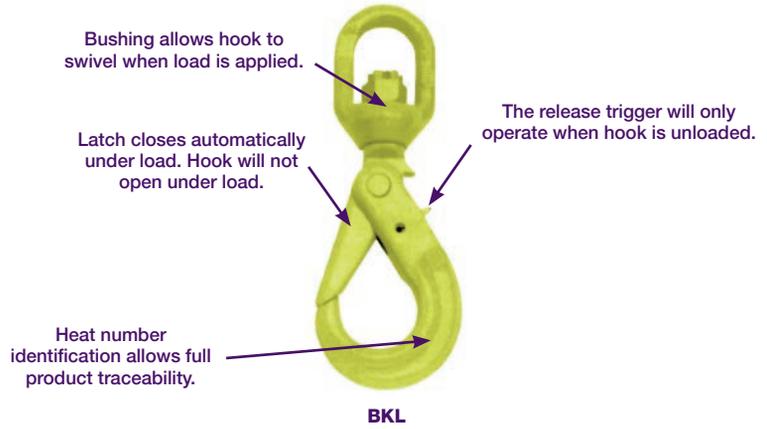
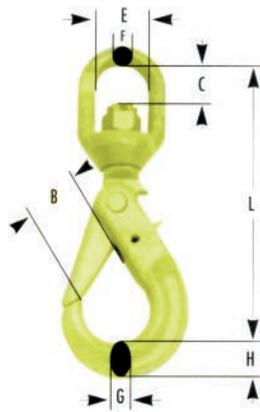
* Design factor 4:1 Proof tested and certified.

WARNING:
Never exceed published working load limit.

CHAIN SLING FITTINGS

Gunnebo-Johnson Corp

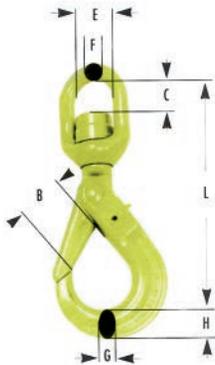
Self Locking BKL With Bronze Bushings (Swivel Eye Type)



| CERTEX Cat. Ref. No. | Gunnebo-Johnson Code | Chain Size | Working Load Limit *(Lbs) | Dimensions (Inches) | | | | | | | | Weight Each (Lbs) |
|-------------------------|-------------------------|---------------|------------------------------|---------------------|-----|-----|-----|-----|-----|-----|------|----------------------|
| | | | | L | B | C | E | F | G | H | | |
| CX06-0551 | BKL-6-10 | 7/32 | 2,700 | 5.9 | 1.1 | .91 | 1.3 | .43 | .55 | .75 | 1.4 | |
| CX06-0552 | BKL-7/8-10 | 9/32 | 4,300 | 7.2 | 1.4 | 1.1 | 1.4 | .47 | .67 | .91 | 2.4 | |
| CX06-0553 | BKL-10-10 | 3/8 | 8,800 | 8.6 | 1.7 | 1.5 | 1.7 | .59 | .99 | 1.1 | 4.4 | |
| CX06-0554 | BKL-13-10 | 1/2 | 15,000 | 10.9 | 2.1 | 1.7 | 1.9 | .75 | 1.1 | 1.5 | 8.4 | |
| CX06-0555 | BKL-16-10 | 5/8 | 22,600 | 13.2 | 2.5 | 2.3 | 2.4 | .87 | 1.5 | 1.9 | 15.0 | |

* Design factor 4:1 Proof tested and certified.

Self Locking BKLK With Ball Bearings (Swivel Eye Type)



All three hooks are equipped with Stainless Steel springs.

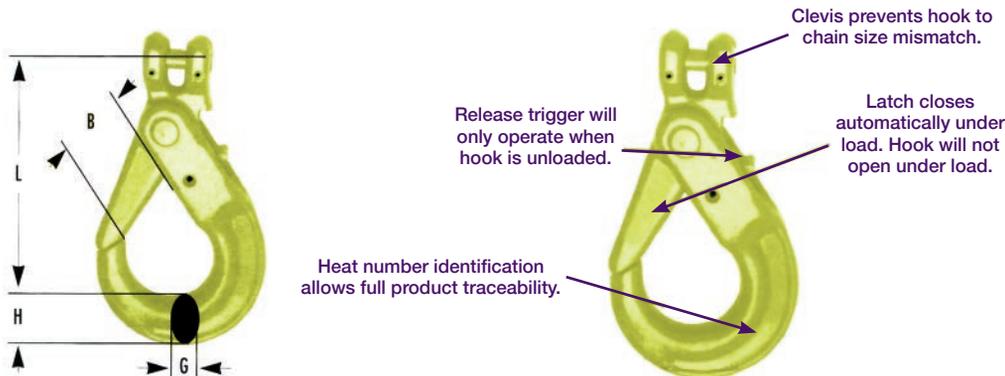
| CERTEX Cat. Ref. No. | Gunnebo-Johnson Code | Chain Size | Working Load Limit *(Lbs) | Dimensions (Inches) | | | | | | | | Weight Each (Lbs) |
|-------------------------|-------------------------|---------------|------------------------------|---------------------|-----|-----|-----|-----|-----|-----|------|----------------------|
| | | | | L | B | C | E | F | G | H | | |
| CX06-0556 | BKLN-6-10 | 7/32 | 2,700 | 5.8 | 1.1 | .87 | 1.3 | .43 | .55 | .75 | 1.5 | |
| CX06-0557 | BKLN-7/8-10 | 9/32 | 4,300 | 7.2 | 1.4 | 1.1 | 1.4 | .47 | .67 | .91 | 2.4 | |
| CX06-0558 | BKLN-10-10 | 3/8 | 8,800 | 8.5 | 1.7 | 1.3 | 1.6 | .59 | .99 | 1.1 | 4.2 | |
| CX06-0559 | BKLN-13-10 | 1/2 | 15,000 | 10.9 | 2.1 | 1.6 | 1.9 | .75 | 1.1 | 1.5 | 8.4 | |
| CX06-0560 | BKLN-16-10 | 5/8 | 22,600 | 13.2 | 2.5 | 2.0 | 2.4 | .87 | 1.5 | 1.9 | 15.9 | |

* Design factor 4:1 Proof tested and certified.

