

Overhead traveling cranes are custom designed to a specific application and location. Designed to travel on runways supported by building frame members, Contrx bridge cranes are available in capacities from 500 lbs. to 50 ton. Bridge cranes are available in Top and Under running Design, Single and Double Girder Configuration.



Contrx Free Standing Overhead Crane Systems can provide all the benefits of an overhead crane even when your building frame is unable to support the additional forces of a conventional crane. Contact us with your lifting capacity needs and available free space dimensions.

Other configurations include single girder top running, single girder under running, and double girder under running.

Free-standing runway support systems are also available.

- Double reduction helical gear motor for long life.
- Adjustable torque magnetic disc brake for smooth operation.
- Hardened steel wheels for long life.
- Top quality hoists matched to the application duty cycle.

Available Custom Options

- Independent Traveling Pendant
- Inverter type motor control
- Radio remote control
- Travel limit switches and warning lights
- Walkways and service platforms
- Heat shields
- Runway rails and beams
- Electromagnets and vacuum lifters

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Synthetic Web Slings



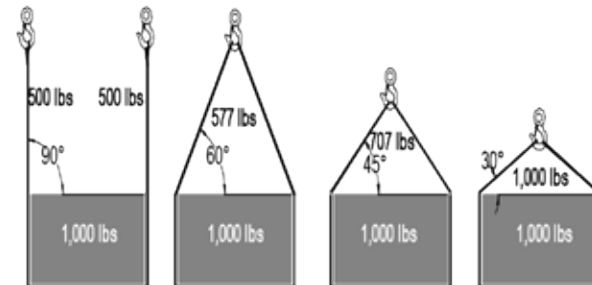
Eye & Eye Slings

Endless Slings

Part No.	Width	Ply	Capacity		
			VERTICAL	CHOKER	BASKET
USS-19-EE1	1"	1	1,600	1,250	3,200
USS-19-EE2	1"	2	3,200	2,560	6,400
USS-29-EE1	2"	1	3,200	2,560	6,400
USS-29-EE2	2"	2	6,400	5,120	12,800
USS-39-EE1	3"	1	4,800	3,840	9,600
USS-39-EE2	3"	2	9,300	7,440	18,600
USS-49-EE1	4"	1	6,400	5,120	12,800
USS-49-EE2	4"	2	11,500	9,200	23,000
USS-69-EE1	6"	1	9,600	7,680	19,200
USS-69-EE2	6"	2	16,500	13,200	33,000
USS-89-EE1	8"	1	12,800	10,240	25,600
USS-89-EE2	8"	2	22,750	18,200	44,500
USS-109-EE1	10"	1	16,000	12,800	32,000
USS-109-EE2	10"	2	28,400	22,720	56,800
USS-129-EE1	12"	1	19,200	15,360	38,400
USS-129-EE2	12"	2	34,100	27,280	68,200

Part No.	Width	Ply	Capacity		
			VERTICAL	CHOKER	BASKET
USS-19-EN1	1"	1	3,200	2,500	6,400
USS-19-EN2	1"	2	6,200	4,900	12,400
USS-29-EN1	2"	1	6,400	5,000	12,800
USS-29-EN2	2"	2	12,200	9,800	24,400
USS-39-EN1	3"	1	8,600	6,900	17,200
USS-39-EN2	3"	2	16,300	13,000	32,600
USS-49-EN1	4"	1	11,500	9,200	23,000
USS-49-EN2	4"	2	20,700	16,500	41,400
USS-69-EN1	6"	1	16,300	13,000	32,600
USS-69-EN2	6"	2	28,600	23,000	57,200
USS-89-EN1	8"	1	19,200	15,400	38,400
USS-89-EN2	8"	2	30,700	24,500	61,400
USS-109-EN1	10"	1	22,400	17,900	44,800
USS-109-EN2	10"	2	33,600	26,800	67,200
USS-129-EN1	12"	1	26,900	21,500	53,800
USS-129-EN2	12"	2	37,600	30,000	75,200

* Capacities listed are for nylon slings. Contact USS for polyester capacities



Sling Angle and Sling Load Chart

Sling angle is the angle measured between a horizontal line and the sling leg. This angle has a dramatic effect on the rated capacity of the sling. When this angle decreases, the load on each leg increases. This principle applies whether one sling is used to pull at an angle, in a basket hitch or for multi-legged bridle slings.

Sling Angle in Degrees	Multiplier Factor
30	0.500
45	0.707
60	0.866
70	0.940
85	0.996
90	1.000

Lift Jib & Pivot Boom Jib Lift

Turn your lift truck into a mobile crane in minutes with a Contrx Telescoping Lift Jib or Pivot Boom Jib Lift. Move cumbersome items your forks can't reach. Enjoy the convenience of this versatile attachment without duplicating existing equipment. One person can install without removing forks.

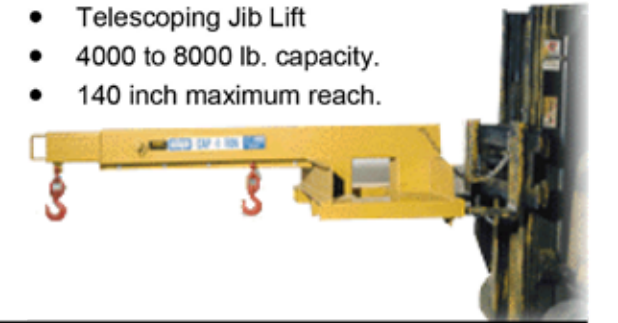
Pivot Boom Jib Lift

- Pivot Boom Jib Lift
- 4000 to 8000 lb. capacity
- Adjusts from 0 to 50 degrees



Telescoping Jib Lift

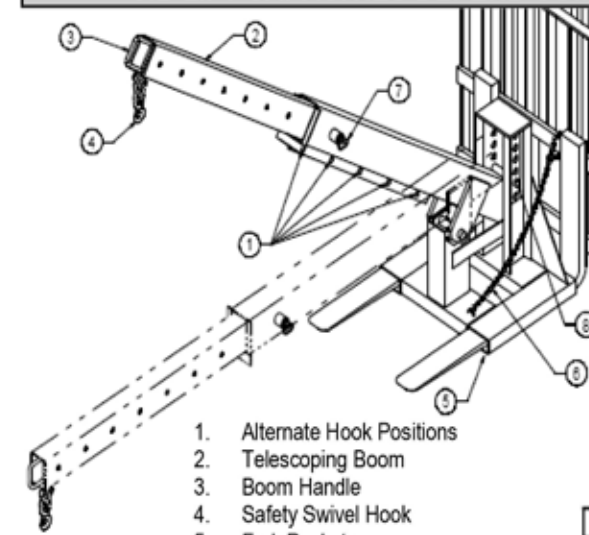
- Telescoping Jib Lift
- 4000 to 8000 lb. capacity.
- 140 inch maximum reach.



SINGLE HOOK CAPACITIES

Hook	Hook Position	4000 LB. CAPACITY LIFT JIB						6000 LB. CAP. LIFT JIB				8000 LB. CAP. LIFT JIB				
		Forklift Truck Capacity at 24" Load Center						MAX. JIB CAP.	Forklift Truck Capacity at 24" Load Center			MAX. JIB CAP.	Forklift Truck Capacity at 24" Load Center			
		2000	4000	5000	6000	8000	10,000		10,000	12,000	14,000		16,000	18,000	20,000	
1	80	595	1429	1845	2262	3095	3929	4000	3828	4662	5495	6000	6087	6920	7754	8000
2	87-1/2	545	1318	1704	2091	2864	3535	3535	3540	4313	5086	5302	5633	6406	6974	6974
3	95	501	1222	1582	1943	2663	3167	3167	3291	4012	4733	4750	5240	5961	6182	6182
4	102-1/2	463	1138	1476	1813	2488	2868	2868	3074	3749	4302	4302	4897	5551	5551	5551
5	110	429	1064	1382	1699	2334	2621	2621	2882	3517	3931	3931	4594	5037	5037	5037
6	117-1/2	399	999	1298	1598	2197	2413	2413	2712	3311	3619	3619	4326	4610	4610	4610
7	125	373	940	1224	1507	2075	2235	2235	2560	3127	3353	3353	4086	4250	4250	4250
8	132-1/2	349	887	1157	1426	1965	2082	2082	2423	2962	3123	3123	3871	3942	3942	3942
9	140	327	840	1096	1353	1865	1949	1949	2300	2813	2923	2923	3676	3676	3676	3676

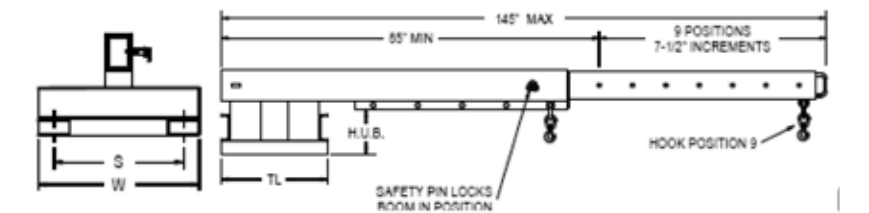
JIB LIFT CAPACITIES DEPEND COMPLETELY ON CAPACITY OF FORK LIFT BEING USED



1. Alternate Hook Positions
2. Telescoping Boom
3. Boom Handle
4. Safety Swivel Hook
5. Fork Pockets
6. 48" Safety Chain with Grab Hook
7. Spring Loaded Boom Lock
8. Angle Adjusting Pin

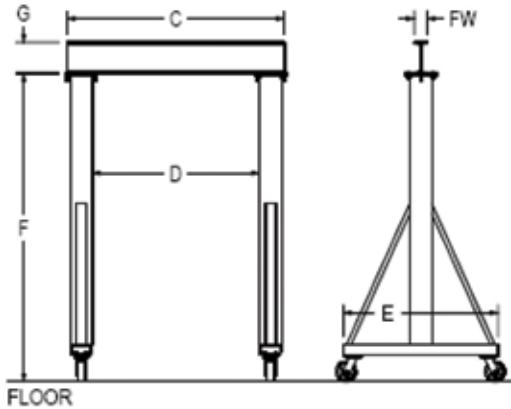
Max Cap (LBS)	Pivot Boom	Jib Lift	Dim. "S"	Dim. "W"	Dim. "TL"	Pivot Boom H.U.B.	Jib Lift H.U.B.
4000	n/a	JLT411	11"	17"	24"		10"
4000	PB-JLT424	JLT424	24"	30"	24"	18-1/2"	10"
4000	PB-JLT436	JLT436	36"	44"	24"	19-1/2"	10"
6000	PB-JLT624	JLT624	24"	32"	24"	19-1/2"	10"
6000	PB-JLT636	JLT636	36"	44"	24"	23-1/2"	10"
8000	PB-JLT836	JLT836	36"	44"	32"	27-1/2"	10"
8000	PB-JLT848	JLT848	48"	56"	32"	27-1/2"	12"

Fork Pockets: 4000 lbs—2 1/2" x 5 1/2"; 6000 & 8000 lbs—3 1/2" x 7 1/2"



Portable Gantry Cranes

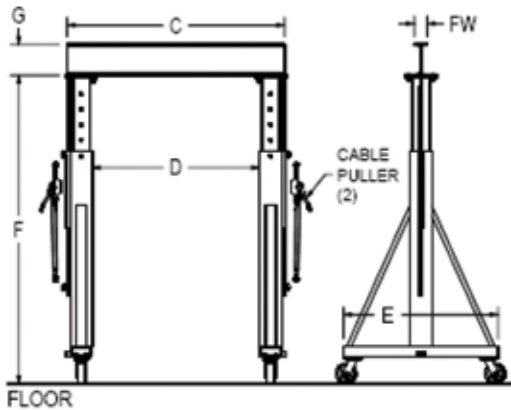
Our Fixed Height Gantry Cranes are ideal for use in aircraft, automotive, and marine repair shops. They also work well in warehouses, machine shops, and loading areas. Gantry cranes are supplied with four roller-bearing steel wheels for easy maneuverability. The structural steel legs are welded together at the factory. Gantry crane requires assembly before use.



FIXED HEIGHT GANTRY CRANE SPECIFICATIONS										
MODEL NUMBER	CAP. (TONS)	STEEL * WHEELS	C	D	E	F	G	FW	BEAM TYPE**	WEIGHT (LBS.)
GC1-8	1	5" X 1 5/8"	9'-5"	8'	5'	10'	5"	3"	S	526
GC1-12	1	5" X 1 5/8"	13'-5"	12'	5'	10'	6"	3 3/8"	S	600
GC1-16	1	5" X 1 5/8"	17'-5"	16'	5'	10'	8"	4"	S	750
GC2-8	2	8" X 1 1/2"	9'-6"	8'	5'	10'	6"	3 3/8"	S	651
GC2-12	2	8" X 1 1/2"	13'-6"	12'	5'	10'	8"	4"	S	781
GC2-16	2	8" X 1 1/2"	17'-6"	16'	5'	10'	10-3/8"	5-3/4"	W	1030
GC3-8	3	8" X 2 1/2"	9'-6 5/8"	8'	5'	10'	8"	4"	S	1018
GC3-12	3	8" X 2 1/2"	13'-6 5/8"	12'	5'	10'	10-1/2"	5-3/4"	W	1247
GC3-16	3	8" X 2 1/2"	17'-6 5/8"	16'	5'	10'	13-5/8"	8"	W	1594
GC4-8	4	8" X 3"	9'-8 5/8"	8'	5'	10'	9-7/8"	8"	W	1393
GC4-12	4	8" X 3"	13'-8 5/8"	12'	5'	10'	9-7/8"	8"	W	1549
GC4-16	4	8" X 3"	17'-8 5/8"	16'	5'	10'	13-5/8"	8"	W	1776
GC5-8	5	8" X 3"	9'-8 5/8"	8'	5'	10'	16-3/8"	7-1/8"	W	1651
GC5-12	5	8" X 3"	13'-8 5/8"	12'	5'	10'	16-3/8"	7-1/8"	W	1879
GC5-16	5	8" X 3"	17'-8 5/8"	16'	5'	10'	16-3/8"	7-1/8"	W	2107

* DIAMETER OF WHEELS BY TREAD WIDTH
 ** "S" type beams are standard beams with tapered flanges. "W" type beams are wide-flange beams with flat flanges. The trolley used on a "W" type beam must be designed to operate on a wide-flange beam.

Our Telescoping Height Gantry Cranes have the same abilities as our fixed height gantries with the added benefit of raising or lowering the beam to suit your need. The beam will adjust from 8'-0" to 12'-0" below the beam with positive stops every 6". The beam is raised and lowered with the aid of two cable pullers (included). Locking pins hold the beam at the desired height.



TELESCOPING HEIGHT GANTRY CRANE SPECIFICATIONS											
MODEL NUMBER	CAP. (TONS)	STEEL * WHEELS	C	D	E	F		G	FW	BEAM TYPE**	WEIGHT (LBS.)
						MIN	MAX				
GCT1-8	1	5" X 1 5/8"	9'-5 9/16"	8'	5'	8'	12'	5"	3"	S	733
GCT1-12	1	5" X 1 5/8"	13'-5 9/16"	12'	5'	8'	12'	6"	3 3/8"	S	807
GCT1-16	1	5" X 1 5/8"	17'-5 9/16"	16'	5'	8'	12'	8"	4"	S	957
GCT2-8	2	8" X 1 1/2"	9'-6 5/8"	8'	5'	8'	12'	6"	3 3/8"	S	886
GCT2-12	2	8" X 1 1/2"	13'-6 5/8"	12'	5'	8'	12'	8"	4"	S	1016
GCT2-16	2	8" X 1 1/2"	17'-6 5/8"	16'	5'	8'	12'	10-3/8"	5-3/4"	W	1266
GCT3-8	3	8" X 2 1/2"	9'-6 5/8"	8'	5'	8'	12'	8"	4"	S	1202
GCT3-12	3	8" X 2 1/2"	13'-6 5/8"	12'	5'	8'	12'	10-1/2"	5-3/4"	W	1431
GCT3-16	3	8" X 2 1/2"	17'-6 5/8"	16'	5'	8'	12'	13-5/8"	8"	W	1778
GCT4-8	4	8" X 3"	9'-8 5/8"	8'	5'	8'	12'	9-7/8"	8"	W	1607
GCT4-12	4	8" X 3"	13'-8 5/8"	12'	5'	8'	12'	9-7/8"	8"	W	1763
GCT4-16	4	8" X 3"	17'-8 5/8"	16'	5'	8'	12'	13-5/8"	8"	W	1989
GCT5-8	5	8" X 3"	9'-8 5/8"	8'	5'	8'	12'	16-3/8"	7-1/8"	W	1865
GCT5-12	5	8" X 3"	13'-8 5/8"	12'	5'	8'	12'	16-3/8"	7-1/8"	W	2093
GCT5-16	5	8" X 3"	17'-8 5/8"	16'	5'	8'	12'	16-3/8"	7-1/8"	W	2321

* DIAMETER OF WHEELS BY TREAD WIDTH
 ** "S" type beams are standard beams with tapered flanges. "W" type beams are wide-flange beams with flat flanges. The trolley used on a "W" type beam must be designed to operate on a wide-flange beam.

FIXED & TELESCOPING GANTRY CRANES

- Semi-steel heavy-duty swivel casters with roller bearings are standard equipment. Two casters are supplied with brakes.
- Gantries are easily disassembled and assembled for relocation.
- Contact factory for special heights, spans, and options.

* We manufacture these in Neenah, Wisconsin.
 * Special sizes are available upon request.
 * Note beam sizes when ordering trolleys.

Synthetic Web Slings



Reverse Eye

Part No.	Width	Ply	Eye Size	Capacity		
				VERTICAL	CHOKER	BASKET
USS-29-RE1	2"	1	10"	4,600	3,680	9,200
USS-29-RE2	2"	2	10"	7,700	6,160	15,400
USS-39-RE1	3"	1	12"	6,900	5,520	13,800
USS-39-RE2	3"	2	12"	11,600	9,280	23,200
USS-49-RE1	4"	1	14"	8,600	6,880	17,200
USS-49-RE2	4"	2	14"	14,500	11,600	29,000
USS-69-RE1	6"	1	14"	12,000	9,600	24,000
USS-69-RE2	6"	2	14"	17,400	13,920	34,800



Triangle / Choker

Part Number	Width	Capacity *		
		Vertical	Choker	Basket
USS-29-TC1	2"	3300	2700	6600
USS-39-TC1	3"	5000	4050	10000
USS-49-TC1	4"	6700	5400	13400
USS-59-TC1	5"	8400	6750	16800
USS-69-TC1	6"	9700	8100	19400

Triangle / Triangle

Part Number	Width	Capacity *		
		Vertical	Choker	Basket
USS-29-TT1	2"	3300	2700	6600
USS-39-TT1	3"	5000	4050	10000
USS-49-TT1	4"	6700	5400	13400
USS-59-TT1	5"	8400	6750	16800
USS-69-TT1	6"	9700	8100	19400

Cargo Sling



Part No.	Width	Ply	Basket Capacity (lbs)*
USS-89-CA1	8	1	28800
USS-89-CA2	8	2	57600
USS-109-CA1	10	1	36000
USS-109-CA2	10	2	72000
USS-129-CA1	12	1	43200
USS-129-CA2	12	2	86400
USS-169-CA1	16	1	57600
USS-169-CA2	16	2	115200
USS-209-CA1	20	1	72000
USS-209-CA2	20	2	144000
USS-249-CA1	24	1	86400
USS-249-CA2	24	2	172800

* Capacities listed are for nylon slings. Contact USS for polyester capacities.



Roll Handling Sling

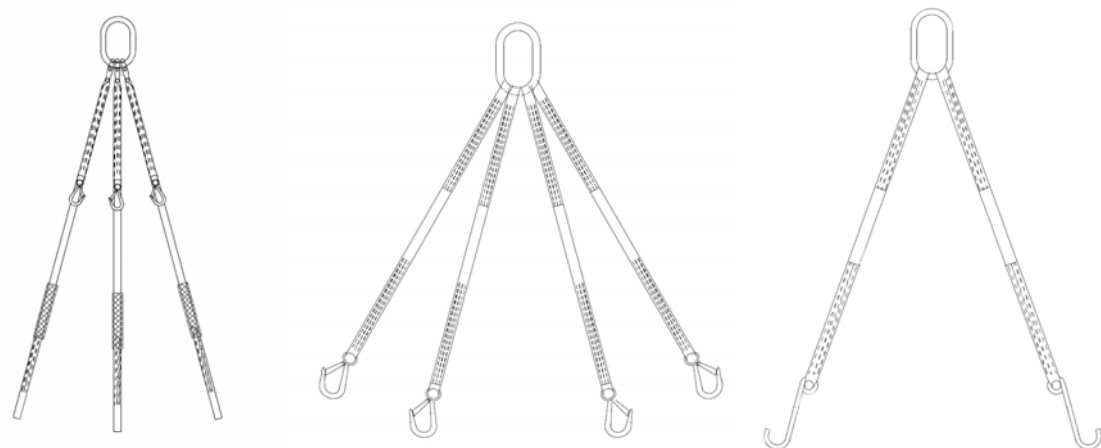
Part Number	Width	Basket Capacity (lbs)*
USS-89-CBE-11	8	4000
USS-89-CBE-12	8"	8000
USS-109-CBE-11	10"	4000
USS-109-CBE-12	10"	8000
USS-129-CBE-11	12"	4000
USS-129-CBE-21	12"	8000
USS-169-CBE-21	16"	8000
USS-169-CBE-31	16"	12000
USS-209-CBE-21	20"	8000
USS-209-CBE-31	20"	12000
USS-249-CBE-21	24"	8000
USS-249-CBE-31	24"	12000

Synthetic Web Slings



Multi-Leg Spreader Slings

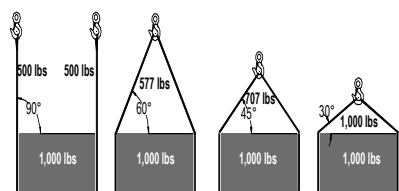
US Sling offers nylon and polyester multi leg spreader slings in many configurations with a wide variety of hardware to meet your needs. For more information on multi-leg slings, contact a USS Salesman at 920-722-0373.



Sling Selection

Select a sling having suitable characteristics for the type of load, hitch and environment to which it will be subjected.

- ◆ **Sling Capacity**—Determine weight of the load.
- ◆ **Sling Type**—Select a sling of suitable design for the type of hitch to be used. Where there is no reason to use another type, endless type is recommended. The endless type is more economical and gives longer service life because of wear rotation.
- ◆ **Sling Width**—If width is not a consideration because of load crushing or other reasons, use the narrowest sling that is rated to handle the load. Generally, a narrower sling is more economical.
- ◆ **Sling Length**—Choker slings with metal end fittings must be sufficient length to assure that choking action is on the webbing. Basket hitch slings must be of sufficient length to prevent overstressing of sling legs due to high sling leg angles. Consider the advisability of one complete wrap around the load for choker hitch slings, thus providing a good grip on the load.
- ◆ **Sling Body Ply**—Body ply indicates the number of web thickness in the body of a sling. A rule of thumb is that for a given sling you can double the rated capacity by doubling the plies. For example a 1" two ply sling would have the same capacity as a 2" single ply.
- ◆ **Material: Nylon vs. Polyester**—Nylon is slightly more wear resistant and has better shock absorption qualities than polyester. Polyester should be used where acids are present and where minimum stretch of the sling is desired.



Sling Angle in Degrees	Multiplier Factor
30	0.500
45	0.707
60	0.866
70	0.940
85	0.996
90	1.000

Sling Angle and Sling Load Chart

Sling angle is the angle measured between a horizontal line and the sling leg or body. This angle is very important and can have a dramatic effect on the rated capacity of the sling. As illustrated when this angle decreases, the load on each leg increases. This principle applies whether one sling is used to pull at an angle, in a basket hitch or for multi-legged bridle slings. **Sling angles of less than 45 degrees are not recommended.**

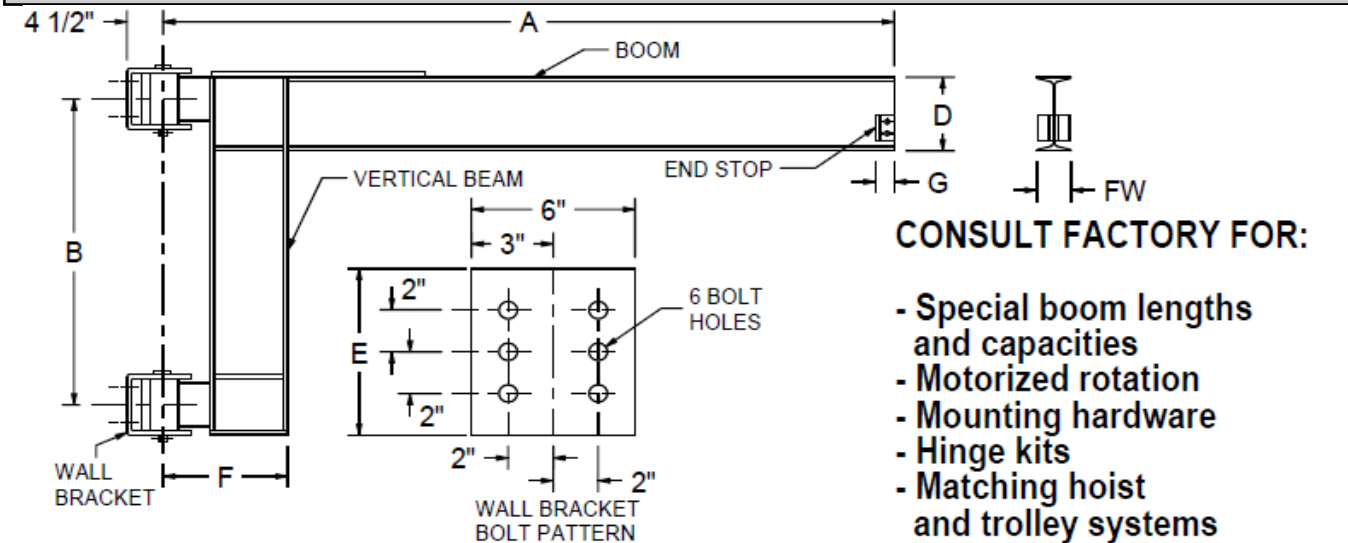
$$\text{Actual Sling Capacity} = \text{Factor} \times \text{Rated Capacity}$$

Chemical Resistance

- ◆ Nylon and polyester can be used with alcohols, cleaning solvents, halogenated hydrocarbons, crude oils, lubricating oils, soap and detergents, water and seawater.
- ◆ Do **NOT** use nylon with acids or dry bleaching agents.
- ◆ Do **NOT** use polyester with aldehydes or ethers.
- ◆ Slings incorporating aluminum fittings should not be used where fumes, vapors, sprays, mists or liquids of caustics and / or acids are present.
- ◆ Web slings do not rot or mildew.



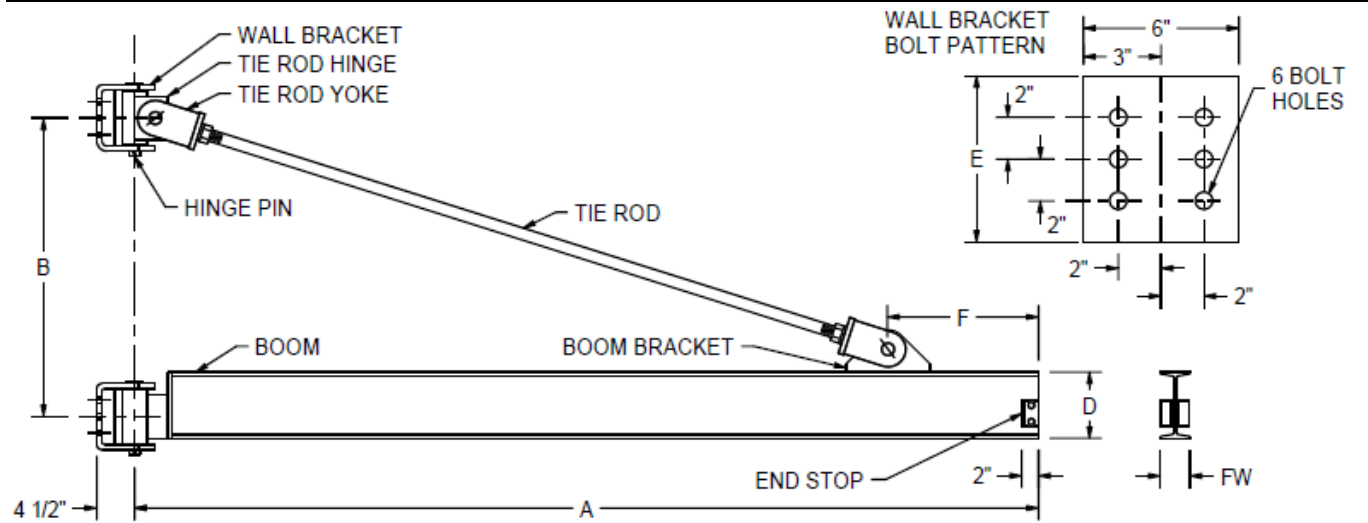
WMCC Full Cantilever Jib Cranes



MODEL NO.	CAPACITY	A	B	D	FW	E	F	G	BOLT HOLE DIA.	THRUST & PULL (LBS.)	WEIGHT (LBS.)
WMCC508	500 LB.	8'	3'	6"	3 3/8"	7"	10"	2"	9/16"	2080	205
WMCC510	500 LB.	10'	3'	6"	3 3/8"	7"	10"	2"	9/16"	2641	230
WMCC512	500 LB.	12'	4'	6"	3 3/8"	7"	12"	2"	9/16"	2425	304
WMCC514	500 LB.	14'	4'	6"	3 3/8"	7"	12"	2"	9/16"	2871	329
WMCC516	500 LB.	16'	4'	8"	4"	7"	12"	2"	9/16"	3526	442
WMCC518	500 LB.	18'	4'	8"	4"	7"	12"	2"	9/16"	4049	479
WMCC520	500 LB.	20'	4'	10-3/8"	5-3/4" WF	7"	16-3/8"	2"	9/16"	4967	747
WMCC108	1000 LB.	8'	3'	8"	4"	7"	12"	2"	9/16"	3680	277
WMCC110	1000 LB.	10'	3'	8"	4"	7"	12"	2"	9/16"	4662	314
WMCC112	1000 LB.	12'	3'	8"	4"	7"	12"	2"	9/16"	5668	350
WMCC114	1000 LB.	14'	4'	8"	4"	7"	16-3/8"	2"	9/16"	5046	482
WMCC116	1000 LB.	16'	4'	10-3/8"	5-3/4" WF	7"	16-3/8"	2"	9/16"	6069	644
WMCC118	1000 LB.	18'	4'	10-3/8"	5-3/4" WF	7"	16-3/8"	2"	9/16"	6940	696
WMCC120	1000 LB.	20'	6'	12-3/8"	6-1/2" WF	7"	16-3/8"	2"	9/16"	5394	875
WMCC208	2000 LB.	8'	4'	8"	4"	7"	16-3/8"	2"	9/16"	5110	371
WMCC210	2000 LB.	10'	5'	10-3/8"	5-3/4" WF	8"	16-3/8"	2"	11/16"	5226	527
WMCC212	2000 LB.	12'	5'	10-3/8"	5-3/4" WF	8"	16-3/8"	2"	11/16"	6329	579
WMCC214	2000 LB.	14'	5'	10-3/8"	5-3/4" WF	8"	16-3/8"	2"	11/16"	7453	631
WMCC216	2000 LB.	16'	6'	12-3/8"	6-1/2" WF	8"	16-3/8"	2"	11/16"	7272	765
WMCC218	2000 LB.	18'	6'	16"	7" WF	8"	16"	2"	11/16"	8561	1083
WMCC220	2000 LB.	20'	6'	16"	7" WF	8"	16"	2"	11/16"	9643	1163
WMCC408	4000 LB.	8'	4'	12-3/8"	6-1/2" WF	8"	16-3/8"	2"	11/16"	9823	469
WMCC410	4000 LB.	10'	4'	12-3/8"	6-1/2" WF	8"	16-3/8"	2"	11/16"	12359	529
WMCC412	4000 LB.	12'	4'	12-3/8"	6-1/2" WF	8"	16-3/8"	2"	11/16"	14924	589
WMCC414	4000 LB.	14'	5'	16"	7" WF	8"	16"	2"	11/16"	14240	887
WMCC416	4000 LB.	16'	6'	21"	6-1/2" WF	8"	16"	3"	11/16"	14052	1256
WMCC418	4000 LB.	18'	6'	21"	6-1/2" WF	8"	18"	3"	11/16"	15998	1465
* WMCC420	4000 LB.	20'	7'-6"	23 3/4"	7" WF	8"	18"	3"	11/16"	14521	1840
WMCC608	6000 LB.	8'	4'	16"	7" WF	8"	18"	2"	11/16"	14675	679
WMCC610	6000 LB.	10'	4'	16"	7" WF	8"	18"	2"	11/16"	18448	759
WMCC612	6000 LB.	12'	6'	16"	7" WF	8"	22"	2"	11/16"	14871	974
WMCC614	6000 LB.	14'	6'	16"	7" WF	8"	22"	2"	11/16"	17440	1054
WMCC616	6000 LB.	16'	6'-6"	21"	6-1/2" WF	8"	22"	3"	11/16"	18844	1402
* WMCC618	6000 LB.	18'	7'-6"	23 3/4"	7" WF	8"	22"	3"	11/16"	18629	1743
* WMCC620	6000 LB.	20'	9'-6"	23 3/4"	7" WF	8"	22"	3"	13/16"	16512	2135

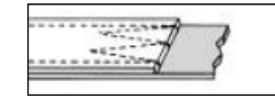
WF indicates that this jib crane uses a wide-flange beam. The trolley used on this crane must be designed to operate on a wide-flange beam.
* These cranes ship in two pieces and have bolt on booms.

