LiftAlloy CHAIN SLING BASICS

***Lift-All* chain slings meet or exceed all OSHA, ASME B30.9 and NACM standards and regulations.**

LiftAlloy chain slings, available in Grade 80 for 7/8"-1 1/4" and Grade 100 for 7/32"-3/4", are recommended for rugged industrial applications in harsh environments where flexibility, abrasion resistance and long life are required. OSHA required annual inspections can be performed by *Lift-All* trained personnel.

Features, Advantages and Benefits

Promotes Safety

- Permanent steel capacity tag is serialized for identification
- Welded slings offer the security of tamper proof assemblies

Saves Money

- Alloy Steel construction assures long life
- Can be repaired, proof tested and recertified by *Lift-All*

Saves Time

- Easy to inspect for damage

Use of Chain Under Heat Conditions

When the chain itself is heated to temperatures shown below, the Working Load Limit (Rated Capacity) should be reduced as indicated.

Temperature of Chain (°F)	Reduction of Working Load Limit While at Temperature		Permanent Reduction of Working Load Limit After Exposure to Temperature	
	Grade 80	Grade 100	Grade 80	Grade 100
Below -40	Do Not Use	Do Not Use	None	None
Below -20	None	Do Not Use	None	None
400	10%	15%	None	None
500	15%	25%	None	5%
600	20%	30%	5%	15%
700	30%	40%	10%	20%
800	40%	50%	15%	25%
900	50%	60%	20%	30%
1000	60%	70%	25%	35%
Over 1000	REMOVE FROM SERVICE			

Consult *Lift-All* about galvanized chain

Consult *Lift-All* about chain to be used in pickling operations

HOW TO ORDER CHAIN SLINGS

932 D O S W 10 X 12

- **932** — Define chain diameter (One to three digits) 9/32" shown in example.
- **D** — Number of chain legs or other style. Single = S, Double = D, Triple = T, Quad = Q, Choker = C, Endless (w/o oblong) = E
- **O** — Master Link or Specials. Oblong = O, Basket = B, Adjustable = A, Endless: with oblong = E, w/o oblong = N
- **S** — Bottom Attachments. Sling Hook = S, Grab Hook = G, Foundry Hook = F, Latchlok Eye Hook = L, Adjustables: Loop Style A = A, Loop Style B = B, Style A = SA, Style B = SB, Endless = Leave Blank
- **W** — Welded couplers = W, Mechanical couplers = M
- **10** — Grade 80 Chain = 8, Grade 100 Chain = 10
- **X** — Indicates that sling length follows.
- **12** — Sling Reach (Ft) (One or two digits) Refer to drawings on following pages on how to measure.

LiftAlloy CHAIN SLING BASICS

LiftAlloy Grade 100

- Available in sizes 7/32" - 3/4"
- Higher capacity per chain size can be used as an increased safety factor
- Higher capacity may allow use of smaller diameter chain for your lifts, reducing sling weight and cost
- Extreme abrasion resistance - more durable
- Powder coated orange attachments for corrosion resistance

LiftAlloy Grade 80

- Available in sizes 7/8" - 1 1/4"
- Greater temperature tolerance

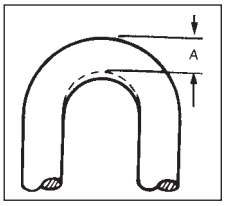
All LiftAlloy Slings

- Meets or exceeds all OSHA, ASTM and NACM standards
- Welded or mechanically assembled slings

Chain Wear Allowance

Determine wear by measuring cross section at link ends. If worn to less than the minimum thickness allowable, chain should be removed from service.

Chain Size (in.)	Minimum Allowable Thickness - A (in.)
7/32 (.218)	.189
9/32 (.281)	.239
3/8 (.375)	.342
1/2 (.500)	.443
5/8 (.625)	.546
3/4 (.750)	.687
7/8 (.875)	.750
1 (1.00)	.887
1 1/4 (1.250)	1.091



Minimum thickness based on OSHA recommendations.

Rated Capacity For *LiftAlloy* Chain Slings

Size of Chain			90°	60°	45°	30°	60°	45°	30°	Nominal Dimensions (in.)		Approx. No. of Links per ft.	Approx. Weight per 100 ft. (lbs.)
Grade	(in.)	(mm)	Single Chain @ 90° (lbs.)	Double Chain Slings * (lbs.)			Triple & Quad Chain Slings * (lbs.) **			Inside Length	Inside Width		
100	7/32	5.5	2,700	4,700	3,800	2,700	7,000	5,700	4,000	.676	.312	17.8	44
100	9/32	7.0	4,300	7,400	6,100	4,300	11,200	9,100	6,400	0.883	.395	13.6	73
100	3/8	10.0	8,800	15,200	12,400	8,800	22,900	18,700	13,200	1.247	.574	9.6	144
100	1/2	13.0	15,000	26,000	21,200	15,000	39,000	31,800	22,500	1.559	.734	7.7	246
100	5/8	16.0	22,600	39,100	32,000	22,600	58,700	47,900	33,900	1.916	.855	6.3	370
100	3/4	20.0	35,300	61,100	49,900	35,300	91,700	74,900	53,000	2.397	1.070	5.0	580
80	7/8	22.0	34,200	59,200	48,400	34,200	88,900	72,500	51,300	2.250	1.137	5.3	776
80	1	26.0	47,700	82,600	67,400	47,700	123,900	101,200	71,500	2.664	1.348	4.5	995
80	1 1/4	32.0	72,300	125,200	102,200	72,300	187,800	153,400	108,400	3.250	1.656	3.7	1,571

* **⚠ WARNING** 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°. Refer to chain chart this page and Effect of Angle chart page 12.

