



# **Chain & Attachments**



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**Columbus McKinnon Corporation's** rich tradition of providing quality products and services to meet the needs of users in a variety of industries around the globe continues with an expanded line of chain and attachments by CM Rigging Products. Used by professional riggers, maintenance workers, plant engineers and safety specialists to lift, pull, and secure loads, the broad product offering allows users to select the proper product for everyday use or for those challenging, unique applications which arise during the course of a project. An integral part of the "CM Complete Lifting Systems," chain and attachments come in a wide range of configurations and capacities.



The line of Herc-Alloy 1000 chain with its exceptional working load limits has developed a following in industries where strength to weight ratios of the chain are vital. Herc- Alloy 1000 has a 25% higher working load limit when compared to its Grade 80 counterparts, and may allow a worker to lift using a smaller, lighter chain than has traditionally been used. Herc-Alloy 1000 chain is provided as a stand-alone product, but is normally part of a overhead lifting sling containing Grade 100 fittings such as hooks, Hammerlok coupling devices, and master links. The innovative Latchlok 100 hooks that can be supplied as part of overhead lifting chain slings provide maximum security in a user-friendly attachment.



The Super Strong Shackle is made from a special micro-alloy material, and provides higher working load limits than traditional carbon shackles. These shackles are used extensively in construction activities, and are part of a broad offering from the company's extensive forging.



Camlok Lifting Clamps provide stability when lifting steel plates, aluminum, glass, or rails. Numerous configurations and styles are available such as gentle grip clamps that will not harm the surfaces of the load, wide jaw clamps for special lifts, and horizontal lifting clamps used in pairs. Cady Lifters provides an extensive range of C-Hooks, spreader beams, and crane forks, and also develops individual products to meet specific customer requests. Hoist rings in forged and machined styles provide flexibility when lifting equipment and machinery at various angles.



If load securement is the goal, then load binders from Dixie Industries fit the bill. Ratchet and lever styles, specialty binders, and binder chain assemblies in various lengths provide over-the-road truckers with superior security. Various towing hooks and clusters are also an important product segment for Dixie, and the engineering group is consistently exploring unique opportunities from customers.

Rounding out the product offering is a thorough line of industry-specific specialty chain. From buoy chain to conveyor chain, CM Rigging Products offers one of the most extensive lines in the industry.

Although the broad product offering is one aspect of CM Rigging Products that provides separation from the competition, many additional services stand out:

- A global network of authorized distributors provides inventory, technical support, service after the sale, and consultation regarding specific needs.
- A thoroughly trained, knowledgeable sales force provides expertise on applications, regulations, training requirements, and product features and benefits.
- Customer service representatives address an array of issues related to shipments, product selection, specifications, and auxiliary items.
- Manufacturing facilities where testing exceeds the standards outlined by industry regulations.
- An engineering staff at manufacturing locations that works on developing unique solutions to opportunities.
- Training programs dedicated specifically to rigging products or broad-based to cover all aspects of lifting and positioning.
- The ONLY manufacturer of rigging products that is also a LEADER in the manufacturing and marketing of hoists, overhead cranes, and related products.
- More than 130 years of experience in providing products and programs that exceed the expectations of customers.
- Some of the most recognized names in the material handling industry including the following that are registered in the U.S. Patent and Trademark Office: Big Orange, Clevlok, CM, Cradle Grab, E-Z Pro, Hammerlok, Herc-Alloy, Lister, PiggyBack, Latchlok. Additionally, the following are trademarks of Columbus McKinnon Corporation: Cady, Dixie.

CM Rigging Products – an extensive mix of products, services, and support and a growing segment of Columbus McKinnon Corporation.

## Warning

Columbus McKinnon Corporation assumes no responsibility for the misuse or misapplication of any of its products. Products are provided with the express understanding that the purchaser and user are thoroughly familiar with the correct application and proper use of such products in rigging.

### ▲ WARNING ▲

#### **Improper use or care of chain can result in loss of load and/or personal injury**

##### **To avoid injury:**

- Do not exceed the working load limit.
- Always inspect chain before use for wear, damage, and elongation, Do not impact load or jerk chain. Apply load slowly.
- Protect chain from corrosion and high temperatures.
- Use only alloy chain and attachments for overhead lifting.
- Do not use twisted, knotted, or kinked chain.
- Select the proper grade and size chain for the application.
- Select attachments such as hooks to match the grade, size, and working load limit of the chain.
- Be aware of the environment where chain and hardware are being used. Extreme temperatures and corrosive media can affect the working load limit life of chain and hardware.

### ▲ WARNING ▲

#### **Improper use of rigging attachments can result in bodily injury or property damage**

##### **To avoid injury:**

- Do not exceed the working load limit.
- Do not tip load or use attachments in any manner for which they were not intended.
- Do not shock or dynamic load.
- Do not apply load to latches. Latches are to retain slack slings and chain only.
- Select attachments to match the grade, size, and working load limit of the chain.
- Do not use excessively worn or damaged attachments.
- Do not use mechanical coupling links to repair alloy chains used for overhead lifting.
- When using master rings or master links, do not use oversize crane hooks where the link does not fit in the saddle of the hook.
- When using shackles, do not side load. Centerline of the load must coincide with centerline of shackle.
- Do not replace pins or bolts with other than original equipment parts.
- Use only forged carbon wire rope clips for critical or lifting applications.
- Do not use malleable iron wire rope clips for critical or lifting applications.
- Use wire rope clips in conjunction with wire rope thimbles.
- When using shoulder eyebolts, always apply load in the plane of the eye.
- When using shoulder eyebolts, make sure shoulder is at 90 degrees to axis of hole and seated.
- When using hoist rings, verify full 360 degree seating and re-torque periodically.
- Do not move unbalanced loads.
- When using load binders, do not use a cheater bar or handle extension.
- Do not operate a load binder while anyone is on the load.
- Release lever type load binders with extreme care. Make sure everyone is clear of the load as handle may whip suddenly.

**For complete care, use, and inspection information, refer to the  
“CM Lifting, Pulling, & Binding Products Manual #PMC-10.**



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# Shackles

## Midland Super Strong Anchor Shackles



**Screw Pin**

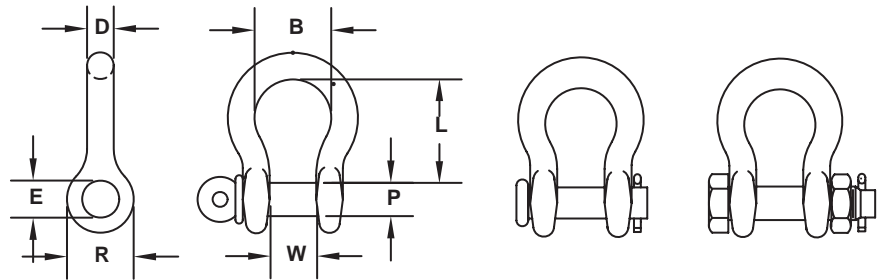


**Round Pin**



**Bolt & Nut**

- All shackles meet or exceed Federal Specification RRC-271D
- Working Load Limit and traceability codes shown as permanent marking on body and pin
- Available in powder coated, galvanized and self-colored finishes (Dacromate coating upon special request only)
- All shackles have alloy quenched and tempered pins
- Shackles made from technically advanced microalloy material
- Load break tests consistently show microalloy outperforms quenched and tempered carbon material
- Shock load testing of assemblies at -30°F consistently demonstrate microalloy outperforms quenched and tempered carbon material\*
- Shackles exhibit extreme deformation before failure\*
- Special testing and certification including magnetic particle, proof load, and fatigue test available upon request at time of order
- Special products engineering available to fit your special lifting, tie down, and pulling needs
- Design factor 6:1 (Round pin shackles design factor 5:1)



Size D	Working Load Limit	Product Code (Screw Pin)	Product Code (Round Pin)	Product Code (Bolt & Nut)	P	E	W	R	L	B min	Weight
in.	Ton				in.	in.	in.	in.	in.	in.	lb.
3/16	1/2	M645	M345	-	0.250	0.307	0.375	0.625	0.875	0.562	0.06
1/4	3/4	M646	M346	M846	0.312	0.401	0.469	0.875	1.125	0.750	0.12
5/16	1	M647	M347	M847	0.375	0.463	0.531	1.000	1.250	0.812	0.20
3/8	1-1/2	M648	M348	M848	0.438	0.531	0.656	1.125	1.437	0.937	0.30
7/16	2	M649	M349	M849	0.500	0.593	0.750	1.250	1.689	1.062	0.50
1/2	3	M650	M350	M850	0.625	0.718	0.813	1.375	1.875	1.187	0.75
5/8	4-1/2	M651	M351	M851	0.750	0.843	1.063	1.875	2.375	1.500	1.30
3/4	6-1/2	M652	M352	M852	0.875	0.968	1.250	2.125	2.813	1.750	2.30
7/8	8-1/2	M653	M353	M853	1.000	1.109	1.438	2.375	3.312	2.000	3.50
1	10	M654	M354	M854	1.125	1.234	1.688	2.625	3.750	2.312	5.00
1-1/8	12	M655	M355	M855	1.250	1.375	1.812	2.875	4.250	2.625	7.00
1-1/4	14	M656	M356	M856	1.375	1.531	2.031	3.250	4.688	2.875	9.50
1-3/8	17	M666	M366	M866	1.500	1.656	2.250	3.500	5.250	3.250	12.50
1-1/2	20	M657	M357	M857	1.625	1.781	2.375	3.750	5.750	3.375	15.28
1-5/8	24	M685	M385	M885	1.750	1.906	2.625	4.125	6.250	4.000	23.50
1-3/4	30	M677	M377	M877	2.000	2.156	2.875	4.500	7.000	4.500	27.70
2	35	M658	M358	M858	2.250	2.406	3.250	5.250	7.750	5.250	39.00

## Midland Super Strong Chain Shackles



**Screw Pin**

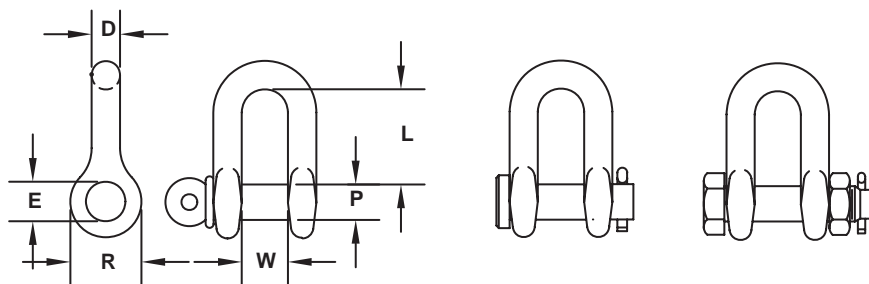


**Round Pin**



**Bolt & Nut**

- All shackles meet or exceed Federal Specification RRC-271D
- Working Load Limit and traceability codes shown as permanent marking on body and pin
- Available in powder coated, galvanized and self-colored finishes (Dacromate coating upon special request only)
- All shackles have alloy quenched and tempered pins
- Shackles made from technically advanced microalloy material
- Load break tests consistently show microalloy outperforms quenched and tempered carbon material
- Shock load testing of assemblies at -30°F consistently demonstrate microalloy outperforms quenched and tempered carbon material\*
- Shackles exhibit extreme deformation before failure\*
- Special testing and certification including magnetic particle, proof load, and fatigue test available upon request at time of order
- Special products engineering available to fit your special lifting, tie down, and pulling needs
- Design factor 6:1 (Round pin shackles design factor 5:1)



Size D	Working Load Limit	Product Code (Screw Pin)	Product Code (Round Pin)	Product Code (Bolt & Nut)	P	E	W	R	L	Weight
in.	Ton				in.	in.	in.	in.	in.	lb.
1/4	3/4	M746	M546	M946	0.312	0.401	0.469	0.875	0.875	0.12
5/16	1	M747	M547	M947	0.375	0.463	0.531	1.000	1.031	0.20
3/8	1-1/2	M748	M548	M948	0.438	0.531	0.656	1.125	1.250	0.30
7/16	2	M749	M549	M949	0.500	0.593	0.750	1.250	1.437	0.50
1/2	3	M750	M550	M950	0.625	0.718	0.813	1.375	1.625	0.75
5/8	4-1/2	M751	M551	M951	0.750	0.843	1.063	1.875	2.000	1.30
3/4	6-1/2	M752	M552	M952	0.875	0.968	1.250	2.125	2.375	2.30
7/8	8-1/2	M753	M553	M953	1.000	1.109	1.438	2.375	2.812	3.50
1	10	M754	M554	M954	1.125	1.234	1.688	2.625	3.188	5.00
1-1/8	12	M755	M555	M955	1.250	1.375	1.812	2.875	3.562	7.00
1-1/4	14	M756	M556	M956	1.375	1.531	2.031	3.250	3.938	9.50
1-3/8	17	M766	M566	M966	1.500	1.656	2.250	3.500	4.438	12.50
1-1/2	20	M757	M557	M957	1.625	1.781	2.375	3.750	4.875	17.20
1-5/8	24	M785	M585	M985	1.750	1.906	2.625	4.125	5.250	23.50
1-3/4	30	M777	M577	M977	2.000	2.156	2.875	4.500	5.750	27.70
2	35	M758	M558	M958	2.250	2.406	3.250	5.250	6.750	39.00

\* Independent lab verified

## Midland Anchor Shackles



**Screw Pin**

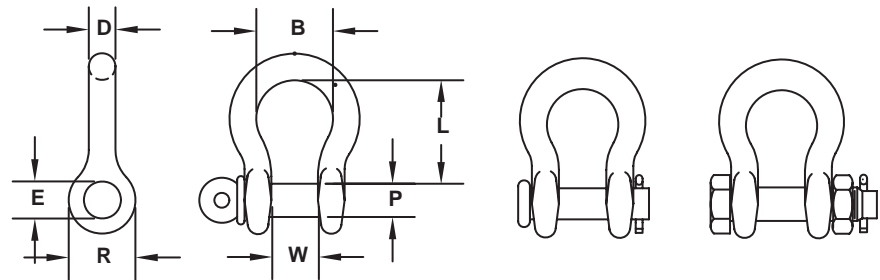


**Round Pin**



**Bolt & Nut**

- All shackles meet or exceed Federal Specification RRC-271D
- Working Load Limit and traceability codes shown as permanent marking on body and pin
- Available in powder coated, galvanized and self-colored finishes (Dacromate coating upon special request only)
- All shackles have alloy quenched and tempered pins
- Shackles exhibit extreme deformation before failure\*
- Special testing and certification including magnetic particle, proof load, and fatigue test available upon request at time of order
- Special products engineering available to fit your special lifting, tie down, and pulling needs
- Design factor 5:1



Size D	Working Load Limit	Product Code (Screw Pin)	Product Code (Round Pin)	Product Code (Bolt & Nut)	P	E	W	R	L	B min	Weight
in.	Ton				in.	in.	in.	in.	in.	in.	lb.
3/8	2	M648A	-	M848A	0.438	0.531	0.656	1.125	1.437	0.937	0.30
7/16	2.6	M649A	M349A	M849A	0.500	0.593	0.750	1.250	1.689	1.062	0.50
1/2	3.3	M650A	M350A	M850A	0.625	0.718	0.813	1.375	1.875	1.187	0.75
5/8	5	M651A	M351A	M851A	0.750	0.843	1.063	1.875	2.375	1.500	1.30
3/4	7	M652A	M352A	M852A	0.875	0.968	1.250	2.125	2.813	1.750	2.30
7/8	9.5	M653A	M353A	M853A	1.000	1.109	1.438	2.375	3.312	2.000	3.50
1	12.5	M654A	M354A	M854A	1.125	1.234	1.688	2.625	3.750	2.312	5.00
1-1/8	15	M655A	M355A	M855A	1.250	1.375	1.812	2.875	4.250	2.625	7.00
1-1/4	18	M656A	M356A	M856A	1.375	1.531	2.031	3.250	4.688	2.875	9.50
1-3/8	21	M666A	M366A	M866A	1.500	1.656	2.250	3.500	5.250	3.250	12.50
1-1/2	25	M657A	M357A	-	1.625	1.781	2.375	3.750	5.750	3.375	15.28
1-1/2	30	-	-	M857A	1.625	1.781	2.375	3.750	5.750	3.375	17.20
1-5/8	29	M685A	M385A	-	1.750	1.906	2.625	4.125	6.250	4.000	23.50
1-5/8	35	-	-	M885A	1.750	1.906	2.625	4.125	6.250	4.000	23.50
1-3/4	34	M677A	M377A	-	2.000	2.156	2.875	4.500	7.000	4.500	27.70
1-3/4	40	-	-	M877A	2.000	2.156	2.875	4.500	7.000	4.500	27.70
2	43	M658A	M358A	-	2.250	2.406	3.250	5.250	7.750	5.250	39.00
2	50	-	-	M858A	2.250	2.406	3.250	5.250	7.750	5.250	39.00
2-1/2	85	-	-	MC860AG	2.750	2.906	4.125	6.250	10.500	6.750	90.50
3	120	-	-	MC862AG	3.250	3.406	5.000	6.750	13.000	7.375	137.00



## Midland Chain Shackles



**Screw Pin**

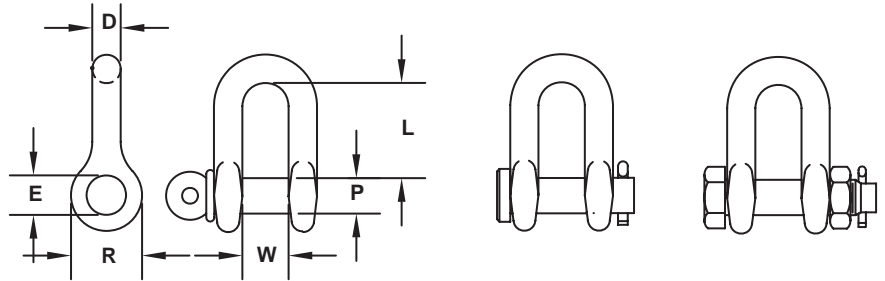


**Round Pin**



**Bolt & Nut**

- All shackles meet or exceed Federal Specification RRC-271D
- Working Load Limit and traceability codes shown as permanent marking on body and pin
- Available in powder coated, galvanized and self-colored finishes (Dacromate coating upon special request only)
- All shackles have alloy quenched and tempered pins
- Shackles exhibit extreme deformation before failure\*
- Special testing and certification including magnetic particle, proof load, and fatigue test available upon request at time of order
- Special products engineering available to fit your special lifting, tie down, and pulling needs
- Design factor 5:1



Size D	Working Load Limit	Product Code (Screw Pin)	Product Code (Round Pin)	Product Code (Bolt & Nut)	P	E	W	R	L	Weight
in.	Ton				in.	in.	in.	in.	in.	lb.
3/8	2	M748A	-	M948A	0.438	0.531	0.656	1.125	1.250	0.25
7/16	2.6	M749A	-	M949A	0.500	0.593	0.750	1.250	1.500	0.40
1/2	3.3	M750A	M550A	M950A	0.625	0.718	0.813	1.375	1.688	0.75
5/8	5	M751A	M551A	M951A	0.750	0.843	1.063	1.875	2.000	1.30
3/4	7	M752A	M552A	M952A	0.875	0.968	1.250	2.125	2.375	2.30
7/8	9.5	M753A	M553A	M953A	1.000	1.109	1.438	2.375	3.125	3.50
1	12.5	M754A	M554A	M954A	1.125	1.234	1.688	2.625	3.188	5.00
1-1/8	15	M755A	M555A	M955A	1.250	1.375	1.812	2.875	3.560	7.00
1-1/4	18	M756A	M556A	M956A	1.375	1.531	2.031	3.250	3.940	9.50
1-3/8	21	M766A	M566A	M966A	1.500	1.656	2.250	3.500	4.438	12.50
1-1/2	25	M757A	M557A	-	1.625	1.781	2.375	3.750	4.875	17.20
1-1/2	30	-	-	M957A	1.625	1.781	2.375	3.750	4.875	17.20
1-5/8	29	M785A	M585A	-	1.750	1.906	2.625	4.125	5.250	23.50
1-5/8	35	-	-	M985A	1.750	1.906	2.625	4.125	5.250	23.50
1-3/4	34	M777A	M577A	-	2.000	2.156	2.875	4.500	5.750	27.70
1-3/4	40	-	-	M977A	2.000	2.156	2.875	4.500	5.750	27.70
2	43	M758A	M558A	-	2.250	2.406	3.250	5.250	6.750	39.00
2	50	-	-	M958A	2.250	2.406	3.250	5.250	6.750	39.00

\* Independent lab verified

## Midland Carbon Anchor Shackles



**Screw Pin**

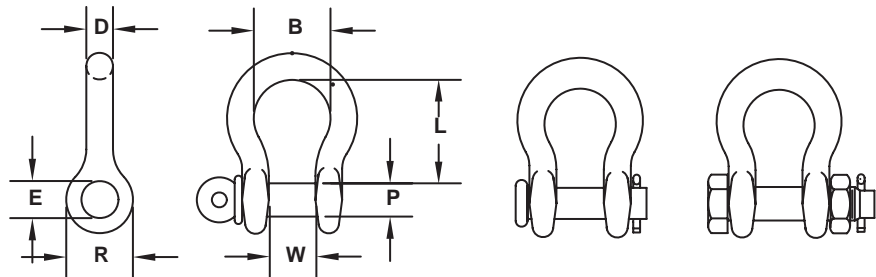


**Round Pin**



**Bolt & Nut**

- These shackles meet requirements of Federal Specification RR-C-271D Amendment 1
- All shackle pins are forged from alloy steel, heat treated and tempered to give greater strength
- All shackles are marked with size (inches and millimeters) and working load limit in tons
- Ultimate strength equals 5 times working load limit
- All bolt, nut & cotter shackles have thread protected ends
- Galvanized per ASTM A153
- Standard industry tolerances apply
- Design factor 5:1



Size D	Working Load Limit	Product Code (Screw Pin)	Product Code (Round Pin)	Product Code (Bolt & Nut)	P	E	W	R	L	B min	Weight
in.	Ton				in.	in.	in.	in.	in.	in.	lb.
3/16	1/3	MC645G	MC345G	-	0.250	0.307	0.375	0.625	0.875	0.562	0.06
1/4	1/2	MC646G	MC346G	MC846G	0.312	0.401	0.469	0.875	1.125	0.750	0.12
5/16	3/4	MC647G	MC347G	MC847G	0.375	0.463	0.531	1.000	1.250	0.812	0.20
3/8	1	MC648G	MC348G	MC848G	0.438	0.531	0.656	1.125	1.437	0.937	0.30
7/16	1-1/2	MC649G	MC349G	MC849G	0.500	0.593	0.750	1.250	1.689	1.062	0.50
1/2	2	MC650G	MC350G	MC850G	0.625	0.718	0.813	1.375	1.875	1.187	0.75
5/8	3-1/4	MC651G	MC351G	MC851G	0.750	0.843	1.063	1.875	2.375	1.500	1.30
3/4	4-3/4	MC652G	MC352G	MC852G	0.875	0.968	1.250	2.125	2.813	1.750	2.30
7/8	6-1/2	MC653G	MC353G	MC853G	1.000	1.109	1.438	2.375	3.312	2.000	3.50
1	8-1/2	MC654G	MC354G	MC854G	1.125	1.234	1.688	2.625	3.750	2.312	5.00
1-1/8	9-1/2	MC655G	MC355G	MC855G	1.250	1.375	1.812	2.875	4.250	2.625	7.00
1-1/4	12	MC656G	MC356G	MC856G	1.375	1.531	2.031	3.250	4.688	2.875	9.50
1-3/8	13-1/2	MC666G	MC366G	MC866G	1.500	1.656	2.250	3.500	5.250	3.250	12.50
1-1/2	17	MC657G	MC357G	MC857G	1.625	1.781	2.375	3.750	5.750	3.375	15.28
1-5/8	20	MC685G	MC385G	MC885G	1.750	1.906	2.625	4.125	6.250	4.000	23.50
1-3/4	25	MC677G	MC377G	MC877G	2.000	2.156	2.875	4.500	7.000	4.500	27.70
2	35	M658G	M358G	M858G	2.250	2.406	3.250	5.250	7.750	5.250	39.00
2-1/2	55	-	-	MC860G	2.750	2.905	4.125	6.250	10.500	6.750	90.50

## Midland Carbon Chain Shackles



**Screw Pin**

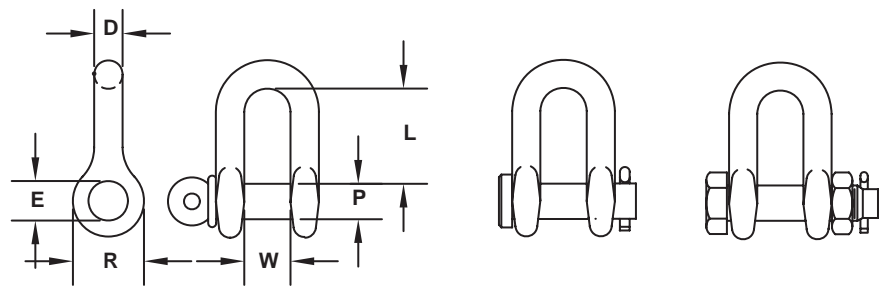


**Round Pin**



**Bolt & Nut**

- Shackles meet or exceed Federal Specification RRC-271D
- Working Load Limit and traceability codes shown as permanent marking on body and pin
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- Special products engineering available to fit your special lifting, tie down, and pulling needs
- Design factor 5:1

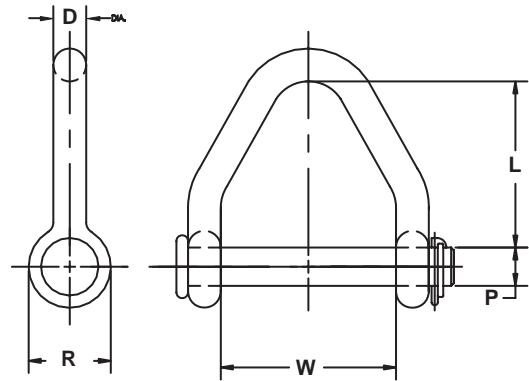


Size D	Working Load Limit	Product Code (Screw Pin)	Product Code (Round Pin)	Product Code (Bolt & Nut)	P	E	W	R	L	Weight
in.	Ton				in.	in.	in.	in.	in.	lb.
1/4	1/2	MC746G	MC546G	MC946G	0.312	0.401	0.469	0.875	0.875	0.11
5/16	3/4	MC747G	MC547G	MC947G	0.375	0.463	0.531	1.000	1.031	0.17
3/8	1	MC748G	MC548G	MC948G	0.438	0.531	0.656	1.125	1.250	0.25
7/16	1-1/2	MC749G	MC549G	MC949G	0.500	0.593	0.750	1.250	1.437	0.40
1/2	2	MC750G	MC550G	MC950G	0.625	0.718	0.813	1.375	1.625	0.75
5/8	3-1/4	MC751G	MC551G	MC951G	0.750	0.843	1.063	1.875	2.000	1.30
3/4	4-3/4	MC752G	MC552G	MC952G	0.875	0.968	1.250	2.125	2.375	2.30
7/8	6-1/2	MC753G	MC553G	MC953G	1.000	1.109	1.438	2.375	2.812	3.50
1	8-1/2	MC754G	MC554G	MC954G	1.125	1.234	1.688	2.625	3.188	5.00
1-1/8	9-1/2	MC755G	MC555G	MC955G	1.250	1.375	1.812	2.875	3.562	7.00
1-1/4	12	MC756G	MC556G	MC956G	1.375	1.531	2.031	3.250	3.938	9.50
1-3/8	13-1/2	MC766G	MC566G	MC966G	1.500	1.656	2.250	3.500	4.438	12.50
1-1/2	17	MC757G	MC557G	MC957G	1.625	1.781	2.375	3.750	4.875	17.20
1-5/8	20	MC785G	MC585G	MC985G	1.750	1.906	2.625	4.125	5.250	23.50
1-3/4	25	MC777G	MC577G	MC977G	2.000	2.156	2.875	4.500	5.750	27.70
2	35	M758G	M558G	M958G	2.250	2.406	3.250	5.250	6.750	39.00

## Carbon Web Sling Shackle



- Finish: hot dip galvanized
- Linch pin (zinc plated) as shown furnished as standard-cotter or hair pin can be furnished on special order
- Shackle body: carbon steel, heat treated
- Shackle pin: alloy steel, heat treated
- Tolerances: 11/32" unless otherwise indicated
- Design ultimate strength equals 4 times the working load limit

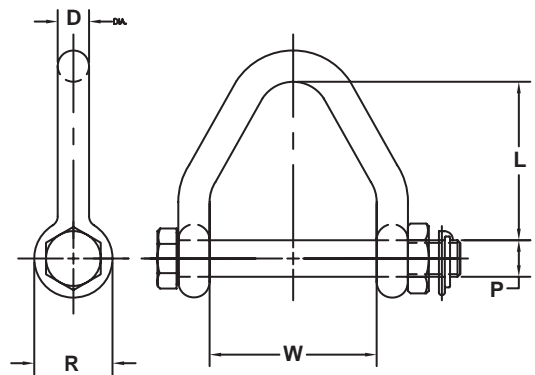


Product Code	Pin Number	Linch Pin Number	Working Load Limit	P	D	L	W	R	Weight
			lb.	in.	in.	in.	in.	in.	lb.
M702	2X702	65930	8,050	0.75	0.63	2.25	2.00	1.63	1.70
M703	2X703	65930	13,050	0.88	0.75	3.25	3.00	1.88	2.86
M704	2X704	65930	10,800	0.88	0.75	3.75	4.00	1.88	3.15
M705	2X705	65934	18,000	1.00	0.88	4.25	5.00	2.13	4.75
M706	2X706	65934	18,000	1.13	1.00	4.75	6.00	2.38	6.75
M706H	2X706H	65934	23,850	1.25	1.13	4.75	6.00	2.63	9.80

## Alloy Web Sling Shackle



- Web Sling Shackles can be used on web slings from 3 to 6 inches in width
- Utilize a bolt and nut with linch style pin to secure the assembly in place
- All shackles are galvanized for longer life
- Marked with working load limit (WLL) and size



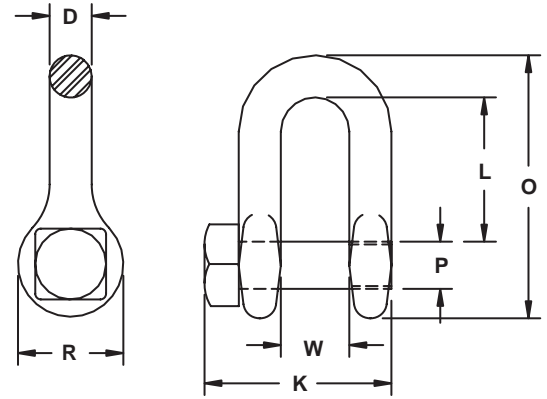
Product Code	Pin Number	Linch Pin Number	Working Load Limit	P	D	L	W	R	Weight
			lb.	in.	in.	in.	in.	in.	lb.
M703A	2X8703A	65930	13,050	0.88	0.75	3.25	3.00	1.88	3.01
M704A	2X8704A	65930	14,500	0.88	0.75	3.75	4.00	1.88	3.16
M705A	2X8705A	65934	19,000	1.00	1.00	4.25	5.00	2.38	6.04
M706A	2X8706A	65934	22,500	1.13	1.13	4.75	6.00	2.63	9.02

## Midland Trawling Shackle

Load rated trawling chain shackles are used for various applications, such as on trawl doors, the rigging of nets, and areas where critical loads are applied.



- Heat treated bodies
- Heat treated alloy pins
- Square head pins for convenience in wrench tightening and loosening
- Proof load 2.2 times working load limit
- Ultimate strength 6 times working load limit
- Durable orange powder coat finish

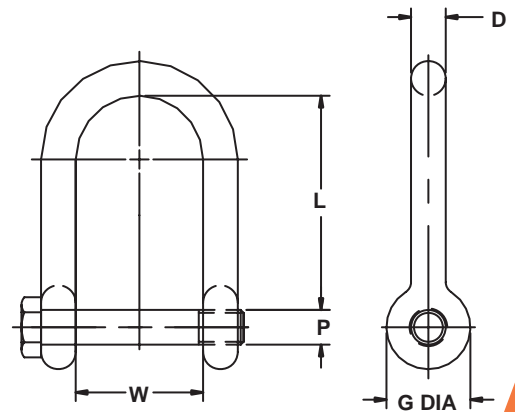


Product Code	Working Load Limit	D	P	W	L	O	R	K	Weight
	lb.	in.	in.	in.	in.	in.	in.	in.	lb.
M449	4,000	0.438	0.500	0.719	1.500	2.750	1.125	1.906	0.43
M450	6,000	0.500	0.625	0.813	1.688	3.125	1.250	2.063	0.60
M451	9,000	0.625	0.750	1.063	2.000	3.780	1.500	2.625	1.30
M452	13,000	0.750	0.875	1.250	2.375	4.530	1.875	3.125	2.20
M453	17,000	0.875	1.000	1.438	2.812	5.750	2.125	3.625	3.00
M454	20,000	1.000	1.125	1.688	3.188	5.938	2.375	4.438	4.70

## Midland Long Reach Shackles



- Alloy Steel
- Load Rated
- WLL forged on body
- Meets the requirements of ASME B30.26
- Design factor of 5:1
- Offered in self-colored or durable orange powder coat finish



Working Load Limit	Screw Pin Product Code		Weight	Bolt Type Product Code		Weight	P	D	L	W	G
	Self Colored	Painted		Self Colored	Painted						
lb.			lb.			lb.	in.	in.	in.	in.	in.
7,000	M7151	M7151P	1.80	M9151	M9151P	1.95	0.75	0.63	4.00	2.25	1.57
10,000	M7152	M7152P	2.72	M9152	M9152P	3.21	0.88	0.75	4.56	2.75	1.81
19,000	M7154	M7154P	5.86	M9154	M9154P	6.31	1.00	1.00	5.50	3.25	2.38
28,000	M7156	M7156P	11.90	M9156	M9156P	12.90	1.38	1.25	6.25	3.88	3.06
34,000	M7157	M7157P	19.60	M9157	M9157P	20.70	1.63	1.50	7.00	4.50	3.50
50,000	M7177	M7177P	30.70	M9177	M9177P	33.30	2.00	1.75	8.00	5.25	4.00

# Chain Comparison

CM offers a wide range of welded chains. All chains meet or exceed requirements of NACM & ASTM standards. All chain is proof tested to insure you get the highest quality chain in the market. Listed below you will find a summary of chain specifications, which can be used as a comparison when selecting the chain for your application. Only Herc-Alloy 1000 or Herc-Alloy 800 chain should be used for overhead lifting.



Chain Size	Wire Diameter Nominal	Inside Length Nominal	Inside Width Nominal	Weight Per 100 ft.	Working Load Limit
<b>Herc-Alloy 1000 (Grade 100)</b>					
in.	in.	in.	in.	lb.	lb.
7/32	0.218	0.676	0.312	44.3	2,700
9/32	0.281	0.883	0.395	72.9	4,300
3/8	0.394	1.247	0.574	144.0	8,800
1/2	0.512	1.559	0.734	246.0	15,000
5/8	0.630	1.916	0.855	370.0	22,600
3/4	0.787	2.397	1.070	577.0	35,300
<b>Herc-Alloy 800 (Grade 80)</b>					
in.	in.	in.	in.	lb.	lb.
7/32	0.218	0.676	0.312	44.3	2,100
9/32	0.281	0.883	0.395	72.9	3,500
5/16	0.315	1.019	0.455	90.9	4,500
3/8	0.394	1.247	0.574	144.0	7,100
1/2	0.512	1.440	0.734	255.0	12,000
5/8	0.630	1.777	0.855	382.3	18,100
3/4	0.787	2.234	1.070	595.0	28,300
7/8	0.875	2.250	1.137	776.0	34,200
1	1.000	3.070	1.490	939.0	47,700
1-1/4	1.250	3.920	1.740	1,420.0	72,300
<b>Transport (Grade 70)</b>					
in.	in.	in.	in.	lb.	lb.
1/4	0.281	0.840	0.470	76.4	3,150
5/16	0.327	0.980	0.460	100.5	4,700
5/16	0.327	1.100	0.500	96.9	4,700
3/8	0.394	1.140	0.540	158.0	6,600
3/8	0.394	1.375	0.600	139.0	6,600
1/2	0.531	1.559	0.734	267.0	11,300
<b>High Test (Grade 43)</b>					
in.	in.	in.	in.	lb.	lb.
1/4	0.270	1.220	0.460	60.0	2,600
5/16	0.327	1.100	0.500	98.1	3,900
3/8	0.386	1.370	0.600	133.0	5,400
1/2	0.500	1.730	0.810	227.0	9,200
5/8	0.625	1.916	0.855	363.0	13,000
3/4	0.781	2.397	1.070	568.0	20,200
<b>Proof Coil (Grade 30)</b>					
in.	in.	in.	in.	lb.	lb.
3/16	0.213	0.970	0.360	37.3	800
1/4	0.270	1.220	0.460	60.1	1,300
5/16	0.309	1.220	0.460	81.2	1,900
3/8	0.386	1.370	0.600	132.8	2,650
1/2	0.512	1.730	0.810	245.3	4,500
5/8	0.625	1.916	0.855	363.0	6,900
3/4	0.781	2.397	1.070	568.0	10,600



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# Herc-Alloy 1000

# HERC-ALLOY® 1000

## Care, Use & Inspection

The life and strength of Herc-Alloy 1000 chain slings depend on proper inspection, maintenance and use. For additional information, refer to ASME B30.9 and OSHA 1910.184.

### Care

- Chain requires careful storage and regular maintenance.
- Store chains on an A frame in a clean, dry place.
- To avoid corrosion, oil chains before prolonged storage.
- Do not heat Herc-Alloy 1000 chain; this will alter its thermal treatment.

### Use

To protect both operators and materials, observe these precautions when using chain slings:

- Before use, inspect chain and attachments following the instructions under "Inspection" below.
- Do not exceed working load limit. Any of the factors listed here can reduce the load the chain will hold:
  - Acceleration in rate of load application can produce dangerous overloads.
  - Variations in the angle of the load to the sling, will change the WLL, please refer to the chart on page 18 for proper WLL.
  - Twisting, knotting or kinking, subjects links to unusual loading, decreasing the working load of the sling.
  - Use for purposes other than those for which slings are intended, can reduce the working load of the sling.
- Free chain of all twists, knots and kinks.
- Center load in hook(s); hook latch must not support load.
- Avoid sudden jerks when lifting or lowering load.
- Balance all loads; avoid tipping of loads.
- Use pads around sharp corners.
- Do not drop load on chains.
- Match the size and working load limits of attachments such as hooks and rings to the size and working load limits of the chain.
- For overhead lifting, use only alloy chain and attachments.

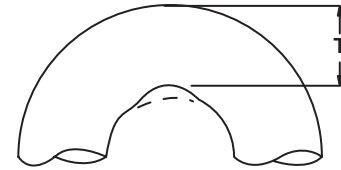
### Inspection

It is important both to inspect chain slings regularly and to keep a record of all chain inspections. Follow this guide for such an inspection system.

- Before inspecting, clean chain with a non-acid/non-caustic solvent so that marks, nicks, wear and other defects are visible.
- Inspect each link for these conditions:
  - Twists and bends.
  - Nicks or gouges.
  - Excessive wear at bearing points
- Stretch
- Distorted or damaged master links, coupling links or attachments, especially spread in throat opening of hooks.
- Mark plainly with paint each link or attachment showing any of the conditions listed here to indicate rejection; remove from service until properly repaired.

### Wear Allowances of Herc-Alloy 1000 Chain

Measure cross section at link ends to determine wear. If chain is worn to less than the minimum allowable thickness, remove from service.