WMC Overbraced Tie Rod Jib Cranes

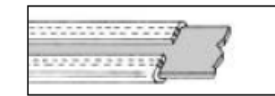


Web Sling Protectors

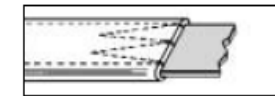
The most common cause of web sling damage is cutting. Wear pads and sleeves can help reduce the damage by acting as a buffer between the load and the slings. Common materials used are nylon, cordura, and leather. The most common material is cordura which offers resistance to grease, oil and dirt and has good abrasion resistance at a reasonable cost. Cordura has similar stretch properties of nylon and works well when sewn on nylon slings as pads. Leather and "pleather" (synthetic leather) offers good abrasion resistance. Leather is subject to deterioration from water, grease, oils and sunlight. It does not stretch making leather less suitable as wear pads. These materials are abrasion resistant but are **NOT** cut proof. Care must be used to verify that these materials are proper for the application; and, that these materials are positioned properly. Other materials such as fire hose, rubber, etc. may be used.



Wear Pads are sewn directly on the sling in locations that are most susceptible to wear such as inside of eyes and wear points on slings for specific applications.



Edge Guards are pads wrapped around the sling edge to protect the sling from snags and cuts.



Wrap Around Guards are pads or sleeves wrapped around the sling width and sewn tight to protect the sling.

Sleeves come in several different styles and are made from pieces of material sewn together or tubing. Sleeves protect both sides of slings. They are not sewn directly to the sling which allows the sleeve to stay in place on rough edges while allowing the sling to slide inside the sleeve to center itself on the load without the sling being damaged.



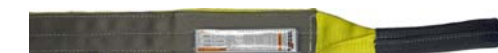
Sliding Sleeves are removable from the sling. They are available for eye and eye and endless slings. **Floating Sleeves** are not removable from the sling. They are only available on endless type slings. **Velcro / Cordura Sleeves** are removable sleeves with Velcro along one edge. This allows for easy placement of sleeves during the rigging process.



Leather : Good abrasion resistance. Made into pads or sleeves. May require multiple pieces to make longer pads or sleeves.



Cordura : Good abrasion resistance. Made into pads or sliding sleeves. Available as tube up to 8 inch sleeves.



Cordura Wrapped : Good abrasion resistance. Can be sewn on body and / or eyes.



Cordura Reinforced Eyes: Good abrasion resistance. Can be total wrap as shown or only pad sewn inside of eye.



Nylon Reinforced Cordura Sleeve : Good abrasion resistance. Added layer of protection with nylon reinforcement. Can be made as shown or with Velcro enclosure to allow for placement after sling is in place.



Conveyor Belt Sleeve: 1/8 inch thick smooth conveyor belt sewn to nylon sleeve on one side. Can be made as sleeve or shown with Velcro enclosure to allow for placement after sling is in place.



Pukka-Pad: 5/16 inch thick high density felt. Can be made as a standard sleeve or as shown with Velcro enclosure to allow for placement after sling is in place.

MODEL NO.	CAPACITY	A	B	D	FW	E	F	BOLT HOLE DIA.	THRUST & PULL (LBS.)	WEIGHT (LBS.)
WMC508	500 LB.	8'	2'-9"	6"	3 3/8"	7"	1'-3"	9/16"	2367	202
WMC510	500 LB.	10'	3'-0"	6"	3 3/8"	7"	1'-6"	9/16"	2731	232
WMC512	500 LB.	12'	3'-9"	6"	3 3/8"	7"	2'-0"	9/16"	2648	261
WMC514	500 LB.	14'	4'-6"	6"	3 3/8"	7"	2'-0"	9/16"	2603	292
WMC516	500 LB.	16'	5'-6"	6"	3 3/8"	7"	2'-0"	9/16"	2463	323
WMC518	500 LB.	18'	6'-0"	8"	4"	7"	2'-0"	9/16"	2738	458
WMC520	500 LB.	20'	6'-6"	8"	4"	7"	2'-3"	9/16"	2860	500
WMC108	1000 LB.	8'	2'-9"	6"	3 3/8"	7"	1'-3"	9/16"	4118	202
WMC110	1000 LB.	10'	3'-0"	6"	3 3/8"	7"	1'-6"	9/16"	4720	232
WMC112	1000 LB.	12'	3'-9"	6"	3 3/8"	7"	2'-0"	9/16"	4545	261
WMC114	1000 LB.	14'	4'-6"	6"	3 3/8"	7"	2'-0"	9/16"	4440	292
WMC116	1000 LB.	16'	5'-6"	6"	3 3/8"	7"	2'-0"	9/16"	4175	323
WMC118	1000 LB.	18'	6'-0"	8"	4"	7"	2'-0"	9/16"	4499	458
WMC120	1000 LB.	20'	6'-6"	8"	4"	7"	2'-3"	9/16"	4662	500
WMC208	2000 LB.	8'	2'-9"	6"	3 3/8"	7"	1'-3"	9/16"	7681	202
WMC210	2000 LB.	10'	3'-0"	6"	3 3/8"	7"	1'-6"	11/16"	8766	242
WMC212	2000 LB.	12'	3'-9"	6"	3 3/8"	8"	2'-0"	11/16"	8406	272
WMC214	2000 LB.	14'	4'-6"	8"	4"	8"	2'-0"	11/16"	8312	384
WMC216	2000 LB.	16'	5'-6"	8"	4"	8"	2'-3"	11/16"	7802	426
WMC218	2000 LB.	18'	6'-0"	8"	4"	8"	2'-6"	11/16"	8082	467
WMC220	2000 LB.	20'	6'-0"	10-3/8"	5-3/4" WF	8"	2'-6"	11/16"	9266	671
WMC408	4000 LB.	8'	2'-9"	8"	4"	8"	1'-3"	11/16"	14822	297
WMC410	4000 LB.	10'	3'-0"	8"	4"	8"	1'-6"	11/16"	16895	341
WMC412	4000 LB.	12'	3'-9"	8"	4"	8"	1'-9"	11/16"	16182	386
WMC414	4000 LB.	14'	4'-6"	8"	4"	8"	2'-0"	11/16"	15724	431
WMC416	4000 LB.	16'	5'-6"	10-3/8"	5-3/4" WF	8"	2'-3"	11/16"	14880	607
WMC418	4000 LB.	18'	6'-0"	10-3/8"	5-3/4" WF	8"	2'-3"	11/16"	15384	668
WMC420	4000 LB.	20'	6'-6"	12-3/8"	6-1/2" WF	8"	2'-6"	11/16"	15973	811
WMC608	6000 LB.	8'	2'-9"	8"	4"	8"	1'-3"	13/16"	22070	317
WMC610	6000 LB.	10'	3'-3"	8"	4"	8"	1'-6"	13/16"	23193	364
WMC612	6000 LB.	12'	4'-0"	10-1/2"	5-3/4" WF	8"	1'-9"	13/16"	22668	560
WMC614	6000 LB.	14'	4'-9"	10-1/2"	5-3/4" WF	8"	2'-0"	13/16"	22251	631
WMC616	6000 LB.	16'	5'-6"	10-1/2"	5-3/4" WF	8"	2'-3"	13/16"	21966	702
WMC618	6000 LB.	18'	6'-3"	16"	7" WF	8"	2'-3"	13/16"	22160	963
WMC620	6000 LB.	20'	7'-0"	16"	7" WF	8"	2'-6"	13/16"	22056	1397

WF indicates that this jib crane uses a wide-flange beam. The trolley used on this crane must be designed to operate on a wide-flange beam.

Round Slings

Endless Roundslings

- Designed especially for easy use and durability.
- Chokes much better than standard slings and releases earlier.
- Soft and Pliable—conforms well to irregularly shaped loads.
- Double jacket protects load-bearing fibers.
- Tagged for easy identification

Made of 100% polyester fiber in an endless or continuous loop. Double covered sling has superior strength and durability. Lightweight and easy to handle, store, and clean. Provides excellent resistance to ultra-violet rays and resists many acids (not alkalis).



Endless

Part No	Color Code	Minimum Length (ft)	Vertical	Choker	Vertical Basket	Approx Diameter (in)	Approx Weight (per ft)
USS ENR1	Purple	3'	2,600	2,100	5,200	0.625"	0.3 lb.
USS ENR2	Green	3'	5,300	4,200	10,600	0.875"	0.4 lb.
USS ENR3	Yellow	3'	8,400	6,700	16,800	1.125"	0.5 lb.
USS ENR4	Tan	3'	10,600	8,500	21,200	1.125"	0.6 lb.
USS ENR5	Red	3'	13,200	10,600	26,400	1.375"	0.8 lb.
USS ENR6	White	6'	16,800	13,400	33,600	1.375"	0.9 lb.
USS ENR7	Blue	6'	21,200	17,000	42,400	1.625"	1.3 lb.
USS ENR8	Orange	6'	25,000	20,000	50,000	1.750"	1.6 lb.
USS ENR9	Orange	6'	31,000	24,800	62,000	2.125"	2.0 lb.
USS ENR10	Orange	6'	40,000	32,000	80,000	2.350"	2.6 lb.
USS ENR11	Orange	8'	53,000	42,400	106,000	3.150"	3.4 lb.
USS ENR12	Orange	8'	66,000	52,800	132,000	3.950"	4.3 lb.
USS ENR13	Orange	8'	90,000	72,000	180,000	4.800"	5.9 lb.
USS ENR14	Black	8'	100,000	80,000	200,000	5.250"	6.1 lb.
USS ENR15	Black	8'	110,000	88,000	220,000	5.250"	6.1 lb.
USS ENR16	Black	8'	120,000	96,000	240,000	5.250"	6.1 lb.
USS ENR17	Black	8'	130,000	104,000	260,000	5.250"	6.1 lb.
USS ENR18	Black	8'	140,000	112,000	280,000	5.250"	6.1 lb.
USS ENR19	Black	8'	150,000	120,000	300,000	5.250"	6.1 lb.

Care and Use

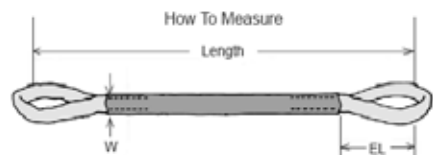
Temperature: Manufactured from polyester, round slings are seriously degraded at temperatures above 200 degrees.

Improper Loading: Shock loading, unbalanced loading, overloading and inadequate consideration for the effect of angle factors can adversely effect strength.

Cuts, Punctures, Abrasions: When sleeve on a round sling has been damaged so that the inner load bearing yarns can be exposed, the sling **MUST** be removed from service.

Chemicals: Round slings must not be exposed to fumes, vapor sprays, mists or liquids of alkaline, aldehydes, ethers or concentrated sulfuric acid.

Foreign Matter: Material such as metal chips, weld splatter, heavy grit, etc. can damage round slings.



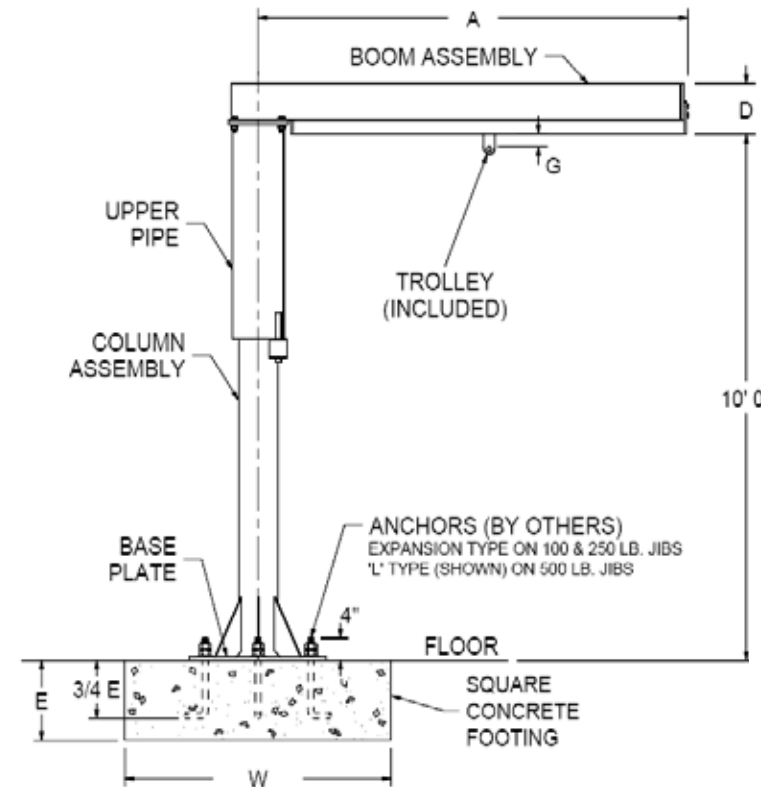
Eye & Eye

Part No	Color Code	Minimum Length (ft)	Vertical	Choker	Vertical Basket	Standard Eye Length (in)	Approx. Dia. (in)
USS EENR1	Purple	3'	2,600	2,100	5,200	10"	2.25"
USS EENR2	Green	3'	5,300	4,200	10,600	10"	2.50"
USS EENR3	Yellow	4'	8,400	6,700	16,800	12"	2.50"
USS EENR4	Tan	4'	10,600	8,500	21,200	12"	3.25"
USS EENR5	Red	5'	13,200	10,600	26,400	14"	3.50"
USS EENR6	White	7'	16,800	13,400	33,600	16"	3.50"
USS EENR7	Blue	7'	21,200	17,000	42,400	16"	4.25"
USS EENR8	Orange	6'	25,000	20,000	50,000	24"	5.00"
USS EENR9	Orange	6'	31,000	24,800	62,000	24"	6.50"
USS EENR10	Orange	6'	40,000	32,000	80,000	24"	8.50"
USS EENR11	Orange	8'	53,000	42,400	106,000	30"	10.00"
USS EENR12	Orange	8'	66,000	52,800	132,000	30"	11.50"
USS EENR13	Orange	8'	90,000	72,000	180,000	30"	14.00"
USS EENR14	Black	8'	100,000	80,000	200,000	30"	14.50"

Work Station Jib Crane

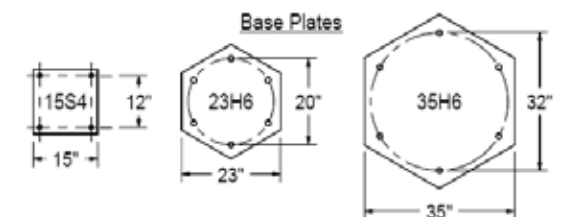
Features:

- ◆ 100, 250 & 500 lb capacities
- ◆ Enclosed track for ease of load movement
- ◆ Lifetime lubricated and sealed trolley bearings
- ◆ Easy load placement control
- ◆ Fast installation—100 & 250 lb units can be anchored to most concrete floors.



Jib Crane Accessories:

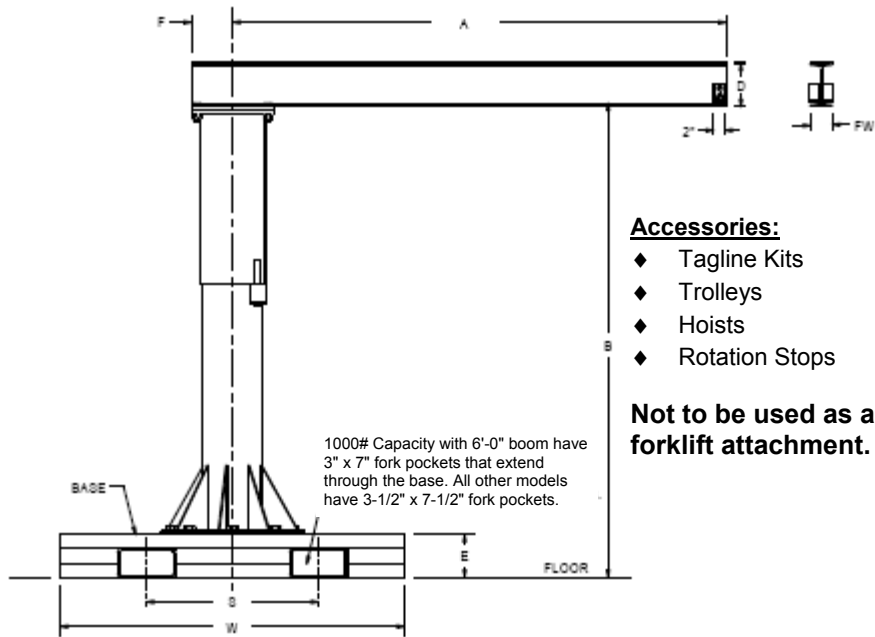
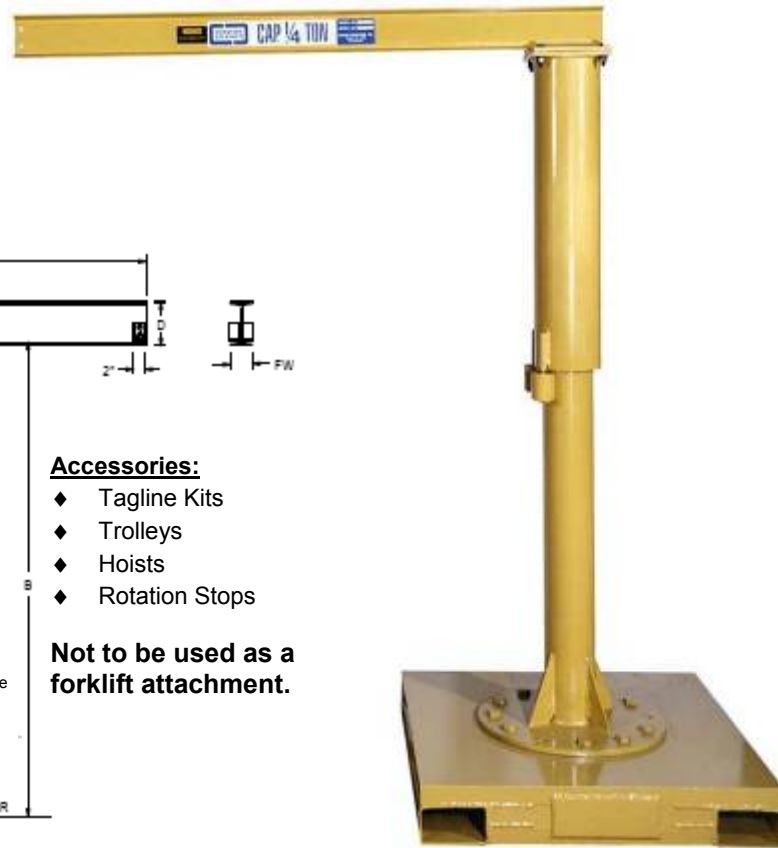
- ◆ Anchor bolt kits
- ◆ Festooning trolley kit
- ◆ Templates (paper & plywood)
- ◆ Top entry electrical collector
- ◆ Adjustable rubber stops
- ◆ Rotation stops
- ◆ Hoists (electric & manual)



MODEL NO.	Cap. (lbs.)	"A" (ft.)	"D" (in.)	"G" (in.)	"E" (in.)	"W" (in.)	Base Plt.	Anchor Dia. (in.)	Wt. (lbs.)
WSB1106	100	6	6-3/4	2	6	48	15S4	3/4	379
WSB1108	100	8	7-3/4	2	6	60	15S4	3/4	424
WSB11010	100	10	8-3/4	2	6	60	15S4	3/4	479
WSB25106	250	6	8-3/4	2	6	48	23H6	1	424
WSB25108	250	8	8-3/4	2	6	60	23H6	1	549
WSB251010	250	10	9-3/4	2	6	60	23H6	1	604
WSB5106	500	6	9-3/4	2	12	48	35H6	1	614
WSB5108	500	8	9-3/4	2	12	60	35H6	1	754
WSB51010	500	10	11-3/4	2	12	60	35H6	1	834

Portable Jib Crane Specifications

Fully Portable Jib Cranes eliminate any need for costly site preparation and footing expenses required by conventional floor mounted jib cranes. The easily transportable jib crane allows for multiple applications.



Accessories:

- ◆ Tagline Kits
- ◆ Trolleys
- ◆ Hoists
- ◆ Rotation Stops

Not to be used as a forklift attachment.

1000# Capacity with 6'-0" boom have 3" x 7" fork pockets that extend through the base. All other models have 3-1/2" x 7-1/2" fork pockets.

(WEIGHT IS FOR JIB CRANE ONLY)

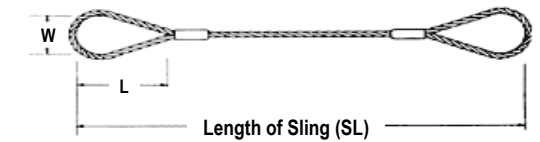
CAPACITY (LBS)	DIMENSIONS							B = 8'-0"		B = 10'-0"		B = 12'-0"	
	A	D	E	F	S	W	FW	MODEL	WEIGHT (LBS.)	MODEL	WEIGHT (LBS.)	MODEL	WEIGHT (LBS.)
250	6'-0"	5"	4"	4"	26"	48"	3.00"	PBB2586	2194	PBB25106	2223	PBB25126	2253
	8'-0"	5"	4"	4"	26"	48"	3.00"	PBB2588	2222	PBB25108	2243	PBB25128	2273
	10'-0"	5"	6"	4"	26"	48"	3.00"	PBB25810	3508	PBB251010	3537	PBB251210	3567
	12'-0"	5"	7"	4"	26"	48"	3.00"	PBB25812	4172	PBB251012	4201	PBB251212	4231
	14'-0"	6"	8"	4"	26"	48"	3.33"	PBB25814	4866	PBB251014	4895	PBB251214	4925
500	6'-0"	5"	6"	5"	26"	48"	3.00"	PBB586	3514	PBB5106	3544	PBB5126	3573
	8'-0"	5"	7"	5"	26"	48"	3.00"	PBB588	4178	PBB5108	4208	PBB5128	4237
	10'-0"	5"	9"	5"	26"	48"	3.00"	PBB5810	5479	PBB51010	5509	PBB51210	5538
	12'-0"	6"	6"	6 1/2"	26"	60"	3.33"	PBB5812	5723	PBB51012	5762	PBB51212	5800
	1000	6'-0"	6"	4"	6 1/2"	26"	60"	3.33"	PBB186	3812	PBB1106	3850	PBB1126
8'-0"		6"	6"	6 1/2"	26"	60"	3.33"	PBB188	5673	PBB1108	5711	PBB1128	5750

Wire Rope Slings

Mechanical Spliced

Single Leg

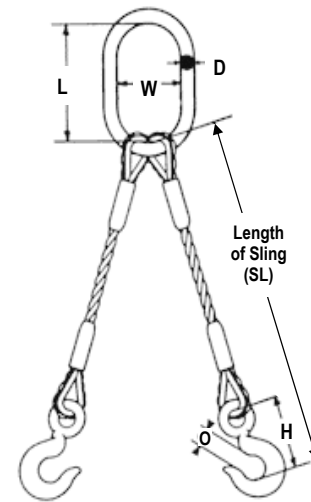
Capacity Rated in Tons			Rope Diameter (inches)	Loop Dimensions	
Vertical	Choker	Vertical Basket		Width (inches)	Length (inches)
0.65	0.48	1.3	1/4	2	4
1.0	0.74	2.0	5/16	2-1/2	5
1.4	1.1	2.9	3/8	3	6
1.9	1.4	3.9	7/16	3-1/2	7
2.5	1.9	5.1	1/2	4	8
3.2	2.4	6.4	9/16	4-1/2	9
3.9	2.9	7.8	5/8	5	10
5.6	4.1	11	3/4	6	12
7.6	5.6	15	7/8	7	14
9.8	7.2	20	1	8	16
12	9.1	24	1-1/8	9	18
15	11	30	1-1/4	10	20



Safe Operating Practices

- Whenever any sling is used, the following practices shall be observed:
- ◆ Slings that are damaged or defective shall not be used.
 - ◆ Eyes in wire rope slings shall not be formed by using knots or wire rope clips.
 - ◆ Slings shall not be shortened with knots, bolts or other makeshift devices.
 - ◆ Sling legs shall not be kinked.
 - ◆ Slings shall not be loaded in excess of their rated capacities.
 - ◆ Slings used in a basket hitch shall have the loads balanced to prevent slippage.
 - ◆ Slings shall be securely attached to their loads.
 - ◆ Slings shall be padded or protected from the sharp edges of their loads.
 - ◆ Suspended loads shall be kept clear of all obstructions.
 - ◆ All employees shall be kept clear of loads about to be lifted and of suspended loads.

Two-Leg Spreader



Capacities Rated in Tons			Rope Dia. Inches	Oblong Rings			Hook	
Leg Angles				D inches	W inches	L inches	Number	Rated Capacity
30°	45°	60°						
0.65	0.91	1.1	1/4	1/2	2 1/2	5	23	1
1.0	1.4	1.7	5/16	1/2	2 1/2	5	24	1 1/2
1.4	2.0	2.5	3/8	1/2	2 1/2	5	24	1 1/2
1.9	2.7	3.4	7/16	5/8	3	6	25	2
2.5	3.6	4.4	1/2	3/4	3	6	26	2 1/2
3.2	4.5	5.5	9/16	3/4	3	6	28	4
3.9	5.5	6.8	5/8	1	4	8	29	5
5.6	7.9	9.7	3/4	1	4	8	31	7 1/2
7.6	11	13	7/8	1 1/4	5	10	33	10
9.8	14	17	1	1 1/2	6	12	34	12
12	17	21	1 1/8	1 1/2	6	12	-	15
15	21	26	1 1/4	1 3/4	7	14	-	15-C
18	25	31	1 3/8	2	8	16	-	20-C
21	30	37	1 1/2	2	8	16	-	30-A

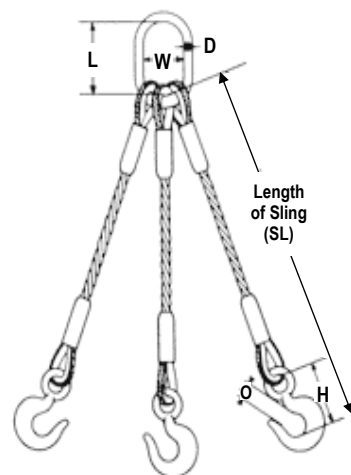
Sling Failure in Straight Tensile Pull

- Wire rope slings with hand tucked splice eyes normally fail at the last strand tuck -- away from crotch of the eye. Wire rope slings with mechanically spliced eyes normally fail at the nose of the pressed sleeve.
- Mechanical spliced sling efficiency vary from 95% of wire rope strength for 1/4" through 1" to 92.5% for 1 1/8" through 2 1/2". Fiber core is not recommended for mechanically spliced slings.
- Hand spliced sling efficiency vary from 90% for 1/4" to 80% for 7/8" through 2 1/2".