** A quad branch chain sling, especially when used on a load of rigid structure, is usually not sustaining the load evenly distributed on each of its four branches. The maximum working load limits are therefore set at the same values as for triple branch chain slings of equal quality and size and used with branches at same angle of inclination.

LiftAlloy SINGLE CHAIN SLINGS

Grade	Chain Size (in.)	[1]Rated Capacity* Vertical (lbs.)	Approx. Weight 5 foot Reach Type SOS (lbs.)
100	7/32	2,700	4
100	9/32	4,300	5
100	3/8	8,800	10
100	1/2	15,000	18
100	5/8	22,600	27
100	3/4	35,300	44
80	7/8	34,200	58
80	1	47,700	79
80	1 1/4	72,300	121

Note: 1. Also referred to as "Working Load Limit".

SOS Sling Hook | **SOG** Grab** Hook | **SOF** Foundry Hook | **SOL**‡ Latchlok Hook | **CO** Oblong Link

**Cradle grab hooks are standard, non-cradle hooks available on request.

LiftAlloy DOUBLE CHAIN SLINGS

Grade	Chain Size (in.)	[1]Rated Capacity* @ 60° (lbs.)	Approx. Weight 5 foot Reach Type DOS (lbs.)
100	7/32	4,700	8
100	9/32	7,400	10
100	3/8	15,200	17
100	1/2	26,000	32
100	5/8	39,100	51
100	3/4	61,100	74
80	7/8	59,200	99
80	1	82,600	134
80	1 1/4	125,200	211

Note: 1. Also referred to as "Working Load Limit".

DOS Sling Hook | **DOG** Grab** Hook | **DOF** Foundry Hook | **DOL** Latchlok ‡ Hook

**Cradle grab hooks are standard, non-cradle hooks available on request.

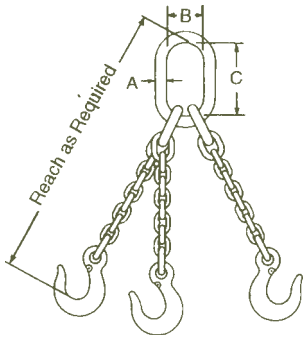
* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Slings should not be used at angles of less than 30°. Refer to chain chart page 99 and Effect of Angle chart page 12.

‡ Not available in Grade 100.

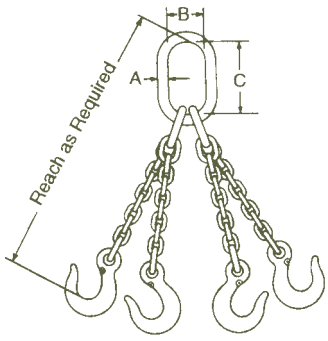
LiftAlloy TRIPLE AND QUAD CHAIN SLINGS

Grade	Chain Size (in.)	[1]Rated Capacity* @ 60° (lbs.) Grade 80	Approx. Weight 5 foot Reach Type TOS (lbs.)	Approx. Weight 5 foot Reach Type QOS (lbs.)
100	7/32	7,000	12	16
100	9/32	11,200	16	19
100	3/8	22,900	28	36
100	1/2	39,000	53	63
100	5/8	58,700	81	100
100	3/4	91,700	116	140
80	7/8	88,900	154	187
80	1	123,900	209	250
80	1 1/4	187,800	358	406

Note: 1. Also referred to as “Working Load Limit”.



TOS
Sling Hook

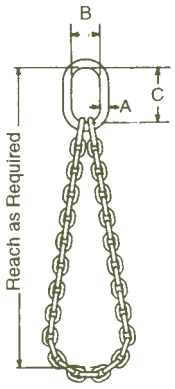


QOS
Sling Hook

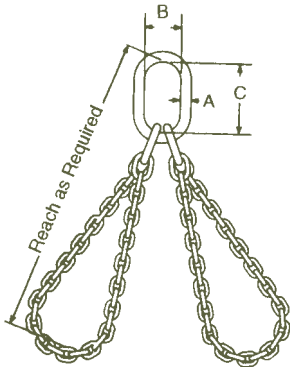
LiftAlloy BASKET TYPE CHAIN SLINGS

Grade	Chain Size (in.)	[1]Rated Capacity* @ 60° (lbs.)	
		Single	Double
100	7/32	4,700	7,000
100	9/32	7,400	11,200
100	3/8	15,200	22,900
100	1/2	26,000	39,000
100	5/8	39,100	58,700
100	3/4	61,100	91,700
80	7/8	59,200	88,900
80	1	82,600	123,900
80	1 1/4	125,200	187,800

Note: 1. Also referred to as “Working Load Limit”.