Chain Size		Minimum Allowable Thickness (T)	
in.	mm	in.	mm
7/32	5.5	0.189	4.8
9/32	7.0	0.239	6.1
3/8	10.0	0.342	8.7
1/2	13.0	0.443	11.3
5/8	16.0	0.546	13.9
3/4	20.0	0.687	17.5

### CM Chain Inspection Programs

CM provides chain users with a wide range of informative materials and instructive programs on chain and chain inspection. Our colorful chain safety poster/chart and our fact-filled booklet, "CM Lifting, Pulling & Binding Products Manual PMC-10," are available on request.

### Use of Chain & Components Under Extreme Temperature Conditions

When the chain itself is subjected to temperatures shown here, working load limits should be reduced as indicated.

Temperature		Reduction of Working Load Limit	
°F	°C	While at Temperature	After Exposure to Temperature
Below 400	Below 204	None	None
400	204	15%	None
500	260	25%	5%
600	316	30%	15%
700	371	40%	20%
800	427	50%	25%
900	482	60%	30%
1000	538	70%	35%

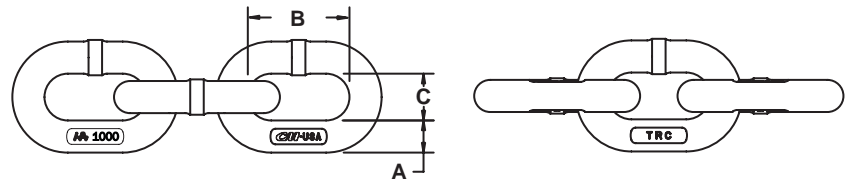
The identification tag found on each chain sling contains this information:

- Grade • Size • Reach • Serial Number • Number of Legs
- Working Load Limit (at a specific angle of lift)

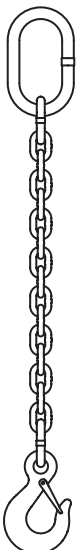




- Meets or exceeds many national and international standards
- 25% higher working load limit when compared to Grade 80
- Environmentally friendly gray coating for distinct appearance, ease of identification
- Certification included with every drum
- 100% proof tested



Chain Size	Working Load Limit	Chain Part #	Nominal Chain Dimensions			Approx. Weight	Approx No. Of Links	Drum		
			A	B	C			Part #	Length	Approx Weight
in.	lb.		in.	in.	in.	lb./ft.	per ft.	ft.	lb.	
7/32	2,700	607321	0.218	0.676	0.312	0.44	17.8	677310	800	354
9/32	4,300	607328	0.281	0.883	0.395	0.73	13.6	677311	500	365
3/8	8,800	607339	0.394	1.247	0.574	1.44	9.6	677313	500	720
1/2	15,000	607351	0.512	1.559	0.734	2.46	7.7	677315	300	738
5/8	22,600	607363	0.630	1.916	0.855	3.70	6.3	677316	200	740
3/4	35,300	607378	0.787	2.397	1.070	5.80	5.0	677317	100	577



## How to Select and Order the Proper Chain Sling

1. Determine the weight and configuration of the load(s) to be lifted.
2. Determine the type of chain sling required, according to weight and configuration.
3. Determine the size of the body chain according to the working load limits. Be sure to take into consideration the effect of the required angle. The working load limit is the maximum load in pounds which should ever be applied in direct tension to a straight length of chain.
4. Determine the reach required to give the desired angle. The reach is measured from the upper bearing surface of the master link to the bearing surface of the lower attachment. If chain slings are to be used in pairs and are to be matched for reach, please indicate when ordering.

# HERC-ALLOY® Slings

## 1000

### Types of Chain Slings

In describing the type, the following symbols should be used if attachments are other than standard, give detail specifications.

#### First symbol (basic type)

- S** Single chain sling
- C** Single choker chain sling with a standard end link on each end, no hook
- D** Double branch chain sling (2 legs)
- T** Triple branch chain sling (3 legs)
- Q** Quad branch chain sling (4 legs)

#### Second symbol (type of master link or end link)

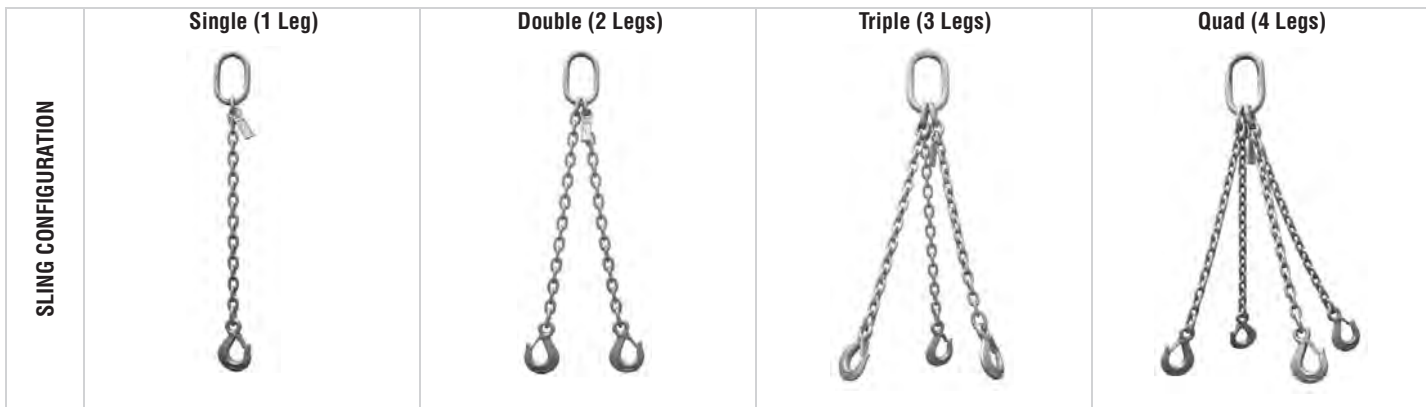
- O** Oblong master link of standard dimensions

#### Third symbol (type of hook)

- S** Sling hook
- G** Grab hook
- F** Foundry hook
- L** Latchlok 100 hook

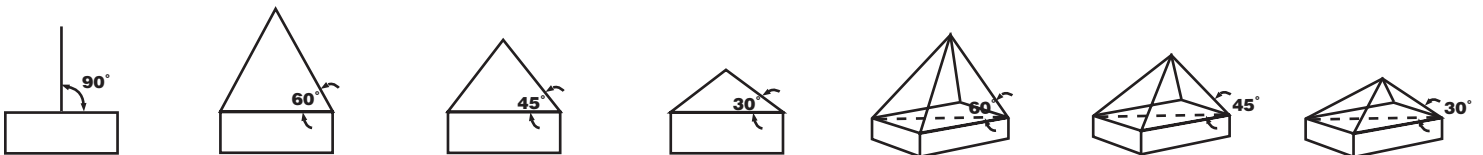
Additional coding is defined as follows

- AS** Adjustable single
- ES** Endless single
- SAL** Single adjustable loop
- AD** Adjustable double
- SB** Single basket
- ED** Endless double
- DAL** Double adjustable loop
- DB** Double basket



Chain size	Working Load Limits for Angles Available (shown Below) for each Sling Type									
	90°	60°	45°	30°	60°	45°	30°	60°	45°	30°
in.	lb.									
7/32	2,700	4,700	3,800	2,700	7,000	5,700	4,000	7,000	5,700	4,000
9/32	4,300	7,400	6,100	4,300	11,200	9,100	6,400	11,200	9,100	6,400
3/8	8,800	15,200	12,400	8,800	22,900	18,700	13,200	22,900	18,700	13,200
1/2	15,000	26,000	21,200	15,000	39,000	31,800	22,500	39,000	31,800	22,500
5/8	22,600	39,100	32,000	22,600	58,700	47,900	33,900	58,700	47,900	33,900
3/4	35,300	61,100	49,900	35,300	91,700	74,900	53,000	91,700	74,900	53,000

**DO NOT USE AT ANGLES SMALLER THAN 30°**





**Single Adjustable**







**Double Adjustable**

Adjusters on sling allow for easy and safe take up of chain when applications require shorter leg lengths, or when lifting objects of abnormal sizes. Specialty chain slings can be manufactured to suit your specific lifting applications.



**Adjust-A-Link**

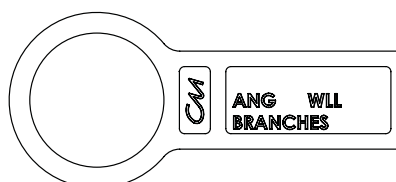
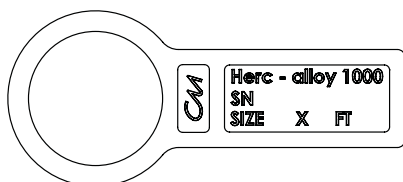
SLING CONFIGURATION	Single Basket	Double Basket	Single Endless	Double Endless
				
Chain Size	Working Load Limits			
	60°	60°	60°	60°
in.	lb.			
7/32	4,700	7,000	2,700	4,700
9/32	7,400	11,200	4,300	7,400
3/8	15,200	22,900	8,800	15,200
1/2	26,000	39,000	15,000	26,000
5/8	39,100	58,700	22,600	39,100
3/4	61,100	91,700	35,300	61,600

**DO NOT USE AT ANGLES SMALLER THAN 60°**

American National Standard ANSI B30.9, the National Association of Chain Manufacturers (NACM) and the Occupation Safety & Health Administration (OSHA) recommend only the use of alloy steel chain for overhead lifting, i.e. sling chain. Slings may be constructed by the user using Herc Alloy chain, Herc Alloy 1000 or Herc Alloy 800 chain and attachments.

CM Alloy chain slings are provided with a durable metal identification tag. The tag is typically affixed to a master coupling link and contains the following data:













- A. Size of sling
- B. Reach of sling
- C. Working load limit at 90° on a single and 60° from horizontal on multi-leg slings
- D. Serial number
- E. Columbus McKinnon (Manufacturer's name) and grade of sling
- F. Number of branches

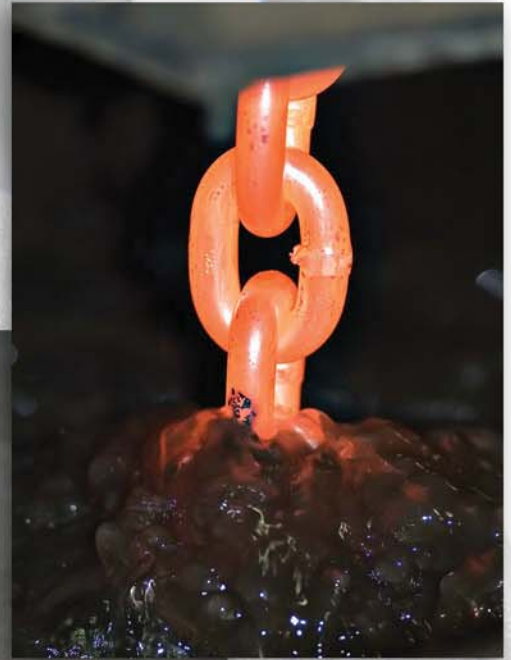


# HERC-ALLOY® Components 1000

Columbus McKinnon is a leader in the Overhead Lifting Industry. Since trade marking Herc Alloy in 1936, we have continued to add overhead lifting products as required by the industry. Trademarked products such as Herc-Alloy chain, Clevlok hooks and Hammerlok couplers represent a few of the most-recognized and widely-used products in the industry. From master links to eye hooks, we have lifted the industry to new heights with the introduction of Herc-Alloy 1000. We have one of the most comprehensive lines of high grade overhead lifting chain and attachments in the industry. All our products are made by Columbus McKinnon to assure form and fit.

**Herc-Alloy 1000 - a vital part of  
“CM Complete Lifting Systems”  
From Beam.....to Hoist.....to Below the Hook**

Chain Size		COMPONENTS									
		Chain (Bulk)	Chain (Drum)	Master Link	Sub-Assembly	Pear Shaped Master Link	Hammerlok	Chain Shortener	Rigging Hook	Clevlok Sling Hook w/ Latch	Clevlok Sling Hook w/o Latch
In.	mm	Page 17	Page 17	Page 22	Page 22	Page 23	Page 23	Page 24	Page 24	Page 25	Page 25
											
7/32	5.5	607321	677310	555231	-	554702	N/A	N/A	M7502A	N/A	N/A
9/32	7	607328	677311	555232	-	554702	667028-2	M71805A-2	M7503A	657718	557718
3/8	10	607339	677313	555235	-	554702	667038-2	M71806A-2	M7504A	657719	557719
1/2	13	607351	677315	555238	-	554706	667050-2	M71808A-2	M7505A	657720	557720
5/8	16	607363	677316	555238	-	554710	667062-2	M71810A-2	M7507A	657721	557721
3/4	20	607378	677317	555240	-	554714	667075-2	N/A	M7509A	657722	553722
7/32	5.5	607321	677310	555231	-	554702	N/A	N/A	M7502A	N/A	N/A
9/32	7	607328	677311	555232	-	554702	667028-2	M71805A-2	M7503A	657718	557718
3/8	10	607339	677313	555235	-	554706	667038-2	M71806A-2	M7504A	657719	557719
1/2	13	607351	677315	555238	-	554710	667050-2	M71808A-2	M7505A	657720	557720
5/8	16	607363	677316	555240	-	554714	667062-2	M71810A-2	M7507A	657721	557721
3/4	20	607378	677317	555243	-	554719	667075-2	N/A	M7509A	657722	553722
7/32	5.5	607321	677310	-	555274	554702	N/A	N/A	M7502A	N/A	N/A
9/32	7	607328	677311	-	555275	554706	667028-2	M71805A-2	M7503A	657718	557718
3/8	10	607339	677313	-	555276	554710	667029-2	M71806A-2	M7504A	657719	557719
1/2	13	607351	677315	-	555277	554714	667030-2	M71808A-2	M7505A	657720	557720
5/8	16	607363	677316	-	555278	554719	667031-2	M71810A-2	M7507A	657721	557721
3/4	20	607378	677317	-	555279	554726	667032-2	N/A	M7509A	657722	553722



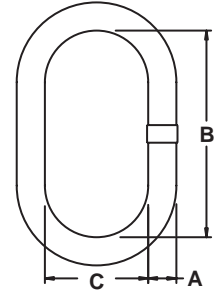
	Chain Size		COMPONENTS					LATCHLOK100 COMPONENTS				
			Eye Sling Hook w/ Latch	Eye Sling Hook w/o Latch	Clevlok Cradle Grab Hook	Eye Cradle Grab Hook	Clevlok Foundry Hook	Eye Foundry Hook	Clevlok Style	Eye Style	Bearing Swivel Style	Bushing Swivel Style
	In.	mm	Page 25	Page 25	Page 26	Page 26	Page 27	Page 27	Page 28	Page 28	Page 29	Page 29
<b>SINGLE</b>	7/32	5.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	9/32	7	558622	458622	659722	559725	475798	474798	M616005	M626005	M696005	M676005
	3/8	10	558625	458625	659725	559737	475799	474799	M616010	M626010	M696010	M676010
	1/2	13	558628	458628	659728	559750	475800	474800	M616015	M626015	M696015	M676015
	5/8	16	558629	458629	659729	559762	475801	474801	M616020	M626020	M696020	M676020
	3/4	20	558630	458630	N/A	559775	N/A	474802	N/A	N/A	N/A	N/A
<b>DOUBLE</b>	7/32	5.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	9/32	7	558622	458622	659722	559725	475798	474798	M616005	M626005	M696005	M676005
	3/8	10	558625	458625	659725	559737	475799	474799	M616010	M626010	M696010	M676010
	1/2	13	558628	458628	659728	559750	475800	474800	M616015	M626015	M696015	M676015
	5/8	16	558629	458629	659729	559762	475801	474801	M616020	M626020	M696020	M676020
	3/4	20	558630	458630	N/A	559775	N/A	474802	N/A	N/A	N/A	N/A
<b>TRIPLE &amp; QUAD</b>	7/32	5.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	9/32	7	558622	458622	659722	559725	475798	474798	M616005	M626005	M696005	M676005
	3/8	10	558625	458625	659725	559737	475799	474799	M616010	M626010	M696010	M676010
	1/2	13	558628	458628	659728	559750	475800	474800	M616015	M626015	M696015	M676015
	5/8	16	558629	458629	659729	559762	475801	474801	M616020	M626020	M696020	M676020
	3/4	20	558630	458630	N/A	559775	N/A	474802	N/A	N/A	N/A	N/A

# HERC-ALLOY® Master Link & Sub-Assemblies 1000

## Master Link



- Designed to accept Herc-Alloy 1000 chain and components
- Durable gray powder coated finish
- May be used for mechanical and welded sling assemblies
- 100% proof tested

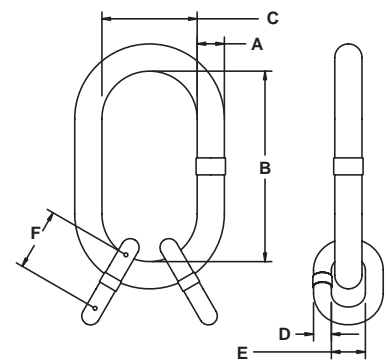


Trade Size	Working Load Limit	Product Code	Nominal Dimensions			Weight	Type and Size of Chain Sling on Which Used			
			Material Diameter A	Inside Length B	Inside Width C		SINGLE	DOUBLE	TRIPLE	QUAD
13/32	5,400	555231	0.406	3.000	1.500	0.33	7/32	7/32	--	--
1/2	8,600	555232	0.562	5.000	2.500	0.81	9/32	9/32	7/32	7/32
3/4	17,600	555235	0.750	5.500	2.750	2.08	3/8	3/8	9/32	9/32
1	30,000	555238	1.000	7.000	3.500	4.59	1/2 & 5/8	1/2	3/8	3/8
1 1/4	45,200	555240	1.250	8.750	4.375	9.31	3/4	5/8	1/2	1/2
1 1/2	70,600	555243	1.500	10.500	5.250	15.6	--	3/4	5/8	5/8
1 3/4	105,900	555246	1.750	12.000	6.000	24.4	--	--	3/4	3/4

## Sub-Assembly



- Designed for Triple and Quad branch Herc-Alloy 1000 chain slings
- Consists of an Oblong Master Link and two welded Master Coupling Links
- Durable gray powder coated finish
- May be used for mechanical or welded sling assemblies
- 100% proof tested

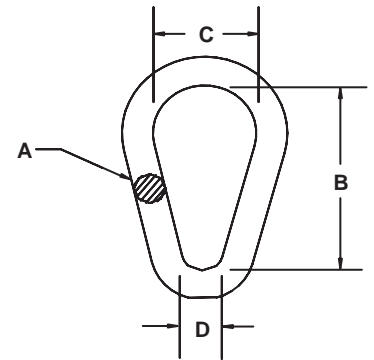


Trade Size	Working Load Limit at 60°	Product Code	Master Link Nom. Dims.			Intermediate Link Nom. Dims.			Weight	Type and Size of Chain Sling on Which Used	
			Material Diameter A	Inside Length B	Inside Width C	Material Diameter D	Inside Width E	Inside Length F		TRIPLE	QUAD
1/2	7,000	555274	0.562	3.000	1.500	0.437	1.063	1.750	1.04	7/32	7/32
3/4	11,200	555275	0.750	5.500	2.750	0.468	0.875	1.563	2.08	9/32	9/32
1	22,900	555276	1.000	7.000	3.500	0.781	1.500	2.625	4.59	3/8	3/8
1 1/4	39,000	555277	1.250	8.750	4.375	0.906	1.750	3.125	9.16	1/2	1/2
1 1/2	58,700	555278	1.500	10.500	5.250	1.125	2.250	4.000	15.66	5/8	5/8
1 3/4	91,700	555279	1.750	12.000	6.000	1.500	2.750	5.250	24.44	3/4	3/4

## Pear Shaped Master Link



- Made from alloy material
- Proof tested at two times WLL
- Durable gray powder coated finish
- Custom sizes available upon request

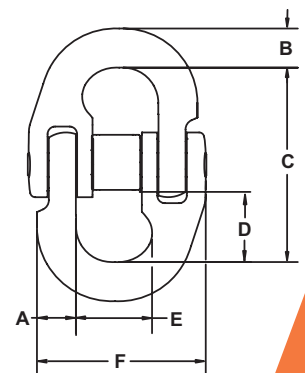


Trade Size	Catalog No.	Working Load Limit	Finished Code	Diameter A	Inside Length B	Inside Width C	Inside Width D	Weight	Type and Size of Chain Sling		
									Single	Double	Triple
in.		lb.		in.	in.	in.	in.	lb.	in.	in.	in.
1/2	HA51	9,000	554702	0.562	5.313	2.500	1.250	0.81	7/32, 9/32 & 3/8	7/32 & 9/32	7/32
3/4	HA79	18,000	554706	0.750	5.625	2.750	2.000	2.08	1/2	3/8	9/32
1	HA103	30,300	554710	1.000	7.250	3.500	2.625	4.59	5/8	1/2	3/8
1-1/4	HA129	45,500	554714	1.250	8.750	4.625	3.250	9.17	3/4	5/8	1/2
1-1/2	HA153	71,200	554719	1.500	10.500	5.250	3.875	15.28	1	3/4	5/8
1-3/4	HA179	86,000	554723	1.750	12.000	6.000	4.500	23.93	–	–	–
2	HA201	120,000	554726	2.000	14.000	7.000	3.500	35.93	–	–	3/4
2-1/4	HA229	182,000	554731	2.250	16.000	8.000	6.000	52.83	–	–	–

## Hammerlok



- New Classic stainless steel non-corrosive retainer
- New pin and retainer design adds protection against twist and side load problems
- Large retainer diameter adds shock load protection



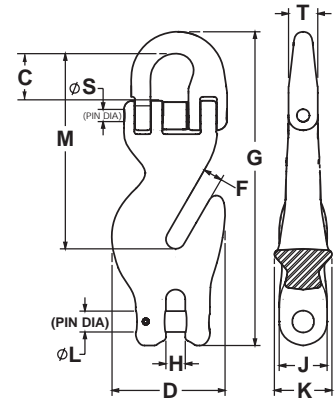
Size	Working Load Limit	Product Code	Load Pin Kit Product Code	Dimensions						Weight
				A Max	B max	C	D	E	F	
in.	lb.			in.	in.	in.	in.	in.	in.	lb.
9/32	4,300	667028-2	R667028-2	0.365	0.435	2.75	0.71	0.541	1.69	0.28
3/8	8,800	667038-2	R667038-2	0.502	0.591	3.00	1.16	0.910	2.50	0.84
1/2	15,000	667050-2	R667050-2	0.678	0.780	3.80	1.43	1.097	3.19	1.87
5/8	22,600	667062-2	R667062-2	0.804	0.905	4.54	1.74	1.317	3.88	3.13
3/4	35,300	667075-2	R667075-2	0.973	1.071	5.36	2.09	1.516	4.69	5.75

# HERC-ALLOY® Chain Shortener & Rigging Hook 1000

## Chain Shortener



- Quickly and easily adjust chain length of sling when the load has uneven pick points
- Durable gray powder coated finish
- Marked with both fraction and metric sizes
- Forged alloy steel - quenched & tempered
- Mechanically attaches directly to master ring

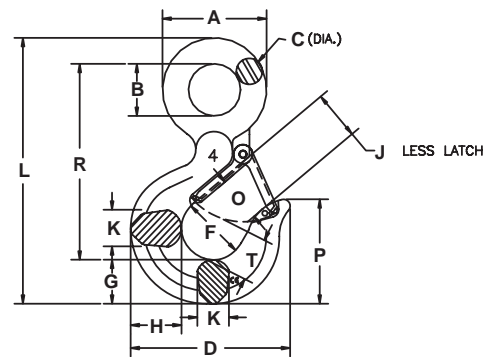


Size	Working Load Limit	Product Code	Dimensions											Weight
			C	D	G	H	J	K	L	F	M	S	T	
9/32	4,300	M71805A-2	0.71	2.19	5.86	0.38	0.80	1.00	0.36	0.38	3.38	0.21	0.50	1.20
3/8	8,800	M71806A-2	1.16	2.74	7.61	0.47	1.16	1.40	0.51	0.47	4.74	0.31	0.71	2.50
1/2	15,000	M71808A-2	1.43	3.34	9.36	0.65	1.37	2.08	0.63	0.65	5.82	0.41	0.86	4.80
5/8	22,600	M71810A-2	1.74	4.19	11.56	0.79	1.53	2.47	0.75	0.79	7.04	0.48	1.06	8.20

## Rigging Hook



- Large eye to easily accommodate other G100 fittings
- Quench & tempered alloy steel
- Durable gray powder coated finish



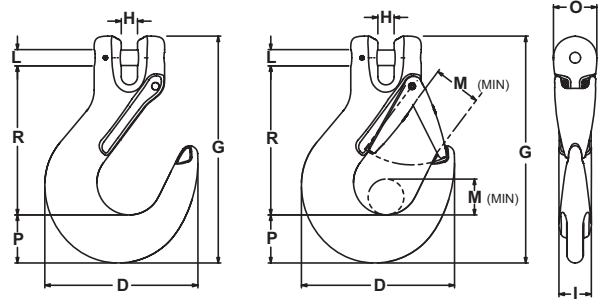
Size	Working Load Limit	Product Code w/ latch	Product Code w/o latch	Dimensions													Weight	
				A	B	C	D	F	G	H	J	K	L	O	P	R		T
7/32	2,700	M7502A	M7402A	1.50	0.75	0.38	3.06	1.25	0.87	1.05	0.93	0.63	4.37	0.93	2.12	3.13	0.87	0.66
9/32	4,300	M7503A	M7403A	1.75	0.88	0.44	3.33	1.38	0.94	1.11	0.97	0.71	5.04	0.97	2.27	3.66	0.97	1.12
5/16	5,700	M7504A	M7404A	2.13	1.13	0.50	3.67	1.50	1.06	1.21	1.06	0.88	5.63	1.06	2.54	4.09	1.03	1.46
3/8	8,800	M7505A	M7405A	2.50	1.25	0.63	4.20	1.63	1.27	1.43	1.19	0.94	6.55	1.16	2.80	4.67	1.16	2.42
1/2	15,000	M7507A	M7407A	3.06	1.56	0.75	5.11	2.00	1.44	1.63	1.50	1.31	7.97	1.41	3.47	5.78	1.53	4.10
5/8	22,600	M7509A	M7409A	3.88	2.00	0.94	6.24	2.50	1.82	2.01	1.78	1.68	10.07	1.69	4.59	7.31	1.94	8.16



## Clevlok Sling Hook



- Fraction and metric markings
- Fatigue rated to Grade 100 specifications
- Fits Grade 80 and Grade 100 chain
- New "I" beam body
- 100% proof tested
- Durable gray powder coated finish
- Improved forged latch
- New CE compliant hooks and latches
- Meets EN 1677

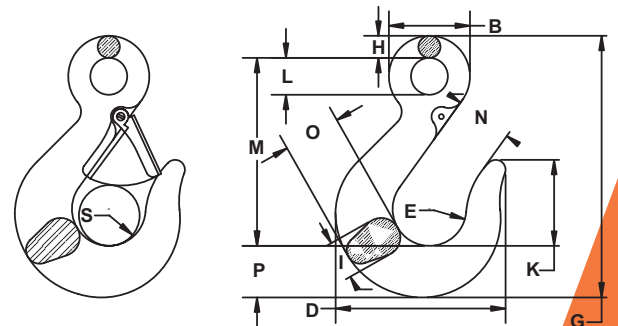


Size	Working Load Limit	Product Code w/ latch	Product Code w/o latch	Latch Kit	Dimensions									Weight w/o latch	
					D	G	H	I	L	M	O	P	R		
in.	lb.				in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	4,300	657718	557718	4X455322	3.53	5.23	0.38	0.75	0.36	0.83	1.00	1.11	3.44	1.20	
3/8	8,800	657719	557719	4X455325	4.38	6.53	0.47	0.97	0.51	1.06	1.16	1.36	4.32	2.21	
1/2	15,000	657720	557720	4X455328	5.48	8.03	0.58	1.18	0.63	1.38	1.50	1.61	5.35	4.22	
5/8	22,600	657721	557721	4X455329	6.20	8.43	0.71	1.44	0.75	1.69	1.74	1.92	6.12	6.64	
3/4	35,300	657722	553722	4X455330	7.09	10.80	0.88	1.81	0.94	2.09	2.00	2.08	7.25	11.22	

## Eye Sling Hook



- Fraction and metric markings
- Available with or without latch
- Durable gray powder coated finish
- 100% proof tested
- Fatigue rated to Grade 100 specifications
- For welded 7/32" Chain Sling use 9/32" Eye Hook



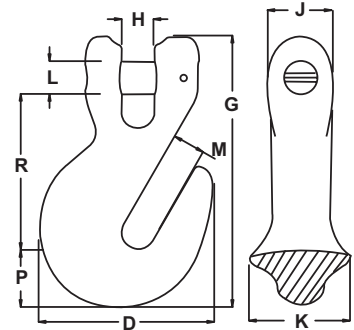
Size	Working Load Limit	Product Code w/ latch	Product Code w/o latch	Latch Kit	Dimensions											Weight					
					B	D	E	G	H	I	K	L	M	N	O		P	S			
in.	lb.				in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	4,300	558622	458622	595523	1.63	3.50	1.50	5.25	0.44	0.73	1.59	0.75	3.75	1.19	1.20	1.05	1.06	1.06	1.06	1.06	1.1
3/8	8,800	558625	458625	595525	2.06	4.33	1.88	6.64	0.56	0.95	2.19	0.94	4.78	1.44	1.45	1.28	1.31	1.31	1.31	1.31	1.9
1/2	15,000	558628	458628	595528	2.63	5.50	2.25	8.16	0.75	1.17	2.56	1.13	5.69	1.78	1.94	1.66	1.63	1.63	1.63	1.63	4.5
5/8	22,600	558629	458629	595529	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	1.75	1.75	1.75	7.3
3/4	35,300	558630	458630	595530	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	2.19	2.19	2.19	11.4

# HERC-ALLOY® Grab Hooks 1000

## Clevlok Cradle Grab Hook



- Fits grade 80 and grade 100 chain
- Fraction and metric markings
- New “I” beam body with chain cradle saddle
- 100% proof tested
- Fatigue rated to grade 100 specifications
- Durable gray powder coated finish

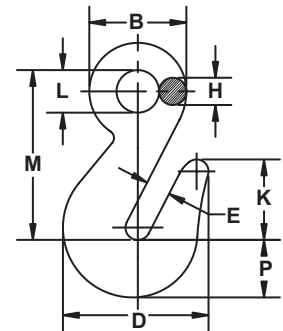


Size	Working Load Limit	Product Code	Dimensions									Weight	
			D	G	H	J	K	L	M	P	R		
in.	lb.		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	4,300	659722	2.18	3.38	0.38	0.80	0.95	0.36	0.38	0.82	1.86	0.63	
3/8	8,800	659725	2.72	4.33	0.47	1.16	1.27	0.51	0.47	1.02	2.47	1.30	
1/2	15,000	659728	3.32	5.27	0.65	1.24	1.54	0.63	0.65	1.18	3.05	2.10	
5/8	22,600	659729	4.18	6.54	0.79	1.53	1.92	0.75	0.79	1.41	3.75	4.20	

## Eye Cradle Grab Hook



- Fraction and metric markings
- Durable gray powder coated finish
- 100% proof tested
- Fatigue rated to grade 100 specifications
- Certification of test available
- For welded 7/32” Chain Sling use 9/32” Eye Cradle Hook

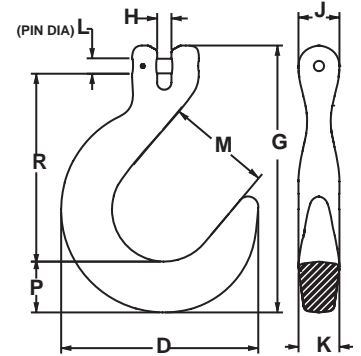


Size	Working Load Limit	Product Code	Dimensions										Weight	
			B	D	E	G	H	I	K	L	M	P		
in.	lb.		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	4,300	559725	1.38	1.91	0.36	3.70	0.38	1.06	1.04	0.63	2.57	0.76	0.55	
3/8	8,800	559737	1.78	2.78	0.47	4.81	0.50	1.38	1.49	0.78	3.28	1.04	1.39	
1/2	15,000	559750	2.28	3.63	0.59	6.19	0.63	1.81	1.98	1.03	4.22	1.51	3.05	
5/8	22,600	559762	2.75	4.41	0.75	7.62	0.75	2.13	2.39	1.25	5.06	1.80	4.36	
3/4	35,300	559775	3.19	5.23	0.88	8.99	0.88	2.88	3.50	1.44	6.25	1.88	9.00	

## Clevlok Foundry Hook



- Clevlok head designed for easy assembly
- “I” beam body design increases grip when moving from load
- Quench & tempered alloy steel
- Individually proof tested
- Durable gray powder coated finish

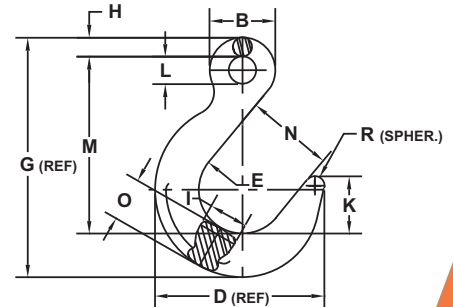


Size	Working Load Limit	Product Code	Dimensions									Weight	
			D	G	H	J	K	L	M	P	R		
in.	lb.		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	4,300	475798	4.82	6.52	0.35	1.00	1.00	0.357	2.55	1.24	4.59	2.43	
3/8	8,800	475799	5.73	7.87	0.47	1.16	1.27	0.507	3.05	1.43	5.59	4.14	
1/2	15,000	475800	6.83	9.40	0.59	1.50	1.50	0.625	3.55	1.75	6.58	7.10	
5/8	22,600	475801	7.94	10.98	0.71	1.74	1.81	0.750	4.07	2.03	7.69	12.03	

## Eye Foundry Hook



- Throat opening to 4.5” (114 mm)
- Durable gray powder coated finish
- 100% proof tested
- Fatigue rated to grade 100 specifications
- Certification of test available
- For welded 7/32” Chain Sling use 9/32” Eye Foundry Hook



Size	Working Load Limit	Product Code	Dimensions												Weight	
			B	D	E	G	H	I	K	L	M	N	O	R		
in.	lb.		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	4,300	474798	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	8,800	474799	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	15,000	474800	2.50	6.75	3.50	9.38	0.75	1.50	2.22	1.00	6.88	3.50	1.75	0.38	7.1	
5/8	22,600	474801	3.00	7.81	4.00	10.97	0.88	1.81	2.63	1.13	8.06	4.00	2.03	0.44	11.6	
3/4	35,300	474802	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	

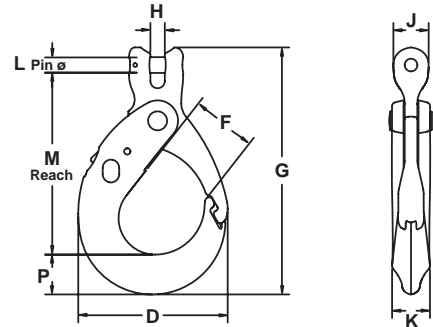
# HERC-ALLOY® Latchlok 100 Hooks

## 1000

### Clevlok Style



- High cycling, long life spring
- Factory replaceable pins
- “I” beam construction for greater strength
- 100% proof tested
- Fatigue rated to grade 100 specifications
- Durable gray powder coated finish

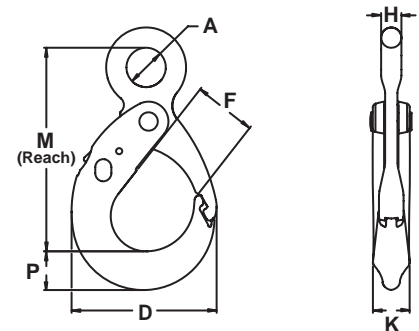


Size	Working Load Limit	Product Code	Replace Latch Kit Part #	Dimensions									Weight	
				H	M	P	D	F	J	K	G	L		
in.	lb.			in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	4,300	M616005	656005	0.35	5.05	0.88	3.77	1.64	1.00	0.91	5.74	0.36	2.40	
3/8	8,800	M616010	656010	0.47	6.08	1.07	4.76	2.27	1.16	1.14	6.92	0.51	4.20	
1/2	15,000	M616015	656015	0.59	7.88	1.58	6.26	2.91	1.50	1.46	8.96	0.63	9.00	
5/8	22,600	M616020	656020	0.71	8.96	1.97	7.37	3.20	1.74	1.81	10.22	0.75	14.00	

### Eye Style



- Large eye design for use with chain, wire rope and synthetic material
- Factory replaceable pins
- 100% proof tested
- Fatigue rated to grade 100 specifications
- For welded 7/32” Chain Sling use 9/32” Eye Lodelok Hook
- Durable gray powder coated finish

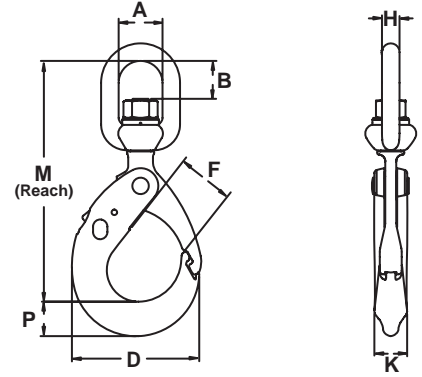


Size	Working Load Limit	Product Code	Replace Latch Kit Part #	Dimensions							Weight	
				A	M	P	D	F	H	K		
in.	lb.			in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	4,300	M626005	656005	1.09	5.37	0.88	3.77	1.64	0.44	0.91	2.50	
3/8	8,800	M626010	656010	1.36	6.65	1.07	4.76	2.27	0.59	1.14	4.56	
1/2	15,000	M626015	656015	1.57	8.79	1.58	6.26	2.91	0.79	1.46	10.00	
5/8	22,600	M626020	656020	2.00	10.36	1.97	7.37	3.20	1.03	1.81	16.00	

## Bearing Swivel Style



- The eye easily positions to attach to the load
- Factory replaceable pins
- 100% proof tested
- Fatigue rated to grade 100 specifications
- Certification of test available
- For welded 7/32" Chain Sling use 9/32" Swivel Lodelok Hook
- Durable gray powder coated finish

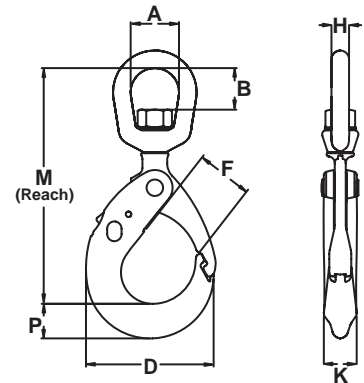


Size	Working Load Limit	Product Code	Replace Latch Kit Part #	Dimensions							Weight
				H	M	P	D	F	A	B	
in.	lb.			in.	in.	in.	in.	in.	in.	in.	lb.
9/32	4,300	M696005	656005	0.62	7.43	0.88	3.77	1.64	1.50	1.31	3.5
3/8	8,800	M696010	656010	0.77	9.11	1.07	4.76	2.27	1.78	1.62	4.8
1/2	15,000	M696015	656015	0.93	11.49	1.58	6.26	2.91	2.25	1.82	10.7
5/8	22,600	M696020	656020	1.00	13.73	1.97	7.37	3.20	2.50	2.16	17.4

## Bushing Swivel Style



- The eye easily positions to attach to the load
- Factory replaceable pins
- 100% proof tested
- Fatigue rated to grade 100 specifications
- Certification of test available
- For welded 7/32" Chain Sling use 9/32" Swivel Lodelok Hook
- Durable gray powder coated finish



Size	Working Load Limit	Product Code	Replace Latch Kit Part #	Dimensions							Weight
				H	M	P	D	F	A	B	
in.	lb.			in.	in.	in.	in.	in.	in.	in.	lb.
9/32	4,300	M676005	656005	0.62	7.17	0.88	3.77	1.64	1.50	1.33	3.5
3/8	8,800	M676010	656010	0.77	8.73	1.07	4.76	2.27	1.75	1.63	4.8
1/2	15,000	M676015	656015	0.93	11.18	1.58	6.26	2.91	2.00	1.76	10.6
5/8	22,600	M676020	656020	1.00	13.41	1.97	7.37	3.20	2.75	2.38	17.0

### Latchlok 100 Hook Reference Chart

Attachment Type	Size	WLL 4:1		WLL 5:1	
		in.	lb.	lb.	lb.
<b>Hook Size: 9/32" • Maximum WLL: 4,300 lbs.</b>					
Grade 80	9/32		3,500		2,800
Grade 100	9/32		4,300		3,440
Round Sling (Vertical)	#1 Purple		3,250		2,600
Wire Rope (EIP) max.	3/8		3,775		3,020
<b>Hook Size: 3/8" • Maximum WLL: 8,800 lbs.</b>					
Grade 80	3/8		7,100		5,680
Grade 100	3/8		8,800		7,040
Round Sling (Vertical)	#2 Green		6,625		5,300
Wire Rope (EIP) max.	9/16		8,400		6,720
<b>Hook Size: 1/2" • Maximum WLL: 15,000 lbs.</b>					
Grade 80	1/2		12,000		9,600
Grade 100	1/2		15,000		12,000
Round Sling (Vertical)	#3 Yellow		10,500		8,400
Round Sling (Vertical)	#4 Tan		13,250		10,600
Wire Rope (EIP) max.	3/4		14,700		11,760
<b>Hook Size: 5/8" • Maximum WLL: 22,600 lbs.</b>					
Grade 80	5/8		18,000		14,400
Grade 100	5/8		22,600		18,080
Round Sling (Vertical)	#5 Red		16,500		13,200
Round Sling (Vertical)	#6 White		21,000		16,800
Wire Rope (EIP) max.	7/8		19,900		15,920

- Do not apply load unless latch and hook are completely closed and locked
- Make certain that the latch does not support any part of the load
- When lifting, make certain that the load is firmly seated in the base (bowl) of the hook
- Inspect hook and latch periodically. If the hook or latch is damaged or if the latch fails to interlock with the tip, the hook should be removed from service
- Do not exceed the working load limit
- Do not use if the hook is visibly distorted, damaged or worn
- Keep body and other objects clear of the latch when closing to avoid the pinch point
- Do not side load or tip load hook
- User should be properly trained and understand safe rigging practices

WLL (Working Load Limit) is the maximum load a product is designed to support during use



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The life and strength of Herc-Alloy 800 chain slings depend on proper inspection, maintenance and use. For additional information, refer to ASME B30.9 and OSHA 1910.184.