Wire Rope Slings

Mechanical Spliced

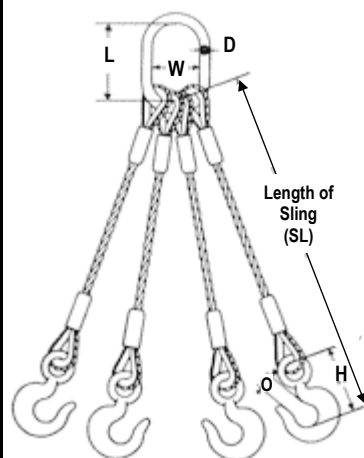
Three-Leg Spreader



Capacities Rated in Tons			Oblong Rings				Hook	
Leg Angles			Rope Dia. Inches	D inches	W inches	L inches	Number	Rated Capacity
30°	45°	60°						
0.97	1.4	1.7	1/4	0.5	2.5	5	23	1
1.5	2.1	2.6	5/16	0.5	2.5	5	24	1.5
2.2	3.0	3.7	3/8	0.625	3	6	24	1.5
2.9	4.1	5.0	7/16	0.75	3	6	25	2
3.8	5.4	6.6	1/2	1	4	8	26	2.5
4.8	6.8	8.3	9/16	1	4	8	28	4
5.9	8.3	10	5/8	1	4	8	29	5
8.4	12	15	3/4	1.25	5	10	31	7.5
11	16	20	7/8	1.5	6	12	32	10
15	21	26	1	1.75	7	14	33	12
18	26	31	1 1/8	2	8	16	34	15
22	31	38	1 1/4	2.25	8	16	-	15-C
27	38	46	1 3/8	2.75	9.5	16	-	20-C
32	45	55	1 1/2	2.75	9.5	16	-	30-A

Four-Leg Spreader

Capacities Rated in Tons			Oblong Rings				Hook	
Leg Angles			Rope Dia. Inches	D inches	W inches	L inches	Number	Rated Capacity
30°	45°	60°						
1.3	1.8	2.2	1/4	0.625	3	6	23	1
2.0	2.8	3.5	5/16	0.625	3	6	24	1.5
2.9	4.1	5.0	3/8	1	4	8	24	1.5
3.9	5.5	6.7	7/16	1	4	8	25	2
5.1	7.1	8.8	1/2	1.25	5	10	26	2.5
6.4	9.0	11	9/16	1.25	5	10	28	4
7.8	11	14	5/8	1.5	6	12	29	5
11	16	19	3/4	1.5	6	12	31	7.5
15	21	26	7/8	1.75	7	14	32	10
20	28	34	1	2	8	16	33	12
24	34	42	1 1/8	2.75	9.5	16	34	15
30	42	51	1 1/4	2.75	9.5	16	-	15-C
36	50	62	1 3/8	3.5	12	24	-	20-C
42	60	73	1 1/2	3.5	12	24	-	30-A



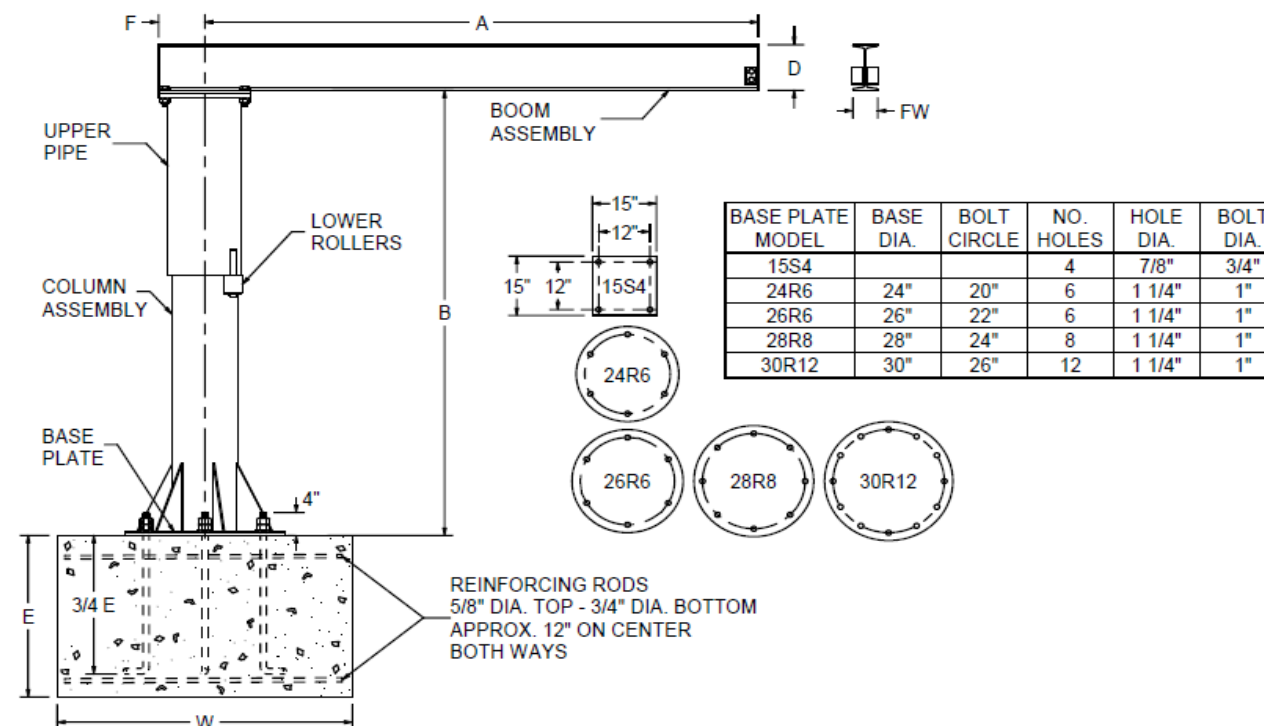
Floor Mounted Medium Duty "B" Series Jib Crane

Jib Crane Accessories:

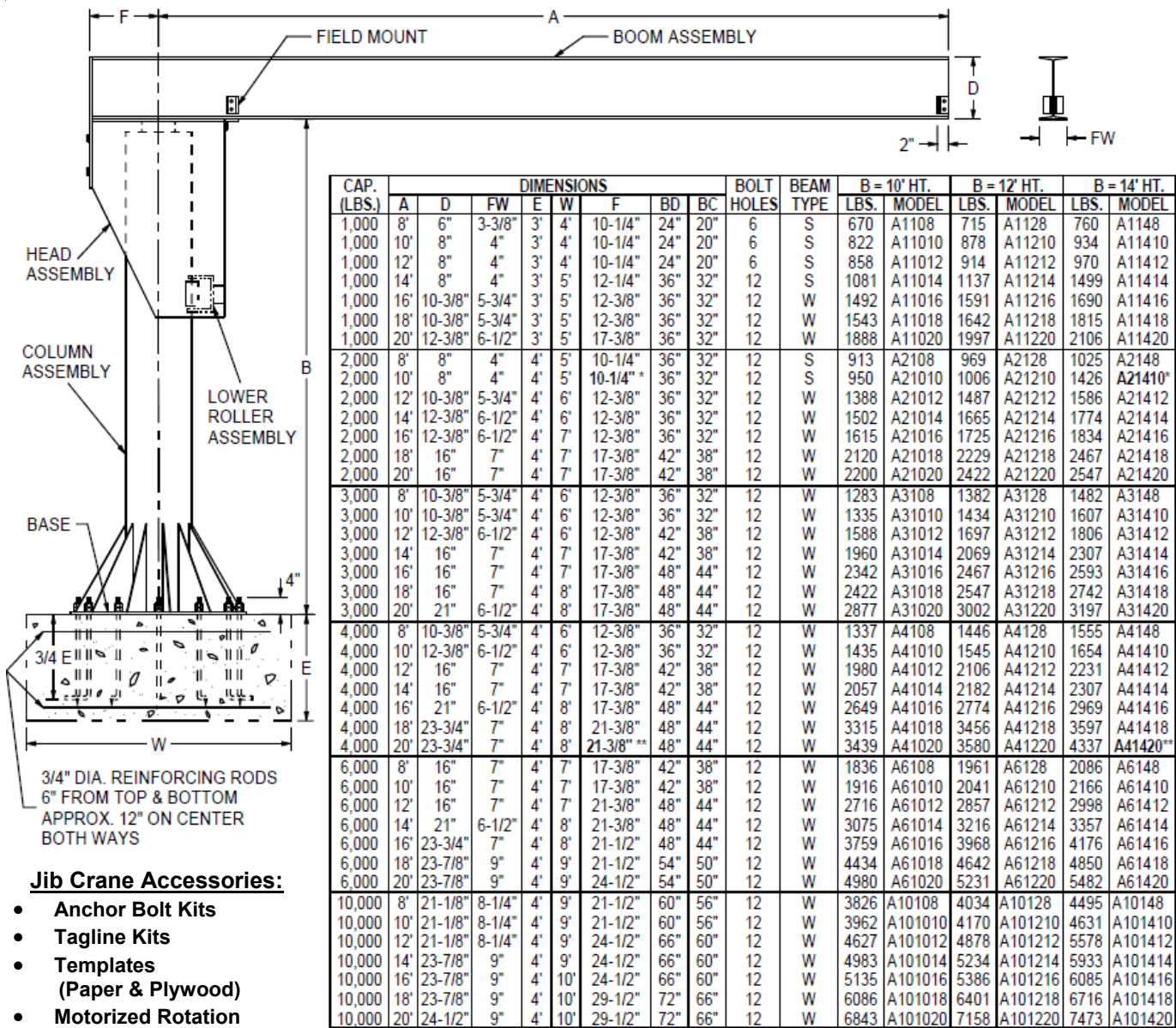
- Anchor Bolt Kits
- Tagline Kits
- Templates (Paper & Plywood)
- Motorized Rotation
- Rotation Stops

CAP. (LBS.)	DIMENSIONS						BEAM TYPE	BASE PLATE MODEL	B = 8' HT.		B = 10' HT.		B = 12' HT.	
	A	D	FW	E	W	F			LBS.	MODEL	LBS.	MODEL	LBS.	MODEL
250	6'	5"	3"	3'	4'	4"	S	15S4	309	B2586	338	B25106	368	B25126
250	8'	5"	3"	3'	4'	4"	S	15S4	329	B2588	358	B25108	388	B25128
250	10'	5"	3"	3'	4'	4"	S	15S4	349	B25810	378	B251010	408	B251210
250	12'	5"	3"	3'	4'	4"	S	15S4	369	B25812	398	B251012	428	B251212
250	14'	6"	3 3/8"	3'	5'	4"	S	15S4	425	B25814	454	B251014	484	B251214
250	16'	6"	3 3/8"	3'	5'	5"	S	15S4	499	B25816	537	B251016	575	B251216
500	6'	5"	3"	3'	4'	5"	S	15S4	358	B586	396	B5106	434	B5126
500	8'	5"	3"	3'	4'	5"	S	15S4	378	B588	416	B5108	454	B5128
500	10'	5"	3"	3'	4'	5"	S	15S4	398	B5810	436	B51010	474	B51210
500	12'	6"	3 3/8"	3'	4'	6 1/2"	S	24R6	554	B5812	599	B51012	644	B51212
500	14'	8"	4"	3'	5'	6 1/2"	S	24R6	665	B5814	710	B51014	755	B51214
500	16'	8"	4"	3'	5'	6 1/2"	S	24R6	702	B5816	747	B51016	792	B51216
750	6'	5"	3"	3'	4'	6 1/2"	S	24R6	463	B7586	508	B75106	553	B75126
750	8'	6"	3 3/8"	3'	4'	6 1/2"	S	24R6	504	B7588	549	B75108	594	B75128
750	10'	6"	3 3/8"	3'	4'	6 1/2"	S	24R6	529	B75810	574	B751010	619	B751210
750	12'	6"	3 3/8"	3'	4'	7 1/2"	S	24R6	707	B75812	763	B751012	819	B751212
750	14'	8"	4"	3'	5'	7 1/2"	S	24R6	818	B75814	874	B751014	931	B751214
750	16'	8"	4"	3'	5'	7 1/2"	S	26R6	866	B75816	922	B751016	978	B751216
1000	6'	6"	3 3/8"	3'	4'	6 1/2"	S	26R6	490	B186	535	B1106	580	B1126
1000	8'	6"	3 3/8"	3'	4'	6 1/2"	S	26R6	515	B188	560	B1108	605	B1128
1000	10'	8"	4"	3'	4'	7 1/2"	S	26R6	756	B1810	812	B11010	868	B11210
1000	12'	8"	4"	3'	4'	7 1/2"	S	26R6	793	B1812	849	B11012	905	B11212
1000	14'	8"	4"	3'	5'	7 1/2"	S	26R6	848	B1814	904	B11014	960	B11214
1000	16'	10-3/8"	5-3/4"	3'	5'	8 1/2"	W	26R6	1070	B1816	1137	B11016	1204	B11216
2000	6'	8"	4"	4'	5'	8 1/2"	S	28R8**	745	B286**	832	B2106	899	B2126
2000	8'	8"	4"	4'	5'	8 1/2"	S	28R8	802	B288	869	B2108	935	B2128
2000	10'	8"	4"	4'	5'	8 1/2"	S	28R8	739	B2810	905	B21010	972	B21210
2000	12'	10-3/8"	5-3/4"	4'	6'	9 1/2"	W	30R12	1091	B2812	1165	B21012	1238	B21212

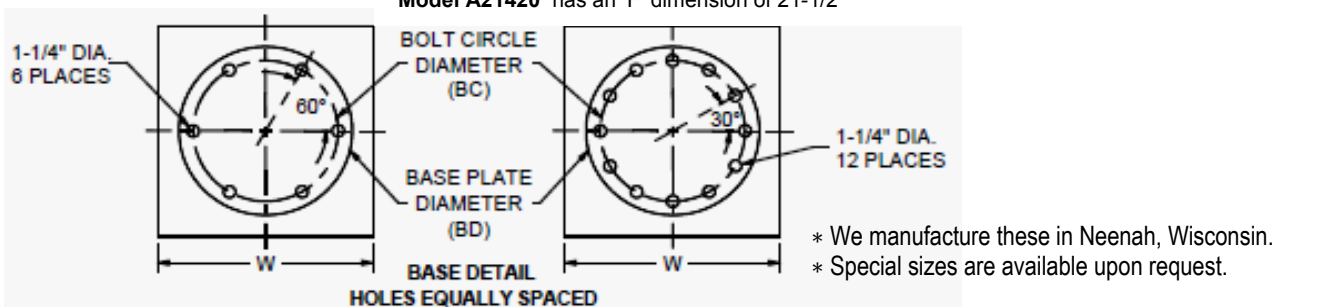
"S" type beams are standard beams with tapered flanges. "W" type beams are wide flange beams with flat flanges. The trolley used on a "W" beam must be designed to operation on a wide-flange beam.
****B286 Uses base plate model 26R6**



Floor Mounted Heavy Duty "A" Series Jib Crane

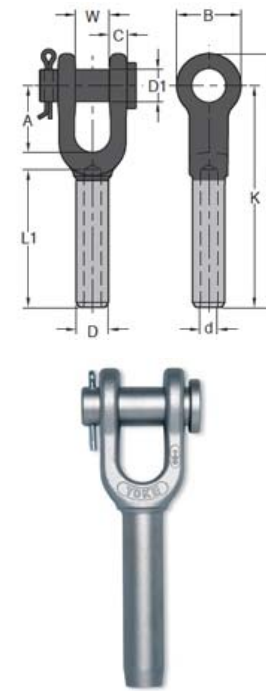


- Jib Crane Accessories:**
- Anchor Bolt Kits
 - Tagline Kits
 - Templates (Paper & Plywood)
 - Motorized Rotation
 - Rotation Stops



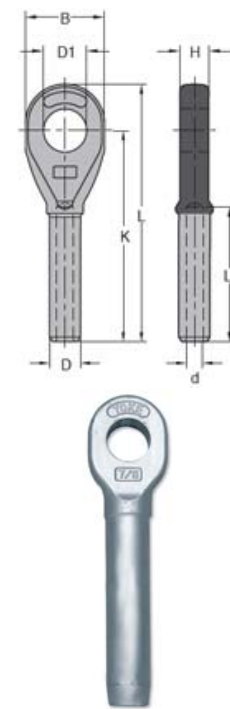
Wire Rope Accessories

Forged Open Swage Sockets



Rope Size (inches)	Before Swage Dimensions (inches)										Max. After Swage Dim. (inches)	Net Weight (Lbs)
	L	D	B	D1	d	L1	W	K	C	A		
1/4	4.80	0.50	1.38	0.69	0.27	2.17	0.67	4.02	0.35	1.50	0.46	0.5
5/16	6.26	0.77	1.65	0.81	0.34	3.15	0.79	5.31	0.47	1.77	0.71	1.4
3/8	6.26	0.77	1.65	0.81	0.41	3.15	0.79	5.31	0.47	1.77	0.71	1.3
7/16	7.83	0.98	2.00	1.00	0.48	4.33	1.00	6.85	0.55	1.96	0.91	2.6
1/2	7.83	0.98	2.00	1.00	0.55	4.33	1.00	6.85	0.55	1.96	0.91	2.1
9/16	9.45	1.25	2.36	1.19	0.62	5.31	1.22	8.27	0.68	2.25	1.16	4.7
5/8	9.45	1.25	2.36	1.19	0.67	5.31	1.22	8.27	0.68	2.25	1.16	4.6
3/4	11.61	1.55	2.75	1.38	0.82	6.34	1.50	10.07	0.79	2.75	1.42	8.4
7/8	13.39	1.70	3.15	1.63	0.94	7.44	1.77	11.81	0.94	3.23	1.55	11.9
1	15.55	1.98	3.94	2.00	1.06	8.50	2.00	13.58	1.02	3.86	1.80	19.4
1-1/8	17.40	2.25	4.06	2.20	1.19	9.37	2.25	15.08	1.19	4.26	2.05	27.8
1-1/4	19.06	2.53	4.45	2.25	1.33	10.59	2.48	16.50	1.34	4.72	2.30	37.9
1-3/8	21.02	2.80	5.00	2.50	1.45	11.69	2.52	18.23	1.38	5.20	2.56	45.9
1-1/2	22.88	3.08	5.51	2.52	1.61	12.40	3.00	19.75	1.69	5.75	2.81	58.5
1-3/4	26.53	3.39	6.70	3.50	1.86	14.88	3.50	23.00	2.11	6.75	3.06	88.8
2	31.44	3.94	8.00	3.75	2.11	16.96	4.00	26.88	2.37	8.00	3.56	146.3

Forged Closed Swage Sockets



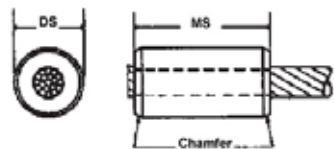
Rope Size (inches)	Before Swage Dimensions (inches)								Max. After Swage Dim. (inches)	Net Weight (Lbs)
	L	D	B	D1	d	L1	H	K		
1/4	4.33	0.50	1.38	0.75	0.27	2.13	0.50	3.50	0.46	0.3
5/16	5.50	0.77	1.63	0.89	0.34	3.15	0.67	4.50	0.71	0.8
3/8	5.50	0.77	1.63	0.89	0.41	3.15	0.67	4.50	0.71	0.7
7/16	6.93	0.98	2.00	1.06	0.48	4.25	0.89	5.75	0.91	1.5
1/2	6.93	0.98	2.00	1.06	0.55	4.25	0.89	5.75	0.91	1.4
9/16	8.70	1.25	2.40	1.26	0.62	5.31	1.14	7.28	1.16	3.1
5/8	8.70	1.25	2.40	1.26	0.67	5.31	1.14	7.28	1.16	2.9
3/4	10.20	1.55	2.87	1.44	0.82	6.38	1.31	8.54	1.42	4.8
7/8	11.97	1.70	3.11	1.70	0.94	7.44	1.50	10.16	1.55	6.8
1	13.46	1.98	3.62	2.05	1.06	8.50	1.77	11.54	1.80	10.6
1-1/8	15.04	2.25	4.02	2.32	1.19	9.57	2.00	12.72	2.05	14.8
1-1/4	16.97	2.53	4.50	2.56	1.33	10.63	2.25	14.33	2.30	22.3
1-3/8	18.70	2.80	5.00	2.56	1.45	11.69	2.25	15.83	2.56	28.4
1-1/2	20.12	3.08	5.50	2.81	1.61	12.75	2.52	17.01	2.81	37.3
1-3/4	23.54	3.39	6.26	3.54	1.86	14.88	3.00	20.00	3.08	53.6
2	27.64	3.94	7.24	3.82	2.13	17.01	3.27	23.00	3.56	89.3

Wire Rope Accessories



Wire Rope Ferrules

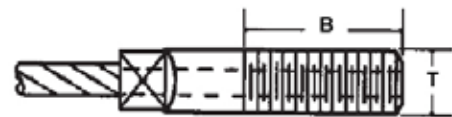
Mild carbon steel construction. Length is measured from outside end of terminal. Can also be attached at any point in the assembly as well as at the end. Length and diameter can be modified per customer specifications.



Rope Diameter	DS	MS (approx)	Chamfer
1/16"	1/4"	3/8"	1/32 x 45°
3/32"	5/16"	1/2"	1/32 x 45°
1/8"	3/8"	5/8"	1/32 x 45°
5/32"	7/16"	3/4"	1/32 x 45°
3/16"	1/2"	7/8"	1/32 x 45°
7/32"	9/16"	1"	3/64 x 45°
1/4"	5/8"	1-1/8"	3/64 x 45°
9/32"	11/16"	1-1/4"	3/64 x 45°
5/16"	3/4"	1-3/8"	3/64 x 45°
3/8"	7/8"	1-3/4"	1/16 x 45°
7/16"	1"	2"	1/16 x 45°
1/2"	1-1/8"	2-1/4"	1/16 x 45°
9/16"	1-1/4"	2-1/2"	5/64 x 45°
5/8"	1-3/8"	3"	5/64 x 45°
3/4"	1-9/16"	3-1/2"	5/64 x 45°
7/8"	1-3/4"	4-1/4"	5/64 x 45°
1"	2"	4-3/4"	3/32 x 45°

Wire Rope Threaded Sleeve

Mild carbon steel construction. NC thread pitch furnished as standard.; NF thread pitch available. Right hand threads standard; left hand available. Wrench grips available per customer request.



Rope Diameter	Thread Size (T)		B
	NC	NF	
3/32"	1/4-20	1/4-28	1/2
1/8"	1/4-20	1/4-28	3/4
5/32"	5/16-18	5/16-24	1
3/16"	3/8-16	3/8-24	1-1/4
7/32"	7/16-14	7/16-20	1-1/4
1/4"	1/2-13	1/2-20	1-1/2
9/32"	9/16-12	9/16-18	1-1/2
5/16"	5/8-11	5/8-18	1-3/4
3/8"	3/4-10	3/4-16	2
7/16"	7/8-9	7/8-14	2-1/4
1/2"	1-8	1-14	2-1/2
9/16"	1-1/8-7		2-3/4
5/8"	1-1/4-7		3
3/4"	1-1/2-6		4
7/8"	1-3/4-5		5
1"	2-4-1/2		6

Wire Rope Threaded Studs

Mild carbon steel. NC thread pitch furnished; NF available. Right hand threads furnished; left hand available. Wrench grips available upon request. Call for specifications on larger sizes and metric sizes



Rope Diameter	Thread Size (T)		B
	NC	NF	
1/16"	10-24	10-32	1/2
3/32"	1/4-20	1/4-28	1/2
1/8"	1/4-20	1/4-28	3/4
5/32"	5/16-28	5/16-24	7/8
3/16"	3/8-16	3/8-24	1
7/32"	7/16-14	7/16-20	1
1/4"	1/2-13	1/2-20	1-1/8
9/32"	9/16-12	9/16-18	1-1/4
5/16"	5/8-11	5/8-18	1-1/2
3/8"	3/4-10	3/4-16	1-5/8

Rope Diameter	Thread Size (T)		B
	NC	NF	
7/16"	3/4-10	3/4-16	1-7/8
1/2"	7/8-9	7/8-14	2-1/4
9/16"	1-8	1-14	2-1/2
5/8"	1-1/8-7		3
3/4"	1-3/8-6		3-1/4
7/8"	1-1/2-6		3-1/2
1"	1-3/4-5		4-3/8
1-1/8"	2-4-1/2		4-3/4
1-1/4"	2-1/4-4-1/2		5-1/8
1-3/8"	2-1/2-4		5-1/2

Enclosed Track Workstation Bridge Cranes



Enclosed track workstation bridge cranes by SPANCO are offered in either stand alone workstation bridge crane kits, also known as free standing workstation bridge cranes, or ceiling mounted workstation bridge crane kits.



Features

Enclosed track workstation bridge crane systems are pre-engineered modular and infinitely expandable, reduce vertical space and support requirements, and are ergonomically designed with a 100 to 1 productivity ratio and utilize a self cleaning V-profile design which maintains alignment of end trucks and trolleys. Bridge cranes have large diameter polyamide wheels, which are extremely free rolling (steel wheels optional), with steel guide rollers to prevent end trucks from racking or binding.

Easy, ergonomic movement

An operator pushing a 1000 lb. load will experience a force of approximately 10 lb. to begin moving the load and 8 lb. to continue moving the load (100 to 1 ratio). Manual cranes also operate more quickly than motorized cranes, making a workstation bridge crane ideal for fast paced work environments.



Customization

SPANCO specializes in customized crane design to meet any specific requirements. With a capable engineering department, SPANCO can customize any standard product or bridge crane or design a system from the ground up. From 2-D layouts to complete solid models, SPANCO can create a custom enclosed track workstation bridge crane system design in a timely manner. Finite Element Analysis (FEA) is utilized to assure that all custom designs meet the highest standards of safety. SPANCO prides itself on developing creative solutions to customer's material handling needs.

In addition to the usual customizations for special heights, spans, and lengths on a bridge crane, SPANCO can specially design power drives for many models of our enclosed track workstation bridge crane systems. Special mounting needs can also be met with custom design.

Workstation bridge crane systems can be equipped with lighter weight ALU-TRACK® bridges. The possibilities are unlimited-SPANCO can design to meet your needs!

Design Factor

Nameplate bridge capacity represents the rated load on the hoist hook. The load rating of a hoist shall not exceed the bridge rating. SPANCO's design includes an allowance of 15% of nameplate capacity for dead weight of the trolley and hoist. An additional allowance of 25% of nameplate capacity is also included for impact.

Service Factor

Workstation bridge cranes are designed for "heavy service" (with standard air hoists or electric hoists) as defined by the Monorail Manufacturer's Association (MMA) as defined:

- ◆ System or equipment is used where operational time is up to 100% of the work period and lifted load is at 50% or below rated capacity.
- ◆ System or equipment is used where operational time is less than 50% of work period and lifted load is greater than 50% of rated capacity.
- ◆ Applications involving vacuums, magnets, or other high impact lifters are considered severe usage (continuous service) and require special design considerations. Please contact factory for special design pricing.
- ◆ Consult factory for usage other than moderate and all instances of high cycle rates or high impact applications such as high-speed air or electric hoists, vacuum lifters, or magnets. Factory MUST approve ALL such applications.

Wire Rope



6x36 Class: 31, 36, 37 or 41 wires per strand. This classification of wire rope is more flexible and has better fatigue resistance than 6x19 class. **DO NOT EXCEED WORKING LOAD LIMIT OR 20% OF BREAKING STRENGTH.**

Table of sizes, mass and minimum breaking force - Fiber Core								
Diameter		Approx mass FC		Minimum breaking force				
				EIP FC		EEIP FC		
in	mm	lb/f	kg/m	tons	kN	tons	kN	
1/4		0.11	0.159	3.01	26.79			
	7		0.19	3.56	31.7			
5/16		0.16	0.232	4.69	41.74			
	8		0.248	4.65	41.4			
3/8	9		0.314	5.89	52.4			
	10	0.24	0.348	6.71	59.72	7.38	65.68	
7/16	11		0.388	7.27	64.7			
	12	0.32	0.463	9.1	80.99	10	89	
1/2	13		0.559	10.46	93.1			
	14	0.42	0.608	11.8	105.02	12.9	114.81	
9/16	16		0.656	12.25	109			
	18	0.53	0.767	14.9	132.61	16.3	145.07	
5/8	19		0.76	14.27	127			
	20	0.66	0.956	18.4	163.76	20.2	179.78	
3/4	22		0.993	18.66	166			
	24		1.257	23.6	210			
7/8	26		1.401	26.19	233			
	28	0.95	1.376	26.2	233.18	28.8	256.32	
1	30		1.552	29.11	259			
	32		1.878	35.18	313			
1 1/8	34		1.868	35.4	315.06	39	347.1	
	36	1.29	2.235	41.93	373			
1 1/4	38		2.433	46	409.4	50.6	450.34	
	40		2.623	49.12	437			
1 3/8	42		3.042	56.99	507			
	44		2.13	3.084	57.9	515.31	63.6	566.04
1 1/2	46		2.63	3.809	71.1	632.79	78.2	695.98
	48		3.973	74.41	662			
1 5/8	50		4.605	85.5	760.95	94	836.6	
	52		5.028	94.19	838			
1 7/8	54		5.474	101	898.9	111	987.9	
	56		6.208	116.33	1035			
2	58		6.43	118	1050.2	129	1148.1	
	60		7.512	140.72	1252			
2 1/8	62		8.94	167.48	1490			
	64		9.746	176	1566.4	194	1726.6	
2 1/4	66		10.492	196.59	1749			
	68		11.006	197	1753.3	217	1931.3	
2 3/8	70		12.168	227.95	2028			
	72		8.52	12.338	242	2153.8	220	1958

CONTRX Inspection Services



CRANES, HOISTS, ELECTRICAL, RIGGING, SLINGS

Contrx Tech Services offers comprehensive crane, hoist and rigging inspection services, conducted under the guidelines, standards and criteria set forth by: **Cranes Manufacturers Association of America (CMAA), specification 70, 74 & 78, ASME B30.2-10-11-16-17-20 & 21, OSHA 1910, 179 & 184**

Why Contrx Tech Services?

- Competitive rates - contract rates available
- Visual and/or comprehensive Inspections
- Certified inspection technicians
- Complete service, maintenance and repairs
- Comprehensive records and reporting

- Comprehensive
- Licensed
- Qualified
- Experienced
- Professional
- Competitive Rates

Beyond Inspection

- Team of licensed certified and master electricians
- Full electrical services and repair capabilities
- Emergency equipment troubleshooting and repair
- Kaizen blitzes - equipment moves
- Formal LOCK OUT / TAG OUT procedure program



Contrx Tech Services - your SINGLE SOURCE for:

- Inspections
- Service
- Maintenance
- Parts - Replacements
- Slings & Rigging
- Crane, Hoist and Equipment Repair



Contact Contrx Tech Services to schedule service, or call today for quote.

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Air Hoists

Yale YAL Air Hoists



- Pull cord control provides a lightweight, economical hoist for accurate control of loads.
- Pendant throttle control hoists offer ergonomic one-handed controls, for ease of operation.
- Inlet air swivel with built-in strainer provides free hoist movement.
- Aluminum frame and end cover contributes to the lightweight, easily portable, and rugged design.
- Heavy-duty shoe type brake is a proven design for stopping and holding loads in heavy-duty applications.
- External adjustment screws for decreased lift and lower speeds.
- External brake adjustment.
- Limit stops prevent over-travel in upper and lowering directions.
- Planetary gearing of alloy steel, heat-treated spur gears is accurately machined to provide a close meshed, compact gear reduction.
- Eight-vane motor provides high torque, smooth starting and excellent control.
- Tapped exhaust port 1/2 NPTF...for CLEAN applications or to add a supplemental muffler in addition to the built-in muffler for even quieter operation.

Basic Hoist Data

Rated Loads

1/4, 1/2, and 1-ton
 (Spark resistant models are rated at 3/8 and 3/4-ton).

Air Pressure Recommended

90 PSI

Air Consumption

48 SCFM at 90 PSI

Pendant Control Hose

6 foot length is standard. Longer lengths are available up to 72 ft. of lift.

Control

Pull cord or pendant throttle

Lift

10 foot lifts are standard. Longer lifts are also available.

Net Weight (Basic Hoist)

36 lbs.

Suspension

Hook or lug

Air Inlet Size

3/8 NPTF

Air Supply Hose Size

1/2 I.D. min.

Air Exhaust

1/2 NPTF

YAL Models

Type	Capacity Tons	Pull Cord Control		Pendant Throttle Control		Parts of Load Chain	Lifting Speed Max	Lowering Speed Max
		Model	Net Weight	Model	Net Weight			
Hook Mount								
Standard Models								
Roller Chain	1/4	2201	37	2202	47	1	65	95
	1/2	2203	37	2204	47	1	45	120
	1	2205	51	2206	51	2	23	60
Link Chain	1/4	2211	36	2212	46	1	65	95
	1/2	2215	36	2216	46	1	45	120
	1	2219	49	2220	59	2	23	60
Spark Resistant Models								
Link Chain	3/8	2241	38	2242	46	1	60	100
	3/4	2243	49	2244	59	2	29	52
Lug Mount								
Standard Models								
Link Chain	1/4	2251	36	2252	46	1	65	95
	1/2	2255	36	2256	46	1	45	120
	1	2259	49	2260	59	2	23	60
Spark Resistant Models								
Link Chain	3/8	2281	38	2282	46	1	60	100
	3/4	2283	49	2284	59	2	29	52

Yale KALC Models

Heavy Duty Air Hoist

Rated Loads

1, 2, and 3-ton

Spark resistant models are rated at 1/2, 1 and 2-ton.



Wire Rope

Galvanized & Stainless Aircraft Cable



Breaking Strength (Lbs.)					
Size	7 x 7 Galvanized	7 x 7 Stainless	7 x 19 Galvanized	7 x 19 Stainless	Weight/ 100 Ft.
1/16"	480	480	480	480	0.7
3/32"	920	920	1000	920	1.74
1/8"	1700	1700	2000	1760	2.9
5/32"	2600	2400	2800	2400	4.5
3/16"	3700	3700	4200	3700	6.5
7/32"	4800	4800	5600	5000	8.6
1/4"	6100	6100	7000	6400	11.0
5/16"	9200	9000	9800	9000	17.3
3/8"	13300	12000	14400	12000	24.3

Coated Galvanized Aircraft Cable

Cable Diameter (in)	Coated to (in)	Construction	Approx. Weight Per 1000 ft. (Lbs)	Work Load Limit (Lbs)
1/16"	3/32"	7 x 7	11.8	96
3/32"	1/8"	7 x 7	18.5	184
3/32"	3/16"	7 x 7	25.8	184
1/8"	3/16"	7 x 7	35.2	340
1/8"	3/16"	7 x 19	36.2	400
3/16"	1/4"	7 x 19	77.5	740
1/4"	5/16"	7 x 19	123	1400
5/16"	3/8"	7 x 19	197	1960
3/8"	7/16"	7 x 19	326	2880

Coated Stainless Aircraft Cable

Cable Diameter (in)	Coated to (in)	Construction	Approx. Weight Per 1000 ft. (Lbs)	Work Load Limit (Lbs)
1/8"	3/16"	7 x 19	36.2	400
3/16"	1/4"	7 x 19	77.5	740
1/4"	5/16"	7 x 19	123	1400
5/16"	3/8"	7 x 19	197	1960
3/8"	7/16"	7 x 19	270	2880

Wire Mesh Slings

Roughneck WIRE MESH SLINGS

Specialty Slings with Particular Properties and Uses

Widely used in metalworking shops and steel warehouses where loads are abrasive, hot or tend to cut web slings. Alloy steel end fittings, zinc plated. Mesh is high tensile steel. 10 gauge is standard. 12 gauge is available upon request



Features, Advantages and Benefits

Promotes Safety

- Steel construction resists abrasion and cutting
- Each sling permanently stamped with capacity and serial number
- Good flexibility - grips load's contours
- Each sling proof tested and certified

Saves Money

- Grips load firmly without stretching - reduces load damage
- Resists abrasion and cutting for greater sling life
- Low stretch and flexibility reduce load damage
- Wide bearing area distributes load to help avoid load damage
- Repairable - thus very cost effective
- Alloy steel end fittings - plated for long life

Saves Time

- Width of mesh helps control and balance load
- End fittings fit most large crane hooks

Inspection Criteria for Roughneck Wire Mesh Slings

Remove the sling from service if any of the following is visible:

- A broken weld or brazed joint along the sling edge
- A broken wire in any part of the mesh
- Reduction in wire diameter of 25% due to abrasion
- Reduction in wire diameter of 15% due to corrosion
- Lack of flexibility due to distortion of the mesh
- Visible distortion or wear of either end fitting
- Cracked end fitting

Environmental Considerations

- Wire mesh slings shall not be used at temperatures above 550°F.
- Store in a clean, dry area to avoid corrosive action

⚠ WARNING

Do not edge load. Full width of mesh must contact load.

The choker fitting must not be positioned against a load edge or directly on the triangle fitting.

Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°.