SB
Single Basket Type



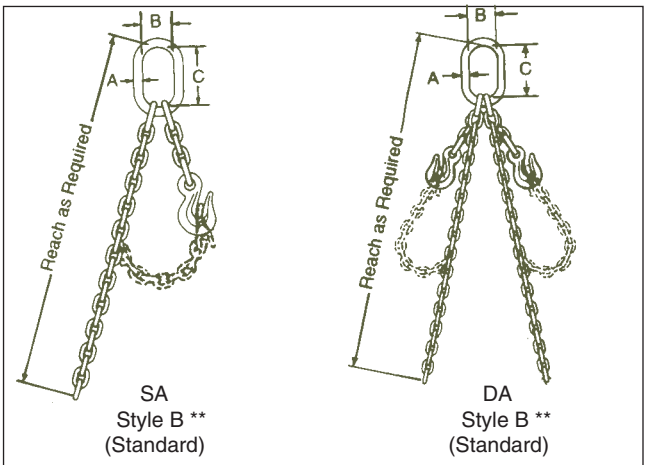
DB
Double Basket Type

* **⚠ WARNING** 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°.
Refer to chain chart page 99 and Effect of Angle chart page 12.

LiftAlloy ADJUSTABLE CHAIN SLINGS (Traditional Styles)

LiftAlloy Adjustable Loop Chain Slings

Grade	Chain Size (in.)	[1]Rated Capacity*@ 60° (lbs.) Single	Double
100	7/32	4,700	7,000
100	9/32	7,400	11,200
100	3/8	15,200	22,900
100	1/2	26,000	39,400
100	5/8	39,100	58,700
100	3/4	61,100	91,700
80	7/8	59,200	88,900
80	1	82,600	123,900
80	1 1/4	125,200	187,800



SA
Style B **
(Standard)

DA
Style B **
(Standard)

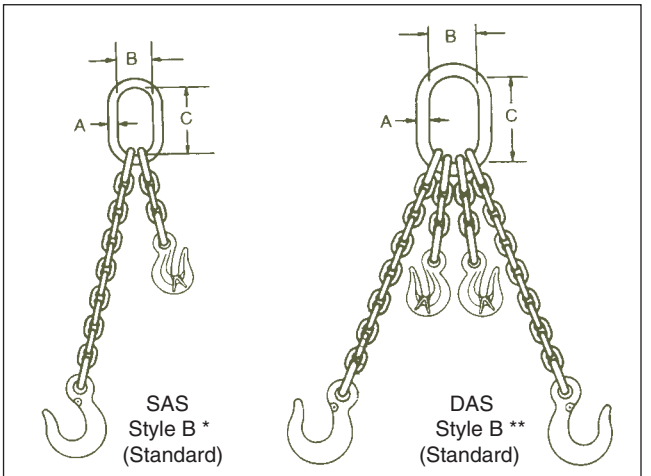
Cradle grab hooks are standard, non-cradle hooks a available on request.

Slings shown here are the most popular of the traditional adjustable type slings. However, *Lift-All's* engineering staff can design whatever configuration is required to fit individual needs.

** 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. Style A, hook is attached to master link with a coupling link.

LiftAlloy Adjustable Chain Slings

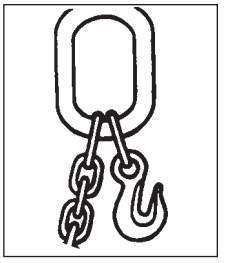
Grade	Chain Size (in.)	[1]Rated Capacity* (lbs.) Single @90°	Double @ 60°
100	7/32	2,700	4,700
100	9/32	4,300	7,400
100	3/8	8,800	15,200
100	1/2	15,000	26,000
100	5/8	22,600	39,100
100	3/4	35,300	61,100
80	7/8	34,200	59,200
80	1	47,700	82,600
80	1 1/4	72,300	125,200



SAS
Style B *
(Standard)

DAS
Style B **
(Standard)

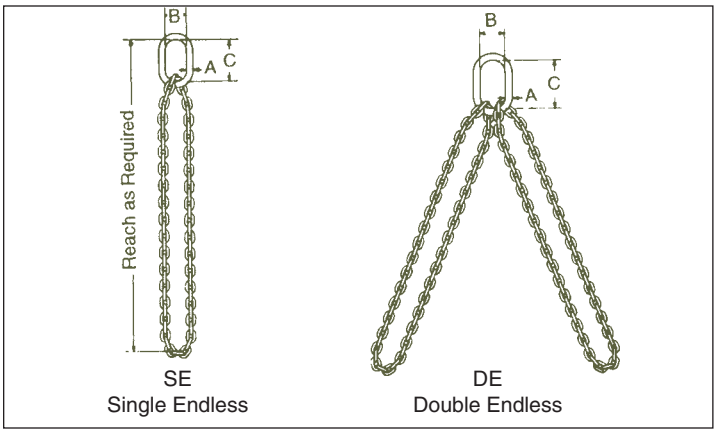
Cradle grab hooks are standard, non-cradle hooks available on request.