### Care

- Chain requires careful storage and regular maintenance.
- Store chains on an A frame in a clean, dry place.
  - To avoid corrosion, oil chains before prolonged storage.
  - Do not heat Herc-Alloy 800 chain; this will alter its thermal treatment.

### Use

To protect both operators and materials, observe these precautions when using chain slings:

- Before use, inspect chain and attachments following the instructions under "Inspection" below.
- Do not exceed working load limit. Any of the factors listed here can reduce the load the chain will hold:
  - Acceleration in rate of load application can produce dangerous overloads.
  - Variations in the angle of the load to the sling, will change the WLL please refer to the chart on page 34 for proper WLL.
  - Twisting, knotting or kinking, subjects links to unusual loading, decreasing the working load of the sling.
  - Use for purposes other than those for which slings are intended, can reduce the working load of the sling.
- Free chain of all twists, knots and kinks.
- Center load in hook(s); hook latch must not support load.
- Avoid sudden jerks when lifting or lowering load.
- Balance all loads; avoid tipping of loads.
- Use pads around sharp corners.
- Do not drop load on chains.
- Match the size and working load limits of attachments such as hooks and rings to the size and working load limits of the chain.
- For overhead lifting, use only alloy chain and attachments.

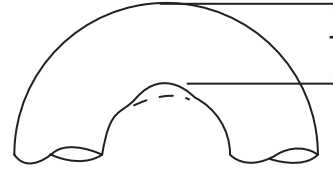
### Inspection

It is important both to inspect chain slings regularly and to keep a record of all chain inspections. Follow this guide for such an inspection system.

- Before inspecting, clean chain with a non-acid/non-caustic solvent so that marks, nicks, wear and other defects are visible.
- Inspect each link for these conditions:
  - Twists and bends.
  - Nicks or gouges.
  - Excessive wear at bearing points.
- Stretch.
- Distorted or damaged master links, coupling links or attachments, especially spread in throat opening of hooks.
- Mark plainly with paint each link or attachment showing any of the conditions listed here to indicate rejection; remove from service until properly repaired.

### Wear Allowances of Herc-Alloy 800 Chain

Measure cross section at link ends to determine wear. If chain is worn to less than the minimum allowable thickness, remove from service.



Chain Size		Minimum Allowable Thickness (T)	
in.	mm	in.	mm
7/32	5.5	0.189	4.8
9/32	7.0	0.239	6.1
3/8	10.0	0.342	8.7
1/2	13.0	0.443	11.3
5/8	16.0	0.546	13.9
3/4	20.0	0.687	17.5

### CM Chain Inspection Programs

CM provides chain users with a wide range of informative materials and instructive programs on chain and chain inspection. Our colorful chain safety poster/chart and our fact-filled booklet, "CM Lifting, Pulling & Binding Products Manual PMC-10," are available on request.

### Use of Chain & Components Under Extreme Temperature Conditions

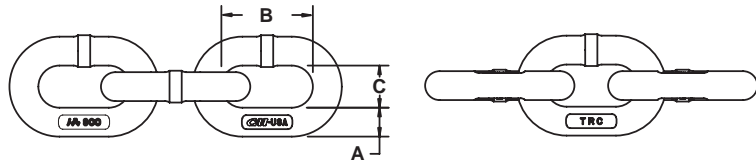
When the chain itself is subjected to temperatures shown here, working load limits should be reduced as indicated.

Temperature		Reduction of Working Load Limit	
		While at Temperature	After Exposure to Temperature
°F	°C		
Below 400	Below 204	None	None
400	204	10%	None
500	260	15%	None
600	316	20%	5%
700	371	30%	10%
800	427	40%	15%
900	482	50%	20%
1000	538	60%	25%

The identification tag found on each chain sling contains this information:

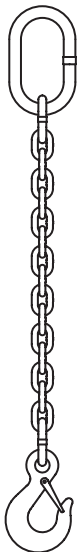
- Grade • Size • Reach • Serial Number • Number of Legs
- Working Load Limit (at a specific angle of lift)





Overhead Lifting

Chain Size	Working Load Limit	Chain Product Code	Nominal Chain Dimensions			Chain Weight	Approx No. Of Links	Drum Data		
			Material Diameter A	Inside Length B	Inside Width C			Drum Product Code	Length	Drum Weight
7/32	2,100	607020	0.218	0.676	0.312	0.44	17.8	677010	800	354
9/32	3,500	607028	0.281	0.883	0.395	0.73	13.6	677011	500	365
5/16	4,500	607031	0.315	1.019	0.455	0.91	11.8	NA	NA	NA
3/8	7,100	607037	0.394	1.247	0.574	1.44	9.6	677013	500	719
1/2	12,000	607050	0.512	1.440	0.734	2.55	8.3	677015	300	765
5/8	18,100	607062	0.630	1.777	0.855	3.82	6.8	677016	200	765
3/4	28,300	607075	0.787	2.234	1.070	5.95	5.4	677017	100	596
7/8	34,200	607087	0.875	2.250	1.137	7.76	5.3	677018	100	776
1	47,700	607101	1.000	3.070	1.490	9.39	3.9	677019	100	939
1-1/4	72,300	607128	1.250	3.920	1.740	14.20	3.06	677070	90	1,278



## How to Select and Order the Proper Chain Sling

1. Determine the weight and configuration of the load(s) to be lifted.
2. Determine the type of chain sling required, according to weight and configuration.
3. Determine the size of the chain according to the working load limits. Be sure to take into consideration the effect of the required angle. The working load limit is the maximum load in pounds which should ever be applied in direct tension to a straight length of chain.
4. Determine the reach required to give the desired angle. The reach is measured from the upper bearing surface of the master link to the bearing surface of the lower attachment. If chain slings are to be used in pairs and are to be matched for reach, please indicate when ordering.

# HERC-ALLOY® Slings

## 800

### Types of Chain Slings

In describing the type, the following symbols should be used if attachments are other than standard, give detail specifications.

#### First symbol (basic type)

- S** Single chain sling
- C** Single choker chain sling with a standard end link on each end, no hook
- D** Double branch chain sling (2 legs)
- T** Triple branch chain sling (3 legs)
- Q** Quad branch chain sling (4 legs)

#### Second symbol (type of master link or end link)





- O** Oblong master link of standard dimensions

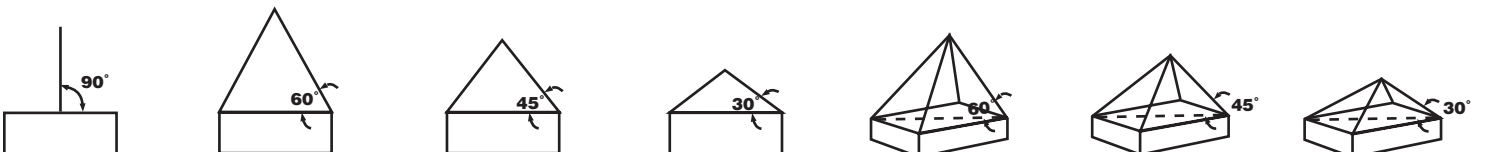
#### Third symbol (type of hook)

- S** Sling hook
- G** Grab hook
- F** Foundry hook
- L** Latchlok 100 hook

Additional coding is defined as follows

- AS** Adjustable single
- ES** Endless single
- SAL** Single adjustable loop
- AD** Adjustable double
- SB** Single basket
- ED** Endless double
- DAL** Double adjustable loop
- DB** Double basket

	Single (1 Leg)	Double (2 Legs)			Triple (3 Legs)			Quad (4 Legs)		
										
Chain Size	Working Load Limit for Angles Available (shown below)									
	90°	60°	45°	30°	60°	45°	30°	60°	45°	30°
in.	lb.									
7/32	2,100	3,600	3,000	2,100	5,500	4,400	3,200	5,500	4,400	3,200
9/32	3,500	6,100	4,900	3,500	9,100	7,400	5,200	9,100	7,400	5,200
5/16	4,500	7,800	6,400	4,500	11,700	9,500	6,800	11,700	9,500	6,800
3/8	7,100	12,300	10,000	7,100	18,400	15,100	10,600	18,400	15,100	10,600
1/2	12,000	20,800	17,000	12,000	31,200	25,500	18,000	31,200	25,500	18,000
5/8	18,100	31,300	25,600	18,100	47,000	38,400	27,100	47,000	38,400	27,100
3/4	28,300	49,000	40,000	28,300	73,500	60,000	42,400	73,500	60,000	42,400
7/8	34,200	59,200	48,400	34,200	88,900	72,500	51,300	88,900	72,500	51,300
1	47,700	82,600	67,400	47,700	123,900	101,200	71,500	123,900	101,200	71,500
1-1/4	72,300	125,200	102,200	72,300	187,800	153,400	108,400	187,800	153,400	108,400






## Any Sling to fit your application



Magnet Sling



Adjustable Chain Sling




























SLING CONFIGURATION	Single Basket	Double Basket	Single Endless	Double Endless
				
Chain Size	Working Load Limits			
	60°	60°	60°	60°
in.	lb.			
7/32	3,600	5,500	2,100	3,600
9/32	6,100	9,100	3,500	6,100
5/16	7,800	11,700	4,500	7,800
3/8	12,300	18,400	7,100	12,300
1/2	20,800	31,200	12,000	20,800
5/8	31,300	47,000	18,100	31,300
3/4	49,000	73,500	28,300	49,000
7/8	59,200	88,900	34,200	59,200
1	82,600	123,900	47,700	82,600
1-1/4	125,200	187,800	72,300	125,200

# HERC-ALLOY® Components

## 800

Columbus McKinnon is a leader in quality and manufacturing excellence. With over 130 years of material handling experience, we strive for superior customer service in all aspects of our business. Columbus McKinnon pioneered the welding of Herc-Alloy over 70 years ago, and we continue to upgrade our process with the latest in technology and mechanical equipment. We are the original designer of the mechanical coupler link, trademark Hammerlok, as well as the Clevlok style hook for overhead lifting slings. From beam to hoist to below the hook attachments, the product offering that represents CM Complete Lifting Systems is unparalleled in the industry. Additionally, diverse training programs in the areas of rigging, applications, safety, and service are components of the package available to users and distributors when they purchase CM products.

Chain and forge divisions are ISO certified companies, and a direct, highly trained, sales force provides expertise in numerous areas. All rigging products from chain to master links to forged attachments are produced in Columbus McKinnon facilities, thus ensuring form and fit.

	COMPONENTS								
	Chain Size	Working Load Limit	Chain (Bulk)	Chain (Drum)	Master Link	Master Link w/ Flats	Sub-Assembly	Sub-Assembly w/ Flats	Omega Links
	in.				Page 38	Page 39	Page 40	Page 40	Page 42
SINGLE									
	7/32	2,100	607020	677010	554931	ML040	–	–	–
	9/32	3,500	607028	677011	554932	ML040	–	–	644128
	3/8	7,100	607037	677013	554935	ML063	–	–	644138
	1/2	12,000	607050	677015	554938	ML075	–	–	644150
	5/8	18,100	607062	677016	554938	ML100	–	–	644162
	3/4	28,300	607075	677017	554940	ML125	–	–	–
	7/8	34,200	607087	677018	554943	ML125	–	–	–
	1	47,700	607101	677019	554946	ML150	–	–	–
1-1/4	72,300	607128	677070	554949	ML200	–	–	–	
DOUBLE									
	7/32	3,600	607020	677010	554931	ML050	–	–	–
	9/32	6,100	607028	677011	554932	ML063	–	–	644128
	3/8	12,300	607037	677013	554935	ML075	–	–	644138
	1/2	20,800	607050	677015	554938	ML100	–	–	644150
	5/8	31,300	607062	677016	554940	ML125	–	–	644162
	3/4	49,000	607075	677017	554943	ML150	–	–	–
	7/8	59,200	607087	677018	554946	ML175	–	–	–
	1	82,600	607101	677019	554949	ML200	–	–	–
1-1/4	125,200	607128	677070	554951	ML250	–	–	–	
TRIPLE & QUAD									
	7/32	5,500	607020	677010	–	–	554974	SA063	–
	9/32	9,100	607028	677011	–	–	554975	SA075	644128
	3/8	18,400	607037	677013	–	–	554976	SA100	644138
	1/2	31,200	607050	677015	–	–	554977	SA125	644150
	5/8	47,000	607062	677016	–	–	554978	SA175	644162
	3/4	73,500	607075	677017	–	–	554979	SA200	–
	7/8	88,900	607087	677018	–	–	554980	SA225	–
	1	123,900	607101	677019	–	–	554981	SA250	–
1-1/4	187,800	607128	677070	–	–	554983	SA300	–	



Overhead Lifting

	COMPONENTS									
	Chain Size	Hammerlok	Clevlok Sling Hook w/ Latch	Clevlok Sling Hook w/o Latch	Eye Sling Hook w/ Latch	Eye Sling Hook w/o Latch	Clevlok Grab Hook	Clevlok Cradle Grab Hook	Eye Cradle Grab Hook	Foundry Hook (Eye)
	in.	Page 42	Page 43	Page 43	Page 43	Page 43	Page 44	Page 44	Page 45	Page 45
SINGLE	7/32	-	-	-	558544	458544	-	-	559318	-
	9/32	664028-2	657318	557318	558322	458722	659232	659222	559325	474498
	3/8	664038-2	657319	557319	558325	458725	659235	659225	559337	474499
	1/2	664050-2	657320	557320	558328	458728	659238	659228	559350	474500
	5/8	664062-2	657321	557321	558329	458729	659239	659229	559362	474501
	3/4	664075-2	657322	553322	558330	458730	-	659430	559575	474502
	7/8	664089-2	-	-	558332	458732	-	-	559387	474503
	1	664100-2	-	-	558333	458733	-	-	559100	474504
	1-1/4	664125-2	-	-	558335	458735	-	-	559124	474505
DOUBLE	7/32	-	-	-	558544	458544	-	-	559318	-
	9/32	664028-2	657318	557318	558322	458722	659232	659222	559325	474498
	3/8	664038-2	657319	557319	558325	458725	659235	659225	559337	474499
	1/2	664050-2	657320	557320	558328	458728	659238	659228	559350	474500
	5/8	664062-2	657321	557321	558329	458729	659239	659229	559362	474501
	3/4	664075-2	657322	553322	558330	458730	-	659430	559575	474502
	7/8	664089-2	-	-	558332	458732	-	-	559387	474503
	1	664100-2	-	-	558333	458733	-	-	559100	474504
	1-1/4	664125-2	-	-	558335	458735	-	-	559124	474505
TRIPLE & QUAD	7/32	-	-	-	558544	458544	-	-	559318	-
	9/32	664028-2	657318	557318	558322	458722	659232	659222	559325	474498
	3/8	664038-2	657319	557319	558325	458725	659235	659225	559337	474499
	1/2	664050-2	657320	557320	558328	458728	659238	659228	559350	474500
	5/8	664062-2	657321	557321	558329	458729	659239	659229	559362	474501
	3/4	664075-2	657322	553322	558330	458730	-	659430	559575	474502
	7/8	664089-2	-	-	558332	458732	-	-	559387	474503
	1	664100-2	-	-	558333	458733	-	-	559100	474504
	1-1/4	664125-2	-	-	558335	458735	-	-	559124	474505

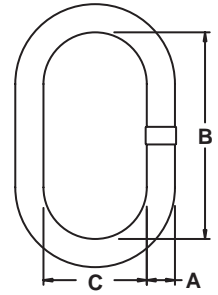
# HERC-ALLOY® Master Links

## 800

### Master Link



- Designed to accept HA 800 chain and components
- Durable orange powder coated finish
- May be used for mechanical and welded sling assemblies
- 100% proof tested

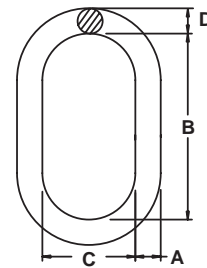


Trade Size	Working Load Limit	Catalog No.	Product Code	Nominal Dimensions			Weight	Type and size of Chain Sling	
				Material Diameter A	Inside Length B	Inside Width C		Single	Double
in.	lb.			in.	in.	in.	lb.	in.	in.
3/8	3,600	HA40	554931	0.406	3.00	1.500	0.33	7/32	7/32
1/2	6,100	HA50	554932	0.562	5.00	2.500	0.81	9/32	9/32
3/4	12,300	HA75	554935	0.750	5.50	2.750	2.08	3/8	3/8
1	20,800	HA100	554938	1.000	7.00	3.500	4.59	1/2 or 5/8	1/2
1-1/4	31,300	HA125	554940	1.250	8.75	4.375	9.31	3/4	5/8
1-1/2	49,000	HA150	554943	1.500	10.50	5.250	15.66	7/8	3/4
1-3/4	73,500	HA175	554946	1.750	12.00	6.000	24.44	1	7/8
2	88,900	HA200	554949	2.000	14.00	7.000	37.27	1-1/4	1
2-1/4	125,200	HA225	554951	2.250	16.00	8.000	54.03	–	1-1/4
2-3/4	187,800	HA275	554957	2.750	16.00	9.000	84.84	–	–

### Forged Master Link



- Quench and tempered alloy steel
- 100% proof tested
- Raised markings for better identification
- Durable orange powder coated finish
- Fatigue rated to Grade 80 specifications

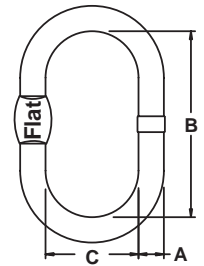


Trade Size	Working Load Limit	Product Code	Nominal Dimensions				Weight
			Material Diameter A	Inside Length B	Inside Width C	End D	
in.	lb.		in.	in.	in.	in.	lb.
1/2	5,100	M50P	0.500	5.00	2.50	5.360	0.90
5/8	7,700	M62P	0.625	6.00	3.00	6.880	1.75
3/4	10,600	M75P	0.750	6.00	3.00	8.120	2.35
1	20,400	M100P	1.000	8.00	4.00	1.125	6.00



## Master Link with Flats

- Designed to accept HA 800 Chain, Wire Rope and Synthetic
- Use with mechanical and welded assemblies
- Sizes up to 1 1/4" available with flats to accommodate Omega link
- 100% proof tested
- Extra wide body for Wire Rope applications

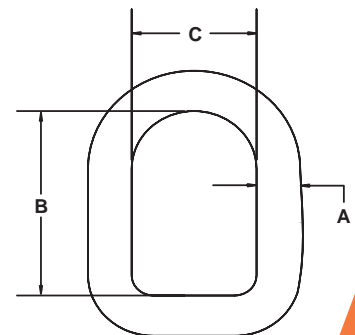


Trade Size	Working Load Limit	Product Code	Nominal Dim.			Weight	Type & Size of Chain Sling	
			Material Diameter A	Inside Length B	Inside Width C		Single	Double
7/16	4,200	ML040	0.437	4.130	2.294	0.50	7/32 & 9/32	–
1/2	5,750	ML050	0.562	4.838	2.688	0.80	–	7/32
5/8	9,000	ML063	0.625	5.292	2.977	1.34	3/8	9/32
3/4	14,200	ML075	0.750	6.611	3.719	2.36	1/2	3/8
7/8	17,300	ML087	0.875	7.350	4.135	3.60	–	–
1	26,500	ML100	1.000	7.526	4.301	5.20	5/8	1/2
1-1/4	37,400	ML125	1.250	9.261	5.292	9.60	3/4 & 7/8	5/8
1-1/2	53,000	ML150	1.500	11.025	6.300	16.20	1	3/4
1-3/4	72,150	ML175	1.750	12.863	7.350	25.10	–	7/8
2	94,200	ML200	2.000	14.700	8.400	38.40	1-1/4	1
2-1/4	119,200	ML225	2.250	16.538	9.450	54.60	–	–
2-1/2	147,150	ML250	2.500	18.375	10.500	74.90	–	1-1/4
2-3/4	178,050	ML275	2.750	20.213	11.550	99.80	–	–
3	240,850	ML300	3.000	18.900	11.025	114.00	–	–
3-1/4	282,650	ML325	3.250	20.475	11.944	145.00	–	–
3-1/2	327,800	ML350	3.500	22.050	12.863	181.13	–	–

## Flat Bottom Master Link



- Designed to accept HA 800 chain and components
- Made from Alloy Steel
- Extra wide width allows for larger hook usage
- 100% proof tested



Chain Size	Trade Size	Working Load Limit	Product Code	Material Diameter A	Inside Length B	Inside Width C	Weight
5/8 & 3/4	1-3/4	73,500	554966	1.750	8.000	5.000	18.96
7/8 & 1	2	123,900	554950	2.000	8.980	5.000	28.04
1 & 1/4	2-1/2	187,800	554965	2.500	11.920	6.500	54.73

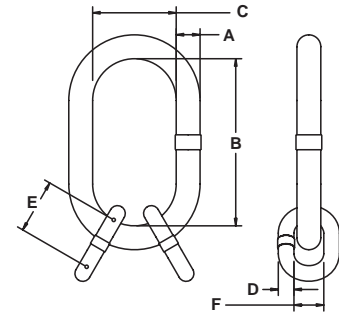
# HERC-ALLOY® Sub-Assemblies

## 800

### Sub-Assembly



- Designed for triple and quad branch HA 800 slings
- Consists of an Oblong Master link and two Master Coupling links
- Durable orange powder coated finish
- May be used for mechanical and welded sling assemblies
- 100% proof tested

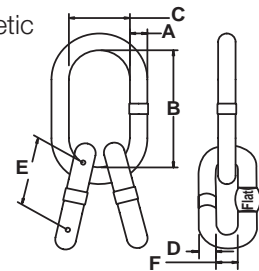


Trade Size	Catalog No.	Working Load Limit at 60°	Product Code	Master Link Nominal Dim.			Intermediate Link Nominal Dim.			Weight	Type & Size of Chain Sling on Which Used	
				Material Diameter A	Inside Length B	Inside Width C	Material Diameter D	Inside Length E	Inside Width F		Triple	Quad
1/2	HA50-SA	7,000	554974	0.562	5.000	2.500	0.343	1.125	0.625	0.79	7/32	7/32
3/4	HA75-SA	14,200	554975	0.750	5.500	2.750	0.512	1.750	1.063	2.08	9/32	9/32
1	HA100-SA	24,000	554976	1.000	7.000	3.500	0.656	2.250	1.250	4.59	3/8	3/8
1-1/4	HA125-SA	36,200	554977	1.250	8.750	4.375	0.906	3.125	1.750	9.16	1/2	1/2
1-1/2	HA150-SA	56,600	554978	1.500	10.500	5.250	1.125	4.000	2.250	15.66	5/8	5/8
1-3/4	HA175-SA	84,900	554979	1.750	12.000	6.000	1.250	4.380	2.375	24.44	3/4	3/4
2	HA200-SA	102,600	554980	2.000	14.000	7.000	1.500	5.250	2.750	37.27	7/8	7/8
2-1/4	HA225-SA	144,600	554981	2.250	16.000	8.000	1.750	6.000	3.000	54.03	1	1
2-3/4	HA275-SA	216,900	554983	2.750	16.000	9.000	2.000	7.000	3.500	84.84	1-1/4	1-1/4



### Sub-Assembly with Flats

- Designed to accept Herc-Alloy 800 chain, wire rope and synthetic
- Durable orange powder coated finish
- 100% proof tested
- May be used for mechanical and welded sling assemblies
- Extra wide body for wire rope applications
- Sizes up to 1 1/4" intermediate links available with flats to accommodate Omega link



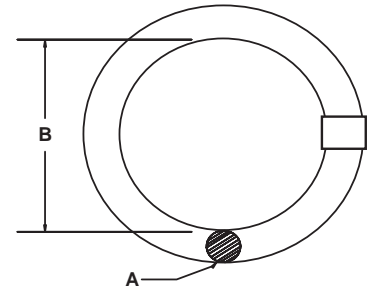
Trade Size	Working Load Limit	Product Code	Master Link Nominal Dim.			Intermediate Link Nominal Dim.			Weight	Type & Size of Chain Sling on which used	
			Material Diameter A	Inside Length B	Inside Width C	Material Diameter D	Inside Length E	Inside Width F		Triple	Quad
1/2	4,600	SA050	0.562	4.838	2.688	0.437	4.130	2.294	1.8	-	-
5/8	7,200	SA063	0.625	5.292	2.977	0.512	4.838	2.688	2.9	7/32	7/32
3/4	11,200	SA075	0.750	6.611	3.719	0.625	5.292	2.977	5.0	9/32	9/32
7/8	13,840	SA087	0.875	7.350	4.135	0.625	5.292	2.977	6.3	-	-
1	21,200	SA100	1.000	7.526	4.301	0.750	6.611	3.719	9.9	3/8	3/8
1-1/4	29,920	SA125	1.250	9.261	5.292	1.000	7.526	4.301	19.9	1/2	1/2
1-1/2	42,400	SA150	1.500	11.025	6.300	1.000	7.526	4.301	26.5	-	-
1-3/4	57,720	SA175	1.750	12.863	7.350	1.250	9.261	5.292	44.0	5/8	5/8
2	75,360	SA200	2.000	14.700	8.400	1.500	11.025	6.300	70.8	3/4	3/4
2-1/4	95,360	SA225	2.250	16.538	9.450	1.750	12.863	7.350	104.8	7/8	7/8
2-1/2	117,720	SA250	2.500	18.375	10.500	1.750	12.863	7.350	125.2	1	1
2-3/4	142,400	SA275	2.750	20.213	11.550	2.000	14.700	8.400	176.5	-	-
3	192,680	SA300	3.000	18.900	11.025	2.250	16.538	9.450	223.2	1-1/4	1-1/4
3-1/4	226,120	SA325	3.250	20.475	11.944	2.500	18.375	10.500	294.9	-	-
3-1/2	262,240	SA350	3.500	22.050	12.863	2.750	20.213	11.550	380.6	-	-



## Master Ring



- Made from alloy material
- Proof tested at two times WLL
- Durable orange powder coated finish

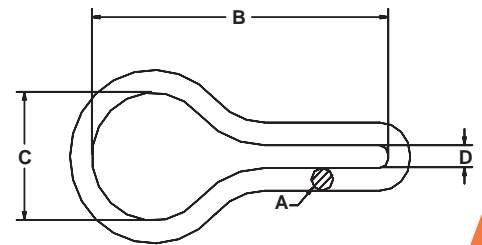


Trade Size	Working Load Limit	Finished Code	Dimensions			Type and Size of Chain Sling			
			Material Diameter A	Inside Length B	Weight	Single	Double	Triple	Quad.
1/2	3,500	554611	0.512	2.500	0.52	7/32 & 9/32	—	—	—
5/8	6,100	554613	0.625	3.000	0.99	—	7/32	7/32	7/32
3/4	10,500	554615	0.750	4.000	1.86	3/8	9/32	9/32	9/32
7/8	12,300	554617	0.875	4.000	2.60	1/2	—	—	—
1	18,400	554619	1.000	4.000	3.45	5/8	3/8	—	—
1-1/4	28,300	554623	1.250	5.000	6.98	3/4	1/2	3/8	3/8
1-1/2	31,300	554627	1.500	6.000	11.80	—	—	—	—
1-3/4	53,000	554630	1.750	7.000	18.70	7/8 & 1	5/8	1/2	1/2
2	73,500	554635	2.000	8.000	27.90	1-1/4	7/8	5/8	5/8
2-1/4	88,900	554636	2.250	9.000	39.90	—	—	3/4	3/4
2-1/2	141,000	554640	2.500	10.000	54.60	—	1	7/8 & 1	7/8 & 1

## Grab Link



- Made from alloy material
- Proof tested at two times the WLL
- Economical chain adjuster for single slings
- Durable orange powder coated finish



Trade Size	Working Load Limit	Product Code	Diameter	Inside Length	Inside Width	Inside Width	Weight
			A	B	C	D	
1/2	3,500	554320	0.562	5.500	2.500	0.580	0.81
3/4	7,100	554326	0.750	6.063	2.750	0.625	2.08
1	12,000	554332	1.000	7.625	3.500	0.750	4.59
1-1/4	18,100	554337	1.250	9.250	4.375	1.000	9.16
1-3/8	28,300	554342	1.375	11.250	6.000	1.125	14.28
1-1/2	34,200	554347	1.500	11.750	5.250	1.375	16.75
1-3/4	47,700	554352	1.750	13.750	7.000	1.500	26.69

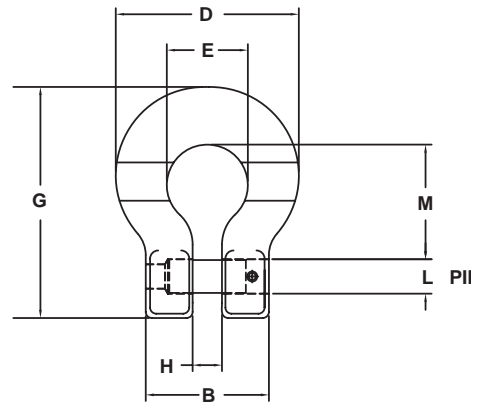
# HERC-ALLOY® Connector Links

## 800

### **Omegalok Connector**



- Fraction and metric markings
- Durable orange powder coated finish
- 100% proof tested
- Fatigue rated to Grade 80 specifications
- For use with master link w/flats

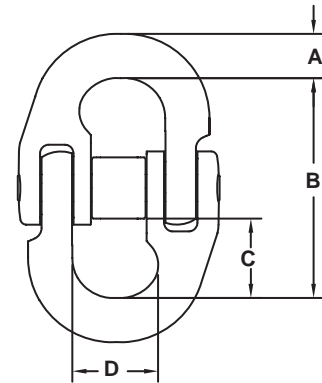


Size	Working Load Limit	Product Code	Load Pin	Retainer Pin	Dimensions								Weight
					B	D	E	G	H	L	M	T	
in.	lb.				in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	3,500	644128	595780	602326	1.36	2.30	0.98	2.81	0.33	0.36	1.45	0.43	0.40
3/8	7,100	644138	595781	495821	1.90	2.82	1.25	3.57	0.45	0.51	1.77	0.57	1.02
1/2	12,000	644150	595782	495822	2.31	3.52	1.56	4.44	0.59	0.63	2.26	0.70	1.92
5/8	18,100	644162	595785	495823	2.87	4.46	2.00	5.45	0.75	0.78	2.72	0.88	3.20

### **Hammerlok**



- Attaches chain to master link and hooks
- Quench and tempered alloy steel
- 100% proof tested
- Fatigue rated
- Replacement kits available
- Split ring retainer pin available

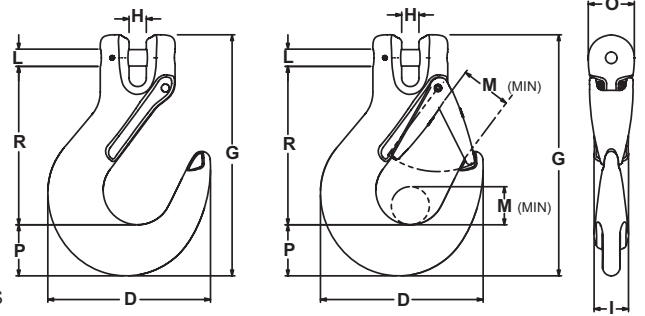


Size	Working Load Limit	Product Code	Load Pin kit Product Code	Dimensions				Weight
				A	B	C	D	
in.	lb.			in.	in.	in.	in.	lb.
7/32	2,100	664021-2	R664021-2	0.25	1.41	0.50	0.52	0.12
9/32	3,500	664028-2	R664028-2	0.31	1.94	0.75	0.70	0.26
3/8	7,100	664038-2	R664038-2	0.50	2.41	0.88	0.91	0.59
1/2	12,000	664050-2	R664050-2	0.69	3.38	1.25	1.41	1.42
5/8	18,100	664062-2	R664062-2	0.81	4.06	1.50	1.70	2.35
3/4	28,300	664075-2	R664075-2	0.94	4.78	1.81	2.02	3.67
7/8	34,200	664089-2	R664089-2	1.05	5.13	2.00	2.25	5.98
1	47,700	664100-2	R664100-2	1.25	5.75	2.25	2.08	9.47
1 1/4	72,300	664125-2	R664125-2	1.53	6.81	2.63	2.92	16.61

## Clevlok Sling Hook



- Available with and without a latch
- Quench and tempered alloy steel
- CM's clevlok head design
- 100% proof tested fatigue rated
- Durable orange powder coated finish
- Replacement pin and latch kit available
- Improved forged latch
- New CE compliant hooks and latches
- Meets EN 1677



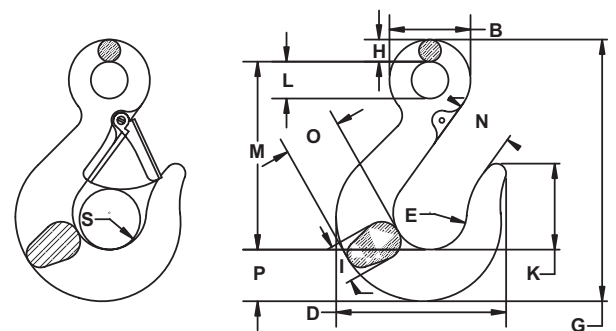
Overhead Lifting

Size	Working Load Limit	Product Code w/ latch	Product Code w/o latch	Latch Kit	Dimensions									Weight w/o latch	
					D	G	H	I	L	M	O	P	R		
in.	lb.				in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	3,500	657318	557318	4X455322	3.53	5.23	0.38	0.75	0.36	0.83	1.00	1.11	3.44	1.20	
3/8	7,100	657319	557319	4X455325	4.38	6.53	0.47	0.97	0.51	1.06	1.16	1.36	4.32	2.21	
1/2	12,000	657320	557320	4X455328	5.48	8.03	0.58	1.18	0.63	1.38	1.50	1.61	5.35	4.22	
5/8	18,100	657321	557321	4X455329	6.20	8.43	0.71	1.44	0.75	1.69	1.74	1.92	6.12	6.64	
3/4	28,300	657322	553322	4X455330	7.09	10.80	0.88	1.81	0.94	2.09	2.00	2.08	7.25	11.22	

## Eye Sling Hook



- Available with and without latch
- Quench and tempered alloy steel
- 100% proof tested
- Fatigue rated
- Replacement latch available
- Durable orange powder coated finish



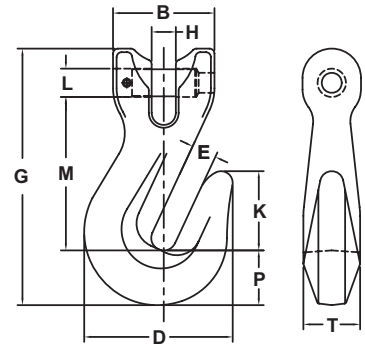
Size	Working Load Limit	Product Code w/ latch	Product Code w/o latch	Latch Kit	Dimensions													Weight w/o latch	
					B	D	E	G	H	I	K	L	M	N	O	P	S		
in.	lb.				in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
7/32	2,100	558544	458544	595461	--	3.31	1.44	4.30	.38	.78	1.25	.75	3.06	1.25	1.00	.86	1.11	0.66	
9/32	3,500	558322	458722	595523	1.63	3.50	1.50	5.25	.44	.73	1.59	.75	3.75	1.19	1.20	1.05	1.06	1.10	
3/8	7,100	558325	458725	595525	2.06	4.33	1.88	6.64	.56	.95	2.19	.94	4.78	1.44	1.45	1.28	1.31	1.90	
1/2	12,000	558328	458728	595528	2.63	5.50	2.25	8.16	.75	1.17	2.56	1.13	5.69	1.78	1.94	1.66	1.63	4.30	
5/8	18,100	558329	458729	595529	3.06	6.34	2.63	9.66	.88	1.44	2.63	1.31	6.50	2.03	2.38	2.19	1.75	7.30	
3/4	28,300	558330	458730	595530	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	12.50	
7/8	34,200	558332	458732	595532	3.88	8.59	3.38	12.72	1.09	1.94	3.88	1.69	8.75	2.78	3.22	2.84	2.38	18.10	
1	47,700	558333	458733	595533	4.31	9.59	4.00	14.23	1.22	2.14	4.25	1.88	9.88	3.13	3.55	3.09	2.88	22.60	
1-1/4	72,300	558335	458735	595535	5.31	11.56	4.66	17.00	1.50	2.62	4.64	2.31	11.50	3.88	4.25	3.89	3.41	47.00	

# HERC-ALLOY® Grab Hooks 800

## Clevlok Grab Hook



- Quench and tempered alloy steel
- Fatigue rated
- Replacement pin available
- Built without lugs to avoid catching when slipping into tight clearance
- Durable orange powder coated finish