WARNING:
Never exceed published working load limit.

Gunnebo-Johnson Corp

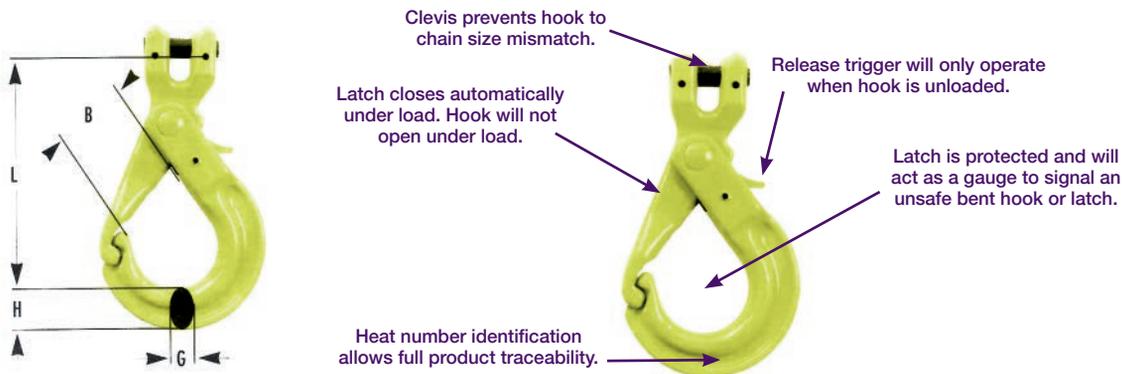
Alloy BK Safety Hooks Self Locking (Clevis Type)



| CERTEX Cat. Ref. No. | Gunnebo-Johnson Code | Chain Size | Working Load Limit *(Lbs) | Dimensions (Inches) | | | | Weight Each (Lbs) |
|-------------------------|-------------------------|---------------|------------------------------|---------------------|-----|-----|-----|----------------------|
| | | | | L | B | G | H | |
| CX06-0561 | BKG-7-10 | 9/32 | 4,300 | 4.7 | 1.4 | .67 | .91 | 1.7 |
| CX06-0562 | BKG-10-10 | 3/8 | 8,800 | 5.6 | 1.7 | .99 | 1.1 | 3.3 |
| CX06-0563 | BKG-13-10 | 1/2 | 15,000 | 7.1 | 2.1 | 1.1 | 1.5 | 6.2 |
| CX06-0564 | BKG-16-10 | 5/8 | 22,600 | 8.5 | 2.5 | 1.5 | 1.9 | 11.0 |

* Design factor 4:1 Proof tested and certified.

Self Locking With Grip Latch (Clevis Type)



| CERTEX Cat. Ref. No. | Gunnebo- Johnson Code | Chain Size | Working Load Limit *(Lbs) | Dimensions (Inches) | | | | Weight Each (Lbs) |
|-------------------------|--------------------------|---------------|------------------------------|---------------------|-----|-----|-----|----------------------|
| | | | | L | B | G | H | |
| CX06-0565 | GBK-7-10 | 9/32 | 4,300 | 4.4 | 1.3 | .67 | .79 | 1.3 |
| CX06-0566 | GBK-10-10 | 3/8 | 8,800 | 5.4 | 1.7 | .83 | .97 | 2.4 |
| CX06-0567 | GBK-13-10 | 1/2 | 15,000 | 6.6 | 2.0 | 1.0 | 1.2 | 4.4 |

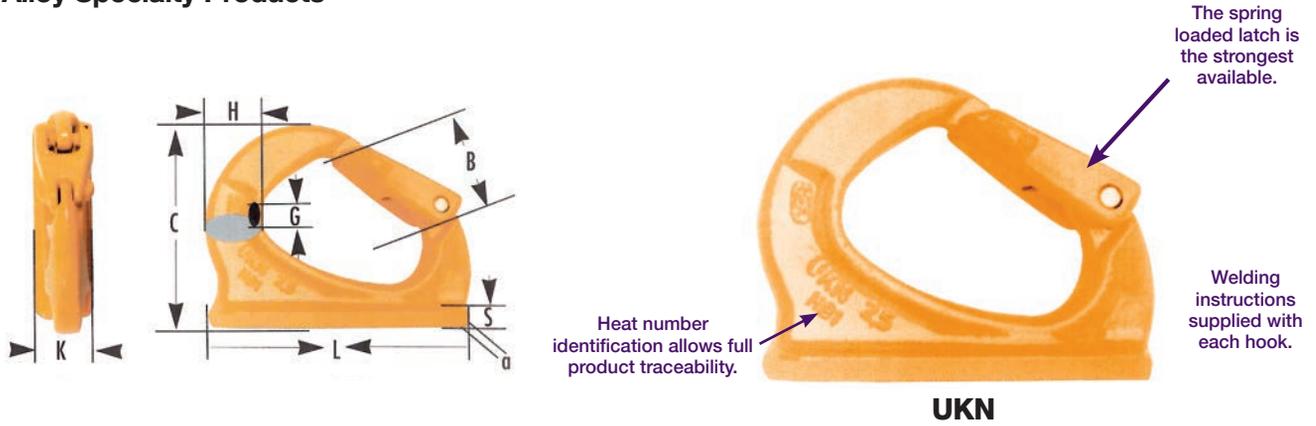
* Design factor 4:1 Proof tested and certified.

WARNING:
Never exceed published working load limit.