Style A **

LiftAlloy ENDLESS BASKET CHAIN SLINGS

Grade	Chain Size (in.)	[1]Rated Capacity* (lbs.) Single @90°	Double @ 60°
100	7/32	2,700	4,700
100	9/32	4,300	7,400
100	3/8	8,800	15,200
100	1/2	15,000	26,000
100	5/8	22,600	39,100
100	3/4	35,300	61,100
80	7/8	34,200	59,200
80	1	47,700	82,600
80	1 1/4	72,300	125,200



SE
Single Endless

DE
Double Endless

Note: 1. Also referred to as "Working Load Limit".

* **⚠ WARNING** 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°.
Refer to chain chart page 99 and Effect of Angle chart page 12.

ADJUST-A-LINK GRADE 100 CHAIN SLINGS

The most easily adjustable and versatile chain sling is now stronger, too!
Ideal for machine shop and maintenance departments varied requirements.

Features, Advantages and Benefits

Promotes Safety

- Chain cannot be removed from the master control plate, assuring the capacity rating will not be compromised
- Alloy steel master control link for strength and reliability
- Each assembly serialized for traceability
- Complies with OSHA - proof tested and certified

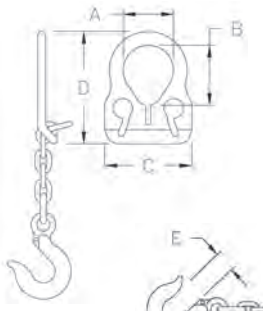
Saves Money

- Grade 100 chain provides approximately 25% higher capacities than our previous *Adjust-A-Links* - replaces larger, more expensive slings
- New angled plate design reduces bending torque on chain and plate - reduces wear and extends sling life
- Wider top bearing surface reduces wear to both plate and crane hook
- Versatile - one sling does many jobs
- Using two *Adjust-A-Links* on the same crane hook eliminates the need for expensive triples and quads
- Heat treated alloy steel construction for long sling life
- Yellow powder coating on master plate and hooks prevents rust - extends sling life

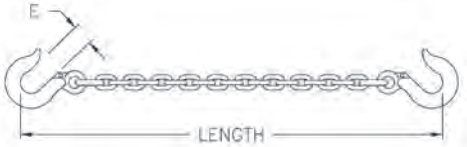
Saves Time

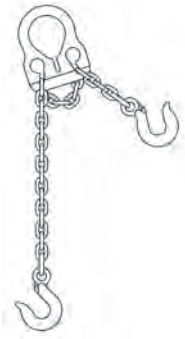
- More compact plate design fits larger hooks for easier rigging
- Less bulky than typical double adjustable chain slings
- High visibility yellow fittings make assembly easy to spot
- Easily adjustable to accommodate a wide range of applications
- No time wasted searching for just the right sling

Never exceed rated capacities. Chain must be seated at the base of adjusting slot of the Master Control Link.



Note: To order latches on hooks, add an "L" to end of Part No.





Single

Double

Basket

* 1/2" size Master Link flame cut - not of new forged plate design - uses Grade 80 capacity ratings

Chain Size (in.)	[1]Rated Capacity * (lbs.)		Dimensions (in.)					6 ft. Length		10 ft. Length		14 ft. Length	
	Single @ 90°	Double @ 60°	Eye Width A	Eye Height B	Overall Width C	Overall Length D	Hook Opening E	Part No.	(lbs.)	Part No.	(lbs.)	Part No.	(lbs.)
7/32	2,700	4,700	2 3/16	2 11/16	3 15/16	5 1/8	15/16	30001G10	4.2	30002G10	6.2		
9/32	4,300	7,400	2 7/8	3 3/16	5 1/16	6 1/2	1 1/16	30003G10	7.5	30004G10	10.5		
3/8	8,800	15,200	3 3/4	4 1/8	6 3/4	8 11/16	1 9/16			30005G10	18.5	30006G10	24.5
1/2	12,000	20,800	4 3/8	4 3/8	9 3/4	12 3/4	2			30007	42	30008	52

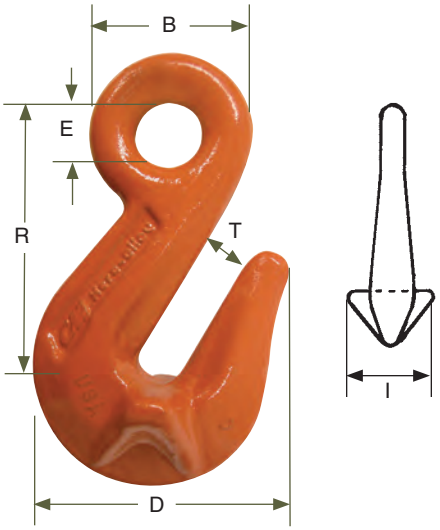
* **⚠ WARNING** Do not exceed rated capacities. Sling capacity decreases as the angle from horizontal decreases. Adjust-A-Link Slings should not be used at angles of less than 45°.
Refer to chain chart page 99 and Effect of Angle chart page 12.

HOOKS, MASTER LINKS, ETC.