Width (in)	Rated Capacity	
	Choker	Vertical Basket
10 Gauge - Heavy Duty		
2	2,300	4,500
3	3,500	7,000
4	4,800	9,600
6	7,200	14,400
8	9,600	19,200
10	12,000	24,000
12	14,400	28,800
14	16,800	33,600
16	19,200	28,400
18	21,600	43,200
20	24,000	48,000
12 Gauge - Medium Duty		
2	1,600	3,200
3	2,400	4,800
4	3,200	6,400
6	4,800	9,600
8	6,400	12,800
10	8,000	16,000
12	9,600	19,200

Reprint of OSHA Sling Regulations for Wire Mesh Slings The following requirements apply specifically to the wire mesh slings:

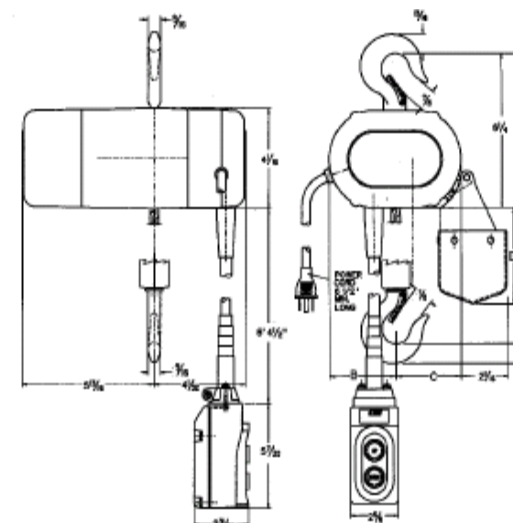
1. Each sling must carry a durable marking showing choke and basket hitch rated capacities.
2. All new and repaired slings must be proof tested at a minimum of 1 1/2 times (Lift-All uses 2 times) rated capacity before putting into service, and the end fittings exhibit no deformation after proof testing.
3. Slings of the type shown in OSHA table N-184-15 must not be used with loads in excess of the rated capacities shown in this table. Slings not included in the table shall be used only in accordance with the manufacturer's recommendations.
4. Only slings constructed in the following manner shall be used:
 - a. End fittings must be at least as strong as the mesh.
 - b. The mesh and end fittings must be joined so that; the rated capacity of the sling is not reduced, the load is evenly distributed across the mesh width, and sharp edges of the fitting will not damage the mesh.
 - c. If elastomer coated, the coating must not diminish the rated capacity of the sling and the sling must be proof tested before it is coated.
5. Slings not impregnated with elastomers may be used in a temperature range of -20° to + 550° without decreasing this rated capacity. Slings impregnated with neoprene or PVC may be used only in a temperature range of 0° to + 200° The sling manufacturers recommendation must be followed for operations outside these temperature ranges or for slings impregnated with other materials.
6. Slings must not be used unless they were repaired by a wire mesh manufacturer (or an equivalent entity). Once a sling is repaired, the nature of the repair, and the entity making the repairs must be permanently marked or tagged on the sling or else a written record maintained to indicate this information.

Electric Chain Hoists



The ShopStar electric chain hoist features rugged construction and high H4 duty cycle. It keeps lifting and lifting, up to 1,000 pounds and 300 motor starts per hour. Additional features and benefits include:

- ◆ H4 duty cycle (300 motor starts/hour)
- ◆ Easy installation and maintenance
- ◆ Standard protector overload device
- ◆ 10 pocket oblique lay lift wheel provides longer chain wear
- ◆ 6 1/2 ft. power cord with molded 3 prong plug on 115 volt units
- ◆ NEMA 4 industrial rated control station
- ◆ Optional impact-resistant chain container available
- ◆ Gear train lifetime lubricated with non-oxidizing grease
- ◆ CM Hoist Alloy Load Chain (zinc plated optional)
- ◆ Thermally protected hoist duty motor
- ◆ Dual braking system — D.C. plus regenerative
- ◆ Rugged cast aluminum alloy hoist frame
- ◆ Small, compact design for commercial & industrial applications
- ◆ Rigid hook suspension 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
- ◆ Lifetime warranty & made in U.S.A.



Clearance Dimensions (in.)

Reeving	A	B	C	D
Single	11 1/16	3	2 15/16	3 7/8
Double	11 15/16	3 9/16	2 3/8	5 3/4

Chain Container

Model No	Max length of lift in feet	
	single	double
2063	10	5
2064	20	10
2065	40	20
2066	80	40
2067	120	60

Model Number				Capacity (lbs)	Lift Speed (FPM)	Reeving
*115-1-60	230-1-60	230-3-60	460-3-60			
2070	2069	2071	2072	250	16	single
		2076	2077	250	24	single
		2081	2082	250	40	single
2000	2047	2026	2029	300	16	single
		2086	2087	300	24	single
		2074	2075	300	40	single
2095	2094	2096	2097	500	8	double
2090	2089	2091	2092	500	12	single
		2080	2084	500	16	single
		2101	2102	500	20	double
		2099	2100	500	24	single
2001	2048	2035	2038	600	8	double
		2106	2017	600	12	double
		2105	2114	600	20	double
2110	2109	2111	2112	1000	6	double
		2116	2117	1000	8	double
		2119	2121	1000	12	double

* 115v contactor in pushbutton station.



⚠ 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 CM alloy chain for overhead lifting.
 - Read and follow all instructions.

Electric Chain Hoists

CM Lodestar Electric Chain Hoist and Trolleys



The balanced, integrated, proven design of the Lodestar has made it the most popular electric chain hoist in the industry. Lodestar gives you more value for your money including:

- Up to 3 ton capacities for heavy-duty industrial applications
- Gear train lifetime lubricated with non-oxidizing grease
- Precision machined and hardened liftwheel with hardened chain guides for precise chain lift-wheel fit
- Gearing designed for exceptionally long life and quiet operation
- H4 duty standard
- Rugged control station (NEMA 4)
- Hoist duty motor, standard Protector overload device and standard screw type limit switches
- Made in U.S.A.

Lodestar with Series 635 low headroom trolley



Lodestar with Series 635 motor driven trolley



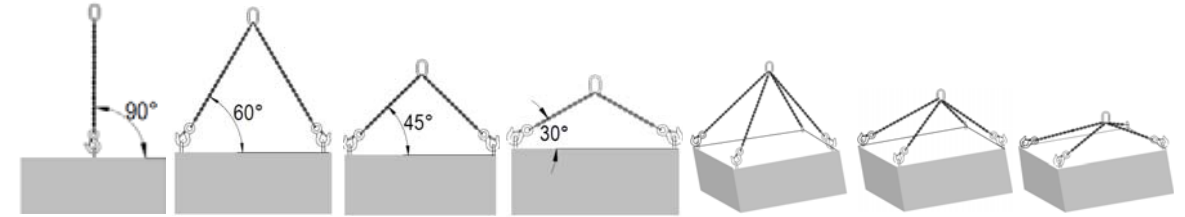
Model	Capacity (tons)	Lift Speed (fpm)
A	1/8	32
AA	1/8	60
B	1/4	32
C	1/4	16
E	1/2	8
F	1/2	16
J	1/2	32
JJ	1/2	64
H	1	8
L	1	16
LL	1	32
R	2	8
RR	2	16
RT	3	5.5
RRT	3	11

Single Speed Hoists available in 115-1-60 and 230/460-3-60 voltages. 3-phase hoists are factory wired at 460 volt and are convertible to 230 volt. **Two Speed Hoists** are available in 3-phase only and are voltage specific (NOT convertible). Two speed is available as standard 2 speed motors 3:1 ration or Variable Frequency Drives which are programmable.

CM LodeStar XL hoist available in capacities to 7-1/2 ton. **CM PowerStar** hoists available to 15 ton.

Chain Slings

Alloy Chain Slings



Grade 80

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

Grade 100

Chain Size (in)	Single	Double				Triple / Quad		
	90°	60°	45°	30°	60°	45°	30°	
7/32	2,700	4,700	3,800	2,700	7,000	5,700	4,000	
9/32	4,300	7,400	6,100	4,300	11,200	9,100	6,400	
3/8	8,800	15,200	12,400	8,800	22,900	18,700	13,200	
1/2	15,000	26,000	21,200	15,000	39,000	31,800	22,500	
5/8	22,600	39,100	32,000	22,600	58,700	47,900	33,900	
3/4	35,300	61,100	49,900	35,300	91,700	74,900	53,000	
7/8	42,700	74,000	60,400	42,700	110,900	90,600	64,000	
1	59,700	103,400	84,400	59,700	155,100	126,600	89,550	
1 1/4	90,400	156,600	127,800	90,400	234,900	191,800	135,600	

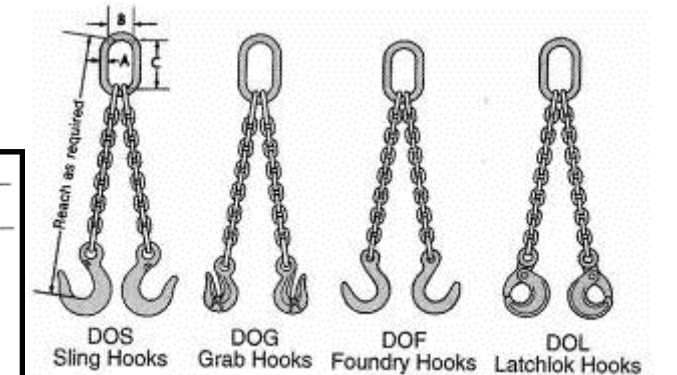
How to select and order the proper chain sling

1. Determine the weight and configuration of the load(s) to be lifted.
2. Determine the type of chain sling required (see page 14), according to weight and configuration.
3. Determine the size of the body chain according to the working load limits on page 14. Be sure to take into consideration the effect of the required angle.
- *Working load limit: The working load limit is the maximum load in pounds which should ever be applied to chain, even when chain is new, and when load is uniformly applied in direct tension to a straight length of chain.
4. Determine the reach required to give the desired angle. The reach is measured from the upper bearing surface of the master link to the bearing surface of the lower attachment. If chain slings are to be used in pairs and are to be matched for reach, please indicate when ordering.
5. Be sure to specify type, size and reach when ordering chain slings.



Adjustable Chain Slings

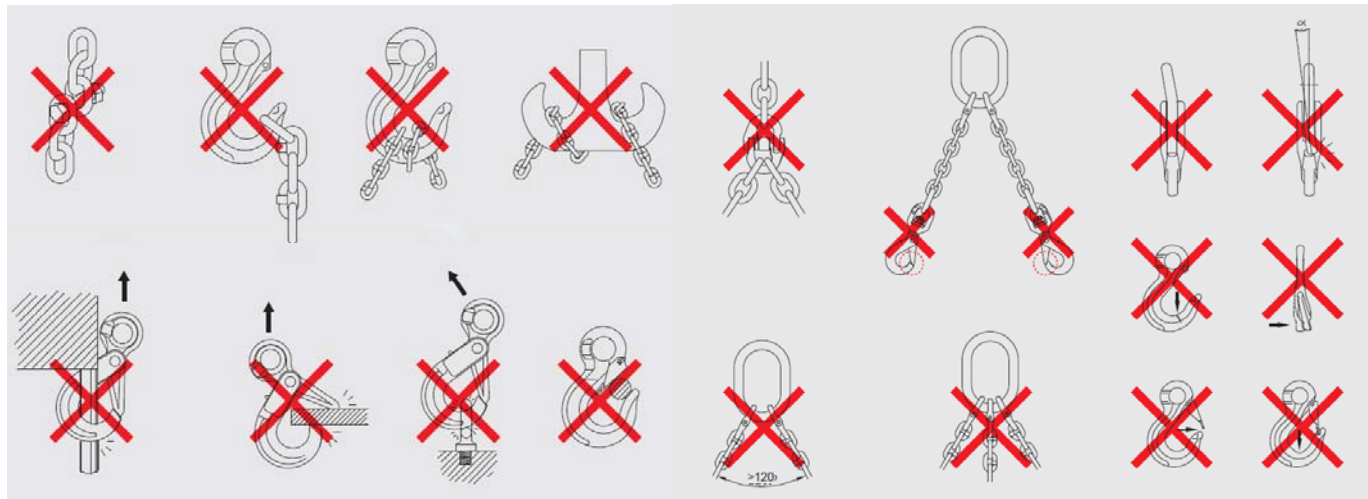
Style B single and double adjustable slings are furnished with approximately one (1) foot of chain in short branches unless otherwise specified in the order.



Chain Slings

Alloy Chain Slings

Incorrect Use

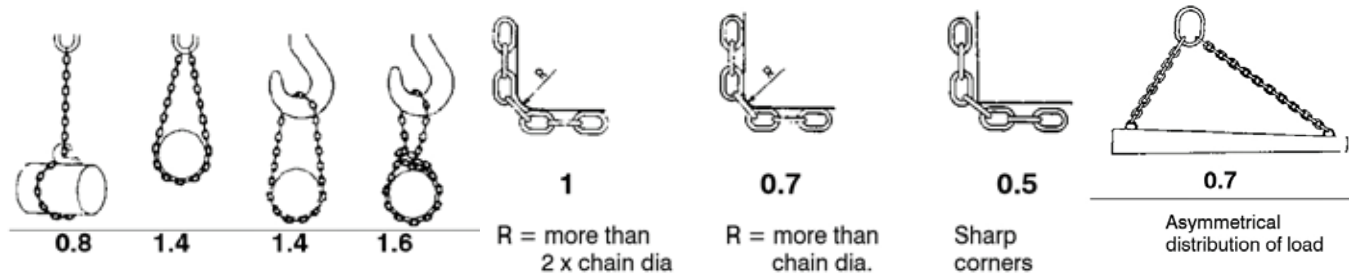


Effect of Elevated Temperature on The Working Load Limit

Temperature °F	Grade of Chain			
	Grade 100		Grade 80	
	Reduction of WLL while at temperature	Reduction of WLL after exposure to temperature	Reduction of WLL while at temperature	Reduction of WLL after exposure to temperature
Below 400	None	None	None	None
400	15%	None	10%	None
500	25%	5%	15%	None
600	30%	15%	20%	5%
700	40%	20%	30%	10%
800	50%	25%	40%	15%
900	60%	30%	50%	20%
1000	70%	35%	60%	25%
Over 1000	OSHA 1910.184 requires all slings exposed to temperature over 1000°F to be removed from service			

Chain Sling Reduction Factors

To be used for various slinging methods and conditions without shock loads.



Electric Chain Hoists

Yale YJL Models

Designed for industrial-duty performance. Compact in size, the YJL has standard features such as a multiple disc motor brake, overload clutch, and adjustable limit switches.



Features

- Five-Pocket Load Sheave – Increased chain and sheave engagement 25% over hoists with conventional four pocket sheaves. Provides smoother lifting and reduces chain wear.
- Mechanical Overload Protection Device – Helps protect hoist, operator, and supporting structures from damaging overloads, chain jamming and reverse phasing.
- Limit Switches – Adjustable to regulate upper and lower load travel.
- Multiple Disc Motor Brake – Heavy-duty design for reliable operation. Direct acting for positive load holding and spotting.

Specifications

- Capacities & Lifts – Rated loads from 1/4 to 2 Tons Metric Rated. Standard lifts of 10, 15, and 20 feet. Other lifts available. CSA approved.
- Voltages – 115/230 – single phase; 230/460, 208, 380, 415, 575—three phase 60 Hertz standard, 50 Hertz available.

- Oil Bath Transmission – Precision machined alloy steel gears run in oil bath for longer, quieter operation.
- Manual and Motorized trolleys – Single and Dual Speed Models.
- Precision Trolley Wheels – Dual tread trolley wheels fit either flat or tapered I-Beams. Also available in bronze or stainless steel.
- Patented track wheels are available.
- Lifetime warranty.

- Hoist Motor – Steel housing and Class F Insulation for longer life. 2-speed with 3 to 1 speed ratio available. H4 Duty Rating—Handles heavy duty work environments.
- Weather Resistant – Hoist is NEMA 3R enclosure.

Capacity (tons)	Model No.	Lift Speed		Motor H.P.	Parts of Chain	Net Weight (lbs)	Headroom (in)	Housing Dimensions		
		Single	Two					H	W	L
	YJL1/4-10*32S1	32	10.7	1/2	1	75	18 1/8	8 11/16	8 11/16	24 1/8
1/2	YJL1/2-10*16S1	16	5.3	1/2	1	75	18 1/8	8 11/16	8 11/16	24 1/8
	YJL1/2-10*32S1	32	10.7	1	1	88	18 1/8	8 11/16	8 11/16	24 1/8
1	YJL1-10*16S1	16	5.3	1	1	90	18 1/8	8 11/16	8 11/16	24 1/8
2	YJL2-10*8S2	8	2.7	1	2	100	20 13/16	8 11/16	8 11/16	24 1/8

* Hook Mount = TH & Lug Mount = LG

Weight and dimensions based on 10 ft lift, single phase, top hook and lug mount hoists.

Capacity (tons)	Model No.	Trolley Mount	YJL-PT Headroom (in)	YJL-MT Headroom (in)	YJL-PT Flange Width (in)	YJL-PT Beam Height (in)	Min. Rad. Curve (in)	YJL-PT Weight (lbs)	YJL-MT Weight (lbs)
1/4	YJL1/4-10**16S1	Cross	17 15/16	17 15/16	3 - 8	5 - 12	48	89	175
	YJL1/4-10**32S1	Cross	17 15/16	17 15/16	3 - 8	5 - 12	48	107	189
1/2	YJL1/2-10**16S1	Cross	17 15/16	17 15/16	3 - 8	5 - 12	48	103	189
	YJL1/2-10**32S1	Cross	17 15/16	17 15/16	3 - 8	5 - 12	48	120	202
1	YJL1-10**16S1	Cross	17 15/16	17 15/16	3 - 8	5 - 12	48	118	204
2	YJL2-10**8S2	Cross	20 5/8	20 5/8	3.33- 8	6 - 18	60	160	214

**Specify YJL-PT for plain trolley and YJL-MT for motorized trolley models. For YJL-MT models, standard flange adjustment is 3.33 - 7".

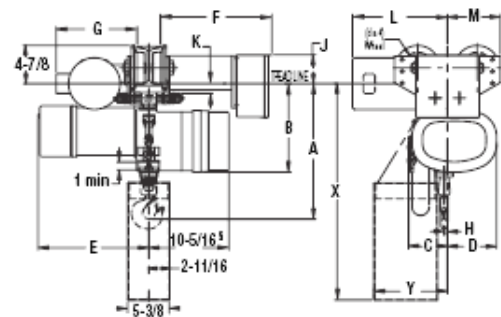
Electric Chain Hoists



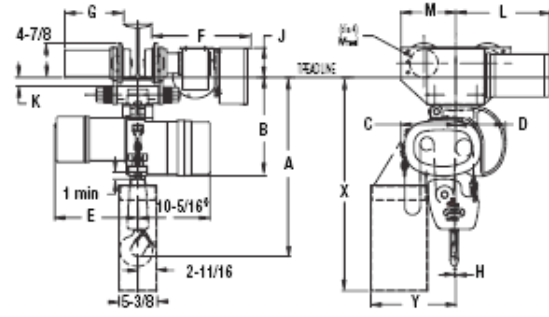
Electric Hoist with Motorized Trolley One & Two Speed Hoists

- ◆ Single speed standard. Optional 2-speed or variable frequency control available for precision load spotting for both hoist and trolley motions.
- ◆ Heavy-duty AC spring set hoist motor brake with easy 1-step adjustment procedure.
- ◆ Trolley worm gear design provides smooth stopping performance.
- ◆ Hoist gearing totally enclosed in oil-bath lubrication for long life.
- ◆ Weatherproof NEMA-4x enclosed push-button control.
- ◆ Paddle upper & lower hoist travel limit switch.
- ◆ Hoist overload protection prevents lifting excessive loads.
- ◆ All hoists and trolleys are built in compliance to ASME/ANSI B30.16 & CSA standards, NEC electrical codes and are ISO 9001 certified.

1/4, 1/2, 1 & 2 Ton Trolley



3 Ton Trolley



Capacity (tons)	Model No.	Lift Speed (FPM)	Motor (H.P.)	Parts of Chain	Net Weight (lbs)	Dimensions (in)													
						A	B	C	D	E Max	F Max	G Max	J	K	L Max	M Max	X	Y	H
1/4	KELC2516	16	1/4*	1	162	17 1/16	10 3/16	5	6 5/16	14 1/4	14 3/8	10 3/8	3 3/4	1 3/16	12 1/4	6 13/16	27 7/8	9 1/2	7/16
	KELC2532	32	1/2		165														
	KELC2564	64	1		164														
1/2	KELC5016	16	1/2	1	165	17 1/16	10 3/16	5	6 5/16	14 1/4	14 3/8	10 3/8	3 3/4	1 3/16	12 1/4	6 13/16	27 7/8	9 1/2	7/16
	KELC5032	32	1		166														
1	KELC0108	8	1/2	1	173	17 7/16	10 3/16	5	6 5/16	14 1/4	14 5/16	10 3/8	3 11/16	1 3/16	12 1/4	6 13/16	27 7/8	9 1/2	7/16
	KELC0116	16	1		174														
	KELC0132	32	2 1/2		182														
2	KELC0204	4	1/2	2	207	22 1/4	11 1/8	6 3/8	7 1/16	14 1/4	14 1/2	10 1/2	4 3/8	1 1/4	12 1/4	7 9/16	29 3/4	10 3/4	3/16
	KELC0208	8	1		209														
	KELC0216	16	2 1/2		210														
3	KELC0305	5	1	3	296	25 9/16	12 7/8	7 7/8	7 1/8	14 1/4	14 1/4	9 1/2	4 3/16	1 1/4	13 1/2	7 13/16	30 1/2	12 1/4	7/32
	KELC0310	10	2 1/2		304														

Variable Frequency Drive



- ◆ Variable speed control with single speed motor.
- ◆ Minimizes high-starting current on motor which helps keep it cool extending life of motor and also permits increase in motor run-time and starts/stops over standard contactor control.
- ◆ Electronic reversing, multispeed operation (up to 3 steps) eliminates conventional magnetic contactors which are wearable components.
- ◆ Voltages available are 380-460/3/60, 208-230/3/60 and 208-230/1/60.
- ◆ 10:1 speed ratio permits precise positioning for load spotting.
- ◆ H4 duty rating.
- ◆ 2-step infinitely variable push-button control standard. 3-step also available.
- ◆ Thermal overload protection.
- ◆ Fault recorder helps troubleshoot various problems such as power related issues.
- ◆ 3 programmable outputs.

Chain Slings

Care, Use and Inspection

The life span and strength of alloy chain slings depends on proper inspection, maintenance and use.

Care

Chain requires careful storage and regular maintenance.

- Store chain slings by hanging in a clean, dry place.
- Oil chains to avoid corrosion before prolonged storage.
- Do not heat alloy chain as this will alter its molecular structure and strength.

Use

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

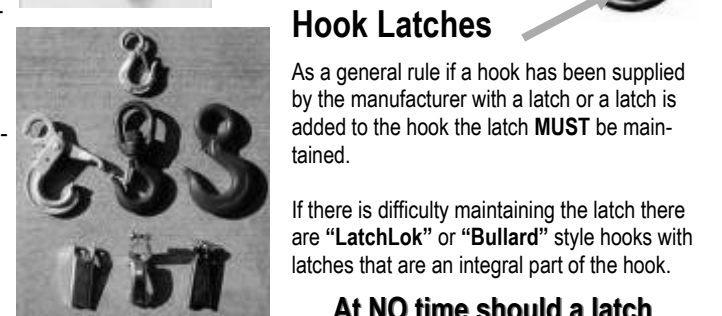
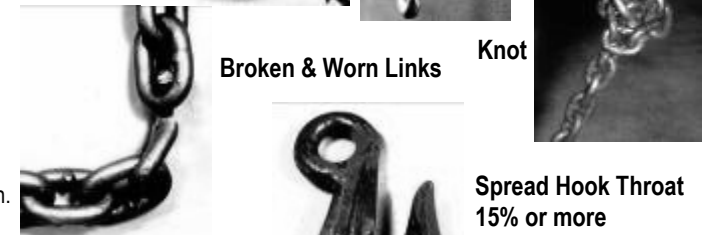
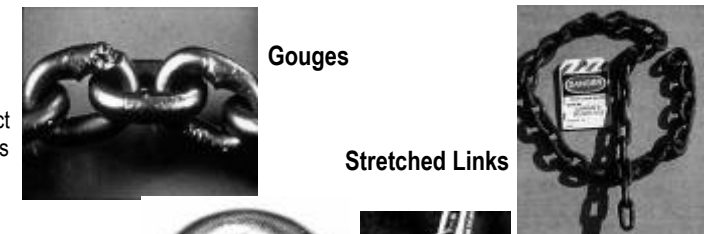
- Before each use, inspect chain and attachments for damage.
- Do not exceed working load limit. Any of the following factors can reduce the working load limit of the sling:
 - * Shock loading can produce dangerous overloading.
 - * Angle of inclination of sling in relation to the load will affect the working load limit of the sling. As the angle decreases the force exerted by the load increases.
 - * Twisting, knots or kinks subject links to unusual stress decreasing the strength of the sling.
 - * Using slings for purposes other than that which they are designed for can reduce the strength of the sling.
- Free chain of all twists, knots and kinks.
- Properly load hooks so that point loading of hook does not occur.
- Hook latches must never support load.
- Avoid sudden jerks when lifting or lowering loads.
- Balance all loads; avoid off center loading that could cause load to shift during lift.
- Pad around sharp and square corners.
- Do not drop loads on chain or attachments.
- Block under all loads to avoid crushing chain.
- Match all attachments (hooks, rings, etc.) to working load limit of chain.
- Never force or hammer hooks or chain into position.
- Do not use in acid solutions.
- Clean chain slings regularly as dirt and grit can cause wear at link bearing points.
- For overhead lifting use only grade 80 alloy chain.

Inspection

It is important both to inspect chain slings regularly and to keep written records of chain sling inspections. The usage the slings are subjected to determines the frequency of written inspections. A company that uses slings on a continuous basis probably should consider a monthly inspection while a company that only occasionally uses slings may only need a yearly inspection. A minimum of once a year is required by OSHA with more frequent inspections required by OSHA if deemed necessary.

Use the following guidelines for inspections:

- Clean chains before inspecting so that damage will be visible.
- Inspect each link for the following conditions:
 - * Twists, bends
 - * Nicks, gouges
 - * Excessive wear, especially at bearing points.
 - * Stretch
 - * Excessive heating, charring or melting.
- Inspect master links, coupling links, and attachments for distortion or damage.
- Inspect throat openings of hooks for proper opening size. If latches are present they must be in proper working condition.



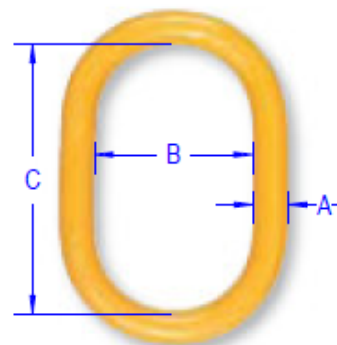
Hook Latches
 As a general rule if a hook has been supplied by the manufacturer with a latch or a latch is added to the hook the latch **MUST** be maintained.

If there is difficulty maintaining the latch there are "LatchLok" or "Bullard" style hooks with latches that are an integral part of the hook.

At NO time should a latch support the load

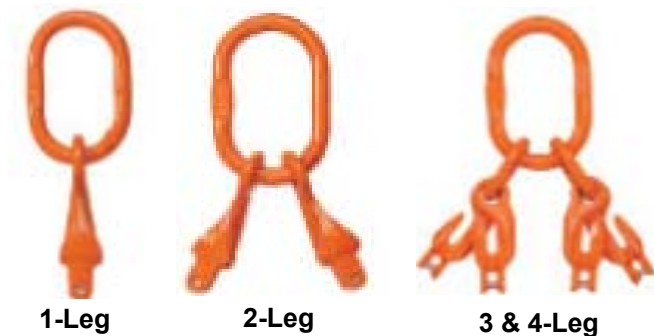
Chain Sling Hardware

Master Link



Part No.	A	B	C	Working Load	Single Leg (in)	Single Leg (mm)	Double Leg (in)	Double Leg (mm)
42645	3/8	2.4	3.9	3300	7/32	5.5	7/32	5.5
42655	1/2	2.8	4.7	7,000	9/32	7	9/32	7
42677	3/4	3.50	5.90	12,300	3/8	10	3/8	10
42679	7/8	3.70	6.30	17,200				
42682	1	4.30	7.50	29,900	1/2 or 5/8	13 or 16	1/2	13
42684	1 1/4	4.70	7.90	35,200	3/4	20	5/8	16
42687	1 3/8	5.50	9.40	45,300				
42691	1 1/2	5.90	9.80	68,000	7/8	22	3/4	20
42694	1 3/4	7.10	11.80	84,900	1	25	7/8	22

Clevis Master Set Link with Shortening Hooks

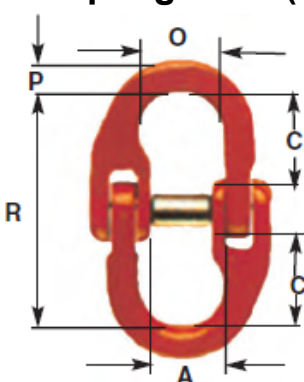


1-Leg 2-Leg 3 & 4-Leg



Code	Chain Size	A	B	C
1-Leg				
VXK1-70	9/32	0.51	2.36	4.33
VXK1-100	3/8	0.71	2.95	5.31
VXK1-130	1/2	0.91	3.54	6.30
VXK1-160	5/8	1.06	3.94	7.09
2-Leg				
VXK2-70	9/32	0.63	2.36	4.33
VXK2-100	3/8	0.91	3.54	6.30
VXK2-130	1/2	1.06	3.94	7.09
VXK2-160	5/8	1.30	4.33	7.87
3 & 4 leg				
VXK4-70	9/32	.91	3.54	6.30
VXK4-100	3/8	1.06	3.94	7.09
VXK4-130	1/2	1.3	4.33	7.87
VXK4-160	5/8	1.42	5.51	10.24

Coupling Link (Hammerlock)



Part No.	Chain Size	Working Load	A	C	O	P	R
43121	7/32	2,100	0.52	0.50	0.52	0.25	1.41
43129	9/32	3,500	0.73	0.79	0.79	0.33	1.93
43138	3/8	7,100	0.98	1.26	1.06	0.47	3.03
43151	1/2	12,000	1.18	1.38	1.26	0.61	3.35
43163	5/8	18,100	1.30	1.57	1.54	0.83	4.05
43176	3/4	28,300	1.73	1.89	1.85	0.90	4.57

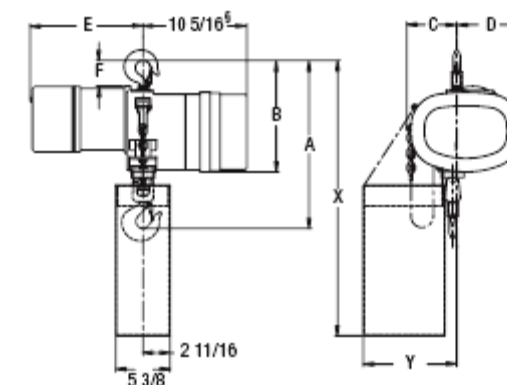
Electric Chain Hoists

Yale HOISTS Hook & Lug Mount Hoists

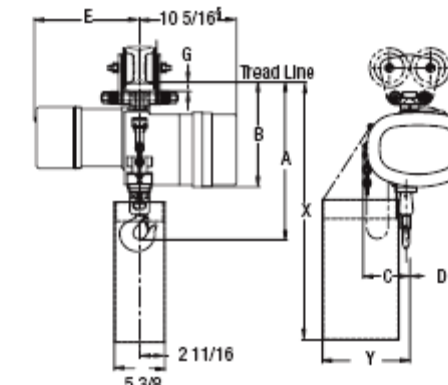


- Single speed standard. Optional 2-speed or variable frequency control available for precision load spotting.
- Heavy-duty AC spring set motor brake with easy 1-step adjustment procedure.
- Gearing totally enclosed in oil-bath lubrication for long life.
- High-torque H4 rated heavy-duty motor with Class 'F' insulation with thermal actuated witches embedded in the motor winding for protection from overheating.
- Weatherproof NEMA-4x enclosed push-button control station specially contoured for operator comfort allowing easy one-handed sure grip control.
- Paddle upper & lower hoist travel limit switch.
- Powder coat finish provides long lasting durable finish and added resistance to corrosive environments.
- Overload protection prevents lifting excessive loads.
- Choice of either hook suspension permitting portability of the hoist or lug suspension which reduces valuable headroom.
- All hoists are built in compliance to ASME/ANSI B30.16 & CSA standards, ISO certified and NEC electrical code

Hook Mount



Lug Mount

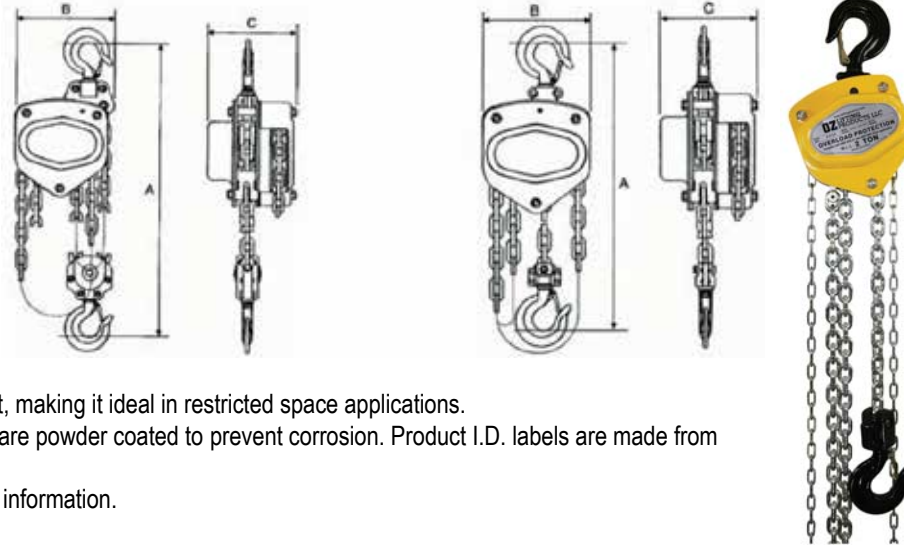


Capacity (tons)	Model No.	Lift Speed (FPM)	Motor H.P.	Parts of Chain	Net Weight (lbs)	Dimensions (inches)											
						A		B		C	D	E Max	F	G	X		Y
						Hook	Lug	Hook	Lug						Hook	Lug	
1/4	KELC2516	16	1/4*	1	77	16 3/4	16 13/16	11 1/8	11 3/16	5	6 5/16	14 1/4	2 9/16	15/16	27 1/2	27 5/8	9 1/2
	KELC2532	32	1/2		80												
	KELC2564	64	1		77												
1/2	KELC5016	16	1/2	1	80	16 3/4	16 13/16	11 1/8	11 3/16	5	6 5/16	14 1/4	2 9/16	15/16	27 1/2	27 5/8	9 1/2
	KELC5032	32	1		81												
1	KELC0108	8	1/2	1	88	17 1/2	17 3/8	11 7/16	11 3/8	5 1/8	6 5/16	14 1/4	2 15/16	1 1/8	27 7/8	27 3/4	9 1/2
	KELC0116	16	1		89												
	KELC0132	32	2 1/2		95												
2	KELC0204	4	1/2	2	110	23	22 1/16	13 1/8	12 3/16	6 3/8	7 1/16	14 1/4	4 9/16	1 1/16	33 1/2	32 5/8	10 3/4
	KELC0208	8	1		111												
	KELC0216	16	2 1/2		112												
3	KELC0305	5	1	3	136	25 7/8	26 5/16	14 3/8	14 7/8	7 7/8	7 1/8	14 1/4	5 7/8	2	38 7/8	39 1/4	12 1/4
	KELC0310	10	2 1/2		146												

Hand Chain Hoists

OZ Premium Chain Hoist

- Unique Hand Wheel Design - This feature enables the hand chain to successfully feed directly into the wheel sprocket from many directions and angles.
- Thrust Bearing on Lower Hook - Allows easy rotation of load while suspended and prevents load chain twisting
- Fully Machined Lift Wheel - This feature perfectly accepts the chain allowing for a smooth long lasting operation.
- Fully Enclosed Lift Wheel - This maintains smooth operation while distributing the load over more links of chain.
- Lifting or Pulling - This hand hoist can be used for lifting or pulling which makes for a more flexible and versatile tool.
- Low Headroom - Provides maximum lift by minimizing space taken up by the hoist, making it ideal in restricted space applications.
- Corrosion Protection - Hoist components are powder coated to prevent corrosion. Product I.D. labels are made from stainless steel.
- Larger capacities available - call for more information.