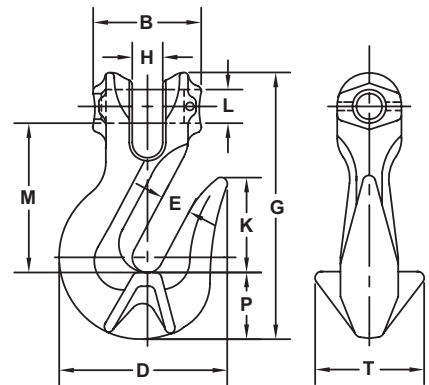


Size	Working Load Limit	Product Code	Load Pin	Retainer Pin	Dimensions										Weight
					B	D	E	G	H	K	L	M	P	T	
in.	lb.				in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	3,500	659232	595780	602326	1.36	1.91	0.36	3.70	0.33	1.04	0.36	2.29	0.76	0.81	0.6
3/8	7,100	659235	595781	495821	1.90	2.78	0.47	4.81	0.45	1.49	0.51	2.87	1.03	1.06	1.3
1/2	12,000	659238	595782	495822	2.31	3.62	0.59	6.35	0.59	1.98	0.63	3.78	1.51	1.38	2.5
5/8	18,100	659239	595783	495823	2.87	4.41	0.75	7.74	0.75	2.39	0.75	4.82	1.80	1.69	4.4

## Clevlok Cradle Grab Hook



- CM's unique cradle grab design
- Quench and tempered alloy steel
- Fatigue rated
- Replacement pin available
- Durable orange powder coated finish

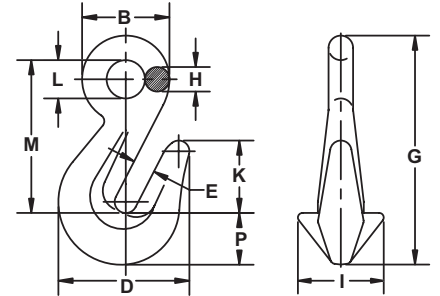


Size	Working Load Limit	Product Code	Dimensions										Weight	
			B	D	E	G	H	K	L	M	P	T		
in.	lb.		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	3,500	659222	1.31	1.78	.359	3.00	0.33	0.98	0.36	1.63	0.72	1.19	0.44	
3/8	7,100	659225	1.81	2.56	.469	4.08	0.45	1.41	0.51	2.11	1.06	1.75	1.18	
1/2	12,000	659228	2.16	3.25	.594	5.27	0.59	1.88	0.63	2.88	1.28	2.13	2.70	
5/8	18,100	659229	2.69	4.08	.750	6.53	0.75	2.38	0.75	3.56	1.59	2.50	4.60	
3/4	28,300	659430	3.09	4.91	.875	7.88	0.88	2.84	0.91	5.50	1.88	3.13	10.24	

## Eye Cradle Grab Hook



- CM's unique cradle grab design
- Quench and tempered alloy steel
- 100% proof tested
- Fatigue rated
- Durable orange powder coated finish

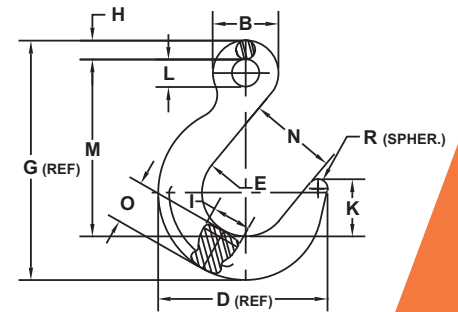


Size	Working Load Limit	Product Code	Dimensions										Weight	
			B	D	E	G	H	I	K	L	M	P		
in.	lb.		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
7/32	2,100	559318	1.19	1.75	0.36	2.69	0.38	1.19	0.96	0.63	1.63	0.7	0.35	
9/32	3,500	559325	1.38	1.91	0.36	3.70	0.38	1.06	1.04	0.63	2.57	0.76	0.55	
3/8	7,100	559337	1.78	2.78	0.47	4.81	0.50	1.38	1.49	0.78	3.28	1.04	1.06	
1/2	12,000	559350	2.28	3.63	0.59	6.19	0.63	1.81	1.98	1.03	4.22	1.51	2.00	
5/8	18,100	559362	2.75	4.41	0.75	7.62	0.75	2.13	2.39	1.25	5.06	1.80	5.40	
3/4	28,300	559575	3.19	5.23	0.88	8.99	0.88	2.88	3.50	1.44	6.25	1.88	9.00	
7/8	34,200	559387	3.75	5.69	1.00	9.63	1.00	3.00	3.75	1.75	6.50	2.12	10.40	
1	47,700	559100	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	72,300	559124	5.38	8.25	1.50	15.56	1.56	2.50	5.50	2.25	10.50	3.50	40.00	

## Eye Foundry Hook



- Throat opening up to 6"
- Quench and tempered alloy steel
- Fatigue rated to Grade 80 specifications
- Durable orange powder coated finish



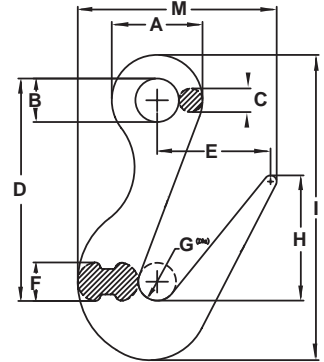
Size	Working Load Limit	Product Code	Dimensions											Weight		
			B	D	E	G	H	I	K	L	M	N	O		R	
in.	lb.		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	3,500	474498	1.56	4.75	2.50	6.45	0.47	1.00	1.56	0.63	4.75	2.50	1.23	0.25	2.4	
3/8	7,100	474499	2.00	5.75	3.00	7.88	0.63	1.27	1.88	0.75	5.75	3.00	1.50	0.31	4.5	
1/2	12,000	474500	2.50	6.75	3.50	9.38	0.75	1.50	2.22	1.00	6.88	3.50	1.75	0.38	7.1	
5/8	18,100	474501	3.00	7.81	4.00	10.97	0.88	1.81	2.63	1.13	8.06	4.00	2.03	0.44	11.6	
3/4	28,300	474502	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	
7/8	34,200	474503	4.00	10.14	5.00	14.23	1.13	2.25	3.38	1.75	10.38	5.00	2.78	0.56	26.0	
1	47,700	474504	4.50	11.13	5.50	15.84	1.25	2.59	3.75	2.13	11.56	5.50	3.03	0.62	36.8	
1 1/4	72,300	474505	5.13	12.84	6.00	18.03	1.38	3.17	4.25	2.38	12.88	6.00	3.81	0.75	58.4	

# HERC-ALLOY® Sorting Hooks 800

## Sorting Hook



- Quench and tempered alloy steel
- Long tapered point designed for easy grab in rings, pear links, eyebolts or lifting holes
- Durable orange powder coated finish
- 5:1 design factor



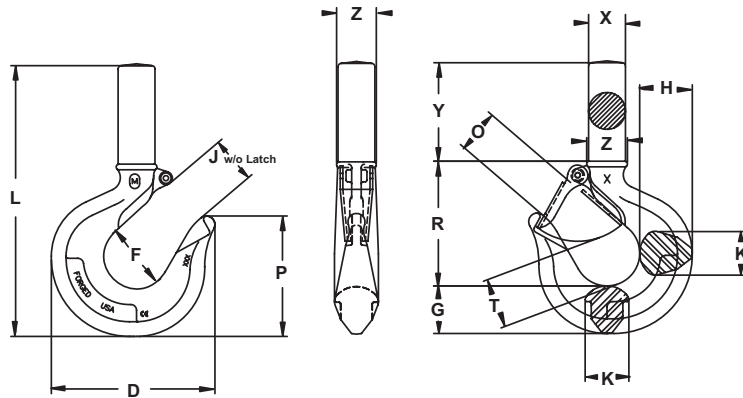
Product Code	Product Code (With Handle)	WLL at Tip	WLL at bottom of hook	Dimensions										Weight
				A	B	C	D	E	F	G	H	I	M	
		Ton	Ton	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
M129	M129H	2	7.5	3	1.44	0.78	7.34	3.75	1.28	1.25	4.13	10.09	7.38	6.8

## Shank Hooks



- Heat treated alloy steel provides a strength without bulk or weight
- Pre drilled boss allows for latch
- Shank hooks are supplied unthreaded. Insufficient thread engagement can result in loss of load. The following should be observed:

1. Shanks are not intended for internal threading or swaging
2. To obtain maximum strength threads should be class 1 or 2
3. Thread engagement in nut or object must be a minimum of 1-1/2 times the thread diameter

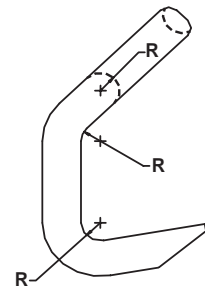
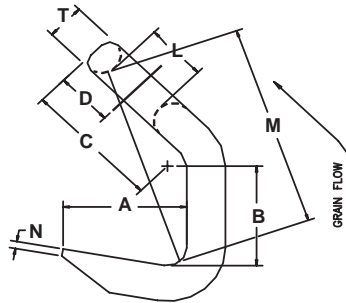


Hook	Working Load Limit	Product Code	Max Shank Diameter	Latch Hole	Latch Kit Code	Dimensions												
						D	F	G	H	J	K	L	O	P	R	X	Y	Z
No.	Ton		in.	in.		in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
2	1	M1302A	0.593	0.144	4X1302	3.10	1.25	0.87	1.01	0.93	0.63	5.28	0.93	2.13	2.35	0.59	2.06	0.69
3	1 1/2	M1303A	0.723	0.179	4X1303	3.37	1.38	0.94	1.11	0.97	0.71	5.78	0.97	2.29	2.59	0.66	2.25	0.78
4	2	M1304A	0.783	0.179	4X1304	3.74	1.50	1.06	1.21	1.06	0.88	6.29	1.06	2.57	2.75	0.72	2.50	1.00
5	3	M1305A	0.973	0.179	4X1305	4.23	1.63	1.27	1.43	1.19	0.94	7.26	1.16	2.84	3.16	0.91	2.90	1.00
7	5	M1307A	1.223	0.203	4X1307	5.16	2.00	1.44	1.63	1.50	1.38	8.63	1.41	3.52	3.85	1.16	3.34	1.25
9	7	M1309A	1.473	0.203	4X1309	6.26	2.50	1.82	2.01	1.78	1.68	10.43	1.69	4.61	4.77	1.41	3.84	1.56

## Plate Hook

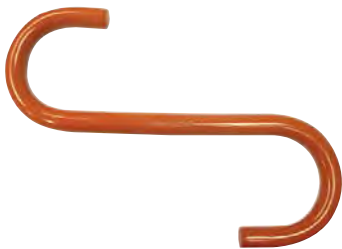


- Made from alloy material
- Designed to handle plate steel
- Durable orange powder coated finish
- Available as components or attached to certified slings

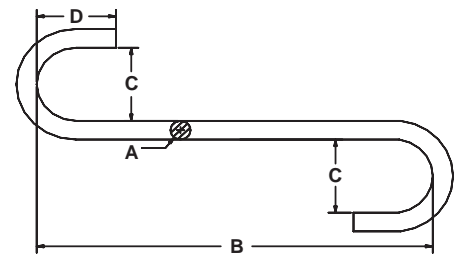


Size	Product Code	Working Load Limit	A	B	C	D	L	M	N	T	W	R	Weight
in.	lb.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
9/32	462528	3,600	2.000	1.750	2.500	0.938	1.000	3.688	0.125	0.625	2.500	0.313	2.80
3/8	462537	7,050	2.625	3.000	4.313	1.188	1.125	6.375	0.188	0.750	2.750	0.375	5.70
1/2	462550	11,400	3.500	4.000	4.375	1.500	1.500	7.375	0.250	1.000	3.500	0.500	13.00
5/8	462562	17,800	4.375	5.000	5.438	1.875	1.875	9.250	0.313	1.250	5.000	0.625	26.50
3/4	462575	25,600	5.188	6.000	6.500	2.375	2.250	10.875	0.375	1.500	5.750	0.750	42.00
7/8	462587	34,900	6.000	7.000	7.625	2.500	2.625	13.062	0.438	1.750	6.000	1.000	65.00

## "S" Hook



- Made from alloy material
- Proof tested at two times WLL
- Durable orange powder coated finish
- Custom sizes available upon request
- WLL embossed on hooks
- Serialized upon request



Product Code	Working Load Limit	Dimensions				Weight
		A	B	C	D	
	lb.	in.	in.	in.	in.	lb.
562228	210	0.281	4.500	1.125	1.125	0.15
562237	410	0.375	6.000	1.500	1.500	0.35
562250	870	0.512	7.500	2.000	2.000	0.82
562262	1,120	0.625	9.000	2.500	2.500	1.56
562275	1,730	0.750	10.500	3.000	3.000	2.6
562287	2,370	0.875	12.000	3.500	3.500	4.2
562300	2,920	1.000	13.000	4.000	4.000	6.0
562310	3,150	1.125	15.000	4.500	4.500	9.3
562325	4,450	1.250	16.000	5.000	5.000	11.7
562337	6,100	1.375	17.000	5.500	5.500	15.4
562350	6,250	1.500	18.000	6.000	6.000	19.5

## Specialty Hooks



**We can HOOK you up!**

### **Materials**

Steel  
Bronze  
Stainless Steel  
High Manganese

### **Sizes**

1/4" to 2" round bar  
1/2" to 1-5/8" square bar  
1/4" x 1" to 1" x 4" flat bar

### **Finishes**

Self-colored  
Zinc  
Galvanized  
Powder-coated  
Silver 17

## ***Fabricate any hook for any job to your specifications***

Our custom alloy lifting hooks are available in a wide range of materials, including high manganese steel. This steel meets the rigorous requirements needed in high impact and abrasion applications.

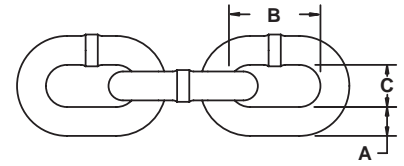
Safety Directors and Supervisors are insisting on the use of certified hooks. We will provide overhead certification and proof testing for each custom piece upon request. We can also serialize and tag your order.





## Stainless Steel Chain

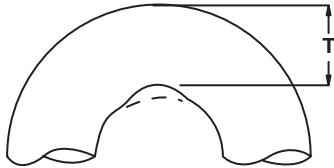
- Made from 300 series stainless
- Higher temperature resistance than HA 800
- Safely used in the food handling industry
- Available components to build single and double slings
- Less corrosive than standard alloy material



Chain Size	Working Load Limit	Product Code	Nominal Dim.			Approx. # of Links	Weight
			Material Diameter A	Inside Length B	Inside Width C		
in.	lb.		in.	in.	in.		lb.
9/32	2,000	646028	0.281	0.868	0.415	13.8	0.74
3/8	3,550	646037	0.394	1.222	0.580	9.8	1.45
1/2	6,500	646050	0.512	1.404	0.740	8.5	2.58

### Wear Allowances of Stainless Steel

Measure cross section at link ends to determine wear. If chain is worn to less than the minimum allowable thickness, remove from service.



Chain Size		Minimum Allowable Thickness (T)	
in.	mm	in.	mm
9/32	7	0.239	6.1
3/8	10	0.342	8.7
1/2	13	0.443	11.2

### Use of Chain & Components Under Extreme Temperature Conditions

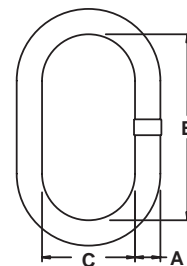
When the chain itself is subjected to temperatures shown here, working load limits should be reduced as indicated.

Temperature		Reduction of Working Load Limit	
		While at Temperature	After Exposure to Temperature
°F	°C		
Below 400	Below 204	None	None
400-800	204-426	10%	None
801-1000	427-537	20%	None
1001-1200	538-649	30%	None
1201-1300	650-704	40%	None
1301-1400	705-760	50%	None
1401-1500	761-815	60%	None
1501-1600	816-871	75%	None

## Stainless Steel Master Link



- Made from 300 series stainless
- Retains strength in high temperatures
- Designed to be used with stainless steel chain
- 100% proof tested



Trade Size	Working Load Limit	Product Code	Nominal Dim.			Weight
			Material Diameter A	Inside Length B	Inside Width C	
in.	lb.		in.	in.	in.	lb.
1/2	4,000	555550	0.500	5.00	2.50	0.79
3/4	7,100	555575	0.750	5.50	2.75	2.03
1	13,000	555600	1.000	7.00	3.50	4.59

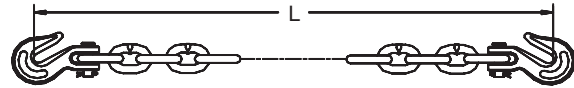
# HERC-ALLOY® 800

## Heavy Duty Tiedowns



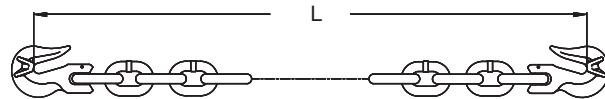
- Meets FMCSA, CVSA tiedown requirements
- Made from high quality alloy steel
- Domestic attachments made by CMCO
- Can not be used for overhead lifting
- Lighter weight than most transport binder chains
- Does not degrade in ultra-violet light
- Permanent identification on chain and attachments
- Made to order assemblies available in 3 days or less

### Clevis Style G80 Heavy Duty Tiedowns



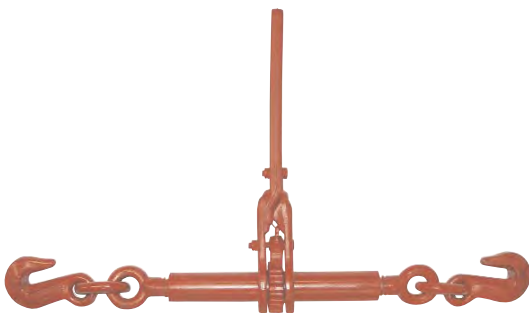
Chain Size	Chain Grade	Working Load Limit	Product Code	L	Finish	App. Weight
in.		lb.		ft.		lb.
5/16	80	4,500	607031CV20	20	Black	19.6
5/16	80	4,500	607031CV25	25	Black	24.2
3/8	80	7,100	607037CV20	20	Black	30.4
3/8	80	7,100	607037CV25	25	Black	37.7
1/2	80	12,000	607050CV20	20	Black	54.7
1/2	80	12,000	607050CV25	25	Black	67.9

### Clevlok Style G80 & G100 Heavy Duty Tiedowns



Chain Size	Chain Grade	Working Load Limit	Product Code	L	Finish	App. Weight
in.		lb.		ft.		lb.
3/8	80	7,100	607037CL20	20	Black	31
3/8	80	7,100	607037CL25	25	Black	38
1/2	80	12,000	607050CL15	15	Black	42
1/2	80	12,000	607050CL20	20	Black	55
3/8	100	8,800	607337CL20	20	Gray	31
3/8	100	8,800	607337CL25	25	Gray	38

### Ratchet Binders G80 & G100 Heavy Duty Tiedowns



With Chain Size	Use With Chain Grade	Working Load Limit	Product Code	End Fittings	Take Up	App. Weight
in.		lb.			in.	lb.
5/16	80	5,400	48365	Hook/Hook	8	12
3/8	80	7,100	48360	Hook/Hook	8	13
3/8	80 or 100	9,200	48366	Hook/Hook	8	13
1/2	80	13,000	48367	Hook/Hook	8	16



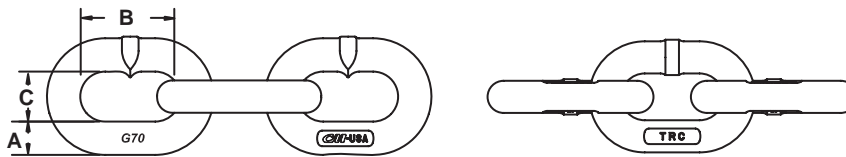
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# Transport Chain

## Grade 70 Transport (binding) Chain



- Meets ASTM & NACM standards
- Meets FMCSA & CVSA requirements
- Thermal heat treated using advanced technology
- Heat treated for superior wear and toughness
- 100% proof tested
- Permanent identification on chain



Chain Size	Working Load Limit	Product Code	A	B	C	App. Weight	App. No. of links	Drum Pack Code No. (Yellow Chromate Finish)					
								Full Drum	Length	Half Drum	Length	Pail	Length
in.	lb.		in.	in.	in.	lb./ft.	per ft.	ft.	ft.	ft.	ft.	ft.	
1/4	3,150	608927	0.281	0.840	0.470	0.76	14.3	678531	800	678521	400	678517	130
5/16	4,700	608935	0.327	0.980	0.460	1.01	12.2	678532	550	678522	275	678518	90
5/16	4,700	609035	0.327	1.100	0.500	0.97	10.9	679032	550	679022	275	679018	90
3/8	6,600	608941	0.394	1.140	0.540	1.58	10.5	678533	400	678523	200	678519	60
3/8	6,600	609041	0.394	1.375	0.600	1.39	8.73	679033	400	679023	200	679019	60
1/2	11,300	608954	0.531	1.559	0.734	2.70	7.70	678535	200	678525	100	9704850	40

## Binder Chain Specifications

This chart indicates the minimum number of chains required to secure loads in the forward direction (0.8g deceleration)\* per federal Motor Carriers Safety Administration, DOT Regulations; per 49CFR, Part 393 - Paragraph 393.102

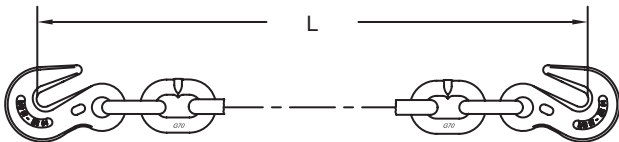
\*Refer to 49CFR, Parts 392 and 393, for North American Standard for Protection Against Falling and Shifting Cargo for complete regulations

Chain Grade	Size	Working Load Limit	Min. # of chains required to secure loads in forward direction by weight of the article in lbs. (kN)										
			5,000 (22)	10,000 (44)	15,000 (67)	20,000 (89)	25,000 (111)	30,000 (133)	35,000 (156)	40,000 (178)	45,000 (200)	50,000 (222)	
	in.	lb.	kN										
Grade 30 Proof Coil	5/16	1,900	8	3	5	7	9	11	13	15	17	19	22
	3/8	2,650	12	2	4	5	7	8	10	11	13	14	16
Grade 43 High Test	5/16	3,900	17	2	3	4	5	6	7	8	9	10	11
	3/8	5,400	24	1	2	3	3	4	5	6	6	7	8
Grade 70 Transport	1/4	3,150	14	2	3	4	6	7	8	9	11	12	13
	5/16	4,700	21	1	2	3	4	5	6	6	7	8	9
	3/8	6,600	29	1	2	2	3	4	4	5	5	6	7
Grade 80 Herc-Alloy	7/32	2,100	9	2	4	6	8	10	12	14	16	18	20
	9/32	3,500	16	2	3	4	5	6	7	9	10	11	12
	5/16	4,500	20	1	2	3	4	5	6	7	8	9	10
	3/8	7,100	32	1	2	2	3	3	4	4	5	6	6
Grade 100 Herc-Alloy	3/8	8,800	39	1	1	2	2	3	3	4	4	5	5

## G70 Welded Assembly



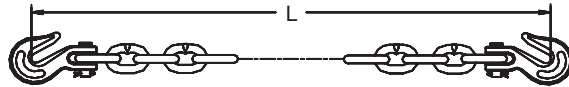
- Meets FMCSA, CVSA, DOT requirements
- Available in custom built lengths
- Assemblies are available with your choice of end attachments
- Assemblies are available with mechanical or welded attachments
- Welded assemblies are proof tested after welding.
- Full line of lever and ratchet binders to accommodate binder chain offering



Chain Size	Working Load Limit	Product Code	Product Code in bag	L	Finish	Weight
<b>in.</b>	<b>lb.</b>			<b>ft.</b>		<b>lb.</b>
5/16	4,700	-	638264	16	Yellow Chromate	16.71
5/16	4,700	638224	638302	20	Yellow Chromate	20.71
5/16	4,700	638260	-	25	Yellow Chromate	25.71
3/8	6,600	638558	-	20	Yellow Chromate	32.88
5/16	4,700	639064	-	16	Yellow Chromate	15.80
5/16	4,700	639024	-	20	Yellow Chromate	19.50
5/16	4,700	639060	-	25	Yellow Chromate	24.10
3/8	6,600	639089	-	16	Yellow Chromate	24.30
3/8	6,600	639058	-	20	Yellow Chromate	30.37

# Transport Chain Chain Assemblies

## G70 Clevis Assembly

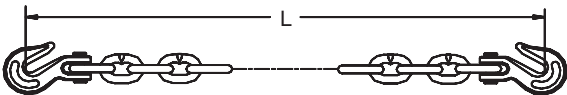


- Meets all Department of Transportation requirements
- No worries with ultra-violet degrading
- Custom lengths available
- Required in most states by DOT

Chain Size	Working Load Limit	Product Code Bulk	Product Code in bag	L	Finish	Weight
in.	lb.			ft.		lb.
<b>Short Link</b>						
1/4	3,150	638265	-	20	Yellow Chromate	15.40
5/16	4,700	638274	-	12	Yellow Chromate	13.10
5/16	4,700	638281	638276	14	Yellow Chromate	15.10
5/16	4,700	638282	638277	16	Yellow Chromate	17.10
5/16	4,700	638283	-	18	Yellow Chromate	19.10
5/16	4,700	638284	638266	20	Yellow Chromate	21.10
5/16	4,700	638313	-	24	Yellow Chromate	25.10
5/16	4,700	638279	638279BG	25	Yellow Chromate	26.10
3/8	6,600	638291	-	14	Yellow Chromate	23.50
3/8	6,600	638292	638268	16	Yellow Chromate	26.60
3/8	6,600	638293	-	18	Yellow Chromate	29.80
3/8	6,600	638294	638267	20	Yellow Chromate	32.90
1/2	11,300	638350	-	20	Yellow Chromate	54.20
<b>Standard Link</b>						
5/16	4,700	639081	-	14	Yellow Chromate	13.90
5/16	4,700	639082	-	16	Yellow Chromate	15.80
5/16	4,700	639083	-	18	Yellow Chromate	17.60
5/16	4,700	639084	639084BG	20	Yellow Chromate	19.40
5/16	4,700	639013	-	24	Yellow Chromate	23.10
5/16	4,700	639079	639079BG	25	Yellow Chromate	24.00
3/8	6,600	639091	-	14	Yellow Chromate	21.76
3/8	6,600	639092	639068	16	Yellow Chromate	24.56
3/8	6,600	639093	-	18	Yellow Chromate	27.36
3/8	6,600	639094	639094BG	20	Yellow Chromate	30.16
3/8	6,600	639097	-	25	Yellow Chromate	30.16



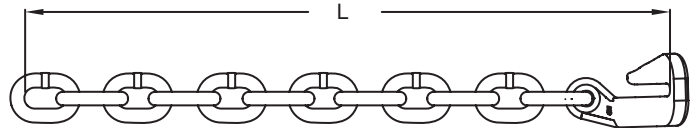
## G70 Rivet Assembly



Chain Size	Working Load Limit	Product Code	L	Finish	Weight
in.	lb.		ft.		lb.
<b>Short Link</b>					
5/16	4,700	638281 CRV	14	Yellow Chromate	15.10
5/16	4,700	638282CRV	16	Yellow Chromate	17.10
5/16	4,700	638283 CRV	18	Yellow Chromate	19.10
5/16	4,700	638284CRV	20	Yellow Chromate	21.10
3/8	6,600	638291CRV	14	Yellow Chromate	23.50
3/8	6,600	638292CRV	16	Yellow Chromate	26.60
3/8	6,600	638293CRV	18	Yellow Chromate	29.80
3/8	6,600	638294CRV	20	Yellow Chromate	32.90
<b>Standard Link</b>					
5/16	4,700	639084CRV	20	Yellow Chromate	21.10
5/16	4,700	639079CRV	25	Yellow Chromate	24.00
3/8	6,600	639094CRV	20	Yellow Chromate	30.20



## AirCRAFT Assembly

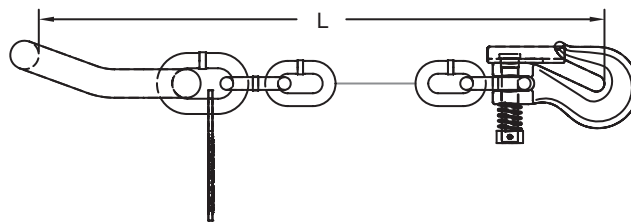


Chain Size	Minimum Break Strength	Product Code	L	Finish	Weight
in.	lb.		ft.	in.	lb.
9/32	14,100	627728	9	Yellow Chromate	6.9

Carbon Chain

## AG Safety Chain

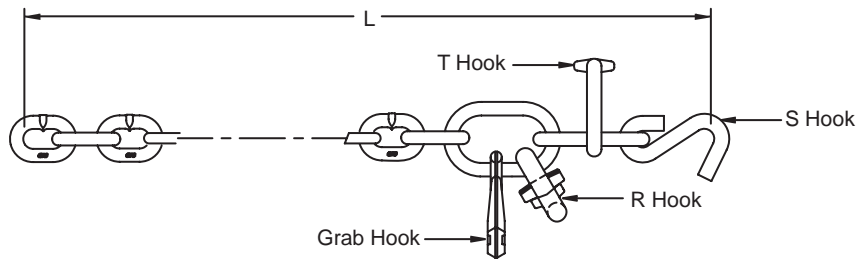
- Designed for agricultural equipment
- Meets ASAE S338 standard
- Assemblies may be installed as permanent or temporary safety chain
- Unique latch type hook facilitates positive attachment to chain
- Identification tag on all chain assemblies
- Zinc plate finish to prevent premature corrosion



Chain Size	Chain Grade	Minimum Break Strength	Product Code	Minimum Length L	Finish
in.		lb.		ft.	
5/16	43	10,100	6510025WR	5' 6"	Blue Bright
1/4	70	10,100	6510027WR	5' 6"	Yellow Chromate
3/8	70	20,200	6510028WR	5' 8"	Yellow Chromate

# Transport Chain Cluster Assemblies

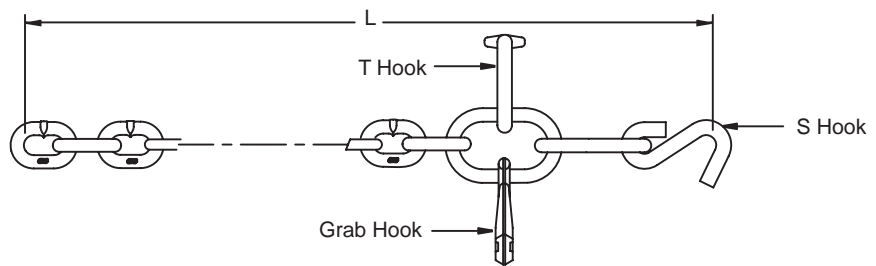
## G, T, R & S



- Custom length of chain available upon request
- Custom end attachments assortments available to satisfy your needs
- End attachments available include, R Hooks, T Hooks, S Hooks, Grab Hooks, Mini J

Chain Size	Working Load Limit	Product Code	L	Finish	Weight
in.	lb.		ft.		lb.
5/16	2,700	608324	3'	Yellow Chromate Chain	5.98
5/16	2,700	608320	5'	Yellow Chromate Chain	7.95
5/16	2,700	U608344	5'2"	Self Colored	8.12
5/16	2,700	608321	6'	Yellow Chromate Chain	8.95
5/16	2,700	U608345	6'2"	Self Colored	9.11
5/16	2,700	608330	6'4"	Yellow Chromate Chain	9.28
5/16	2,700	608322	7'	Yellow Chromate Chain	9.95
5/16	2,700	U608346	7'4"	Self Colored	10.28
5/16	2,700	608323	8'	Yellow Chromate Chain	10.95
5/16	2,700	U608347	8'4"	Self Colored	11.11
5/16	2,700	608331	8'4"	Yellow Chromate Chain	11.28
5/16	2,700	608332	10'4"	Yellow Chromate Chain	13.28

## G, T, & S

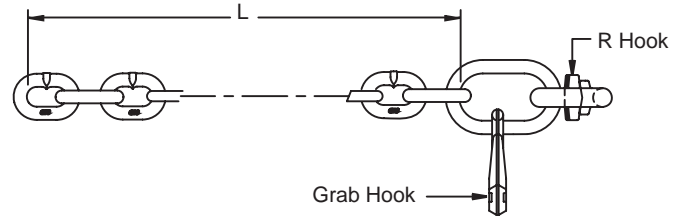


- Custom length of chain available upon request
- Custom end attachments assortments available to satisfy your needs
- End attachments available include, R Hooks, T Hooks, S Hooks, Grab Hooks, Mini J

Chain Size	Working Load Limit	Product Code	L	Finish	Weight
in.	lb.		ft.		lb.
5/16	2,700	U608327	3'7"	Self Colored	5.64
5/16	2,700	U608328	4'7"	Self Colored	6.64
5/16	2,700	608333	4'8"	Yellow Chromate Chain	7.31
5/16	2,700	U608332	5'7"	Yellow Chromate Chain	7.64
5/16	2,700	U608330	6'7"	Self Colored	8.64
5/16	2,700	U608331	12'7"	Self Colored	14.63



## G & R



- Custom length of chain available upon request
- Custom end attachments assortments available to satisfy your needs
- End attachments available include, R Hooks, T Hooks, S Hooks, Grab Hooks, Mini J

Chain Size	Working Load Limit		Product Code	L	Finish	Weight
	in.	lb.				
5/16	4,700	U608329	8	Self Colored	9.64	
5/16	4,700	U608356	6	Self Colored	7.64	
5/16	4,700	U608357	5	Self Colored	6.64	
5/16	4,700	U608360	10	Self Colored	11.64	

## Recovery J Hook Assemblies



- Patented I beam profile towing 15" Clevlok Alloy J Hook
- Clevlok style head, no catch points
- Patented nose design reduces hook slippage on chain
- Load rest reduces load rolling out of hook bowl (load must be behind rest)
- Designed for the professional towing
- G80 Proof Loaded Assemblies
- All mechanical connections... no welded links

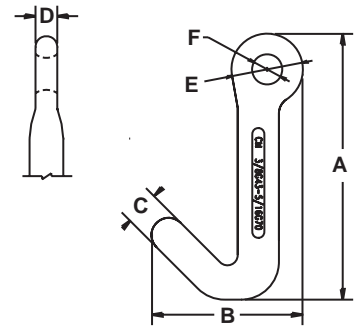
Size	Working Load Limit		Product Code	Chain Length	Description
in.	lb.	ft.			
3/8	7,100	97901G8	10	Omegalok and Master Link	
3/8	7,100	97901G9	10	Clevlok Cradle Grab	

# Transport Chain Towing Attachments

## Mini "J" Hook



- Designed specifically for the towing and transport industry
- Designed for use with 5/16" grade 70 chain
- Not to be used with 1/4" chain
- Combinations available for all tie down needs
- Finishes available are yellow chromate, Self colored and zinc plated
- Not for overhead lifting

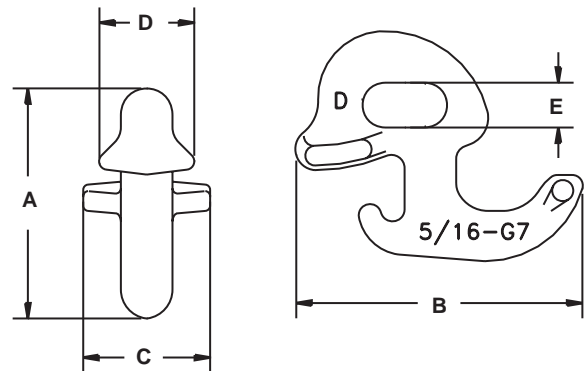


Size	Working Load Limit (grade 70)	Product Code (Yellow Chromate)	Product Code (Zinc)	Dimensions						Weight
				A	B	C	D	E	F	
in.	lb.			in.	in.	in.	in.	in.	in.	lb.
5/16	4,700	92714	92711	4.84	2.76	0.63	0.38	1.30	0.55	0.60

## "R" Hook



- Designed specifically for the towing and transport industry
- Designed for use with 5/16" grade 70 chain
- Not to be used with 1/4" chain
- Combinations available for all tie down needs
- Finishes available are yellow chromate, Self colored and zinc plated
- Not for overhead lifting



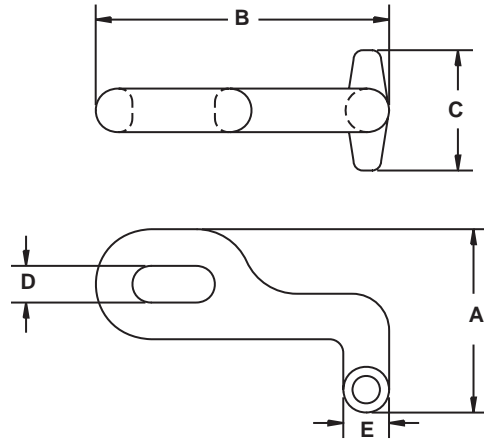
Size	Working Load Limit (grade 70)	Product Code (Self Colored)	Product Code (Zinc)	Dimensions					Weight
				A	B	C	D	E	
in.	lb.			in.	in.	in.	in.	in.	lb.
5/16	4,700	93424	93423	2.72	3.40	1.50	1.13	0.53	0.64

**⚠ WARNING ⚠**  
**Not for overhead lifting**

## “T” Hook



- Designed specifically for the towing and transport industry
- Designed for use with 5/16” grade 70 chain
- Not to be used with 1/4” chain
- Combinations available for all tie down needs
- Finishes available are yellow chromate, self colored and zinc plated
- Not for overhead lifting



Size	Working Load Limit (grade 70)	Product Code (Self Colored)	Product Code (Zinc)	Dimensions					Weight
				A	B	C	D	E	
in.	lb.			in.	in.	in.	in.	in.	lb.
5/16	4,700	93406	93405	2.50	4.00	1.64	0.50	0.63	0.62

## “J” Hook

- “I Beam” construction offers greater strength with less weight and a wider bowl for stability
- Larger tip to help prevent hook from tip loading or slipping off
- Forged in USA
- Available in self colored, zinc plated, yellow chromate, and powder coated finishes
- Not for overhead lifting



8” 92859



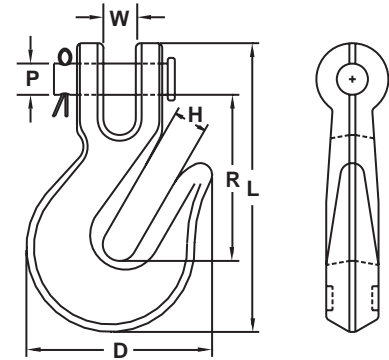
15” 91259

Grade	Working Load Limit	Product Code	Finish	Description
	lb.			
G70	4,700	92859	Yellow Chromate	Forged 8” J Hook
G70	4,700	91259	Yellow Chromate	Forged 15” J Hook

## G70 Clevis Grab Hooks



- Meets ASTM & NACM standards
- Designed specifically for transport grade 70 chain
- 4:1 design factor
- Yellow chromate finish
- Not recommended for overhead lifting

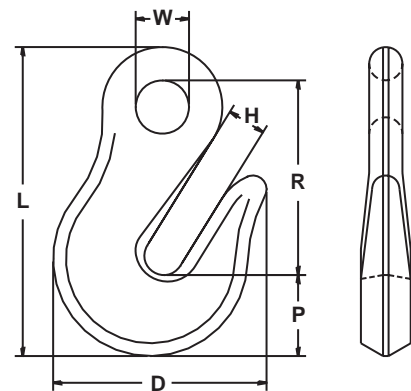


Size	Working Load Limit	Product Code (Yellow Chromate)	Dimensions						Weight
			W	D	H	L	R	P	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
5/16	4,700	62273	0.42	2.48	0.45	3.53	1.99	0.38	0.75
3/8	6,600	62373	0.50	2.95	0.51	4.10	2.35	0.44	1.10

## G70 Eye Grab Hooks



- Meets ASTM & NACM standards
- Designed specifically for transport grade 70 chain
- 4:1 design factor
- Self colored finish
- Not recommended for overhead lifting

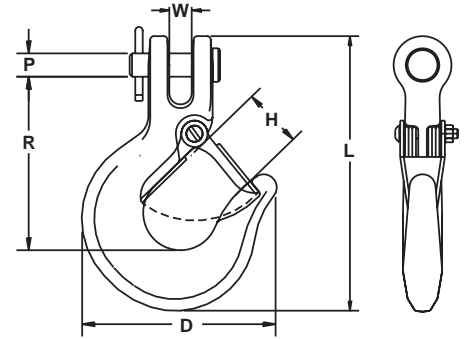


Size	Working Load Limit	Product Code (Self Colored)	Dimensions						Weight
			W	D	H	L	R	P	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
5/16	4,700	71297	0.70	2.70	0.53	3.89	2.44	1.00	0.75
3/8	6,600	71497	0.68	2.73	0.51	4.03	2.46	1.08	1.10

## G70 Clevis Slip Hook



- Meets ASTM & NACM standards
- Designed specifically for transport grade 70 chain
- 4:1 design factor
- Hook embossed with trace code providing traceability throughout the manufacturing and testing process to heat of steel

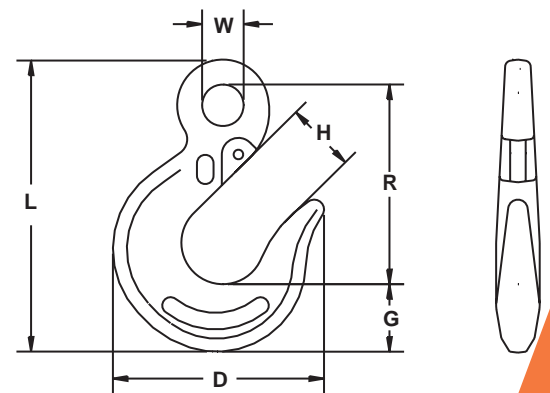


Size	Working Load Limit	Product Code	Dimensions						Weight	
			W	D	H	L	R	P		
in.	lb.		in.	in.	in.	in.	in.	in.	lb.	
<b>With Latch</b>										
5/16	4,700	6905AWL	0.38	3.25	0.94	4.62	2.91	0.39	0.96	
3/8	6,600	6906AWL	0.45	3.87	1.00	5.42	3.39	0.49	1.66	
<b>Without Latch</b>										
5/16	4,700	M6905A	0.38	3.25	1.06	4.62	2.91	0.39	0.75	
3/8	6,600	M6906A	0.45	3.87	1.24	5.42	3.39	0.49	1.25	

## G70 Eye Slip Hook



- Meets ASTM & NACM standards
- Designed specifically for transport grade 70 chain
- 4:1 design factor
- Hook embossed with trace code providing traceability throughout the manufacturing and testing process to heat of steel



Size	Working Load Limit	Product Code	Dimensions						Weight
			W	D	H	L	R	G	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	3,150	M6304	0.53	2.69	0.90	3.79	2.60	0.88	0.45
5/16	4,700	M6305	0.63	3.19	1.05	4.41	3.00	1.03	0.58
3/8	6,600	M6306	0.78	3.75	1.22	5.38	3.72	1.25	1.40
7/16	8,750	M6307	0.81	4.33	1.46	5.75	3.91	1.38	1.50

## Lever Type Load Binder



- All components are forged, no cast parts
- Forged binders are lighter and stronger than cast binders
- Under equal force a forged handle will yield and bend while a cast handle may break

Size				Product Code	Working Load Limit	Handle Take Up	Working Load Length	Weight
G30	G43	G70	G80					
in.	in.	in.	in.		lb.	in.	in.	lb.
1/4	1/4	-	-	48304	2,600	3.75	11.25	3.0
3/8	3/8	5/16	-	48305	5,400	4.50	16.12	8.1
1/2	1/2	3/8	-	48406	9,200	4.75	16.62	10.6
3/8	3/8	3/8	3/8	48769	7,100	4.50	16.62	8.1

## Claw Hook Load Binder



### Load binder operating instructions

1. Follow D.O.T. Federal Motor Carrier Safety Regulations S 392.9, S 393.100, and S 393.102
2. Inspect before use. Replace worn and deformed binders. Lubricate pivot and swivel points for optimum performance.
3. Do not operate with anyone on load.
4. Always apply lever binder in straight line hook to hook manner without bending and such that handle goes down when securing load.
5. Tighten binders before moving and recheck frequently.
6. Do not exceed working load limit shown on binder - hand effort will tighten binder to working load limit.
7. Do not use cheater bar or handle extension as their use can overload binder system and result in injury.
8. Secure handle down with a positive retaining method.
9. Release handle/load with extreme care. Make sure everyone is clear. Lever binder handle can snap back over center. Use open palm under handle and push up.