Cradle Grab Eye Hook / Code G

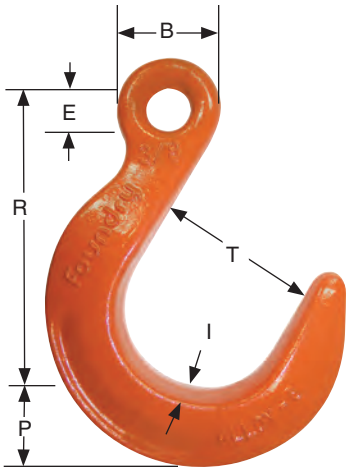
Grade	Chain Size (in.)	Rated Capacity* (lbs.)	Dimensions (in.)						Weight Each (lbs.)
			B	D	E	I	R	T	
100	7/32	2,700	1.19	1.50	.55	.92	2.20	.31	0.4
100	9/32	4,300	1.38	1.91	.63	1.06	2.57	.36	0.6
100	3/8	8,800	1.78	2.86	.78	1.38	3.28	.47	1.4
100	1/2	15,000	2.28	3.63	1.03	1.81	4.22	.59	3.1
100	5/8	22,600	2.75	4.08	1.25	2.25	4.78	.75	4.4
100	3/4	35,300	3.50	5.23	1.50	2.88	6.67	.88	8.8
80	7/8	34,200	3.75	5.69	1.75	3.00	6.50	1.00	10
80	1	47,700	4.31	7.00	1.88	3.88	8.09	1.19	21
80	1 1/4	72,300	5.38	8.50	2.25	2.50	10.50	1.50	40

** NOT cradle type
Note: Non-Cradle Grab Hooks are available upon request.



Foundry Hook / Code F

Grade	Chain Size (in.)	Rated Capacity* (lbs.)	Dimensions (in.)						Weight Each (lbs.)
			B	E	I	P	R	T	
100	9/32	4,300	1.56	.63	1.00	1.24	4.75	2.50	2.4
100	3/8	8,800	2.00	.75	1.27	1.50	5.75	3.00	4.5
100	1/2	15,000	2.50	1.00	1.50	1.75	6.88	3.50	7.1
100	5/8	22,600	3.00	1.25	1.81	2.03	8.06	4.00	12
100	3/4	35,300	3.50	1.50	2.20	2.56	9.25	4.50	20
80	7/8	34,200	4.00	1.75	2.25	2.78	10.38	5.00	26
80	1	47,700	4.50	2.13	2.59	3.03	11.56	5.50	37
80	1 1/4	72,300	5.13	2.38	3.17	3.81	12.88	6.00	58



* **⚠ WARNING** 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°.
Refer to chain chart page 99 and Effect of Angle chart page 12.

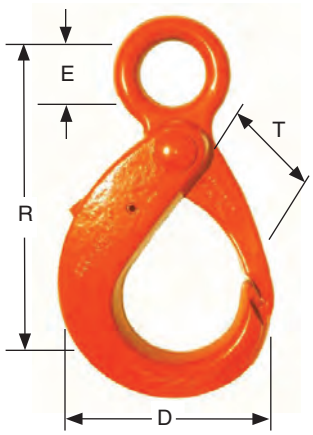
HOOKS, MASTER LINKS, ETC.

Latchlok Eye Hooks / Code L

Grade 100

Chain Size (in.)	Rated Capacity* (lbs.)	Dimensions (in.)				Weight Each (lbs.)
		D	E	R	T	
9/32	4,300	3.77	1.09	5.37	1.64	2.1
3/8	8,800	4.74	1.36	6.65	2.27	3.9
1/2	15,000	6.26	1.55	8.77	2.91	8.8
5/8	22,600	7.37	2.00	10.35	3.20	14

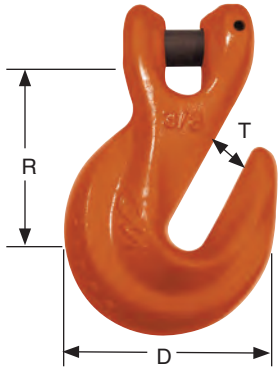
Design factor @ 4:1



Clevis Cradle Grab Hook / Code G

Grade 100

Chain Size (in.)	Rated Capacity* (lbs.)	Dimensions (in.)			Weight Each (lbs.)
		D	R	T	
9/32	4,300	2.18	1.86	0.38	0.6
3/8	8,800	2.71	2.47	0.47	1.3
1/2	15,000	3.65	3.04	0.65	2.1
5/8	22,600	4.5	3.75	0.79	4.2



Clevis Sling Hook with Optional Latch / Code S

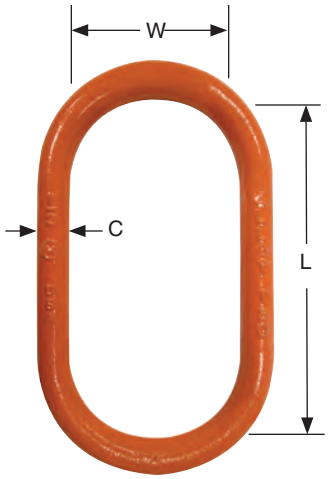
Grade 100

Chain Size (in.)	Rated Capacity* (lbs.)	Dimensions (in.)				Weight Each (lbs.)
		D	L	P	R	
9/32	4,300	3.53	0.83	1.11	3.75	1.2
3/8	8,800	4.54	1.06	1.51	4.58	2.2
1/2	15,000	5.48	1.38	1.61	5.59	4.2
5/8	22,600	6.20	1.69	1.92	6.44	6.6
3/4	35,300	7.06	2.09	2.08	7.50	11

HOOKS, MASTER LINKS, ETC.