Product Code	OZ005CHOP	OZ010CHOP	OZ015CHOP	OZ020CHOP	OZ030CHOP	OZ050CHOP	OZ100CHOP
Safe Working Load (tons)	.5	1	1.5	2	3	5	10
Falls of Chain	1	1	1	1	2	2	4
Effort to Lift S.W.L. (lbs)	50.10	66.14	70.46	77.16	59.52	90.39	85.98
Load chain diameter (mm)	6	6	8	8	8	10	10
Dimensional Information (in)	A	10.62	12.48	15.70	16.29	18.30	25.03
	B	5.00	6.22	6.75	7.36	8.26	9.96
	C	5.15	5.51	6.33	6.33	6.33	7.24
Hook-opening, upper & lower (in)	1.18	1.10	1.41	1.31	1.57	1.96	2.51
Net Weight of Head Only (lbs)	17	22	31	35	39	67	115

Cyclone Hand Chain Hoist

One of the most popular and reliable hoists ever designed, the Cyclone combines superior engineering, efficiency and durability. Available in a variety of capacities from 1/4 ton to 10 tons.

Cyclone features:

- Most interchangeability of parts in the industry
- Standard Load Limiter for simple, automatic overload protection
- Enclosed contoured Weston-type automatic brake for positive load control
- High-efficiency spur gearing for greater lift with minimum effort
- Rugged Hoistalloy chain for added strength and durability
- Fully machined, forged liftwheel pockets for easier lifting and smooth free chaining
- High-strength aluminum alloy castings in frame and covers
- Inspected over 75 times to meet or exceed HMI and ASME/ANSI performance and safety standards
- Standard hand chain drop is 2 feet less than lift, (example: 8 foot lift hoist has 6 foot hand chain drop)
- Chain containers, zinc-plated load and hand chain, aluminum unwelded hand chain, Latchlok hooks, bronze hooks, eye-type suspension, Bullard hooks and units without Load Limiter optional, depending on capacity
- Lifetime warranty
- Metric rated
- Made in U.S.A.

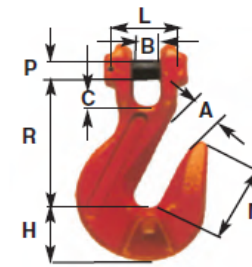
Part No	Capacity (tons)	Lift (ft)
4621	1/4	8
4622	1/2	8
4624	1	8
4626	2	8
4627	3	8
4629	5	8
4632	10	8

Other lifts and capacities available.



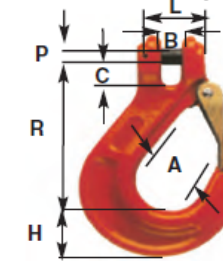
Chain Sling Hardware

Clevis Cradle Grab Hook



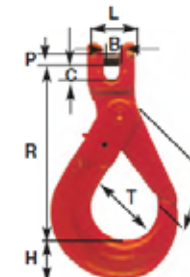
Part No.	Chain Size	Working Load	A	B	C	H	L	M	P	R
40729	9/32	3,500	0.39	0.35	0.39	0.94	0.89	1.85	0.35	1.97
40738	3/8	7,100	0.51	0.51	0.55	1.22	1.24	2.2	0.51	2.83
40751	1/2	12,000	0.67	0.67	0.67	1.50	1.65	3.2	0.63	3.46
40763	5/8	18,100	0.79	0.83	0.79	2.36	2.03	3.6	0.83	4.36
40776	3/4	28,300	0.94	0.95	0.95	2.56	2.42	3.94	0.95	5.12

Clevis Sling Hook with Latch



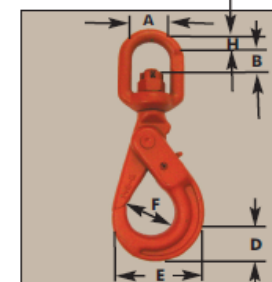
Part No.	Chain Size	Working Load	A	B	C	H	L	P	R
40829	9/32	3,500	0.96	0.34	0.39	1.06	0.89	.35	3.40
40838	3/8	7,100	1.13	0.48	0.53	1.30	1.16	.51	4.13
40851	1/2	12,000	1.36	0.60	0.67	1.57	1.46	.63	5.06
40863	5/8	18,100	1.75	0.71	0.87	1.89	2.05	.79	6.10
40876	3/4	28,300	2.06	0.91	1.02	2.04	2.88	.95	7.20

Clevis Self Locking Hook



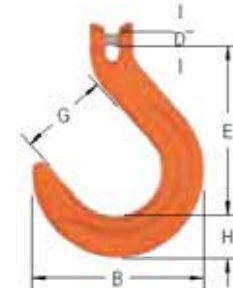
Code	Chain Size	Working Load	A	B	C	H	L	P	R	T
1062-201-40	9/32	3,500	1.34	0.35	0.39	1.02	0.89	.35	4.84	1.70
1062-401-40	3/8	7,100	1.77	0.47	0.55	1.18	1.24	.51	5.63	2.20
1062-601-40	1/2	12,000	2.01	0.59	0.67	1.57	1.65	.63	7.08	2.72
1062-701-40	5/8	18,100	2.36	0.75	0.75	1.97	2.03	.83	8.46	3.1.5

Self Locking Swivel Hook



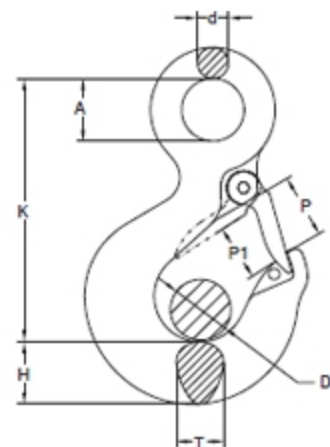
Code	Chain Size	Working Load	A	B	D	E	F	H
1069-201-80	9/32	3,500	1.42	1.57	0.98	3.43	1.73	.55
1069-401-80	3/8	7,100	1.65	1.93	1.38	4.37	2.20	.65
1069-601-80	1/2	12,000	2.09	2.36	1.57	5.35	2.76	.79
1069-701-80	5/8	18,100	2.36	2.36	2.07	6.81	3.27	.91

Clevis Foundry Hook



Code	Chain Size	Working Load	B	D	E	G	H
KF 70	9/32	3,500	4.65	0.35	4.74	2.52	1.14
KF 100	3/8	7,100	5.63	0.49	5.51	2.99	1.38
KF 130	1/2	12,000	6.69	0.63	6.67	3.50	1.65

Grade 80 Alloy Rigging Eye Hooks



Assembled with Latch

Item No.		WLL (tons)	Hook Feature Code	Dimensions (inches)								Net Weight (Lbs)
With latch	Without latch			P	P1	A	T	H	K	D	d	
8-173-01	8-173/0-01	1	AA	1.02	0.87	0.91	0.59	0.75	3.27	0.87	0.39	0.6
8-173-015	8-173/0-015	1.5	BB	0.95	0.75	0.91	0.67	0.83	3.74	0.75	0.43	0.9
8-173-02	8-173/0-02	2	CC	1.06	0.79	1.14	0.83	1.02	4.17	0.79	0.51	1.5
8-173-03	8-173/0-03	3	DD	1.22	0.98	1.26	0.95	1.14	4.80	0.98	0.59	2.0
8-173-05	8-173/0-05	5	EE	1.42	1.22	1.57	1.22	1.46	5.87	1.22	0.71	4.6
8-173-07	8-173/0-07	7	FF	1.77	1.54	2.00	1.46	1.85	7.56	1.54	0.95	8.8
8-173-11	8-173/0-11	11	GG	2.40	2.24	2.44	1.89	2.28	9.13	2.24	1.10	15.4
8-173-15	8-173/0-15	15	HH	2.83	2.44	2.84	2.20	2.60	10.10	2.44	1.26	22.0
8-173-22	8-173/0-22	22	JJ	3.39	3.19	3.54	2.68	3.00	12.50	3.19	1.57	40.7
8-173-30	8-173/0-30	30	KK	3.50	3.27	3.54	2.99	3.66	14.10	3.27	1.77	68.0

Replacement Latch Kits for Yoke Hooks

Hook Feature Code	Working Load Limit (tons)	Replacement latch kit
AA	1	8-P801-AA
BB	1.5	8-P801-BB
CC	2	8-P801-CC
DD	3	8-P801-DD
EE	5	8-P801-EE
FF	7	8-P801-FF
GG	11	8-P801-GG
HH	15	8-P801-HH
JJ	22	8-P801-JJ
KK	30	8-P801-KK

Trolleys



Plain or Geared Trolleys Smooth Rolling and Economical

Available in plain and geared models. An economical choice for most applications. The trolley features steel wrap around side plates, dual tread wheels and lifetime lubricated shielded ball bearings. All the features combine to ensure you a trolley that is smooth rolling, versatile and reliable.

Capacity (tons)	Model No.	Beam Depth (in)	Flange Width (in)	Tread Diameter (in)	Min. Rad. Curve (in)	Weight (lbs)
1/4	26305	4 - 24	2.0 - 8.7	2.36	27	19
1/2	26310	4 - 24	2.0 - 8.7	2.36	27	19
1	26315	5 - 24	2.3 - 8.7	23.6	36	26
1 1/2	26320	6 - 24	2.3 - 8.7	3.15	45	46
2	26325	6 - 24	2.3 - 8.7	3.15	45	46
3	26330	8 - 24	3.0 - 8.7	4.41	55	86
5	26335	10 - 24	3.0 - 8.7	4.92	70	130

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



Capacity (tons)	Model No.	Beam Depth (in)	Flange Width (in)	Tread Diameter (in)	Min. Rad. Curve (in)	Weight (lbs)
1/4 - 1/2	3222	4 - 12	2 5/8 - 5 1/6	2 3/4	7	9
1	3224	4 - 12	2 5/8 - 5 1/6	2 3/4	7	10
1 1/2 - 2	3226	6 - 15	3 5/8 - 5 5/8	3 1/2	10	23
3	3230	8 - 18	4 - 6 1/4	3 1/2	10	29

Beam Clamps



- Provides versatile rigging or hoisting points
- Quick and easy to install—NO tools
- Portable—easily moved to different locations
- Adjusts to a wide range of flange widths
- Durable baked enamel paint protection

Capacity (tons)	Part No.	Flange Adjustment (in)	Weight (lbs)
1	26416	2.95 - 9.05	9
2	26426	2.95 - 9.05	10
3	26436	3.15 - 12.60	21
5	26438	3.54 - 12.60	25
10	26440	3.54 - 12.60	35

CM Lever Hoists



Bandit Ratchet Lever Hoist

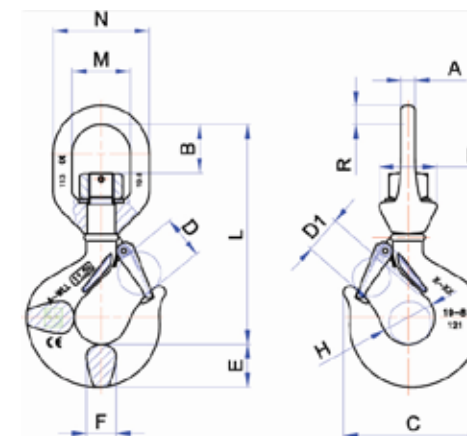
The CM Bandit is CM's lightest and most compact 3/4 & 1-1/2 ton ratchet lever hoist. Its portable design, easy free chaining, and 360° rotating handle makes it one of the most versatile hoists on the market today.

- Capacities of 3/4 and 1 1/2 ton. Metric Rated. Standard lifts up to 20 feet. Longer lifts available
- Look for 3 & 6 ton capacities coming soon
- Rugged, yet lightweight, design and construction can be easily transported and used in even the most confining spaces
- Easy free chaining feature allows for quick take up and positioning of slack chain. Designed not to accidentally free chain while under load.
- Full rotation of handle allows for versatile rigging options when working in tight spaces
- Double reduction gearing provides easy operation with minimal handle effort.
- Screwed-on comfortable rubber grip makes for a secure hold in all environments
- Meets ASME B30.21
- Enclosed Weston type load brake stays clean and dry for positive load positioning.
- Upper and lower hooks feature standard forged safety latches that provide positive and secure load engagement. Hooks are bolted on for easy removal and inspection.
- Upper and lower hooks feature extra wide throat openings to allow for easier attachment to ick points. Hooks swivel 360° for faster positioning.
- Impact-resistant stamped steel housing withstands repeated rigorous use.
- Standard powder coat finish on housing and zinc plating on major components for extra protection against corrosion when working in harsh environments.
- Proven chain integrity and corrosion resistance.
- Each unit has a unique serial number for easy and accurate identification.
- Shipyard hooks are available as an option on 1 1/2 ton units.
- Optional Internal Load Limiter- Alerts operator of possible overload by allowing the handle to rotate without lifting a higher-than capacity load.



Model Number	Capacity Metric Rated Ton	Standard Lift (FT)	Lever Pull to Lift Rated Load LBF	Net Weight LB	Dimensions (Inches)										
					A	B	C	D	E	F	G	H	J	K	L
BAN07505	3/4	5	45	13.6	12.80	0.94	1.13	0.69	9.63	4.88	2.19	3.31	6.06	2.11	3.95
BAN07510		10		15.7											
BAN07515		15		18											
BAN07520		20		20.1											
BAN15005	1-1/2	5	64	20.7	14.20	1.13	1.25	0.81	10.25	5.63	2.38	3.56	6.75	2.69	4.13
BAN15010		10		24.3											
BAN15015		15		27.9											
BAN15020		20		31.5											

Grade 80 Alloy Swivel Rigging Hooks Pewag



Assembled with Latch

Alloy steel Grade 80		Dimensions (In)												Weight (lbs)	
Code	WLL t.	A	B	C	D	D1	E	F	H	L	M	N	P		R
147010ES	1.25	0.31	1.06	3.03	0.94	0.79	0.83	0.59	1.22	4.57	1.22	2.01	1.18	0.39	1.03
147015ES	1.6	0.39	1.30	3.23	1.02	0.87	0.91	0.71	1.34	5.51	1.50	2.48	1.54	0.49	2.20
147020ES	2.5	0.49	1.65	3.70	1.06	0.91	1.06	0.91	1.50	6.42	1.85	3.11	1.89	0.63	3.08
147030ES	3.2	0.49	1.57	4.17	1.26	1.06	1.22	0.91	1.65	6.77	1.85	3.11	1.89	0.63	3.65
147045ES	5.4	0.59	1.97	5.20	1.57	1.38	1.46	1.14	1.97	8.39	2.28	3.78	2.36	0.75	8.03
147070ES	8	0.69	2.56	6.50	2.01	1.69	1.93	1.46	2.44	10.47	2.83	4.72	2.76	0.94	12.91
1470110ES	11.5	0.87	2.68	7.80	2.28	2.09	2.36	1.69	2.95	12.20	3.23	5.35	3.23	1.06	21.45
147150ES	16	0.31	1.06	3.03	0.94	0.79	0.83	0.59	1.22	4.57	1.22	2.01	1.18	0.39	33.66
147200ES	22	0.39	1.30	3.23	1.02	0.87	0.91	0.71	1.34	5.51	1.50	2.48	1.54	0.49	58.30

Replacement Latch Kits - Pewag

Code	Size (inches)				WLL for hook (tons)
	A	B	C	D	
1DS0D1	1.56	1.28	0.67	0.16	1.25
1DS0D2	1.71	1.40	0.91	0.16	1.60
1DS0D3	1.93	1.61	0.98	0.16	2.50
1DS0D4	2.42	2.03	1.14	0.20	3.20
1DS0D5	3.05	2.66	1.38	0.20	5.40
1DS0D6	3.43	2.99	1.46	0.24	8.00
1DS0D7	3.78	3.37	1.93	0.24	11.50
1DS0D8	5.16	4.57	2.13	0.24	16.00
1DS0D9	6.00	5.31	2.52	0.31	22.00

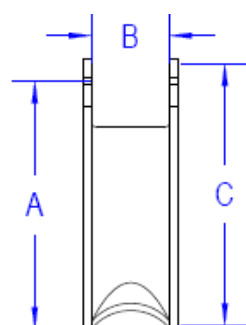
Latch Kits—CM and LaClede

Rigging Eye Hook Latches

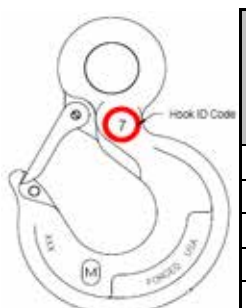


Old Style

Working Load Limit (lbs)	Alloy		Dimensions		
	Old Style Hook	Old Style Latch	A	B	C
1	M3402	4x404	1.26	0.40	1.44
1 1/2	M3403	4X405	1.38	0.40	1.56
2	M3404	4X406	1.50	0.47	1.75
3	M3405	4X406	1.50	0.47	1.75
4 1/2	M3407	4X410	1.88	0.63	2.13
7	M3409	4X412	2.50	0.63	2.75
11		4x414	3.13	1.13	3.63

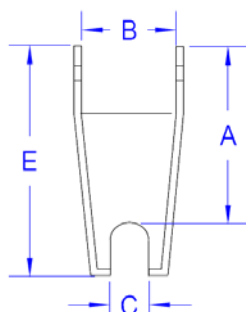


Old Style



New Style

Working Load Limit (lbs)	Alloy			Dimensions				
	New Style Hook	New Style Latch	Hook I D Code	A	B	C	Bolt Hole Diameter	E
1	M3402A	4X1302	2	0.94	0.50	0.20	0.15	1.44
1 1/2	M3403A	4X1303	3	1.00	0.54	0.22	0.17	1.56
2	M3404A	4X1304	4	1.09	0.63	0.23	0.17	1.66
3	M3405A	4X1305	5	1.21	0.66	0.28	0.17	1.91
5	M3407A	4X1307	7	1.53	0.83	0.35	0.20	2.31
7	M3409A	4X1309	9	1.88	1.04	0.44	0.20	2.88
11	M3411A	4X1311	11	2.38	1.25	0.53	0.27	3.44



New Style

HERC-ALLOY Sling Hook Latch Kits

Chain Size	Latch Code	Product Code
7/32	4	
9/32	5	595523
3/8	6/7	595525
1/2	8	595528
5/8	9	595529
3/4		595530
7/8		595532
1		595533
1 1/4		595535



LaClede Replacement Latches

Latch Kits for Self Locking Hooks

Chain Size (in)	Part No.
9/32-5/16	1364-201-40
3/8	1364-401-40
1/2	1364-601-40
5/8	1364-701-40



Latch Kits for Sling Hooks

Chain Size (in)	G100 Part No.	G80 Part No.
9/32-5/16	1377-207-40	1077-207-40
3/8	1377-407-40	1077-407-40
1/2	1377-607-40	1077-607-40
5/8	1377-707-40	1077-707-40
3/4	1377-807-40	1077-807-40

CM Lever Hoists



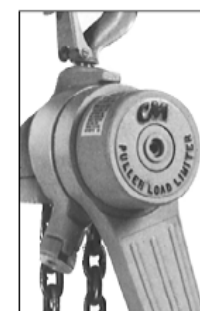
640 Puller

The CM Puller is designed for heavy-duty construction and industrial applications. Used to pull, lift, drag or stretch, it features:

- Tough aluminum alloy construction and powder coat finish
- Weatherproof for outdoor service
- Simple construction with fewer parts for ease of maintenance and lower inventories
- Hoistalloy hardened steel link type load chain for strength, long wear life and flexibility
- Weatherized Weston-type automatic braking system for positive load control
- Easy, one-hand operation and control — only 58 pounds of pull required for 3/4 ton model capacity
- Forged upper and lower hooks with latches standard
- Free wheeling for fast and easy attachment to load
- Upper and lower Latchlok hooks available for all capacities
- Optional Load Limiter protection device stops transmission of lever forces protecting against dangerous overload
- Optional anchor sling simplifies attachment to allow anchor hook to swivel in tight space applications (3/4 & 1 1/2 ton units only)
- Optional Load Sentry warns of overload condition
- Optional shorter lever for 3/4 and 1 1/2 ton units available
- Optional zinc-plated chain available
- Unlimited lift
- Lifetime warranty
- Metric rated
- Made in U.S.A.

Capacity (tons)	Model No.	Standard Lift* (ft)	Pull to lift full loads (lbs)	Min. Distance between Hooks (in)	Lever Length (in)	Reeving	Hook Throat Opening (in)	Weight (lbs)
3/4	4043	5	58	10 3/4	21 1/4	1	1 1/32	16
1 1/2	4045	5	89	14 1/4	21 1/4	1	1 1/8	26
3	4047	5	95	16 15/16	21 1/4	2	1 7/32	38
6	4050	5	96	21 3/8	21 1/4	4	1 3/4	73

* Can be supplied with longer lifts



Optional Load Limiter



Optional anchor sling (3/4 and 1 1/2 ton)



Latchlok type hook



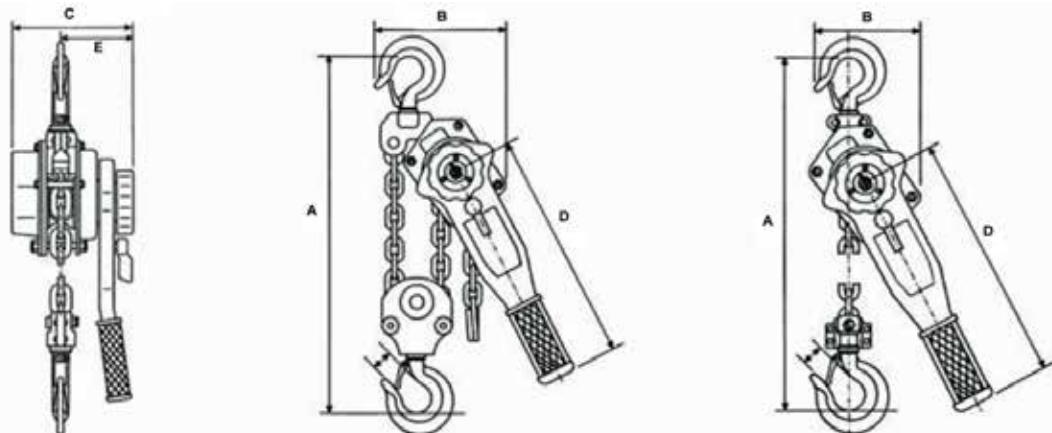
Optional shorter lever

Capacity (tons)	Load Limiter		Load Sentry Kit			Anchor Sling Kit	
	Product Code	Weight (lbs)	Product Code	Lever Length (in)	Weight (lbs)	Product Code	Weight (lbs)
3/4	4190	8 1/4	4096	23 3/4	4 1/2	4071	2
1 1/2	4191	8 1/4	4098	23 3/4	4 1/2	4072	4 3/4
3	4191	8 1/4	4098	23 3/4	4 1/2		
6	4191	8 1/4	4098	23 3/4	4 1/2		

Lever Hoists

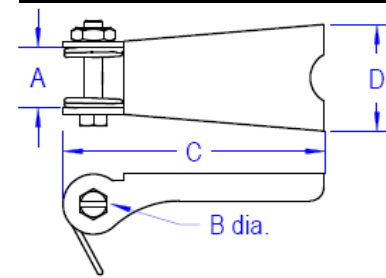
OZ Premium Lever Hoist

- **Free Wheel Feature** - When not under load, the operator can disengage the gearing by positioning the selection switch to the center position. This allows for a quick adjustment of chain for faster operation.
- **Machined Lift Wheel** - This wheel perfectly accepts the chain allowing for a smooth long lasting operation.
- **Pull Handle/ Safety Chain Stop** - When not under load, this feature allows for quick disengagement of gearing which allows for fast movement of the load hook. The safety chain stop is designed and load tested to hold the load in the event that the entire load chain is transmitted through the hoist.
- **360 Degree Handle Rotation** - Allows the operator to work in confined spaces.
- **Corrosion Protection** - Hoist components are powder coated to prevent corrosion. Product I.D. labels are made from stainless steel.
- **Fully Enclosed Lift Wheel** - This maintains smooth operation while distributing the load over more links of chain. It also helps keep debris from contaminating the lift wheel and self cleans the chain as it enters the wheel.
- **Steel Handle with Rubber Grip** - This handle provides a non slip, sure grip, surface.
- **Cast Steel Hand Wheel** - Rotates to allow positive load chain positioning
- **Lower Block** - Included with multistrand hoists.



Product Code	OZ075LHOP	OZ150LHOP	OZ300LHOP	OZ600LHOP	OZ900LHOP	
Safe Working Lift (tons)	0.75	1.5	3	6	9	
Headroom (in)	12.79	14.96	18.90	24.41	27.56	
Effort on lever to lift full load (lbs)	30.86	48.50	70.55	74.96	79.37	
Number of load chain falls	1	1	1	2	3	
Dia. of load chain (mm)	6	8	10	10	10	
Length of lever handle (in)	11.02	16.14	16.14	16.14	16.14	
Dimensional Information (in)	A	12.79	14.96	18.89	24.40	27.55
	B	5.35	6.29	7.08	9.25	12.44
	C	5.82	6.77	7.87	7.87	7.87
	D	11.02	16.14	16.14	16.14	16.14
	E	3.54	3.85	4.52	4.52	4.52
Hook-opening, upper & lower (in)	1.18	1.41	1.57	1.96	2.28	
Net Weight of Head Only (lbs)	13	22	33	51	81	

Latch Kits—Crosby



SS-4055 Latch Kits

- Stainless steel construction with cadmium plated steel nuts.
- Shipped packaged and unassembled.
- Instructions included for easy field assembly.

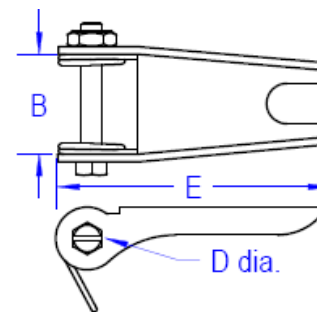
NOTE: These latches will not work on new "N" style Hooks.

Hook Size (t)			Hook ID Code	SS-4055 Stock No.	Weight Each (lbs.)	Dimensions (in.)			
Carbon	Alloy	Bronze				A	B	C	D
3/4	1	0.5	D	1090027	0.02	0.38	0.16	1.44	0.59
1	1 1/2	0.6	F	1090045	0.02	0.38	0.16	1.6	0.59
1 1/2 - 2	2-3	1.0-1.4	G/H	1090063	0.03	0.47	0.19	1.84	0.82
3	4 1/2	2	I	1090081	0.06	0.56	0.17	2.41	1
5	7	3.5	J	1090107	0.11	0.58	0.2	2.97	1.21
7 1/2 - 10	11-15	5.0-6.5	K/L	1090125	0.17	0.59	0.27	3.66	1.5
15	22	10	N	1090143	0.39	0.83	0.39	4.94	1.9
20	30	—	O	1090161	0.63	0.94	0.52	5.88	2.56
25 - 30	37-45	—	P/S	1090189	1.12	2.19	0.39	6.5	3.84
40	60	—	T	1090205	1.77	3.31	0.52	7.88	4.12

S-4320 Latch Kit for New 319N, and 320N, 322N and 339N Hooks.

- Heavy duty stamped latch interlocks with the hook tip.
- High cycle, long life spring.
- Can be made into a "Positive Locking" Hook when proper cotter pin is utilized.

IMPORTANT: The new S-4320 Latch Kit will **not** fit the old style 319, 320 and 322 hooks.