CHAIN SLING FITTINGS

Gunnebo-Johnson Corp

Alloy Weld-On Hooks Alloy Specialty Products



UKN

| CERTEX Cat. Ref. No. | Gunnebo-Johnson Code | Working Load Limit *(Tons) | Dimensions (Inches) | | | | | | | | Weight Each (Lbs) |
|-------------------------|-------------------------|----------------------------------|---------------------|-----|-----|-----|-----|-----|-----|-----|----------------------|
| | | | B | C | G | H | K | L | S | A | |
| CX06-0568 | UKN-1** | 1.0 | .79 | 2.8 | .67 | .99 | .99 | 3.7 | .24 | .16 | 1.3 |
| CX06-0569 | UKN-3 | 3.0 | 1.2 | 4.1 | .91 | 1.3 | 1.4 | 5.2 | .39 | .24 | 2.9 |
| CX06-0570 | UKN-4 | 4.0 | 1.1 | 4.5 | 1.1 | 1.5 | 1.7 | 5.5 | .43 | .28 | 4.2 |
| CX06-0571 | UKN-5 | 5.0 | 1.3 | 5.2 | 1.2 | 1.9 | 1.8 | 6.5 | .47 | .32 | 6.4 |
| CX06-0572 | UKN-8 | 8.0 | 1.3 | 5.2 | 1.6 | 2.0 | 2.0 | 6.8 | .51 | .35 | 7.7 |
| CX06-0573 | UKN-10 | 10.0 | 1.9 | 6.7 | 1.7 | 2.3 | 2.2 | 8.7 | .55 | .35 | 14.1 |
| CX06-0574 | UKN-15 | 15.0 | 2.1 | 7.4 | 2.0 | 2.6 | 2.4 | 9.4 | .59 | .47 | 19.4 |

* Design factor 5:1 Proof tested and certified.
Baseplate of hook is 1024C steel (use electrode AWS/ASTM E7018-1, ISO E51 5 B120 20H). Welding is to be done by a qualified welder.
Hook latch is alloy.
** Welding plate on UKN 1 is slightly curved.

WARNING:
Never exceed published working load limit.



A Totally New Way to Fabricate Chain Slings

GrabiQ is an exciting new family of alloy chain sling components. Instead of the old “one component does one job” fitting, GrabiQ combines in a single component up to three separate functions. Figure 1 features a GrabiQ Master Grab, which serves as the master link, connecting link for two legs of chain, and shortening hooks for each leg, all in one fitting. Using traditional fittings to construct the same sling would require 7 top-of-the-sling components, instead of just one. Some of the new GrabiQ fittings are equally well suited for use as top assembly connectors or hooks at the bottom of a sling, adding even more flexibility for riggers.

While the specific Working Load Limits vary, depending on size, slings fabricated from grade 100 chain and fittings are about 25% stronger than their grade 80 counterparts. Converting from grade 80 to GrabiQ will especially benefit users who can make use of the additional WLL without the expense of purchasing larger chain and fittings.

The percentage of strength increase varies depending on the size. The Working Load Limit (WLL) gain for 3/8” is about 24 percent, while the WLL for 7/32” is more than 30 percent. All other sizes fall somewhere in between.



Figure 2. Each GrabiQ component is clearly marked with the number 10, designating it as Grade 100.



Figure 3. “A three-leg, fully adjustable sling.”



Figure 1. The GrabiQ Master Grab combines a master link, master link connectors for two legs of chain, and two shortening hooks into a single fitting. The shortening hook can also be used to create loop legs.

Fewer Components Means Less Weight

Most of the time, GrabiQ slings will be lighter than their grade 80 counterparts. Fewer components means less weight. Also, because grade 100 has a lifting capacity that is usually 25% higher than its grade 80 counterpart, the ratio of strength-to-weight is greater, offering additional weight savings with GrabiQ.

Reduced Components Means Less Clutter

Because GrabiQ often reduces the number of components required to assemble a chain sling, rigging is easier. Figure 3 shows a three-leg fully adjustable chain sling with all three legs shortened. The sling still has only three fittings at the top.

More Flexibility in Chain Sling Uses

When each GrabiQ leg is furnished with a chain pocket, the chain sling can be used for a much wider variety of loads, often reducing the amount of rigging required on site. The chain pocket can be used to either shorten a leg or create a leg loop. Some fittings are equally well suited for use at the top or bottom of a chain sling. For example, the GrabiQ C-Grab can be used as a top-of-the-sling connector or as pictured in Figure 4, at the bottom of the sling as an adjustable sliding choker.

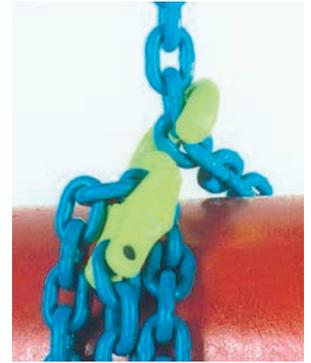


Figure 4. "A GrabiQ C-Grab used at the bottom of the sling as an adjustable sliding choker."

Chain Sling Inspections Are Easier

Inspecting chain slings is easier and faster because fewer components must be examined for wear or damage.



Figure 5. Only 3 top-of-the-sling GrabiQ components are needed to fabricate a 4-leg, fully adjustable sling.



Figure 6. Traditional fabrication requires 15 fittings.

Quality Standards:

Gunnebo Grade 100 GrabiQ alloy steel chain and chain sling components are manufactured and tested in accordance with ASTM A973, A952, and A907 material standards. GrabiQ chain and components meet or exceed the safety standards as prescribed by ASME B30.9 & B30.10, and OSHA alloy steel chain sling regulations.

All chain and every single component is proof-loaded to 2.5 time the Working Load Limit.

The Swedish plants manufacturing GrabiQ products certified to ISO 90w01 / ISO 9002 Quality Standards. Gunnebo's quality management covers all aspects of production from raw material to delivered product.

Full Test Certification is supplied on request.

CARBON CHAIN

Chain Definitions

The Low Carbon chains and attachments shown in this catalog are designed for general purpose applications and are not to be used for lifting or hoisting purposes or where chain failure is likely to cause injury to persons or damage to property.

For lifting or hoisting applications, chain and attachments should be used.

Instructions and Cautions Governing the Purchase and Use of Chain

Working Load Limit: The “working load limit” is the maximum load in pounds which at any time or under any condition should ever be applied to chain or a sling component, even when chain is new and in the same condition it was when it left the factory, and when the load is evenly applied in direct tension to a straight length of chain.

