



Table of Contents

Beam clamp	26	Lift tables	29-30
Chain		Links	
Chain wear gauge	33	Alloy oblong master link	45
Grade 30 proof coil chain	37	Hammerlok coupling link	45
Grade 70 transport (binding) chain	39	Load binders	
Herc-Alloy 800/Grade 80		Drop forged	57
• Working load limit	35	E-Z Pro cam release	57
• Care, use & inspection	36	Lever type	55
• Chainset	34	Malleable lever	55
• Adjust-A-Link Sling	46	Operating instructions	57
Special Theatrical Alloy Chain	38	Ratchet type	56
Chain Hoists		Tightener	56
Lodestar hoists		Rigging Accessories	
• Ordering information	5	Alloy forged master link	54
• Latchlok hooks	7	Big Orange Mid-Grip clip	52
• Cutaway	8-9	Clevis link	54
• Hook suspension	12	D ring	54
• Low headroom trolley	13	Drop forged wire rope clip	50-51
• Motor driven trolley	14-15	Heavy duty wire rope thimble	53
• Industrial style chain container	15	Quick link	53
Prostar hoist	16-18	Regular forged eye and eye swivel	49
• Specifications		Repair link	53
• Clearance dimensions		Shoulder eyebolt	49
Chain chart	19	Turnbuckles	47-48
Fall protection equipment		Shackles	
Heavy duty harness	31	Alloy steel anchor shackle with screw pin	40
Horizontal lifeline	32	Anchor and chain shackle with round pin	40
Light weight harness	31	Theatrical shackles	39
Retractable lifeline	32	Trolleys	
Retractable web lanyard	32	Series 632 close radius	27
Rope grab	32	Series 633 wide range	28
Shock-absorbing products	32	Index	58-59
Tie-off strap	32		
Hand and lever operated hoists			
Cable	21		
Chain chart	25		
Series 622	22-23		
Series 637	24		
Wire rope puller	20		
Hooks			
Alloy swivel hook	44		
Big Orange Clevlok Latchlok hook	44		
Rigging eye hook and latch, alloy	43		
Rigging eye hook and latch, carbon	43		
Sling hook with latch	42		

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The following are trademarks of Columbus McKinnon Corporation: **Chainset, Dial-Fit, Mid-Grip, Pailpak, Prostar, Protector.**



CM Lodestar electric chain hoists

- Designed and built to take the rigors of the touring industry
- Black powder coat finish for durability
- 115 VAC control circuit
- Heat treated formed steel chain guides
- Easy to handle, operate and maintain
- Designed for operation in the inverted position
- H4 duty rated at 30 minutes/300 starts/hour
- Operates with voltage drops up to 10% below name plate rating

- Capacities of up to 3 tons
- Adjustable screw limits provide added reliability
- Standard overload protection offers increased safety
- Minimum 5:1 design ratio
- Zinc plated load chain protects against corrosion
- Grease lubrication in gear case eliminates oil drips on stage

- Hoist motor is completely enclosed in durable protective cast aluminum housing
- Interfaces with all existing controllers and power distros
- Fits in standard road case
- Lifetime warranty
- Each hoist thoroughly inspected and tested to over 125% of rated load prior to shipment
- Meets ASME B30.16, HMI (Hoist Manufacturing Institute), NEC and OSHA standards and regulations
- TUV pending
- CE pending
- Made in U.S.A.
- Manufactured in an ISO 9001 Registered Facility



CM POLICY STATEMENT FOR LODESTARS USED IN CONJUNCTION WITH FALL PROTECTION EQUIPMENT IN THE ENTERTAINMENT INDUSTRY

If a fall protection system is used in conjunction with Lodestar hoists, the system must be designed and installed by a qualified person such that malfunction or failure of one hoist's load bearing components does not cause load loss and/or overloading of any other hoist(s) in the system. Also the system must be designed such that the static loading of any hoist does not exceed 50% of the rated capacity. Note that in such a system, hoist performance and function must be monitored visually or with the use of load cells.

* **WARNING**

Overloading and improper use can result in injury.

To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain and attachments for overhead lifting.
- Read and follow all instructions.

It is preferred that the load always be tied off with auxiliary chains or cables before access to the area beneath the load is permitted. As an alternative, the system may be designed such that malfunction or failure of one hoist's load bearing components does not cause load loss and/or overloading of any other hoists in the system. Note that in such a system, hoist performance and function must be monitored visually or with the use of load cells.



Ordering information

When ordering hoists please specify the following:

Capacity

Available in metric capacities from 1/8 ton through 3 ton (1/2 ton, 1 ton and 2 ton are standard stocked hoists)

Voltage

Standard voltages

208 - 240 volt	3 phase	60 hz
208 - 240 volt	1 phase	60 hz
208 - 240 volt	1 phase	50 hz
440 - 480 volt	3 phase	60 hz
110 - 115 volt	1 phase	60 hz
380 - 440 volt	3 phase	50 hz
110 - 115 volt	1 phase	50 hz
575 volt	3 phase	60 hz
575 volt	3 phase	50 hz

Available voltages - contact factory

200 volt	3 phase	50/60 hz
100 volt	1 phase	50 hz
200 volt	1 phase	50 hz
380 volt	3 phase	60 hz

Speed

16 fpm (60 hz) and 13.3 fpm (50 hz) is standard for lighting truss, ground support systems, etc., when the loading point is 1 ton or less

8 fpm (60 hz) and 6.5 fpm (50 hz) is standard for speaker clusters, ground support systems, etc., when the loading point is 2 tons or less

Other speeds including 2 speed and variable are available (consult the factory for assistance)

Lift

60 ft. is standard but can be furnished in any length required.

Power cord

2 1/2 ft. is standard but can be furnished with any length and can be fitted with a connector of your choice

Control cord

6' 3" is standard but can be furnished in any length, and furnished with a connector of your choice or with a CM snap action control station for single hoist operation

Hook style

360° rotation Latchlok and conventional upper and lower hooks available: Orange on black available – please specify.

NEMA rating

Hoist is furnished as standard NEMA 1 (general purpose indoor use)

Factory available to NEMA 3R (rain and sleet resistant) and can be modified by your distributor with weep holes for extended outdoor use

C.E. stickers

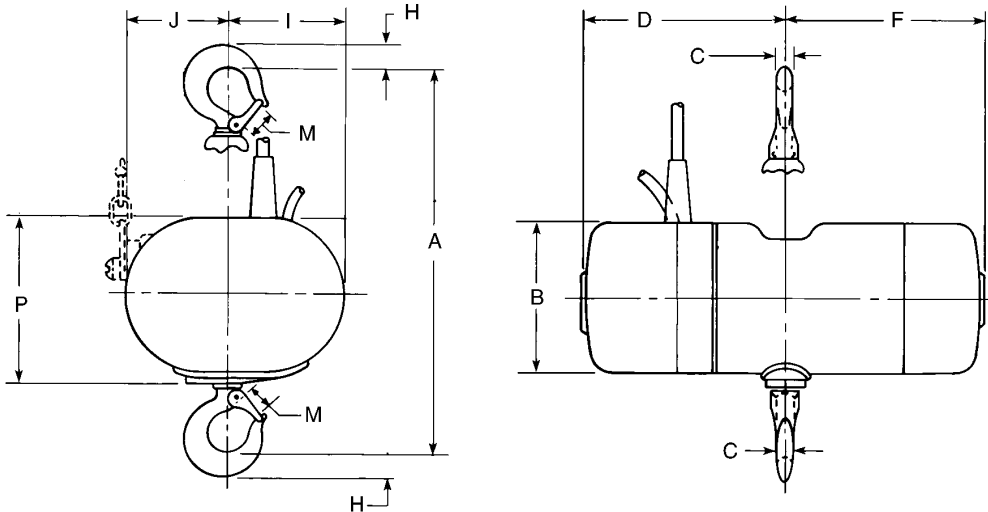
Lodestars are available that conform to EC Machinery Directive, EC Low Voltage Directive, Harmonized Standards, DIN, VGB8 and IEC Standards

VGB 70

Contact factory

Accessory items

Chain bags, road boxes, power distros, and multi hoist controllers are all available through your CM distributor



Clearance dimensions (in.)

	Lodestar model		
	A, AA, B, C & F	J, JJ, L & LL	R & RR
A	16 ¹ / ₄	18 ⁹ / ₁₆	24 ¹ / ₈
B	6 ¹ / ₈	7 ⁵ / ₈	7 ⁵ / ₈
C	1 ¹ / ₁₆	7 ⁷ / ₈	1 ¹ / ₈
D	11	9 ¹ / ₂	9 ¹ / ₂
F	7 ³ / ₄	10 ¹¹ / ₁₆	10 ¹¹ / ₁₆
H	1	1 ³ / ₁₆	1 ¹ / ₂
I	4 ¹³ / ₁₆	7 ¹ / ₄	6 ³ / ₁₆
J	3 ¹⁵ / ₁₆	5 ⁷ / ₁₆	6 ¹ / ₂
M	1	1 ¹ / ₈	1 ⁵ / ₁₆
P	6 ⁵ / ₈	7 ¹³ / ₁₆	7 ¹³ / ₁₆

Hoist specifications - black finish hoist only with 60 ft.** lift – Suspensions must be ordered separately.

Rated capacity* (tons)	Model	Lifting speed (fpm)	Lift (ft.)	Product code less suspension		Operating voltage	Full load amps	Work rating		
				H.P.				HMI	FEM	ISO
1/4	B	16	60	3140	1/4	115-1-60	5.2	H-4	L4 - 1AM	M-4
1/4	B	16	60	3169	1/4	230/460-3-60	1.8/1.1	H-5	L4 - 1AM	M-4
1/4	C	32	60	3200	1/2	115-1-60	8.0	H-4	L4 - 1AM	M-4
1/4	C	32	60	3201	1/2	230/460-3-60	1.7/1.2	H-5	L4 - 1AM	M-4
1/2	F	16	60	2867S	1/2	115-1-60	8.0	H-4	L4 - 1AM	M-4
1/2	F	16	60	2868S	1/2	230/460-3-60	1.7/1.2	H-5	L4 - 1AM	M-4
1/2	J	32	60	3394	1	115-1-60	17	H-4	L4 - 1AM	M-4
1/2	J	32	60	3482	1	230/460-3-60	3.8/2.3	H-4	L4 - 1AM	M-4
1	L	16	60	3609S	1	115-1-60	17	H-4	L4 - 1AM	M-4
1	L	16	60	3610S	1	230/460-3-60	3.8/2.3	H-4	L4 - 1AM	M-4
2	R	8	60	4238	1	115-1-60	17	H-4	L4 - 1AM	M-4
2	R	8	60	4239	1	230/460-3-60	3.8/2.3	H-4	L4 - 1AM	M-4
2	RR	16	60	4272	2	230/460-3-60	11.3/6	H-4	L3 - 1BM	M-3

Note: All theatrical hoists are shipped with 2 1/2 ft. power and control cords less control station unless otherwise specified. For other lifts, speeds and capacities, contact your nearest CM theatrical distributor.

**For lifts other than 60 ft., contact your nearest CM theatrical distributor.

CM Lodestar hook suspensions with black finish

Model	Conventional rigid hook	Conventional swivel hook	Latchlok rigid hook	Latchlok swivel hook
AA - F	2998	2999	2998E	2999E
J - LL	3631	3624	3631E	3624E
R & RR	3634	3600	3634E	3600E

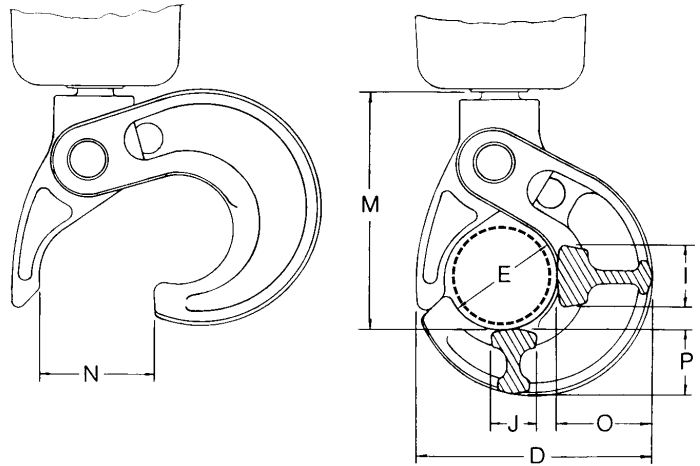
Note: For other hook suspensions or special configurations, contact factory



CM Alloy Latchlok hooks

Latchlok hooks combine innovative design and solid alloy steel. I-beam construction offers more reliable performance than any other hook on the market. Features include:

- One-hand operation and recessed push-button thumb release for smooth and dependable opening
- Hook remains locked until released by the operator, even if chain goes slack
- Sturdy forged heat treated I-beam construction for strong yet lightweight hooks
- Made in U.S.A.



Specifications

Hoist	Hoist model	Clearance dimensions (in.)								Change in standard headroom (in.)	
		D	E	I	J	M	N	O	P		
Lodestar	A, AA, B, C & F	3 7/16	1 3/4	1 5/16	1 3/16	3 5/8	1 3/8	1 5/16	1	1	
	E & H	3 7/16	1 3/4	1 5/16	1 3/16	3 5/8	1 3/8	1 5/16	1	1 1/16	
	Upper	J, JJ, L & LL	3 7/16	1 3/4	1 5/16	1 3/16	3 5/8	1 3/8	1 5/16	1	1 1/16
	R & RR	4 1/16	1 7/8	1 1/8	5/8	4 9/16	1 3/4	1 5/8	1 1/8	1 5/16	
	R & RRT	4 3/4	2 1/16	1 11/16	1 3/8	5 11/16	2 3/16	1 5/8	1 3/8	2 1/16	
Lower	A, AA, B, C & F	3 7/16	1 3/4	1 5/16	1 3/16	3 5/8	1 3/8	1 5/16	1	1	
	E & H	3 7/16	1 3/4	1 5/16	1 3/16	3 5/8	1 3/8	1 5/16	1	1 1/16	
	J, JJ, L & LL	3 7/16	1 3/4	1 5/16	1 3/16	3 5/8	1 3/8	1 5/16	1	1 1/16	
	R & RR	4 1/16	1 7/8	1 1/8	5/8	4 1/2	1 3/4	1 5/8	1 1/8	7/8	
	RT & RRT	4 3/4	2 1/16	1 11/16	1 3/8	5 11/16	2 3/16	1 5/8	1 3/8	2 1/16	

CM Lodestar Latchlok lower hook

Available for models A, AA, B, C, F, J, JJ, L, LL, R, RR, RT & RRT. CM product code must be specified when order is placed

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- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



Rugged control station (optional)

Completely sealed control station is rated NEMA 4 for:

- Impact-resistant control station for extreme durability
- Snap-action contacts for positive control and reduced downtime caused by electrical arcing
- Internal strain relief made from high-strength aircraft cable prevents control cable from being pulled out of hoist or control station
- Low voltage (120 volts) control circuit



Heavy-duty hoist motor with regenerative braking

Hoist motor designed for industrial applications. Integral motor design:

- Meets or exceeds HMI (Hoist Manufacturing Institute) duty cycle rating for heavy duty service (H4)
- Provides efficiency and cooler operation for longer life
- Gives substantially higher duty cycle for greater productivity
- Uses efficient regenerative braking that avoids heat generation or power reduction in power train
- Single speed or 3:1 two speed option
- 30 minute rated motor

Simple installation and service

Accessible design makes the CM Lodestar hoist the easiest electric chain hoist to install and service, featuring:

- Completely identified wiring for fast, simple connections
- Easy access to working parts for fast troubleshooting and repair
- Reduced maintenance for less downtime, greater productivity
- Three phase single speed models offer simple voltage change for adaptability to different applications
- Easy voltage change makes any single speed three phase Lodestar usable on either 230 or 460 volts — eight quick-connect terminals are transferred in seconds

Solid state starting switch

115 volt single phase Lodestar hoists are equipped with an instant reverse, solid-state switch that:

- Eliminates the mechanical centrifugal mechanism and reversing switch, the most common sources of unscheduled maintenance and motor burnout in single phase hoists
- Reduces stress on starting capacitor with elimination of moving parts in motor start/reverse switch
- Improves electrical reliability, reducing downtime

Cast aluminum alloy housing and covers

Integral frame and housing design provides lightweight, low profile hoist for:

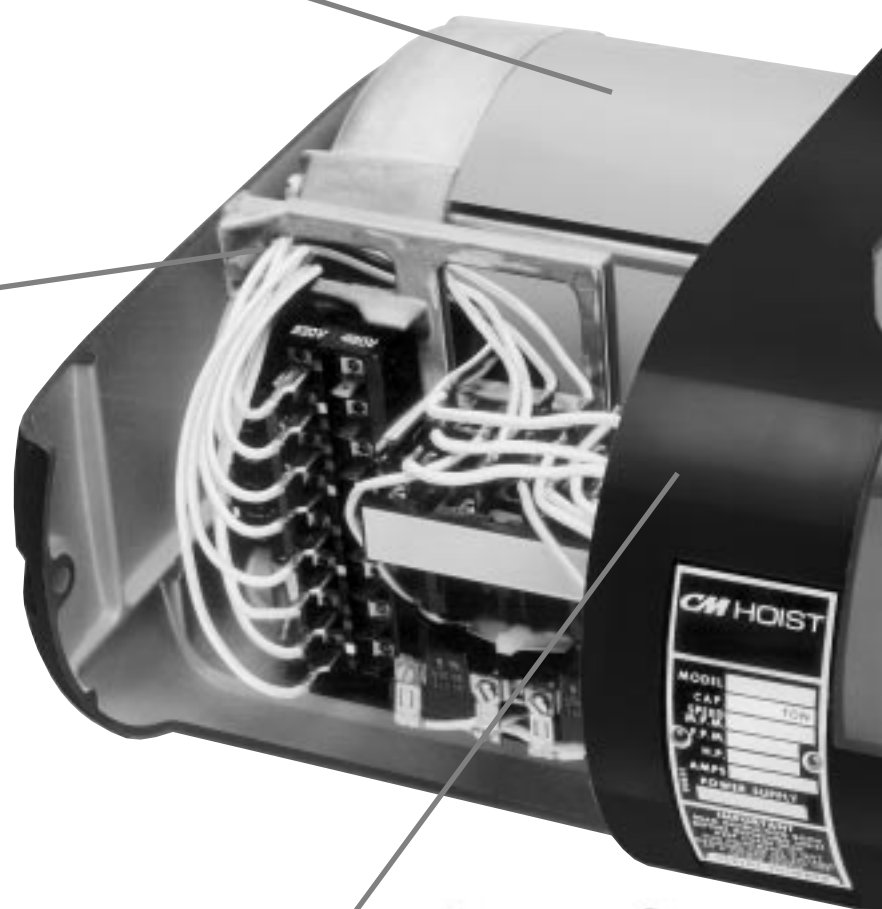
- Minimum headroom/maximum lift
- Better heat dissipation from motor, brake and gear train for increased productivity
- Factory weatherproofing available for use in adverse conditions
- Acid-resistant, durable powder coated finish is standard



Hardened steel chain guides

Chain guides completely surround the liftwheel to:

- Maintain proper load chain fit
- Jam-resistant chain feed for reduced maintenance and downtime





Machined alloy steel heat treated liftwheel

- Precision machined and heat treated for additional strength and durability
- Smooth, reliable operation
- Reduced wear for longer liftwheel, chain guide and chain life
- True vertical lift

Lifetime lubricated machined and heat treated gears

- Simple spur and helical triple reduction gear system operates in grease and provides:
- Superior service and maintenance characteristics
 - Smooth operation/reduced wear
 - No oil changes required
 - No oil contamination of loads or work area
 - No troublesome seals to leak or replace
 - Lifetime lubricated ball bearings support load bearing, rotating shafts

Disc type electric hoist brake

Heavy-duty electric hoist brake provides positive load control. Performance features:

- Securely holds load, even in event of power or phase failure
- Eliminates heat buildup found in mechanical type braking systems
- Requires little maintenance, few adjustments
- All 1/2 - 2 horsepower Lodestars

Extra long lift adjustable screw limit switches are standard equipment

Tailor hoist operation to suit your specific application. Adjustable screw limit switches:

- Come factory set for full hook travel, but easily adjust for any desired position
- Prevent dangerous overtravel of hoist load chain
- Holds limit settings even after engaging Protector



Drop forged, heat treated hooks and special lifting chain

Superior quality overhead lifting chain, plus forged suspension and load hooks provide:

- Higher strength for lifting confidence
- Greater durability for longer life
- CM Hoistaloy load chain for maximum strength and wear resistance.

Standard overload protection

CM Lodestar Protector takes the worry out of hoist operation through:

- Positive overload protection that prevents lifting of dangerous overloads
- Extra security in the event of limit switch misadjustment or misphasing of power leads

* **WARNING**

Overloading and improper use can result in injury.