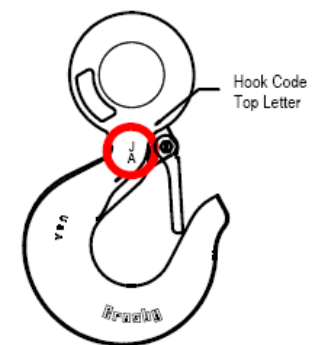
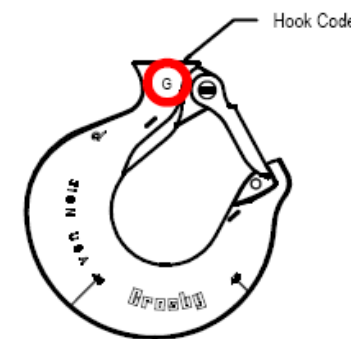


Hook Size (t)			Hook ID Code	S-4320 Stock No.	Weight Each	Dimensions (in.)		
Carbon	Alloy	Bronze				B	D	E
3/4	1	0.5	D	1096325	0.03	0.5	0.15	1.44
1	1 1/2	0.6	F	1096374	0.04	0.54	0.17	1.56
1 1/2	2	1	G	1096421	0.04	0.63	0.17	1.66
2	3	1.4	H	1096468	0.06	0.66	0.17	1.91
3	5	2	I	1096515	0.1	0.83	0.2	2.31
5	7	3.5	J	1096562	0.15	1.04	0.2	3.44
7 1/2	11	5	K	1096609	0.28	1.25	0.27	3.56
10	15	6.5	L	1096657	0.33	1.35	0.27	3.81
15	22	10	N	1096704	0.84	1.66	0.39	5.18

LATCH ORDERING INSTRUCTIONS

To expedite order please specify one of the following:

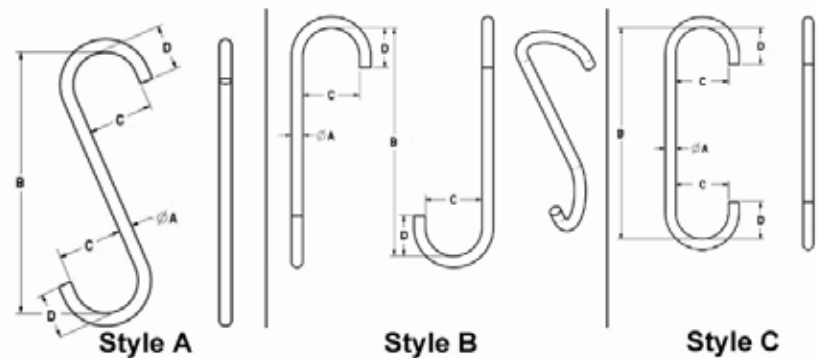
- ◆ Specify latch kit stock number
- ◆ Specify hook series SS-4055 or S-4320 and capacity of hook and hook material (carbon, alloy or bronze).
- ◆ Specify hook series SS-4055 or S-4320 and Hook ID Code.



Rigging Hardware

Alloy S-Hooks & Foundry Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Powder coat painted black for resistance to corrosion.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in the U.S.A.
- Maximum use temperature is 400°F
- ±4% on dimensions
- Custom lettering and designs available.
- Square and hex stock available
- Paintline hooks also available.
- Proofload certificates available upon request.



Material Diameter	Part Number			Standard Alloy Steel S-Hooks					WLL (Lbs)
	Style A	Style B	Style C	A	B	C	D	Weight	
1/4	14189	14198	14207	0.25	2.75	0.75	0.75	0.1	195
5/16	14190	14199	14208	0.31	2.75	0.75	0.75	0.1	365
3/8	14191	14200	14209	0.38	4.13	1.13	1.13	0.3	445
1/2	14192	14201	14210	0.50	5.50	1.50	1.50	0.6	795
9/16	14193	14202	14211	0.56	6.50	1.75	1.50	0.9	980
5/8	14194	14203	14212	0.63	7.00	1.88	1.875	1.2	1,245
3/4	14195	14204	14213	0.75	8.25	2.25	2.25	2.1	1,790
7/8	14196	14205	14214	0.88	9.50	2.63	2.63	3.3	2,440
1	14197	14206	14215	1.00	11.00	3.00	3.00	5.0	3,190

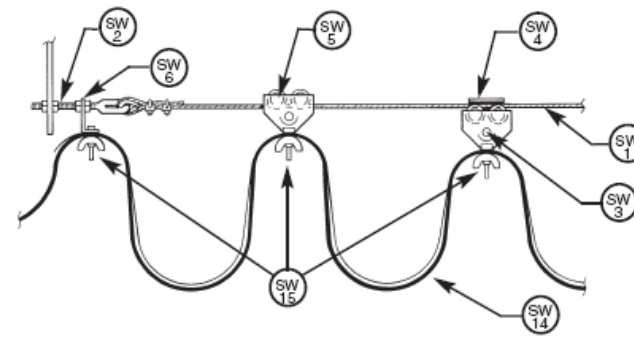
Foundry Sorter Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Tapered tip. Available in long and short reach
- Maximum use temperature is 400° F.
- ±4% on dimensions.
- Custom lettering and designs available
- All eyes welded unless otherwise specified.

Material Diameter (in)	Part Number	Long Reach Foundry Hooks					WLL (Lbs.)
		A	B	C	D	E	
1/2	14601	0.50	6.00	2.50	2.31	0.75	500
5/8	14602	0.62	8.50	3.50	3.38	0.75	800
3/4	14603	0.75	8.50	3.50	3.38	0.75	1,250
13/16	14604	0.81	8.50	3.50	3.25	0.88	1,600
1	14605	1.00	8.50	4.00	3.75	1.00	2,500

Material Diameter (in)	Part Number	Short Reach Foundry Hooks					WLL (Lbs.)
		A	B	C	D	E	
1/2	14782	0.50	6.00	3.00	3.00	0.75	450
5/8	14783	0.62	6.00	3.00	3.00	0.75	900
3/4	14784	0.75	6.00	3.00	3.00	0.75	1,400
13/16	14785	0.81	6.00	3.00	3.00	0.88	2,000
1	14786	1.00	6.00	3.00	3.00	1.00	3,000

Stretched Wire Festoon System



Stretched Wire Rope Festoon Systems are well suited for light duty applications where an intermediate support structure is not available. Economical and dependable, stretched wire rope systems provide electrification to small cranes, moving hoists, and jib cranes.

Flat Cable Kits

Kit Part Number		Max. Span (ft)	No. of Trolleys in Kit
Max. Cable Width			
Single Wheel 3/4" Max	Double Wheel 1-3/4" Max.		
24862	24867	20	3
24863	24868	40	6
24864	24869	60	9
24865	24870	80	13
24866	24871	100	17

Hose & Round Cable Kit Includes

Catalog #	Component
SW 1	22950 Nylon Coated Wire Rope, 1/4" Dia.
SW 2	23288 Hardware Kit
SW 3	39618 Tow Bar
SW 6	22836 Anchor Bracket
SW 7	22829 Tow Trolley (2 wheel)
SW 8	22825 *Trolley (1 wheel) not shown
SW 9	22827 Trolley (2 wheel) shown
SW 10	25689 Adapter
SW 11	22831 Cable Clip (3/16" to 3/8")
SW 12	22832 Cable Clip (3/8" to 9/16")
SW 13	22833 Cable Clip (9/16" to 3/4")

Flat Cable Kit Includes

Catalog #	Component
SW 1	22950 Nylon Coated Wire Rope, 1/4" Dia.
SW 2	23288 Hardware Kit
SW 3	39618 Tow Bar
SW 4	22828 Tow Trolley (2 wheel)
SW 5	22825 Trolley (1 wheel)
	22826 Trolley (2 wheel)
SW 6	22836 Anchor Bracket
SW 14	22834 Flat Cable Saddle < 3/4" (20mm) wide
SW 15	22835 Flat Cable Clamp

Hose & Round Cable Kits

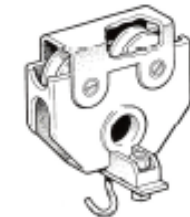
Kit Part Number						Max. Span (ft)	No. of Trolleys in Kit
Cable / Hose O.D.							
3/16" - 3/8" Max.		3/8" - 9/16" Max.		9/16" - 3/4" Max.			
*1 Wheel	2 Wheel	*1 Wheel	2 Wheel	*1 Wheel	2 Wheel		
24872	24887	24877	24892	24882	24897	20	3
24873	24888	24878	24893	24883	24898	40	6
24874	24889	24879	24894	24884	24899	60	9
24875	24890	24880	24895	24885	24900	80	13
24876	24891	24881	24896	24886	24901	100	17

Single Wheel Trolleys



22825

Hose & Round Cable Trolleys

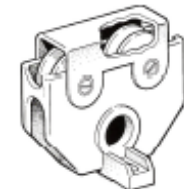


22829
Tow Trolley



22827
Standard Trolley

Flat Wire Trolleys



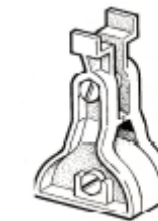
22828
Tow Trolley



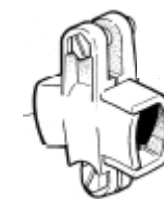
22826
Standard Trolley



22835
Flat Cable Clip



22834
Single Wheel
Flat Cable Clip



Round Cable Clip

22831 3/16" to 3/8"
22832 3/8" to 9/16"
22833 9/16" to 3/4"

Flatwire Festoon Cable



PVC/PVC - Festoon

Flat Multi-Conductor Festoon Cable
 UL: -40°C to 105°C, 600V, VW-1
 CSA: -40°C to 105°C, 600V, FT1



IEWC Part Number	AWG	No. of Conductors	Stranding	Insulation Thickness		Jacket Thickness		O.D.		Approx. Weight	
				in	mm	in	mm	in	mm	lbs/1k ft	kg/km
FC1604	16	4	65/34	0.030	0.8	0.035	0.9	0.200 X 0.580	5.1 X 14.7	91	135
FC1608	16	8	65/34	0.030	0.8	0.035	0.9	0.200 X 1.110	5.1 X 28.2	173	257
FC1612	16	12	65/34	0.030	0.8	0.035	0.9	0.200 X 1.605	5.1 X 40.8	253	376
FC1404	14	4	41/30	0.030	0.8	0.035	0.9	0.210 X 0.710	5.3 X 18.0	116	173
FC1408	14	8	41/30	0.030	0.8	0.035	0.9	0.210 X 1.175	5.3 X 29.8	224	333
FC1412	14	12	41/30	0.030	0.8	0.035	0.9	0.210 X 1.700	5.3 X 43.2	330	491
FC1204	12	4	65/30	0.030	0.8	0.035	0.9	0.230 X 0.710	5.8 X 18.0	160	238
FC1205	12	5	65/30	0.030	0.8	0.035	0.9	0.230 X 0.865	5.8 X 22.0	195	290
FC1207	12	7	65/30	0.030	0.8	0.035	0.9	0.230 X 1.340	5.8 X 34.0	271	403
FC1208	12	8	65/30	0.030	0.8	0.035	0.9	0.230 X 1.650	5.8 X 42.0	307	457
FC1004	10	4	105/30	0.030	0.8	0.045	1.1	0.270 X 0.880	6.9 X 22.4	241	359
FC0804	8	4	168/30	0.045	1.1	0.045	1.1	0.365 X 1.190	9.3 X 30.2	405	603
FC0604	6	4	266/30	0.060	1.5	0.045	1.1	0.430 X 1.450	10.9 X 36.8	612	911
FC0605	6	5	266/30	0.060	1.5	0.045	1.1	0.430 X 1.735	10.9 X 44.1	747	1112
FC0404	4	4	420/30	0.060	1.5	0.045	1.1	0.490 X 1.690	12.4 X 43.0	750	1116
FC0204	2	4	665/30	0.060	1.5	0.045	1.1	0.560 X 1.955	14.2 X 49.7	1273	1894

Notes

- Soft-annealed, bare copper conductor
- Polyvinyl chloride (PVC) insulation
- Polyvinyl Chloride (PVC) jacket
- Standard jacket color: black & yellow
- Conductor color cod per ICEA Method 1, Table E-2 on 215

Alternative Constructions

- Ethylene propylene rubber (EPR) insulation and neoprene jacket
- Shielded constructions

Available Certifications

CSA:FT4
 EPA: 40 CFR
 OSHA

Applications

For use in festooning applications. Rated for continuous use from -40°C up to 105°C.

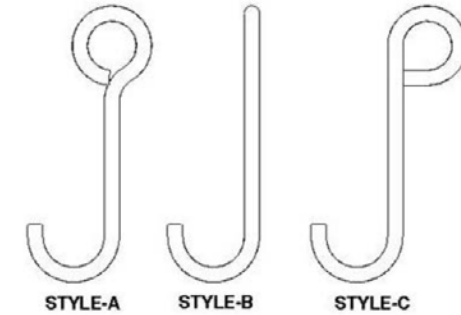
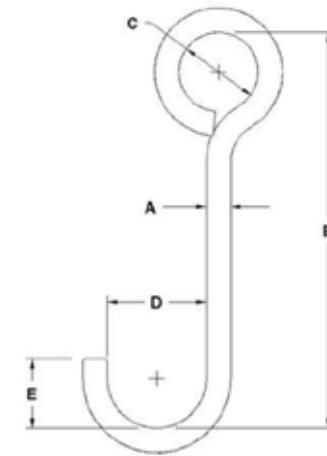
Rigging Hardware



Alloy J-Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations
- Powder coat painted black for resistance to corrosion.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in the U.S.A.
- Maximum use temperature is 400° F
- ±4% on dimensions
- Custom lettering and designs available
- Paintline hooks also available.
- All eyes welded unless otherwise specified

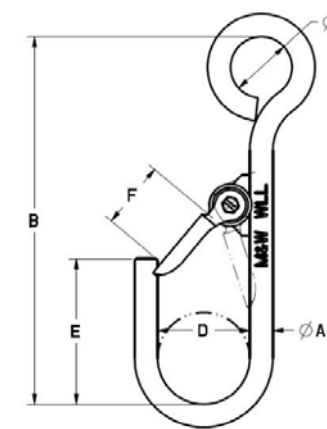
Standard Alloy J-Hook



Material Diameter (inches)	Part Number			Standard Alloy Steel J-Hooks					WLL (Lbs.)
	Style A	Style B	Style C	A	B	C	D	E	
1/4	11621	11637	11653	0.25	5.00	1.00	1.25	0.87	100
5/16	11622	11638	11654	0.31	5.00	1.00	1.25	0.87	200
3/8	11623	11639	11655	0.38	6.00	1.00	1.50	1.12	365
1/2	11624	11640	11656	0.50	8.00	1.00	2.00	1.50	650
5/8	11625	11641	11657	0.62	9.00	1.00	2.50	1.87	1,000
3/4	11626	11642	11658	0.75	10.00	1.00	3.00	2.25	1,450
7/8	11627	11643	11659	0.87	12.00	1.00	3.50	2.62	1,900
1	11628	11644	11660	1.00	14.00	1.25	4.00	3.00	2,600

Alloy Steel Latching J-Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Powder coat painted black for resistance to corrosion.
- Made in the U.S.A.
- Call for custom lettering, designs and configurations.
- ±4% on dimensions.
- All eyes welded unless otherwise specified.
- Square and hex stock available.
- Proof load certificates available upon request.



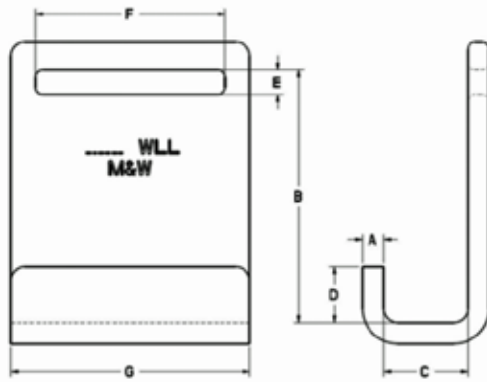
Material Diameter (inches)	Part Number	Standard Alloy Steel J-Hooks						Latch	WLL (Lbs.)
		A	B	C	D	E	F		
1/4	16284	0.25	4.50	1.00	1.25	2.00	0.82	1096325	125
5/16	16016	0.32	5.00	1.00	1.25	2.00	1.01	1096421	230
5/16	16030	0.32	6.00	1.00	1.50	2.38	1.10	1096468	200
3/8	14924	0.38	6.00	1.00	1.50	2.38	1.10	1096468	365
1/2	14767	0.50	8.00	1.00	2.00	3.13	1.48	1096515	650
5/8	14930	0.62	9.00	1.00	2.50	4.32	1.72	1096562	1,000
3/4	16383	0.75	10.00	1.25	3.00	5.25	2.03	1096609	1,435
7/8	16384	0.88	12.00	1.25	3.50	6.25	2.38	1096657	1,900
1	16385	1.00	14.00	1.25	4.50	8.25	2.38	1096704	2,300

Rigging Hardware

Alloy Flat Lifting Hooks and Plate Hooks

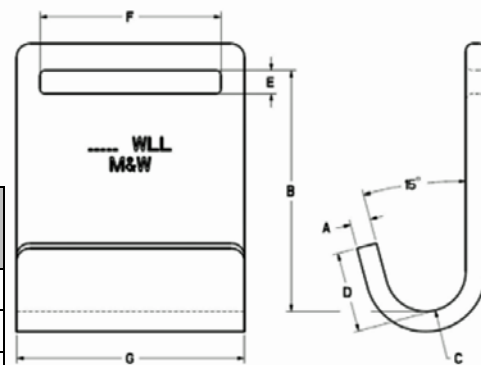
- Manufactured To exceed all ASME B30.20 and OSHA regulations.
- Powder coat painted for resistance to corrosion.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in the U.S.A.
- Proof load certificates available upon request.
- ±4% on dimensions
- Maximum use temperature is 400° F.
- Custom lettering and designs available—call for details.
- Working load limit is for the bottom of the hooks—**DO NOT TIP LOAD**

Flat Hook - Style A



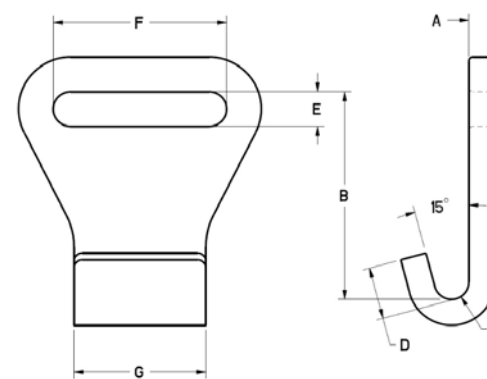
Style A	Part #	A	B	C	D	E	F	G	Weight (Lbs.)	WLL (Lbs.)
1/4	16397	0.25	4.25	1.00	0.75	0.44	2.38	3.00	1.4	3,200
3/8	16398	0.38	4.50	1.50	1.00	0.44	3.38	4.25	3.4	4,800
1/2	16399	0.50	4.75	1.75	1.25	0.44	4.38	5.25	6.2	6,400

Flat Hook - Style B



Style B	Part Number	A	B	C	D	E	F	G	Weight	WLL (Lbs.)
1/4	16400	0.25	4.25	1.00	0.75	0.44	2.38	3.00	1.0	3,200
3/8	16401	0.38	4.50	1.50	1.50	0.44	3.38	4.25	3.3	4,800
1/2	16402	0.50	4.75	1.75	1.75	0.44	4.38	5.25	6.0	6,400

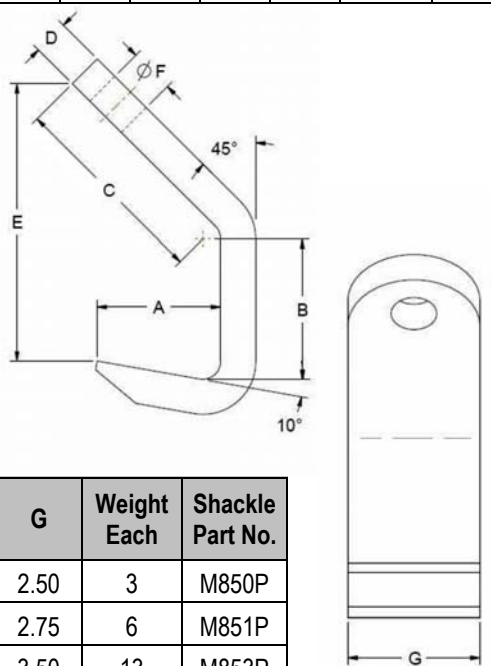
Flat Hook - Style C



Style C	Part Number	A	B	C	D	E	F	G	Weight	WLL (Lbs.)
3/16	17618	0.19	1.50	0.25	0.38	0.25	1.25	0.95	0.2	400
3/16	17619	0.19	1.50	0.38	0.50	0.25	1.25	0.95	0.2	300

Plate Lifting Hooks

- Manufactured to exceed all ASME B30.9 and OSHA regulations.
- ALL plate hooks shipped with proof load certification
- Machined to exacting tolerances
- ALL lifting hooks individually proof loaded per OSHA requirements.



WLL (Lbs.)	Part Number	Grade 100 Chain	A	B	C	D	E	F	G	Weight Each	Shackle Part No.
4,300	11721	9/32"	2.00	1.75	2.50	0.63	3.45	0.83	2.50	3	M850P
8,800	11722	3/8"	2.63	3.00	4.31	0.75	5.92	0.95	2.75	6	M851P
15,000	11723	1/2"	3.50	4.00	4.38	1.00	6.93	1.21	3.50	13	M853P

Pendant Cable

EPDM/Neoprene - SOOW Pendant Cable

Hoist and Control Station Cable with Internal Steel Insulated Messenger 90°C, 600V

Notes

- Soft-annealed, tinned copper conductor
- Ethylene propylene diene monomer (EPDM) insulation
- Neoprene jacket
- 1/16" 7x7 galvanized steel strength member insulated with black EPDM located in center of cable
- Standards jacket color: black

Applications

For use in hoist and pendant applications. Rated for continuous use up to 75°C.

No. of Conductors	Standard Conductor Insulation Colors
3	Brown, Orange, Red or Brown, Blue, Yellow
5	Orange, Red, Brown, Blue Yellow
7	Purple, White, Orange, Red, Brown, Blue, Yellow



IEWC Part Number	AWG	No. of Conductors	Stranding	Insulation Thickness		Jacket Thickness		O.D.		Approx. Weight	
				in	mm	in	mm	in	mm	lbs/1k ft	kg/km
SO1603OWSTL	16	3	65/34	0.030	0.8	0.060	1.5	0.535	13.6	150	223
SO1603OWSTL	16	3	65/34	0.030	0.8	0.070	1.8	0.560	14.2	155	231
SO1605OWSTL	16	5	65/34	0.030	0.8	0.065	1.7	0.560	14.2	180	268
SO1607OWSTL	16	7	65/34	0.030	0.8	0.080	2.0	0.620	15.7	230	342

PVC/Nylon/PVC - Pendant Cable

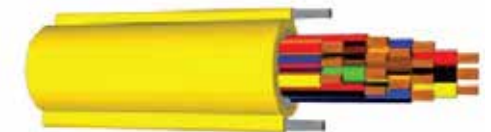
Hoist and Control Station Cable with Twin External Insulated Steel Messenger -10°C to 90°C, 600V

Notes

- Soft-annealed, bare copper conductor
- Poly vinyl chloride (PVC) insulation
- Nylon sheath over insulation
- Polyvinyl chloride (PVC) jacket
- Twin insulated 1/16" 7x7 galvanized steel messengers
- Standard jacket color: yellow
- Conductor color code per ICEA Method 1, Table E-1 on 215 with green ground conductor

Applications

For use in hoist and pendant applications. Rated for continuous use from -10°C up to 90°C

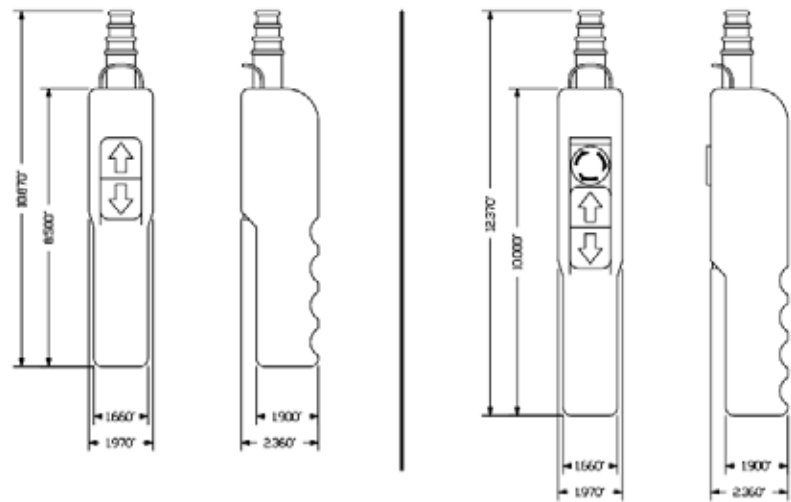


IEWC Part Number	AWG	No. of Conductors	Stranding	Insulation Thickness		Jacket Thickness		O.D.		Approx. Weight	
				in	mm	in	mm	in	mm	lbs/1k ft	kg/km
RPC1608*S	16	8	65/34	0.019	0.5	0.047	1.2	0.465	11.8	196	292
RPC1612*S	16	12	65/34	0.019	0.5	0.063	1.6	0.550	14.0	248	369
RPC1616*S	16	16	65/34	0.019	0.5	0.063	1.6	0.605	15.4	302	449
RPC1624*S	16	24	65/34	0.019	0.5	0.063	1.6	0.745	18.9	430	640

Pendant Stations

PG Series 2 and 3 Button Pistol Grip Pendants

Dimensions



- Large buttons for ease of use even with gloved hands
- Preassembled
- Shock and corrosion resistant
- NEMA 4/4X indoor
- 1 and 2 speed mechanically interlocked switches
- Trim to size multi-diameter cable bushing inlet.
- Exterior anchor for strain relief ring plus internal strain relief clamp and anchor point.
- Ergonomically designed with operator's comfort in mind
- High impact thermoplastic is double insulated to protect against electric shock
- Highly visible safety yellow
- Optional emergency stop mushroom button
- Optional prewired with pendant cord.

Ordering Specifications

Description	Number of Buttons	Number of Speeds	Catalog Number
1 N.O. contact per button 2 mechanically interlocked buttons	2	1	300PG2-10
2 N.O. (2 step) contacts per button 2 mechanically interlocked buttons	2	2	300PG2-20
1 N.O. and 1 N.C. 2 mechanically interlocked buttons	2	1	300PG2-11
1 N.O. contact per button 2 mechanically interlocked buttons 1 N.C. E-stop mushroom switch	3	1	300PG3-10
2 N.O. (2 step) contacts per button 2 mechanically interlocked buttons 1 N.C. E-stop mushroom switch	3	2	300PG3-20
1 N.O. and 1 N.C. 2 mechanically interlocked buttons 1 N.C. E-stop mushroom switch	3	1	300PG3-11

General Specifications:

Approvals	UL listed, CSA approved
Ambient temperature	-15°C~+70°C / -5°F~+158°F
Enclosure	Yellow thermoplastic
Vibration resistance	15g from 400-500 Hz
Shock resistance	100g
Environmental protection	NEMA 4, 4X, IP65 indoor use
Mechanical life	One million operations of switch
Electrical rating	NEMA A600, Q600
Legends	Standard UP / DOWN arrows
Pushbutton force	36 oz. to 90 oz. depending on switch
Cable bushing size	9mm to 13mm

PG- 'pistol grip', is a small and lightweight pendant switch designed for operation of small hoists. Comfortable pistol grip handle is designed to fit the shape of the human hand. The oversized pushbuttons are designed for ease of use and sure operation when wearing gloves. Choose the contact configuration which best suits your needs from 2 buttons single speed or 2 speed with or without an emergency stop mushroom switch. Above all, the PG-'pistol grip' is designed with ergonomics in mind, providing hours of use without fatigue, due to its comfortable size and large buttons. Designed for rugged industrial use, the PG will stand up to just about any abuse industrial workplaces will deliver. Easily replaceable contact cartridges with easy to wire clamp type terminals. Arguably the most versatile pistol grip pendant available in the market due to its versatile switch configurations. Millions of units sold the world over. Easily the most popular pistol grip pendant sold today.

Other Available Options:



46

Phone: 920-722-0373
Toll Free: 800-242-8349

1377 Kimberly Dr
Neenah, WI 54956

Fax: 920-722-5260

CONTRX INDUSTRIES INC



Lifting Industry™

Rigging Hardware

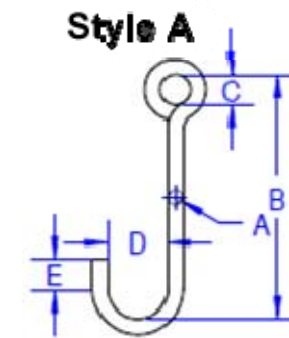
Special Alloy J-Hook Worksheet

CONTRX INDUSTRIES INC



Lifting Industry™

Style A



A:

B:

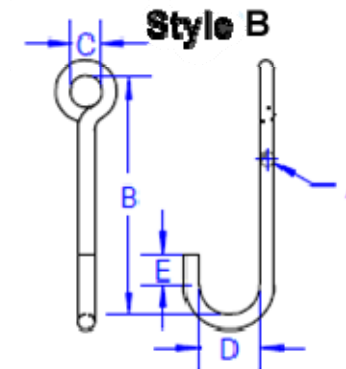
C:

D:

E:

Capacity (lbs):

Style B



A:

B:

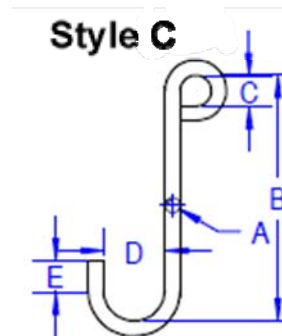
C:

D:

E:

Capacity (lbs):

Style C



A:

B:

C:

D:

E:

Capacity (lbs):

27

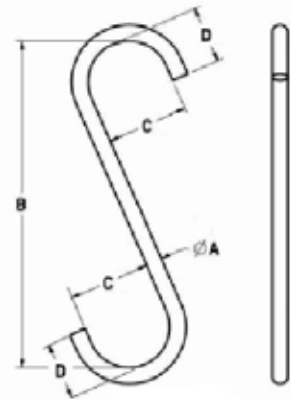
Phone: 920-722-0373
Toll Free: 800-242-8349

1377 Kimberly Dr
Neenah, WI 54956

Fax: 920-722-5260

Rigging Hardware

Special Alloy S-Hook Worksheet

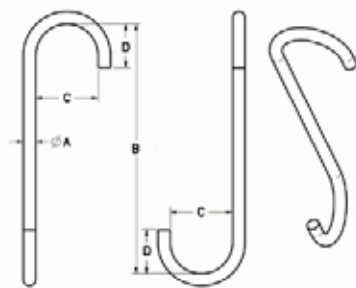


Style A

Style A

- A:
- B:
- C:
- D:

Capacity (lbs):

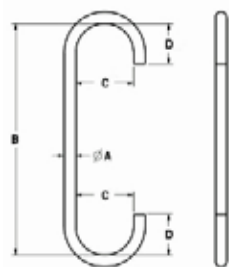


Style B

Style B

- A:
- B:
- C:
- D:

Capacity (lbs):



Style C

Style C

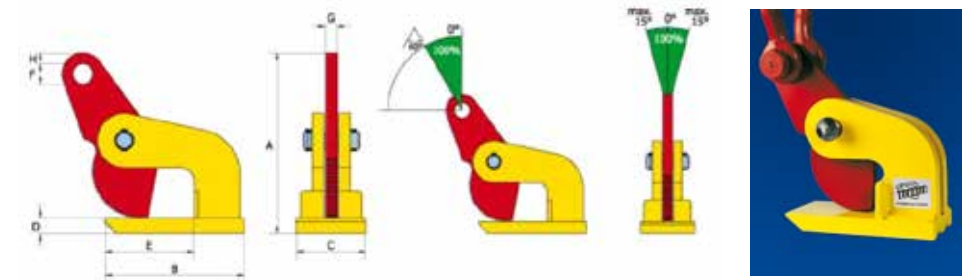
- A:
- B:
- C:
- D:

Capacity (lbs):

Plate Clamps—Terrier

Model TDH

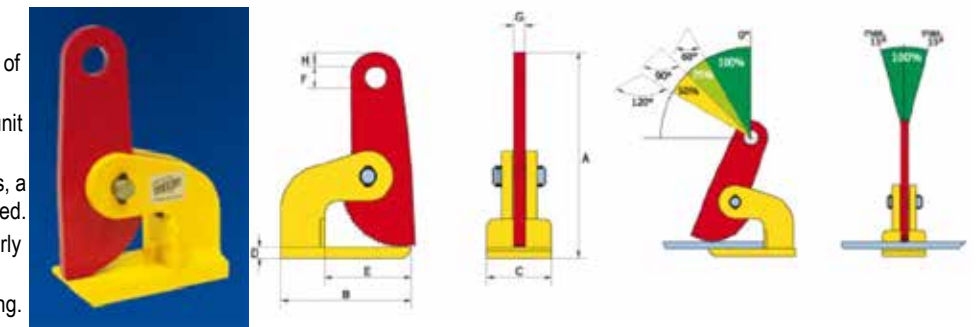
- For the lifting and transporting of thin sheets that deflect when being lifted.
- Compact shape and relatively low unit weight, with a high lifting capacity
- When using the TDH horizontal lifting clamps, a minimum of 2 clamps must always be used



Ref. No.	Type/Model	Capacity/WLL (lbs)		Jaw-opening (in)	Dimensions (in)								Weight (lbs) each
		per piece	per pair		A	B	C	D	E	F	G	H	
970100	1 TDH	1100	2200	0 - .59	6.57	5.51	2.56	.39	3.94	.89	.59	.51	7
970200	2 TDH	2200	4400	0 - 1.38	9.25	7.09	3.15	.79	4.53	1.02	.59	.51	18
970400	4 TDH	4400	8800	0 - 1.97	12.20	9.25	5.12	1.38	5.12	1.57	.79	.98	44
970600	6 TDH	6600	13200	0 - 1.97	12.20	9.25	5.12	1.38	5.12	1.57	.79	.98	46.5

Model FHX/FHSX

- For the horizontal lifting and transporting of steel plates.
- Has a compact shape and relative light unit weight with a high lifting capacity.
- When using the FHX/FHSX lifting clamps, a minimum of 2 clamps must always be used.
- Lifting capacity and jaw opening are clearly engraved in the body
- The FHSX model has a larger jaw opening.