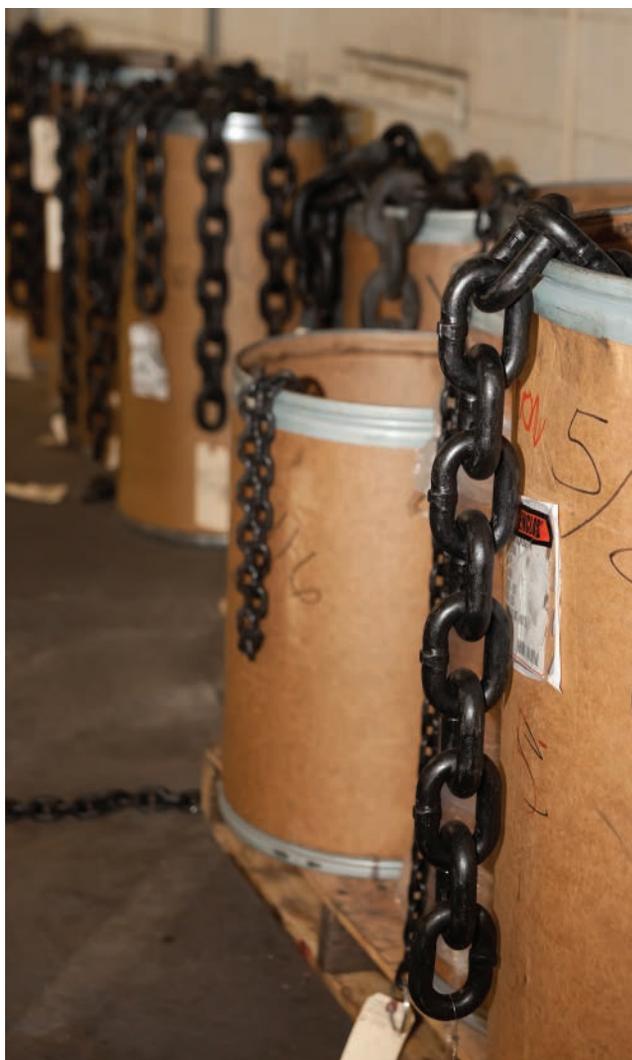
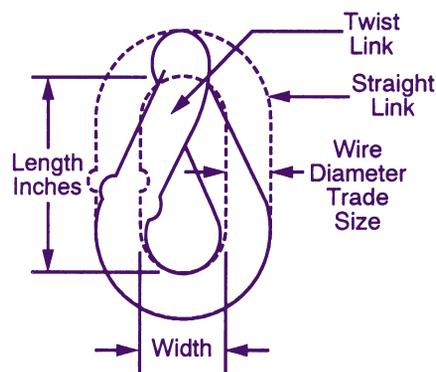
The following factors or abuses will lessen the load that the chain assembly will withstand and should be avoided:

- Tip loading of hooks
- Twisting of the chain
- Disfigurement
- Deterioration of chain or component by wear, usage or corrosion
- Jerking or the sudden impact of a load multiplies the stress on the chain very rapidly
- Use other than that for which the chain or component was intended

Caution: Chain and component assemblies should be rated according to the working load limit of the weakest component.

Instructions Regarding Attachments: Care should be taken to select attachments of the same type, grade, size and working load limit as the chain. Follow recommended attachment procedure for best results. Misuse or abuse of chain and attachments may result in serious personal injury.

All dimensions shown are nominal and all weights are approximate. See individual pages for working load limits.



WARNING:

Failure to read, understand and follow these instructions and working load limits may cause serious physical injury and property damage.

CARBON CHAIN ASSEMBLIES

Grade 70 Transport Tiedown Chain

Assemblies have Grade 70 Clevis Grab Hook each end. Packed 25 per drum.

| Grade 70 Transport Tiedown Chain Assembly | | | |
|---|---------------|---------------------------|----------------------|
| Size | Wt. Each Lbs. | Working Load Limit Lbs.*† | CERTEX Cat. Ref. No. |
| 5/16 x 20 ft. | 22 | 4,700 | CX06-0714 |
| 5/16 x 25 ft. | 30 | 4,700 | CX06-0715 |
| 3/8 x 20 ft. | 31 | 6,600 | CX06-0718 |



Other lengths available upon request.

† The values for working load limits shown here shall be used only for calculating the number of chain tiedown assemblies required to secure an article in compliance with Department of Transportation Regulations 393,102(b).

Winch Line Tail Chain

Winch Line Tail Chain is a flexible attachment for use on the end of wire rope. Primarily intended for use on truck and tractor winch lines. Length specified is exclusive of hook. Use the same size chains as wire rope.

The hook is drop forged alloy steel and heat treated for extra durability. The hook is designed to prevent wearing of the wire rope.



| Winch Line Tail Chain | | | | | | |
|-----------------------|--------------------------------|---------------|----------------------|--------------------------|----------------------|--------------------------|
| Trade Size Inches | Length Each In. Excluding Hook | Wt. Each Lbs. | CERTEX Cat. Ref. No. | Working Load Limit Lbs.* | CERTEX Cat. Ref. No. | Working Load Limit Lbs.* |
| 1/2 | 18 | 7 | CX06-0725 | 9,200 | — | — |
| 5/8 | 18 | 10 | CX06-0726 | 14,000 | — | — |
| 3/4 | 18 | 13 | — | 19,750 | CX06-0728 | 28,300 |
| 7/8 | 24 | 24 | — | — | CX06-0729 | 34,300 |
| 1 | 24 | 27 | — | — | CX06-0730 | 38,750 |

WARNING:

Working Load Limit must not be exceeded.
Not to be used for lifting or hoisting applications.

CARBON CHAIN

Definitions and Warnings

Columbus McKinnon Corporation assumes no responsibility for the use or misapplication of any of its products. Products are provided with the express understanding that the purchaser and/or user are thoroughly familiar with the correct application and proper use. The following warnings and definitions are provided as an aid to understanding.

The chains listed on the pages in this catalog exceed the specifications of the National Association of Chain Manufacturers for the specific types of chain involved. However, none of these chains are made from alloy steel and should not be used for overhead lifting purposes. CM Chain produces an alloy chain known as Herc-Alloy 800 chain that is designed for overhead lifting.

Definitions

Working Load Limit — Refers to the maximum load (rated capacity) in pounds that shall be applied in direct tension to a straight length of chain or attachment. The working load limit shall not be exceeded.

Proof Test (or Manufacturing Test Force) — Refers to a load in pounds which an attachment or chain (or both) has withstood during a test in which an increasing tension is applied to an attachment or straight length of chain. This is typically accomplished as part of the manufacturing or testing process.