See page 7



Industrial specifications — single speed — orange paint

Rated capacity* (tons)	Standard lift (ft.)	Lift speed** (F.P.M.)	Motor H.P.	Model	Reeving	Product code† less suspension		Approximate shipping weight (lbs.)
						115-1-60	230/460-3-60	
1/8	10	32	1/4	A	1	2702	2705	60
	10	60	1/2	AA	1	2712	2715	66
	15	32	1/4	A	1	3101	3103	64
	15	60	1/2	AA	1	3111	3113	70
	20	32	1/4	A	1	3102	3104	68
	20	60	1/2	AA	1	3112	3114	74
1/4	10	16	1/4	B	1	2722	2725	60
	10	32	1/2	C	1	2732	2735	66
	15	16	1/4	B	1	3121	3123	64
	15	32	1/2	C	1	3131	3133	70
	20	16	1/4	B	1	3122	3124	68
	20	32	1/2	C	1	3132	3134	74
1/2	10	8	1/4	E	2	2742	2745	69
	10	16	1/2	F	1	2752	2755	66
	10	32	1	J	1	3512	3515	110
	10	64	2	JJ	1	—	3545	117
	15	8	1/4	E	2	3141	3143	76
	15	16	1/2	F	1	3151	3153	70
	15	32	1	J	1	4212	4214	116
	15	64	2	JJ	1	—	4244	123
	20	8	1/4	E	2	3142	3144	83
	20	16	1/2	F	1	3152	3154	74
1	20	32	1	J	1	4213	4215	121
	20	64	2	JJ	1	—	4245	128
	10	8	1/2	H	2	2762	2765	75
	10	16	1	L	1	3522	3525	110
	10	32	2	LL	1	—	3555	117
	15	8	1/2	H	2	3161	3163	82
	15	16	1	L	1	4222	4224	116
	15	32	2	LL	1	—	4254	123
	20	8	1/2	H	2	3162	3164	89
	20	16	1	L	1	4223	4225	121
2	20	32	2	LL	1	—	4255	128
	10	8	1	R	2	3532	3535	130
	10	16	2	RR	2	—	3565	137
	15	8	1	R	2	4232	4234	140
	15	16	2	RR	2	—	4264	147
	20	8	1	R	2	4233	4235	150
3	20	16	2	RR	2	—	4265	157
	10	5.5	1	RT	3	9501	9505	155
	10	11	2	RRT	3	—	9508	162
	15	5.5	1	RT	3	9502	9506	169
	15	11	2	RRT	3	—	9509	176
	20	5.5	1	RT	3	9503	9507	183
20	11	2	RRT	3	—	9510	190	

† Single speed hoist factory wired 460V, convertible to 230V

**Lifting speed is 5/6 the listed speed for 50 hz

Note: Black finish must be specified on order



Industrial specifications — two speed — orange paint

Rated capacity* (tons)	Standard lift (ft.)	Lift speed** (F.P.M.)	Motor H.P.	Model	Reeving	Product code† less suspension		Approximate shipping weight (lbs.)
						230-3-60	460-3-60	
1/8	10	10/32	1/4	A2	1	2707	2708	70
	10	20/60	1/2	AA2	1	2717	2718	74
1/4	10	5/16	1/4	B2	1	2727	2728	70
	10	10/32	1/2	C2	1	2737	2738	74
1/2	10	2.5/8	1/4	E2	2	2747	2748	79
	10	5/16	1/2	F2	1	2757	2758	74
	10	10/32	1	J2	1	3502	3503	116
1	10	21/64	2	JJ2	1	3549	3550	130
	10	2.5/8	1/2	H2	2	2767	2768	83
	10	5/16	1	L2	1	3504	3505	116
2	10	10/32	2	LL2	1	3553	3554	130
	10	2.5/8	1	R2	2	3506	3507	136
3	10	5/16	2	RR2	2	3561	3562	150
	10	1.75/5.5	1	RT2	3	9511	9513	161
3	10	3.5/11	2	RRT2	3	9512	9514	175

**Lifting speed is 5/6 the listed speed for 50 hz

†Specify voltage 230 or 460

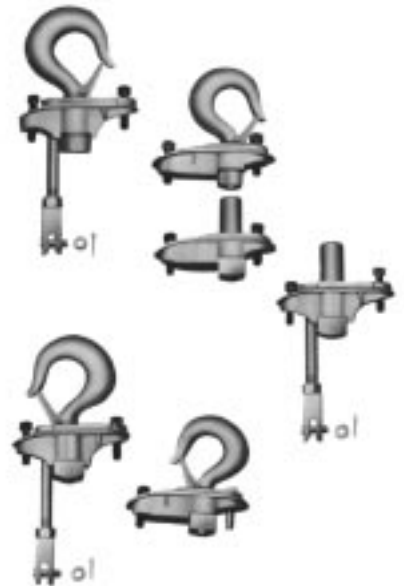
Note: Black finish must be specified on order

Industrial suspension specifications — orange paint

Type	Product code	Models	Approximate weight (lbs.)
Swivel hook	2792	A-AA-B-C-F	2
Swivel hook	2793	E-H	4
Swivel hook	3661	J-L-JJ-LL	4
Swivel hook	3660	R-RR	9
Swivel hook	9557	RT-RRT	8
Rigid lug for low head trolley	2778	A-AA-B-C-F	2
Rigid lug for low head trolley	2779	E-H	4
Rigid lug for low head trolley	3677	J-L-JJ-LL	4
Rigid lug for low head trolley	3668	R-RR	6
Rigid lug for low head trolley	9561	RT-RRT	9
Rigid hook	2788	A-AA-B-C-F	2
Rigid hook	2789	E-H	3
Rigid hook	3651	J-L-JJ-LL	4
Rigid hook	3658	R-RR	6
Rigid hook	9559	RT-RRT	9

Note: 3 ton lug suspension prevents hoist from rotating but allows hoist to articulate below trolley

Note: Black finish must be specified on order



* ⚠ WARNING

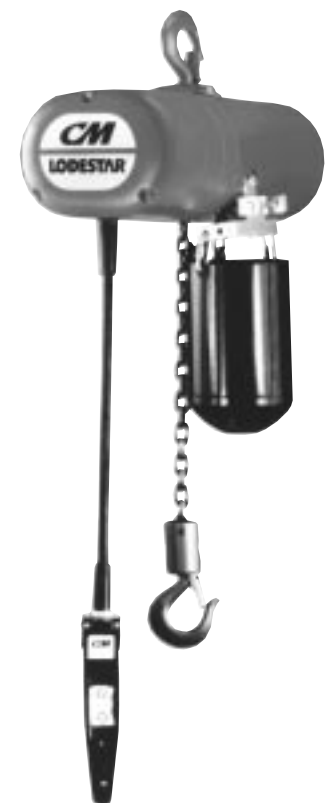
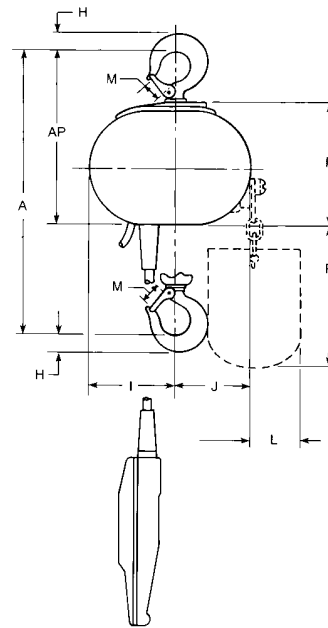
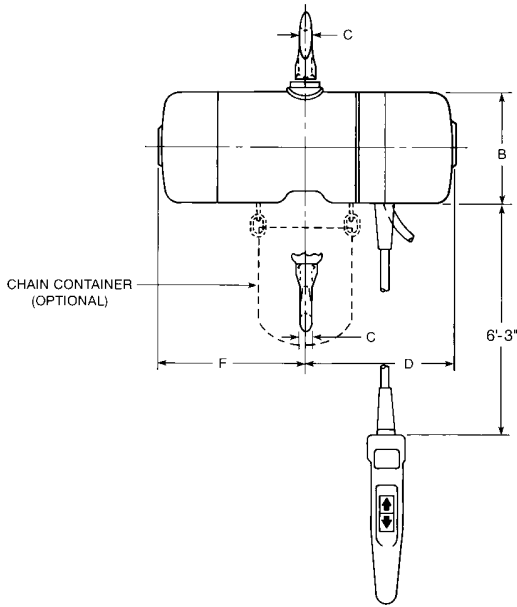
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- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



Lodestar with hook suspension



Clearance dimensions (in.)

Lodestar models	A,B,C,F and AA	E and H	J, L, JJ and LL	R	RR	RT and RRT
A	16 ¹ / ₄	19 ⁵ / ₈	18 ⁹ / ₁₆	24 ¹ / ₈	24 ¹ / ₈	29 ⁹ / ₁₆
B	6 ¹ / ₈	6 ¹ / ₈	7 ⁵ / ₈	7 ⁵ / ₈	7 ⁵ / ₈	7 ⁵ / ₈
C	1 ¹ / ₁₆	7 ⁷ / ₈	7 ⁷ / ₈	1 ¹ / ₈	1 ¹ / ₈	1 ¹ / ₈
D	11	11	9 ¹ / ₂	9 ¹ / ₂	9 ¹ / ₂	9 ¹ / ₂
F	7 ³ / ₄	7 ³ / ₄	10 ¹¹ / ₁₆	10 ¹¹ / ₁₆	10 ¹¹ / ₁₆	10 ¹¹ / ₁₆
H	1	1 ³ / ₁₆	1 ³ / ₁₆	1 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂
I	4 ¹³ / ₁₆	3 ⁷ / ₈	7 ¹ / ₄	6 ³ / ₁₆	6 ³ / ₁₆	6 ³ / ₁₆
J	3 ¹⁵ / ₁₆	4 ⁷ / ₈	5 ⁷ / ₁₆	6 ¹ / ₂	6 ¹ / ₂	6 ¹ / ₂
L	1 ¹¹ / ₁₆	1 ¹¹ / ₁₆	7 ⁷ / ₁₆	7 ⁷ / ₁₆	7 ⁷ / ₁₆	7 ⁷ / ₁₆
M	1	1 ¹ / ₈	1 ¹ / ₈	1 ⁵ / ₁₆	1 ⁵ / ₁₆	1 ⁵ / ₁₆
P	6 ⁵ / ₈	6 ⁹ / ₁₆	7 ¹³ / ₁₆	7 ¹³ / ₁₆	7 ¹³ / ₁₆	7 ¹³ / ₁₆
R*	9 ⁷ / ₈	12 ⁷ / ₈	12 ⁷ / ₈	18 ⁷ / ₈	18 ⁷ / ₈	24 ⁷ / ₈
AP	9 ¹ / ₄	9 ⁹ / ₁₆	10 ¹¹ / ₁₆	11 ³ / ₁₆	11 ³ / ₁₆	12 ⁹ / ₁₆

* Based on 10 ft. lift and increases proportionately with longer lifts

* ⚠ WARNING

Overloading and improper use can result in injury.

To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



Lodestar with Series 635 low headroom trolley

Designed for attachment by use of rigid lug suspension to give extra low headroom. Self-aligning steel side frames and hardened steel wheels with crowned tread and precision ball bearings. (Flat black powder coat finish)

Clearance dimensions (in.)

Lodestar models	A,B,C,F and AA	E and H	J, L, JJ and LL	R	RR	RT and RRT
A	16 ⁵ / ₁₆	19 ¹ / ₄	18 ¹ / ₄	23 ³ / ₄	23 ³ / ₄	29 ⁹ / ₁₆
B	6 ¹ / ₈	6 ¹ / ₈	7 ⁵ / ₈	7 ⁵ / ₈	7 ⁵ / ₈	7 ⁵ / ₈
C	1 ¹ / ₁₆	7 ⁷ / ₈	7 ⁷ / ₈	1 ¹ / ₈	1 ¹ / ₈	1 ¹ / ₈
D	11	11	9 ¹ / ₂	9 ¹ / ₂	9 ¹ / ₂	9 ¹ / ₂
F	7 ³ / ₄	7 ³ / ₄	10 ¹¹ / ₁₆	10 ¹¹ / ₁₆	10 ¹¹ / ₁₆	10 ¹¹ / ₁₆
H	1	1 ³ / ₁₆	1 ³ / ₁₆	1 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂
I	4 ¹³ / ₁₆	3 ⁷ / ₈	7 ¹ / ₄	6 ³ / ₁₆	6 ³ / ₁₆	6 ³ / ₁₆
J	3 ¹⁵ / ₁₆	4 ⁷ / ₈	5 ⁷ / ₁₆	6 ¹ / ₂	6 ¹ / ₂	6 ¹ / ₂
L	1 ¹¹ / ₁₆	1 ¹¹ / ₁₆	7 ¹ / ₁₆	7 ¹ / ₁₆	7 ¹ / ₁₆	7 ¹ / ₁₆
M	1	1 ¹ / ₈	1 ¹ / ₈	1 ⁵ / ₁₆	1 ⁵ / ₁₆	1 ⁵ / ₁₆
RT†	9 ⁷ / ₈	12 ⁷ / ₈	12 ⁷ / ₈	18 ⁷ / ₈	18 ⁷ / ₈	24 ⁷ / ₈
T	1 ³ / ₁₆	1 ³ / ₁₆	1 ³ / ₁₆	7 ⁷ / ₈	7 ⁷ / ₈	5 ¹ / ₁₆
W	3	3	3	3 ⁵ / ₈	3 ⁵ / ₈	4 ¹ / ₈
X	5 ¹ / ₁₆	5 ¹ / ₁₆	5 ¹ / ₁₆	1 ¹ / ₂	1 ¹ / ₂	9 ¹ / ₁₆
Y	1 ¹ / ₁₆	1 ¹ / ₁₆	1 ¹ / ₁₆	3 ¹ / ₁₆	3 ¹ / ₁₆	2 ⁵ / ₈
AD	9 ³ / ₄	9 ³ / ₄	9 ³ / ₄	13	13	12 ¹ / ₂
AF	5	5	5	6	6	6
AG	3 ¹ / ₈	3 ¹ / ₈	3 ¹ / ₈	4 ³ / ₄	4 ³ / ₄	4
AI	4 ⁵ / ₈	4 ⁵ / ₈	4 ⁵ / ₈	5	5	5 ¹ / ₂
AJ	9 ³ / ₁₆	9 ³ / ₁₆	10 ³ / ₈	10 ¹³ / ₁₆	10 ¹³ / ₁₆	13 ¹ / ₈

† Based on 10 ft. lift and increases proportionately with longer lifts

Dimensions T, W, X, Y, AI, and AJ are based on minimum beams and will vary proportionately for larger beams. 6'-3" drop of control station is for 10 foot lift hoist and increases proportionately for longer lifts.

Suspension specifications

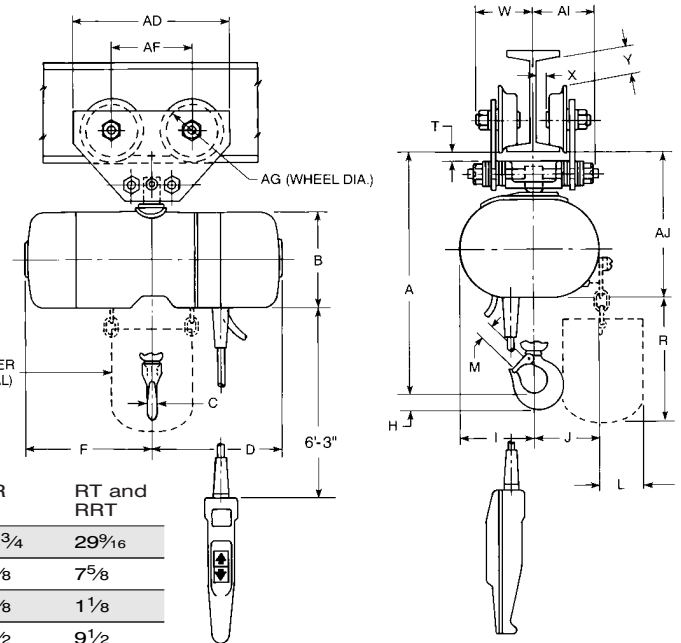
Type	Product code	Models
Rigid lug for low head trolley	2778	A-AA-B-C-F
	2779	E-H
	3677	J-L-JJ-LL
	3668	R-RR
	9561	RT-RRT

Note: 3 ton lug suspension prevents hoist from rotating but allows hoist to articulate below trolley

Specifications – Low Headroom Trolley

Rated capacity* (tons)	Product code	Models	Std. range of adjust. Am. standard S-beams		Tread diameter (in.)	Minimum radius curve (in.)	Approximate shipping weight (lbs.)
			Depth (in.)	Flange width (in.)			
1/8 to 1	3575	A – LL	4 – 15	2 ⁵ / ₈ – 5 ⁵ / ₈	3 ¹ / ₈	24	22
2	3569	R – RR	6 – 18	3 ³ / ₈ – 6	4 ³ / ₄	24	52
3	9576	RT – RRT	8 – 15	4 – 5 ⁵ / ₈	4 ³ / ₄	30	58

Note: Rigid lug suspension required for attaching to hoist. Apply for other than standard beam adjustment.



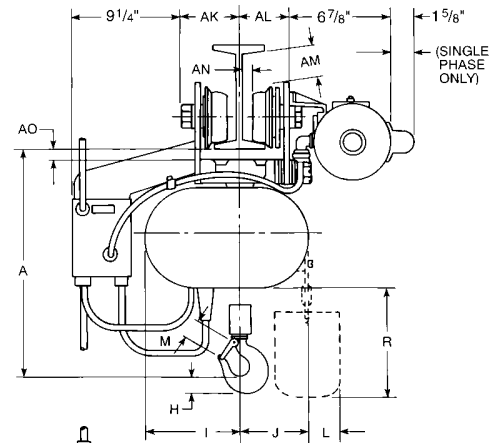
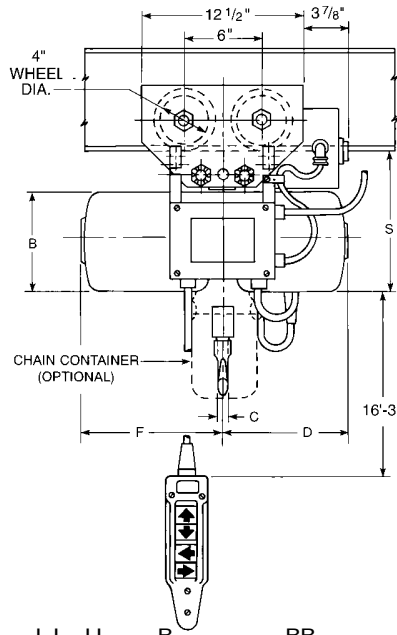
Beam end stop omitted for picture clarity

For beam sizes other than those listed, contact factory



Lodestar with Series 635 motor driven trolley

The motor driven trolley is self-contained and supplied with independent wiring and controls, including a four-direction control station, ready for attachment to any model by means of lug suspension. Provides easier, speedier and more efficient load transportation. (Flat black powder coat finish)



Clearance dimensions (in.)

Lodestar model†	A,B,C,F and AA	E and H	J, L, JJ and LL	R	RR	RT and RRT
A	16 ¹³ / ₁₆	19 ³ / ₄	18 ¹ / ₂	23 ³ / ₄	23 ³ / ₄	30 ¹ / ₈
B	6 ¹ / ₈	6 ¹ / ₈	7 ⁵ / ₈	7 ⁵ / ₈	7 ⁵ / ₈	7 ⁵ / ₈
C	1 ¹ / ₁₆	7 ⁷ / ₈	7 ⁷ / ₈	1 ¹ / ₈	1 ¹ / ₈	1 ¹ / ₈
D	11	11	9 ¹ / ₂	9 ¹ / ₂	9 ¹ / ₂	9 ¹ / ₂
F	7 ³ / ₄	7 ³ / ₄	10 ¹¹ / ₁₆	10 ¹¹ / ₁₆	10 ¹¹ / ₁₆	10 ¹¹ / ₁₆
H	1	1 ⁹ / ₁₆	1 ³ / ₁₆	1 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₂
I	4 ¹³ / ₁₆	3 ⁷ / ₈	7 ¹ / ₄	6 ³ / ₁₆	6 ³ / ₁₆	6 ³ / ₁₆
J	3 ¹⁵ / ₁₆	4 ⁷ / ₈	5 ⁷ / ₁₆	6 ¹ / ₂	6 ¹ / ₂	6 ¹ / ₂
L	1 ¹¹ / ₁₆	1 ¹¹ / ₁₆	7 ⁷ / ₁₆	7 ⁷ / ₁₆	7 ⁷ / ₁₆	7 ⁷ / ₁₆
M	1	1 ¹ / ₈	1 ¹ / ₈	1 ⁵ / ₁₆	1 ⁵ / ₁₆	1 ⁵ / ₁₆
R**	9 ⁷ / ₈	12 ⁷ / ₈	12 ⁷ / ₈	18 ⁷ / ₈	18 ⁷ / ₈	24 ⁷ / ₈
S	9 ¹¹ / ₁₆	9 ¹¹ / ₁₆	10 ⁵ / ₈	10 ¹³ / ₁₆	10 ¹³ / ₁₆	13 ¹ / ₈
AK	3 ³ / ₄	3 ³ / ₄	3 ³ / ₄	3 ³ / ₄	3 ³ / ₄	4 ¹ / ₄
AL	3 ¹ / ₄	3 ¹ / ₄	3 ¹ / ₄	3 ¹ / ₄	3 ¹ / ₄	3 ³ / ₄
AM	5 ⁵ / ₈	5 ⁵ / ₈	5 ⁵ / ₈	5 ⁵ / ₈	5 ⁵ / ₈	2 ⁵ / ₈
AN	5 ⁵ / ₁₆	5 ⁵ / ₁₆	5 ⁵ / ₁₆	5 ⁵ / ₁₆	5 ⁵ / ₁₆	9 ⁹ / ₁₆
AO	7 ⁷ / ₈	7 ⁷ / ₈	7 ⁷ / ₈	7 ⁷ / ₈	7 ⁷ / ₈	1

**Based on 10 ft. lift and increases proportionately with longer lifts

Dimensions S, AK, AL, AM, and AO are based on minimum beams and will vary proportionately for larger beams. 16'-3" drop of control station is for 20 foot lift hoist.

For beam sizes other than those listed, contact factory.