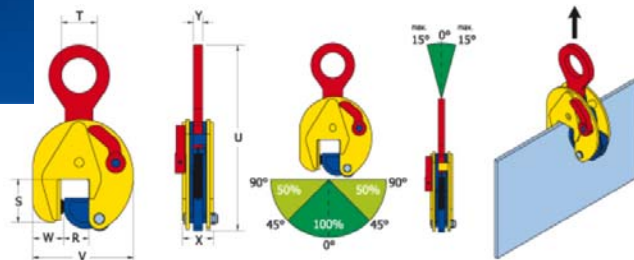


Ref. No.	Type/Model	Capacity/WLL (lbs)		Jaw-opening (in)	Dimensions (in)								Weight each (lbs)
		per piece	per pair		A	B	C	D	E	F	G	H	
953100	1 FHX	1,100	2,200	0 - 1.38	7.40	5.51	2.56	.39	3.94	.98	.59	.45	6
953200	2 FHX	2,200	4,400	0 - 2.36	11.42	7.09	3.54	.59	4.53	1.20	.63	.75	16.5
953300	3 FHX	3,300	6,600	0 - 2.36	11.54	7.09	3.54	.79	4.65	1.20	.63	.75	18
953400	4 FHX	4,400	8,800	0 - 2.36	12.05	8.66	4.13	.98	5.71	1.20	.79	.75	29
953600	6 FHX	6,600	13,200	0 - 2.36	12.05	8.66	4.33	.98	5.71	1.20	.79	.75	29
953800	8 FHX	8,800	17,600	0 - 2.36	13.19	8.86	4.72	1.38	5.31	1.20	1.18	.75	0
953010	10 FHX	11,000	22,000	0 - 2.36	13.19	8.86	4.72	1.38	5.31	1.20	1.18	.75	44
953012	12 FHX	13,200	26,400	0 - 2.36	13.19	8.86	4.72	1.38	5.31	1.20	1.18	.75	46.5
954200	2 FHSX	2,200	4,400	0 - 3.94	14.96	7.09	3.54	.59	4.72	1.20	.59	.75	20
954300	3 FHSX	3,300	6,600	0 - 3.94	15.35	7.09	3.54	.79	4.72	1.20	.59	.75	31
954400	4 FHSX	4,400	8,800	0 - 3.94	16.34	8.66	4.13	.98	5.71	1.20	.79	.75	33
954600	6 FHSX	6,600	13,200	0 - 3.94	16.34	8.66	4.72	.98	5.71	1.20	.79	.75	35.5
954800	8 FHSX	8,800	17,600	0 - 3.94	16.34	8.86	4.72	1.38	5.31	1.20	1.18	.75	48.5
954010	10 FHSX	11,000	22,000	0 - 3.94	16.34	8.86	4.72	1.38	5.31	1.20	1.18	.75	51
954012	12 FHSX	13,200	26,400	0 - 3.94	16.34	8.86	4.72	1.38	5.31	1.20	1.18	.75	51
853820	15 FHSX	16,500	33,000	0 - 5.90	26.18	13.78	5.51	1.38	9.45	1.77	1.38	1.10	110.5

Plate Clamps—Terrier

Model TS/STS

- For vertical lifting and transporting of steel plates and structures.
- Equipped with a safety mechanism, ensuring the clamp does not slip when lifting force is applied and when load is being lowered.
- The clamp is locked in closed as well as in open position.
- Lifting capacity and jaw openings are clearly engraved in the body
- STS type clamps are supplied with a larger jaw opening.
- Minimum W.L.L. is 10% of the maximum W.L.L.

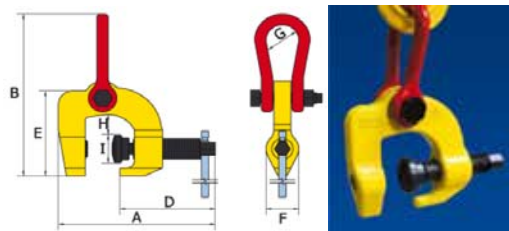


Lifting Industry™

Ref. Number	Type	Capacity/WLL (lbs)	JAW-opening (R) (in)	Dimensions (in)								Weight (lbs/each)
				S	T	U	V	W	X	Y		
850000	0.75 TS	1,650	0 - .51	1.85	1.18	8.07	3.94	1.38	1.46	.39	3.5	
850800	1 TS	2,200	0 - .71	2.17	1.77	10.43	4.92	1.50	1.85	.59	7.5	
850880	1 TSE	2,200	0 - .98	2.17	1.77	10.43	5.59	1.50	1.85	.59	8	
850100	1.5 TSE	3,300	0 - .79	3.15	2.56	13.19	6.50	2.17	2.20	.67	14	
850901	2 TSE	4,400	0 - 1.38	3.15	2.56	13.19	7.28	2.17	2.20	.67	14.5	
850331	3 TSE	6,600	0 - 1.38	3.15	2.56	13.19	7.87	2.17	2.20	.67	15	
850441	4.5 TS	9,900	0 - .98	3.35	2.76	16.93	7.87	2.36	3.03	.79	32.5	
850451	4.5 TSE	9,900	0 - 1.77	3.35	2.76	16.93	9.06	2.36	3.03	.79	35	
850301	6 TS	13,200	0 - 1.26	4.49	2.95	19.29	8.86	3.07	3.07	.79	41	
850401	7.5 TS	16,500	0 - 1.57	4.41	2.95	20.87	9.65	2.99	3.39	.79	53	
851501	7.5 TSE	16,500	0 - 2.17	4.41	2.95	20.87	10.51	2.76	3.39	.79	55	
851551	9 TS	19,800	0 - 2.17	4.41	2.95	20.87	10.51	2.76	3.39	.79	57.5	
850501	12 TS	26,400	0 - 2.05	5.83	3.35	24.29	11.61	3.94	3.70	1.73	92.5	
915000	15 TS	33,000	0 - 2.99	8.23	3.39	29.92	14.76	5.31	4.13	1.96	156.5	
917000	17 TS	37,400	0 - 2.99	8.23	3.39	29.92	14.76	5.31	4.13	1.96	156.5	
920000	20 TS	44,000	0 - 3.15	9.64	3.94	34.64	18.31	5.90	5.51	2.60	309	
925000	25 TS	55,000	.20 - 3.34	9.64	3.94	34.64	18.31	5.90	5.51	2.60	309	
930000	30 TS	66,000	.39 - 3.54	9.64	3.94	34.64	18.31	5.51	5.51	2.60	320	
852200	6 STS	13,200	1.57 - 3.54	4.53	2.95	19.29	10.82	2.75	3.07	.79	44	
854300	7.5 STS	16,500	1.97 - 3.94	4.33	2.95	20.66	12.40	2.75	3.22	.79	53	
853305	9 STS	19,800	1.97 - 3.94	4.33	2.95	20.66	12.40	2.75	3.22	.79	55	
852401	12 STS	26,400	1.97 - 3.94	6.02	3.39	24.21	13.58	3.94	3.70	1.73	92.5	
921500	15 STS	33,000	3.15 - 5.91	8.66	3.39	29.72	17.71	5.04	4.17	1.97	170	
922000	20 STS	37,400	3.15 - 5.91	9.80	3.94	34.45	25.20	5.82	5.51	2.60	320	
922500	25 STS	55,000	3.15 - 5.91	9.80	3.94	34.45	25.20	5.82	5.51	2.60	320	
923000	30 STS	66,000	3.15 - 5.91	9.80	3.94	34.65	25.20	5.82	6.10	2.60	326.5	

Model TSCC

- Universal screw clamp for vertical and horizontal lifting and transporting of large variety of steel structures.
- The TSCC screw clamp is fitted with a moveable cam on the thread spindle which provides a powerful clamping force on the work piece.
- The articulated lifting eye ensures an effective clamping force in every position.
- Available with non-marking pads.



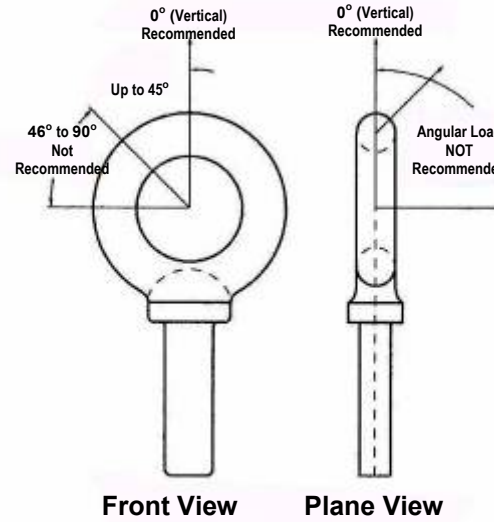
Ref. No.	Type	Capacity/WLL (lbs)	JAW-opening (R)(inches)	Dimensions								Weight (lbs/each)
				A	B	D	I	E	F	G	H	
862705	0.5 TSCC	1,100	0 - 1.10	6.14	4.45	3.50	1.02	2.99	1.18	.67	1.06	2
862710	1 TSCC	2,200	0 - 1.18	6.89	8.03	4.96	1.65	5.04	1.81	1.50	1.73	7
901500	1.5 TSCC	3,300	0 - 1.57	7.76	9.13	5.59	1.65	5.51	1.81	1.81	1.18	9
903000	3 TSCC	6,600	0 - 2.36	8.82	10.43	6.50	1.93	6.50	2.13	1.97	2.36	16
862760	6 TSCC	13,200	0 - 2.95	11.46	14.37	8.46	2.48	8.43	2.72	3.15	2.99	40
862711	1 TSCC-W	2,200	1.97 - 3.94	10.16	10.75	6.10	1.65	7.48	1.81	1.77	3.46	7
862731	3 TSCC-W	6,600	.98 - 2.95	9.84	11.46	6.50	1.93	7.52	2.13	1.97	2.99	18

Rigging Hardware

Forged Shoulder Eyebolts

Application & Installation

- The receiving hole should be counter-sunk and be free and clear of any debris to assure proper seating.
- **LOADS SHOULD ALWAYS BE ALIGNED TO THE PLANE OF THE EYE**, not at an angle to the plane. A steel washer or spacer may be used in conjunction with shoulder eyebolts to attain proper load alignment. The thickness of the steel washer or spacer must not exceed one thread pitch.
- The minimum threaded shank length of eyebolts must be one thread diameter to attain rated capacity.
- Angular lifting should be avoided. **Angular lifts significantly reduce rated capacities.**
- Check seating after applying an angular lift since the initial lift may cause the bolt to back away from the load. If this occurs remove eyebolt and properly reseal eyebolt.
- For applications with untapped through-holes, longer length shoulder eyebolts are recommended, using a steel washer and nut for the required thread length of engagement.
- Shoulder eyebolt tapped holes are to have a threaded length which allows for full length of shank engagement and clearance for the unthreaded portion of shank.
- Shoulder eyebolts must be firmly seated and flush against the mating surface; otherwise, the rated capacity is reduced significantly. The use of a steel washer or spacer is permissible and may be required; however, the thickness must not exceed one thread pitch.
- Plain eyebolts are **NOT** recommended for angular load applications.
- Plain eyebolt tapped holes are to be threaded for full length engagement of the eyebolt.
- Plain eyebolts must have full thread shank engagement, allowing for one-half turn of proper eye-alignment to obtain rated capacities.



Size	0° (lbs)	45° (lbs)	Over 45° (lbs)
1/4	500	125	Do NOT Use
5/16	900	225	
3/8	1,300	325	
7/16	1,800	450	
1/2	2,400	600	
9/16	3,000	800	
5/8	4,000	1,000	
3/4	5,000	1,250	
7/8	7,000	1,750	
1	9,000	2,250	
1 1/8	12,000	3,000	
1 1/4	15,000	3,750	
1 1/2	21,000	5,250	
1 3/4	28,000	7,000	
2	38,000	9,500	
2 1/2	56,000	14,000	

Diameter		Shank Length	Eye I.D.
Inches	Metric		
1/4	M6	1.000	0.750
5/16	M7	1.125	0.875
3/8	M8	1.250	1.000
7/16	M10	1.375	1.062
1/2	M12	1.500	1.188
9/16	M14	1.625	1.280
5/8	M16	1.750	1.375
3/4	M18	2.000	1.500
7/8	M20	2.250	1.688
1	M24	2.500	1.812
1 1/8	M27	2.750	2.000
1 1/4	M30	3.000	2.188
1 1/2	M35	3.500	2.562
1 3/4	M45	3.750	2.875
2	M52	4.500	3.375
2 1/2	M65	5.000	4.000

Inspection & Maintenance

- Eyebolts should be inspected and installed by a competent person who is knowledgeable about the application and installation of eyebolts.
- Each eyebolt must be completely inspected BEFORE each use for possible defects such as: distortion, bent shank/threads, or incomplete/incorrectly formed threads. **Periodic inspection of eyebolts is highly recommended.**
- Eyebolts should not be painted or otherwise coated when used for lifting; such coatings make it difficult to inspect for defects or wear indicators.
- Eyebolts should not be left where they can incur mechanical damage or corrosion.
- **Destroy eyebolts when signs of bend, elongation, wear or damage are visible.** Never attempt to repair a stressed eyebolt.
- **Destroy eyebolts when they show any signs of alteration**—gouging, undercutting, welding, etc.

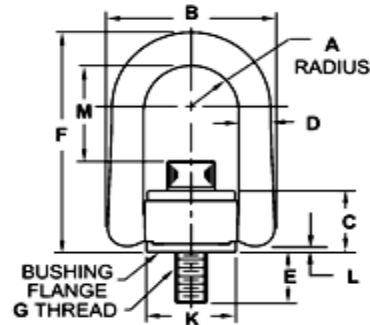
Safety Precautions

- **DO NOT** use wrenches, crowbars, etc. to tighten eyebolts. Hand tightening is recommended.
- **DO NOT** use a single eyebolt to lift a load that can rotate. **Safety swivel hoist rings are commended for such loads.**
- **DO NOT** force hooks or any other fittings into the eye. They must fit freely.
- **DO NOT** exceed the rated capacity

Rigging Hardware



Heavy Duty Forged Hoist Ring



MATERIAL:

- Forged alloy steel with minimum tensile strength of 180,000 psi.
- Range of movement: Pivot 180°, swivel 360°
- MINIMUM SAFETY FACTOR = 5:1
- Meets ANSI/ASME B30.20 section 20-1.2.2
- 100% magnetic particle inspected.
- Meets OSHA Standards
- Longer shank sizes available

Part No.	Rated Load (Lbs.)	A	B	C	D	E	F	G	K	L	M	TL *ft./lb.	Weight (Lbs.)	Replacement Screws
33112	550	0.65	2.29	0.96	0.44	0.56	3.23	1/4-20	1.25	0.15	1.57	5	0.5	33152S
33212	800	0.65	2.29	0.96	0.44	0.56	3.23	5/16-18	1.25	0.15	1.51	7	0.52	33252S
33214	800	0.65	2.29	0.96	0.44	1.06	3.23	5/16-18	1.25	0.15	1.51	7	0.54	33254S
33312	1000	0.65	2.29	0.96	0.44	0.56	3.23	3/8-16	1.25	0.15	1.45	12	0.56	33352S
33314	1000	0.65	2.29	0.96	0.44	1.06	3.23	3/8-16	1.25	0.15	1.45	12	0.58	33354S
33316	2250	0.65	2.29	0.96	0.44	1.06	3.23	1/2-13	1.25	0.15	1.45	25	0.6	33552S
33512	2500	1	3.5	1.5	0.75	0.75	5.31	1/2-13	1.89	0.17	2.56	28	1.71	33554S
33513	2500	1	3.5	1.5	0.75	0.75	6.87	1/2-13	1.89	0.17	4.12	28	2.04	33554S
33515	2500	1	3.5	1.5	0.75	1	5.31	1/2-13	1.89	0.17	2.56	28	1.72	33555S
33505	2500	1	3.5	1.5	0.75	1	6.87	1/2-13	1.89	0.17	4.12	28	2.05	33555S
33516	2500	1	3.5	1.5	0.75	1.25	5.31	1/2-13	1.89	0.17	2.56	28	1.82	33556S
33517	2500	1	3.5	1.5	0.75	1.25	6.87	1/2-13	1.89	0.17	4.12	28	2.15	33556S
33612	4000	1	3.5	1.5	0.75	0.75	5.31	5/8-11	1.89	0.17	2.44	60	1.76	33653S
33613	4000	1	3.5	1.5	0.75	0.75	6.87	5/8-11	1.89	0.17	4	60	2.09	33653S
33614	4000	1	3.5	1.5	0.75	1	5.31	5/8-11	1.89	0.17	2.44	60	1.78	33654S
33604	4000	1	3.5	1.5	0.75	1	6.87	5/8-11	1.89	0.17	4	60	2.11	33654S
33615	4000	1	3.5	1.5	0.75	1.25	5.31	5/8-11	1.89	0.17	2.44	60	1.88	33655S
33616	4000	1	3.5	1.5	0.75	1.25	6.87	5/8-11	1.89	0.17	4	60	2.21	33655S
33714	5000	1	3.5	1.5	0.75	1	5.31	3/4-10	1.89	0.17	2.31	100	1.89	33754S
33715	5000	1	3.5	1.5	0.75	1	6.87	3/4-10	1.89	0.17	3.87	100	2.22	33754S
33716	5000	1	3.5	1.5	0.75	1.5	5.31	3/4-10	1.89	0.17	2.31	100	2.02	33756S
33717	5000	1	3.5	1.5	0.75	1.5	6.87	3/4-10	1.89	0.17	3.87	100	2.35	33756S
33108	7000	1.4	5.1	2.05	1	0.95	7.37	3/4-10	2.81	0.18	3.57	100	7.2	33119S
33168	7000	1.4	5.1	2.05	1	0.95	9	3/4-10	2.81	0.18	5.2	100	7.93	33119S
33102	7000	1.4	5.1	2.05	1	1.2	7.37	3/4-10	2.81	0.18	3.57	100	7.23	33122S
33162	7000	1.4	5.1	2.05	1	1.2	9	3/4-10	2.81	0.18	5.2	100	7.96	33122S
33103	7000	1.4	5.1	2.05	1	1.45	7.37	3/4-10	2.81	0.18	3.57	100	7.25	33123S
33163	7000	1.4	5.1	2.05	1	1.45	9	3/4-10	2.81	0.18	5.2	100	7.98	33123S
33104	8000	1.4	5.1	2.05	1	0.95	7.37	7/8-9	2.81	0.18	3.32	160	7.33	33120S
33164	8000	1.4	5.1	2.05	1	0.95	9	7/8-9	2.81	0.18	4.95	160	8.06	33120S
33101	8000	1.4	5.1	2.05	1	1.2	7.37	7/8-9	2.81	0.18	3.32	160	7.33	33121S
33161	8000	1.4	5.1	2.05	1	1.2	9	7/8-9	2.81	0.18	4.95	160	8.06	33121S
33105	10000	1.4	5.1	2.05	1	1.45	7.37	1-8	2.81	0.18	3.2	230	7.57	33125S
33165	10000	1.4	5.1	2.05	1	1.45	9	1-8	2.81	0.18	4.82	230	8.3	33125S
33106	10000	1.4	5.1	2.05	1	1.2	7.37	1-8	2.81	0.18	3.2	230	7.63	33126S
33166	10000	1.4	5.1	2.05	1	1.2	9	1-8	2.81	0.18	4.82	230	8.36	33126S
33107	10000	1.4	5.1	2.05	1	2.2	7.37	1-8	2.81	0.18	3.2	230	7.81	33127S
33167	10000	1.4	5.1	2.05	1	2.2	9	1-8	2.81	0.18	4.82	230	8.54	33127S
33402	15000	2	6.75	2.87	1.25	1.88	9.22	1 1/4-7	3.88	0.18	3.74	470	15.74	33419S
33401	15000	2	6.75	2.87	1.25	2.63	9.22	1 1/4-7	3.88	0.18	3.74	470	16	33421S
33420	20000	2	6.75	2.87	1.25	2.63	9.22	1 3/8-6	3.88	0.32	3.62	670	17.2	33429S
33424	24000	2	6.75	2.87	1.25	2.63	9.22	1 1/2-6	3.88	0.32	3.49	800	18.1	33422S
33427	30000	2	6.75	2.87	1.25	2.96	9.22	2-4 1/2	3.88	0.32	3.49	800	22.9	23225S
33432	30000	2	6.75	2.87	1.25	2.96	9.22	2-8	3.88	0.32	3.49	800	22.9	33435S

† Supplied with stud and nut. • Long Bar Models. *Recommended torque load ***Patent Expired

For load ranges of 50,000 to 250,000 lbs. refer to our Safety Engineered Hoist Rings

HEAVY DUTY® HOIST RINGS ARE COMPLETELY INTERCHANGEABLE WITH SAFETY ENGINEERED HOIST RINGS.

Plate Clamps

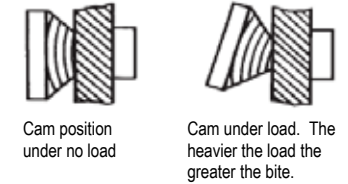
SAC (Screw-Adjusted Cam) Plate Clamps



- Recommended for turning plates from horizontal to vertical as well as through a 180° arc
- The convex, serrated cam swivels on a ball joint so that the area of cam engagement increases as load increases
- Drop forged body and shackle
- 100% proof tested with certificate of test attached to each clamp

Screw needs to be hand tight only! Do not over tighten.

Model No.	Cat. No.	Rated Cap Tons	Grip Range	Weight
SAC-1	6421000	1	0-1	6 1/4
SAC-3	6421001	3	0-2	14 1/4
SAC-6	6421002	6	0-3	40



Cooper “GX” Clamps



- “GX” clamp is entirely drop forged and heat treated
- Can be used for both vertical and horizontal-to-vertical lifting
- Exclusive feature is a patented wear indicator system. When any of cam’s straight line, convex teeth are flattened between unique wear indicator grooves, it is time to change the cam
- Shackle and “G” link combined into one part for fewer stress points and less chance of side loading damage
- Note: The pad should be replaced same time as cam
- 100% proof tested with certificate of test attached to each clamp

Cat. No.	Rated Cap Tons	Grip Range	Weight
6423000	1/2	1/16 - 5/8	4
6423920	1/2	5/8 - 1 1/8	5
6423005	1	1/16 - 3/4	8
6423923	1	3/4 - 1 3/8	9
6423010	3	1/16 - 1	17
6423925	3	1 - 1 3/4	20
6423015	5	1/2 - 2	40

Model LJ—Vertical Lifting Clamp



The **MODEL LJ** is a vertical lifting clamp capable of turning a plate from horizontal to vertical and back through the same ninety-degree arc. It is small and easy to handle in capacities through three tons. The MODEL LJ incorporates a “Lock Closed” feature, which facilitates attaching the clamp to the plate.

Rated Capacity Tons	Plate Thickness A	B	C	MAX. D	E	F	G	H	J	MAX. K	Weight (lbs)
1/2	0-3/4	2 5/8	6 5/8	10 1/4	2 1/4	5	2 3/8	1 7/8	1/2	5	6
1	0-3/4	3 1/5	8 1/4	13 4/9	2 5/8	5 7/8	2 7/8	2	5/8	6 4/9	15
2	0-1	3 5/8	9	16	3 5/8	7 1/4	3 1/4	2 7/8	3/4	7 5/8	26
3	0-1 1/4	4 1/4	10 3/4	18	3 5/8	8 1/5	3 5/8	3	3/4	8 3/8	34

Model DC

Model DC is a 1/2 ton vertical lifting, locking and 180° turning clamp. The DC’s unique design, utilizing two movable gripping cams, allows this clamp to lift **any** load within its plate size range from 0 to 1,000 lbs with a 300 Brinell hardness or less.



- ◆ **DC-A: 0-5/8” opening**
- ◆ **DC-B: 0-3/4” opening**
- ◆ **DC-C: 3/4-1 1/2” opening**

Plate Clamps

IPU10



Universal vertical safety lifting clamp **IPU10** is suitable for the lifting, turning (180°) and vertical transfer of steel plates and constructions. The IPU10 lifting clamp is fitted with a locking device for both open and closed positions, which ensures complete safety. Fitted with a hinged hoisting eye moving in **all directions so as to enable the user to place and lift the load from any direction.** The IPU10 lifting clamps with a W.L.L. of 12 tons and up are fitted with special hook-up facilities to enable easy fitment of the clamp in horizontal position.

IP10



Vertical safety lifting clamp **IP10** is suitable for the lifting, turning (180°) and vertical transfer of steel plates and constructions. The IP10 lifting clamp is fitted with a **locking device for both open and closed positions, which ensures complete safety.** The IP10 lifting clamps with a W.L.L. of 12 tons and above are fitted with special hook-up facilities to enable easy fitment of the clamp in horizontal position. Higher WLL and different jaw-apertures upon request

Minimum load permitted:

- 5% of the WLL applying to plate surface hardness 27 RC (900 N/mm²)
- 10% of the WLL applying to plate surface hardness 37 RC (1170 N/mm²)

Standard Clamp with Universal Eye

Stock No.	Model	Capacity Tons	Jaw Range	Weight (lbs)
2701675	0.5-IPU10	1/2	0 - 5/8	4.2
2701663	1-IPU10	1	0 - 3/4	4.6
270167	2-IPU10	2	0 - 1 3/8	16.8
2701665	3-IPU10	3	0 - 1 5/8	32.6
2701667	4.5-IPU10	4 1/2	0 - 1 5/8	35.3
2701669	6-IPU10	6	0 - 2	52.9
2701671	9-IPU10	9	0 - 2	65

Standard Clamp with Straight Eye

Stock No.	Model	Capacity Tons	Jaw Range	Weight (lbs)
2701674	0.5-IP10	1/2	0 - 5/8	4
2701662	1-IP10	1	0 - 3/4	4.4
2701676	2-IP10	2	0 - 1 3/8	15
2701664	3-IP10	3	0 - 1 5/8	30.4
2701666	4.5-IP10	4 1/2	0 - 1 5/8	33
2701668	6-IP10	6	0 - 2	51.8
2701670	9-IP10	9	0 - 2	60.6

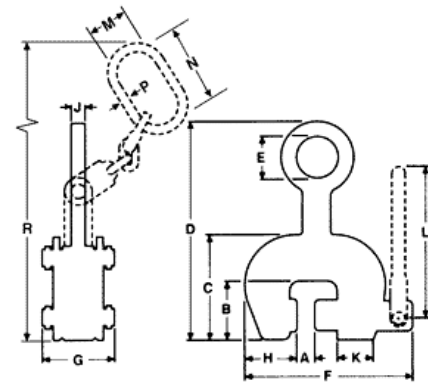
Renfro Model SCPA—Locking, Screw



Model SCP and SCPA clamps are capable of handling steel plate from the horizontal through a 180 degree arc and may be used for handling plate at rolling and forming machines. These clamps feature a spring loaded pivoting cam jaw that "cams in" when a load is applied to the lifting shackle.

Handle available upon request.

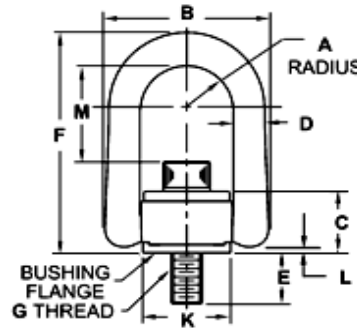
**Screw needs to be hand tight only!
Do not over tighten.**



Rated Cap Tons	Plate Thickness	B	C	D	E	F	G	H	J	K	L	M	N	P	R	SCP weight approx (in lbs)	SCPA weight approx (in lbs)
1/2	0-3/4	2 3/8	4 1/2	9	2 3/8	6 5/8	2 3/8	1 7/8	1/2	1 1/2	-	1 3/4	1 3/4	9/16	12 3/16	7	8
1 1/2	0-1 1/4	2 7/8	5 1/2	10 9/16	2 5/8	8 7/16	3 3/8	2 3/8	5/8	1 3/4	8 1/4	2	2	1 1/16	14 3/16	13	15
3	0-2	3 1/8	5 3/4	12	2 3/8	10 13/16	4 1/16	2 13/16	3/4	2	8 5/8	3	6	3/4	21 3/8	19	24
6	0-2 1/2	4 5/16	7 9/16	14 3/8	3	14 3/8	5 3/8	3 7/16	1	2 15/16	-	3 1/2	7	1	27 3/4	44	57
10	0-3	5 1/2	9 3/4	19 1/4	3 1/4	16 3/8	6 3/4	4 3/8	1	3 1/8	-	3 1/2	7	1	29 7/16	93	134
15	0-4	7 1/4	12 1/8	22 7/8	3 3/4	21 1/2	8 1/4	5 9/16	1 1/4	4	-	3 7/8	8	1 1/4	36 1/2	210	312

Rigging Hardware

Heavy Duty Forged Hoist Ring - Metric



- Material: Forged alloy steel with minimum tensile strength of 180,000 psi.
- Range of movement: Pivot 180°, Swivel 360°
- MINIMUM SAFETY FACTOR = 5:1
- Meets Military Specification No. MIL-STD 209C
- Meets ANSI/ASME B30.20 section 20-1.2.2
- 100% magnetic particle inspected
- Meets OSHA Standards
- PATENT #4,570,987***, #4,641,986***, #5,405,210, Other Patents Pending

Part No.	Rated Load (kg)	A	B	C	D	E	F	G	K	L	M	TL *(Nm)	Weight (kg)	Replacement Screws
34212	400	16.5	58.2	24.4	11.1	16	82	M8 x 1.25	31.8	4	38.5	9.5	0.24	34252S
34214	400	16.5	58.2	24.4	11.1	21	82	M8 x 1.25	31.8	4	38.5	9.5	0.25	34254S
34312	450	16.5	58.2	24.4	11.1	16	82	M10 x 1.5	31.8	4	36.5	16	0.25	34352S
34314	450	16.5	58.2	24.4	11.1	26	82	M10 x 1.5	31.8	4	36.5	16	0.26	34354S
34515	1050	25.4	88.9	38.1	19.1	25	134.9	M12 x 1.75	48	4.4	65	37	0.78	34555S
* 34505	1050	25.4	88.9	38.1	19.1	25	174.6	M12 x 1.75	48	4.4	104.7	37	0.93	34555S
34516	1050	25.4	88.9	38.1	19.1	32	134.9	M12 x 1.75	48	4.4	65	37	0.83	34556S
* 34517	1050	25.4	88.9	38.1	19.1	32	174.6	M12 x 1.75	48	4.4	104.7	37	0.98	34556S
34614	1900	25.4	88.9	38.1	19.1	25	134.9	M16 x 2.0	48	4.4	62	80	0.81	34654S
* 34604	1900	25.4	88.9	38.1	19.1	25	174.6	M16 x 2.0	48	4.4	101.7	80	0.96	34654S
34615	1900	25.4	88.9	38.1	19.1	32	134.9	M16 x 2.0	48	4.4	62	80	0.85	34655S
* 34616	1900	25.4	88.9	38.1	19.1	32	174.6	M16 x 2.0	48	4.4	101.7	80	1	34655S
34714	2200	25.4	88.9	38.1	19.1	25	134.9	M20 x 2.5	48	4.4	58.7	135	0.86	34130S
* 34715	2200	25.4	88.9	38.1	19.1	25	174.6	M20 x 2.5	48	4.4	98.4	135	1.01	34130S
34716	2200	25.4	88.9	38.1	19.1	38	134.9	M20 x 2.5	48	4.4	58.7	135	0.92	34131S
* 34717	2200	25.4	88.9	38.1	19.1	38	174.6	M20 x 2.5	48	4.4	98.4	135	1.07	34131S
34101	3000	35.6	129.5	52.1	25.4	28	187.2	M20 x 2.5	71.4	4.6	89.7	135	3.14	34120S
* 34161	3000	35.6	129.5	52.1	25.4	28	228.6	M20 x 2.5	71.4	4.6	131.1	135	3.47	34120S
34102	4200	35.6	129.5	52.1	25.4	28	187.2	M24 x 3.0	71.4	4.6	85.7	311	3.29	34121S
* 34162	4200	35.6	129.5	52.1	25.4	28	228.6	M24 x 3.0	71.4	4.6	127.1	311	3.62	34121S
34103	4200	35.6	129.5	52.1	25.4	38	187.2	M24 x 3.0	71.4	4.6	85.7	311	3.3	34123S
* 34163	4200	35.6	129.5	52.1	25.4	38	228.6	M24 x 3.0	71.4	4.6	127.1	311	3.63	34123S
34105	4500	35.6	129.5	52.1	25.4	38	187.2	M30 x 3.5	71.4	4.6	79.7	311	3.44	34126S
* 34165	4500	35.6	129.5	52.1	25.4	38	228.6	M30 x 3.5	71.4	4.6	121.2	311	3.77	34126S
34107	4500	35.6	129.5	52.1	25.4	48	187.2	M30 x 3.5	71.4	4.6	79.7	311	3.55	34127S
* 34167	4500	35.6	129.5	52.1	25.4	48	228.6	M30 x 3.5	71.4	4.6	121.1	311	3.88	34127S
34401	7000	50.8	171.5	72.9	31.8	67	234.2	M30 x 3.5	98.5	8.2	95	637.2	7.26	34421S
34402	11000	50.8	171.5	72.9	31.8	67	234.2	M36 x 4.0	98.5	8.2	88.6	1085.5	8.21	34422S
†34403	12500	50.8	171.5	72.9	31.8	80	234.2	M42 x 4.5	98.5	8.2	88.6	1085.5	10.14	24232S
†34404	13500	50.8	171.5	72.9	31.8	80	234.2	M48 x 5.0	98.5	8.2	88.6	1085.5	10.59	24225S

† Supplied with stud and nut. • Long Bar Models. *Recommended torque load ****Patent Expired

SAFETY ENGINEERED SWIVEL HOIST RING SAFETY PRECAUTIONS

WARNING: PRIOR TO USING HOIST RING, READ THE FOLLOWING FOR PROPER INSTALLATION AND USAGE.