Minimum Break Load — Refers to a load in pounds as applied to an attachment or chain at the time it left the factory that has been found by representative testing to break the item under test of increasing force as applied by a standard testing machine. This a manufacturing test and such data is not intended for service or design purposes.

Warnings

Never exceed the “working load limit” of chain or attachments, even when the item is new and the load is uniformly applied.

Before use, always inspect chain and attachments for kinking, twisting, knotting, and visible defects such as distortion or damage.

Do not jerk load. Pick up slowly and apply a steady pull.

Protect items from corrosion. Any product will break if abused or overused.

Use only alloy chain attachments (Grade 80) for overhead lifting purposes, never any other chain.

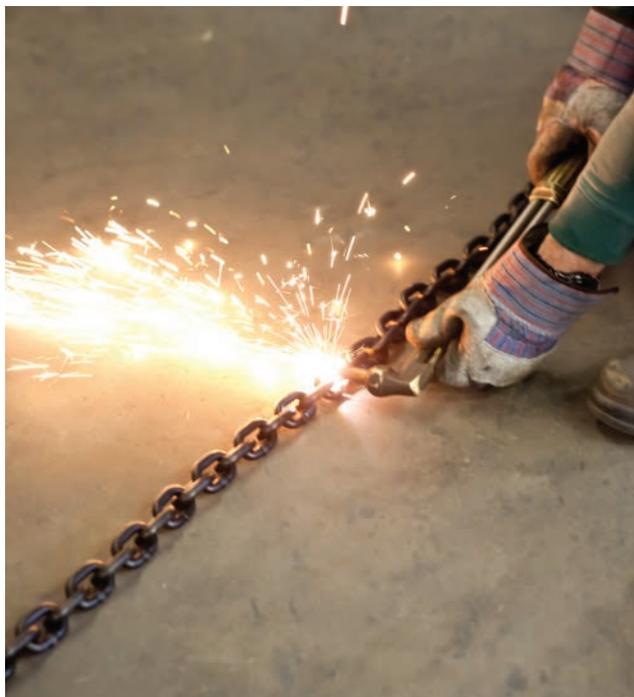
The terms “working load limit,” “proof test,” and “minimum break load” contain no implication of what load an attachment or chain will withstand, if any, if the factors noted in the Definitions are changed.

The “working load limit” should not be exceeded, even when an attachment or chain is new and the load is uniformly applied. The manufacturer does not accept any liability for damages with result from an attachment or chain being used in excess of the working load limit.

Any changes in these factors could lessen the load the chain will hold. For example:

- Acceleration in the rate of application, which could cause dangerous overloading.
- Variation in the angle of the load. As the angle or inclination decreases, the working load capacity of a sling will decrease accordingly.
- Twisting, knotting and kinking.
- A purpose other than that for which the chain was intended.

Where attachments, such as hooks or rings are desired for use with chain in sustaining loads, care should be taken to select attachments of the type, grade, and size recommended for use with corresponding alloy chain with which such attachments are used.



CARBON CHAIN

Grade 30 Proof Coil Chain



| Trade Size In Inches | Material Size | | Nominal Inside Link Dimensions, Inches | | Maximum Length, 100 Links Inches | Weight per 100 ft. In Pounds | Working* Load Limit In Pounds |
|----------------------|---------------|---------|--|-------|----------------------------------|------------------------------|-------------------------------|
| | Inches | Decimal | Length | Width | | | |
| 3/16 | 13/64 | .202 | 0.96 | 0.41 | 99 | 33 | 750 |
| 1/4 | 17/64 | .265 | 1.01 | .48 | 104 | 63 | 1,250 |
| 5/16 | 21/64 | .327 | 1.11 | .50 | 114 | 98 | 1,900 |
| 3/8 | 25/64 | .390 | 1.24 | .62 | 128 | 144 | 2,650 |
| 1/2 | 17/32 | .531 | 1.51 | .82 | 158 | 278 | 4,500 |
| 5/8 | 21/32 | .656 | 1.88 | 1.01 | 194 | 422 | 6,900 |
| 3/4 | 25/32 | .781 | 2.13 | 1.13 | 220 | 606 | 9,750 |
| 1 | 1 1/32 | 1.031 | 2.77 | 1.51 | 286 | 1,069 | 13,950 |

Dimensions and weights are approximate and subject to variations.

Grade 43 High Test Chain



| CERTEX Cat. Ref. No. | Trade Size In Inches | Material Size | | Nominal Inside Link Dimensions, Inches | | Maximum Length, 100 Links Inches | Weight per 100 ft. In Pounds | Working* Load Limit In Pounds |
|----------------------|----------------------|---------------|---------|--|-------|----------------------------------|------------------------------|-------------------------------|
| | | Inches | Decimal | Length | Width | | | |
| CX06-0731 | 1/4 | 9/32 | .281 | 1.01 | .48 | 104 | 71 | 2,600 |
| CX06-0732 | 5/16 | 21/64 | .327 | 1.11 | .50 | 114 | 98 | 3,900 |
| CX06-0733 | 3/8 | 25/64 | .390 | 1.24 | .62 | 128 | 144 | 5,400 |
| CX06-0734 | 1/2 | 17/32 | .531 | 1.51 | .82 | 156 | 278 | 9,200 |
| CX06-0735 | 5/8 | 21/32 | .656 | 1.88 | 1.01 | 194 | 422 | 11,500 |
| CX06-0736 | 3/4 | 25/32 | .781 | 2.13 | 1.13 | 220 | 606 | 16,200 |
| CX06-0737 | 7/8 | 29/32 | .875 | 2.52 | 1.38 | 260 | 769 | 22,500 |
| CX06-0738 | 1 | 1 1/32 | 1.000 | 2.77 | 1.51 | 286 | 1,069 | 26,500 |

Dimensions and weights are approximate and subject to variations.