†Note: Rigid lug suspension required for attaching to hoist

Suspension specifications

Type	Product code	Models
Rigid lug for motor driven trolley	2992	A-AA-B-C-F
Rigid lug for motor driven trolley	2993	E-H
Rigid lug for motor driven trolley	3679	J-L-JJ-LL
Rigid lug for motor driven trolley	3668	R-RR
Rigid lug for motor driven trolley	9561	RT-RRT

Note: Beam end stop omitted for picture clarity





Specifications — motor driven trolley

Rated capacity* (tons)	Product code	For use with model	Power supply	Standard travel speed (F.P.M.)	Motor H.P.	Std. range of adj. Am. std. S-beams		Minimum radius curve (in.)	Approx. shipping weight (lbs.)
						Depth (in.)	Flange width (in.)		
1/8 - 2	3670	A-RR	115-1-60	75	1/4	6 - 15	3 3/8 - 5 5/8	30	118
1/8 - 2	3671	A-RR	230-3-60	75	1/4	6 - 15	3 3/8 - 5 5/8	30	118
1/8 - 2	3672	A-RR	460-3-60	75	1/4	6 - 15	3 3/8 - 5 5/8	30	118
3	9577	RT-RRT	115-1-60	75	1/4	8 - 15	4 - 5 5/8	30	120
3	9578	RT-RRT	230-3-60	75	1/4	8 - 15	4 - 5 5/8	30	120
3	9579	RT-RRT	460-3-60	75	1/4	8 - 15	4 - 5 5/8	30	120
1/8 - 2	9315	A-RR	115-1-60	30	1/4	6 - 15	3 3/8 - 5 5/8	30	113
1/8 - 2	9316	A-RR	230-3-60	30	1/4	6 - 15	3 3/8 - 5 5/8	30	113
1/8 - 2	9317	A-RR	460-3-60	30	1/4	6 - 15	3 3/8 - 5 5/8	30	113
3	9318	RT-RRT	115-1-60	30	1/4	8 - 15	4 - 5 5/8	30	120
3	9319	RT-RRT	230-3-60	30	1/4	8 - 15	4 - 5 5/8	30	120
3	9320	RT-RRT	460-3-60	30	1/4	8 - 15	4 - 5 5/8	30	120

Can be modified to fit larger beams

Flat tread wheel available

Beam size and voltage required for ordering

Apply for other than standard travel speeds

Industrial style chain container

Convenient chain containers are available for installation on every model. Container stores slack chain and removes it from work area. (Flat black powder coat finish)

Specifications

Product code	Lodestar hoist model	Maximum length of lift (ft.)	Length of chain bucket (in.)
2450	A-AA-B-C-F	10	8
2451	E-H	10	11
2451	A-AA-B-C-F	20	11
2451	J-JJ-L-LL	10	11
2453	R-RR	10	17
2453	J-JJ-L-LL	20	17
2452	E-H-J-JJ-L-LL	15	14
2453	E-H	20	17
2455	R-RR	15	23
2456	R-RR	20	31
2455	RT-RRT	10	23
2457	RT-RRT	15	36
2457	RT-RRT	20	36
2458	A-AA-B-C-F	140	48
2458	E-H	70	48
2458	J-JJ-L-LL	90	48
2458	R-RR	45	48
2458	RT-RRT	30	48



* ⚠ WARNING

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To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



CM Prostar electric chain hoist

- Cost effective choice for smaller nightclubs, ballrooms, stages and industrial trade shows
- H4 duty cycle for up to 300 motor starts per hour
- 300 and 600 lbs. capacity available
- Compact, portable and light — weighs just 24 lbs.
- Black powder coat finish for durability
- Standard mechanical overload device
- 10 pocket oblique lay liftwheel for smooth chain operation, constant chain speed and reduced chain wear
- NEMA 12 industrial rated control station
- Optional chain container available
- Manufactured in an ISO 9001 registered facility
- Gear train lifetime lubricated with non-oxidizing grease
- Self-colored Hoistaloy load chain
- Lifetime warranty
- Thermally protected hoist duty motor
- Dual braking system – D.C./regenerative
- Rugged cast aluminum alloy hoist frame
- Standard 6 ft. push-button control (other lengths available upon request)
- 5:1 design factor
- 6 1/2 ft. power cord with molded 3 prong plug (115v only)
- Rigid latch style upper hook prevents tangling of power cord
- Hardened forged steel latch style lower hook rotates 360°
- Totally enclosed non-ventilated hoist frame protects motor from environmental contamination
- True vertical lift
- Precision bearings used throughout hoist
- Easy installation and maintenance
- Meets or exceeds standards established by National Electrical Code, American National Standards Institute Safety Standard (ASME B30.16) and American National Standards Institute Performance Standard ANSI/ASME HST-1M
- TUV pending
- CE pending
- Operates motor up and motor down
- Made in U.S.A.



Specifications

Rated capacity* (lbs.) (kg)		Product code	Electrical power supply†	Lifting speed (F.P.M.)		Reeving	Standard lift (ft.)**	Standard motor H.P.	Contactor location
				50 hz	60 hz				
300	136	2007	115-1-60	–	16	1	10	1/6	Push button
600	272	2008	115-1-60	–	8	2	10	1/6	Push button
300	136	2049	115-1-60	–	16	1	10	1/6	Hoist head
600	272	2050	115-1-60	–	8	2	10	1/6	Hoist head
300	136	2041	220-1-50/60	13.3	16	1	10	1/6	Hoist head
600	272	2044	220-1-50/60	6.7	8	2	10	1/6	Hoist head
300	136	2042	220-3-50/60	13.3	16	1	10	1/6	Hoist head
600	272	2045	220-3-50/60	6.7	8	2	10	1/6	Hoist head
300	136	2043	380/415-3-50	13.3	–	1	10	1/6	Hoist head
600	272	2046	380/415-3-50	6.7	–	2	10	1/6	Hoist head
300	136	2043	460-3-60	–	16	1	10	1/6	Hoist head
600	272	2046	460-3-60	–	8	2	10	1/6	Hoist head

† For other voltages consult the factory

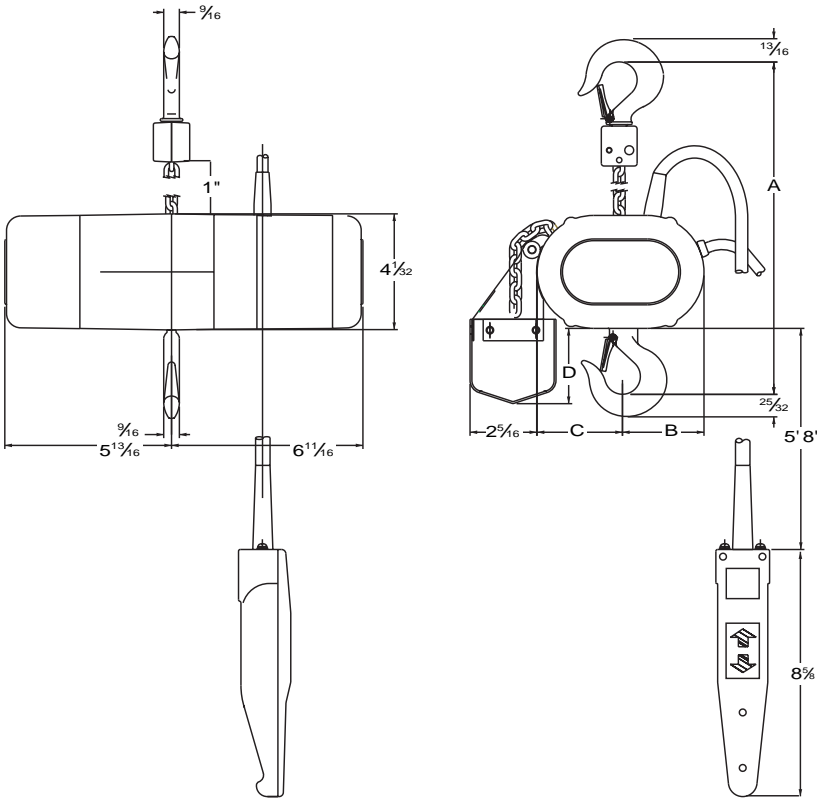
**Longer lifts available

CM Prostar chain containers

Motor down product code	Motor up product code	Bucket length	Material type	Maximum lift	
				Model 300 lbs.	Model 600 lbs.
2019	2010	3 3/8	vinyl	10	–
2021	2011	5 1/4	vinyl	20	10
2022	2013	10	fabric	40	20
2015	2014	13	fabric	70	35
2016	2051	24	fabric	120	60



CM Prostar electric chain hoist with contactor in hoist head



Clearance dimensions (in.) - Contactor in hoist head

Rated capacity* (lbs.)	Maximum length of lift (ft.)	A	B	C	Motor up D	
					Motor up D	Motor down D
300	10	10 7/8	3	2 15/16	3 7/8	2 5/8
600	10	11 15/16	3 9/16	2 3/8	5 3/4	4 1/2
300	20	10 7/8	3	2 15/16	5 3/4	4 1/2
600	20	11 15/16	3 9/16	2 3/8	11 1/2	10 1/4
300	40	10 7/8	3	2 15/16	11 1/2	10 1/4
600	35	11 15/16	3 9/16	2 3/8	14 1/2	13 1/4
300	70	10 7/8	3	2 15/16	14 1/2	13 1/4

Double reeving kit

- For converting 300 pound units to 600 pound units
- Contains hook, block, necessary hardware and labels for conversion
- Order product code 2009

* **▲WARNING**

Overloading and improper use can result in injury.

To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



Powered hoist chain chart

Hoist alloy load chain (star grade)

Chain size diameter (in.)	Chain Finish	Product code	Rated capacity* (tons)	Hoist type	Standard lift. (ft.)	Length chain for standard lift	Reeving	Link outside length (in.)	Link outside width (in.)	Weight per foot (lbs.)
1/4	Zinc Plated	85944	1/8-1/2	Lodestar A,AA,B,C,F	10	11'-3"	1	1.245	.853	.59
			1/2 & 1	Lodestar E & H	10	22'-0"***	2	1.245	.853	.59
5/16	Zinc Plated	85949	1/2 & 1	Lodestar J, JJ, L, LL	10	11'-6"	1	1.482	1.03	.88
			2	Lodestar R & RR	10	22'-2 1/4"***	2	1.482	1.03	.88
			3	Lodestar RT & RRT	10	33'-0"	3	1.482	1.03	.88
.157	Burnished	85988	300 lbs.	Prostar	10	13'-0"	1	.786	.539	.23
.157			600 lbs.	Prostar	10	23'-3"	2	.786	.539	.23
.157	Zinc Plated	85989	300 lbs.	Prostar	10	13'-0"	1	.786	.539	.23
.157			600 lbs.	Prostar	10	23'-3"	2	.786	.539	.23

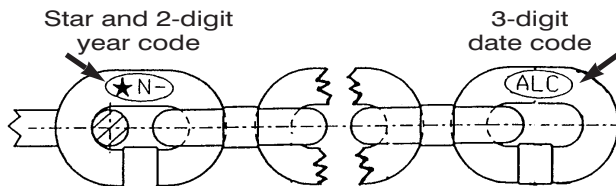
**Must be odd number of links.

† Must be even number of links.

Drum chain for power operated hoists

Hoist	Model	Chain drum code	Chain code	Diameter inches	Length per drum ft.	Approx. shipping wt. (lbs.)
Lodestar	A,AA,B,C,F E & H	85999	85944	1/4	250	148
Lodestar	A,AA,B,C,F E & H	85011	85944	1/4	500	304
Lodestar	J, JJ, L, LL, R, RR, RT, RRT	85996	85949	5/16	200	194
Lodestar	J, JJ, L, LL, R, RR, RT, RRT	85012	85949	5/16	500	475
Lodestar	A,AA,B,C,F E & H	85016	85944	1/4	1,000	600
Lodestar	J, JJ, L, LL, R, RR, RT, RRT	85017	85949	5/16	1,000	940
Prostar	All	85018	85988	.157	250	66
Prostar	All	85019	85988	.157	500	126
Prostar	All	85020	85988	.157	1,000	244

- Use only CM Star (★) grade load chain and CM replacement parts. Use of other chain and parts may be dangerous and voids factory warranty.



Identification of genuine CM Star (★) grade load chain

*** ⚠ WARNING**

Use of Commercial or other manufacturers' chain and parts to repair CM hoists may cause load loss.

To avoid injury:
Use only CM supplied replacement load chain and parts. Chain and parts may look alike but CM chain and parts are made of specific material or processed to achieve specific properties.

*** ⚠ WARNING**

Overloading and improper use can result in injury.

To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



CM wire rope puller

This manual lever operated hoist is available to lift or pull 1/2 or 1 ton loads. Both models feature:

- Fully portable, lightweight, compact design
- Rugged one-piece cast aluminum drum and double ratchet design for extremely long life
- Shielded drum to protect cable from incidental damage and maintain proper wrap on drum
- Double ratcheting pawls to keep handle force centered on load and prevent tendency for hoist to twist or rotate
- Upper swivel latch type hook rotates 360° and articulates 180° to provide easier connection to suspension point or load
- Corrosion-resistant zinc-plated finish
- High-strength corrosion-resistant galvanized aircraft cable
- Oversized hooks to provide larger throat opening for easier attachment
- Usable in any position, even upside down, allowing easy rigging in tight applications
- Patented operating mechanism to allow one-finger operation
- Heavy-duty steel frame and easy-to-use handle with permanently fixed non-slip thermally insulated grip handle
- One-piece cast steel pawl for increased durability and strength
- Free wheeling in unloaded state for easy attachment of load
- One-year warranty
- Made in U.S.A.



Specifications

Rated capacity* (tons)	Product code	Maximum lift (ft.)	Wire rope cable diameter (in.)	Handle length (in.)	Handle pull at grip to lift rated load (lbs.)	Minimum headroom (in.)	Hook throat openings (in.)	Approx. shipping weight (lbs.)
1/2	15902	12	3/16	20	100	16	3/4	10
1	15904	6	3/16	20	105	18.5	3/4	9

* **▲WARNING**

Overloading and improper use can result in injury.

To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



CM cable lever operated hoist

Designed for safety, durability, and versatility

Engineered for safe operation

- Handle designed for overload protection – bends to warn of hazardous condition and prevent overload
- Hooks with safety latches – 360° swiveling hooks equipped with safety latches for positive load engagement
- Meets ANSI Standard B30.21

Portable and durable

- Lightweight and rugged – special cast aluminum alloy housings
- Heavy duty cable – utilizes preformed and galvanized 7 x 19 (133 strand) extra flexible aircraft cable
- Corrosion resistant – all stainless steel springs and shafts
- Reduced wear – all rotating shafts are mounted on bronze bushings

Easy to operate

- Self-storing cable drum – provides compact operation
- Fast cable take-up – winding wheel provided for quick take-up or positioning of cable
- Easy load positioning – utilizes a double interlocking pawl system for precise load adjustment
- Positive load holding in all environments – provided by double interlocking pawl mechanism
- Open construction – allows for easy cleaning and inspection

Special model features

- All models are available with Bullard-type hooks
- C430CDPA equipped with oversized slip hooks
- Made in USA



Specifications

Single and double line • 500 - 4000 lbs.

Product code	Rated capacity* (lbs.)	Single line		Double line			Cable diameter x length (in.) (ft.)	Shipping weight (lbs.)
		Standard lift (ft.)	Hook to hook (min.) (in.)	Rated capacity* (lbs.)	Standard lift (lbs.)	Hook to hook (min.) (in.)		
CM115SA	1000	13 ³ / ₄	19	–	–	–	3/16 x 16	7 ³ / ₄
CM115DA	1000	13 ¹ / ₂	21	2000	6 ¹ / ₂	27	3/16 x 16	9 ¹ / ₂
CM505NA	1500	13	21	–	–	–	1/4 x 15	8 ¹ / ₂
CM202WNA	1500	12 ¹ / ₂	21	3000	6	27	1/4 x 15	10 ¹ / ₂
CM434WNA	1500	21 ¹ / ₂	22 ¹ / ₂	3000	10 ¹ / ₄	28 ¹ / ₂	1/4 x 24	12 ¹ / ₄
CM430CDPA	1500	21 ¹ / ₂	25	3000	10 ¹ / ₄	33 ¹ / ₂	1/4 x 24	15
CM404WNA	2000	12 ¹ / ₂	22 ¹ / ₂	4000	6	28 ¹ / ₂	9/32 x 15	12 ¹ / ₂



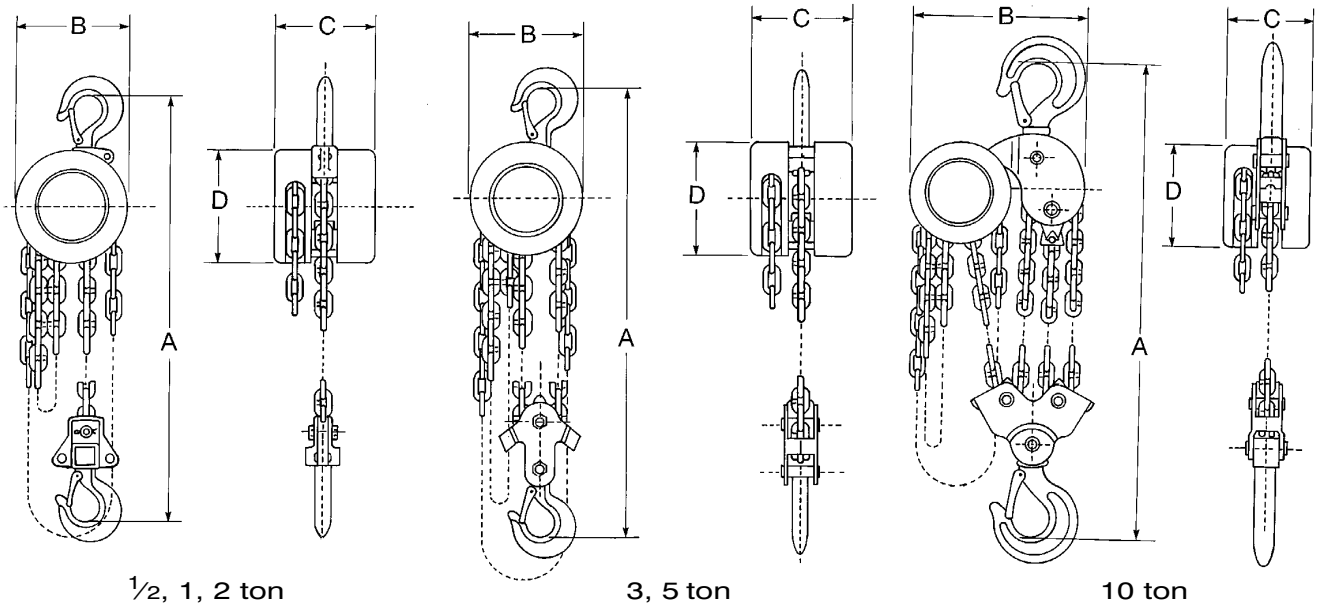
CM Series 622 hand chain hoist

- Simple, efficient, economical design
- Equipped with hardened steel load chain for flexibility and long wear
- Compact design, low headroom and lightweight for easy installation, even in confined spaces
- Weston-type load brake requires no lubrication
- Wheel cover with guide slots minimizes jamming and slipping
- Forged swivel hooks with latches reduce twisting of chain and unintentional unhooking of load when chain is slack
- Standard hand chain drop is 2 feet less than lift (example: 8 foot lift hoist has 6 foot hand chain drop)
- One-year warranty
- Imported



Specifications

Rated capacity* (tons)	Product code	Standard lift (ft.)	Chain pull to lift rated load (lbs.)	Hand chain overhauled to lift load one foot (ft.)	Approx. shipping weight (lbs.)
1/2	2202	8	53	29	15
1/2	2216	12	53	29	22
1/2	2208	15	53	29	25
1/2	2231	20	53	29	30
1/2	2263	30	53	29	38
1	2204	8	77	37	22
1	2217	12	77	37	29
1	2210	15	77	37	32
1	2262	20	77	37	38
1	2264	30	77	37	48
2	2206	8	82	80	57
2	2218	12	82	80	6
2	2213	15	82	80	71
2	2233	20	82	80	80
2	2272	30	85	80	85
3	2207	8	65	154	85
3	2230	12	65	154	93
3	2214	20	65	154	109
5	2209	8	105	147	82
5	2215	12	105	147	96
5	2234	20	105	147	123
10	2212	8	109	289	164



Clearance dimensions (in.)

Rated capacity* (tons)	1/2	1	2	3	5	10
A (Headroom)	11 ⁵ / ₈	13	18 ¹ / ₈	21 ²⁹ / ₃₂	23 ⁷ / ₈	27 ⁹ / ₁₆
B (Width)	4 ¹⁵ / ₁₆	5 ¹⁹ / ₃₂	8 ⁵ / ₁₆	8 ⁵ / ₁₆	8 ⁵ / ₁₆	14 ³ / ₃₂
C (Depth)	4 ⁵ / ₁₆	5 ¹ / ₁₆	6 ⁵ / ₈	6 ⁵ / ₈	6 ⁵ / ₈	6 ⁵ / ₈
D (Diameter)	4 ¹⁵ / ₁₆	5 ¹⁹ / ₃₂	8 ⁵ / ₁₆	8 ⁵ / ₁₆	8 ⁵ / ₁₆	8 ⁵ / ₁₆
Hook opening (upper)	1 ¹ / ₁₆	1 ¹ / ₃₂	1 ¹ / ₄	5 ¹ / ₁₆	1 ¹³ / ₁₆	2 ¹ / ₂
Hook opening (lower)	1 ¹ / ₁₆	1 ¹ / ₃₂	1 ¹ / ₄	5 ¹ / ₁₆	1 ¹³ / ₁₆	2 ¹ / ₂

* **▲WARNING**

Overloading and improper use can result in injury.

To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



CM Series 637 lever operated hoist

Designed for close quarter, standard duty commercial applications, this rugged, compact tool has a short stroke with minimal effort required. Also features:

- Weston-type automatic braking system for positive load control
- Forged upper and lower hooks with latches standard
- Steel chain guide roller and chain stripper for smooth chain feed
- Double reduction dual load sharing steel gears
- Double pawl arrangement for optimum load control
- Impact resistant all steel frame, gear case and cover
- Minimal maintenance without special tools
- Hardened link type steel load chain for strength and long wear life
- Free-wheeling mechanism for fast load attachment
- One-year warranty
- Imported



Specifications

Rated capacity* (tons)	Product code	Standard lift † (ft.)	Reeving	Pull to lift full load (lbs.)	Lever length (in.)	Hook throat opening (in.)	Minimum distance between hooks (in.)	Shipping weight (lbs.)
3/4	3703	5	1	45	11 1/2	15/16	11 1/2	17 3/4
3/4	3743	10	1	45	11 1/2	15/16	11 1/2	21 3/4
3/4	3757	15	1	45	11 1/2	15/16	11 1/2	20
3/4	3758	20	1	45	11 1/2	15/16	11 1/2	22
1 1/2	3705	5	1	48 1/2	16 1/4	1 1/16	13 5/8	28
1 1/2	3745	10	1	48 1/2	16 1/4	1 1/16	13 5/8	33
1 1/2	3746	15	1	48 1/2	16 1/4	1 1/16	13 5/8	39
1 1/2	3759	20	1	48 1/2	16 1/4	1 1/16	13 5/8	45
3	3707	5	2	73	16 3/16	1 1/2	19 1/8	47 1/4
3	3747	10	2	73	16 3/16	1 1/2	19 1/8	54 1/4

† Can be supplied with lifts longer than 20 feet



Chain charts for CM hand and lever operated hoists

Rated capacity* (tons)	Product code	Chain size diameter (in.)	Hoist	Standard lift (ft.)	Length chain for standard lift	Reeving	Link outside length nominal (in.)	Link outside width nominal (in.)	Weight per foot (lbs.)	Length hand chain for standard lift
1/4	85834	.197	Series 622	8	8'-9"	1	.969	.666	.38	14'-0"
1/2	85834	.197	Series 622	8	8'-9"	1	.969	.666	.38	14'-0"
3/4	85959	.236	Series 637	5	5'-6"	1	1.162	.784	.508	—
1	85959	.236	Series 622	8	8'-9"	1	1.162	.784	.508	14'-0"
1 1/2	85961	.281	Series 637	5	6'-0"	1	1.181	.799	.759	—
2	85960	.394	Series 622	8	9'-0"	1	1.969	1.299	1.452	16'-0"
3	85960	.394	Series 622	8	18'-0"	2	1.969	1.299	1.452	16'-0"
3	85960	.394	Series 637	5	6'-3"	1	1.969	1.299	1.452	—
5	85960	.394	Series 622	8	18'-0"	2	1.969	1.299	1.452	18'-0"
10	85960	.394	Series 622	8	36'-0"	4	1.969	1.299	1.452	18'-0"

** Must be even number of links

† Must be odd number of links

Note: All codes listed above are for unplated chains.