As with all mechanical devices, regular inspection for wear and strict adherence to use instruction is necessary to prevent misuse failure.

- Despite the 5:1 safety factor, **NEVER EXCEED THE RATED LOAD CAPACITY.** This safety margin is needed in case of misuse, which could drastically lower load capacity.
- Tighten mounting screws to torque recommended. Periodically check torque because screws could loosen in extended service.
- Tensile strength of parent material should be above 80,000 PSI to achieve full load rating. For weaker material, consider through-hole mounting with a nut and washer on the other side.
- **DO NOT APPLY SHOCK LOADS.** Always lift gradually. Repeat magnaflux testing if shock loading ever occurs.

Rigging Hardware

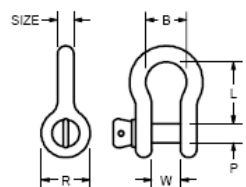
CM[®] Super Strong Shackles



Screw Pin Anchor

Screw Pin Chain

- * These shackles have higher working load specified by Federal Specifications
- * All shackle pins are forged from alloy steel, treated and tempered to give greater strength
- * All shackles are marked with size and working limit in tons



Size (inches)	WLL (tons)	Diameter of pin (P)	Width Between Eyes (W)	Inside Length (L)	Inside Width at Bow (B)	Outside Dia. of Eye (R)
3/16"	1/2	1/4"	3/8"	7/8"	5/8"	5/8"
1/4"	3/4	5/16"	15/32"	1-1/8"	3/4"	7/8"
5/16"	1	3/8"	17/32"	1-1/4"	13/16"	1"
3/8"	1-1/2	7/16"	21/32"	1-7/16"	15/16"	1-1/8"
7/16"	2	1/2"	3/4"	1-11/16"	1-1/16"	1-1/4"
1/2"	3	5/8"	13/16"	1-7/8"	1-3/16"	1-3/8"
5/8"	4-1/2	3/4"	1-1/16"	2-3/8"	1-1/2"	1-7/8"
3/4"	6-1/2	7/8"	1-1/4"	2-13/16"	1-3/4"	2-1/8"
7/8"	8-1/2	1"	1-7/16"	3-5/16"	2"	2-3/8"
1"	10	1-1/8"	1-11/16"	3-3/4"	2-5/16"	2-5/8"
1-1/8"	12	1-1/4"	1-13/16"	4-1/4"	2-5/8"	2-7/8"
1-1/4"	14	1-3/8"	2-1/32"	4-11/16"	2-7/8"	3-1/4"
1-3/8"	17	1-1/2"	2-1/4"	5-1/4"	3-1/4"	3-1/2"
1-1/2"	20	1-5/8"	2-3/8"	5-3/4"	3-3/8"	3-3/4"
1-5/8"	24	1-3/4"	2-5/8"	6-1/4"	4"	4-1/8"
1-3/4"	30	2"	2-7/8"	7"	4-1/2"	4-1/2"
2"	35	2-1/4"	3-1/4"	7-3/4"	5-1/4"	5-1/4"

Safety Bolt Anchor



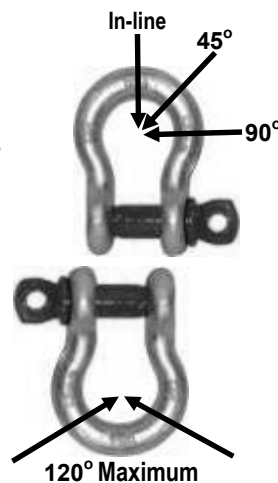
Round Pin Anchor

Round Pin Chain

- These shackles meet requirements of Federal Specification RR-C-271D Amendment 1.
- All shackle pins are forged from alloy steel, heat treated and tempered to give greater strength.
 - All shackles are marked with size (inches and millimeters) and working load limit in tons.
 - Ultimate strength equals 5 times working load limit. Proof load equals 2.2 times working load limit.
 - All bolt, nut & cotter shackles have thread protected ends.
 - Ton = 2,000 lbs.
 - Standard industry tolerances apply.

IMPORTANT: Instructions For Use

1. Do not exceed working load limit (WLL).
2. The Standard WLL give applies to in-line loading. When the loading is at an angle the WLL is reduced as shown in the table.
3. Any angular loads must be on the bow. All straight loading should be on the pin.
4. Shackles must always be inspected for wear, distortion and damage before each use and should be discarded if:
 - Any parts are worn more than 10% of original dimensions
 - Visible distortion—bent or twisted more than 10°
5. Do NOT use round pin shackles in rigging applications.
6. Screw pin shackles should NOT be used if there will be movement on the pin as this could cause pin to unscrew and drop load.
7. Shackles loaded with 2 legs at a maximum angle of 120° can be used to full working load limit. (Does NOT apply to round pin shackles.)



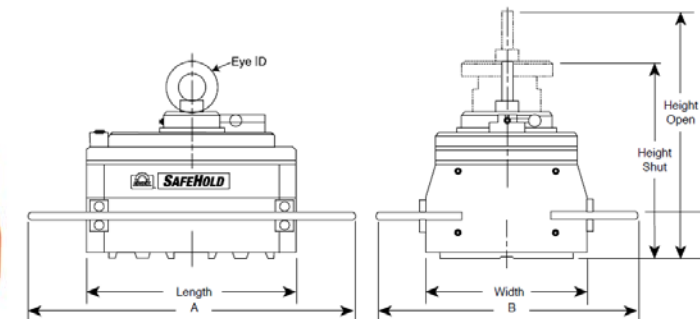
Permanent Lift Magnets

APL Series

Permanent magnets that turn on and off automatically, without having to manually release the magnet. The SafeHold APL series is ideal for loading and unloading steel sheets from burn tables and anywhere that limits operator access.

APL Series Features:

- No manual-magnet activation required
- No electricity needed, so power failures don't interrupt operation
- Continuous magnet power until magnet is turned off
- Designed for flat materials only
- No costly D.C. power supply
- No batteries to recharge or replace



Model No.	Max Lifting Capacity w/ 2:1 Safety Factor (Lbs)	Maximum Breakaway Force (Lbs)	Plate Thickness (in)	Length (in)	Width (in)	Height (in) (shut)	Height (in) (open)	Eye ID (in)	Weight Lbs.
APL-150	900	1,800	1-1/4	10-5/16	9-9/16	13-3/4	17-3/16	2	167
APL-152	1,650	3,300	1-1/4	10-13/16	12	16-15/16	21-1/2	1-7/8	291
APL-154	3,600	7,200	2	17-1/4	12	17-5/8	22-1/4	2-3/8	463
APL-156	5,800	11,600	2	23	13-15/16	18-9/16	23-1/8	2-3/8	727

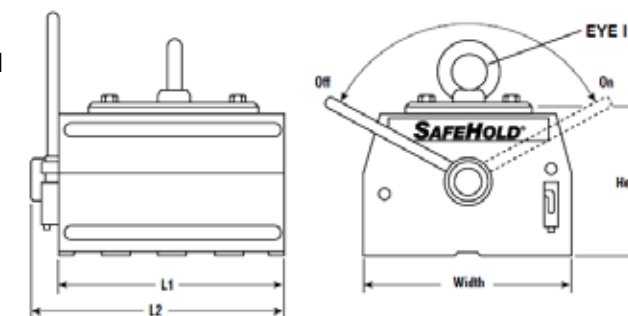
Model No.	A inches	B inches	C inches
APL-150	15-3/4	15-1/4	2-13/16
APL-152	16-3/8	17-7/8	3-3/4
APL-154	22-13/16	18-11/16	3-3/4
APL-156	29-5/8	20-5/8	3-3/4

EPL Series

EPL Series Permanent Lifting Magnets can lift and transfer steel and iron without slings, hooks or cables. Make quick work of difficult time consuming steel handling.

EPL Series Features:

- Highest rated capacity permanent lift magnet on the market
- Handle flat materials with ease
- Four models with capacities up to 10,000 lbs. on flat material
- Easy to rotate handle with no backlash
- Manual ON and OFF
- No power supply required



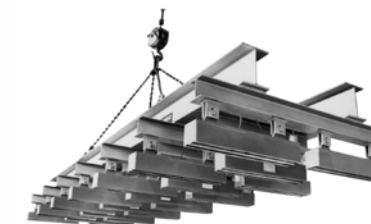
Model No.	Max Lifting Capacity w/2:1 Safety Factor (lbs)	Maximum Breakaway Force (lbs)	Test Plate Thickness (in)	Dimensions					Weight (lbs)
				L1 (in)	L2 (in)	Width (in)	Height (in)	Eye ID (in)	
EPL-121	650	1,300	1-1/4	2-7/8	4-11/16	9-1/2	7-1/8	1-3/8	37
EPL-154	4,000	8,000	1-1/2	11-7/16	14-3/8	12	9	2-1/4	225
EPL-157	7,500	15,000	2	20	22-15/16	12	9	2-1/2	400
EPL-197	10,000	20,000	2	21-3/8	24-5/16	14	10-5/8	2-1/2	640



Electro Magnets

U.S. Sling and Supply also offers an extensive line of Eriez electro lifting magnets for use in various applications including:

- Round Selecto Magnets
- Bi-Polar Electromagnets
- Rectangular electro lifting magnets
- Circular lifting magnets
- Lift Systems
- Fixed and variable voltage regulators
- Lift Magnet Drop Controllers
- Battery Back-up Systems



Permanent Lift Magnets

RPL Series

Lift, move or position round or flat materials with the same magnet. Specially designed poles on this new series of magnets allow the user to lift round materials up to 2,200 pounds. SafeHold® Lifting Magnets make quick work of difficult, time-consuming steel handling.

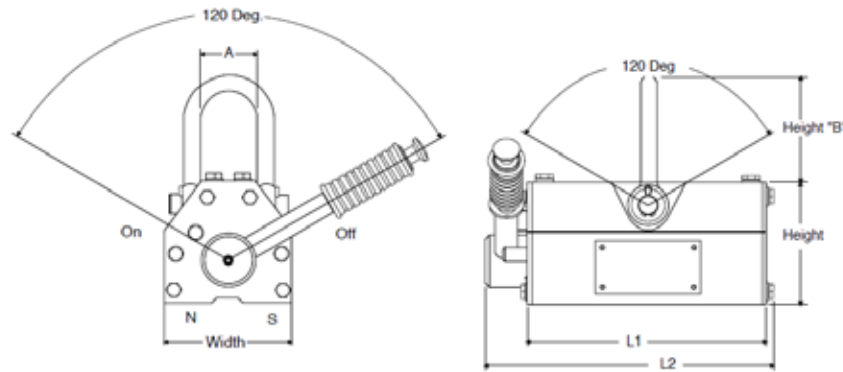
Eriez' Permanent Lifting Magnets can lift and transfer steel and iron without slings, hooks or cables – and, without marring the surface. They require fewer operators and helpers, and when properly installed and operated, provide greater safety than many other mechanical material-handling devices.

They can be used singly or in multiples on a spreader beam.

RPL Series Features:

SafeHold® RPL Series permanent magnets turn off and on manually to provide smooth operation for hundreds of lifting-positioning applications.

- Two pole design
- Handle round and flat material with the same magnet
- Continuous magnet power until magnet is turned off
- No costly D.C. power supply
- No batteries to recharge or replace



Model Number	Dimensions						Weight (lbs)
	L1 (in)	L2 (in)	Width (in)	Height (in)	Height B (in)	A (in)	
RPL-3	3-9/16	4-3/4	2-1/2	2-5/8	2-3/16	1-1/4	7
RPL-11	6-3/8	7-3/4	3-5/8	3-9/16	3-17/32	1-13/16	22
RPL-22	9-1/8	10-23/32	4-13/16	4-5/8	4	2-9/32	53
RPL-35	10-5/8	12-1/2	6-15/16	6-13/32	5-1/8	3-13/16	110
RPL-70	14-7/8	16-27/32	9-7/32	8-11/32	6-11/16	5-1/32	276

Model Number	Max Lifting Capacities		Max Breakaway Force		Max Diameter When Lifting Rounds w/o Pole Shoes (in)	Test Plate Thickness (in)
	Flat Steel (2:1 SF) (lbs)	Round Steel (2:1 SF) (lbs)	Flat Steel (lbs)	Round Steel* (lbs)		
RPL-3	300	150	600	300	3	1
RPL-11	1,100	550	2,200	1,100	5	1
RPL-22	2,200	1,100	4,400	2,200	6.5	1-1/4
RPL-35	3,500	1,750	7,000	3,500	10	2
RPL-70**	7,000	NR	14,000	NR	NR	2

Note: These are actual ratings on flat, clean, polished steel plate. Maximum attractive force of each model is approximately twice the Lifting Capacity. Thin sheets, rough and irregular surfaces, odd shapes and scale all affect holding power adversely and must be considered in establishing a safety factor.

*Based on maximum recommended material diameter

**Not for use on plates less than 1-1/2" [38] thick. They are too thin to operate the handle

Rigging Hardware

Long Reach Shackles

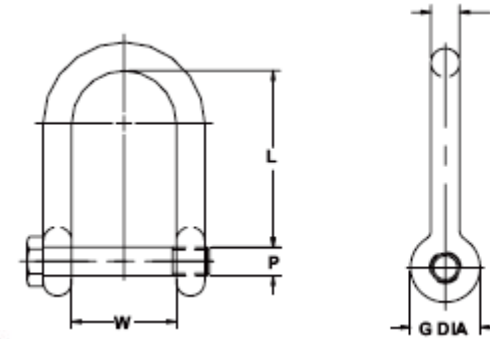


Screw Pin



Bolt Type

- Alloy Steel
- Load Rated
- Working Load Limit Forged on Body
- Offered Self-Colored or Orange Urethane Finish



Standard Shackle Long Reach Shackle

Long Reach Shackles can be used in applications where other shackles cannot reach. When space is at a premium, long reach shackles may eliminate the need for extra hardware when connecting.

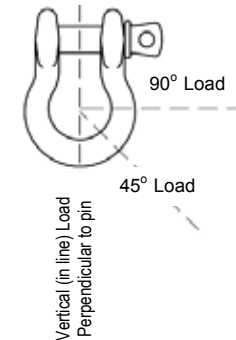
Specifications

Screw Pin Product Code	Bolt Type Product Code	WLL (Lbs.)	P (in)	D (in)	L (in)	W (in)	G (in)	Screw Pin Weight (Lbs.)	Bolt Type Weight (Lbs.)
M7151	M9151	7,000	0.75	0.63	4.00	2.25	1.57	1.80	1.95
M7152	M9152	10,000	0.88	0.75	4.56	2.75	1.81	2.72	3.21
M7154	M9154	19,000	1.00	1.00	5.50	3.25	2.38	5.86	6.31
M7156	M9156	28,000	1.38	1.25	6.25	3.88	3.06	11.90	12.90
M7157	M9157	34,000	1.63	1.50	7.00	1.50	3.50	19.60	20.70
M7177	M9177	50,000	2.00	1.75	8.00	5.25	4.00	30.70	33.30

Side Loading

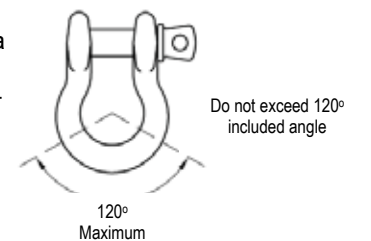
Angles of Side Load

- 0°, vertical or in line 100% WLL
- 45° 70% WLL
- 90° 50% WLL



Symmetrical Loading

Shackles symmetrically loaded with two legs at a maximum angle of 120° can be used to full working load limit.



Truck Tie-Downs

Kinedyne Binder Chains



Stock sizes are 5/16 and 3/8 x 16, 20, and 25 ft. Other sizes available upon request.

Lever Binders



Part No.	Max-Min Chain Size	Take-Up (inches)	Barrel Length (inches)	Handle Length	Screw Diameter	WLL (Lbs.)	Weight (Lbs.)
DTT	Eye-Bolts	8	10	15-1/2"	1"	16,000	11
DTT-1	3/8—5/16	8	10	15-1/2"	1"	8,800	12.25
DTT-2	1/2—3/8	8	10	15-1/2"	1"	12,000	13.75
DTT-3	5/8—1/2	8	10	15-1/2"	1"	16,000	16
DTT-4	3/4—5/8	8	10	15-1/2"	1"	18,100	27
DTT-J-J	Jaw-Bolts	8	12	15-1/2"	1"	16,000	14



WARNING
Death / injury can occur from improper use or maintenance of tie down equipment.

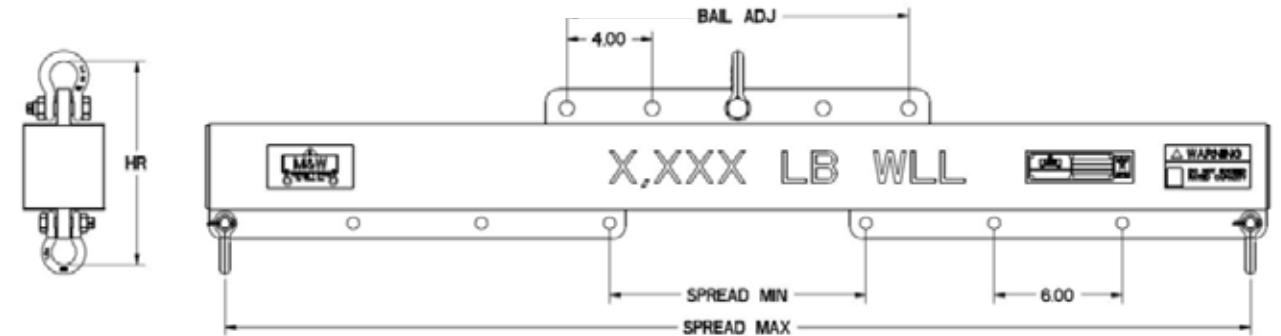
To avoid injury:

- Do not use for overhead lifting.
- Work only with secure footing.
- Inspect equipment before use and periodically during use. Remove from service if cracked, worn, or deformed.
- Do not exceed working load limits. Do not overload - binders develop approximate working load with hand effort.
- Use only alloy (Grade 80 or Grade 100) chain for overhead lifting.

TIE DOWN INSTRUCTIONS: Observe the following instructions and precautions when tying down and binding loads: 1. Maintain secure footing at all times. 2. Inspect equipment before use. Do not use hooks, shackles, links, clips, chain, and other equipment components that are bent, elongated, gouged, nicked, excessively worn, or damaged. Make certain that nuts, bolts, pins, and other fasteners are tightened and secured. 3. Follow DOT FMCS Regulations S392.9, S393.100, and S393.102, and Commercial Vehicle Safety Alliance Cargo Sacraments Tie-Down Guidelines. 4. Do not exceed the working load limit of equipment. Refer to literature by grade for specific working load limits. Refer also to CM Lifting, Pulling, and Binding Products Manual PMC-10 for information. 5. Center load in hooks, shackles, rings, and other such equipment components. Use spacers on bolts and pins as necessary to maintain center loading. 6. Do not apply load to hook latches; latches are to retain slack slings and chains only. 7. Avoid sudden jerks when applying the load. Rapid load application can produce overloading. 8. Free all twists, knots, and kinks. Apply load in a straight line fashion. 9. Refer to specific instructions when applying load binders. Observe warnings and stand clear of binder handles at all times. 10. Use only alloy chain and attachments (Grade 80) for overhead lifting. 11. Inspect load periodically for securement.

Economy Spreader Beams

Adjustable Economy Lifting Beams

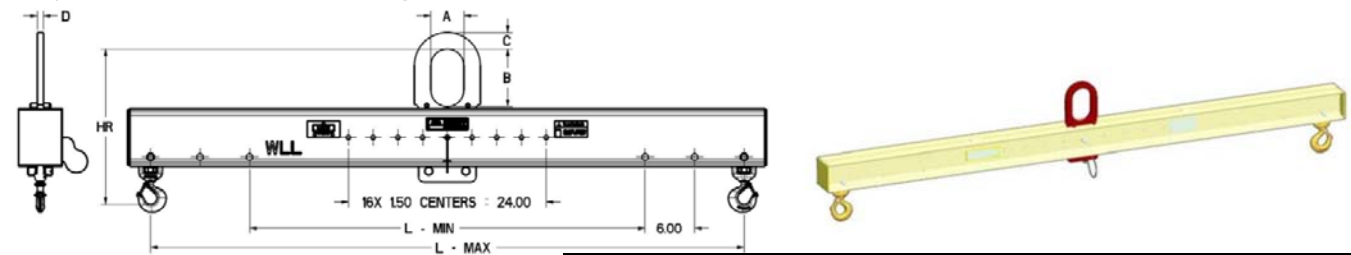


- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Quick and easy adjustment of unbalanced loads.
- Ideally suited to low headroom applications.
- Shackle bottoms standard for rigging connections
- Swivel hooks, eye hooks and custom connections available—call for ordering assistance.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- Dimensions in inches unless otherwise specified

WLL (Lbs.)	Part Number	Max Spread	Min Spread	Bail Adj	HR	Weight (Lbs.)	Top Shackle Part No.	Bottom Shackle Part No.
500	13855	48	12	16	7.57	45	1019470	1019470
500	13862	72	36	16	7.57	60	1019470	1019470
500	13866	96	60	16	7.57	75	1019470	1019470
1,000	13878	48	12	16	7.57	45	1019470	1019470
1,000	13879	72	36	16	7.57	60	1019470	1019470
1,000	13869	96	60	24	8.57	95	1019470	1019470
2,000	13880	48	12	16	8.57	60	1019470	1019470
2,000	13886	72	36	24	9.57	80	1019470	1019470
2,000	13889	96	60	24	9.57	150	1019470	1019470
2,000	13893	120	84	24	9.57	180	1019470	1019470
4,000	13924	48	12	16	9.48	65	1019472	1019471
4,000	13933	72	36	24	10.48	125	1019472	1019471
4,000	13938	96	60	24	11.48	240	1019472	1019471
4,000	14130	120	84	24	11.48	295	1019472	1019471
8,000	14134	72	24	32	15.12	175	1019515	1019490
8,000	14150	96	48	32	16.12	280	1019515	1019490
8,000	14154	120	72	32	16.12	435	1019515	1019490
10,000	14159	96	36	32	16.12	365	1019515	1019490
10,000	14162	120	60	32	17.12	465	1019515	1019490
10,000	14167	144	84	32	18.12	675	1019515	1019490
14,000	14171	120	48	32	19.42	610	1019533	1019515
14,000	14177	144	72	32	21.42	715	1019533	1019515
14,000	14182	168	96	32	21.42	965	1019533	1019515

Economy Spreader Beams

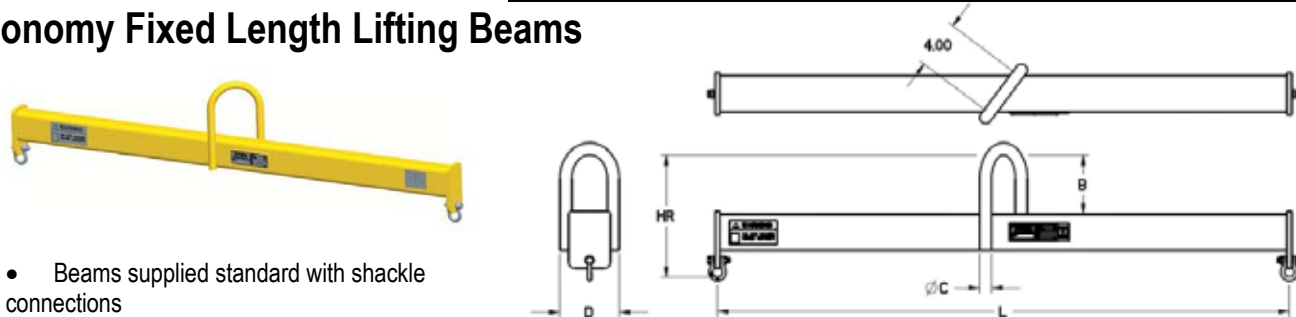
Adjustable Spreader/Lifting Beam



- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Quick and easy adjustment of unbalanced loads.
- Ideally suited to low headroom applications.
- Pictures with standard alloy swivel latch hooks
- Eye hooks and custom connections available—call for ordering assistance.
- **ALL lifting equipment individually proof loaded per OSHA requirements.**
- Dimensions in inches unless otherwise specified

WLL	Part No.	L	L	A	B	C	D	HR	Weight
2,000	16410	48	72	3	5	0.75	0.63	13.8	85
2,000	16411	120	144	3	5	0.75	0.63	15.7	285
4,000	16412	48	72	3	5	1.5	0.63	14.6	135
4,000	16413	120	144	3	5	1.5	0.63	16.6	330
6,000	16414	48	72	3	5	1.5	0.63	16.2	160
6,000	16415	120	144	3	5	1.5	0.63	19.1	530
8,000	16416	48	72	4	7	2	0.75	18.9	200
8,000	16417	120	144	4	7	2	0.75	20.9	540
10,00	16418	48	72	4	7	2	0.75	21.2	300
10,00	16419	120	144	4	7	2	0.75	22.2	795
15,00	16420	48	72	4	7	2	1.00	22.1	315
15,00	16421	120	144	4	7	2	1.00	25.1	815

Economy Fixed Length Lifting Beams



- Beams supplied standard with shackle connections

WLL Lbs.	Part Number Headroom Weight	Spread in inches - L										C	B	D
		24	36	42	48	54	60	66	72	96	120			
500	Part Number	16561	12540	15028	11525	15031	15034	15037	11526	11527	11528	0.75	5.0	3.5
	HR=	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25			
1,000	Part Number	16140	12546	15040	11529	15043	15046	15049	11530	11531	11532	0.75	5.0	3.5
	HR=	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25	10.25	11.25			
2,000	Part Number	16124	15054	15057	11533	15060	15063	15066	11534	11535	11536	1.00	5.0	5.0
	HR=	10.25	10.25	10.25	10.25	11.25	11.25	11.25	11.25	13.25	12.25			
4,000	Part Number	16381	15070	15073	11537	15076	15079	15082	11538	11539	11540	1.00	5.0	5.0
	HR=	11.51	12.50	12.50	12.50	13.50	13.50	13.50	13.50	13.50	15.50			
6,000	Part Number	16382	14433	15085	14438	15092	15095	15098	14442	14445	14452	1.50	7.0	6.0
	HR=	14.77	15.77	15.77	17.77	17.77	17.77	17.77	17.77	17.77	17.77			

Truck Tie-Downs

Ratchet Straps

Available in stock as 2" x 30 ft with wire hooks and flat hooks with breaking strength of 10,000 lbs and working load limit of 3,335 lbs. Other styles, lengths and widths available on request.



Truck Winches



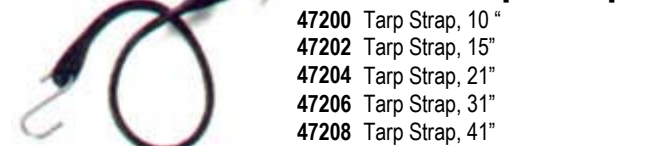
Winch Straps



Winch Bars



Rubber Tarp Straps



- 47200 Tarp Strap, 10"
- 47202 Tarp Strap, 15"
- 47204 Tarp Strap, 21"
- 47206 Tarp Strap, 31"
- 47208 Tarp Strap, 41"



45760 2" Lashing Winch
This versatile winch can be welded or bolted in place like a standard winch, but offers the quick release and easy operation of a ratchet buckle. 1 1/8" hex wrench required.
Breaking Strength: 10,000 lbs.
Working Load Limit: 3,335 lbs.

Personal Fall Protection



Construction Plus Harness Part # 48353

Fits Most Sm. - XL

- 3 D-Rings, 1 at Back and 2 on Hip
- Parachute Mating Buckles on Chest Strap
- Tongue Buckles on Leg Straps
- Made of Polyester and Nylon



Universal Harness Part # 42359

Fits Most Med. - 2XL

- 3 D-Rings, 1 at Back and 2 on Hip
- Shoulder Strap Adjusters
- Parachute Mating Buckles on Chest
- Tongue Buckles on Leg Straps
- Made of Polyester and Nylon



WorkMaster Harness

- 3 D-Rings, 1 at Back and 2 on Hip
- Shoulder Strap Adjusters with Shoulder Pads
- 4" Back Pad
- Parachute Mating Buckles on Chest
- Tongue Buckles on Leg Straps
- Made of Polyester and Nylon



WorkMaster Sizing

Size	Waist*	Part #
XSM	28 - 36	75300
SM	32 - 40	75301
MED	36 - 44	75302
LG	40 - 48	75303
XL	44 - 52	75304
2XL	48 - 56	75335
3XL	52 - 60	75336

* Measure over clothing at navel

NoPac Shock Absorbing Web Lanyards



Part #	Description
35326	1-1/4" x 6', Single-Leg Double Locking Snap Hook Each End
35246	1-1/4" x 6', Twin-Leg Double Locking Snap Hook Each End
35379	1-1/4" x 6', Twin-Leg Double Locking Rebar Hook Each End



Rebel Series Self-Retracting Lanyards

- Self-Retracting Lifeline Designed to Payout and Retract the 3/16" Galv. Cable.
- Lightweight/Compact
- Lightweight Thermoplastic or Aluminum Housing Available.
- Smooth Cable Action
- Self Locking Swivel Snap Hooks
- Meets ANSI Z359.1/CSA Standards
- Man-Rated to 310 Lbs.



Part No.	Description
AD111BR	11' Web Self Retracting Lifeline with carabiner end
AD120A	20' Web Self Retracting Lifeline with steel snaphook end and housing carabiner
AD115B	3/16" Galvanized Cable x 15' Self-Retracting Lifeline
3590500	33' Self Retracting Lifeline with 5mm Galv. Cable, Thermoplastic Housing and Carabiner

Packaging



Regular-Duty Steel Banding, 100 Lb. Coils



100 Lb. Coils



Mini Coils

Part Number	Size
17005	1/2" .020 Steel 100 Lb. Coil
17010	5/8" .020 Steel 100 Lb. Coil
17015	3/4" .020 Steel 100 Lb. Coil
17012	5/8" .020 Steel 300 Feet Mini Coil
17014	3/4" .020 Steel 200 Feet Mini Coil



Deluxe Banding Cart
Part No. 17030

Banding Seals



Part Number	Size
17061	1/2" Banding Seals, 2000/Box
17066	5/8" Banding Seals, 2000/Box
17071	3/4" Banding Seals, 2000/Box



Wiss Banding Snips
Part No. 17040



Steel Banding Tensioner



Steel Banding Sealer

Part Number	Size
17050	1/2" Banding Sealer
17053	5/8" Banding Sealer
17055	3/4" Banding Sealer
17035	Banding Tensioner

Stretch Wrap Dispenser

3" & 18" Stretch Wrap



Part #	Size
05415	3" 90 Ga. 18/case
05418	18" 90 Ga. 4/case
05420	Stretch Wrap Dispenser

Please contact us for Skid Quantity Discounts for Steel Banding and Stretch Wrap.