Grade 70 Binding Chain



| CERTEX Cat. Ref. No. | Trade Size In Inches | Material Size | | Nominal Inside Link Dimensions, Inches | | Maximum Length, 100 Links, Inches | Weight per 100 ft. In Pounds | Working* Load Limit In Pounds |
|----------------------|----------------------|---------------|---------|--|-------|-----------------------------------|------------------------------|-------------------------------|
| | | Inches | Decimal | Length | Width | | | |
| CX06-0739 | 1/4 | 9/32 | .281 | .84 | .48 | 87 | 74 | 3,150 |
| CX06-0740 | 5/16 | 11/32 | .327 | .99 | .47 | 102 | 100 | 4,700 |
| CX06-0741 | 3/8 | 13/32 | .406 | 1.15 | .54 | 119 | 156 | 6,600 |
| CX06-0742 | 7/16 | 15/32 | .468 | 1.30 | .62 | 134 | 204 | 8,750 |
| CX06-0743 | 1/2 | 17/32 | .531 | 1.45 | .73 | 149 | 259 | 11,300 |

Dimensions and weights are approximate and subject to variations.

WARNING:

Working Load Limit is not to be exceeded.
This chain/accessory is not for overhead lifting.

CARBON CHAIN ATTACHMENTS

Chain & Lifting Products Division

Connecting Links

Drop Forged Steel and Heat Treated



| Connecting Links | | | | | |
|------------------|--------------------------|-------------------|---------------|----------------------|----------------------|
| Packaged | | | | | |
| Link Size Inches | Working Load Limit Lbs.* | Wt. Per Ctn. Lbs. | Pcs. Per Ctn. | CERTEX Cat. Ref. No. | CERTEX Cat. Ref. No. |
| 3/16 | 800 | 2/3 | 20 | CX06-0853 | CX06-0859 |
| 1/4 | 1,325 | 2/3 | 10 | CX06-0854 | CX06-0860 |
| 5/16 | 1,950 | 1 | 10 | CX06-0855 | CX06-0861 |
| 3/8 | 2,750 | 2 | 10 | CX06-0856 | CX06-0862 |
| 7/16 | 3,625 | 3 | 10 | CX06-0857 | — |
| 1/2 | 4,750 | 4 | 10 | CX06-0858 | CX06-0863 |

Drop forged. For connection of attachments to chain. Links are provided with interlocking lugs and rivets. For permanent connections, the rivets must be peened into the counter sunk holes.

Use with chain of equal or lower working load limit.

WARNING:

Working load limit must not be exceeded.
Not to be used for lifting or hoisting applications.



CARBON CHAIN ATTACHMENTS

Columbus McKinnon Corporation

Double Clevis (Mid-Link)



Applications:

Used as a temporary or permanent link with proof coil or high test chain.

Description:

Drop forged, heat-treated, carbon steel, zinc-plated.

Packing:

Display pack.

| For Chain Size Inches | Carton | | | Display Pack | Clevis Opening Inches | Pin Diameter Inches | Reach Inches | Weight Display Pack Pounds | Working Load Limit* Pounds |
|-----------------------|----------------------|----------------------------|----------|--------------|-----------------------|---------------------|--------------|----------------------------|----------------------------|
| | CERTEX Cat. Ref. No. | Columbus McKinnon Code No. | UPC Code | | | | | | |
| 1/4 & 5/16 | CX06-0864 | M605 | 28926 | 30 | 7/16 | 3/8 | 1 3/16 | 10 | 3,900 |
| 3/8 | CX06-0865 | M606 | 28936 | 30 | 1/2 | 7/16 | 1 3/8 | 14 | 5,400 |
| 7/16 & 1/2 | CX06-0866 | M608 | 28941 | 10 | 5/8 | 9/16 | 1 3/4 | 11 | 9,200 |

Quick Link



Applications:

Used as a repair link, connecting link or attaching device.

Description:

Zinc-plated NOT heat-treated. Use only with chain or equal or lower Working Load Limit.

Packing:

3/16", 1/4" and 5/16" sizes, packed 20 per carton, 3/8" and 1/2" sizes, packed 10 per carton.

| For Chain Size Inches | Carton | | | Display Pack | Clevis Opening Inches | Pin Diameter Inches | Reach Inches | Weight Per 100 Pieces Pounds | Working Load Limit* Pounds |
|-----------------------|----------------------|----------------------------|----------|--------------|-----------------------|---------------------|--------------|------------------------------|----------------------------|
| | CERTEX Cat. Ref. No. | Columbus McKinnon Code No. | UPC Code | | | | | | |
| 3/16 | CX06-0867 | D81001 | 39751 | 20 | 1 1/2 | 1/2 | 1/4 | 4 1/2 | 660 |
| 1/4 | CX06-0868 | D81101 | 39755 | 20 | 1 3/4 | 9/16 | 9/32 | 8 | 880 |
| 5/16 | CX06-0869 | D81201 | 39760 | 20 | 2 5/16 | 3/8 | 3/8 | 17 | 1,760 |
| 3/8 | CX06-0870 | D81301 | 39765 | 10 | 2 7/16 | 7/16 | 7/16 | 23 | 2,220 |
| 1/2 | CX06-0871 | D81501 | 39770 | 10 | 3 3/16 | 19/32 | 19/32 | 51 | 3,300 |

WARNING:

Working load limit must not be exceeded.
Not to be used for lifting or hoisting applications.

CARBON CHAIN ATTACHMENTS

Columbus McKinnon Corporation

Repair Link



Applications:

A temporary repair link also used to couple light attachments.

Description:

A mild steel, available with bright, hot galvanized, or zinc-plated finishes.

Packing:

100 per carton in 1/8" by 3/4" and 3/16" by 1" sizes, 50 per carton in the 7/32" by 1 1/4" through 3/8" by 2" sizes. 25 per carton in the 1/2" by 2 1/2" size.