Size		Product Code	Working Load Limit	Handle Take Up	Working Load Length	Weight
G43	G70					
in.	in.		lb.	in.	in.	lb.
3/8	-	Special Order	5,400	4.50	16.12	0.69
-	3/8	Special Order	9,200	4.75	16.62	1.00
3/8	3/8	Special Order	6,600	4.50	16.62	2.02

### ⚠ WARNING ⚠

**Load binding systems store energy which can release suddenly**

#### To avoid injury:

Operate only by hand from a firm standing position. Operate handle cautiously. Stay clear of handle path: handle may release suddenly. Follow instructions.

## Ratchet Type Load Binder



- Each ratchet component is forged from pure alloy steel
- Handle is designed loose using self-locking one-way bolts allowing easy removal of unwanted debris such as mud, snow or ice
- Proof tested to 50% of the minimum breaking strength
- Gears are permanently welded to the barrel

Size					Product Code	End Fittings	Working Load Limit	Take Up	Handle Length	Barrel Size O.D. (Dia. x Length)	Screw Diameter	Weight
G30	G43	G70	G80	G100								
in.	in.	in.	in.	in.		lb.	in.	in.	in.	in.	lb.	
1/4	1/4	-	-	-	48364	Hook / Hook	2,600	4.00	11.00	1-5/16 x 6	3/4	5.4
-	-	-	-	-	48811	Eye / Eye (no hook)	5,400	8.00	12.00	1-5/16 x 6	3/4	8.6
-	-	-	-	-	48363	Eye / Eye (no hook)	13,000	8.00	14.00	1-1/2 x 10	1	9.8
3/8	3/8	5/16	-	-	46565	Body Only	5,400	8.00	-	1-1/2 x 10	1	11.0
1/2	1/2	3/8	-	-	46566	Body Only	9,200	8.00	-	1-1/2 x 10	1	11.7
-	-	-	-	-	46565H	Handle Only	-	-	14.00	-	-	4.3
3/8	3/8	5/16	-	-	48810	Hook / Hook	5,400	8.00	12.00	1-5/16 x 6	3/4	8.6
3/8	3/8	3/8	3/8	-	48360	Hook / Hook	7,100	8.00	14.00	1-1/2 x 10	1	13.0
3/8	3/8	5/16	5/16	-	48365	Hook / Hook	5,400	8.00	14.00	1-1/2 x 10	1	12.0
1/2	1/2	3/8	3/8	-	48366	Hook / Hook	9,200	8.00	14.00	1-1/2 x 10	1	13.0
5/8	5/8	1/2	1/2	-	48367	Hook / Hook	13,000	8.00	14.00	1-1/2 x 10	1	16.0
-	1/2	1/2	1/2	-	48458	Hook / Hook	12,000	8.00	14.00	1-1/2 x 10	1	13.0
-	3/8	3/8	3/8	3/8	48455	Hook / Hook	8,800	8.00	14.00	1-1/2 x 10	1	16.0

## Tightener Load Binder



- Features a swivel hook for easier operation
- Either hook may be permanently attached to chain
- Rugged cast construction with formed hooks

Product Code	Working Load Limit	Handle Take Up	Handle Length	Weight
	lb.	in.	in.	lb.
48949	375	3.00	9.50	1.40
48979	175	2.00	4.50	0.45

### ⚠ WARNING ⚠

Load binder systems store energy which can release suddenly

## Specialty Forged Lever Load Binder



- **DIXI-LOC (48385)** binders provide extra security by allow the binder to be locked in closed position using a pad lock, linch pin or bolt.
- **COMPRESSION BINDERS (48758 & 48395)** are designed for securing bar and rod steel, lumber, poles and machinery with rubber tires.
- **EZ GRAB (48325)** is a military style binder designed to use the handle leverage to remove slack from the chain before hook-up, achieving correct tension on the first try.

Size			Product Code	Working Load Limit	Take Up	Handle Length	Weight
G30	G43	G70					
in.	in.	in.		lb.	in.	in.	lb.
3/8	3/8	5/16	48385	5,400	4.50	16.62	8.50
3/8	3/8	5/16	48395	5,400	4.50	16.62	14.60
1/2	1/2	3/8	48758	9,200	4.50	16.62	13.00
3/8	3/8	5/16	48325	5,400	4.50	18.38	8.75

## Removable Handle Load Binder



- Removing handle provides greater load security by making it less likely for load to be stolen
- Reduces overall weight

Size			Product Code	Working Load Limit	Handle Take Up	Handle Length	Weight
G30	G43	G70					
in.	in.	in.		lb.	in.	in.	lb.
3/8	3/8	5/16	46565 Body	5,400	8.00	-	7.4
1/2	1/2	3/8	46566 Body	9,200	8.00	-	11.7
-	-	-	46565H Handle	-	-	14	4.3

**⚠ WARNING ⚠**

**Load binder systems store energy which can release suddenly**



## **“E-Z Pro” Cam Release Lever Binder**



48405



48406

- Binder releases effortlessly without the use of any tools or prying
- Free turning, 360° continuous swivel action in both tongue and clevis for enhanced straight line pull.
- Highly visible yellow paint finish

Size			Product Code	Working Load Limit	Take Up	Handle Length	Weight
G30	G43	G70					
in.	in.	in.		lb.	in.	in.	lb.
3/8	3/8	5/16	48405	5,400	4.75	16.62	9.0
1/2	1/2	3/8	48406	9,200	4.75	16.62	9.8

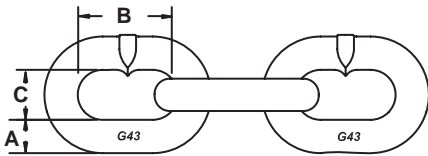


Low energy release binder allows you to release the binder effortlessly, without using any tools or prying. It can actually be released under load with one finger! Due to its unique design, the handle releases the load at the same point every time, when the handle is at the 12 o'clock position.

# Carbon Chain Chain & Assemblies

## G43 Chain

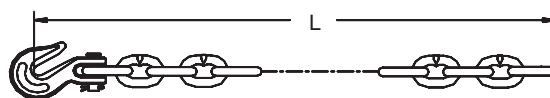
Gr-43, commonly called High Test, is manufactured to meet ASTM & NACM specifications. Typical uses include container securement, logging, towing, and marine industry. Gr-43 is available in many finishes and package configurations. "Gr-43 is not to be used for overhead lifting".



- Meets ASTM & NACM standards
- Available in a wide assortment of finishes including, Self Colored, Burnished, Zinc Plated, Galvanized
- 50% stronger than Gr-30 Chain
- Permanent identification on chain
- 100% proof tested
- Available in drums, pails, multiple style of assemblies

Chain Size	Working Load Limit	A	B	C	App. Weight	App. No of Links	Self Colored Finish				Hot Dipped Galvanized Finish	
							Full Drum	Length	Half Drum	Length	Full Drum	Length
in.	lb.	in.	in.	in.	lb.		ft.		ft.		ft.	
1/4	2,600	0.270	1.220	0.460	0.60	9.84	678141	800	678131	400	678341	800
5/16	3,900	0.327	1.100	0.500	0.98	10.91	678142	550	678132	275	678342	550
3/8	5,400	0.386	1.370	0.600	1.33	8.76	678143	400	678133	200	678343	400
1/2	9,200	0.500	1.730	0.810	2.27	6.93	678145	200	-	-	678345	200
5/8	13,000	0.625	1.916	0.855	3.63	5.63	678146	150	678136	75	678346	150
3/4	20,200	0.781	2.397	1.070	5.68	5.66	678147	100	678137	50	678347	100

## G43 Hanger Chain

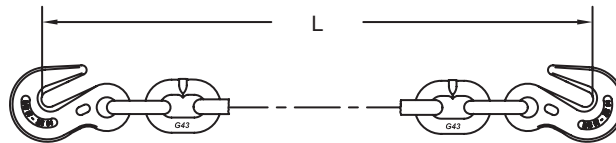


Chain Size	Working Load Limit	Product Code	L	Finish	Weight
in.	lb.		ft.		lb.
1/4	2,600	628204GA	4	Self Colored	2.9
1/4	2,600	628209GA	9	Self Colored	5.8
1/4	2,600	628212GA	12	Self Colored	7.7
3/8	5,400	628311GA	11	Self Colored	15.9



## G43 Welded Assembly

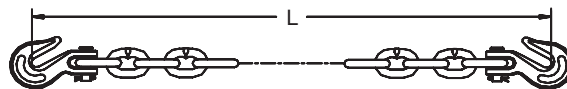
- Meets FMCSA, CVSA, NACM, & ASTM standards
- Available with welded style hooks
- No worries with ultra-violet degrading
- Various end attachments available
- Finishes are available including; self colored, galvanized, zinc plated



Chain Size	Working Load Limit	Product Code	Product Code in Bags	L	Finish	Weight
in.	lb.			ft.		lb.
3/8	5,400	638241	638238	20	Self Colored	28.10

## G43 Clevis Assemblies

- Meets FMCSA, CVSA, NACM, & ASTM standards
- Available in clevis style hooks
- No worries with ultra-violet degrading
- Various end attachments available
- Finishes are available including; self colored, galvanized, zinc plated

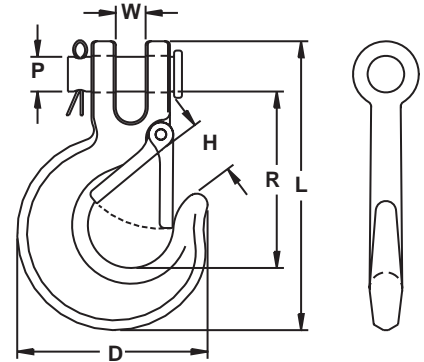


Chain Size	Working Load Limit	Product Code	Product Code Bag Pack	L	Finish	Weight
in.	lb.			ft.		lb.
1/4	2,600	638010	-	10	Self Colored	6.50
1/4	2,600	638020	-	20	Self Colored	12.58
5/16	3,900	608014	-	14	Self Colored	14.70
5/16	3,900	638209	-	16	Self Colored	17.80
5/16	3,900	608401	-	20	Self Colored	21.10
5/16	3,900	638025	-	25	Self Colored	25.50
3/8	5,400	638208	-	10	Self Colored	18.32
3/8	5,400	638215	-	12	Self Colored	18.32
3/8	5,400	638216	638222	14	Self Colored	20.98
3/8	5,400	638217	638217BG	16	Self Colored	23.64
3/8	5,400	638218	-	18	Self Colored	26.30
3/8	5,400	638219	638223	20	Self Colored	28.96
3/8	5,400	638220	-	25	Self Colored	35.61
1/2	9,200	638226	-	20	Self Colored	47.70

## G43 Clevis Slip Hook w/latch



- Heat treated pins
- Hooks are heat treated and tempered
- Designs' ultimate strength equals 3 times working load limit, matching NACM specifications
- Hook embossed with trace code providing traceability through manufacturing and testing process to heat of steel
- Not to be used for overhead lifting

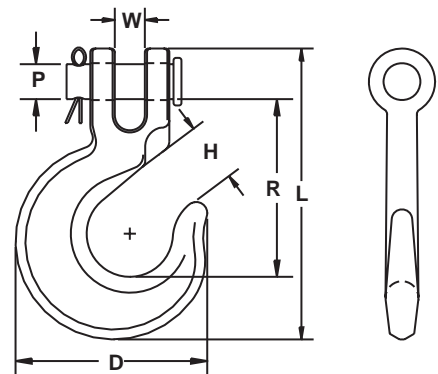


Size	Working Load Limit	Product Code (Zinc)	Dimensions						Weight
			W	D	H	L	R	P	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	2,600	66173	0.36	2.33	0.72	2.27	2.32	0.31	0.35
5/16	3,900	66273	0.42	2.72	0.77	4.13	2.56	0.38	0.63
3/8	5,400	66373	0.50	3.20	0.86	4.81	3.04	0.44	1.02
7/16	7,200	66473	0.58	3.91	1.02	5.56	3.50	0.50	1.56
1/2	9,200	66573	0.61	4.16	1.12	6.31	4.15	0.55	2.27

## G43 Clevis Slip Hook (Zinc)



- Heat treated pins
- Hooks are heat treated and tempered
- Designs' ultimate strength equals 3 times working load limit, matching NACM specifications
- Hook embossed with trace code providing traceability through manufacturing and testing process to heat of steel
- Not to be used for overhead lifting

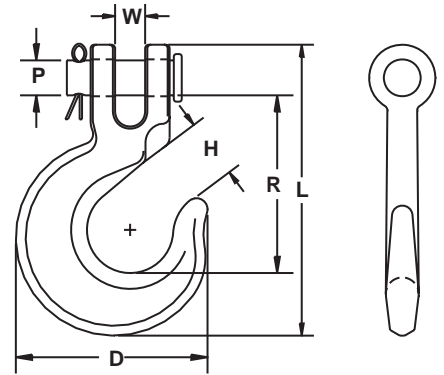


Size	Working Load Limit	Product Code (Zinc)	Dimensions						Weight
			W	D	H	L	R	P	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	2,600	66193	0.36	2.33	0.72	2.27	2.32	0.31	0.35
5/16	3,900	66293	0.42	2.72	0.77	4.13	2.56	0.38	0.63
3/8	5,400	66393	0.50	3.20	0.86	4.81	3.04	0.44	1.02
7/16	7,200	66493	0.58	3.91	1.02	5.56	3.50	0.50	1.56
1/2	9,200	66593	0.61	4.16	1.12	6.31	4.15	0.55	2.27

## G43 Clevis Slip Hook (Red)



- Heat treated pins
- Hooks are heat treated and tempered
- Designs' ultimate strength equals 3 times working load limit, matching NACM specifications
- Hook embossed with trace code providing traceability through manufacturing and testing process to heat of steel
- Not to be used for overhead lifting

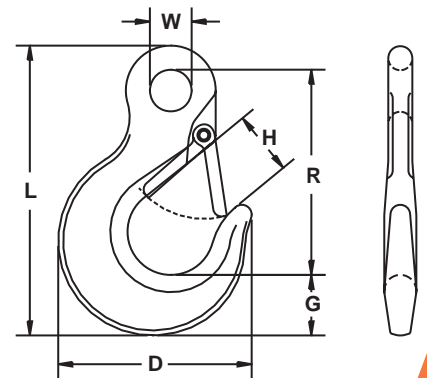


Size	Working Load Limit	Product Code (Red)	Dimensions						Weight
			W	D	H	L	R	P	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	2,600	66192	0.36	2.33	0.72	2.27	2.32	0.31	0.35
5/16	3,900	66292	0.42	2.72	0.77	4.13	2.56	0.38	0.63
3/8	5,400	66392	0.50	3.20	0.86	4.81	3.04	0.44	1.02
7/16	7,200	-	0.58	3.91	1.02	5.56	3.50	0.50	1.56
1/2	9,200	66592	0.61	4.16	1.12	6.31	4.15	0.55	2.27

## G43 Eye Slip Hook with Latch (Zinc)



- Hooks are heat treated and tempered
- Designs' ultimate strength equals 3 times working load limit, matching NACM specifications
- Hook embossed with trace code providing traceability through manufacturing and testing process to heat of steel
- Not to be used for overhead lifting



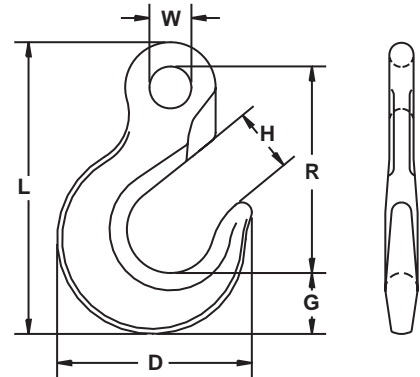
Size	Working Load Limit	Product Code (Zinc)	Dimensions						Weight
			W	D	H	L	R	G	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	2,600	75143	0.53	2.47	0.73	3.69	2.61	0.81	0.38
5/16	3,900	75243	0.69	2.88	0.81	3.98	2.70	0.91	0.57
3/8	5,400	75343	0.75	3.25	0.87	4.56	3.17	1.13	0.83
1/2	9,200	75543	1.03	4.25	1.21	6.13	4.20	1.50	1.95

# Carbon Chain G43 Slip Hooks

## G43 Eye Slip Hook (Zinc)



- Hooks are heat treated and tempered
- Designs' ultimate strength equals 3 times working load limit, matching NACM specifications
- Hook embossed with trace code providing traceability through manufacturing and testing process to heat of steel
- Not to be used for overhead lifting

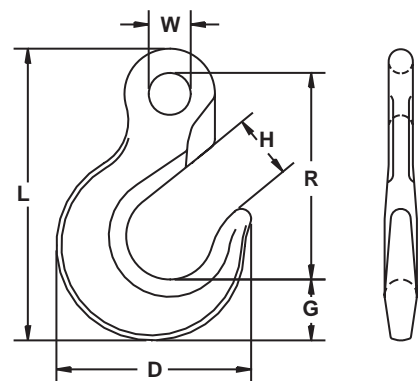


Size	Working Load Limit	Product Code (Zinc)	Dimensions						Weight
			W	D	H	L	R	G	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	2,600	75193	0.53	2.47	0.81	3.69	2.61	0.81	0.38
5/16	3,900	75293	0.69	2.88	0.83	3.98	2.70	0.91	0.57
3/8	5,400	75393	0.75	3.25	0.92	4.56	3.17	1.13	0.83
7/16	7,200	75493	0.91	3.73	1.23	5.56	3.64	1.31	1.38
1/2	9,200	75593	1.03	4.25	1.30	6.13	4.20	1.50	1.95
5/8	13,000	75693	1.28	5.23	1.69	7.41	5.11	1.81	3.72
3/4	20,200	75793	1.36	6.28	1.98	8.88	6.00	2.34	3.72

## G43 Eye Slip Hook (Red)



- Hooks are heat treated and tempered
- Designs' ultimate strength equals 3 times working load limit, matching NACM specifications
- Hook embossed with trace code providing traceability through manufacturing and testing process to heat of steel
- Not to be used for overhead lifting

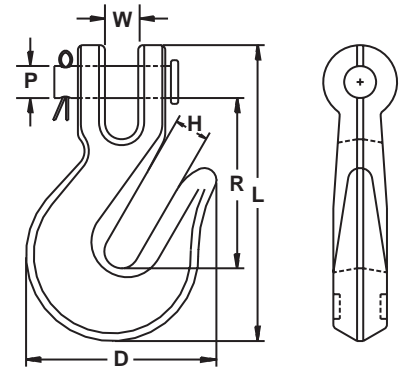


Size	Working Load Limit	Product Code (Red)	Dimensions						Weight
			W	D	H	L	R	G	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	2,600	75192	0.53	2.47	0.81	3.69	2.61	0.81	0.38
5/16	3,900	75292	0.69	2.88	0.83	3.98	2.70	0.91	0.57
3/8	5,400	75392	0.75	3.25	0.92	4.56	3.17	1.13	0.83
7/16	7,200	75492	0.91	3.73	1.23	5.56	3.64	1.31	1.38
1/2	9,200	75592	1.03	4.25	1.30	6.13	4.20	1.50	1.95
5/8	13,000	75692	1.28	5.23	1.69	7.41	5.11	1.81	3.72
3/4	20,200	75792	1.36	6.28	1.98	8.88	6.00	2.34	3.72

## G43 Clevis Grab Hook (Zinc)



- Heat treated pins
- Hooks are heat treated and tempered
- Designs' ultimate strength equals 3 times working load limit, matching NACM specifications
- Hook embossed with trace code providing traceability through manufacturing and testing process to heat of steel
- Not to be used for overhead lifting

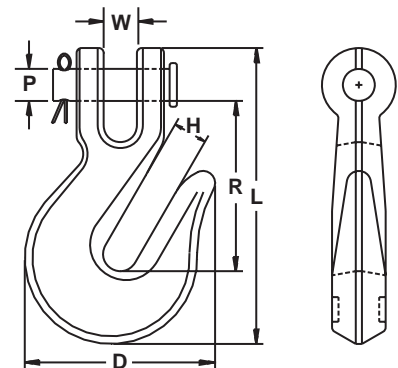


Size	Working Load Limit	Product Code (Zinc)	Dimensions						Weight
			W	D	H	L	R	P	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	2,600	61193	0.36	2.05	0.36	3.00	1.57	0.31	0.37
5/16	3,900	61293	0.42	2.41	0.44	3.56	1.98	0.38	0.63
3/8	5,400	61393	0.50	2.94	0.52	4.20	2.23	0.44	1.10
7/16	7,200	61493	0.58	3.25	0.60	4.94	2.94	0.50	1.60
1/2	9,200	61593	0.66	3.70	0.67	5.20	2.93	0.55	2.42

## G43 Clevis Grab Hook (Red)



- Heat treated pins
- Hooks are heat treated and tempered
- Designs' ultimate strength equals 3 times working load limit, matching NACM specifications
- Hook embossed with trace code providing traceability through manufacturing and testing process to heat of steel
- Not to be used for overhead lifting

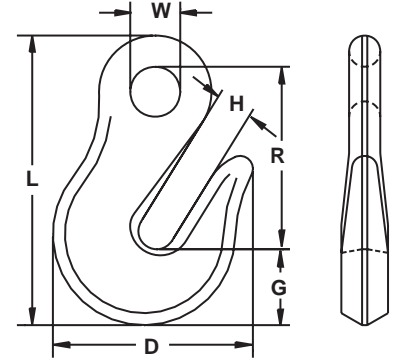


Size	Working Load Limit	Product Code (Red)	Dimensions						Weight
			W	D	H	L	R	P	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	2,600	61192	0.36	2.05	0.36	3.00	1.57	0.31	0.37
5/16	3,900	61292	0.42	2.41	0.44	3.56	1.98	0.38	0.63
3/8	5,400	61392	0.50	2.94	0.52	4.20	2.23	0.44	1.10
1/2	9,200	61592	0.66	3.70	0.67	5.20	2.93	0.55	1.60
5/8	13,000	61692	0.78	4.38	0.83	6.50	4.06	0.63	2.42

## G43 Eye Grab Hook (Zinc)



- Hooks are heat treated and tempered
- Designs' ultimate strength equals 3 times working load limit, matching NACM specifications
- Hook embossed with trace code providing traceability through manufacturing and testing process to heat of steel
- Not to be used for overhead lifting

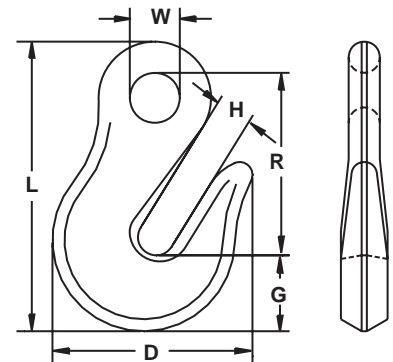


Size	Working Load Limit	Product Code (Zinc)	Dimensions						Weight
			W	D	H	L	R	G	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	2,600	71193	0.50	1.94	0.36	2.85	1.59	0.81	0.30
5/16	3,900	71293	0.61	2.41	0.44	3.47	1.94	1.00	0.56
3/8	5,400	71393	0.72	2.86	0.55	4.13	2.33	1.13	0.87
7/16	7,200	71493	0.83	3.30	0.59	4.97	2.91	1.31	1.45
1/2	9,200	71593	0.94	3.69	0.67	5.38	3.03	1.50	2.17
5/8	13,000	71693	1.16	4.63	0.83	6.95	4.25	1.88	3.89
3/4	20,200	71793	1.38	5.50	0.98	8.28	4.75	2.28	6.12

## G43 Eye Grab Hook (Red)



- Hooks are heat treated and tempered
- Designs' ultimate strength equals 3 times working load limit, matching NACM specifications
- Hook embossed with trace code providing traceability through manufacturing and testing process to heat of steel
- Not to be used for overhead lifting

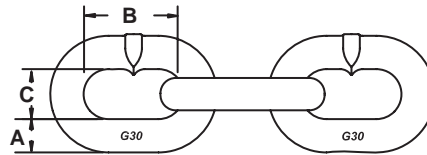


Size	Working Load Limit	Product Code (Red)	Dimensions						Weight
			W	D	H	L	R	G	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	2,600	71192	0.50	1.94	0.36	2.85	1.59	0.81	0.30
5/16	3,900	71292	0.61	2.41	0.44	3.47	1.94	1.00	0.56
3/8	5,400	71392	0.72	2.86	0.55	4.13	2.33	1.13	0.87
7/16	7,200	71492	0.83	3.30	0.59	4.97	2.91	1.31	1.45
1/2	9,200	71592	0.94	3.69	0.67	5.38	3.03	1.50	1.17
5/8	13,000	71692	1.16	4.63	0.83	6.95	4.25	1.88	3.89
3/4	20,200	71792	1.38	5.50	0.98	8.28	4.75	2.28	6.12



## G30 Chain

Gr-30, commonly called Proof Coil, is manufactured to meet ASTM & NACM specifications. Typical uses include barrier chains, trailer safety chains, light construction, marine industry, etc. Gr-30 is available in a wide assortment of finishes and packaged configurations. "Gr-30 is not to be used for overhead lifting".

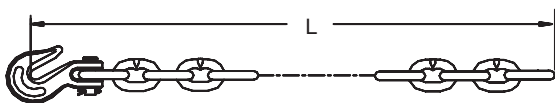


Chain Size	Working Load Limit	A	B	C	App. Weight	App. No of Links
in.	lb.	in.	in.	in.	lb.	per ft.
3/16	800	0.213	0.970	0.360	0.37	12.37
1/4	1,300	0.270	1.220	0.460	0.60	9.84
5/16	1,900	0.309	1.220	0.460	0.81	9.84
3/8	2,650	0.386	1.370	0.600	1.33	8.76
1/2	4,500	0.500	1.730	0.810	2.27	6.94
5/8	6,900	0.625	1.916	0.855	3.63	6.26
3/4	10,600	0.781	2.397	1.070	5.68	5.01

- Meets ASTM & NACM standards
- Available in a wide assortment of finishes including, Self Colored, Burnished, Zinc Plated, Galvanized, Powder Coated
- Permanent identification on chain
- 100% proof tested
- Available in drums, pails, multiple style of assemblies

Chain Size	Self Colored Finish				Zinc Plated Finish					Hot Dipped Galvanized Finish						
	Full Drum	Length	Half Drum	Length	Full Drum	Length	Half Drum	Length	Pail	Length	Full Drum	Length	Half Drum	Length	Pail	Length
in.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.	ft.
3/16	671040	850	-	-	671440	850	671494	500	671410	250	671340	850	671394	500	671310	250
1/4	671041	800	671091	400	671441	800	671491	400	671411	140	671341	800	671391	400	671311	140
5/16	671042	550	671092	275	671442	550	671492	275	671412	90	671342	550	-	-	671312	90
3/8	671043	400	671093	200	671443	400	671493	200	671413	60	671343	400	671393	200	671313	60
1/2	-	-	671045	200	671445	200	-	-	671415	40	671345	200	-	-	671315	40
5/8	671046	150	-	-	-	-	-	-	-	-	671346	150	-	-	-	-
3/4	671047	100	-	-	-	-	-	-	-	-	671347	100	-	-	-	-

## G30 Hanger Chain

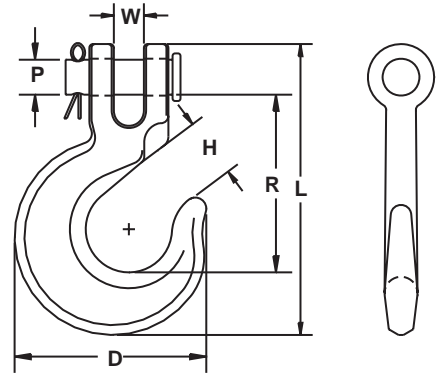


Chain Size	Working Load Limit	Product Code	L	Finish	Weight
in.	lb.		ft.		lb.
1/4	1,300	601710CMG	3	Self Colored	2.10
1/4	1,300	601711CMG	4	Self Colored	2.70
1/4	1,300	601712CMG	5	Self Colored	3.00
1/4	1,300	601714CMG	7	Self Colored	4.50
5/16	1,900	631012	6	Self Colored	5.60

## G30 Clevis Slip Hook



- Designed to be used with grade 30 chain
- Heat treated pins
- Hooks are heat treated and tempered
- Hooks are embossed with chain grade, fraction size and country of origin (USA)
- Hooks embossed with a trace code
- Ultimate strength equals 4 times the working load limit, matching NACM specifications
- Not to be used for overhead lifting

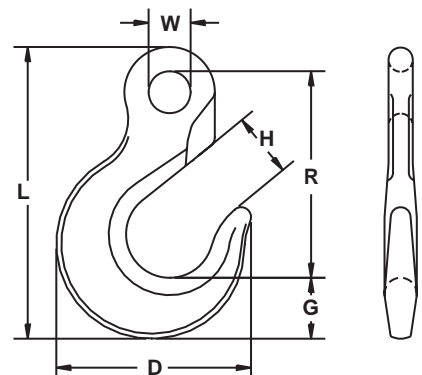


Size	Working Load Limit	Product Code (Zinc)	Dimensions						Weight
			W	D	H	L	R	P	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	1,300	66191	0.36	2.33	0.72	2.27	2.32	0.31	0.35
5/16	1,900	66291	0.42	2.72	0.77	4.13	2.56	0.38	0.63
3/8	2,650	66391	0.50	3.20	0.86	4.81	3.04	0.44	1.02
1/2	4,500	66591	0.61	4.16	1.12	6.31	4.15	0.55	2.27

## G30 Eye Slip Hook



- Designed to be used with grade 30 chain
- Hooks are heat treated and tempered
- Hooks are embossed with chain grade, fraction size and country of origin (USA)
- Hooks embossed with a trace code
- Ultimate strength equals 4 times the working load limit, matching NACM specifications
- Not to be used for overhead lifting

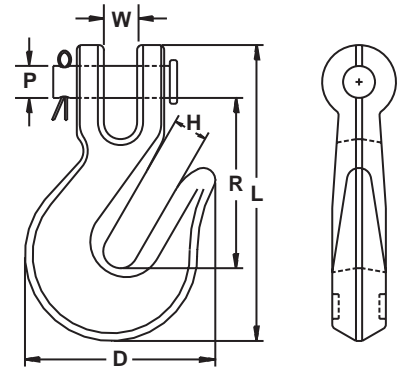


Size	Working Load Limit	Product Code (Zinc)	Dimensions						Weight
			W	D	H	L	R	G	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
3/16-1/4	1,300	75191	0.53	2.47	0.81	3.69	2.61	0.81	0.38
5/16	1,900	75291	0.69	2.88	0.83	3.98	2.70	0.91	0.57
3/8	2,650	75391	0.75	3.25	0.92	4.56	3.17	1.13	0.83
7/16	3,700	75491	0.91	3.73	1.23	5.56	3.64	1.31	1.38
1/2	4,500	75591	1.03	4.25	1.30	6.13	4.20	1.50	1.95
5/8	6,900	75691	1.28	5.23	1.69	7.41	5.11	1.81	3.72

## G30 Clevis Grab Hooks



- Designed to be used with grade 30 chain
- Heat treated pins
- Hooks are heat treated and tempered
- Hooks are embossed with chain grade, fraction size and country of origin (USA)
- Hooks embossed with a trace code
- Ultimate strength equals 4 times the working load limit, matching NACM specifications
- Not to be used for overhead lifting

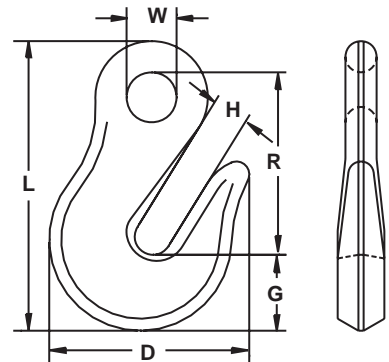


Size	Working Load Limit	Product Code (Zinc)	Dimensions						Weight
			W	D	H	L	R	P	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
1/4	1,300	61191	0.36	2.05	0.36	3.00	1.57	0.31	0.37
5/16	1,900	61291	0.42	2.41	0.44	3.56	1.98	0.38	0.63
3/8	2,650	61391	0.50	2.94	0.52	4.20	2.23	0.44	1.10
1/2	4,500	61591	0.66	3.70	0.67	5.20	2.93	0.55	2.42

## G30 Eye Grab Hooks



- Designed to be used with grade 30 chain
- Hooks are heat treated and tempered
- Hooks are embossed with chain grade, fraction size and country of origin (USA)
- Hooks embossed with a trace code
- Ultimate strength equals 4 times the working load limit, matching NACM specifications
- Not to be used for overhead lifting

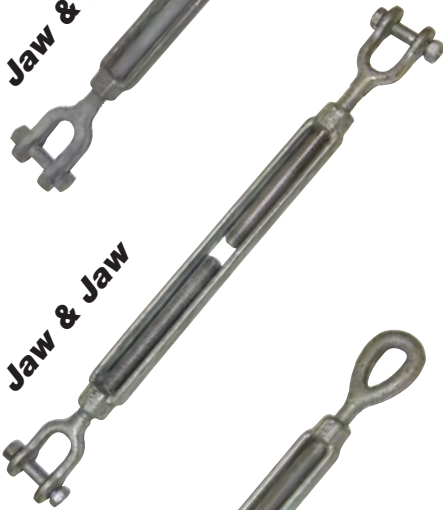


Size	Working Load Limit	Product Code (Zinc)	Dimensions						Weight
			W	D	H	L	R	G	
in.	lb.		in.	in.	in.	in.	in.	in.	lb.
3/16-1/4	1,300	71191	0.50	1.94	0.36	2.85	1.59	0.81	0.30
5/16	1,900	71291	0.61	2.41	0.44	3.47	1.94	1.00	0.50
3/8	2,650	71391	0.72	2.86	0.55	4.13	2.33	1.13	0.87
1/2	4,500	71591	0.94	3.69	0.67	5.38	3.03	1.50	2.17

For 7/16", 5/8" or 3/4" size use grade 43 Eye Grab Hook

# Carbon Chain Turnbuckles

## Turnbuckles



Prodct Code			Thread Diameter	Take Up	WLL	Weight Each
Eye & Eye	Jaw & Eye	Jaw & Jaw				
			in.	in.	lbs.	in.
0404EE	0404JE	0404JJ	1/4	4	500	0.4
0504EE	0504JE	0504JJ	5/16	4-1/2	800	0.6
0606EE	0606JE	0606JJ	3/8	6	1,200	0.9
0806EE	0806JE	0806JJ	1/2	6	2,200	1.8
0809EE	0809JE	0809JJ	1/2	9	2,200	2.1
0812EE	0812JE	0812JJ	1/2	12	2,200	2.4
1006EE	1006JE	1006JJ	5/8	6	3,500	3.0
1009EE	1009JE	1009JJ	5/8	9	3,500	3.7
1012EE	1012JE	1012JJ	5/8	12	3,500	4.2
1206EE	1206JE	1206JJ	3/4	6	5,200	4.6
1209EE	1209JE	1209JJ	3/4	9	5,200	5.4
1212EE	1212JE	1212JJ	3/4	12	5,200	6.0
1218EE	1218JE	1218JJ	3/4	18	5,200	7.7
1412EE	1412JE	1412JJ	7/8	12	7,200	8.4
1418EE	1418JE	1418JJ	7/8	18	7,200	10.7
1606EE	1606JE	1606JJ	1	6	10,000	9.7
1612EE	1612JE	1612JJ	1	12	10,000	11.9
1618EE	1618JE	1618JJ	1	18	10,000	14.8
1624EE	1624JE	1624JJ	1	24	10,000	18.2
2012EE	-	2012JJ	1-1/4	12	15,200	23.8
2018EE	-	2018JJ	1-1/4	18	15,200	27.5
2024EE	-	2024JJ	1-1/4	24	15,200	33.7
2412EE	-	2412JJ	1-1/2	12	21,400	38.1
2418EE	-	2418JJ	1-1/2	18	21,400	44.2
2424EE	-	2424JJ	1-1/2	24	21,400	48.4