Drum chain for hand operated hoists

Rated capacity* (tons)	Hoist description	Chain size diameter (in.)	Chain product code	Chain drum product code	Chain description	Length per drum (ft.)	Approx. shipping weight (lbs.)
1/4-1/2	Series 622	.197	85834	85005	Load chain	250	90
1	Series 622	.236	85959	85002	Load chain	250	143
1 1/2-10	Series 622	.394	85960	85003	Load chain	200	305
1/4-10	Series 622	.192	85832	85997	Hand chain	250	76

Drum chain for lever operated hoists

Rated capacity* (tons)	Hoist description	Chain size diameter (in.)	Chain product code	Chain drum product code	Chain description	Length per drum (ft.)	Approx. shipping weight (lbs.)
3/4	Series 637	.236	85959	85002	Load chain	250	143
1 1/2	Series 637	.281	85961	85004	Load chain	250	190
3	Series 637	.394	85960	85003	Load chain	200	305

Note: All chain drums listed above have unplated chain.

Each size chain is packed in one continuous length in a specially designed reinforced fiber drum.

Instructions for cutting CM Hoistaloy and chain are included in each chain drum.

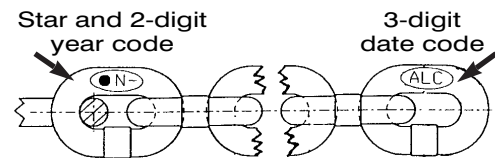
When installing load chain, be sure the load supporting end is on the correct side of the liftwheel. Also, the welded side of the upstanding link should be away from the liftwheel.

- Use only CM Disc (●) grade load chain and CM replacement parts. Use of other chain and parts may be dangerous and voids factory warranty.

Standard lengths of load chain (except for the Series 637 lever tool and Series 622 hand hoist) may be returned to CM for credit provided they are in good condition and distributor prepays the return transportation. Short lengths or odd pieces may not be returned; standard lengths only.

Contact Inside Sales Department to obtain return authorization.

All load chain returns must go to CM Hoist Division, Columbus MCKinnon Corp., P.O. Box 1294, 290 Stonemill Rd., Abingdon, VA 24212.



Identification of genuine CM Disc (●) grade load chain

*** ⚠ WARNING**

Use of Commercial or other manufacturers' chain and parts to repair CM hoists may cause load loss.

To avoid injury:
Use only CM supplied replacement load chain and parts. Chain and parts may look alike but CM chain and parts are made of specific material or processed to achieve specific properties.

*** ⚠ WARNING**

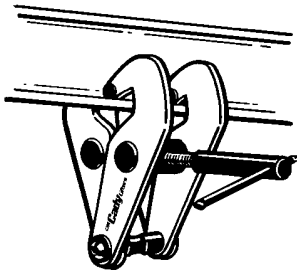
Overloading and improper use can result in injury.

To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.

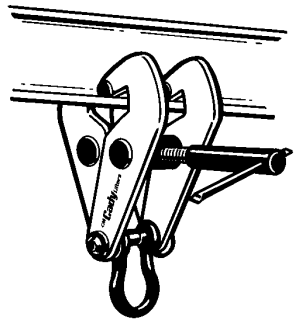


CM Beam clamps



with load bar

- Suitable for use with powered hoists and chain blocks
- Provide a semi-permanent lifting point
- Load pin incorporated for load suspension with reduced headroom
- Working load limit up to 22,000 lbs.
- Designed to fit flanges of most structural beams from 3" to 12"
- All CM Screwlok girder clamps are factory proof tested and a certification is shipped with each product
- Serial numbers are permanently stamped for traceability
- Imported



with shackle suspension

- Shackle incorporated for load suspension
- Designed to fit flanges of most structural beams
- Act as semi-permanent lifting point for use with manual or electric hoists
- Serial numbers are permanently stamped for traceability
- Imported

Specifications

Product code		Flange		Clamp weight (lbs.)	Load pin dia. (in.)	Working load limit (lbs.) vertical	Working load limit (lbs.) @ 15°	Working load limit (lbs.) @ 30°	Working load limit (lbs.) @ 45°
with load bar	with shackle	Min. (in.)	Max. (in.)						
695243	695249	3	8¼	11	¾	2,200	2,125	1,905	1,555
695244	695250	3	8¼	13½	¾	4,400	4,250	3,810	3,111
695245	695251	4	10⅝	17½	7/8	6,600	6,375	5,716	4,667
695246	694991	3	12	20	7/8	6,600	6,375	5,716	4,667
695247	694992	4	10⅝	22	1⅛	11,000	10,625	9,526	7,778
695248	694993	3	12	26½	1⅛	11,000	10,625	9,526	7,778
694990	-	3	12	35½	1½	22,000	21,250	19,052	15,556
-	694994	3	12	35½	3¼	22,000	21,250	19,052	15,556

* ⚠ WARNING

Improper use of clamps may result in loss of load and personal injury.

To avoid injury:

- Inspect clamps and equipment before use.
- Do not exceed clamp rated load.
- Use clamps only if authorized and properly trained.
- Do not lift unbalanced load.
- Published working load limits are the clamp's ability to support loads and do not reflect the beam's ability to carry the same load vertically or at an angle.
- Make sure that beams are structurally capable of carrying expected loads.
- If in doubt of a beam's load carrying capability, have an assessment carried out by a competent person.

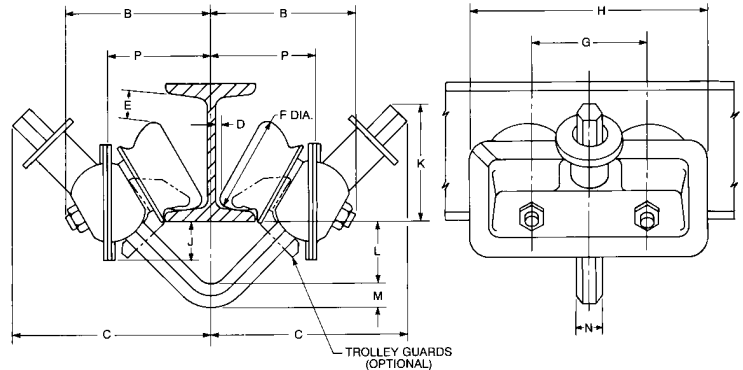


CM Series 632 close radius trolley

With revolutionary advances, this shorter, more compact trolley is 50% lighter than competitive trolleys, yet every bit as tough.

- Negotiates radius curves as tight as 7 to 10 inches
- Made of highest quality rolled steel
- Unique double row, ball bearing wheel design for greater wear capacity
- Larger V-bars available for wider flange adjustment
- For low headroom applications
- Bearings prepacked with lifetime lubricant
- Exclusive Dial-Fit collar quickly adapts trolley to wide range of beams and patented rails
- Dust covers shield and protect bearings

- Trolleys available for larger beams, rails or tracks; contact CM
- Cast iron trolley guards available (except for 3 ton)
- Lifetime warranty
- Made in U.S.A.



Clearance dimensions (in.)

Rated capacity* (tons)	1/4 & 1/2	1	1 1/2 & 2	3
Min. radius curve (in.)	7	7	10	10
B	4 1/4	4 3/8	5 5/8	6 3/16
C	5 7/8	6	7 1/2	8 1/16
D	3/16	3/16	3/8	1 1/16
E	1 3/16	1 3/16	2 3/16	4 1/16
F	2 3/4	2 3/4	3 1/2	3 1/2
G	3 3/8	3 3/8	4 1/2	4 1/2
H	7	7	9	9
J	1 1/8	1 1/8	1 1/2	1 5/8
K	3 3/8	3 1/2	4 3/8	4 13/16
L	1 13/16	1 5/8	2	2 5/8
M	1 1/16	7/8	1 1/8	1 1/8
N	7/8	1	1 1/4	1 1/4
P	3	3 1/8	3 7/8	4 15/16

Dimensions given are for minimum S-beam and will vary with larger beams.



Specifications

Rated capacity* (tons)	Product code	Adj. for standard S-beams		Tread diameter (in.)	Net weight (lbs.)	Shipping weight (lbs.)	Minimum radius curve (in.)
		Depth of beam (in.)	Flange width (in.)				
1/4-1/2	3222	4-12	2 5/8-5 1/16	2 3/4	9	10	7
1	3224	4-12	2 5/8-5 1/16	2 3/4	10	12	7
1 1/2-2	3226	6-15	3 3/8-5 5/8	3 1/2	23	25	10
3	3230	8-18	4-6 1/4	3 1/2	29	33	10

All capacities can be supplied for S-beams larger than listed and also for wide flange beams, rails or tracks with approximately equivalent flange widths.

*** ⚠ WARNING**

Overloading and improper use can result in injury.

To avoid injury:

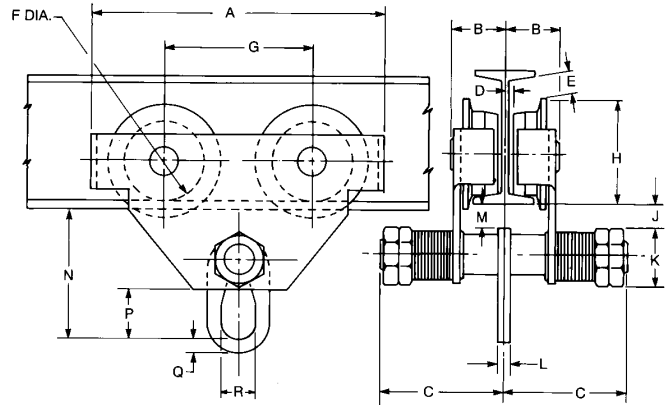
- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



CM Series 633 wide range trolley

Simple, rugged, built for trouble-free service and ease of operation across a wide range of beam applications. Series 633 features:

- Rugged steel side plates formed to include bumpers and trolley guards for added security
- Frames connected by steel equalizer pin, secured by two nuts on each side
- Universal tread flanged trackwheels equipped with shielded ball bearings
- Easy rolling on American standard shapes, wide flange shapes or patented rail
- Hardened wheels and axles for added strength and durability
- Spacer washers can be shifted inside or outside for easy adjustment to a wide range of beams
- To be used with hook suspended hoist
- Suspension plate for easy attachment is standard
- Bearings prepacked with lifetime lubricant
- One-year warranty
- Imported



Clearance dimensions (in.)

Rated capacity* (tons)	1/2	1	2	3	5
Min. radius curve (in.)	35	35	59	71	94
A	8 1/2	10 13/16	12 7/32	14 13/16	18 1/8
B**	2 5/32	2 13/32	2 1 1/16	3 1/16	3 21/32
C	5 1/16	6 9/16	6 25/32	7 13/32	8
D**	1/16	7/16	13/32	1/2	9/16
E**	1/4	1 1/32	2 5/32	1 7/16	2 3/16
F	2 9/32	3 15/32	3 15/16	5 1/8	6 1/8
G	4	4 7/8	5 1/2	6 9/16	7 7/8
H**	3	4 1 1/32	4 29/32	6 1/8	7 9/32
J**	1 1/32	1 1/32	2 5/32	1 3/16	2 1/8
K	1 3/4	2 3/32	2 1/2	3 13/32	3 13/32
L	1/2	1/2	5/8	5/8	1 3/16
M**	1 5/16	3 1/32	5/16	1 5/16	1 7/16
N**	4 3/32	5 1/16	5 13/16	7 7/16	9 1 5/16
P	1 7/32	1 3/4	2 5/32	2 9/16	3 23/32
Q	1 9/32	1 9/32	1 3/16	1 3/8	1 25/32
R	3 1/32	1 5/32	1 5/8	1 3 1/32	2 9/16



** Dimensions given are for minimum S-beam and will vary with larger beams.

Specifications

Rated capacity* (tons)	Product code	Adj. for standard S-beams		Tread diameter (in.)	Net weight (lbs.)	Shipping weight (lbs.)
		Depth of beam (in.)	Flange width (in.)			
1/2	3302	3-15	2 1/2-5 5/8	2 9/32	15	17
1	3304	5-24	3-8	3 15/32	34	36
2	3306	6-24	3 5/8-8	3 15/16	50	53
3	3307	8-24	4-8	5 1/8	95	100
5	3309	10-24	4 5/8-8	6 1/8	172	175



Lift tables

American Lifts offers the widest variety of standard lifts and a world-proven record for designing custom applications and lift systems.

With over 60 years of lift manufacturing experience, we know what it takes to deliver reliability and performance. American Lifts can supply you with the correct lift equipment to meet the most unique specifications.

Call today for additional information on a specific application or our full line of standard or custom products.



16 years of serving the stars...
Russell C. Davis Planetarium
Jackson, Mississippi



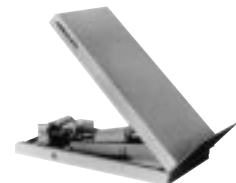
AirLift
2,000 lbs.



Single & Double Arm
Scissor Lift
4,000 to 24,000 lbs.



Torklift
2,000 to 30,000 lbs.



Tilter
1,000 to 4,000 lbs.



Travelift
2,000 to 6,000 lbs.

* **WARNING**

Overloading and improper use can result in injury.

To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



Lift tables



Raising the winner in Victory Lane at the Indianapolis 500

Winners Circle lift at The Indianapolis Motor Speedway



Storing and retrieving stage and orchestra equipment

Accurate positioning of laser projector housing





CM Fall protection equipment

Light-weight harness

- The most popular harness, weighs only 2 lbs.
- Light in weight, can be worn all day
- Easy to put on and take off
- Buckle adjustments are minimal, yet give each worker a custom feel
- Sliding back dee ring keeps worker upright should a fall occur
- No body belt, so no binding around mid-section; workers can add tool belts or back belts
- Can also be ordered with side dee rings
- Meets OSHA regulations
- One size fits most body types and sizes
- Add "Z" to product code for all black webbing
- Made in USA



Light-weight harness, #800



Light-weight harness, #800



Light-weight harness with side dee rings, #800B

Heavy duty harness

- The most effective way to prevent injury in event of a fall
- Sliding back dee ring keeps worker upright should a fall occur
- Adjustable, breathable back pad assures maximum comfort
- Shoulder pads ease strain when carrying heavy loads
- Tongue buckle waist and leg straps are easy to adjust, fit firmly and stay in place as worker moves
- Easily accessible hip dee rings permit quick connection for positioning
- Meets OSHA regulations
- Sizes S-XL
- Add "Z" to product code for all black webbing



Heavy duty harness, #830AB



Heavy duty harness, #830AB



Adjustable comfort pad with side dee rings



Shoulder pads

* **WARNING**

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To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



Shock-absorbing pack with snaphook and dee ring, #540

- Can be used with traditional lanyards and harnesses
- User enjoys benefits of a shock absorber without purchasing a new lanyard or harness
- Snaphook connects to back dee ring of the harness, dee ring connects to locking snaphook of the lanyard



Web lanyard with shock absorber, #210P6

- The most popular shock absorber
- Durable 1" nylon webbing
- 6' length with locking snaphooks on each end
- Available in other lengths and with alternative end fittings



Adjustable shock-absorbing lanyard, #210PQ6

- Length can be adjusted from 3' to 6' to accommodate tight spaces
- Shorter length reduces fall distance, especially vital at heights of 15' or less



Double leg shock-absorbing lanyard, #210PO6

- Assists with 100% tie-off programs
- Allows worker to alternate lanyard legs as he/she walks, keeping one leg tied off at all times to reduce potential for a fall
- 6' length, with three locking snaphooks



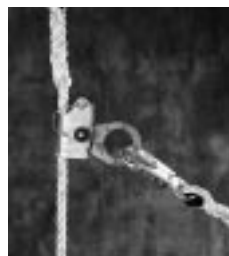
Retractable lifeline, #7000

- Available with standard galvanized steel cable with snaphook for attaching to back dee ring of harness
- Locking carabiner included for attachment to anchor point
- Cable available in lengths of 25', 50' and 100'
- To order, add the length to the model number, i.e., 7000-25
- Also available in stainless steel cable (option V) and in a polyester-aramid blend (option W)



Retractable web lanyard

- Unit is equipped with 10 feet of lightweight webbing line
- Webbing extends as worker moves
- Locks automatically when a fall is sensed



Rope grab

- Model #552 rope grab can be used on both 5/8" and 3/4" synthetic rope
- Model #551 rope grab can be used with 5/8" synthetic rope
- Also available with attached 3' web lanyard (option R)



Tie-off strap, #5004

- Wraps around a beam, then attaches to the snaphook of a lanyard
- Reduces wear and tear on the lanyard
- Increases worker security
- Comes in standard 4' length with dee ring on one end



Horizontal lifeline, 500RHL-60

Standard system components include:

- 60' blended polyester rope - 5/8" diameter
- Line tensioner for adjusting lifeline length
- Tie-off ring for lanyard attachment
- Locking carabiners for easy anchorage
- Heavy duty shock-absorbing pack on one end
- Assembled in USA of domestic and imported components

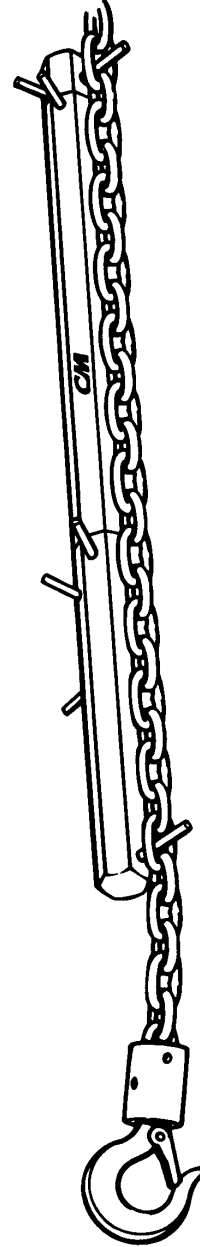


CM chain wear gauge

All hoist chain wears with use, yet visual inspection may not be enough to determine if the chain has worn beyond safe operating limits. That's why you should always follow hoist inspection schedules as recommended in your manual and use the CM hoist chain wear gauge to accurately measure the welded link chain.

Designed to aid operators in determining chain wear, the gauge helps maintain safe hoist chain operation and facilitates compliance with industry standards. Features include:

- For Lodestar, Valustar, Cyclone, Puller
- Lightweight aluminum construction for portability and ease of handling
- Complete step-by-step directions printed on gauge for easy use
- Can be used while chain remains on hoist to save hoist downtime
- Helps ensure hoist chain meets ASME B30.16 inspection requirements
- Product code 3191
- Made in U.S.A.



* **▲ WARNING**

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To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



CM Chainset

Skid resistant for theatrical applications

- Ballistic nylon cover resists abrasion and effects of UV rays
- Slip and skid resistant surface grips smooth surfaces
- Hook and loop closure removes easily for inspection; cover can be replaced
- Grade 80 alloy chain meets OSHA requirements for overhead lifting
- High strength to weight ratio
- 3,000 lb. working load limit in choke configuration
- Fireproof, chain is unaffected by temperatures up to 500°F
- Eliminates redundant rigging to meet local fire and safety codes; saves installation time
- Suitable for permanent installations
- 4:1 design factor
- ID tag stamped with size, reach, working load limit and serial number
- Made in USA

Complete Chainset

Product code	Length of reach	Endless	Choker	Basket	Weight (lbs.)
695990	3 ft.	3500	3000	7000	4.9
695991	6 ft.	3500	3000	7000	9.5

Replacement covers

Product code	Length of reach
496097	3 ft.
496098	6 ft.

Use of chain under heat conditions

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

Temperature of chain (F°)	Working load limit while at temperature ¹	Permanent reduction in working load limit ²
< -40	not recommended	none
-40 to 400	100%	none
>400 to 600	.09	none
>600 to 750	75%	10%
>750	not recommended	Contact CM rep.

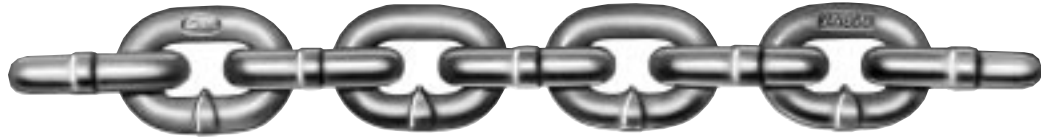
¹ While chain is at temperature shown in first column

² When chain is used at room temperature after having been subjected to temperatures shown in first column



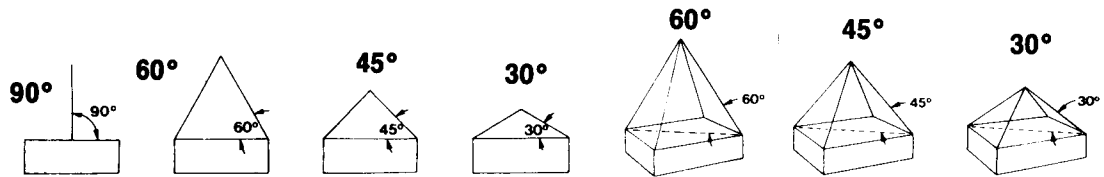


CM Herc-Alloy 800 overhead lifting chain



Sizes and working load limits

Chain size (in.) (mm)	Nominal dimensions (in.)		Approx. no. links per ft.	Approx. weight per 100 ft. (lbs.)	Foot		Drum		Feet per drum
	Inside length	Inside width			Product code	UPC 43927-	Product code	UPC 43927-	
7/32 5.5	.671	.296	17.9	44.7	607020	20038	677010	20040	800
9/32 7.0	.868	.395	13.8	74.2	607028	20246	677011	20254	500
5/16 8.0	1.05	.454	11.4	90.6	607031	20551	—	—	—
3/8 10.0	1.222	.572	9.8	145.9	607037	20717	677013	20725	500
1/2 13.0	1.404	.720	8.5	257.7	607050	21038	677015	21045	300
5/8 16.0	1.733	.854	6.9	387.3	607062	21271	677016	21279	200
3/4 20.0	2.160	1.052	5.5	622.0	607075	21437	677017	21441	100
7/8 22.0	2.250	1.137	5.3	776.4	607087	21551	677018	21554	100
1 26.0	2.664	1.348	4.5	995.4	607101	21626	677019	21630	100
1 1/4 32.0	3.250	1.656	3.7	1,570.9	607128	21692	677070	21695	90



Working load limits (lbs.)