| Trade Size Inches | Bright Carton | | | Zinc Plated Carton | | | Pieces per Carton | Inside Length Inches | Inside Width Inches | Weight per 100 Pieces Pounds | Working Load Limit* Pounds |
|-------------------|----------------------|----------------------------|----------|----------------------|----------------------------|----------|-------------------|----------------------|---------------------|------------------------------|----------------------------|
| | CERTEX Cat. Ref. No. | Columbus McKinnon Code No. | UPC Code | CERTEX Cat. Ref. No. | Columbus McKinnon Code No. | UPC Code | | | | | |
| 1/8 x 3/4 | — | — | — | CX06-0883 | 653612 | 29251 | 100 | 3/4 | 1/4 | 1 1/8 | 175 |
| 3/16 x 1 | CX06-0872 | 653180 | 29186 | CX06-0884 | 653618 | 29256 | 100 | 1 | 1/2 | 3 1/2 | 225 |
| 7/32 x 1 1/4 | CX06-0873 | 653211 | 29191 | CX06-0885 | 653621 | 29261 | 50 | 1 1/4 | 1/2 | 5 1/2 | 450 |
| 1/4 x 1 1/4 | CX06-0874 | 653251 | 29196 | CX06-0886 | 653625 | 29266 | 50 | 1 1/4 | 1/2 | 7 1/2 | 400 |
| 1/4 x 1 1/2 | CX06-0875 | 653253 | 29206 | CX06-0887 | 653626 | 29276 | 50 | 1 1/2 | 1/2 | 8 1/3 | 400 |
| 1/4 x 2 | CX06-0876 | 653255 | 29211 | CX06-0888 | 653627 | 29281 | 50 | 2 | 5/8 | 10 1/2 | 400 |
| 9/32 x 1 1/4 | CX06-0877 | 653281 | 29201 | CX06-0889 | 653628 | 29271 | 50 | 1 1/4 | 1/2 | 9 3/4 | 375 |
| 5/16 x 1 1/2 | CX06-0878 | 653312 | 29216 | CX06-0890 | 653631 | 29286 | 50 | 1 1/2 | 3/4 | 14 1/2 | 675 |
| 5/16 x 2 | CX06-0879 | 653315 | 29221 | CX06-0891 | 653632 | 29291 | 50 | 2 | 3/4 | 17 1/3 | 625 |
| 3/8 x 1 5/8 | CX06-0880 | 653373 | 29226 | CX06-0892 | 653633 | 29296 | 50 | 1 5/8 | 3/4 | 23 | 1,050 |
| 3/8 x 2 | CX06-0881 | 653375 | 29231 | CX06-0893 | 653638 | 29301 | 50 | 2 | 3/4 | 24 | 1,000 |
| 1/2 x 2 1/2 | CX06-0882 | 653506 | 29236 | CX06-0894 | 653650 | 29306 | 25 | 2 1/2 | 1 | 54 | 1,525 |

Cold Shut



Applications:

As temporary repair link, use one size larger than Proof coil chain (Grade 30) with which it is to be used. Also used to couple light attachments.

Description:

Low carbon steel, self-colored or zinc-plated finish.

Packaging:

1/4" thru 5/8" zinc-plated, packed 10 per carton. All other bulk.

| Trade Size Inches | Zinc-Plated Bulk (Ea.) | | | Self-Colored Carton (10) | | | Inside Length Inches | Inside Width Inches | Weight per 100 Pieces Pounds | Working Load Limit* Pounds |
|-------------------|------------------------|----------------------------|----------|--------------------------|----------------------------|----------|----------------------|---------------------|------------------------------|----------------------------|
| | CERTEX Cat. Ref. No. | Columbus McKinnon Code No. | UPC Code | CERTEX Cat. Ref. No. | Columbus McKinnon Code No. | UPC Code | | | | |
| 3/16 | CX06-0895 | 50091 | 29060 | — | — | — | 15/16 | 5/16 | 3 | 525 |
| 1/4 | CX06-0896 | 50191 | 29062 | CX06-0902 | 673104 | 34175 | 1 | 3/8 | 6 | 925 |
| 5/16 | CX06-0897 | 50291 | 29067 | CX06-0903 | 673105 | 34176 | 1 3/16 | 7/16 | 10 | 1,450 |
| 3/8 | CX06-0898 | 50391 | 29072 | CX06-0904 | 673106 | 34177 | 1 5/16 | 1/2 | 18 | 2,110 |
| 7/16 | CX06-0899 | 50491 | 29077 | CX06-0905 | 673107 | 34178 | 1 1/2 | 9/16 | 26 | 2,850 |
| 1/2 | CX06-0900 | 50591 | 29082 | CX06-0906 | 673108 | 34179 | 1 9/16 | 3/4 | 38 | 3,750 |
| 5/8 | CX06-0901 | 50691 | 29087 | CX06-0907 | 673110 | 34180 | 2 1/8 | 7/8 | 78 | 5,850 |

WARNING:

Working Load Limit is not to be exceeded. This chain/accessory is not for overhead lifting. Select coupling link by working load limit. For use only with chain of equal or lower working load limit.

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.

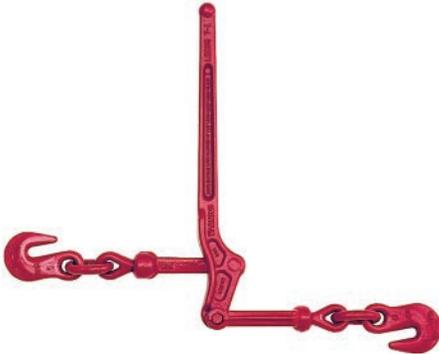
WARNING:

- 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.

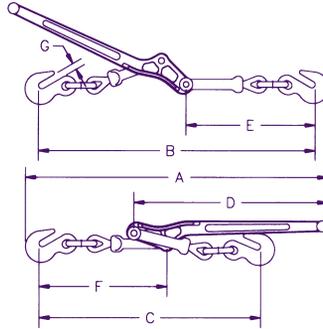
LOAD BINDERS

The Crosby Group, Inc.

Standard Lever Type Load Binder



L-150



- Forged Steel — Quenched and Tempered.
- Binder toggles away from the load.