Oblong Master Link / Code O

Link Size * (in.)			Type & Size of Chain Sling on which used				Weight Each (lbs.)
Diameter Material C	Inside Width W	Inside Length L	Single	Double	Triple	Quad	
13/32	1 1/2	3	7/32	7/32	-	-	0.3
1/2	2 1/2	5	9/32	9/32	7/32	7/32	0.9
3/4	3	6	3/8	3/8	9/32	9/32	2.5
1	4	8	1/2 or 5/8	1/2	3/8	3/8	5.8
1 1/4	4 3/8	8 3/4	3/4	5/8	1/2	1/2	9.2
1 1/2	5 1/4	10 1/2	7/8	3/4	5/8	5/8	16
1 3/4	6	12	1	7/8	3/4	3/4	25
2	7	14	1 1/4	1	7/8	7/8	37
2 1/4	8	16	-	1 1/4	1	1	54
2 3/4	9	16	-	-	1 1/4	1 1/4	85

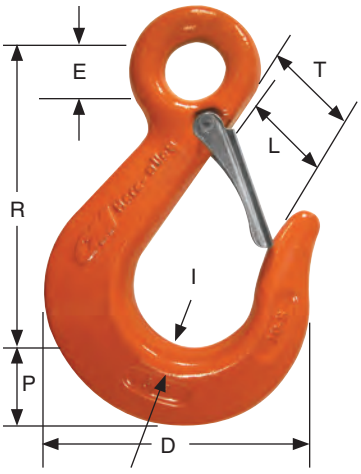


* If sub-assemblies are used, inside dimensions may be reduced. Contact Lift-All if critical.

Chain Sling Eye Hook with Optional Latch / Code S

Grade	Chain Size (in.)	Rated Capacity* (lbs.)	Dimensions (in.)							Weight Each (lbs.)
			D	E	I	L	P	R	T	
100	7/32	2,700	3.04	.75	.94	.83	.94	3.75	.97	0.7
100	9/32	4,300	3.50	.75	.73	1.06	1.05	3.75	1.19	1.1
100	3/8	8,800	4.33	.94	.95	1.31	1.28	4.78	1.44	1.9
100	1/2	15,000	5.50	1.13	1.17	1.63	1.66	5.69	1.78	4.5
100	5/8	22,600	6.34	1.31	1.44	1.75	2.19	6.50	2.03	7.3
100	3/4	35,300	7.83	1.50	1.69	2.19	2.51	7.81	2.50	11
80	7/8	34,200	8.59	1.69	1.94	2.38	2.84	8.75	2.78	18
80	1	47,700	9.59	1.88	2.14	2.88	3.09	9.88	3.13	23
80	1 1/4	72,300	11.56	2.31	2.62	3.41	3.89	11.50	3.88	36

Note: When ordering, specify latch if desired.



HOOKS, MASTER LINKS, ETC.

Mechanical Coupling Links

Grade	Chain Size (in.)	Rated Capacity* (lbs.)	Dimensions (in.)				Weight Each (lbs.)
			A	B	C	E	
100	7/32	2,700	.35	1.19	.69	.54	0.27
100	9/32	4,300	.41	1.94	.70	.59	0.27
100	3/8	8,800	.55	2.99	1.13	.93	0.87
100	1/2	15,000	.75	3.97	1.43	1.12	1.86
100	5/8	22,600	.87	4.50	1.70	1.35	3.14
100	3/4	35,200	1.07	5.36	2.09	1.54	5.80
80	7/8	34,200	1.05	5.25	1.80	1.92	6.30
80	1	47,700	1.25	6.00	2.31	2.37	8.95
80	1 1/4	72,300	1.53	6.81	2.17	2.70	16.40

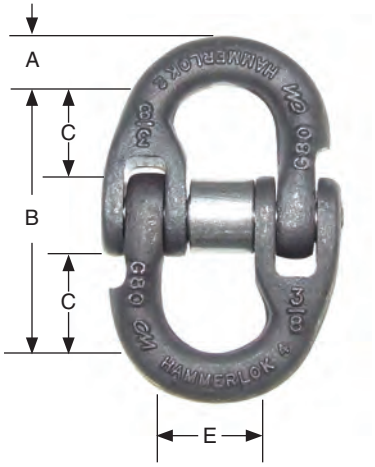
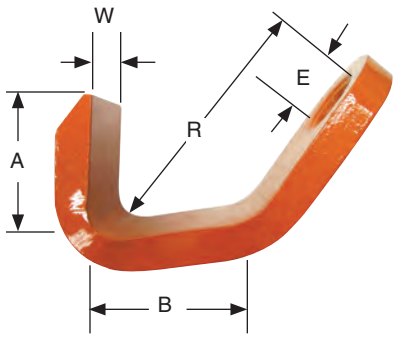