Chain size (in.) (mm)	Single		Double			Triple & quad		
	90°	60°	45°	30°	60°	45°	30°	
7/32 5.5	2,100	3,600	3,000	2,100	5,450	4,450	3,150	
9/32 7.0	3,500	6,100	4,900	3,500	9,100	7,400	5,200	
5/16 8.0	4,500	7,800	6,300	4,500	11,700	9,450	6,750	
3/8 10.0	7,100	12,300	10,000	7,100	18,400	15,100	10,600	
1/2 13.0	12,000	20,800	17,000	12,000	31,200	25,500	18,000	
5/8 16.0	18,100	31,300	25,600	18,100	47,000	38,400	27,100	
3/4 20.0	28,300	49,000	40,000	28,300	73,500	60,000	42,400	
7/8 22.0	34,200	59,200	48,400	34,200	88,900	72,500	51,300	
1 26.0	47,700	82,600	67,400	47,700	123,900	101,200	71,500	
1 1/4 32.0	72,300	125,200	102,200	72,300	187,800	153,400	108,400	

DIN 5687 - contact factory
Made in U.S.A.

*** ⚠ WARNING**

Overloading and improper use can result in injury.

To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



Care, use and inspection

The life and strength of CM 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 CM Herc-Alloy 800 chain; this will alter its thermal treatment.
- Do not plate or change surface finish of chain. Contact CM for special requirements.

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 overloading.
 - Variation in the angle of the load to the sling—as the angle decreases, the working load of the sling will increase.
 - 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 latches must not support load.
- Avoid sudden jerks when lifting and lowering.
- Balance all loads; avoid tipping of loads.
- Use pads around sharp corners.
- Do not drop load on chains.
- Match the size and working load limit of attachments such as hooks or rings to the size and working load limit of the chain.
- For overhead lifting, use only alloy chain (grade 80).

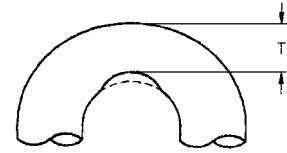
Inspection

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 chains with a non-acid/non-caustic solvent so that marks, nicks, wear and other defects are visible.
- Inspect each link for these conditions:
 - Twists or 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 CM 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) These values apply anywhere on Link	
Inches	mm	Inches	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	13.7
3/4	20.0	0.687	17.5
7/8	22.0	0.750	19.1
1	26.0	0.887	22.5
1 1/4	32.0	1.091	27.7

Note: For sizes not listed, the Minimum Allowable Thickness can be calculated as 87% of the original material diameter.

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.

CM Chain seminars on proper chain use, care and inspection are conducted at our headquarters in Amherst, New York, and in plants across the country. Video cassette training programs, slide and film presentations and in-plant chain sling inspections are also available.

CM education programs are designed to promote the proper use of all CM products, and to assist users in complying with OSHA regulations.

Use of chain under extreme temperature conditions

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

Temperature of chain (°F)	Working load limit while at temperature ¹	Permanent reduction in working load limit ²
<-40	not recommended	none
-40 to 400	100%	none
>400 to 600	0.9	none
>600 to 750	75%	10%
>750	not recommended	Contact CM rep.

¹ While chain is at temperature shown in first column.

² When chain is used at room temperature after having been subjected to temperatures shown in first column.

Certificate of test and identification

Certificate of test available upon request. The identification tag found on the master coupling link of each chain sling contains this information:

- Grade
- Size
- Reach
- Type
- Working load limit (at a specific angle of lift)
- Serial number



CM grade 30 proof coil chain - carbon steel

• Made in USA



Specifications

Chain size		Working load limit (lbs.)*	Nominal inside link dimensions (inches)		Maximum length, 100 links (in.)	Weight per 100 ft. (lbs.)
Inches	Decimal		Length	Width		
3/16	.213	800	.97	.36	99	38
1/4	.270	1,300	1.22	.46	104	66
5/16	.309	1,900	1.22	.46	114	98
3/8	.386	2,650	1.37	.60	128	144
1/2	.531	4,500	1.51	.82	156	278
5/8	.656	6,900	1.88	1.01	194	422
3/4	.787	10,600	2.13	1.13	220	628
1	1.031	17,900	2.77	1.51	286	1,069

Dimensions and weights are approximate and subject to variations.

Embossed: G30 and date codes packed in continuous lengths in half drum, standard drum and large drum.



Standard drum pack (600 lbs.)

Chain size (in.)	Self colored		Zinc plated		Hot galvanized		Feet per container	Max. weight per 100 ft. (lbs.)
	Product code	UPC 43927-	Product code	UPC 43927-	Product code	UPC 49327-		
3/16	671040	28059	671440	30004	671340	29366	850	38
1/4	671041	28173	671441	30080	671341	29404	800	66
5/16	671042	28457	671442	30188	671342	29454	550	98
3/8	671043	28690	671443	30220	671343	29519	400	144
1/2	671045	28936	671445	30363	671345	29678	200	278
5/8	671046	29179	—	—	671346	29705	150	422
3/4	671047	29277	—	—	671347	29802	100	628
1	671049	20247	—	—	—	—	60	1,069

Half drum pack (300 lbs.)

Chain size (in.)	Self colored		Zinc plated		Hot galvanized		Feet per container	Mfg. weight per 100 ft. (lbs.)
	Product code	UPC 43927-	Product code	UPC 43927-	Product code	UPC 43927-		
3/16	671094	28061	671494	30007	671394	29368	500	38
1/4	671091	28175	671491	30081	671391	29406	400	66
5/16	671092	28459	671492	30190	671392	29456	275	98
3/8	671093	28692	671493	30222	671393	29521	200	144
1/2	—	—	—	—	671395	29680	100	278

Large drum pack (1000 lbs.)

Chain size (in.)	Self colored		Zinc plated		Hot galvanized		Feet per container	Mfg. weight per 100 ft. (lbs.)
	Product code	UPC 43927-	Product code	UPC 43927-	Product code	UPC 43927-		
3/16	671060	28060	671480	30006	671360	29367	1500	38
1/4	671061	28174	671481	30085	671361	29405	1400	66
5/16	671062	28458	671482	30191	671362	29455	900	98
3/8	671063	28691	671483	30221	671363	29520	650	144
1/2	671065	28937	—	—	671365	29679	350	278
5/8	671066	29180	—	—	671366	29706	250	422
3/4	671067	29278	—	—	671367	29803	170	628
1	671069	29299	—	—	671369	29902	100	1,069

Pailpak packed in plastic pails

Chain size (in.)	Self colored		Zinc plated		Hot galvanized‡		Feet per pail	Approx. gross weight (lbs.)
	Product code	UPC 43927-	Product code	UPC 43927-	Product code	UPC 43927-		
3/16	671010	28058	671410	71410	671310	29375	250	95
1/4	671011	28172	671411	71411	671311	29402	141	93
5/16	671012	28456	671412	71412	671312	29452	92	98
3/8	671013	28689	671413	71413	671313	29517	63	94
1/2	671015	28935	671415	30362	671315	29677	40	114

‡Weight for hot galvanized: Add 5% for sizes under 1/2". Add 2% for sizes over 1/2".

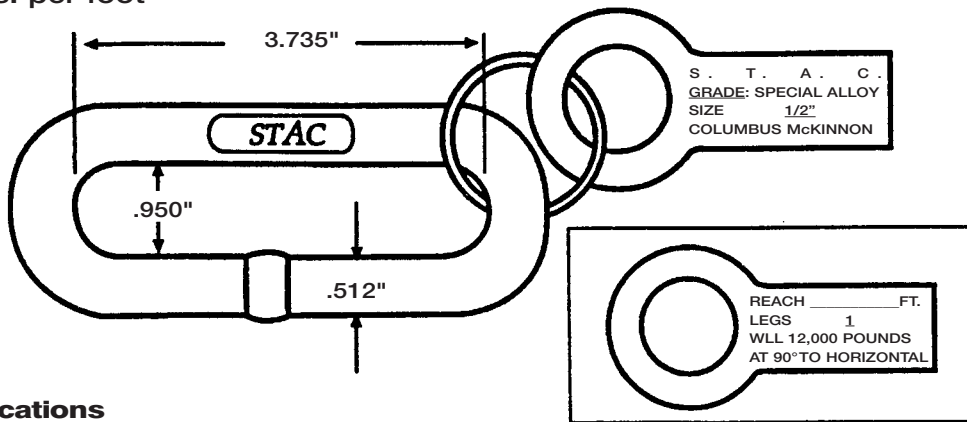


CM Special Theatrical Alloy Chain (STAC)

For theatrical rigging applications where bridel adjustability is required

- Super strength with working load limits of 12,000 lbs.
- Heat treated alloy steel provides long life
- Fireproof and abrasion resistant
- 4:1 design factor meets N.A.C.M./GR80 standards for strength
- Each link proof tested to assure weld and material integrity
- Chain embossed with STAC and CM for easy identification as CM alloy
- Tagged with size, grade, reach and working load limit for positive easy identification
- Link accepts shackle up to 3/4" for versatility and adjustability

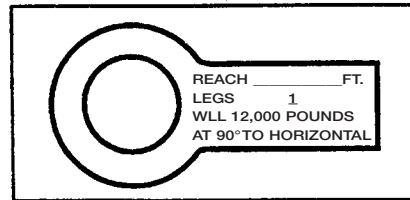
.5750 lbs. per link
1.84 lbs. per foot



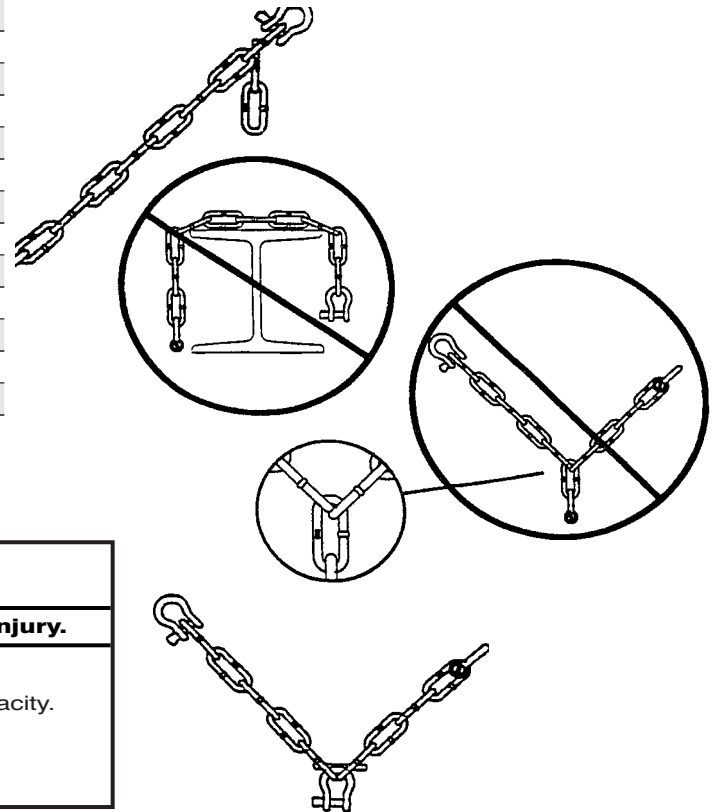
Specifications

Product code	Size (in.)	Length (ft.)
695575	1/2	3
695576	1/2	4
695577	1/2	5
695578	1/2	6
695579	1/2	7
695580	1/2	8
695581	1/2	9
695582	1/2	10
695583	1/2	11
695584	1/2	12
695585	1/2	13
695586	1/2	14
695587	1/2	15

Note: Special lengths available upon request



BACK OF TAG



*** ⚠ WARNING**

Overloading and improper use can result in injury.

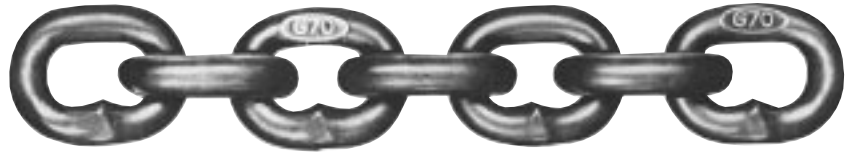
To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



CM grade 70 transport (binding) chain - carbon steel

Embossed: G70 (gold finish) and trace code packed in continuous lengths in half drum, standard and large drums. Made in North America.



Specifications

	Chain size		Working load limit (lbs.)*	Nominal inside link dimensions (in.)		Maximum length, 100 links (in.)	Weight per 100 ft. (lbs.)
	Inches	Decimal		Length	Width		
CM GRADE 70 TRANSPORT (BINDING) CHAIN	1/4	.281	3,150	.84	.47	87	74
	5/16	.327	4,700	.98	.46	102	100
	3/8	.406	6,600	1.14	.54	119	156
	7/16	.468	8,750	1.33	.62	134	204
	1/2	.531	11,300	1.43	.72	149	259

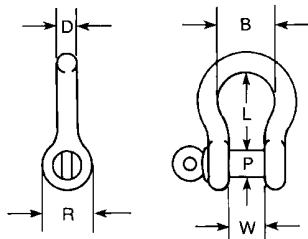
Dimensions and weights are approximate and subject to variations

Chain size (in.)	Drum pack						Pailpak packed in plastic pails							
	Half drum		Std. drum		Large drum		Feet per container			Weight per 100 ft. (lbs.)				
	Product code	UPC 43927-	Product code	UPC 43927-	Product code	UPC 43927-	Half drum	Std. drum	Large drum			Product code	UPC 43927-	Feet per pail (approx.)
1/4	678521	32636	678531	32637	678541	32638	400	800	1,400	74	678517	21877	130	85
5/16	678522	32798	678532	32799	678542	32800	275	550	900	100	678518	21878	90	91
3/8	678523	32834	678533	32835	678543	32837	200	400	650	156	678519	21879	64	95
7/16	678524	32905	678534	32906	678544	32907	150	300	450	204	—	—	—	—
1/2	678525	33029	678535	33030	678545	33031	100	200	350	259	—	—	—	—

CM theatrical shackles

- Pins/bows stamped with batch lot identification for easy tracing
- Each shackle proof tested at 2.2 times the working load limit
- Ultimate strength equals 6 times the working load limit
- Meets or exceeds strength requirements for Federal Specifications RR-C-271
- Marked with size and working load limit in tons
- Bows forged from micro alloy steel with integral heat treating
- Pins forged from 4140 alloy steel and heat treated
- Made in USA

Specifications



Size dia. D (in.)	Working load limit (tons)*	Product code	Dimensions (inches)				Tolerance plus or minus		Approx. weight each (lbs.)	
			Dia. of pin P	Width between eyes W	Inside length L	Inside width at bow B (min.)	Outside dia. of eye R (max.)	W		L
1/2	3	45799	5/8	1 3/16	1 5/16	1 3/8	1 3/8	1/16	1/16	.75
5/8	3 1/4	45800	3/4	1 1/16	2 3/8	1 5/8	1 5/8	1/16	1/4	1.30
3/4	6 1/2	45801	7/8	1 1/4	2 7/8	1 3/4	2 1/8	1/16	1/4	2.25

*** ⚠ WARNING**

Overloading and improper use can result in injury.

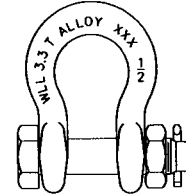
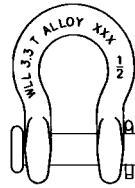
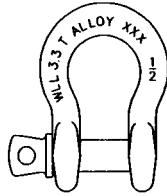
To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



CM alloy steel anchor shackles

- These galvanized shackles meet all requirements of Federal Specification RR-C-271D Amendment 1 except as noted.
- All shackle bodies and pins are forged from alloy steel, heat treated and tempered to give greater strength and abrasion resistance.
- All shackles are marked with size (inches and millimeters) and working load limit in tons.
- Ultimate strength equals 5 times working load limit. Proof load equals 2.2 times working load limit.
- All bolt, nut & cotter shackles have thread protected ends and are 100% proof tested.
- When ordering, specify galvanized (G) or painted (P).
- Galvanized per ASTM A153.
- Painted shackles are orange.
- Ton = 2,000 lbs. ($\frac{3}{8}$ " – 2"), 2,200 lbs. ($2\frac{1}{2}$ " – $3\frac{1}{2}$ ").
- Standard industry tolerances apply.
- Built-in Distortion Detectors ($\frac{3}{8}$ " – 2").
- $2\frac{1}{2}$ " – $3\frac{1}{2}$ " Shackles may be imported.
- Round pin type available on request.
- * = These shackles do not meet Federal Specification RR-C-271D Amendment 1.

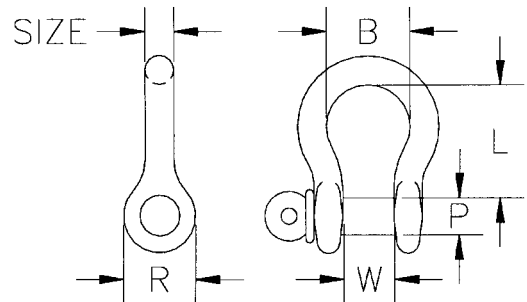


Size (in.)	Working load limit (tons)	Screw pin type			Round pin type			Bolt & nut type			
		Product code	Painted UPC 43927-	Galv. UPC 43927-	Product code	Painted UPC 43927-	Galv. UPC 43927-	Working load limit (tons)	Product code	Painted UPC 43927-	Galv. UPC 43927-
3/8	2	M648A	40433	40499	—	—	—	—	—	—	—
7/16	25/8	M649A	40440	40501	—	—	—	—	—	—	—
1/2	31/3	M650A	40447	40503	M350A	46081	45046	31/3	M850A	40553	40552
5/8	5	M651A	40454	40505	M351A	46083	46103	5	M851A	40556	40555
3/4	7	M652A	40459	40507	M352A	46085	46104	7	M852A	40559	40558
7/8	9 1/2	M653A	40464	40509	M353A	46087	46105	9 1/2	M853A	40562	40561
1	12 1/2	M654A	40469	40511	M354A	46089	44321	12 1/2	M854A	40565	40564
1 1/8	15	M655A	40473	40513	M355A	46091	46237	15	M855A	40568	40567
1 1/4	18	M656A	40477	40515	M356A	46093	44982	8	M856A	40571	40570
1 3/8	21	M666A	40481	40517	M366A	46099	44911	21	M866A	40574	40573
1 1/2	25	M657A*	40485	40519	M357A*	46095	46079	30	M857A	40577	40576
1 5/8	29	M685A*	40489	40488	M385A*	46106	45072	35	M885A	40580	40579
1 3/4	34	M677A*	40493	40523	M377A*	46101	45300	40	M877A	40583	40582
2	43	M658A*	40497	40525	M358A*	46097	44983	50	M858A	40586	40517
2 1/2	—	—	—	—	—	—	—	80††	M860AG*	—	45763
3	—	—	—	—	—	—	—	110††	MC862AG	—	46305
3 1/2	—	—	—	—	—	—	—	140††	M864AG*	—	45767

†† Imported

Dimensions (inches) apply to all styles of anchor shackles

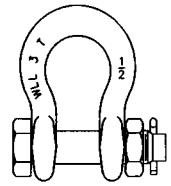
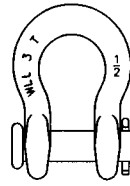
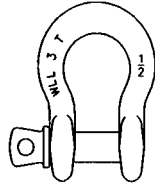
Size	Dia. of pin P	Width between eyes W	Inside length L	Inside width at bow B (min.)	Outside dia. of eye R (max.)	Approx. weight each (lbs.)
3/8	7/16	2 1/32	1 7/16	1 5/16	1 1/8	.30
7/16	1/2	3/4	1 11/16	1 1/16	1 1/4	.50
1/2	5/8	13/16	1 7/8	1 3/16	1 3/8	.75
5/8	3/4	1 1/16	2 3/8	1 1/2	1 7/8	1.3
3/4	7/8	1 1/4	2 13/16	1 3/4	2 1/8	2.3
7/8	1	1 7/16	3 5/16	2	2 3/8	3.5
1	1 1/8	1 11/16	3 3/4	2 5/16	2 5/8	5.0
1 1/8	1 1/4	1 13/16	4 1/4	2 5/8	2 7/8	7.0
1 1/4	1 3/8	2 1/32	4 11/16	2 7/8	3 1/4	9.5
1 3/8	1 1/2	2 1/4	5 1/4	3 1/4	3 1/2	12.5
1 1/2	1 5/8	2 3/8	5 3/4	3 3/8	3 3/4	17.2
1 5/8	1 3/4	2 5/8	6 1/4	4	4 1/8	23.5
1 3/4	2	2 7/8	7	4 1/2	4 1/2	27.7
2	2 1/4	3 1/4	7 3/4	5 1/4	5 1/4	39.0
2 1/2	2 3/4	4 1/4	10 1/2	6 3/4	6 1/4	90.0
3	3 1/4	5	13	7 3/8	6 3/4	137.0
3 1/2	3 3/4	5 3/4	15	9	8 1/2	242.0





CM super strong carbon anchor shackles

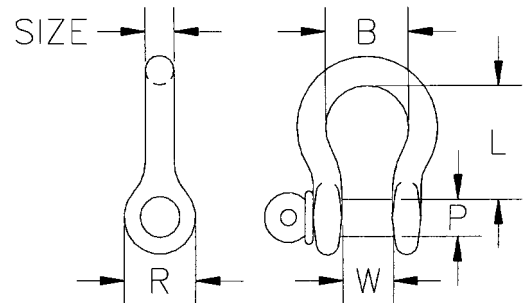
- These shackles have higher working load limits than specified by Federal Specifications.
- All shackle pins are forged from alloy steel, heat treated and tempered to give greater strength.
- All shackles are marked with size (inches and millimeters) and working load limit in tons.
- Ultimate strength equals 6 times working load limit. Proof load equals 2.2 times working load limit.
- All bolt, nut & cotter shackles have thread protected ends.
- When ordering, specify galvanized (G) or painted (P).
- Galvanized per ASTM A153.
- Painted shackles are orange.
- Ton = 2,000 lbs. ($\frac{3}{16}$ " - 2"), 2,200 lbs. ($2\frac{1}{2}$ " - $3\frac{1}{2}$ ").
- Standard industry tolerances apply.
- Built-in Distortion Detectors ($\frac{3}{16}$ " - 2").
- Made in USA