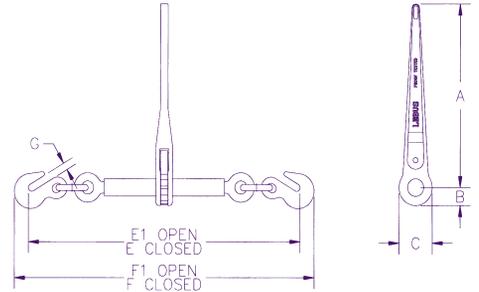
| Model | CERTEX Cat. Ref. No. | Crosby Stock No. | Std. Pkg. | Min-Max Chain Size (in.) | Working Load Limit (lbs.) | Proof Load (lbs.) | Minimum Ultimate Strength (lbs.) | Weight Each (lbs.) | Handle Length (in.) | Take Up (in.) | Dimensions (in.) | | | | | | |
|-------|----------------------|------------------|-----------|--------------------------|---------------------------|-------------------|----------------------------------|--------------------|---------------------|---------------|------------------|-------|-------|-------|-------|-------|-----|
| | | | | | | | | | | | A | B | C | D | E | F | G |
| 7-1 | CX06-0908 | 1048128 | 4 | 5/16-3/8 | 5400 | 10800 | 19000 | 7.02 | 16.00 | 4.50 | 24.13 | 22.13 | 17.88 | 16.00 | 10.38 | 10.38 | .50 |
| A-1 | CX06-0909 | 1048146 | 4 | 3/8-1/2 | 9200 | 18400 | 33000 | 12.47 | 18.69 | 4.50 | 28.75 | 25.75 | 21.25 | 18.69 | 12.31 | 12.38 | .63 |
| C-1 | CX06-0910 | 1048164 | 4 | 1/2-5/8 | 13000 | 26000 | 46000 | 19.68 | 21.00 | 4.75 | 31.25 | 29.75 | 25.00 | 21.00 | 14.63 | 13.75 | .72 |

NOTE: Binders shown with Proof Load Pounds have been individually proof tested to these values shown, prior to shipment.

LOAD BINDERS

The Crosby Group, Inc.

L-140



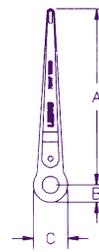
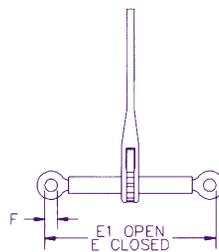
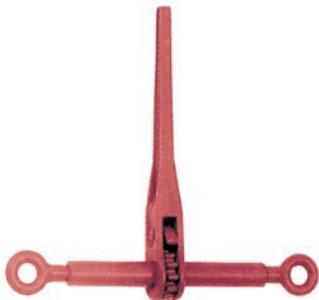
- Upgrade for use with Grade 7 Transport Chain.
- Utilizes standard Crosby A-323 Alloy Eye Grab Hooks.
- New design “one piece” forged handle.
- Continuous take-up feature, infinite adjustment, gets the last half of chain.
- One piece assembly, no bolts or nuts to loosen.
- Ratchet spring rust proofed.
- All load bearing or holding parts forged.
- Easy operating positive ratchet.

Meets or exceeds CVSA Cargo Securement Guidelines, August 1993

| Model | CERTEX Cat. Ref. No. | Crosby Stock No. | Min-Max Chain Size (in.) | Working Load Limit (lbs.) | Proof Load (lbs.) | Weight Each (lbs.) | Handle Length (in.) | Barrel Length (in.) | Take-Up (in.) | Dimensions (in.) | | | | | | | |
|-------|----------------------|------------------|--------------------------|---------------------------|-------------------|--------------------|---------------------|---------------------|---------------|------------------|------|------|-------|-------|-------|-------|-----|
| | | | | | | | | | | A | B | C | E | E1 | F | F1 | G |
| R-7 | CX06-0911 | 1048404 | 5/16-3/8 | 8800 | 17600 | 11.23 | 14 | 10 | 8.0 | 14.00 | 1.38 | 2.75 | 22.94 | 30.94 | 25.13 | 33.13 | .50 |
| R-A | CX06-0912 | 1048422 | 3/8-1/2 | 15000 | 30000 | 12.83 | 14 | 10 | 8.0 | 14.00 | 1.38 | 2.75 | 25.25 | 33.25 | 27.63 | 35.63 | .63 |
| R-C | CX06-0913 | 1048440 | 1/2-5/8 | 16000 | 32000 | 14.55 | 14 | 10 | 8.0 | 14.00 | 1.38 | — | 26.38 | 34.38 | 29.44 | 37.44 | .72 |

NOTE: Binder shown with Proof Load Pounds have been individually Proof Tested to these values shown, prior to shipment.

R-10 Binder Less Links and Hooks



- Binders available with hooks for 3/8” and 1/2” chain sizes upon request.

Meets or exceeds CVSA Cargo Securement Guidelines, August 1993

| Model | CERTEX Cat. Ref. No. | Crosby R-10 Stock No. | Max Chain Size (in.) | Working Load Limit (lbs.) | Weight Each (lbs.) | Handle Length (in.) | Barrel Length (in.) | Take Up (in.) | Dimensions (in.) | | | | | |
|-------|----------------------|-----------------------|----------------------|---------------------------|--------------------|---------------------|---------------------|---------------|------------------|------|------|----|----|------|
| | | | | | | | | | A | B | C | E | E1 | F |
| R-10 | CX06-0914 | 1048468 | 5/8 | 16000 | 8.04 | 14 | 10 | 8.0 | 14 | 1.38 | 2.75 | 14 | 22 | 1.00 |

SEE APPLICATION AND WARNING INFORMATION

LOAD BINDERS

Columbus McKinnon Corporation

Ratchet Type Load Binder



- Heavy duty, rigid, all steel construction.
- Short reach hooks for maximum take-up.
- Infinite adjustment.
- Continuous take-up.
- Meets D.O.T. and C.V.S.A. specifications.

| CERTEX Cat. Ref. No. | Columbus McKinnon Product Code | Max Size (in.) | Take-Up (in.) | UPC Code | Working Load Limit (lbs.)* | Min. Ultimate Breaking Strength (lbs.) | Weight (lbs.) |
|----------------------|--------------------------------|----------------|---------------|----------|----------------------------|--|---------------|
| CX06-0933 | D48363** | – | 8 | 30002 | 16,200 | 46,000 | 11 |
| CX06-0934 | D48365 | 5/16 G70 | 8 | 30003 | 5,400 | 19,000 | 12 1/4 |
| | | 3/8 G43 | | | | | |
| CX06-0935 | D48366 | 3/8 G70 | 8 | 31205 | 9,200 | 28,000 | 12 1/4 |
| | | 1/2 G43 | | | | | |

** Supplied without hooks.

WARNING:

- Do not exceed working load limits specified.
- Working load limits apply to load binders only.
- See match-up chart for chain working load limits.
- For complete operating instructions, see Crosby catalog.