Prodct Code			Thread Diameter	Take Up	WLL	Weight Each
Hook & Eye	Hook & Hook					
			in.	in.	lbs.	in.
0404HE	0404HH		1/4	4	400	-
0504HE	0504HH		5/16	4.5	700	-
0606HE	0606HH		3/8	6	1,000	0.8
0806HE	0806HH		1/2	6	1,500	1.5
0809HE	0809HH		1/2	9	1,500	1.9
0812HE	0812HH		1/2	12	1,500	2.3
1006HE	1006HH		5/8	6	2,250	2.5
1009HE	1009HH		5/8	9	2,250	3.3
1012HE	1012HH		5/8	12	2,250	3.8
1206HE	1206HH		3/4	6	3,000	3.9
1209HE	1209HH		3/4	9	3,000	4.8
1212HE	1212HH		3/4	12	3,000	5.4
1218HE	1218HH		3/4	18	3,000	7
1412HE	1412HH		7/8	12	4,000	7.4
1418HE	1418HH		7/8	18	4,000	9.6
1606HE	1606HH		1	6	5,000	9
1612HE	1612HH		1	12	5,000	11.2
1618HE	1618HH		1	18	5,000	13.8
1624HE	1624HH		1	24	5,000	17.1
2418HE	2418HH		1 1/2	18	7,500	31.2
2424HE	2424HH		1 1/2	24	7,500	38.2



G80 Winch Line / Tail Chain	.78
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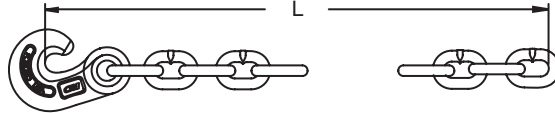
# Specialty Chain

# Specialty Chain



## Winch Line / Tail Chain Gr-80

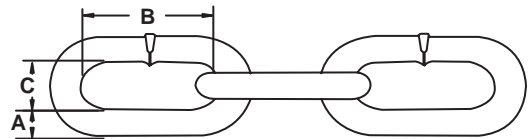
- Available in Grade 80
- Most comprehensive line in the market
- Working Load Limits up to 47,700 lbs
- Odd number of links to prevent twisting of chain during hook up
- All assemblies 100% proof tested



Chain Size	Working Load Limit	Product Code	L	Finish	Weight
in.	lb.		in.		lb.
5/8	18,100	695178	18	Black	8.16
3/4	28,300	695180	18	Black	13.64
7/8	34,200	695183	24	Black	19.44
1	47,700	695185	24	Black	24.46

## Side Chain

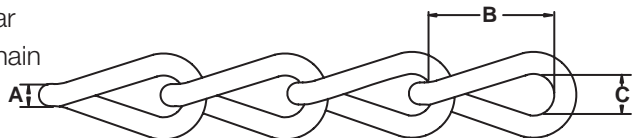
- Made from Mild Carbon Steel
- Use to attach cross chain on the rim of tires
- Available in Zinc Plated upon request



Trade Size	Product Code Polished	A	B	C	Links	Weight
		in.	in.	in.	per ft.	lb. / ft.
6/0	214579	0.281	1.830	0.500	6.56	0.59
7/0	314031	0.312	2.070	0.500	5.80	0.72
8/0	214584	0.343	1.937	0.531	6.20	0.88
9/0	214585	0.375	2.260	0.610	5.31	1.07
11/0	214588	0.437	2.330	0.656	5.15	1.49

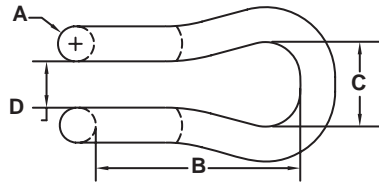
## Claw Cross Chain

- Made from tear drop shape steel for improved traction
- Commercial grade chain for heavy duty trucks
- Case hardened for longer wear
- Components available to fit chain
- Cut lengths available from 7 to 27 links



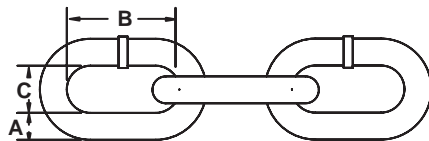
Trade Size	Product Code	Quantity Per Pack	A	B	C	Finish	Weight
			ft.	in.	in.	in.	lb. / ft.
7/0	315931	100	0.312	1.093	0.467	Self Colored	1.00
8/0	315934	100	0.343	1.234	0.537	Self Colored	1.27
9/0	315937	50	0.375	1.266	0.671	Self Colored	1.60

## Cross Chain Hooks



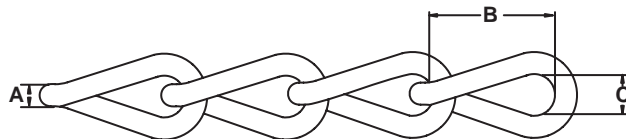
Trade Size	Product Code	A	B	C	D	Finish	Weight
		in.	in.	in.	in.		lb. / each
# 4	221130	0.312	1.562	0.750	0.375	Self Colored	0.17
# 6	221136	0.375	1.750	0.750	0.406	Self Colored	0.27
# 6.5	221141	0.406	1.750	0.750	0.438	Self Colored	0.31
# 7	221143	0.437	2.125	0.938	0.563	Self Colored	0.44

## Machine Chain Straight Link



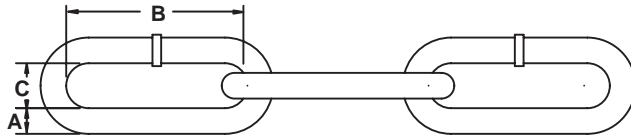
Trade Size	Working Load Limit	Product Code	Quantity Per Pack	A	B	C	App. Weight	App. No. of Links
	lb.		ft.				lb. / ft.	per ft.
#4	215	621309	100	0.120	0.550	0.210	0.117	21.18
#3	270	621311	100	0.135	0.590	0.240	0.152	20.34
#2	325	621313	100	0.148	0.610	0.260	0.183	19.67
1/0	465	621317	100	0.177	0.740	0.310	0.271	16.22
2/0	545	621319	100	0.192	0.780	0.340	0.326	15.38
4/0	700	621321	100	0.218	0.990	0.380	0.386	12.12
5/0	925	621325	100	0.250	1.070	0.440	0.544	11.21

## Machine Chain Twisted Link



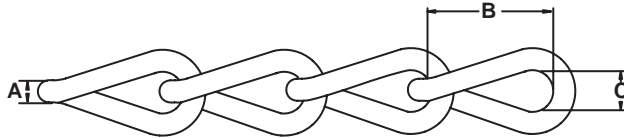
Trade Size	Working Load Limit	Product Code	Quantity Per Pack	A	B	C	App. Weight	App. No. of Links
	lb.		ft.				lb. / ft.	per ft.
#4	205	621809	100	0.120	0.520	0.170	0.121	23.08
#3	255	621811	100	0.135	0.560	0.200	0.161	21.43
#2	310	621813	100	0.148	0.580	0.210	0.192	20.69
1/0	440	621817	100	0.177	0.680	0.260	0.284	17.65
2/0	520	621819	75	0.192	0.730	0.280	0.342	16.44
4/0	670	621821	100	0.218	0.890	0.320	0.405	13.48
5/0	880	621825	100	0.250	1.000	0.370	0.573	12.00

## Coil Chain Straight Link



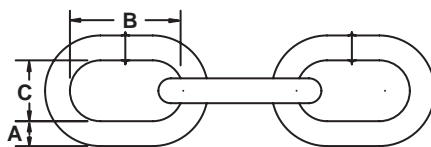
Trade Size	Working Load Limit	Product Code	Quantity Per Pack	A	B	C	App. Weight	App. No. of Links
	lb.			ft.	in.	in.		
#4	205	620309	100	0.120	1.110	0.210	0.10	10.81
#3	255	620311	100	0.135	1.170	0.240	0.13	10.26
#2	310	620313	75	0.148	1.180	0.260	0.15	10.17
1/0	440	620317	100	0.177	1.250	0.310	0.22	9.60
2/0	520	620319	100	0.192	1.260	0.340	0.27	9.52
4/0	670	620321	100	0.218	1.390	0.380	0.35	8.63
5/0	880	620325	100	0.250	1.520	0.440	0.46	7.89

## Coil Chain Twist Link



Trade Size	Working Load Limit	Product Code	Quantity Per Pack	A	B	C	App. Weight	App. No. of Links
	lb.			ft.	in.	in.		
#4	195	620809	100	0.120	1.090	0.180	0.104	11.01
#3	240	620811	100	0.135	1.140	0.210	0.139	10.53
#2	295	620813	100	0.148	1.150	0.220	0.156	10.43
1/0	415	-	100	0.177	1.220	0.270	0.231	9.84
2/0	495	620819	100	0.192	1.240	0.290	0.282	9.68
4/0	635	620821	100	0.218	1.340	0.330	0.370	8.96
5/0	835	620825	100	0.250	1.470	0.380	0.485	8.16

## Passing Link



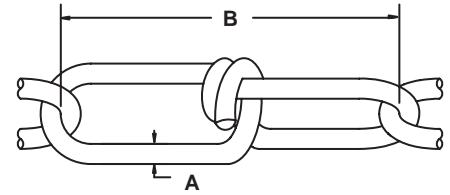
Trade Size	Working Load Limit	Product Code	Quantity Per Pack	A	B	C	App. Weight	App. No. of Links
	lb.			ft.	in.	in.		
2/0	450	623459	100	0.192	0.875	0.470	0.33	13.71
3/0	540	623460	100	0.207	0.875	0.470	0.38	13.71
4/0	600	623461	100	0.218	0.875	0.470	0.43	13.71



## Double Loop Chain



- Meets or exceeds ASTM & NACM standards where applicable
- Available in various finishes
- Sold by carton, reel or pails
- Custom cuts for OEM applications are available



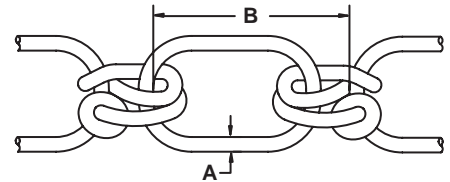
Double Loop typical uses include; suspension of lighting, animal leashes, swings & hammocks

Trade Size	Working Load Limit	Product Code Self Colored	Product Code Zinc Plated	Quantity Per Carton	A	B	App. Weight	App. No. of Links
	lb.				ft.	in.		
#5	55	680150	680450	100	0.062	0.920	0.04	13
#4	70	680151	680451	100	0.072	1.000	0.05	12
#3	90	680152	680452	100	0.080	1.100	0.06	11
#2	115	680153	680453	100	0.091	1.330	0.08	9
#1	155	680154	680454	100	0.105	1.540	0.10	8
1/0	200	680155	680455	100	0.120	1.780	0.13	7
2/0	255	680156	680456	100	0.135	1.820	0.17	7
3/0	305	680157	680457	100	0.148	2.170	0.20	5.5
4/0	365	680158	680458	100	0.162	2.190	0.25	5.5

## Single Loop Chain



- Meets or exceeds ASTM & NACM standards where applicable
- Available in various finishes
- Sold by carton, reel or pails
- Custom cuts for OEM applications are available



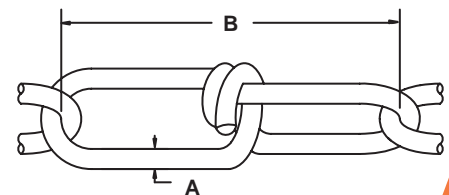
Single Loop typical uses include; overhead door applications, ventilators, operating valve wheels, sprocket wheels requiring more strength than double loop chain

Trade Size	Working Load Limit	Product Code Self Colored	Product Code Zinc Plated	Quantity Per Carton	A	B	App. Weight	App. No. of Links
	lb.				ft.	in.		
1/0	265	681151	681451	100	0.120	1.290	0.17	9.3
2/0	340	681152	681452	100	0.135	1.480	0.22	8.1
3/0	405	681153	681453	75	0.148	1.630	0.26	7.4
4/0	485	681154	681454	100	0.162	1.800	0.31	6.7

## Special Well Chain



- Meets or exceeds ASTM & NACM standards where applicable
- Available in various finishes
- Sold by carton, reel or pails
- Custom cuts for OEM applications are available



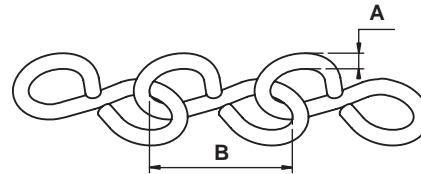
Special well chain typically used in cisterns

Trade Size	Working Load Limit	Product Code	Quantity Per Carton	A	B	App. Weight	App. No. of Links
	lb.		ft.	in.	in.	lb. / ft.	per ft.
2/0	255	679456	100	0.135	2.500	0.15	4.8

## Jack Chain



- Meets or exceeds ASTM & NACM standards where applicable
- Available in various finishes
- Sold by carton, reel or pails
- Custom cuts for OEM applications are available



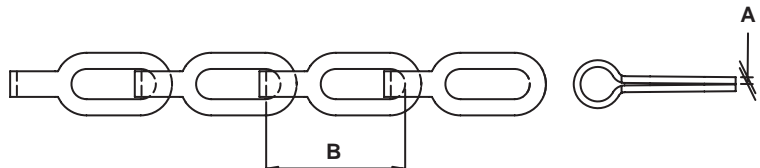
Jack chain is typically used for hanging fixtures such as flower pots, lighting & novelties.

Trade Size	Working Load Limit	Product Code (Self Colored)	Product Code (Zinc Plated)	Quantity Per Carton	A	B	App. Weight	App. No of Links
	lb.			ft.	in.	in.	lb. / ft.	per ft.
18	5	684151	684451	100	0.047	0.390	0.02	30.77
14	16	684153	684453	100	0.080	0.630	0.05	19.05
12	29	684154	684454	100	0.105	0.750	0.09	16.00
10	43	684155	684455	100	0.135	0.930	0.14	12.90
8	60	684156	684456	100	0.162	1.090	0.21	11.01
6	88	684157	684457	100	0.192	1.240	0.30	9.68

## Plumbers Chain



- Meets or exceeds ASTM & NACM standards where applicable
- Available in various finishes
- Sold by carton, reel or pails
- Custom cuts for OEM applications are available



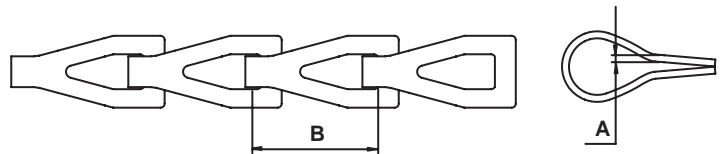
Plumbers chain is typically used in plumbing fixtures and light weight fixtures.

Trade Size	Working Load Limit	Product Code (Brass Plated)	Quantity Per Carton	A	B	App. Weight	App. No. of Links
	lb.		ft.	in.	in.	lb. / ft.	per ft.
2/0	23	685754	100	0.018	0.440	0.014	27.00
1/0	35	685755	100	0.023	0.500	0.020	24.00
1	45	685756	100	0.028	0.600	0.033	20.00

## Sash Chain



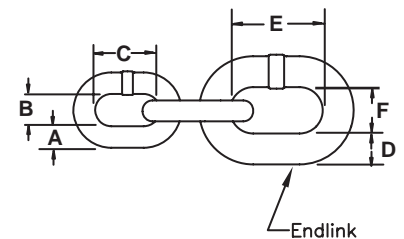
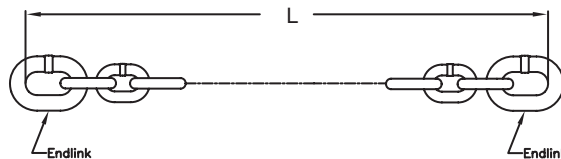
- Meets or exceeds ASTM & NACM standards where applicable
- Available in various finishes
- Sold by carton, reel or pails
- Custom cuts for OEM applications are available



Typically uses for sash chain are pulley applications in windows and window sashes.

Trade Size	Working Load Limit	Product Code			Quantity Per Carton	A	B	App. Weight	App. No. of Links
		(Self Colored)	(Zinc Plated)	(Copper Dipped)					
	lb.				ft.	in.	in.	lb. / ft.	per ft.
8	75	683151	683451	683551	100	0.035	0.550	3.90	21.82
25	94	683152	683452	683552	100	0.042	0.550	4.90	21.82
30	81	683153	683453	683553	100	0.028	0.560	5.50	21.43
35	106	683154	683454	683554	100	0.035	0.560	5.90	21.43
40	131	683156	683456	683556	100	0.042	0.560	8.00	21.43
45	175	683157	683457	683557	100	0.050	0.560	9.50	21.43
50	225	683158	683458	683558	100	0.062	0.590	12.00	20.34

## Buoy Chain



Chain Size	Working Load Limit	Product Code	Chain Dimensions			Endlink Dimensions				Finish	Weight
			L	A	B	C	D	E	F		
in.	lb.		ft.	in.	in.	in.	in.	in.	in.		lb. / ft.
1/2	15,000	6510049	90	0.500	3.00	1.875	0.750	4.50	2.688	Self Colored	2.15
1/2	15,000	6510048	45	0.500	3.00	1.875	0.750	4.50	2.688	Self Colored	2.15
3/4	32,000	6510050	90	0.750	4.50	2.688	0.875	5.25	3.125	Self Colored	4.80
3/4	32,000	6510051	45	0.750	4.50	2.688	0.875	5.25	3.125	Self Colored	4.80
1	58,000	4340890	90	1.000	6.00	3.583	1.000	4.08	1.563	Self Colored	8.60
1	58,000	4340890G	90	1.000	6.00	3.583	1.000	4.08	1.563	Hot dipped Galvanizec	9.60
1-1/8	77,000	4340990	90	1.125	6.75	4.000	1.125	4.59	1.750	Self Colored	10.80
1-1/4	91,000	4341090	90	1.250	7.50	4.438	1.250	5.10	1.938	Self Colored	13.50

# Specialty Chain Mining Chain



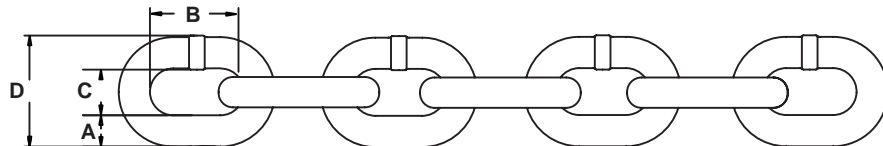
To meet the specific needs of the mining industry, Columbus McKinnon Corporation manufactures high specification mining chain and components for Long Wall applications. From chain to sprockets, to connectors, we have the hardware to keep the product moving. Chain and components are all made by CM, assuring form and fit of each piece.

Combining the long wall product line with our other products, we have one of the most comprehensive offerings in the market for your mining applications.

## Long Wall Mining Chain

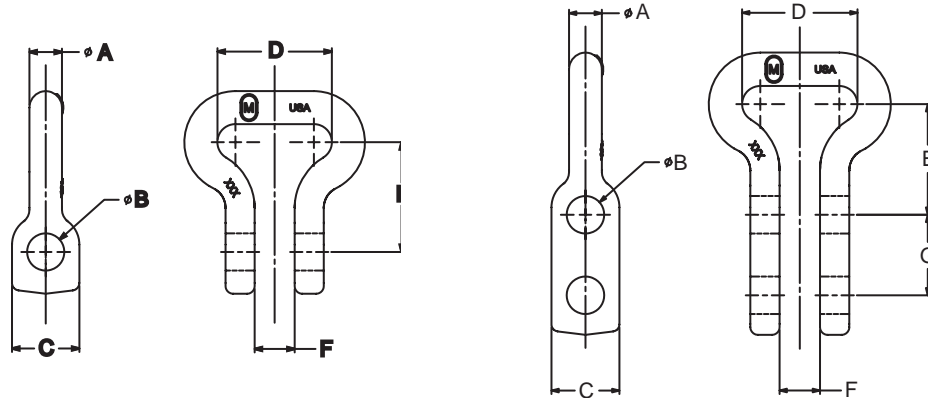


- Available in carburized and thru hardened
- CM carburized chain is processed with the latest technology to provide excellent strength and wear properties
- CM thru hardened chain yields exceptional strength properties
- Wide assortment of attachments to accommodate chain
- Chain is calibrated to assure fit when assembling assemblies
- Match pairs in various lengths are available
- All chain and components are built by CM to insure form and fit



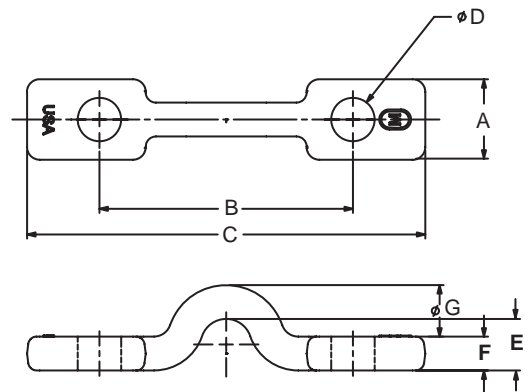
Chain Size	Minimum Break		Product Code		A	B	C (min)	D (max)	Finish	App. Weight	App. No of links
	Carburized	Thru Hardened	Carburized	Thru Hardened							
mm.	lb.	lb.			in.	in.	in.	in.		lb. / ft.	per ft.
14 X 50	36,500	56,200	695714C	695724	0.551	1.968	0.669	1.890	Self Colored	2.68	6.10
18 X 64	65,000	92,200	695717C	695718	0.709	2.519	0.827	2.362	Self Colored	4.16	4.76
22 X 86	75,000	137,200	695721C	695722	0.866	3.386	1.024	2.914	Self Colored	6.29	3.54
26 X 92	90,000	191,300	695727C	695729	1.000	3.622	1.181	3.386	Self Colored	8.53	3.31

## Padless Shackle Connectors



Chain Size	Bolt Size	Product Code	A	B	C	D	E	F	G	Weight
			mm.	in.	in.	in.	in.	in.	in.	lb.
<b>1 Bolt</b>										
14 X 50	5/8-11 UNC X 2-1/2" Gr-	M14JL	0.560	0.690	1.160	1.970	1.890	0.690	-	0.50
18 X 64	5/8-11 UNC X 3" Gr-8	M18JL	0.720	0.690	1.260	2.520	2.000	0.780	-	1.31
22 X 86	7/8-9 UNC X 4" Gr-8	M22JL	0.880	0.970	2.000	3.390	2.940	1.140	-	0.50
26 x 92	1-8 UNC X 4-1/2" Gr-8	M26JL	1.060	1.060	2.250	3.620	3.500	1.120	-	1.31
<b>2 Bolt</b>										
14 X 50	5/8-11 UNC X 2-1/2" Gr-8	M14JL4	0.560	0.690	1.160	1.970	1.890	0.690	1.380	1.13
18 X 64	5/8-11 UNC X 3" Gr-8	M18JL4	0.720	0.640	1.260	2.520	2.000	0.780	1.750	2.13
22 X 86	5/8-11 UNC X 3-1/2" Gr-8	M22JL4	0.880	0.690	2.000	3.390	2.940	1.140	1.560	4.25
26 x 92	7/8-9 UNC X 4" Gr-8	M26JL4	1.060	0.940	2.250	3.620	3.750	1.120	2.380	7.63

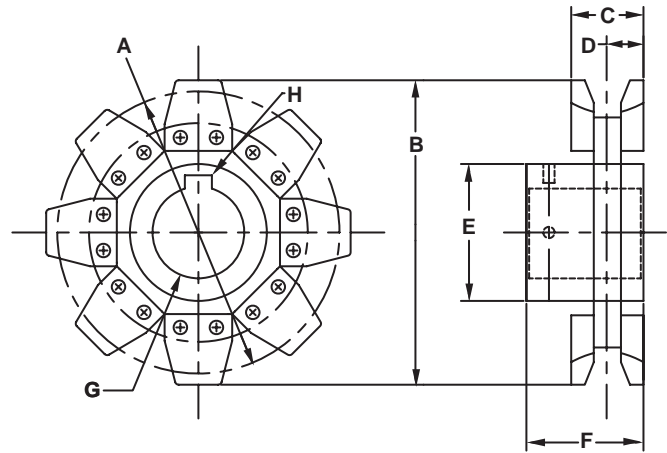
## Special Chain Connector



Chain Size	Product Code	A	B	C	D	E	F	G	Bolt Size (Gr-8)	Weight
		mm.	in.	in.	in.	in.	in.	in.	in.	lb.
14 X 50	M14HC	0.560	0.690	1.160	1.970	1.890	0.690	1.380	5/8-11 UNC X 2-1/2	1.13
18 X 64	M18HC4	0.720	0.640	1.260	2.520	2.000	0.780	1.750	5/8-11 UNC X 3	2.13

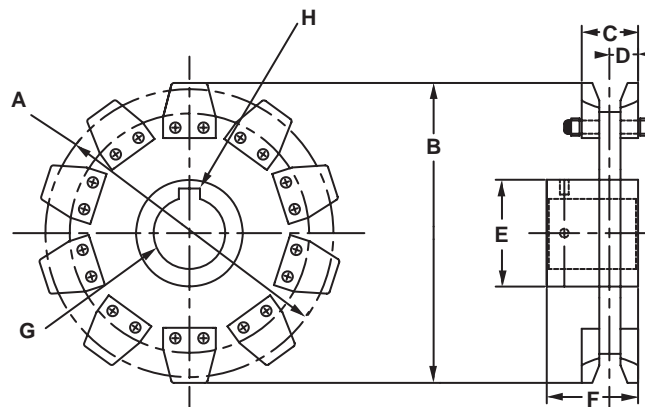
# Specialty Chain Drive Sprockets

## Drive Sprocket Welded on Pocket



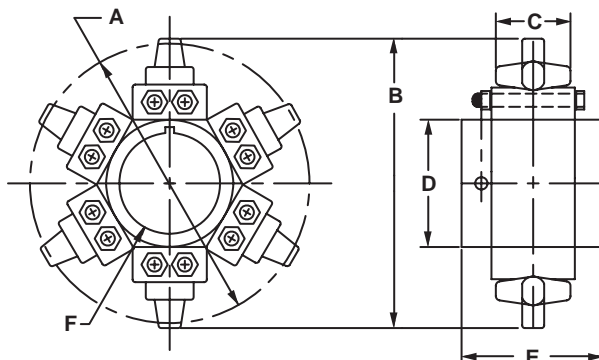
Chain Size	Number of Pockets	A	B	C	D	E (Diameter)	F	G (Diameter)	H
mm.		in.	in.	in.	in.	in.	in.	in.	in.
14 x 50	8	10.06	11.51	2.00	1.00	3.38	3.38	1.938	1/2 X 1/4
	10	12.56	14.00	2.00	1.00	6.00	3.53	3.438	7/8 X 7/16
	13	16.32	17.70	2.00	1.00	8.25	3.03	3.438	7/8 X 7/16
18 x 64	8	12.83	14.50	2.50	1.25	6.00	4.25	2.750	5/8 X 5/16
	10	16.04	17.69	2.50	1.25	8.25	4.16	4.000	1 X 1/2
22 x 86	8	17.24	19.50	3.00	1.50	7.44	5.25	4.938	1-1/4 X 5/8
	10	21.56	23.75	3.00	1.50	11.00	6.50	6.000	1-1/2 X 3/4

## Drive Sprocket - Replaceable Pocket Segments



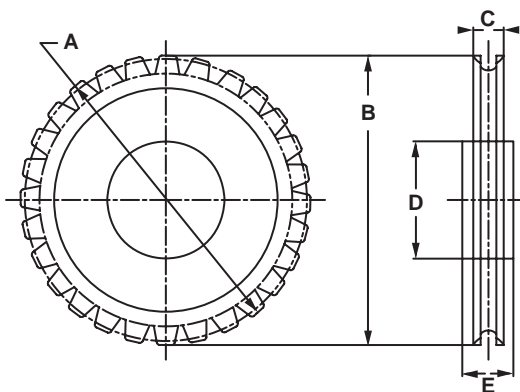
Chain Size	Number of Pockets	A	B	C	D	E (Diameter)	F	G (Diameter)	H
mm.		in.	in.	in.	in.	in.	in.	in.	in.
14 x 50	13	16.320	17.700	2.000	1.000	7.000	3.380	3.938	1 X 1/2
18 x 64	8	12.830	14.500	2.500	1.250	7.000	4.160	3.438	7/8 X 7/16
22 x 86	10	21.560	23.750	3.000	1.500	11.000	6.500	6.000	1-1/2 X 3/4
26 x 92	10	23.060	25.620	3.750	1.880	11.500	7.500	7.500	1-3/4 X 1-1/2

## Drive Sprocket - Replaceable Teeth



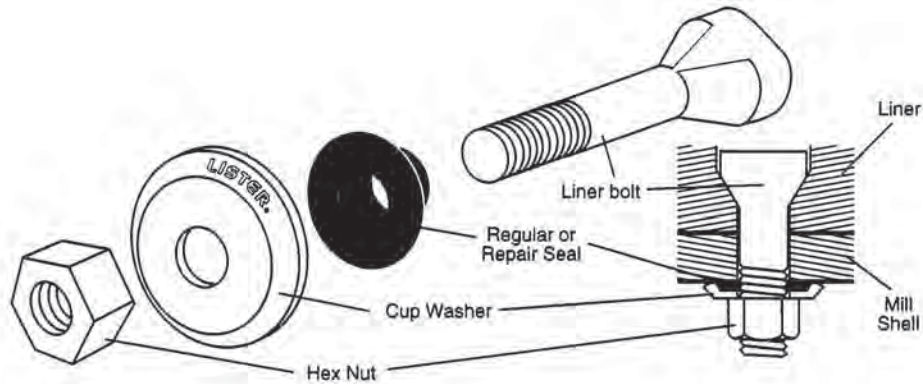
Chain Size	Number of Teeth	A	B	C	D	E (Diameter)	F
mm.		in.	in.	in.	in.	in.	in.
14 x 50	6	7.520	8.190	1.690	3.250	3.500	2.188
14 x 50	16	20.050	21.350	1.690	6.000	3.500	2.438

## Cast Drive Sprocket



Chain Size	Number of Pockets	A (Diameter)	B (Diameter)	C	D (Diameter)	E	Weight
in.		in.	in.	in.	in.	in.	lb.
14 x 50	7	8.770	9.620	1.880	-	-	23.0
0.375 x 1.012	15	9.660	10.320	1.500	4.250	2.750	25.0
	20	12.890	13.520	1.500	4.500	2.750	38.0

## Grinding mill liner bolt specifications



Torque values assume bolt is dry. Lubricants, planting, etc., can reduce these values.

### Lister Grade 2

Bolt Diameter	Proof Load PSI	Tensile Strength PSI min.	Recommended Torque		
			UNC	UNF	8-UN
in.			ft./lb.	ft./lb.	ft./lb.
3/4	55,000	74,000	190	213	0
7/8	33,000	60,000	194	214	0
1	33,000	60,000	291	318	291
1-1/8	33,000	60,000	412	462	427
1-1/4	33,000	60,000	581	644	600
1-1/2	33,000	60,000	1,012	1,138	1,074
1-3/4	33,000	60,000	1,596	1,840*	1,774
2	33,000	60,000	2,400	2,774*	2,659

\*12-UN

### Lister Grade 2

Bolt Diameter	Proof Load PSI	Tensile Strength PSI min.	Recommended Torque		
			UNC	UNF	8-UN
in.			ft./lb.	ft./lb.	ft./lb.
3/4	120,000	150,000	434	485	0
7/8	120,000	150,000	701	772	0
1	120,000	150,000	1,050	1,149	1,050
1-1/8	120,000	150,000	1,488	1,669	1,541
1-1/4	120,000	150,000	2,100	2,325	2,167
1-1/2	120,000	150,000	3,653	4,111	3,879

### Lister Grade 5

Bolt Diameter	Proof Load PSI	Tensile Strength PSI min.	Recommended Torque		
			UNC	UNF	8-UN
in.			ft./lb.	ft./lb.	ft./lb.
3/4	85,000	120,000	307	343	0
7/8	85,000	120,000	496	546	0
1	85,000	120,000	743	813	743
1-1/8	74,000	105,000	927	1,040	960
1-1/4	74,000	105,000	1,308	1,449	1,350
1-1/2	74,000	105,000	2,276	2,561	2,417

### ASTM-A449

Bolt Diameter	Proof Load PSI	Tensile Strength PSI min.	Recommended Torque	
			UNC	UNF
in.			ft./lb.	ft./lb.
1-3/4	55,000	90,000	2,571	2,815
2	55,000	90,000	3,867	4,285

### ASTM-A354

Bolt Diameter	Proof Load PSI	Tensile Strength PSI min.	Recommended Torque	
			UNC	UNF
in.			ft./lb.	ft./lb.
<b>Grade BC</b>				
1-3/4	105,000	125,000	4,832	5,290
2	105,000	125,000	7,267	8,051
<b>Grade BD</b>				
1-3/4	120,000	150,000	5,763	6,309
2	120,000	150,000	8,667	9,603





Swage Socket (open) .....	.90
Swage Button .....	.91
Swage Socket (closed) .....	.91
Swaging Sleeve for Flemish Eye .....	.92
Mid Grip Clips .....	.93
Wire Rope Clips .....	.94
Piggy Back Wedge Socket Clips .....	.95
Thimbles .....	.96

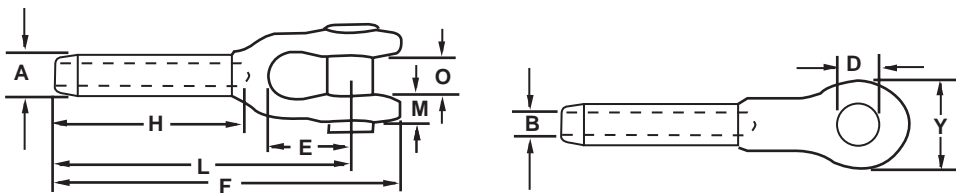
# **Wire Rope attachments**

# Wire Rope Attachments

## Swage Socket (open)



- Forged from fine grain, special bar quality C-1035 steel
- Spheroidized annealed for cold swaging
- Recommended for use on 6" x 19" or 6" x 37" IWRC regular lay wire ropes. Can also be used on galvanized bridge rope. NOT FOR USE ON FIBER CORE OR LANG LAY ROPES
- Sockets have 100% efficiency rating based on catalog strength of wire rope when properly applied

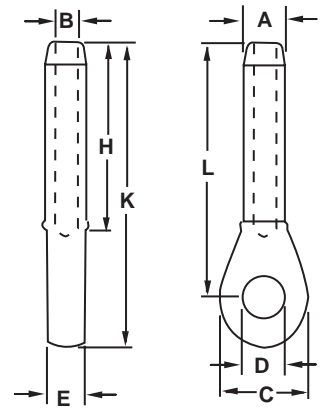


Size	Product Code	Dimensions										After Swage dia.	Weight
		A	B	D	E	F	H	L	M	O	Y		
1/4	697120	0.495	0.272	0.688	1-1/2	4-3/4	2-1/8	4	5/16	11/16	1-3/8	0.438	0.55
5/16	697121	0.770	0.339	0.812	1-3/4	6-1/4	3-3/16	5-5/16	13/32	13/16	1-5/8	0.688	1.10
3/8	697122	0.770	0.406	0.812	1-3/4	6-1/4	3-3/16	5-5/16	13/32	13/16	1-5/8	0.688	1.08
7/16	697123	0.982	0.484	1.000	2	7-13/16	4-1/4	6-11/16	1/2	1	2	0.875	2.30
1/2	697124	0.982	0.547	1.000	2	7-13/16	4-1/4	6-11/16	1/2	1	2	0.875	2.25
9/16	697125	1.257	0.609	1.190	2-1/4	9-9/16	5-5/16	8-1/8	5/8	1-1/4	2-1/2	1.125	4.60
5/8	697126	1.257	0.672	1.190	2-1/4	9-9/16	5-5/16	8-1/8	5/8	1-1/4	2-1/2	1.125	4.50
3/4	697127	1.545	0.796	1.380	2-3/4	11-11/16	6-3/8	10	3/4	1-1/2	3	1.375	7.80
7/8	697128	1.700	0.938	1.630	3-1/4	13-5/8	7-7/16	11-5/8	15/16	1-3/4	3-3/8	1.500	11.70
1	697129	1.975	1.062	2.000	3-3/4	15-5/8	8-1/2	13-3/8	1-1/32	2	4	1.750	17.80
1-1/8	697130	2.245	1.188	2.250	4-1/4	17-1/2	9-9/16	15	1-3/16	2-1/4	4-1/2	2.000	29.70
1-1/4	697131	2.525	1.328	2.500	4-3/4	19-7/16	10-5/8	16-1/2	1-3/16	2-1/2	5	2.250	36.00
1-3/8	697132	2.800	1.453	2.500	5-1/4	21-1/4	11-11/16	18-1/8	1-5/16	2-1/2	5-1/4	2.500	47.00
1-1/2	697133	3.075	1.578	2.750	5-3/4	23-1/4	12-3/4	19-3/4	1-7/16	3	5-3/4	2.750	65.00
1-3/4	697134	3.385	1.859	3.500	6-3/4	27-1/8	14-7/8	23	1-11/16	3-1/2	7	3.000	93.00



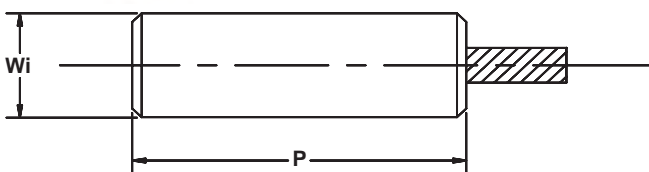
## Swage Socket (Closed)

- Forged from fine grain, special bar quality C-1035 steel
- Spheroidized annealed for cold swaging
- Recommended for use on 6" x 19" or 6" x 37" IWRC regular lay wire ropes. Can also be used on galvanized bridge rope. NOT FOR USE ON FIBER CORE OR LANG LAY ROPES
- Sockets have 100% efficiency rating based on catalog strength of wire rope when properly applied