Size (in.)	Working load limit (tons)	Screw pin type			Round pin type			Bolt & nut type		
		Product code	Painted UPC 43927-	Galv. UPC 43927-	Product code	Painted UPC 43927-	Galv. UPC 43927-	Product code	Painted UPC 43927-	Galv. UPC 43927-
3/16	1/2	M645	—	40061	M345	—	40095	—	—	—
1/4	3/4	M646	40004	40062	M346	40100	40099	—	—	—
5/16	1	M647	40008	40064	M347	40105	40104	—	—	—
3/8	1 1/2	M648	40012	40066	M348	40110	40109	—	—	—
7/16	2	M649	40016	40068	M349	40115	40114	—	—	—
1/2	3	M650	40020	40070	M350	40120	40119	M850	40183	40182
5/8	4 1/2	M651	40023	40073	M351	40125	40124	M851	40186	40185
3/4	6 1/2	M652	40027	40074	M352	40130	40129	M852	40189	40188
7/8	8 1/2	M653	40031	40076	M353	40135	40134	M853	40192	40191
1	10	M654	40036	40077	M354	41950	40139	M854	40195	40194
1 1/8	12	M655	40039	40080	M355	40145	40144	M855	40198	40197
1 1/4	14	M656	40041	40082	M356	40150	40149	M856	40201	40200
1 3/8	17	M666	40044	40084	M366	40158	40157	M866	40204	40203
1 1/2	20	M657	40048	40087	M357	40164	40163	M857	40207	40206
1 5/8	24	M685	40052	40089	M385	40169	40168	M885	40210	40209
1 3/4	30	M677	40056	40091	M377	40175	40174	M877	40213	40212
2	35	M658	40060	40093	M358	40180	40179	M858	40216	40215

Dimensions (inches) apply to all styles of anchor shackles

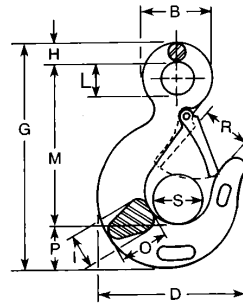
Size	Dia. of pin P	Width between eyes W	Inside length L	Inside width at bow B (min.)	Outside dia. of eye R (max.)	Approx. weight each (lbs.)
3/16	1/4	3/8	7/8	5/8	5/8	.06
1/4	5/16	15/32	1 1/8	3/4	7/8	.12
5/16	3/8	17/32	1 1/4	13/16	1	.20
3/8	7/16	21/32	1 7/16	15/16	1 1/8	.30
7/16	1/2	3/4	1 11/16	1 1/16	1 1/4	.50
1/2	5/8	13/16	1 7/8	1 3/16	1 3/8	.75
5/8	3/4	1 1/16	2 3/8	1 1/2	1 7/8	1.3
3/4	7/8	1 1/4	2 13/16	1 3/4	2 1/8	2.3
7/8	1	1 7/16	3 5/16	2	2 3/8	3.5
1	1 1/8	1 11/16	3 3/4	2 5/16	2 5/8	5.0
1 1/8	1 1/4	1 13/16	4 1/4	2 5/8	2 7/8	7.0
1 1/4	1 3/8	2 1/32	4 11/16	2 7/8	3 1/4	9.5
1 3/8	1 1/2	2 1/4	5 1/4	3 1/4	3 1/2	12.5
1 1/2	1 5/8	2 3/8	5 3/4	3 3/8	3 3/4	17.2
1 5/8	1 3/4	2 5/8	6 1/4	4	4 1/8	23.5
1 3/4	2	2 7/8	7	4 1/2	4 1/2	27.7
2	2 1/4	3 1/4	7 3/4	5 1/4	5 1/4	39.0





CM alloy sling hook with latch - proof tested

• Made in USA

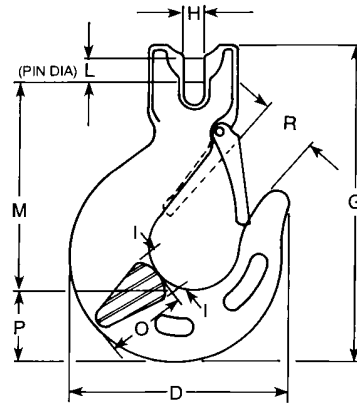


Specifications

Chain size (in.) (mm)	Working load limit (lbs.)*	Product code	UPC 43927-	Dimensions (inches)											Weight each (lbs.)
				B	D	G	H	I	L	M	O	P	R	S	
7/32	5.5	558544	42031	—	3.31	4.30	.38	.73	.75	3.06	1.00	.86	1.11	1.11	.7
9/32	7	558322	44929	1.63	3.50	5.25	.44	.78	.75	3.75	1.20	1.05	1.06	1.06	1.1
3/8	10	558325	44888	2.06	4.34	6.64	.56	.95	.94	4.78	1.45	1.28	1.31	1.31	1.9
1/2	13	558328	45261	2.63	5.50	8.16	.75	1.17	1.13	5.69	1.94	1.66	1.56	1.63	4.5
5/8	16	558329	44974	3.06	6.34	9.66	.88	1.44	1.31	6.50	2.38	2.19	1.75	1.75	7.3
3/4	20	558330	44993	3.50	7.83	11.38	1.00	1.69	1.50	7.81	2.83	2.51	2.19	2.19	11.4
7/8	22	558332	44995	3.88	8.59	12.72	1.09	1.94	1.69	8.75	3.22	2.84	2.38	2.38	18.1
1	26	558333	45080	4.31	9.59	14.23	1.22	2.14	1.88	9.88	3.55	3.09	2.78	2.88	22.6
1 1/4	32	558335	45104	5.31	11.28	17.00	1.50	2.62	2.31	11.50	4.25	3.89	3.41	3.41	36.0

CM Clevlok sling hook with latch - proof tested

• Made in USA

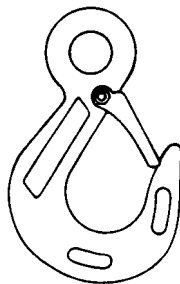


Chain size (in.) (mm)	Working load limit (lbs.)*	Product code	UPC 43927-	Dimensions (inches)									Weight each (lbs.)
				D	G	H	I	L	M	O	P	R	
9/32	7	658318	45078	3.500	5.156	.328	.734	.357	3.437	1.203	1.051	1.062	.80
3/8	10	658319	45101	4.343	6.672	.453	.953	.507	4.468	1.453	1.281	1.312	2.03
1/2	13	658320	45071	5.500	8.000	.593	1.172	.625	5.265	1.938	1.656	1.562	4.50
5/8	16	658321	45148	6.281	9.687	.750	1.438	.750	6.078	2.375	2.188	1.750	6.50
3/4	20	658322	45178	7.827	11.688	.875	1.688	.906	7.344	2.828	2.563	2.187	11.80

Replacement load pins and retainer pins available.

CM hook latch kits

- Kit includes all hardware for easy installation on CM eye and Clevlok sling hooks.
- Made in USA



Current Style Latch

Chain size (in.)	Product code	UPC 43927-
7/32	595461	42087
9/32	595523	44919
3/8	595525	45260
1/2	595528	35990
5/8	595529	44975
3/4	595530	44984
7/8	595532	45081
1	595533	45082
1 1/4	595535	44988

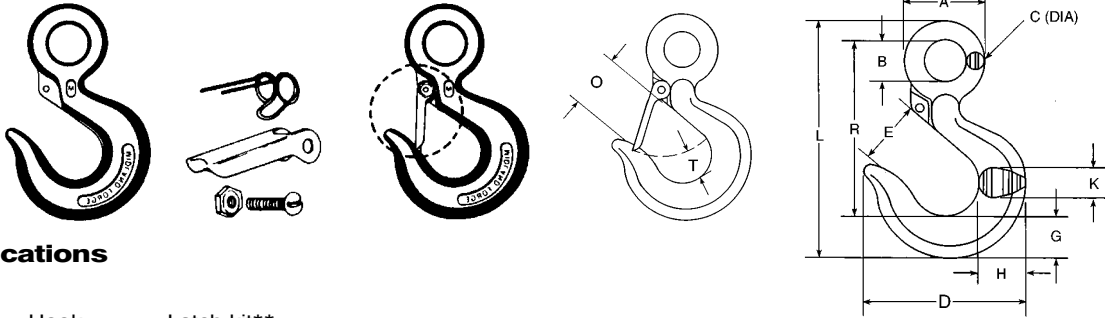
*** ⚠ WARNING**

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



CM rigging eye hook and latch - alloy

- Hook and latch assemblies furnished separately
- All eye type hooks are furnished pre-drilled for latches
- Hot forged, heat treated and tempered
- Painted orange



Specifications

Working load limit* (metric tons)†	Hook		Latch kit**		Dimensions (inches)													Approx. weight each (lbs.)
	Product code	UPC 43927-	Product code	UPC 43927-	A	B	C	D	E	G	H	K	L	R	T	O		
1	M404A	41046	4X404	41089	1.500	.750	.375	3.000	1.000	.750	.875	.562	4.375	3.125	.812	.875	.63	
1½	M405A	41051	4X405	41090	1.750	.875	.438	3.188	1.078	.844	.938	.625	4.938	3.656	.938	.938	.85	
2	M406A	41056	4X406	41091	2.125	1.125	.500	3.625	1.125	1.000	1.156	.750	5.594	4.094	1.000	1.000	1.38	
3	M407A	41065	4X406	41091	2.500	1.250	.625	4.094	1.250	1.125	1.312	.844	6.438	4.688	1.188	1.125	1.92	
5	M410A	41074	4X410	41092	3.063	1.563	.750	5.063	1.531	1.438	1.625	1.125	7.969	5.781	1.438	1.375	3.70	
7	M412A	41079	4X412	41093	3.875	2.000	.938	6.500	1.969	1.875	2.063	1.375	10.125	7.313	1.875	1.688	7.28	
11††	M414A	45526	4X414	45529	4.685	2.441	1.122	7.598	2.244	2.480	2.606	1.850	12.500	9.055	2.380	2.047	15.40	
15††	M416A	45527	4X416	45530	5.354	2.835	1.268	8.700	2.480	2.756	2.917	2.165	13.984	10.039	2.380	2.244	22.20	
22††	M418A	45528	4X418	45531	6.614	3.504	1.555	11.102	3.346	3.228	3.516	2.598	17.126	12.480	2.500	2.992	37.60	

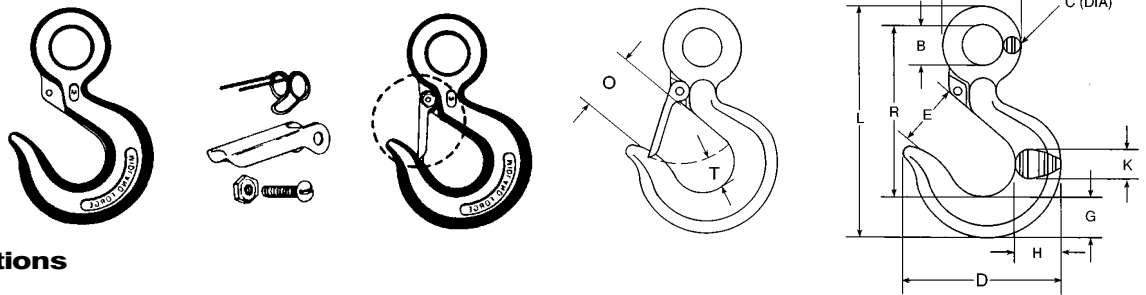
**Stainless steel latch kit available. Latch is designed to retain such items as slings and chains under slack conditions. The latch is not intended to support the load.

† Metric ton = 2,204 lbs.

†† Imported

CM rigging eye hook and latch - carbon

- Hook and latch assemblies furnished separately
- All eye type hooks are furnished pre-drilled for latches
- Hooks have a clear protective finish to resist rust and for cleaner handling
- Use suffix "C" when ordering carbon clear finish
- Carbon steel eye hooks for slings and rigging are available hot dip galvanized. Use suffix "G" when ordering
- Hot forged, heat treated and tempered



Specifications

Working load limit* (metric tons)†	Hook		Latch kit**		Dimensions (inches)													Approx. weight each (lbs.)
	Product code	UPC 43927-	Product code	UPC 43927-	A	B	C	D	E	G	H	K	L	R	T	O		
¾	M404C	41005	4X404	41089	1.500	.750	.375	3.000	1.000	.750	.875	.562	4.375	3.125	.812	.875	.63	
1	M405C	41011	4X405	41090	1.750	.875	.438	3.188	1.078	.844	.938	.625	4.938	3.656	.938	.938	.85	
1½	M406C	41018	4X406	41091	2.125	1.125	.500	3.625	1.125	1.000	1.156	.750	5.594	4.094	1.000	1.000	1.38	
2	M407C	41025	4X406	41091	2.500	1.250	.625	4.094	1.250	1.125	1.312	.844	6.438	4.688	1.188	1.125	1.92	
3	M410C	41032	4X410	41092	3.063	1.563	.750	5.063	1.531	1.438	1.625	1.125	7.969	5.781	1.438	1.375	3.70	
5	M412C	41038	4X412	41093	3.875	2.000	.938	6.500	1.969	1.875	2.063	1.375	10.125	7.313	1.875	1.688	7.28	
7½††	M414C	45523	4X414	45529	4.685	2.441	1.122	7.598	2.244	2.480	2.606	1.850	12.500	9.055	2.380	2.047	15.40	
11††	M416C	45524	4X416	45530	5.354	2.835	1.268	8.700	2.480	2.756	2.917	2.165	13.984	10.039	2.380	2.244	22.20	
15††	M418C	45525	4X418	45531	6.614	3.504	1.555	11.102	3.346	3.228	3.516	2.598	17.126	12.480	2.500	2.992	37.60	

**Stainless steel latch kit available. Latch is designed to retain such items as slings and chains under slack conditions. The latch is not intended to support the load.

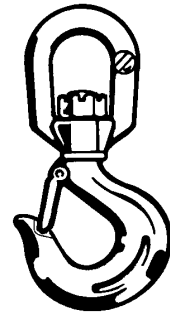
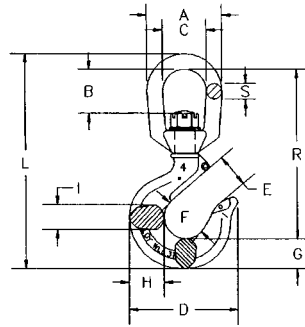
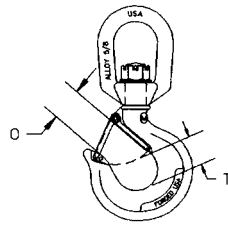
† Metric ton = 2,204 lbs.

†† Imported



CM alloy swivel hooks

- Alloy steel
- Heat treated, quenched & tempered
- Design factor 5 to 1
- Built in distortion detectors
- Pre-drilled for 1300 series latch kits
- Made in USA



Without latch

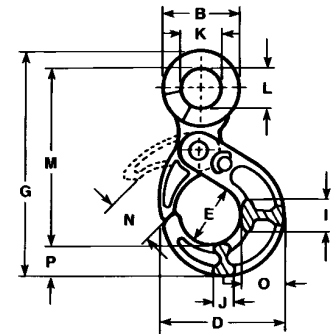
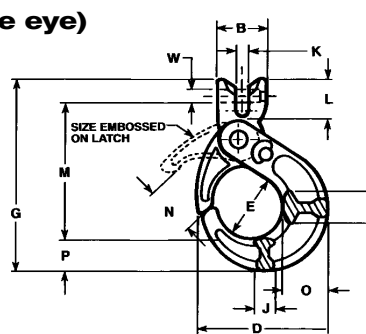
Hook product code	UPC 43927-	Working load limit* (tons)	Dimensions (inches)															Approx. weight each (lbs.)	Latch kit (optional)
			A	B	C	D	E	F	G	H	I	L	R	S	T	O			
M3402A	46280	1	2.00	1.11	1.25	3.15	1.00	1.25	.87	1.00	.63	5.88	4.63	.38	.81	.88	1.00	4X1302	
M3403A	46281	1 1/2	2.50	1.38	1.50	3.47	1.08	1.38	.96	1.11	.72	6.89	5.44	.50	.94	.94	1.50	4X1303	
M3404A	46282	2	3.00	1.65	1.75	3.78	1.13	1.50	1.04	1.21	.86	7.93	6.25	.63	1.00	1.00	2.60	4X1304	
M3405A	46283	3	3.00	1.65	1.75	4.22	1.25	1.63	1.27	1.43	.94	8.25	6.49	.63	1.19	1.13	3.10	4X1305	
M3407A	46284	5	3.50	1.77	2.00	5.07	1.53	2.00	1.44	1.62	1.15	9.72	7.53	.75	1.44	1.38	5.30	4X1307	
M3409A	46285	7	4.75	2.39	2.75	6.30	1.97	2.50	1.74	2.01	1.51	12.41	9.60	1.00	1.88	1.69	10.40	4X1309	
M3411A	46286	11	5.50	2.55	3.25	7.69	2.25	3.00	2.25	2.63	1.90	15.43	12.06	1.13	2.31	1.94	16.25	4X1311	

Assembled with latch

Product code	UPC 43927-	Hook & latch assembled	Working load limit* (lbs.)	Approx. weight each (lbs.)
M3502A	46287		1	1.5
M3503A	46288		1 1/2	2
M3504A	46289		2	3
M3505A	46290		3	3.5
M3507A	46291		5	7.5
M3509A	46292		7	14
M3511A	46293		11	16.25

Big Orange Clevlok Latchlok alloy hook - proof tested (also with large eye)

- Alloy steel, forged and heat treated
- Rated for grade 80 Herc-Alloy chain
- Proof tested
- Join directly to chain. No need for coupling links
- Recessed push-button release. Will not open accidentally, even when chain goes slack
- Smooth contour prevents snagging
- Made in USA



Specifications

Chain size	Working load limit (lbs.)*	Product code	Clevlok Latchlok hook dimensions (in.)													Weight each (lbs.)
			B	D	E	G	I	J	K	L	M	N	O	P	W	
9/32	3,500	674370	1 ²³ / ₆₄	3 ⁷ / ₁₆	1 ⁵ / ₈	5 ⁹ / ₃₂	1 ⁵ / ₁₆	1 ³ / ₁₆	2 ¹ / ₆₄	1	3 ⁴⁹ / ₆₄	1 ³ / ₈	1 ⁵ / ₁₆	1	3 ³ / ₈	1.5
3/8	7,100	674372	1 ¹³ / ₁₆	4 ¹ / ₁₆	1 ⁵ / ₈	6 ³ / ₄	1 ¹ / ₈	5 ⁸ / ₈	2 ⁹ / ₆₄	1 ²⁷ / ₆₄	4 ⁵¹ / ₆₄	1 ³ / ₄	1 ¹⁹ / ₃₂	1 ⁹ / ₆₄	1 ⁷ / ₃₂	2.6
1/2	12,000	674374	2 ³ / ₁₆	4 ³ / ₄	2 ¹ / ₁₆	8 ⁹ / ₁₆	1 ¹¹ / ₁₆	1 ³ / ₈	5 ⁸ / ₈	1 ⁴³ / ₆₄	6 ⁵ / ₆₄	2 ³ / ₁₆	1 ²¹ / ₃₂	1 ³ / ₈	2 ¹ / ₃₂	5.7
5/8	18,100	674379	2 ³ / ₄	5 ³ / ₄	2 ¹ / ₄	10 ¹⁹ / ₃₂	2 ¹ / ₁₆	1 ³ / ₄	3 ⁴ / ₄	2 ¹ / ₈	7 ²⁹ / ₆₄	2 ⁵ / ₈	2 ³ / ₈	1 ³ / ₄	7 ⁷ / ₈	11.1
3/4	28,300	674384	3 ¹ / ₈	5 ³ / ₄	2 ¹ / ₄	10 ⁷ / ₈	2 ¹ / ₁₆	1 ³ / ₄	7 ⁸ / ₈	2 ¹⁹ / ₃₂	7 ⁷ / ₁₆	2 ⁵ / ₈	2 ³ / ₈	1 ³ / ₄	1 ⁵ / ₁₆	11.7

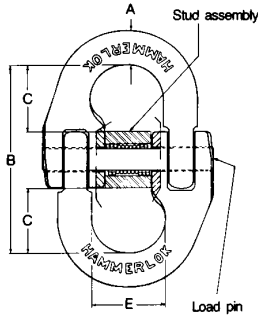
Chain size	Working load limit (lbs.)*	Product code	Large eye Latchlok hook dimensions (in.)													Weight each (lbs.)
			B	D	E	G	I	J	K	L	M	N	O	P		
9/32	3,500	674514	2 ³ / ₁₆	3 ⁷ / ₁₆	1 ⁵ / ₈	6 ¹¹ / ₁₆	1 ⁵ / ₁₆	1 ³ / ₁₆	1 ³ / ₁₆	1 ³ / ₁₆	5 ³ / ₁₆	1 ³ / ₈	1 ⁵ / ₁₆	1	1.28	
3/8	7,100	674518	2 ¹³ / ₁₆	4 ¹ / ₁₆	1 ⁵ / ₈	8 ¹¹ / ₃₂	1 ¹ / ₈	5 ⁸ / ₈	1 ⁷ / ₁₆	1 ⁷ / ₁₆	6 ¹ / ₂	1 ³ / ₄	1 ¹⁹ / ₃₂	1 ⁹ / ₆₄	2.08	
1/2	12,000	674524	3 ⁵ / ₈	4 ³ / ₄	2 ¹ / ₁₆	10 ⁹ / ₁₆	1 ¹¹ / ₁₆	1 ³ / ₈	1 ⁷ / ₈	1 ⁷ / ₈	8 ⁹ / ₃₂	2 ³ / ₁₆	1 ²¹ / ₃₂	1 ³ / ₈	4.12	
5/8 - 3/4	28,300	674530	5 ¹ / ₁₆	5 ³ / ₄	2 ¹ / ₄	13 ¹ / ₂	2 ¹ / ₁₆	1 ³ / ₄	2 ⁹ / ₁₆	2 ⁹ / ₁₆	10 ¹ / ₂	2 ⁵ / ₈	2 ³ / ₈	1 ³ / ₄	10.34	



CM Hammerlok alloy coupling link - proof tested

Dependable and easy to use for fast assembly on the job, for attaching chain to master links and eye type hooks and for installing new body chain in old

slings. C.V.S.A. approved. Not to be used for repair or splicing of lifting chain.
• Made in USA



Specifications

Chain size (in.)	Working load limit (lbs.)*	Product code	UPC 43927-	Dimensions (inches)						Diameter hole to accept male leg	Weight each (lbs.)
				A	B	C	E†	Max. width			
7/32	2,100	664220	23087	1/4	1 13/32	31/64	13/32	1 5/16	1/2	.12	
9/32	3,500	664228	23097	5/16	1 13/16	5/8	1/2	1 11/16	35/64	.23	
3/8	7,100	664241	23107	1/2	2 13/32	53/64	3/4	2 7/32	47/64	.65	
1/2	12,000	664250	23118	11/16	3 3/8	17/32	1	3 1/8	59/64	1.5	
5/8	18,100	664262	23130	13/16	4 1/16	1 1/2	1 1/4	3 11/16	1 1/16	2.6	
3/4	28,300	664275	23142	15/16	4 25/32	1 51/64	1 1/2	4 5/16	1 1/4	3.8	
7/8	34,200	664287	23152	1 3/64	5 1/8	1 29/32	1 3/4	5 5/16	1 11/32	6.3	
1	47,700	664300	23163	1 1/4	5 3/4	2 3/16	2	6 3/16	1 9/16	9.3	
1 1/4	72,300	664325	23173	1 17/32	6 13/16	2 5/8	2 1/4	7 3/4	2	17.3	

† Diameter of stock of largest master link intended to be used with Hammerlok

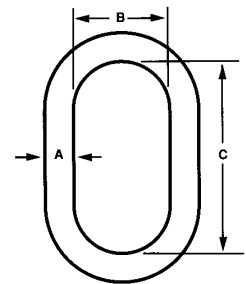
Alloy oblong master links - welded

• Heat treated and proof tested

• Made in U.S.A.