Plate Hook

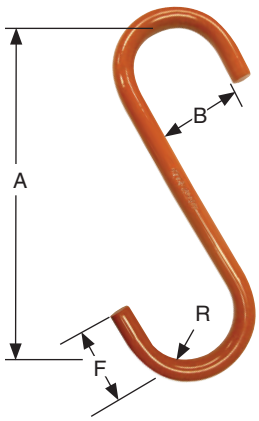
Chain Size (in.)	Rated Capacity* (lbs.)	Dimensions (in.)					Weight Each (lbs.)
		A	B	E	R	W	
9/32	4,200	2.00	1.75	1.00	3.68	2.50	2.8
3/8	7,400	2.63	3.00	1.12	6.38	2.75	5.7
1/2	13,000	3.50	4.00	1.50	7.37	3.50	13
5/8	20,400	4.38	5.00	1.88	9.25	5.00	27
3/4	30,000	5.18	6.00	2.25	10.88	5.75	42
7/8	40,000	6.00	7.00	2.63	13.68	6.00	65



* Ratings are per hook
Do not use plate hooks at angles other than 60° from horizontal.
Do not attempt to lift using only one plate hook.

S Hook

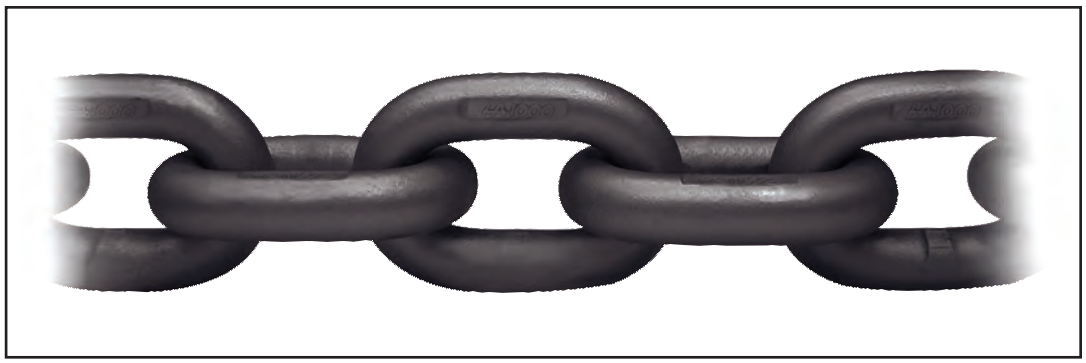
Stock Dia. (in.)	Rated Capacity* (lbs.)	Dimensions (in.)				Weight Each (lbs.)
		A	B	F	R	
9/32	210	4 1/2	1 1/8	1 1/8	9/16	0.15
3/8	410	6	1 1/2	1 1/2	3/4	0.35
1/2	870	7 1/2	2	2	1	0.82
5/8	1,120	9	2 1/2	2 1/2	1 1/4	1.6
3/4	1,730	10 1/2	3	3	1 1/2	2.6
7/8	2,370	12	3 1/2	3 1/2	1 3/4	4.2
1	2,920	13	4	4	2	6.0
1 5/32	3,150	15	4 1/2	4 1/2	2 1/4	9.3
1 1/4	4,450	16	5	5	2 1/2	12
1 3/8	6,100	17	5 1/2	5 1/2	2 3/4	15
1 1/2	6,250	18	6	6	3	20



See page 136 for J-Hooks and Custom Engineered Lifting Devices.

*
⚠ WARNING 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°.
Refer to chain chart page 99 and Effect of Angle chart page 12.

CHAIN



LiftAlloy Welded Alloy Chain

- Primarily used for overhead lifting slings
- Proof tested
- Black finish

Welded Carbon Chain

- Grade 30 Proof Coil available as self colored, zinc plated or hot galvanized
- Grade 43 High Test available as bright finish, zinc plated or hot galvanized
- Grade 70 Binding (transport) is furnished with a gold finish as standard

Alloy Chain

Grade	Chain Size (in.)	Rated Capacity* (lbs.)	Weight Per CFT. (lbs.)
100	7/32	2,700	44
100	9/32	4,300	73
100	3/8	8,800	144
100	1/2	15,000	246
100	5/8	22,600	370
100	3/4	35,300	580
80	7/8	34,200	776
80	1	47,700	995
80	1 1/4	72,300	1571

Carbon Chain

Chain Size (in.)	Grade 30		Grade 43		Grade 70	
	Rated Capacity* (lbs.)	Weight Per CFT. (lbs.)	Rated Capacity* (lbs.)	Weight Per CFT. (lbs.)	Rated Capacity* (lbs.)	Weight Per CFT. (lbs.)
3/16	800	38	-	-	-	-
1/4	1,300	66	2,600	71	3,150	74
5/16	1,900	98	3,900	98	4,700	100
3/8	2,650	144	5,400	144	6,600	156
1/2	4,500	278	9,200	278	11,300	259
5/8	6,900	422	13,000	422	-	-
3/4	10,600	628	20,200	606	-	-

Note: Grade 30 Proof Coil, Grade 43 High Test and Grade 70 Binding (transport) tiedown chain and their fittings are not recommended for lifting or hoisting per ASME B30.9.