Size	Product Code	Dimensions								After Swage dia.	Weight
		A	B	C	D	E	H	K	L		
in.		in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
1/4	697151	0.495	0.272	1-7/16	0.750	1/2	2-1/8	4-3/8	3-1/2	0.438	0.34
5/16	697152	0.770	0.339	1-11/16	0.875	11/16	3-3/16	5-1/2	4-1/2	0.688	0.79
3/8	697153	0.770	0.406	1-11/16	0.875	11/16	3-3/16	5-1/2	4-1/2	0.688	0.78
7/16	697154	0.982	0.484	2	1.063	7/8	4-1/4	6-15/16	5-3/4	0.875	1.45
1/2	697155	0.982	0.547	2	1.063	7/8	4-1/4	6-15/16	5-3/4	0.875	1.38
9/16	697156	1.257	0.609	2-1/2	1.250	1-1/8	5-5/16	8-3/4	7-1/4	1.125	2.78
5/8	697157	1.257	0.672	2-1/2	1.250	1-1/8	5-5/16	8-3/4	7-1/4	1.125	2.75
3/4	697158	1.545	0.796	3	1.438	1-5/16	6-3/8	10-3/8	8-5/8	1.375	5.00
7/8	697159	1.700	0.938	3-1/2	1.688	1-1/2	7-7/16	12-1/8	10-1/8	1.500	7.50
1	697160	1.975	1.062	4	2.063	1-3/4	8-1/2	13-3/4	11-1/2	1.750	11.20
1-1/8	697161	2.245	1.188	4-1/2	2.313	2	9-9/16	15-1/4	12-3/4	2.000	15.80
1-1/4	697162	2.525	1.328	5	2.563	2-1/4	10-5/8	17-1/4	14-3/8	2.250	23.00
1-3/8	697163	2.800	1.453	5-1/4	2.563	2-1/4	11-11/16	18-7/8	15-3/4	2.500	31.00
1-1/2	697164	3.075	1.578	5-1/2	2.813	2-1/2	12-3/4	20-3/8	17	2.750	39.00
1-3/4	697165	3.385	1.859	6-3/4	3.563	3	14-7/8	24	20	3.000	52.00

## Swage Buttons



- Fittings machined from specially selected and processed low carbon steel
- Buttons have 98% efficiency rating based on catalog strength of wire rope when properly applied

Rope Diameter	Product Code	Dimensions		Weight
		Wi	P	
in.		in.	in.	lb.
1/8	697101	0.375	0.625	0.025
3/16	697102	0.500	0.875	0.050
1/4	697103	0.563	1.188	0.068
5/16	697104	0.750	1.375	0.156
3/8	697105	0.750	1.750	0.188
7/16	697106	1.000	2.000	0.393
1/2	697107	1.125	2.188	0.544
9/16	697108	1.250	2.438	0.737
5/8	697109	1.375	2.875	1.062
3/4	697110	1.500	3.250	1.356
7/8	697111	1.750	3.875	2.194
1	697112	2.000	4.375	3.15
1-1/8	697113	2.250	4.813	4.575
1-1/4	697114	2.500	5.438	7.000
1-3/8	697115	2.750	6.000	9.150
1-1/2	697116	3.000	6.500	12.025

# Wire Rope Attachments

## Swaging Sleeve for Flemish Eye



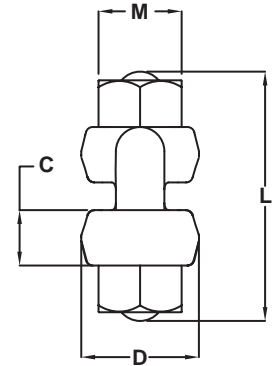
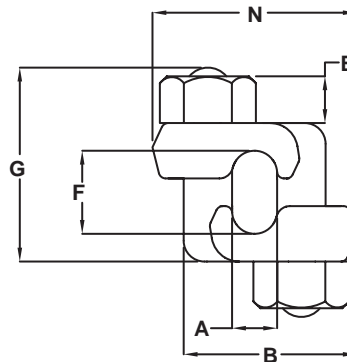
- Carbon steel sleeves come with unique color change quality control feature- color changes intensity once sleeve has been pressed verifying that swaging has occurred
- Zinc plating extends shelf life and resists rusting
- Color coding helps determine size and simplifies inventory
- Seamless construction
- Fits standard industry dies
- Mill certified, annealed low carbon steel provides consistent swaging without cracking
- No need for 16th size dies - O.D. of 16th sizes same as next largest sleeve size



Rope Diameter	Product Code	Dimensions					Wall Thickness	Diameter After Swage	Weight
		P	Wo	Wi1	Wi	P1			
in.		in.	in.	in.	in.	in.	in.	in.	lb.
0.250	697180	1.000	0.656	0.328	0.468	0.281	0.093	0.500	0.04
0.312	697181	1.500	0.906	0.438	0.609	0.468	0.141	0.730	0.14
0.375	697182	1.500	0.906	0.468	0.656	0.468	0.125	0.730	0.12
0.468	697183	2.000	1.218	0.562	0.844	0.594	0.98	0.980	0.32
0.500	697184	2.000	1.218	0.625	0.906	0.594	0.156	0.980	0.28
0.562	697185	2.750	1.468	0.688	1.031	0.703	0.218	1.200	0.63
0.625	697186	2.750	1.468	0.750	1.094	0.703	0.188	1.200	0.56
0.750	697187	3.188	1.7188	0.922	1.281	0.859	0.218	1.410	0.88
0.875	697188	3.562	2.013	1.013	1.531	1.000	0.250	1.630	1.38
1.00	697189	4.000	2.281	1.156	1.719	1.125	0.281	1.880	1.90
1.125	697190	4.813	2.500	1.281	1.938	1.250	0.281	2.080	2.60
1.250	697191	5.203	2.781	1.468	2.156	1.406	0.312	2.270	3.40
1.375	697192	5.813	3.000	1.562	2.375	1.562	0.312	2.460	4.30
1.500	697193	6.250	3.250	1.688	2.625	1.688	0.312	2.650	5.00
1.750	697194	7.250	3.844	1.938	3.125	1.969	0.359	3.040	8.40
2.000	697195	8.500	4.375	2.250	3.625	2.250	0.375	3.500	11.30
2.250	697196	9.563	5.031	2.500	4.031	2.531	0.500	4.060	19.20
2.500	697197	10.500	5.500	2.750	4.500	2.813	0.500	4.440	23.20

## Mid-Grip Clips (Double Saddle)

- Meets FF-C-450 specifications, Type III, Class 1 and will provide maximum holding strength
- Allow full arc wrench swing for quicker installation, retightening or disassembly of nuts
- Forged from special quality steel with sizes clearly marked on the saddle
- Hot galvanized with galvanized heavy hex nuts
- Furnished unassembled in poly bags and in factory packs of 20

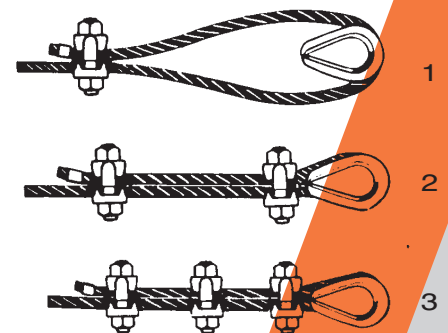


Size	Product Code	Product Code (nut)	Dimensions										Min. Number of Clips	Rope Turn-Back	Torque	Weight
			A	B	C	D	E Thread	F	G	L Approx	M	N				
3/16	M2246	602223	0.28	1.25	0.34	0.94	3/8 - 16	0.50	1.63	2.26	0.69	1.28	2	4.00	30	21
1/4	M2246	602223	0.28	1.25	0.34	0.94	3/8 - 16	0.50	1.63	2.26	0.69	1.28	2	4.00	30	21
5/16	M2247	602223	0.34	1.38	0.44	1.06	3/8 - 16	0.63	1.66	2.19	0.69	1.41	2	5.00	30	27
3/8	M2248	602224	0.41	1.56	0.50	1.06	7/16 - 14	0.75	1.75	2.25	0.75	1.85	2	5.50	45	45
7/16	M2250	602225	0.50	1.78	0.56	1.25	1/2 - 13	1.00	2.19	2.75	0.88	2.06	2	6.50	65	65
1/2	M2250	602225	0.50	1.78	0.56	1.25	1/2 - 13	1.00	2.19	2.75	0.88	2.06	3	11.00	65	65
9/16	M2251	602227	0.66	2.25	0.69	1.50	5/8 - 11	1.25	2.69	3.31	1.06	2.59	3	12.75	130	113
5/8	M2251	602227	0.66	2.25	0.69	1.50	5/8 - 11	1.25	2.69	3.31	1.06	2.59	3	13.50	130	113
3/4	M2252	602228	0.81	2.69	0.88	1.81	3/4 - 10	1.50	3.38	4.32	1.25	3.06	3	16.00	225	144

### Proper use of Mid-Grip Clips

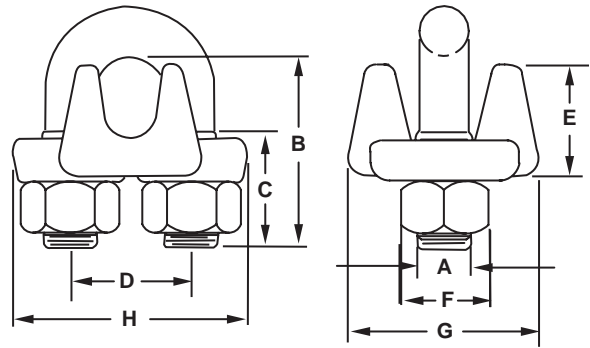
1. Refer to chart above in following these instructions. Turn back specified amounts of rope from thimble or loop. Apply first clip one base width from dead end of rope. Tighten nuts evenly, alternating from one nut to the other until reaching the recommended torque.
2. When two clips are required, apply the second clip as near the loop or thimble as possible. Tighten nuts evenly, alternating until reaching the recommended torque. When more than two clips are required, apply the second clip as near the loop or thimble as possible, turn nuts on second clip firmly, but do not tighten. Proceed to step 3.
3. When three or more clips are required, space additional clips between first two - take up rope slack - tighten nuts on all clips, alternating from one nut to the other until reaching the recommended torque.
4. Apply an initial load equal to loads expected in use. Inspect for proper spacing and retighten the nuts to the recommended torque.

Refer to additional notes concerning wire rope clips on next page



# Wire Rope Attachments

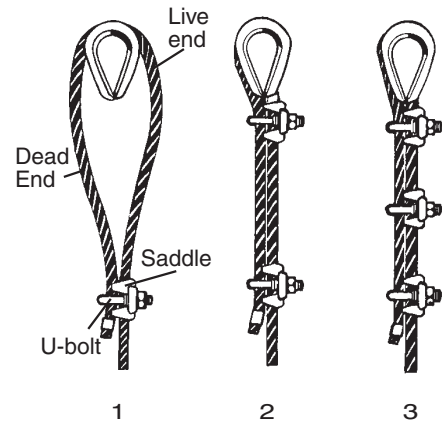
## Wire Rope Clips



Size	Product Code	Dimensions								Min No Clips	Torque	Rope Turnbuckle	Weight
		A	B	C	D	E	F	G	H				
1/8*	M244	1/8-24UNC	23/32	7/16	15/32	13/32	3/8	13/16	15/16	2	4-1/2	3-1/4	5
3/16*	M245	1/4-20UNC	31/32	9/16	19/32	1/2	1/2	15/16	1-5/32	2	7-1/2	3-3/4	9
1/4	M246	5/16-18UNC	1-1/32	1/2	3/4	31/32	9/16	1-3/16	1-7/16	2	15	4-3/4	18
5/16	M247	3/8-16UNC	1-3/8	3/4	7/8	23/32	11/16	1-5/16	1-11/16	2	30	5-1/4	30
3/8	M248	7/16-14UNC	1-1/2	3/4	1	29/32	3/4	1-5/8	1-15/16	2	45	6-1/2	42
7/16	M249	1/2-13UNC	1-7/8	1	1-3/16	1-1/16	7/8	1-25/32	2-5/16	2	65	7	70
1/2	M250	1/2-13UNC	1-7/8	1	1-3/16	1-1/8	7/8	1-29/32	2-5/16	3	65	11-1/2	75
9/16	M296	9/16-12UNC	2-3/8	1-1/4	1-5/16	1-1/4	15/16	1-31/32	2-1/2	3	95	12	100
5/8	M251	9/16-12UNC	2-3/8	1-1/4	1-5/16	1-11/32	15/16	2	2-1/2	3	95	12	100
3/4	M252	5/8-11UNC	2-3/4	1-7/16	1-1/2	1-7/16	1-1/16	2-11/32	2-13/16	4	130	18	150
7/8	M253	3/4-10UNC	3-1/8	1-5/8	1-3/4	1-19/32	1-1/4	2-7/16	3-5/32	4	225	20	240
1	M254	3/4-10UNC	3-1/2	1-13/16	1-7/8	1-25/32	1-1/4	2-5/8	3-5/32	5	225	26	250
1-1/8	M255	3/4-10UNC	3-7/8	2	2	1-25/32	1-1/4	2-13/16	3-19/32	6	225	34	310
1-1/4	M256	7/8-9UNC	4-1/4	2-1/8	2-5/16	2-3/16	1-7/16	3-1/8	4-1/8	7	360	37	460
1-3/8	M257	7/8-9UNC	4-5/8	2-5/16	2-3/8	2-1/4	1-7/16	3-1/8	4-1/4	7	360	44	520
1-1/2	M258	7/8-9UNC	4-15/16	2-3/8	2-19/32	2-1/2	1-7/16	3-1/8	4-7/16	8	360	48	590

### Proper use of Wire Rope Clips

1. Refer to the chart above in following these instructions. Turn back specified amount of rope from thimble or loop. Apply first clip one base width from dead end of rope. Apply U-bolt over dead end of wire rope - live end rests in saddle. Tighten nuts evenly, alternate from one nut to the other until reaching the recommended torque.
2. When two clips are required, apply the second clip as near the thimble or loop as possible. Tighten nuts evenly, alternating until reaching the recommended torque. When more than two clips are required, apply the second clip as near the loop or thimble as possible, turn nuts on second clip firmly, but do not tighten. Proceed to Step 3.
3. When three or more clips are required, space additional clips equally between the first two - take up rope slack - tighten nuts on each U-bolt evenly, alternating from one nut to the other until reaching the recommended torque.
4. Apply an initial load equal to loads expected in use. Inspect for proper orientation and spacing of clips and retighten the nuts to recommended torque.



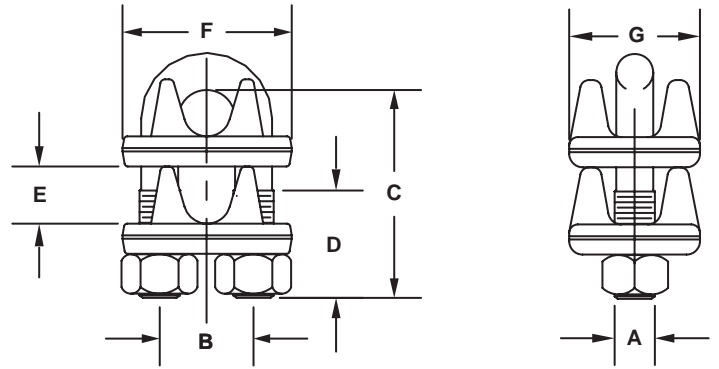
### ▲ WARNING ▲

Improper installation and use of wire rope clips can result in injury.

#### To avoid injury:

Install and use only as instructed herein.

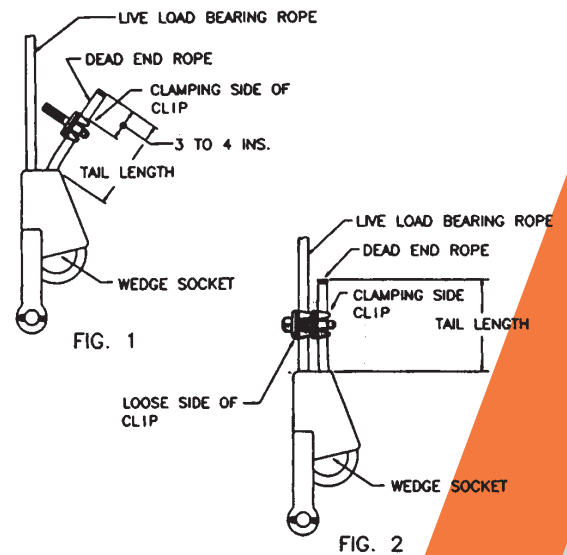
## Piggyback Wedge Socket Clips



Size	Product Code	Saddle	U-Bolt	Dimensions							Heavy Hex Nut galv.	Torque	Min. Tail	Weight
				A	B	C	D	E	F	G				
in.				in.	in.	in.	in.	in.	in.	in.		ft./lb.	in.	lb.
3/8	M248D	1X248	2X248L 7/16-14UNC	1.00	2.38	1.00	0.53	1.94	1.62	602224	45	6	0.8	
7/16	M249D	1X249	2X250L 1/2-13UNC	1.19	2.62	1.00	0.66	2.31	1.78	602225	65	6	1.3	
1/2	M250D	1X250	2X250L 1/2-13UNC	1.19	2.62	1.00	0.72	2.31	1.91	602225	65	6	1.4	
9/16	M296D	1X296	2X251L 9/16-12UNC	1.31	3.19	1.25	0.77	2.50	1.97	602226	95	6	1.7	
5/8	M251D	1X251	2X251L 9/16-12UNC	1.31	3.19	1.25	0.81	2.50	2.00	602226	95	6	1.7	
3/4	M252D	1X252	2X252L 5/8-11UNC	1.50	3.50	1.50	0.91	2.81	2.34	602227	130	6	2.5	
7/8	M253D	1X253	2X253L 3/4-10UNC	1.75	3.88	2.00	1.07	3.16	2.44	602228	225	6	3.6	
1	M254D	1X254	2X254L 3/4-10UNC	1.88	4.25	2.00	1.22	3.47	2.62	602228	225	6	3.9	
1-1/8	M255D	1X255	2X255L 3/4-10UNC	2.00	4.50	2.00	1.31	2.59	2.81	602228	225	6-3/4	4.9	
1-1/4	M256D	1X256	2X256L 7/8-9UNC	2.31	5.25	2.38	1.50	4.22	3.18	602246	360	7-1/2	6.5	
1-3/8	M257D	1X257	2X257L 7/8-9UNC	2.38	5.62	2.38	1.56	4.25	3.08	602246	360	8-1/4	7.1	
1-1/2	M258D	1X258	2X258L 7/8-9UNC	2.59	6.00	2.38	1.75	4.47	3.41	602246	360	9	8.2	

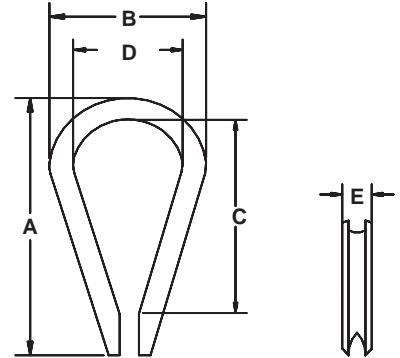
### Proper use of PiggyBack Wedge Socket Clips

1. Dead end wire rope tail length should be at least 6 rope diameters, but not less than 6 inches beyond the wedge socket. Figure 1.
2. Apply U-bolt and first saddle on dead end rope and the second saddle on live end rope. Install nuts. Figure 1 & 2
3. Position the dual saddle clip so that 3 to 4 inches of dead end rope remain beyond the clip. Figures 1 & 2.
4. Tighten nuts evenly. Alternate tightening each nut until reaching the required torque specified. Figure 2.
5. Check that clip does not pinch or clamp the live wire rope. Apply an initial test load equal to the loads expected in regular use. Be certain rope is secured properly in the wedge socket prior to any use.
6. Inspect for proper rope alignment with wedge socket and retighten the nuts to the specified torque.



# Wire Rope Attachments

## Thimbles



Rope Diameter	Product Code	Standard Pack	Dimensions					Weight	
			A	B	C	D	E		
in.			in.	in.	in.	in.	in.	lb.	
<b>Malleable Wire Rope Thimbles (Zinc Plated)</b>									
1/8	86095	100	1.94	1.06	1.31	0.69	0.25	0.035	
3/16	86195	100	1.94	1.06	1.31	0.69	0.31	0.035	
1/4	86295	100	1.94	1.06	1.31	0.69	0.38	0.035	
5/16	86395	100	2.13	1.25	1.5	0.81	0.44	0.040	
3/8	86495	50	2.38	1.47	1.63	0.94	0.53	0.070	
1/2	86695	50	2.75	1.75	1.88	1.13	0.69	0.125	
5/8	86895	25	3.50	2.38	2.25	1.38	0.91	0.345	
<b>Heavy Duty Wire Rope Thimbles (Hot Galvanized)</b>									
1/4	87296	25	2.19	1.50	1.63	0.88	0.41	0.075	
5/16	87396	25	2.50	1.81	1.88	1.06	0.5	0.140	
3/8	87496	25	2.88	2.13	2.13	1.13	0.66	0.250	
1/2	87696	25	3.63	2.56	2.75	1.50	0.84	0.510	
5/8	87896	10	4.25	3.00	3.25	1.75	1.00	0.750	
3/4	87906	10	5.00	3.50	3.75	2.00	1.25	1.470	
7/8	87916	10	5.50	4.00	4.25	2.25	1.38	1.850	





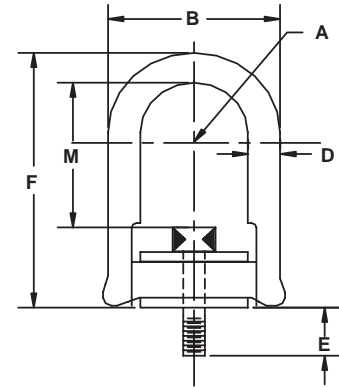
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# Hoist Rings

## Hoist Ring Forged



- Pivots 180° and swivels 360° simultaneously
- Back and side pins constructed of one piece of forged alloy steel
- 100% magnetic particle inspected
- Bale and center body are closed die forged to assure superior grain flow and consistent dimensional accuracy
- Large bale allows use of a variety of hook sizes



Product Code	Rated Load	Dimensions							Torque Load	Weight
		A	B	D	E	F	Thread	M		
	lb.	in.	in.	in.	in.	in.	in.	in.	Ft.-Load	lb.
433112	500	0.65	2.29	0.44	0.56	3.23	1/4-20	1.57	5	0.50
433212	800	0.65	2.29	0.44	0.56	3.23	5/16-18	1.51	7	0.52
433214	800	0.65	2.29	0.44	1.06	3.23	5/16-18	1.51	7	0.54
433312	1,000	0.65	2.29	0.44	0.56	3.23	3/8-16	1.45	12	0.56
433314	1,000	0.65	2.29	0.44	1.06	3.23	3/8-16	1.45	12	0.58
433512	2,500	1.00	3.50	0.75	0.75	5.31	1/2-13	2.56	28	1.71
433515	2,500	1.00	3.50	0.75	1.00	5.31	1/2-13	2.56	28	1.72
433516	2,500	1.00	3.50	0.75	1.25	5.31	1/2-13	2.56	28	1.82
433612	4,000	1.00	3.50	0.75	0.75	5.31	5/8-11	2.44	60	1.76
433614	4,000	1.00	3.50	0.75	1.00	5.31	5/8-11	2.44	60	1.78
433615	4,000	1.00	3.50	0.75	1.25	5.31	5/8-11	2.44	60	1.88
433714	5,000	1.00	3.50	0.75	1.00	5.31	3/4-10	2.31	100	1.89
433716	5,000	1.00	3.50	0.75	1.50	5.31	3/4-10	2.31	100	2.02
433102	7,000	1.40	5.10	1.00	1.20	7.00	3/4-10	3.20	100	7.23
433103	7,000	1.40	5.10	1.00	1.70	7.00	3/4-10	3.20	100	7.25
433101	8,000	1.40	5.10	1.00	1.20	7.00	7/8-9	3.07	160	7.33
433105	10,000	1.40	5.10	1.00	1.45	7.00	1-8	2.95	230	7.57
433106	10,000	1.40	5.10	1.00	1.70	7.00	1-8	2.95	230	7.63
433107	10,000	1.40	5.10	1.00	2.45	7.00	1-8	2.95	230	7.84
433401	15,000	2.00	6.75	1.25	2.63	9.22	1 1/4-7	3.74	470	16.00
433420	20,000	2.00	6.75	1.25	2.63	9.22	1 3/8-6	3.62	670	17.20
433424	24,000	2.00	6.75	1.25	2.63	9.22	1 1/2-6	3.49	800	18.10
433427	30,000	2.00	6.75	1.25	2.96	9.22	2-4.5	3.49	800	22.90
433432	30,000	2.00	6.75	1.25	2.96	9.22	2-8	3.49	800	22.90

### ⚠ WARNING ⚠

**Improper installation and use of hoist rings can cause injury**

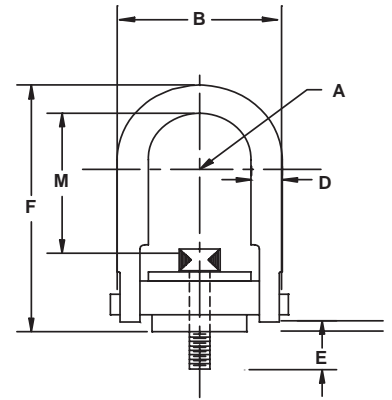
**To avoid injury:**

- Do not exceed rated load.
- Install rings per instructions. Verify full 360° seating - Retorque periodically.
- Consult angular lifting graph when lifting at other than 90°.

## Hoist Ring Machined



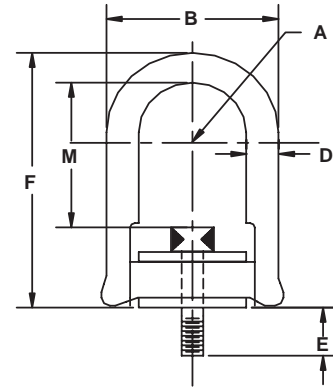
- Pivots 180° and swivels 360° simultaneously
- Bale and shoulder pin machined from alloy steel
- Patented design provides shoulder pin retention with specialized clip
- Easily disassembled for periodic non-destructive inspection
- Special available in stainless steel and metric sizes



Product Code	Rated Load	Dimensions							Weight
		A	D	E	F	Thread	H	M	
	lb.	in.	in.	in.	in.	in.	in.	in.	lb.
423050	550	0.43	0.38	0.29	2.67	1/4-20	1.84	1.33	0.30
423051	800	0.43	0.38	0.29	2.67	5/16-18	1.84	1.27	0.31
423052	800	0.43	0.38	0.54	2.67	5/16-18	1.84	1.27	0.31
423053	1,000	0.43	0.38	0.54	2.67	3/8-16	1.84	1.21	0.31
423301	2,500	0.70	0.50	1.07	3.77	1/2-13	2.58	1.84	1.00
423004	2,500	0.88	0.75	0.78	4.78	1/2-13	3.52	2.31	2.31
423322	2,500	0.88	0.75	0.78	6.72	1/2-13	3.52	4.25	2.75
423005	2,500	0.88	0.75	1.03	4.78	1/2-13	3.52	2.31	2.31
423323	2,500	0.88	0.75	1.03	6.72	1/2-13	3.52	4.25	2.00
423006	2,500	0.88	0.75	1.28	4.78	1/2-13	3.52	2.31	2.31
423324	2,500	0.88	0.75	1.28	6.72	1/2-13	3.52	4.25	2.75
423001	4,000	0.88	0.75	0.78	4.78	5/8-11	3.52	2.18	2.44
423002	4,000	0.88	0.75	1.03	4.78	5/8-11	3.52	2.18	4.44
423320	4,000	0.88	0.75	1.03	6.72	5/8-11	3.52	4.12	2.88
423003	4,000	0.88	0.75	1.28	4.78	5/8-11	3.52	2.18	2.44
423321	4,000	0.88	0.75	1.28	6.72	5/8-11	3.52	4.12	2.88
423007	5,000	0.88	0.75	1.03	4.78	3/4-10	3.52	2.06	2.56
423009	5,000	0.88	0.75	1.53	4.78	3/4-10	3.52	2.06	2.56
423327	5,000	0.88	0.75	1.53	6.72	3/4-10	3.52	4.00	3.00
423102	7,000	1.40	1.00	1.04	6.52	3/4-10	5.14	3.06	6.63
423329	7,000	1.40	1.00	1.04	8.11	3/4-10	5.14	4.65	7.25
423103	7,000	1.40	1.00	1.54	6.52	3/4-10	5.14	3.06	6.63
423330	7,000	1.40	1.00	1.54	8.11	3/4-10	5.14	4.65	6.63
423101	8,000	1.40	1.00	1.04	6.52	7/8-9	5.14	2.93	6.75
423328	8,000	1.40	1.00	1.04	8.11	7/8-9	5.14	4.52	6.75
423105	10,000	1.40	1.00	1.29	6.52	1-8	5.14	2.81	7.00
423331	10,000	1.40	1.00	1.29	8.11	1-8	5.14	4.40	7.00
423332	10,000	1.40	1.00	1.54	8.11	1-8	5.14	4.40	7.00
423106	10,000	1.40	1.00	1.54	6.52	1-8	5.14	2.81	7.00
423107	10,000	1.40	1.00	2.29	6.52	1-8	5.14	2.81	7.00
423333	10,000	1.40	1.00	2.29	8.11	1-8	5.14	4.4	7.00
423401	15,000	1.75	1.25	1.89	8.73	1-1/4-7	6.50	4.12	14.00
423202	24,000	2.25	1.75	2.70	12.47	1-1/2-6	8.55	6.41	33.75
423200	30,000	2.25	1.75	2.96	12.47	2-4-1/2	8.55	5.41	36.00
423501	50,000	3.00	2.25	4.00	16.87	2-1/2-8	11.67	8.03	87.50
423503	50,000	3.00	2.25	4.00	16.87	2-1/2-4	11.67	8.03	87.50
423600	75,000	3.75	2.75	5.20	19.50	3-4	14.15	8.48	166.00
423701	100,000	4.00	3.25	7.00	22.09	3.5-4	15.90	9.28	240.00

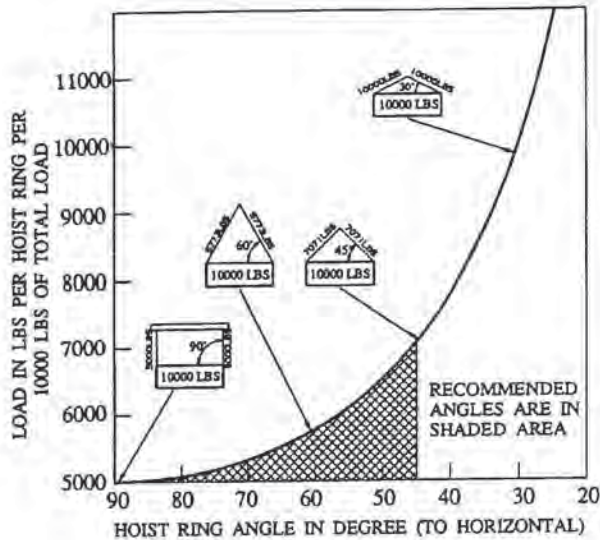
# Hoist Rings

## Hoist Ring (Metric)

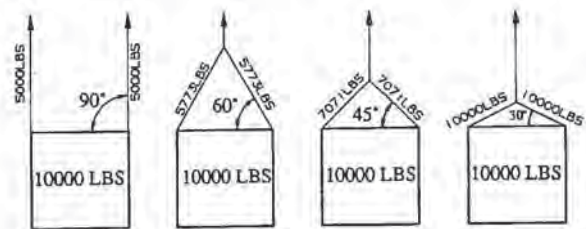


Product Code	Rated Load	Dimensions							Torque Load N.M.	Weight
		A	B	D	E	F	Thread	M		
	<b>Kg</b>	<b>mm</b>	<b>mm</b>	<b>mm</b>	<b>mm</b>	<b>mm</b>		<b>mm</b>		<b>Kg</b>
434212	400	16.50	58.20	11.10	16.00	82.00	M8 x 1.25	38.50	9.50	0.24
434214	400	16.50	58.20	11.10	21.00	82.00	M8 x 1.26	38.50	9.50	0.25
434312	450	16.50	58.20	11.10	16.00	82.00	M10 x 1.5	36.50	16.00	0.25
434314	450	16.50	58.20	11.10	26.00	82.00	M10 x 1.5	36.50	16.00	0.26
434515	1,050	25.40	88.90	19.10	25.00	134.90	M12 x 1.75	65.00	37.00	0.78
434516	1,050	25.40	88.90	19.10	32.00	134.90	M12 x 1.75	65.00	37.00	0.83
464614	1,900	25.40	88.90	19.10	25.00	134.90	M16 x 2.0	62.00	80.00	0.81
464615	1,900	25.40	88.90	19.10	32.00	134.90	M16 x 2.0	62.00	80.00	0.85
434714	2,200	25.40	88.90	19.10	25.00	134.90	M20 x 2.5	58.70	135.00	0.86
434716	2,200	25.40	88.90	19.10	38.00	134.90	M20 x 2.5	58.70	135.00	0.92
434101	3,000	35.60	129.50	25.40	28.00	177.80	M20 x 2.5	81.00	135.00	3.14
434102	4,200	35.60	129.50	25.40	28.00	177.80	M24 x 3.0	76.30	311.00	3.29
434103	4,200	35.60	129.50	25.40	38.00	177.80	M24 x 3.0	76.30	311.00	3.30
434105	4,500	35.60	129.50	25.40	38.00	177.80	M30 x 3.5	70.30	311.00	3.44
434107	4,500	35.60	129.50	25.40	48.00	177.80	M30 x 3.5	70.30	311.00	3.55
434401	7,000	50.80	171.50	31.80	67.00	234.20	M30 x 3.5	95.00	637.20	7.26
434402	11,000	50.80	171.50	31.80	67.00	234.20	M36 x 4.0	88.60	1085.50	8.21
434403	12,500	50.80	171.50	31.80	80.00	234.20	M42 x 4.5	88.60	1085.50	10.14
434404	13,500	50.80	171.50	31.80	80.00	234.20	M48 x 5.0	88.60	1085.50	10.59

Angular Lifting Graph



Effect of Hoist Ring Angle on Load

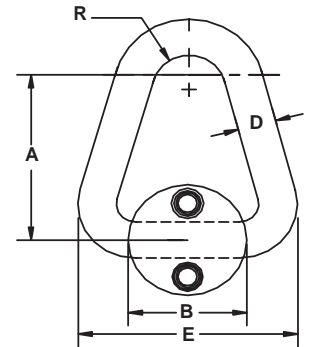


**INSTALLATION INSTRUCTIONS:** Drill and tap workpiece for hoist ring screw with axis vertical to mounting surface. Work surface should be flat and smooth to provide full 360° flush seating for the bushing flange. (SAFETY NOTE: Some loosening may develop after prolonged service in a permanent installation. It is advisable to periodically re-tighten the mounting screw to maintain the specified torque value.) The use of free fit spacers between the bushing flange and mounting surface is not recommended as this will reduce the safe load rating on angularly applied loads. Hoist ring must be free to swivel 360° and pivot 180° at all times.

## Hoist Ring Swivel



- Hoist Rings are heat treated
- 6:1 design factor
- Screws are not included

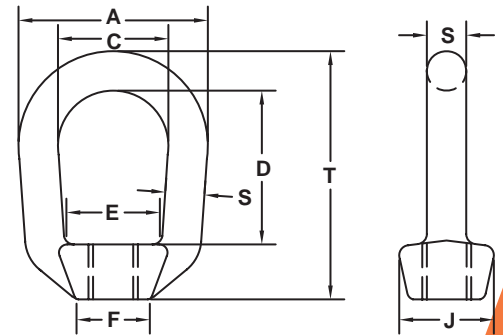


Product Code	Rated Load	Dimensions					Torque Load	Weight	High Strength Screws		
		A	B	D	E	R			Product Code	Screw Thread	Screw Length
	lb.	in.	in.	in.	in.	in.	Ft.-Load	lb.			in.
434030	2,000	2	1-3/4	5/16	2-1/2	1/2	4-7	1.72	423812	43,236	1.25
434035	2,500	2-1/2	2-1/4	3/8	3-3/16	5/8	7-10	1.82	423813	42,437	1.25
434040	5,500	3	2-5/8	1/2	3-7/8	3/4	20-25	1.89	423804	41,276	2.00
434045	12,000	4	3-1/8	3/4	5-1/4	7/8	20-25	2.50	423805	41,276	2.25
434050	20,000	5	3-5/8	1	6-3/16	1	42-50	6.80	433645	40,671	2.75

## Tapped Eye Nuts



- Forged steel
- Heat treated
- Meets the requirements of ASME B30.26
- Hot galvanized per ASTM A153



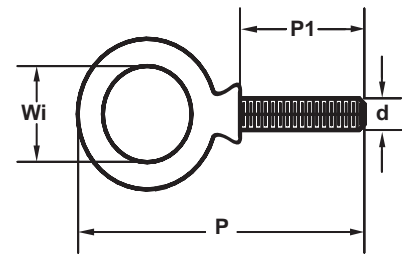
Size S	Working Load Limit	Product Code			Thread Hole	Dimensions							Weight
		Galvanized	Self Colored	As Forged		A	C	D	E	F	J	T	
in.	lb.					in.	in.	in.	in.	in.	in.	in.	lb.
3/8	2,250	M2602	M2602SC	1X2102	1/2 - 13	2.00	1.250	1.812	1.000	0.88	1.063	2.87	0.30
1/2	3,600	M2603	M2603SC	1X2103	5/8 - 11	2.50	1.500	2.063	1.160	0.94	1.312	3.31	0.58
5/8	5,200	M2604	M2604SC	1X2104	3/4 - 10	3.00	1.750	2.437	1.375	1.19	1.500	4.00	0.97
3/4	7,200	M2607	M2607SC	1X2107	7/8 - 9	3.50	2.000	2.687	1.625	1.31	1.875	4.50	1.76
1	15,500	M2609	M2609SC	1X2109	1 1/4 - 7	4.75	2.750	3.531	2.000	1.50	2.062	5.88	3.81
1-1/8	18,500	M2611	M2611SC	1X2111	1 3/8 - 6	5.50	3.250	3.875	2.531	2.06	3.000	6.73	6.25

# Shoulder Eyebolts

## Shoulder Eyebolts



- Forged Steel
- Heat treated, quenched & tempered
- Meets IFI standards, ASTM A 489, ANSI/ASME, B18.15



Shank Diameter	Product Code	Working Load Limit	Dimensions				Weight
			Wi	P1	P	d Thread (UNC-2A)	
in.		lb.	in.	in.	in.	in.	lb.
1/4	456920	500	0.750	1.000	2.39	1/4 - 20	0.06
5/16	456921	900	0.870	1.120	2.80	5/16 - 18	0.11
3/8	456922	1,300	1.000	1.250	3.22	3/8 - 16	0.18
7/16	496933	1,800	1.094	1.375	3.59	7/16 - 14	0.22
1/2	456923	2,400	1.188	1.500	3.96	1/2 - 13	0.35
5/8	456924	4,000	1.375	1.750	4.69	5/8 - 11	0.70
3/4	456925	5,000	1.500	2.000	5.28	3/4 - 10	1.10
7/8	456926	7,000	1.690	2.500	6.04	7/8 - 9	1.70
1	456927	9,000	1.810	2.500	6.67	1 - 8	2.36
1-1/8	456930	12,000	2.000	2.750	7.44	1 1/8 - 7	3.98
1-1/4	456928	15,000	2.180	3.000	8.12	1 1/4 - 7	4.68
1-1/5	456929	21,000	2.500	3.500	9.49	1 1/2 - 6	7.77

### Note:

- Do not exceed the working load limit - reduce the working load limit according to the adjacent table if loading other than true vertical. Inspect eyebolts before use. Do not use if bent more than 15° or if wear of more than 10% of original dimension is evident.
- Install with shoulder at 90° to axis of hole to assure total contact of shoulder. Torque nut/eyebolt to assure proper seating. Check seating after initial loading.
- If installing in tapped hole, make sure depth of thread engagement is at least 1-1/2 times bolt diameter. Thread fit must also be good-tight, not loose-sloppy.
- Where eyebolts must be aligned, a washer or shim may be placed under the shoulder to permit alignment when tightened.
- To minimize the bending movement, always apply load in the direction of the plane of eye. Reduce working load limit according to table if loading other than true vertical
- Never insert a hook tip in an eyebolt to load.
- Do not use a sling reeved through an eyebolt or a pair of eyebolts using a shackle.