Specifications - welded

Dia. (in.)	Working load limit* (lbs.)	Product code	UPC 43927-	Dimensions (inches)			Approx. weight each (lbs.)
				A	B	C	
13/32	3,600	554931	23327	13/32	1 1/2	3	.33
1/2	6,100	554932	23328	1/2	2 1/2	5	.8
3/4	12,300	554935	23329	3/4	2 3/4	5 1/2	2.1
1	20,800	554938	23330	1	3 1/2	7	4.6
1	18,200	554969	23345	1	4	8	5.3
1 1/4	31,300	554940	23331	1 1/4	4 3/8	8 3/4	9.2
1 1/4	22,800	554942	23332	1 1/4	6	12	12.1
1 1/2	49,000	554943	23333	1 1/2	5 1/4	10 1/2	15.7
1 1/2	42,900	554970	23346	1 1/2	6	12	17.6
1 1/2	36,700	554944	23334	1 1/2	7	14	20.1
1 3/4	73,500	554946	23335	1 3/4	6	12	24.5
1 3/4	63,000	554945	23359	1 3/4	7	14	27.9
2	88,900	554949	23337	2	7	14	37.3
2	77,800	554952	23340	2	8	16	41.9
2 1/4	125,200	554951	23339	2 1/4	8	16	54.0
2 1/2	147,300	554954	23341	2 1/2	8	16	58.0
2 3/4	187,800	554957	23342	2 3/4	9	16	84.8
3	228,000	554958	—	3	9	18	115.0
3 1/4	262,200	554959	—	3 1/4	10	20	145.0
3 1/2	279,000	554960	—	3 1/2	12	24	200.0



* ⚠ WARNING

Overloading and improper use can result in injury.

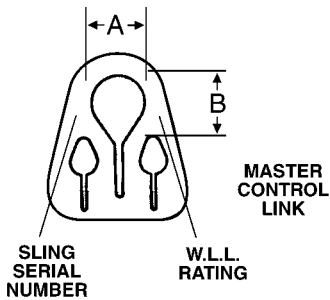
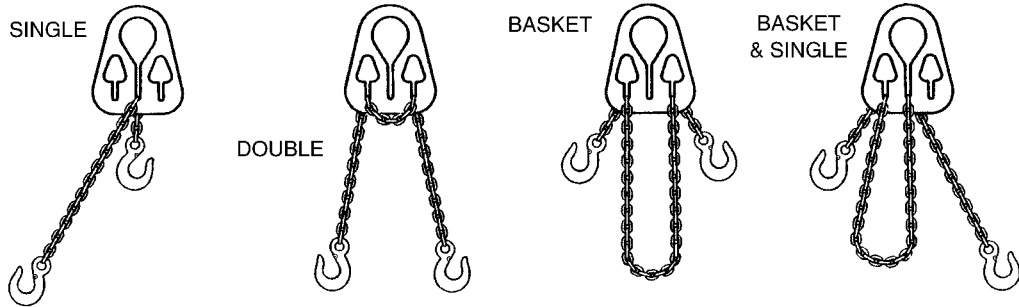
To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.

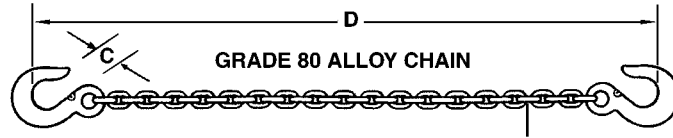
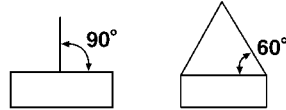


Herc-Alloy 800 Chain Adjust-A-Link sling

- Adjustable all purpose sling
- Lifts even/uneven loads easily
- Lightweight and portable
- Available in 6' and 10' reach
- Available in 7/32", 9/32" and 3/8" Grade 80 alloy chain
- All components proof tested
- Alloy steel master control link
- Each assembly serialized and tagged
- Made in U.S.A.



Herc-Alloy 800®
 SERIAL NO. _____
 7/32 x _____ Ft.
 W.L.L. SGLE @ 90° 2100#
 W.L.L. DBLE @ 60° 3600#



Specifications

Chain Size (in.)	Reach D (ft.)	Product code	UPC 43927	Weight (lbs.)	Link dimensions (in.)			Working load limit* (lbs.)	
					A	B	C	Single @90°	Double @60°
7/32	6	607971	20921	4½	2	2	15/16	2,100	3,600
7/32	10	607972	20922	6½	2	2	15/16	2,100	3,600
9/32	6	607974	20924	8	3	3½	1¼	3,500	6,100
9/32	10	607975	20925	11	3	3½	1¼	3,500	6,100
3/8	10	607976	20926	19	3¼	3¼	19/16	7,100	12,300

Adjust-A-Link is a registered trademark of Lift-All Corporation

* ⚠ WARNING

Improper use and care of chain slings can result in bodily injury or property damage.

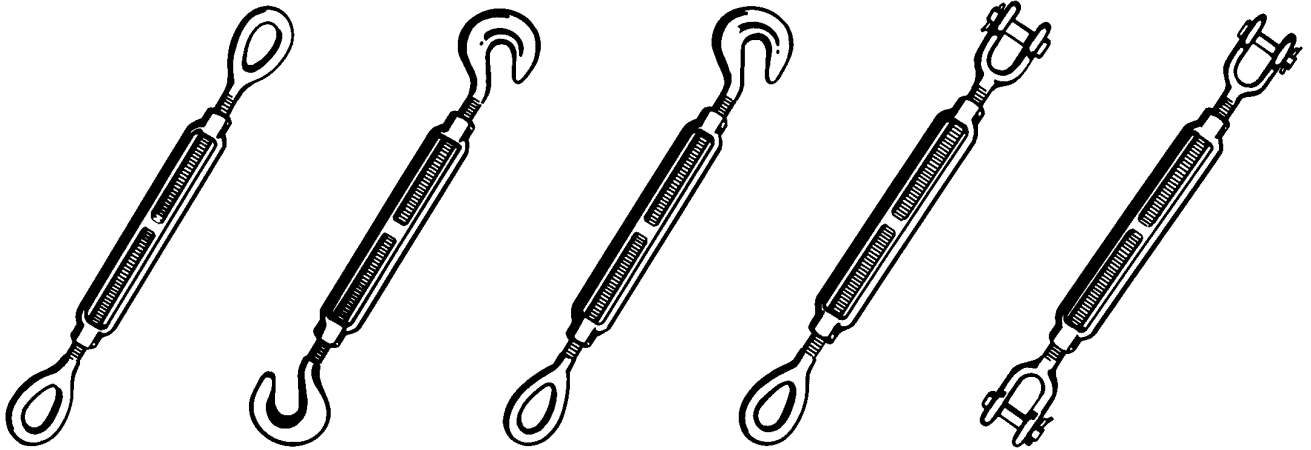
To avoid injury:

- Never exceed the working load limit (W.L.L.). W.L.L. decreases as the angle from horizontal decreases. Do not use at horizontal angle of less than 45°.
- Always inspect slings before each use for wear damage or elongation. Refer to ASME B30.9, OSHA regulation, and CM Manual PMC-10.
- Seat chain fully in adjusting slot of master control link.
- Do not substitute another chain, or use Adjust-A-Link chain or master control link separately.
- Securely attach and balance load. Make sure chain is not twisted, knotted or kinked.
- Do not impact load or jerk the sling.
- Protect chain from sharp corners and objects.
- Use only alloy chain for overhead lifting.



Turnbuckles

- Hot dip galvanized
 - Forged body
 - Heat treated
 - Imported
- All meet ASTM F1145-92 Type I Grade 1, Eye and Eye Class D, Hook and Hook Class E, Hook and Eye Class F, Jaw and Jaw Class G, Jaw and Eye Class H (Supercedes Federal Specification FF-T-791b).



EYE & EYE (EE) HOOK & HOOK (HH) HOOK & EYE (HE) JAW & EYE (JE) JAW & JAW (JJ)

Specifications

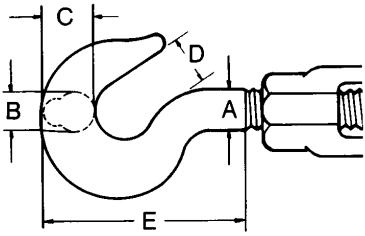
Thread dia. x up (in.)	Take up	Product code	Average overall with ends in closed position (in.)	Weight each (lbs.)		
				Eye & Eye (EE) or Hook & Hook (HH) & Hook & Eye (HE)*	Jaw & Eye (JE)	Jaw & Jaw (JJ)
1/4 x 4		0404	8 1/4	0.3	0.3	0.4
5/16 x 4 1/2		0504	9 9/16	0.5	0.5	0.6
3/8 x 6		0606	11 7/8	0.8	0.9	0.9
1/2 x 6		0806	13 5/16	1.5	1.7	1.8
1/2 x 9		0809	16 5/16	1.9	2.0	2.1
1/2 x 12		0812	19 5/16	2.3	2.4	2.4
5/8 x 6		1006	15 1/2	2.5	2.8	3.0
5/8 x 9		1009	18 1/2	3.3	3.5	3.7
5/8 x 12		1012	21 1/2	3.8	4.0	4.2
3/4 x 6		1206	24 1/2	3.9	4.3	4.6
3/4 x 9		1209	17	4.8	5.1	5.4
3/4 x 12		1212	20	5.4	5.7	6.0
3/4 x 18		1218	23	7.0	7.3	7.7
7/8 x 12		1412	29	7.4	7.9	8.4
7/8 x 18		1418	18 5/8	9.6	10.2	10.7
1 x 6		1606	24 5/8	9.0	9.4	9.7
1 x 12		1612	30 5/8	11.2	11.6	11.9
1 x 18		1618	20 5/8	13.8	14.3	14.8
1 x 24		1624	26 5/8	17.1	17.6	18.2

*When ordering, add style of turnbuckle (EE, HH, JE, HE, JJ) after numerical code to make complete ordering code.



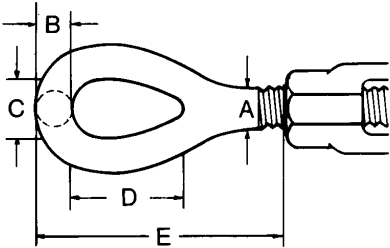
Turnbuckle dimensions

HOOK



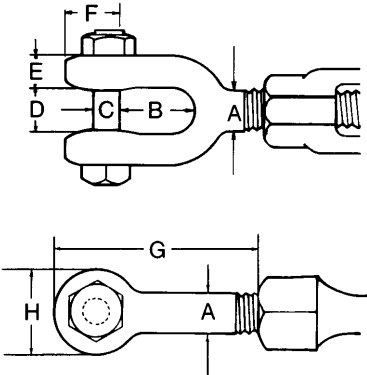
Dia. A (in.)	Working load limit* (lbs.)	Dimensions (inches)			
		B	C	D	E
1/4	400	1/4	13/32	29/64	1 21/32
5/16	700	5/16	1/2	1/2	1 31/32
3/8	1,000	3/8	39/64	9/16	2 23/64
1/2	1,500	1/2	25/32	21/32	2 15/16
5/8	2,250	5/8	1	27/32	3 11/16
3/4	3,000	3/4	1 13/64	63/64	4 33/64
7/8	4,000	7/8	1 3/8	1 1/8	5 3/16
1	5,000	1	1 17/32	1 1/4	5 27/32

EYE



Dia. A (in.)	Working load limit* (lbs.)	Dimensions (inches)			
		B	C	D	E
1/4	500	7/32	11/32	25/32	1 25/32
5/16	800	9/32	7/16	15/16	2 3/16
3/8	1,200	11/32	17/32	1 1/8	2 9/16
1/2	2,200	7/16	23/32	17/16	3 7/32
5/8	3,500	1/2	7/8	1 3/4	3 7/8
3/4	5,200	5/8	1	2 1/8	4 11/16
7/8	7,200	3/4	1 1/4	2 3/8	5 1/4
1	10,000	7/8	1 7/16	3	6 3/8

JAW



Dia. A (in.)	Working load limit* (lbs.)	Dimensions (inches)						
		B	C	D	E	F	G	H
1/4	500	5/8	1/4	13/32	9/32	1/2	15/8	5/8
5/16	800	7/8	1/4	15/32	9/32	1/2	2	11/16
3/8	1,200	7/8	5/16	1/2	5/16	19/32	2 3/16	13/16
1/2	2,200	1 1/16	3/8	5/8	13/32	3/4	2 3/4	1
5/8	3,500	1 5/16	1/2	3/4	1/2	1 1/32	3 1/2	1 5/16
3/4	5,200	1 1/2	5/8	15/16	9/16	1 9/32	4 1/8	1 5/8
7/8	7,200	1 3/4	3/4	1 1/8	11/16	1 15/32	4 27/32	1 7/8
1	10,000	2 1/16	7/8	1 3/16	25/32	1 21/32	5 17/32	2 1/8

*** ⚠ WARNING**

Overloading and improper use can result in injury.

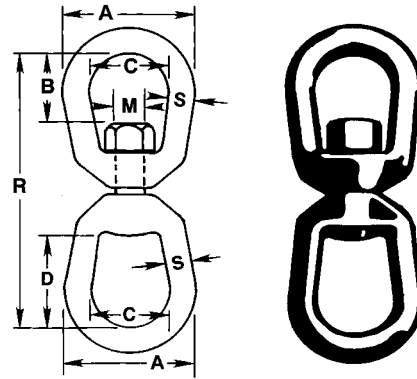
To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain for overhead lifting.
- Read and follow all instructions.



Regular forged eye and eye swivels

- Hot dip galvanized - C1035 steel
- Ultimate load is 5 times working load limit
- Meets the performance requirements of RR-C-271D, Type VII, Class 2
- Made in U.S.A.

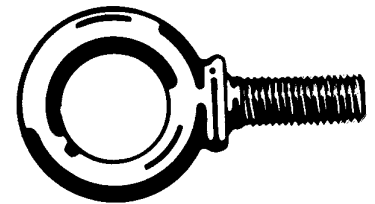
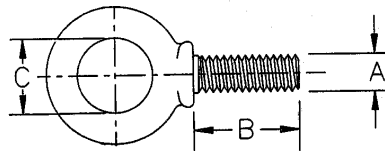


Specifications

Dia. (in.)	Working load limit* (tons)	Product code	UPC 43927-	Dimensions (inches)							Estimated weight each (lbs.)
				A	B	C	D	M	R	S	
1/4	850	M4400	46011	1 1/4	5/8	3/4	1 1/16	5/16	2 15/16	1/4	.19
5/16	1,250	M4401	46012	1 5/8	3/4	1	1 1/4	3/8	3 9/16	5/16	.34
3/8	2,250	M4402	46013	2	7/8	1 1/4	1 1/2	1/2	4 5/16	3/8	.69
1/2	3,600	M4403	46014	2 1/2	1 3/16	1 1/2	2	5/8	5 3/8	1/2	1.34
5/8	5,200	M4404	46015	3	1 1/2	1 3/4	2 3/8	3/4	6 5/8	5/8	2.37
3/4	7,200	M4407	46016	3 1/2	1 5/8	2	2 5/8	7/8	7 3/8	3/4	4.00
1	12,500	M4409	46017	4 3/4	2 17/64	2 3/4	3 17/32	1 1/8	9 7/8	1	9.00

Shoulder eyebolts

- Forged steel
- Heat treated
- Quenched and tempered
- Meets IFI standards, ASTM A489, ANSI/ASME, B18.15
- Made in U.S.A.



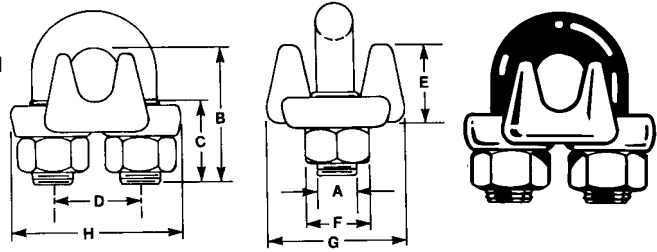
Specifications

Size dia. (in.)	Working load limit* (lbs.)	Product code	UPC 43927-	Dimensions (inches)			Approx. weight each (lbs.)
				A	B	C	
1/4 x 1	500	456920	20865	1/4	1	3/4	.06
5/16 x 1 1/8	900	456921	20866	5/16	1 1/8	7/8	.11
3/8 x 1 1/4	1,300	456922	20867	3/8	1 1/4	1	.18
1/2 x 1 1/2	2,400	456923	20868	1/2	1 1/2	1 3/16	.35
5/8 x 1 3/4	4,000	456924	20869	5/8	1 3/4	1 3/8	.70
3/4 x 2	5,000	456925	20870	3/4	2	1 1/2	1.10
7/8 x 2 1/4	7,000	456926	20871	7/8	2 1/4	1 11/16	1.70
1 x 2 1/2	9,000	456927	20872	1	2 1/2	1 13/16	2.36
1 1/4 x 3	15,000	456928	20873	1 1/4	3	2 3/16	4.68
1 1/2 x 3 1/2	21,000	456929	20874	1 1/2	3 1/2	2 9/16	7.77



Drop forged wire rope clips

- Precision manufactured and galvanized to meet Federal Specifications FF-C-450, Type 1, Class 1, on all sizes 1/4" and larger. U-bolts and nuts electro-galvanized on 1/8" and 3/16" sizes, hot dip galvanized all other sizes. All bases hot dip galvanized
- Drop forged base
- Available in popular sizes
- 1/8"-5/8" sizes packed unassembled, one piece per poly bag and in factory packs
- 3/4" and larger sizes shipped assembled in factory packs
- Made in U.S.A.



Specifications

Size (in.)	Product code	UPC 43927-	Dimensions (inches)								Min. no. clips	Rope turn-back (in.)	Torque† (ft.-lbs.)	Weight per 100 (lbs.)	Factory pack
			A	B	C	D	E	F	G	H					
1/8	M244	42487	12-24	23/32	7/16	15/32	13/32	3/8	13/16	15/16	2	3 1/4	41 1/2	5	50
3/16	M245	42491	1/4-20	31/32	9/16	19/32	1/2	1/2	15/16	15/32	2	3 3/4	71 1/2	9	50
1/4	M246	42495	5/16-18	11/32	1/2	3/4	21/32	9/16	13/16	17/16	2	4 3/4	15	18	50
5/16	M247	42499	3/8-16	13/8	3/4	7/8	23/32	11/16	15/16	111/16	2	5 1/4	30	30	50
3/8	M248	42504	7/16-14	11/2	3/4	1	29/32	3/4	15/8	115/16	2	6 1/2	45	42	50
7/16	M249	42508	1/2-13	17/8	1	13/16	11/16	7/8	125/32	2 5/16	2	7	65	70	50
1/2	M250	42512	1/2-13	17/8	1	13/16	11/8	7/8	129/32	2 5/16	3	11 1/2	65	75	30
9/16	M296	42514	9/16-12	2 3/8	1 1/4	15/16	1 1/4	15/16	131/32	2 1/2	3	12	95	100	30
5/8	M251	42517	9/16-12	2 3/8	1 1/4	15/16	1 11/32	15/16	2	2 1/2	3	12	95	100	30
3/4	M252	42521	5/8-11	2 3/4	1 7/16	1 1/2	1 7/16	1 1/16	2 11/32	2 13/16	4	18	130	150	30
7/8	M253	42525	3/4-10	3 1/8	1 5/8	1 3/4	1 19/32	1 1/4	2 7/16	3 5/32	4	20	225	240	10
1	M254	42529	3/4-10	3 1/2	1 13/16	1 7/8	1 25/32	1 1/4	2 5/8	3 15/32	5	26	225	250	10
1 1/8	M255	42533	3/4-10	3 7/8	2	2	1 29/32	1 1/4	2 13/16	3 19/32	6	34	225	310	10
1 1/4	M256	42537	7/8-9	4 1/4	2 1/8	2 5/16	2 3/16	1 7/16	3 1/8	4 1/8	7	37	360	460	5
1 3/8	M257	42541	7/8-9	4 5/8	2 5/16	2 3/8	2 1/4	1 7/16	3 1/8	4 1/4	7	44	360	520	5
1 1/2	M258	42545	7/8-9	4 15/16	2 3/8	2 19/32	2 1/2	1 7/16	3 13/32	4 7/16	8	48	360	590	5

† The tightening torque values shown are based upon the threads being clean, dry and free of lubrication.