* **⚠ WARNING** 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°.
Refer to chain chart page 99 and Effect of Angle chart page 12.

INSPECTION CRITERIA FOR CHAIN

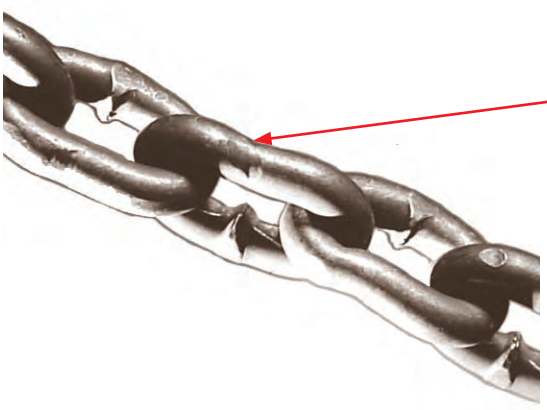
The following photos illustrate some of the common damage that occurs, indicating that the sling must be taken out of service.

* For inspection frequency requirements, see page 7.

THE DAMAGE: **Stretched Chain Links -** Indicates the sling has been extremely overloaded or subjected to shock loading.

WHAT TO LOOK FOR: Lengthening of the links and narrowing of the link width. Links that do not hinge freely with adjacent links are stretched and must be taken our of service, however, stretch **can** occur without this indicator.

TO PREVENT: Avoid overloading and shock loading.



THE DAMAGE: **Bent Links**

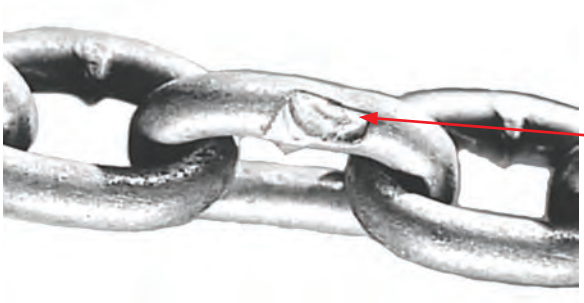
WHAT TO LOOK FOR: Bending usually occurs in only one or two adjacent links. Links will have an irregular shape when compared to other links.

TO PREVENT: Bent links are usually the result of the chain going around the sharp edge of a load during a lift. Load edges must be padded to protect both chain and load.

THE DAMAGE: **Weld Spatter**

WHAT TO LOOK FOR: Metallic bumps on any link of chain.

TO PREVENT: The heat from weld spatter can adversely affect the strength of a chain link. Slings must be shielded from welding operations.



THE DAMAGE: **Gouged Links**

WHAT TO LOOK FOR: Indentations on an otherwise smooth link surface.

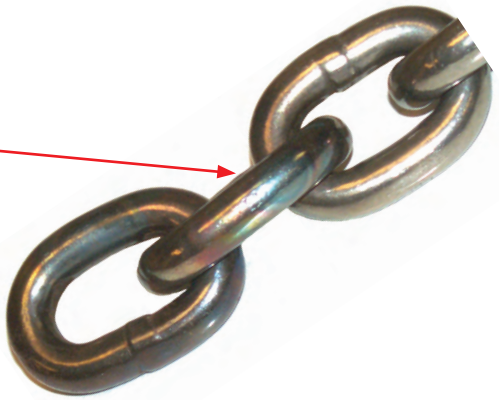
TO PREVENT: Gouging of links is usually caused by heavy loads being dragged over or dropped onto the chain. Protect sling from these situations.

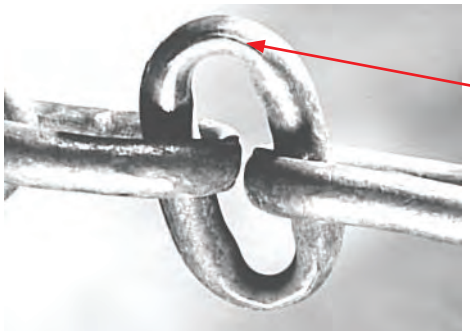
INSPECTION CRITERIA FOR CHAIN

THE DAMAGE: **Heat**

WHAT TO LOOK FOR: Discolored areas of chain

TO PREVENT: High temperatures begin to affect alloy chain strength at 400°F. When using chain slings at elevated temperatures, refer to the Lift-All temperature chart for chain slings for working load reductions.





THE DAMAGE: **Worn Links**

WHAT TO LOOK FOR: Excessive wear and a reduction of the material diameter, especially at the bearing points. Refer to Lift-All Wear Allowance Table for minimum allowable link thickness.

TO PREVENT: Wear is a natural result of sling use. Keeping load weights within the ratings of the slings being used will give the maximum sling wear life.

THE DAMAGE: **Bent/Worn/Cracked Hardware**

WHAT TO LOOK FOR: Wear of hooks and other fittings usually occurs at the bearing points. Hooks bent more than 10° from the plane of the unbent hook. Hooks opened more than 15% of the normal throat opening.

TO PREVENT: Never point load hooks or lift with hardware on a load edge.