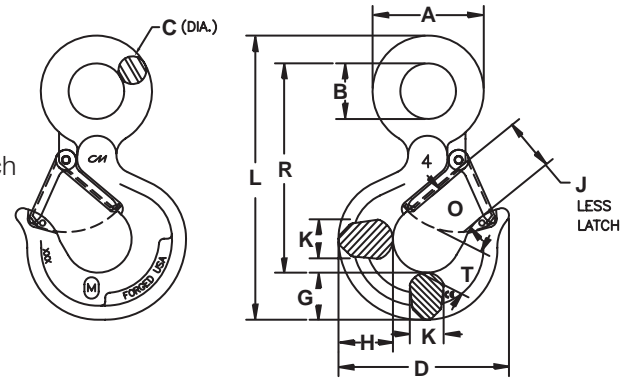
Shoulder Eyebolt Working Load Limit				
Angle of Loading				
True Vertical	75°	65°	45°	Less than 45°
Full working load limit	55% of full WLL	35% of full WLL	25% of full WLL	DO NOT USE
Refer to Full Specifications for Full Working Load Limits				

**If in doubt, consult a rigging handbook or discuss with a qualified person**

## Rigging Hook



- Built in distortion detectors
- Load rating marked on each hook body
- Proof load 2 times WLL
- Design factor 5:1
- Pre-drilled latch tab allows addition of latch
- Carbon hooks have a clear protective coating to resist rust and for cleaner handling (use suffix "C" when ordering carbon clear finish, use suffix "G" when ordering hot dip galvanized)

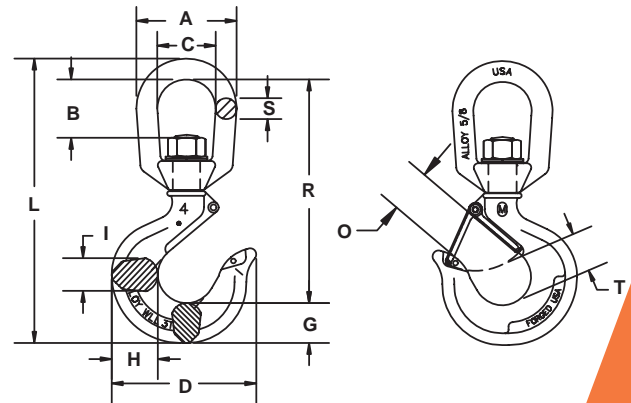


Alloy			Carbon			Dimensions												Weight
WLL	Product Code w/o latch	Product Code w/ latch	WLL	Product Code w/o latch	Product Code w/ latch	A	B	C	D	G	H	J	K	L	O	R	T	
ton			ton			in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
1	M6402A	M6502A	3/4	M6402C	M6502C	1.50	0.75	0.38	3.06	0.87	1.05	0.93	0.63	4.37	0.93	3.13	0.87	0.66
1-1/2	M6403A	M6503A	1	M6403C	M6503C	1.75	0.88	0.44	3.33	0.94	1.11	0.97	0.71	5.04	0.97	3.66	0.97	1.12
2	M6404A	M6504A	1-1/2	M6404C	M6504C	2.13	1.13	0.50	3.67	1.06	1.21	1.06	0.88	5.63	1.06	4.09	1.03	1.46
3	M6405A	M6505A	2	M6405C	M6505C	2.50	1.25	0.63	4.20	1.27	1.43	1.19	0.94	6.55	1.16	4.67	1.16	2.42
5	M6407A	M6507A	3	M6407C	M6507C	3.06	1.56	0.75	5.11	1.44	1.63	1.50	1.31	7.97	1.41	5.78	1.53	4.10
7	M6409A	M6509A	5	M6409C	M6509C	3.88	2.00	0.94	6.24	1.82	2.01	1.78	1.68	10.07	1.69	7.31	1.94	8.16
11	M6411A	M6511A	7-1/2	M6411C	M6511C	4.69	2.44	1.13	7.89	2.25	2.63	2.38	1.88	12.41	2.19	9.03	2.52	15.60
15	M6415A	M6515A	10	M6415C	M6515C	5.34	2.84	1.25	8.37	2.59	2.94	2.50	2.19	14.05	2.30	10.21	2.54	21.58
22	M6422A	M6522A	15	M6422C	M6522C	6.63	3.50	1.56	10.19	3.00	3.50	3.30	2.69	17.37	3.12	12.81	2.73	39.89

## Swivel Rigging Hook



- Design factor 5:1
- Pre-drilled for latches
- Hook and latch assemblies furnished separately
- Powder coated orange
- Carbon swivel hooks are technically advanced Micro-alloy which requires no secondary heat treat
- Alloy swivel hooks are heat treated quenched and tempered



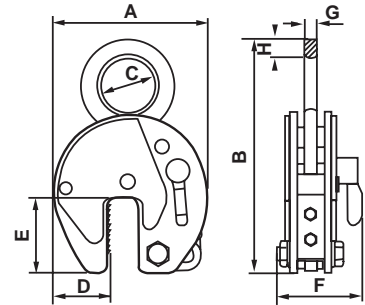
Alloy			Carbon			Dimensions												Weight
WLL	Product Code w/o latch	Product Code w/ latch	WLL	Product Code w/o latch	Product Code w/ latch	A	B	C	D	G	H	I	L	R	S	T	O	
ton			ton			in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
1	M3402A	M3502A	3/4	M3402C	M3502C	2.00	1.11	1.25	3.06	0.87	1.05	0.63	5.83	4.63	0.38	0.87	0.93	1.05
1-1/2	M3403A	M3503A	1	M3403C	M3503C	2.50	1.38	1.50	3.33	0.94	1.11	0.71	6.83	5.44	0.50	0.97	0.97	1.56
2	M3404A	M3504A	1-1/2	M3404C	M3504C	3.00	1.65	1.75	3.67	1.06	1.21	0.88	7.76	6.25	0.63	1.03	1.06	2.50
3	M3405A	M3505A	2	M3405C	M3505C	3.00	1.65	1.75	4.20	1.27	1.43	0.94	8.40	6.49	0.063	1.16	1.16	3.20
5	M3407A	M3507A	3	M3407C	M3507C	3.50	1.77	2.00	5.11	1.44	1.63	1.31	9.76	7.53	0.75	1.53	1.41	5.36
7	M3409A	M3509A	5	M3409C	M3509C	4.75	2.39	2.75	6.24	1.82	2.01	1.68	12.42	9.67	1.00	1.94	1.69	10.56
11	M3411A	M3511A	7-1/2	M3411C	M3511C	5.50	2.55	3.25	7.69	2.25	2.63	1.88	14.89	12.06	1.13	2.46	2.22	19.00
15	M3415A	M3515A	10	M3415C	M3515C	6.00	2.47	3.50	8.37	2.59	2.94	2.19	15.79	11.95	1.25	2.62	2.23	26.75
22	M3422A	M3522A	15	M3422C	M3522C	7.75	3.82	4.75	10.19	3.00	3.50	2.69	21.18	16.68	1.50	2.74	3.05	51.80

# Camlok Clamps

## CZ Universal Plate Clamp



- Body of clamp is welded construction
- Can be used to lift plate from horizontal to vertical position and vice versa
- Standard clamp is fitted with a hook ring that can be replaced with a short length of chain and master link
- Clamp jaws and pads are manufactured from high tensile steel



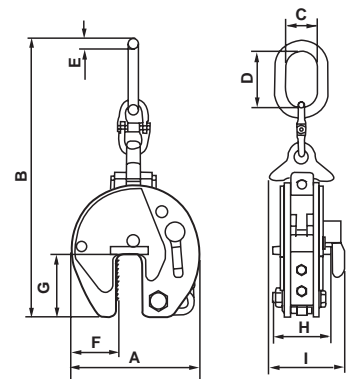
Model	Working Load Limit		Jaw Capacity	Dimensions								Weight	
	Min	Max		A	B	C	D	E	F	G	H		
	lb.	lb.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
CZ920.5	120	1,100	0 to 5/8	3.898	7.677	1.142	1.299	1.850	1.969	1.890	0.433	3.3	
CZ921.5	350	3,300	0 to 3/4	4.961	8.858	1.969	1.929	2.756	3.228	2.165	0.472	6.6	
CZ922	450	4,400	0 to 1-1/4	7.559	12.283	3.150	2.953	3.780	3.937	3.189	0.787	17.6	
CZ923	675	6,600	0 to 1-1/4	7.559	12.283	3.150	2.953	3.780	3.937	3.189	1.181	22.0	
CZ924	1,100	8,800	0 to 1-1/4	7.756	14.606	3.150	2.677	3.661	5.079	0.787	1.181	26.5	
CZ924/L*	1,100	8,800	1-1/8 to 2-3/8	8.976	15.354	3.150	2.677	3.661	5.079	0.787	1.181	39.7	
CZ926	1,600	13,200	0 to 2	11.535	19.055	3.504	3.740	5.630	5.079	0.984	1.378	46.3	
CZ928	2,150	17,600	0 to 2	11.535	19.370	3.504	3.740	5.630	5.079	0.984	1.654	57.3	
CZ928/L*	2,150	17,600	2 to 4	14.252	20.630	3.504	4.488	5.630	5.079	0.984	1.654	70.5	
CZ9210	3,350	22,000	0 to 2	11.535	21.457	4.331	3.740	5.630	5.472	0.984	1.772	66.1	
CZ9210/L	3,350	22,000	2 to 4	14.252	21.457	4.331	4.488	5.630	5.472	0.984	1.772	81.6	
CZ9215*	6,650	33,000	0 to 2	14.173	24.134	5.118	4.921	6.378	8.031	1.772	2.165	165.3	
CZ9215/L*	6,650	33,000	2 to 4	18.110	26.693	5.118	6.890	6.378	8.031	1.772	2.165	194.0	
CZ9220*	8,850	44,000	0 to 2-1/2	18.189	29.724	5.118	6.496	8.268	9.252	1.772	2.559	271.2	
CZ9220/L*	8,850	44,000	2-1/2 to 5	22.047	31.693	5.118	7.677	8.268	9.252	1.772	2.559	299.8	
CZ9230*	13,250	66,000	0 to 2-1/2	18.189	28.819	2.362	6.496	8.268	11.614	2.559	-	429.9	

\*Not Stocked

## CX Heavy-Duty Hinged Universal Plate Clamp



- Can be used to lift plate from horizontal to vertical position and vice versa
- Vertically racked plates can be turned over due to the in-built lifting eye and link
- Fitted with a cam operated closing mechanism that can be replaced with a chain pull open/close mechanism



Model	Working Load Limit		Jaw Capacity	Dimensions									Weight	
	Min	Max		A	B	C	D	E	F	G	H	I		
	lb.	lb.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
CX3	1,000	6,600	0 to 1-1/4	7.756	20.276	2.638	5.433	0.748	2.677	3.661	3.189	4.331	26.5	
CX6	2,650	13,200	0 to 2	11.496	29.016	3.740	6.929	1.102	3.740	5.630	5.394	7.402	83.8	
CX6/L*	2,650	13,200	2 to 4	14.449	30.906	3.858	7.087	1.102	4.528	5.630	5.315	7.402	105.8	
CX8*	3,550	17,600	0 to 2	11.496	29.016	3.858	6.929	1.102	3.740	5.630	5.354	8.268	86.0	
CX8/L*	3,550	17,600	2 to 4	14.449	30.906	3.858	7.087	1.102	4.528	5.630	5.354	8.268	112.4	
CX10*	4,400	22,000	0 to 2	14.173	35.551	4.331	7.677	1.299	4.921	6.378	6.693	8.780	134.5	
CX10/L*	4,400	22,000	2 to 4	17.559	36.260	4.409	7.677	1.299	6.614	6.378	6.693	8.780	167.5	

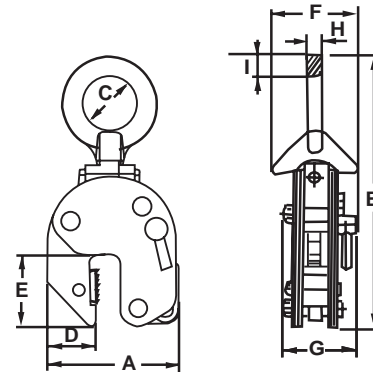
\*Not Stocked





## CY Hinged Universal Plate Clamp

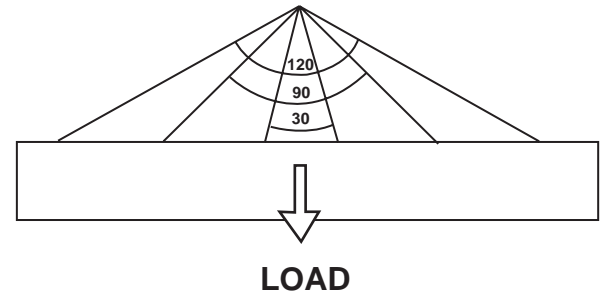
- Can be used to lift plate from horizontal to vertical position and vice versa
- Fitted with a cam operated closing mechanism that can be replaced with a chain pull open/close mechanism
- Fitted with hardened serrated teeth jaws and pads that are suitable for gripping steel



Model	Working Load Limit		Jaw Capacity	Dimensions								
	Min	Max		A	B	C	D	E	F	G	H	I
	lb.	lb.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.
CY1	450	2,200	0 to 3/4	4.961	10.630	1.969	1.929	2.756	3.740	2.480	0.472	0.906
CY2	900	4,400	0 to 1-1/4	7.559	15.039	3.150	2.953	3.780	5.197	3.622	0.787	1.181
CY3	1,350	6,600	0 to 1-1/4	7.559	15.039	3.150	2.953	3.780	5.197	3.622	0.787	1.181

## Safe loads for two clamps

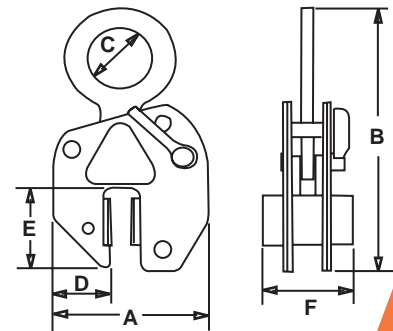
Angle	Model Code		
	CY1	CY2	CY3
degrees	lb.	lb.	lb.
0-30	4,400	8,800	13,200
30-90	2,200	4,400	6,600
90-120	1,100	2,200	3,300



## LJ Gentle Grip Clamp



- Designed to lift plates without marking or damaging the surface finish
- Particularly suitable for lifting thin gauge steel plate, aluminum and stainless steel



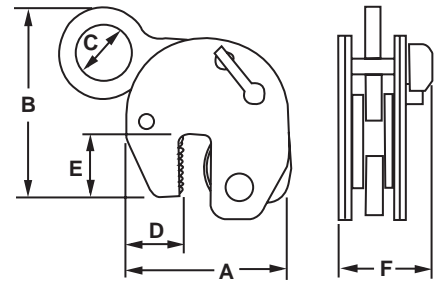
Model	Working Load Limit		Jaw Capacity	Dimensions						Weight
	Min	Max		A	B	C	D	E	F	
	lb.	lb.	in.	in.	in.	in.	in.	in.	in.	lb.
LJ0.5	60	1,100	0 to 3/8	5.000	7.874	2.165	2.047	2.717	2.992	7.7
LJ1.5	400	3,300	0 to 3/4	8.465	13.583	3.346	2.953	5.315	4.646	26.5

# Camlok Clamps

## TTR Girder Clamp



- Designed to lift and transport structural steel beams in horizontal position
- Clamp designed with the hook as near as possible to the center of gravity of the beam
- Long beams should be lifted using 2 clamps attached to opposite beam flanges



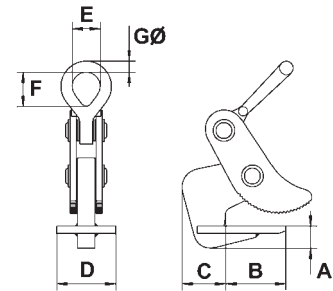
Model	Working Load Limit		Flange	Dimensions						Weight
	Min	Max		A	B	C	D	E	F	
	lb.	lb.	in.	in.	in.	in.	in.	in.	in.	lb.
TTRO.75	90	1,600	1/4 to 5/8	5.375	7.500	2.000	1.750	2.375	3.500	7.7
TTR1.5	350	3,300	1/4 to 1	7.500	10.625	2.625	2.625	3.000	4.875	22.0
TTR3*	700	6,600	1/4 to 1	8.250	9.875	3.500	2.625	3.375	5.000	26.5

\*Not Stocked

## CH Heavy Duty Horizontal Plate Clamp



- Used in pairs the CH clamp is designed for loading process machines and to lift and transport sheet steel plate in horizontal position
- Standard smooth jaw can be replaced with serrated hardened steel teeth by request
- Designed to be used with 2 legged slings only



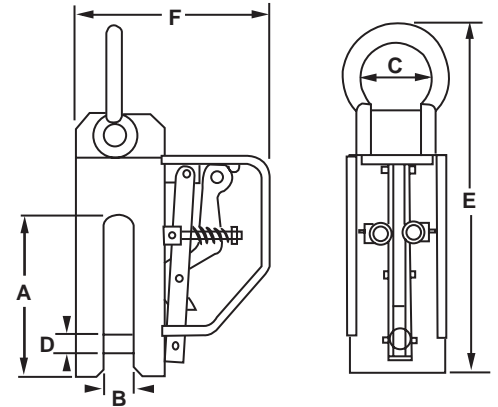
Model	Working Load Limit (per pair)	Jaw Capacity	Dimensions							Weight (per pair)
			A	B	C	D	E	F	G	
	lb.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
CH1	2,200	1/4 to 1-1/4	1.181	3.228	2.362	3.937	1.260	1.732	0.512	13.2
CH2	4,400	1/4 to 1-1/4	1.181	3.228	2.362	3.937	1.969	2.874	0.709	24.3
CH2/L	4,400	3/4 to 2	1.181	3.228	2.362	3.937	1.969	2.874	0.709	26.5
CH4	8,800	1/4 to 1-1/4	1.575	4.409	3.150	3.937	2.520	3.622	0.984	37.5
CH4/L	8,800	2 to 4	1.575	4.409	3.150	3.937	2.520	3.622	0.984	50.7
CH6	13,200	1/4 to 3	2.165	6.772	3.937	5.118	3.543	5.118	1.378	101.4
CH6/L	13,200	2 to 5	2.165	6.772	3.937	5.118	3.543	5.118	1.378	123.5
CH8	17,600	1/4 to 3	2.165	6.772	4.134	5.118	3.543	5.118	1.378	116.8
CH8/L	17,600	2 to 5	2.165	6.772	4.134	5.118	3.543	5.118	1.378	132.3
CH10	22,000	1/4 to 4	2.559	8.465	4.724	5.906	4.488	5.118	1.378	209.4
CH10/L	22,000	2 to 6	2.559	8.465	4.724	5.906	4.488	5.118	1.378	238.1
HH8*	17,600	1/4 to 2	2.165	6.614	4.134	5.118	4.134	5.118	3.543	46.3
HH8/L	17,600	2 to 4	2.165	6.614	4.134	5.118	3.543	4.488	1.378	61.7

\*Not Stocked

## CP Pile Pinching Clamp



- Designed specifically for pinching sheet steel piling and have the advantage that a rope is fitted for easy release from ground level
- Perfect designed clamp for heavy construction
- Rope is fitted for easy release from the ground
- These are not designed to extract driven piles, use the PP series clamps for this



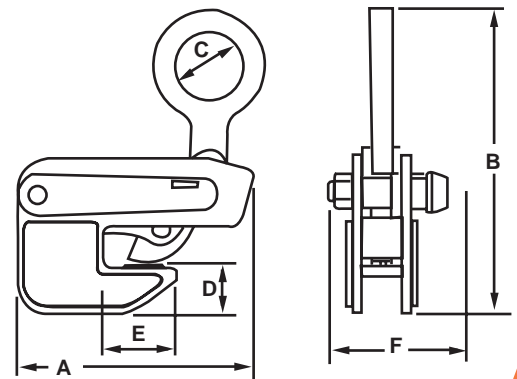
\*These clamps are not designed to extract a driven pile and must NOT be used for this under and circumstance.

Model	Working Load Limit	Dimensions						Weight
		A	B	C	D	E	F	
	lb.	in.	in.	in.	in.	in.	in.	lb.
CP2	4,400	8.976	0.787	2.000	0.787	16.750	8.500	41.9
CP3	6,600	8.976	1.024	2.500	1.181	17.875	8.875	50.7
CP5	11,000	8.976	1.378	3.250	1.181	19.875	9.500	72.8

## TTG Horizontal Girder Clamp



- Designed to lift and transport structural steel beams in horizontal position
- Fitted with a Camlok spring operated safety lock and is operated by pulling the lock upwards
- Long beams should be lifted using 2 clamps attached to opposite beam flanges



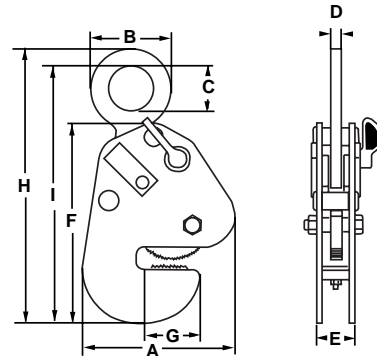
Model	Working Load Limit		Plate	Dimensions						Weight
	Min	Max		A	B	C	D	E	F	
	lb.	lb.	in.	in.	in.	in.	in.	in.	in.	lb.
TTG1.5	200	3,300	0 to 1-1/8	9.000	10.875	3.750	1.750	2.750	4.000	12.1
TTG3	350	6,600	0 to 1-3/8	11.125	11.625	3.125	2.125	2.875	4.500	24.3
TTG4.5*	1,000	9,900	0 to 1-1/2	12.375	13.250	3.500	2.375	3.000	4.625	32.0
TTG7.5*	1,650	16,500	0 to 1-3/4	14.500	15.000	4.375	2.500	3.625	6.625	61.7

\*Not Stocked

## CG Girder Turning Clamps



- Can be used on Beams, Fabrications, Channels, RSJ's
- Can lift and turn beams up to 90°
- Fitted with a cam/spring operated safety lock
- Long lengths of beam should use 2 clamps

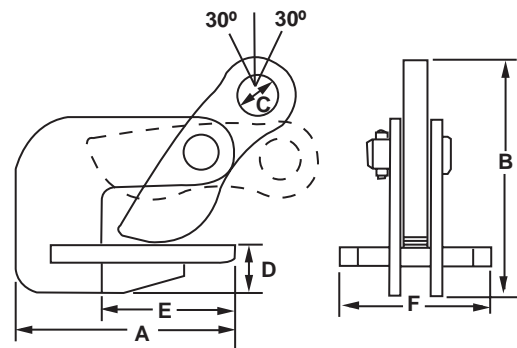


Model	Working Load Limit		Jaw Capacity	Dimensions									Weight
	Min	Max		A	B	C	D	E	F	G	H	I	
	lb.	lb.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
CG1	250	2,200	0 to 5/8	8.307	3.543	1.969	0.512	1.693	10.354	2.520	13.780	13.268	13.2
CG2	450	4,400	0 to 1-1/4	11.417	5.512	3.150	0.787	2.362	12.480	3.937	18.307	17.126	30.9
CG4	900	8,800	0 to 1-1/4	11.417	6.339	3.504	0.787	3.031	12.835	4.252	20.591	18.976	41.9
CG6	1,350	13,200	7/16 to 2	13.268	6.732	3.504	0.984	4.055	14.764	5.709	21.693	20.630	81.6

## THK Horizontal



- Designed to lift and transport structural steel beams in horizontal position
- Supplied with reverse jaw to insure grip increase as load is applied
- Long beams should be lifted using 2 clamps attached to opposite beam flanges

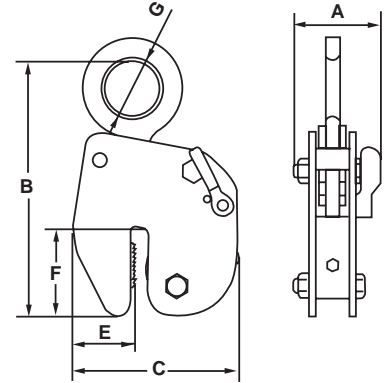


Model	Working Load Limit (per pair)		Plate	Dimensions						Weight (per pair)
	Min	Max		A	B	C	D	E	F	
	lb.	lb.	in.	in.	in.	in.	in.	in.	in.	lb.
THKO.75	90	1,600	0 to 1	4.625	5.375	0.750	1.000	2.875	3.125	6.6
THK1.5	200	3,300	0 to 1-3/8	5.375	6.625	1.000	1.250	3.125	3.500	13.2
THK4.5*	500	9,900	0 to 1-3/4	8.625	8.625	1.750	4.000	4.375	4.375	35.3
THK6.0*	700	13,200	0 to 2-3/8	8.375	10.500	1.375	1.875	4.875	4.375	50.7
THK9	1,000	19,800	0 to 2-3/8	8.750	11.375	1.625	2.250	4.500	5.500	77.2

## HG



- Can be used on hot rolled structural steel plates
- Can be used to lift stainless steel plates or plates with harden surfaces due to cold rolling
- Lift plates from horizontal to vertical positions and vice versa through 180°
- Clamp has serrated teeth and will mark plate



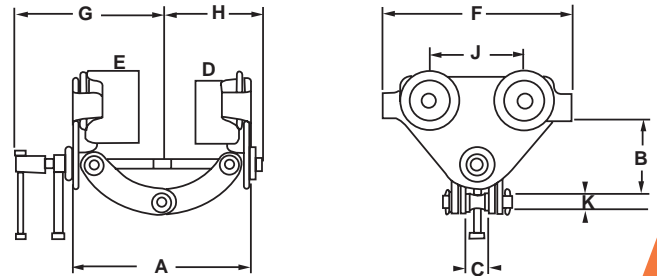
Model	Working Load Limit		Jaw Capacity	Dimensions						Weight
	Min	Max		A	B	C	E	F	G	
	lb.	lb.	in.	in.	in.	in.	in.	in.	in.	lb.
HG0.5	100	1,100	0 to 3/8	1.654	9.055	5.827	2.165	3.110	1.969	11.0
HG1	150	2,000	0 to 5/8	3.661	11.698	8.268	2.638	4.488	2.638	26.5
HG2	450	4,400	0 to 3/4	4.331	16.378	12.008	4.016	6.260	3.150	48.5
HG3*	700	6,600	0 to 3/4	4.331	16.378	12.008	4.016	6.260	3.150	59.5
HG4*	900	8,800	0 to 3/4	4.724	13.189	12.008	4.016	6.220	3.150	70.5

\*Not Stocked

## CTP



- Adjustable to fit various flange widths
- Pre lubricated ball bearings on each unit
- Easily attaches Hoist, Pulleys and Slings

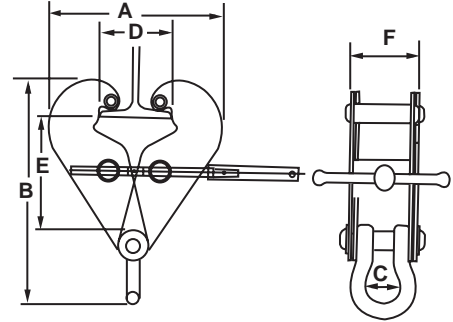


Model	Working Load Limit	Jaw Capacity	Min Curve Radius	Dimensions												Weight
				A		B		C	D	E	F	G	H	J	K	
				Min	Max	Min	Max									
lb.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.	
CTP1	2,200	2-3/8 to 5-7/8	0.035	3.740	7.283	3.228	4.291	1.024	2.598	2.874	6.299	6.024	4.134	2.953	0.866	4.9
CTP2	4,400	3 to 7-7/8	0.045	4.921	9.843	4.173	6.102	1.654	3.543	3.937	10.236	8.071	5.472	5.118	0.787	21.8
CTP3	8,800	3 to 7-7/8	0.055	5.315	10.236	5.039	6.732	1.969	4.331	4.921	12.205	8.661	6.102	5.906	0.866	38.6

## Screwlok Beam Clamp with Shackles

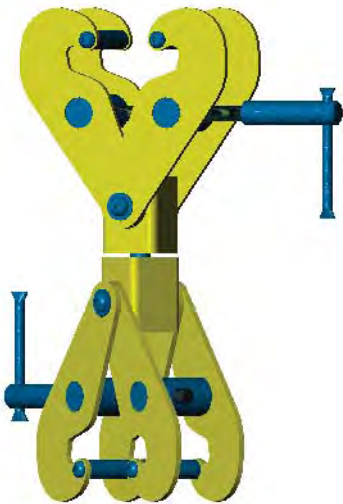


- Designed to fit flanges of most structural beams
- Act as a semi-permanent lifting point for use with manual or electric hoists
- Shackle incorporated for load suspension



Model	Working Load Limit	Flange	Dimensions						Weight
			A	B	C	D	E	F	
	lb.	in.	in.	in.	in.	in.	in.	in.	lb.
SC921	2,200	3 to 8-1/4	12.625	12.125	1.750	8.250	5.375	2.625	11.0
SC922	4,400	3 to 8-1/4	12.625	12.875	1.750	8.250	5.375	2.875	13.5
SC923	6,600	4 to 10-5/8	16.125	14.750	1.750	10.625	6.500	4.000	17.5
SC923/	6,600	3 to 12	17.375	16.500	1.750	12.000	8.625	4.000	20.0
SC925	11,000	4 to 10-5/8	16.125	15.375	2.125	10.625	8.500	4.375	22.0
SC925/	11,000	3 to 12	17.125	17.125	2.125	12.000	8.625	4.375	26.5
SC9210	22,000	3 to 12	18.125	20.000	3.250	12.000	8.625	4.375	35.5

## SC Series Twin Beam Clamp



- Enables one beam to be suspended beneath another
- Quickly and easily attaches to both beams
- Supplied fixed at parallel, at 90 degrees to each other or with swivel that allows 360 degree rotation
- Used for supporting vertical loads only

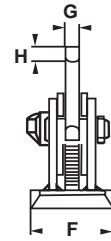
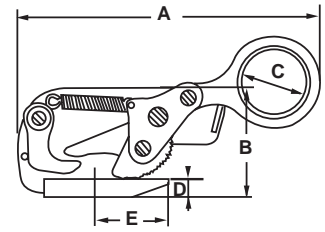
Model	Working Load Limit	Flange Width		Weight
		Minimum	Maximum	
	lb.	in.	in.	lb.
SC922T	4,400	2.995	8.387	28.7
SC923T	6,600	3.994	10.783	35.3
SC923/LT	6,600	2.995	12.181	44.1
SC925/T	11,000	3.994	10.783	50.7
SC925/LT*	11,000	2.995	12.181	59.5

\*Not Stocked

## THS



- Spring lever for locking into place
- Can be used in single or 2 leg slings
- Use lifting beams for longer plates
- Do not use with endless or 3 or 4 leg slings
- Do not exceed 60° angle when lifting
- Do not lift plates with a temperature of 120° C (250°F) or higher
- Do not use to lift stainless steel, lead or copper

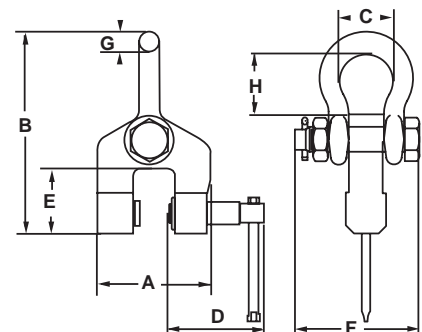


Model	Working Load Limit		Jaw Capacity	Dimensions								Weight
	Min	Max		A	B	C	D	E	F	G	H	
	lb.		in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
THS0.75	90	1,600	0 to 3/4	10.039	3.819	1.969	0.591	2.756	3.150	0.472	0.591	6.6
THS1.5	175	3,300	0 to 1-3/8	13.189	4.724	2.756	0.787	3.150	3.543	0.591	0.669	13.2
THS3	500	9,900	0 to 1-3/4	17.717	7.717	3.543	2.323	4.331	4.331	0.787	1.181	37.5

## TSH



- Offer the best means of holding and securing loads
- High force screw threads
- Hardened steel jaws
- Swivel jaws increases grip if plate moves
- Not recommended for lifting applications



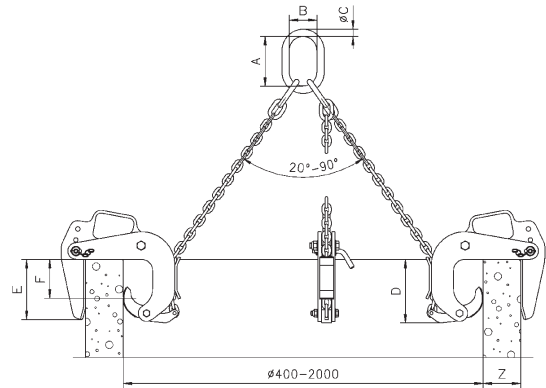
Model	Working Load Limit	Jaw Capacity	Dimensions								Weight	
			A	B	C	D	E	F	G	H		
	lb.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
TSH1.5	3,300	0 to 1-1/4	5.118	10.039	2.559	4.528	2.953	5.000	1.024	3.701		15.4
TSH3	6,600	0 to 2	6.693	11.417	2.913	4.921	3.346	5.669	1.181	4.646		24.3
TSH5	11,000	0 to 3-1/8	10.039	18.504	5.118	6.890	5.315	9.449	1.969	6.890		59.5

# Camlok Clamps

## BTG



- Solid construction design
- Sold in sets of 3 with chain slings attached
- Simple handling
- Large jaw capacity
- Light weight design
- Service friendly

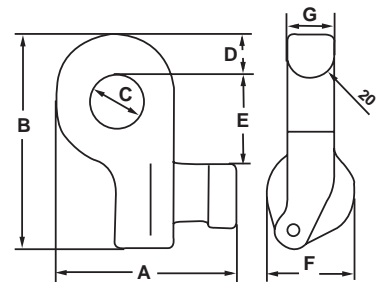


Model	Working Load Limit (Per set of 3)	Jaw Capacity (Z)	Dimensions						Weight	
			A	B	C	D	E (Mouth)	F (Pressure Line)		
<b>Imperial</b>										
	lb.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
BTG1500/3	3,300	1-1/2 to 4-3/4	5.315	5.315	0.709	7.087	6.496	3.937		75.0
BTG3000/3	6,600	2 to 7	6.890	3.937	1.024	12.205	9.646	6.890		132.3
BTG3000L/3	6,600	3-1/2 to 8-5/8	6.890	3.937	1.024	12.205	9.646	6.890		172.0

## CLB Container Lifting Lugs



- Spring loaded bolt to prevent accidental release
- Mounted at the side of the container in either upper or lower holes
- Easy installation and removal
- Designed to eliminate the dangerous use of standard hooks



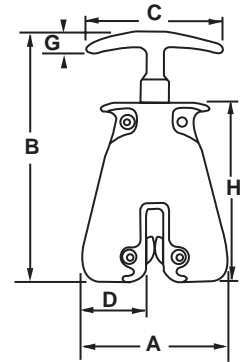
Model	Working Load Limit (Per set of 4)	Dimensions							Weight	
		A	B	C	D	E	F	G		
<b>Imperial</b>										
	lb.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
CLB32	70,500	5.984	7.126	1.772	1.457	2.874	2.953	1.575		39.7
CLB40	88,100	5.984	7.126	1.772	1.457	2.874	2.953	1.575		39.7



## HGC



- Additional lever in clamping mechanism provides a very high gripping force
- Can be used to lift plate from horizontal to vertical position and vice versa



F = Thickness

Model	Working Load Limit	Plate	Dimensions								Weight	
			A	B	C	D	E	F	G	H		
<b>Imperial</b>												
	lb.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lb.
HGC	500	0 to 3/8	4.25	7.25	3.875	1.875	2.125	0.875	0.375	5.125	2.0	

### ⚠ WARNING ⚠

#### Improper installation and use of clamps can cause injury

If not properly installed, operated and maintained, the use of all mechanical equipment presents the possibility of personal injury or property damage. Before using lifting clamps, become familiar with applicable installation, operation and maintenance requirements. Clamps should be used only by authorized, properly trained operators.

#### To avoid injury:

- Inspect clamps and equipment before use. Do not use if components are bent, elongated, gouged, nicked excessively, worn, or damaged. Make sure that nut, bolts, pins and other fasteners are tightened and secure. Make sure clamps are functional and will grip the load.
- Do not exceed the clamps' rated load or working load limit of other lifting equipment components.
- Lift only one plate at a time when using lifting clamps.
- Do not lift unbalanced loads. Avoid sudden jerks when applying the load. Rapid load application can produce overloading.
- Use clamps and lifting equipment only if authorized and properly trained.
- Always stand clear when lifting and lowering.
- Use more than one clamp suspended from a lifting beam when lifting long loads.
- Always gently lift and lower.

# Cady Lifters

## Cady Lifters

Cady Lifters represents a complete line of below the hook attachments for efficiently handling goods in industrial, construction, and related environments. The Cady team of welders conform to the Structural Welding Code of the American Welding Society, thus ensuring the consistency of the products manufactured. All products conform to the requirements of ANSI/ASME B30.20 for Below-the-Hook Lifting Devices.

In addition to the standard products shown here, custom solutions exist to satisfy the most challenging lifts. Products such as tongs, scissors, and grabs may be tailored to the exact application.

Complete information for all Cady Lifters is available in catalog ICL-10 or at [www.cadylifters.com](http://www.cadylifters.com).



## Crane Forks

Crane forks are ideal for handling palletized loads in areas such as loading docks, crowded or unpaved storage areas, and railroad yards. They are also used frequently to load barges, gondolas, and open top trucks.

All Cady crane forks are counter balanced to hang level when empty and to increase the rate of handling. Counterweight balances the lifter structure only, not the load. The load is centered under the lifting bail for a level lift. All crane forks are load tested and a test certificate is supplied with each unit.



**Capacity 1/4 to 10 tons**

## C-Hooks

C-Hooks are available in a variety of styles. Compact C-Hooks are rugged, yet lightweight for easy handling. The polished, large radius inside corners of the compact C-Hooks minimize stress concentration in these critical areas. These inside corners are positioned to avoid contact with coil edges, thus reducing coil damage. Additionally, the curved saddle on the lower arm reduces wear on the coil.

In addition to the popular Compact C-Hooks, the following are part of the Cady Lifters line:

Close Stacking C-Hooks – contains a short upper arm that permits handling a large range of coil sizes flush against a vertical surface. This arm also allows the user to handle all coils in a range without interfering with adjacent coils during movement.

Ship Loaders – Designed for use with slings to handle two coils simultaneously. Hooks are easily separated for insertion into coils.



**Capacity 5 to 50 tons**

## Spreader Beams



Lifting beams and spreaders are available in a wide range of capacities and styles. Beams are available in fixed or adjustable styles and may also be designed with special hook or shackle configurations. Low headroom beams are offered with either fixed or movable hooks, and can also be developed for three-point lifts.

### ▲ WARNING ▲

- Inspect lifter, moving lifter parts and operating controls for proper operation before each use. Never use malfunctioning or damaged lifter, or one tagged "Out of Service."
- Do not exceed rated load of lifter and crane.
- Make sure load is balanced and stable.
- Avoid shock loads due to sudden starts and stops.
- Make sure lifting ropes and chains are not twisted or kinked.
- Do not lift people. Make sure operator and others are clear of load at all times.
- Make sure load clears objects during moving.

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The advertisement features a central logo for Columbus McKinnon Corporation, surrounded by various pieces of industrial equipment. At the top, there are several types of shackles and hooks in orange and black. On the left, a large yellow and black Yale hoist is shown with a pulley system. To the right, there is a yellow and black hoist with a hook, and a red hoist with a hook and chain. Below these, there are two sets of chains with hooks. In the bottom center, there are three pieces of equipment: a yellow jib crane, a yellow overhead crane, and a yellow forklift with a hoist attachment. The background is a light gray with a subtle geometric pattern.

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