Proper use of CM wire rope clips

CM Big Orange wire rope clips will provide maximum holding strength when used according to the specifications listed and following these instructions:

1. Refer to 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 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 clips 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 the recommended torque.

If a pulley (sheave) is used for rope turn-back, add one additional clip.

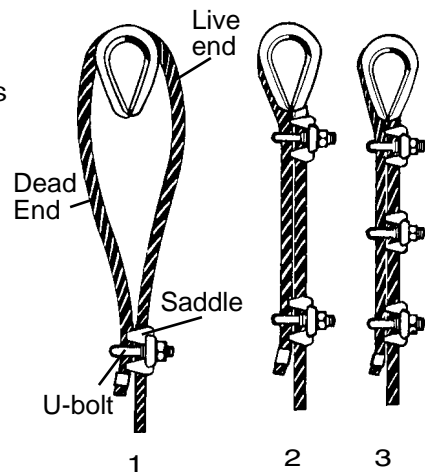
The number of clips shown is based upon using RRL or RLL wire rope, 6 x 19 or 6 x 37 Class, FC or IWRC, IPS or XIP. If Seale construction or similar outer wire type construction in the 6 x 19 Class is to be used for sizes 1" and larger, add one additional clip.

The number of clips shown also applies to rotation-resistant RRL wire rope, 8 x 19 Class, IP, XIP, sizes 1 1/2" and smaller, and to rotation-resistant RRL wire rope, 19 x 7 Class, IPS, XIP, sizes 1 1/2" and smaller.

For other classes of wire rope, additional clips may be necessary. Length of rope turn-back should be increased when more clips are used.

Efficiency ratings for wire rope end terminations are based upon the breaking strength of wire rope. The efficiency rating of a properly prepared loop or thimble eye termination for clip sizes 1/8" through 7/8" is 80% and for sizes 1" through 1 1/2" is 90%.

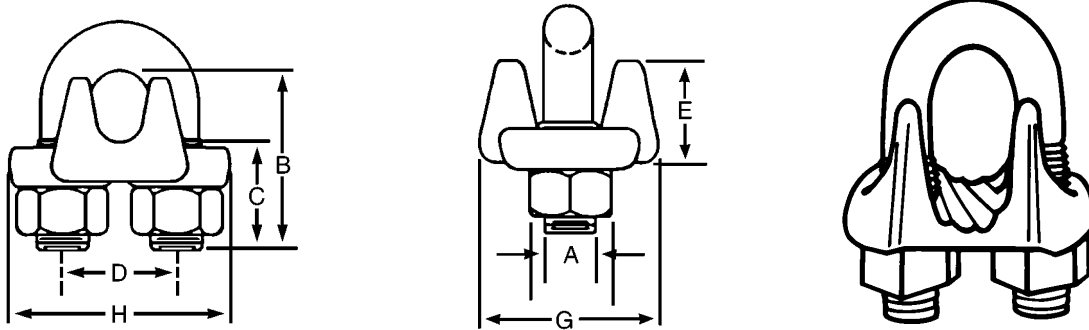
In accordance with good rigging and maintenance practices, the wire rope end termination should be inspected periodically for wear, abuse and general adequacy.





CM malleable wire rope clips - galvanized

- For light duty non-critical applications only.
- Precision manufactured and galvanized to meet or exceed the performance requirement of Federal Specifications (FF-C-450 Type 1 Class 2).
- Imported



Size (in.)	Standard pack			Dimensions (inches)							Min. no. of clips	Turn back (in.)	Torque (ft.-lbs.)	Weight per 100 pieces (lbs.)
	Product code	UPC 43927-	Std. pack	A	B	C	D	E	G	H				
1/16	D86980	29365	100	10-24*	11/16	1/2	3/8	5/16	7/16	7/8	3	4	2	3
1/8	D86090	29370	100	10-24*	13/16	1/2	1/2	7/16	1/2	15/16	3	5	3	5
3/16	D86190	25378	100	1/4-20	31/32	5/8	9/16	1/2	9/16	11/16	3	6	5	8
1/4	D86290	34751	100	5/16-18	17/32	7/8	11/16	5/8	11/16	13/8	3	7	15	12
5/16	D86390	29371	100	3/8-16	17/32	7/8	11/16	11/16	11/16	13/8	3	8	15	15
3/8	D86490	29372	100	7/16-14	15/8	1	7/8	13/16	7/8	15/8	3	10	30	21
7/16	D86590	29373	50	1/2-13	15/8	1	7/8	13/16	15/16	15/8	4	10	40	25
1/2	D86690	30077	50	1/2-13	2	1 1/4	1	1 1/16	1	1 7/8	4	15	45	38
9/16	D86790	30078	50	9/16-12	2 5/16	1 15/32	1 3/16	1 3/16	1 1/8	2 3/16	4	16	50	41
5/8	D86890	30079	25	9/16-12	2 5/16	1 15/32	1 3/16	1 5/16	1 1/8	2 3/16	4	16	75	53
3/4	D86900	34749	25	5/8-11	2 9/16	1 3/4	1 11/32	1 1/2	1 1/4	2 7/16	5	22	75	76

*UNC 2-A Threads

Size (in.)	Shelf pack			
	Product code	UPC 43927-	Shelf pack	Case qty. pcs.
1/16	D87980	39010	25	400
1/8	D87090	39002	25	400
3/16	D87190	39001	25	400
1/4	D87290	39000	25	450
5/16	D87390	39012	25	450
3/8	D87490	39011	25	200
7/16	D87590	34752	10	180
1/2	D87690	35991	10	180

▲WARNING

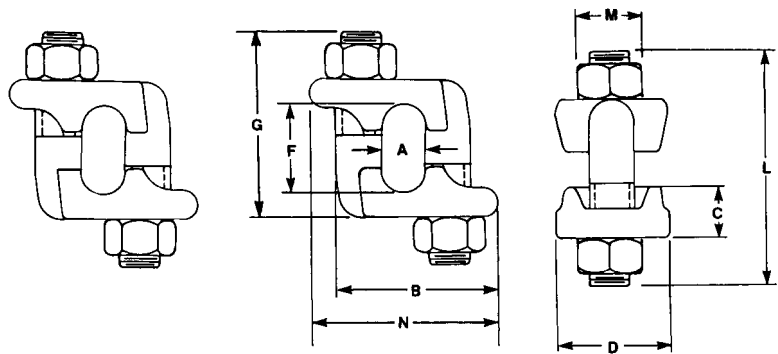
Improper use and installation of malleable wire rope clips can result in injury.

To avoid injury:
Do not use malleable clips for lifting or critical applications. Install and use malleable clips only as indicated in instructions that accompany clips.



CM Big Orange Mid-Grip clips (double saddle)

- Big Orange Mid-Grip wire rope clips meet Federal Specifications FF-C-450, Type III, Class 1, and will provide maximum holding strength when installed and used according to specifications
- Double grip, double saddle wire rope clips allow full arc wrench swing for quicker installation, retightening or disassembly of nuts
- Unlike U-bolt type rope clips, Mid-Grip clips cannot be installed incorrectly with the saddle not on the live rope end
- Drop forged from special bar quality steel with the sizes clearly marked on the saddles
- Hot galvanized with galvanized heavy hex nuts. When properly used, Big Orange Mid-Grip clips will give terminal efficiency ratings of approximately 80% of the catalog nominal strengths of new wire rope
- Furnished unassembled in poly bags and in factory packs of 20
- Made in USA



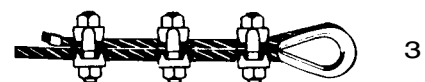
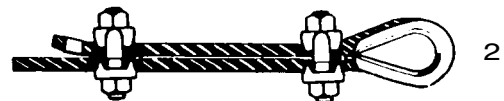
Specifications

Size (in.)	Product code	UPC 43927-	Dimensions (inches)										Min. no. clips	Rope turn-back (in.)	Torque† (ft.-lbs.)	Weight per 100 (lbs.)
			A	B	C	D	Thd.	F	G	L approx.	M	N				
3/16 & 1/4	M2246	42462	.28	1.25	.34	.94	3/8-16	.50	1.28	1.56	.69	1.28	2	4	30	21
5/16	M2247	42466	.34	1.38	.44	1.06	3/8-16	.63	1.47	1.81	.69	1.41	2	5	30	27
3/8	M2248	42470	.41	1.56	.50	1.06	7/16-14	.75	1.81	2.31	.75	1.85	2	5 1/4	45	45
7/16	M2250	42474	.50	1.78	.56	1.25	1/2-13	1.00	2.19	2.75	.88	2.06	2	6 1/2	65	65
1/2	M2250	42474	.50	1.78	.56	1.25	1/2-13	1.00	2.19	2.75	.88	2.06	3	11	65	65
9/16	M2251	42478	.66	2.25	.69	1.50	5/8-11	1.25	2.69	3.31	1.06	2.59	3	12 3/4	130	113
5/8	M2251	42478	.66	2.25	.69	1.50	5/8-11	1.25	2.69	3.31	1.06	2.59	3	13 1/2	130	113
3/4	M2252	42483	.81	2.69	.88	1.81	3/4-10	1.50	2.94	3.44	1.25	3.06	3	16	225	170

†The tightening torque values shown are based upon the threads being clean, dry and free of lubrication.

Proper use of Big Orange Mid-Grip clips:

1. Refer to 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. 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.



*** ⚠ WARNING**

To avoid injury:

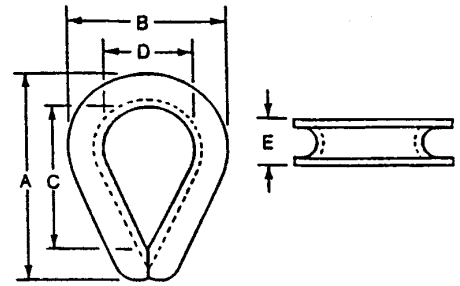
- Do not exceed working load limit.
- Use only alloy chain and attachments for overhead lifting.

Refer to additional notes concerning wire rope clips on page 50.



CM heavy duty wire rope thimbles

- Hot galvanized
- Made in accordance with Federal Specifications FF-T-276b Type 3
- Imported. Made to CM specifications

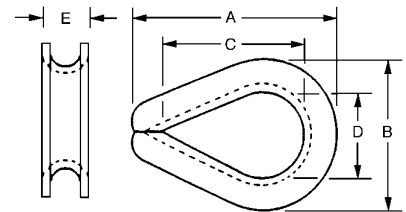


Specifications

Rope dia. (in.)	Product code	UPC 43927-	Dimensions (inches)					Approx. weight each (lbs.)
			A	B	C	D	E	
1/4	D87296	22921	2.19	1.50	1.63	.88	.41	.075
5/16	D87396	22922	2.50	1.81	1.88	1.06	.50	.14
3/8	D87496	22923	2.88	2.13	2.13	1.13	.66	.25
1/2	D87696	22924	3.63	2.56	2.75	1.50	.84	.51
5/8	D87896	32328	4.25	3.00	3.25	1.75	1.00	.75
3/4	D87906	32329	5.00	3.50	3.75	2.00	1.25	1.47
7/8	D87916	32330	5.50	4.00	4.25	2.25	1.38	1.85

CM malleable wire rope thimbles - zinc plated

- Made according to Federal Specifications FF-T-276b Type 2.
- Imported.



Standard pack

Rope dia. (in.)	Product code	UPC 43927-	Std. pack	Dimensions (inches)					Approx. weight each (lbs.)
				A	B	C	D	E	
1/8	D86095	35993	100	1.94	1.06	1.31	.69	.25	.035
3/16	D86195	35994	100	1.94	1.06	1.31	.69	.31	.035
1/4	D86295	20320	100	1.94	1.06	1.31	.69	.38	.035
5/16	D86395	20321	100	2.13	1.25	1.50	.81	.44	.04
3/8	D86495	20322	50	2.38	1.47	1.63	.94	.53	.067
1/2	D86695	21820	50	2.75	1.75	1.88	1.13	.69	.125
5/8	D86895	21821	25	3.50	2.38	2.25	1.38	.91	.345

CM quick link

- Imported



Specifications

For chain size (in.)	Working load limit (lbs.)*	Carton			Gap (in.)	Inside width (in.)	Inside length (in.)	Approx. weight display pack (lbs.)
		Product code	UPC 43927-	Std. pack				
3/16	615	D81001	35975	20	1/4	1/2	1 1/2	4 1/2
1/4	880	D81101	35956	20	9/32	9/16	1 3/4	8
5/16	1,540	D81201	35957	20	3/8	11/16	2 5/16	17
3/8	1,980	D81301	35958	10	7/16	3/4	2 7/16	23
1/2	3,300	D81501	35983	10	19/32	15/16	3 3/16	51

Applications: Used as a repair link, connecting link or attaching device.
 Description: Zinc plated, not heat treated. Use only with chain of equal or lower working load limit.
 Not to be used for load securement (tie-down).

CM repair link

- Made in USA



Specifications

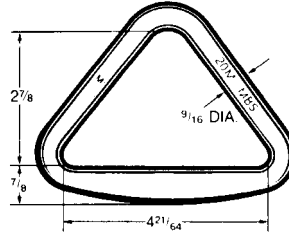
Trade size (in.)	Working load limit (lbs.)*	Carton				Pieces per carton	Inside length (in.)	Inside width (in.)	Approx. weight each (lbs.)
		Bright finish		Zinc plated					
		Product code	UPC 43927-	Product code	UPC 43927-				
3/16 x 1	240	653180	53180	653618	34843	100	1	1/2	.035
7/32 x 1 1/4	250	653211	53211	653621	35115	50	1 1/4	1/2	.055
1/4 x 1 1/4	400	653251	53251	653625	34844	50	1 1/4	1/2	.075
1/4 x 2	400	653255	34897	653627	35141	50	2	5/8	.105
5/16 x 1 1/2	950	653312	34900	653631	34845	50	1 1/2	3/4	.145
5/16 x 2	1,000	653315	34913	653632	35561	50	2	3/4	.170
3/8 x 1 5/8	1,250	653373	53373	653633	34846	50	1 5/8	3/4	.230
3/8 x 2	1,250	653375	35049	653638	35568	50	2	3/4	.240

Applications: A temporary repair link also used to couple light attachments.
 Description: A mild steel, available with bright, hot galvanized or zinc plated finishes.
 Not to be used for load securement (tie-down).



CM D ring

- Finish: painted, zinc plated or galvanized
- Heat treated
- Manufactured to meet our interpretation of ICC, OSHA, ASME B30.9 and California Highway Patrol Title 13 requirements when used with 4" webbing
- Made in USA

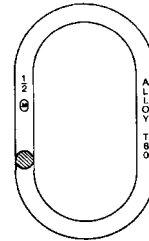


Specifications

Webbing width (in.)	Working load limit (lbs.)*	Product code	UPC 43927-	Min. ultimate breaking strength (lbs.)	Approx. weight each (lbs.)
4	4,000	M162	43301	24,000	1.13

CM alloy forged master link

- Drop forged using special bar quality alloy steel
- Quenched and tempered heat treatment for improved strength
- Individually proof tested at 2 times working load limit
- Design ultimate strength is 5 times working load limit
- Orange paint finish
- Large inside widths to accommodate more applications
- Markings are raised characters for better identification to assist proper application
- Made in USA

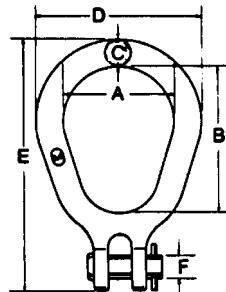


Specifications

Working load limit (lbs.)*	Product code	UPC 43927-	Dimensions (inches)			Approx. weight each (lbs.)
			Stock dia.	Inside width	Inside length	
5,100	M50P	43316	1/2	2 1/2	5	.94
7,700	M62P	43321	5/8	3	6	1.75
10,600	M75P	43323	3/4	3	6	2.50
20,400	M100P	43313	1	4	8	5.80

CM clevis link

- Drop forged from special bar quality steel
- Heat treated for greater strength and increased wear characteristics
- Metric marked
- Clear protective finish resists rust and provides cleaner handling
- For rigging not involving overhead lifting
- Made in USA



Specifications

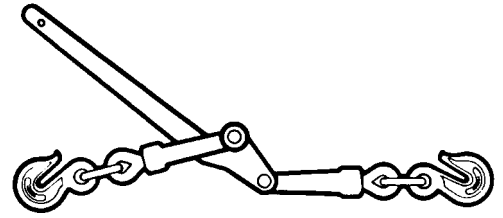
Chain size (in.)	Working load limit (lbs.)*	Product code	UPC 43927-	Dimensions (inches)						Factory pack**	Approx. weight each (lbs.)
				A	B	C	D	E	F		
5/16	4,400	695443	41361	2 1/8	3 3/16	9/16	3 17/64	5 15/32	25/64	10	.94
3/8	6,600	695444	41362	2 1/8	3 3/16	21/32	3 27/64	5 19/32	15/32	10	1.19

**Bulk pack on request



CM lever type load binder

- Provides more control in binding and releasing without extra tools
- Handle closes down away from load with more leverage
- Functionally superior to any other on the road
- Handles are drop forged from special bar quality steel
- Hooks are heat treated steel
- Single welded links as in binder chain for better reliability
- More take-up for binding greater loads. Smaller handle slot with riveted nose to prevent spreading at the critical loading point
- Meets D.O.T. and C.V.S.A. requirements
- Made in USA



Specifications

Chain size (in.)	Chain grade	Working load limit (lbs.)*	Product code	UPC 43927-	Handle length (in.)	Take-up (in.)	Approx. weight each (lbs.)
1/4	G30, 43	2,600	M104	42642	11 1/4	3	2 1/2
1/4	G30, 43, 70	5,400	M105	42644	16	4 7/8	8 1/4
5/16	G30, 43, 70	5,400	M105	42644	16	4 7/8	8 1/4
3/8	G30, 43	5,400	M105	42644	16	4 7/8	8 1/4
5/16	G30, 43, 70	9,200	M106	42647	18 1/2	5 1/8	11 1/4
3/8	G30, 43, 70	9,200	M106	42647	18 1/2	5 1/8	11 1/4
7/16	G30, 43	9,200	M106	42647	18 1/2	5 1/8	11 1/4
1/2	G30, 43	9,200	M106	42647	18 1/2	5 1/8	11 1/4

CM malleable lever load binder

- Free turning 360° swivels on both hooks for easier handling and better utility
- Front tongue for greater take-up
- Special handle angle prevents finger trap
- Drop forged short reach hooks for maximum take-up
- Meets D.O.T. and C.V.S.A. requirements
- Made in USA



Specifications

G30 max. size (in.)	Working load limit (lbs.)*	Product code	UPC 43927-	Take-up (in.)	Handle length (in.)	Approx. weight each (lbs.)
1/4	2,600	D48314	24252	2 3/4	11 1/4	2 7/8
3/8	5,400	D48315	23029	4 1/2	16	7 3/4
1/2	6,000	D48316	24253	4 1/2	19	11 3/4

* ⚠ WARNING

Load binding systems store energy which can release suddenly.

To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Operate only by hand from a firm standing position.
- Operate handle cautiously.
- Stay clear of handle path: handle may release suddenly.
- Read and follow all instructions.



CM ratchet type load binder

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



Specifications

Max. size (in.)	Working load limit (lbs.)*	Product code	UPC 43927-	Take-up (in.)	Approx. weight each (lbs.)
—	13,000	D48363**	30002	8	11
5/16 G70 3/8 G43	5,400	D48365	30003	8	12 1/4
3/8 G70 1/2 G43	9,200	D48366	31205	8	12 1/4
5/16 G70 3/8 G43	5,400	D48810	21059	6	7 3/4
3/8 G80, G43 5/16 G70	7,100	D48360	81767-48360	8	13
1/2 G70 5/8 G43	13,000	D48367	30008	8	14

**Supplied without hooks.

CM tightener load binder

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



Specifications

Working load limit (lbs.)*	Product code	UPC 43927-	Take-up (in.)	Handle length (in.)	Approx. weight each (lbs.)
375	D48949	31206	3	9 1/2	2

* ⚠ WARNING

Load binding systems store energy which can release suddenly.

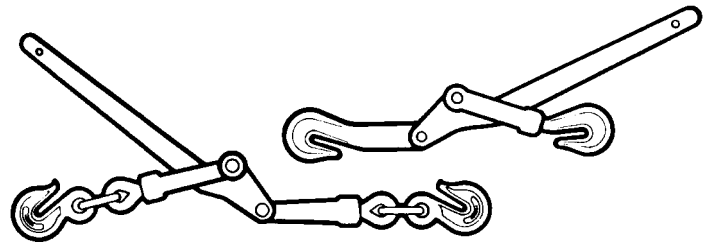
To avoid injury:

- Do not exceed working load limit, load rating or capacity.
- Operate only by hand from a firm standing position.
- Operate handle cautiously.
- Stay clear of handle path: handle may release suddenly.
- Read and follow all instructions.



CM drop forged load binder

- All steel
- Drop forged
- Both hooks swivel 360°
- Each binder individually proof tested
- Tie-down hole in handle
- Short reach hooks for maximum take-up
- Heavy, rigid construction
- Meets D.O.T. and C.V.S.A. requirements
- Made in USA

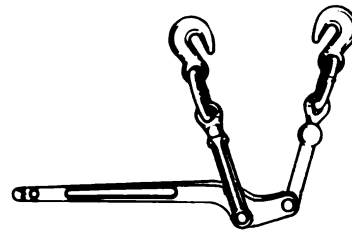


Specifications

Working load limit (lbs.)*	Product code	UPC 43927-	Chain grade & size (in.)			Handle length (in.)	Take-up (in.)	Approx. weight each (lbs.)
			G30	G43	G70			
2,600	320104	32146	1/4	1/4	—	11 1/4	3	2 1/2
5,400	320105	24251	3/8	3/8	5/16	16 1/8	4 1/4	8
9,200	D48306	21424	1/2	1/2	3/8	16 5/8	4 1/2	10

CM E-Z Pro cam release lever binder

- Provides recoilless cam release design
- Hand releasable
- Individually proof tested
- Use with grade 43 and grade 70 chain
- Made in USA



Specifications

Chain grade & size (in.)		Working load limit (lbs.)*	Product code	UPC 43927-	Take-up (in.)	Approx. weight each (lbs.)	Std. Pack
G43	G70						
3/8	5/16	5,400	D48405	23028	4 1/2	11	4

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 a 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.
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.