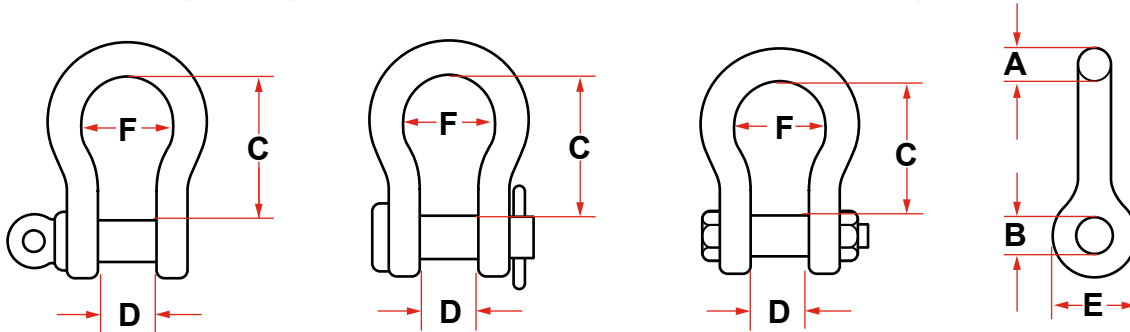


HARDWARE



ANCHOR PATTERN SHACKLES



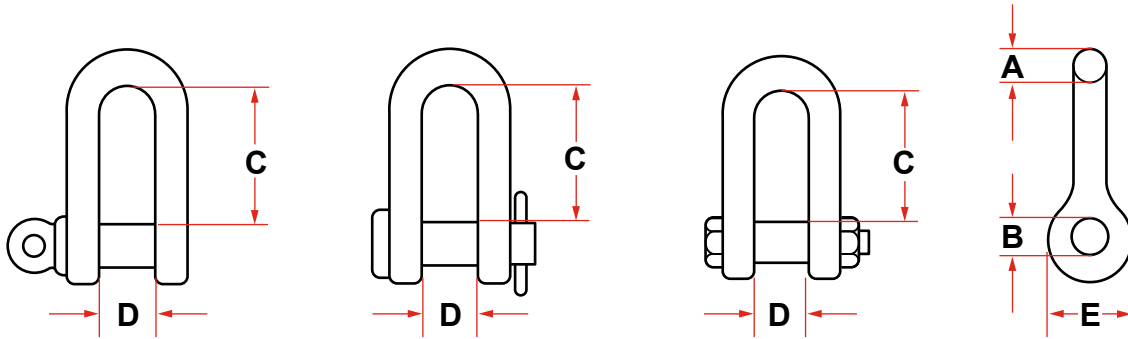
HEAT-TREATED, DROP FORGED CARBON STEEL
ANCHOR SHACKLE: SCREW PIN, ROUND PIN, SAFETY BOLT PIN

RATED LOAD TONS	DIMENSIONS (INCHES)						WEIGHT IN POUNDS	
	A	B	C	D	E	F	SCREW PIN OR ROUND PIN	SAFETY BOLT
0.33	3/16	1/4	7/8	3/8	9/16	19/32	0.05	
0.5	1/4	5/16	1-1/8	1/2	3/4	3/4	0.12	
0.75	5/16	3/8	1-1/4	9/16	7/8	1	0.18	
1	3/8	7/16	1-7/16	11/16	1	1-1/8	0.3	
1.5	7/16	1/2	1-11/16	3/4	1-1/8	1-1/4	0.5	
2	1/2	5/8	1-7/8	13/16	1-3/16	1-5/16	0.75	0.8
3.25	5/8	3/4	2-7/16	1-1/16	1-9/16	1-11/16	1.5	1.6
4.75	3/4	7/8	3	1-1/4	1-7/8	2	2.16	3.0
6.5	7/8	1	3-5/16	1-7/16	2-1/8	2-1/4	3.37	4.0
8.5	1	1-1/8	3-3/4	1-11/16	2-3/8	2-5/8	5.3	5.5
9.5	1-1/8	1-1/4	4-1/4	1-7/8	2-5/8	3	7.0	8.0
12	1-1/4	1-3/8	4-1/2	2	2-15/16	3-3/8	9.6	11.0
13.5	1-3/8	1-1/2	5-1/4	2-1/4	3-5/16	3-5/8	12.6	15.0
17	1-1/2	1-5/8	5-3/4	2-3/8	3-5/8	3-7/8	17.3	19.5
21	1-5/8	1-3/4	6-1/4	2-5/8	3-3/16	4-3/8	21.0	23.0
25	1-3/4	2	7	2-7/8	4-5/16	5	27.8	31.5
35	2	2-1/4	7-3/4	3-1/4	5	5-3/4	41.0	42.0
42	2-1/4	2-1/2	8-3/4	3-7/8	5-1/2	6-1/2	65.0	69.0
55	2-1/2	2-3/4	10	4-1/8	6	7-1/4	83.5	94.0
60	2-3/4	3	11-1/4	4-1/2	6-1/4	8	118.0	121.0
85	3	3-1/4	13	5	6-3/4	9	140.0	146.0
120	3-1/2	3-3/4	15	5-3/4	8-1/2	10-1/8		250.0
150	4	4-1/4	17	6-1/2	9-3/8	10-1/2		360.0
175	4-1/2	4-3/4	19	7-1/4	10	12-1/2		445.0

Sizes 3/16" Thru 1" Available in Stainless Steel Safety Type
NOTES: Minimum breaking strength is six times rated working load.
Furnished in galvanized or self colored finish.

Pins are galvanized after threading.
Shackles can be furnished with complete traceability, proof test certificates, and serial number at slight additional charge.

CHAIN PATTERN SHACKLES



**HEAT-TREATED, DROP FORGED CARBON STEEL
CHAIN SHACKLE: SCREW PIN, ROUND PIN, SAFETY BOLT PIN**

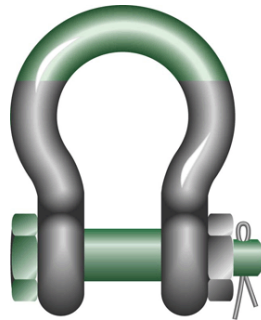
RATED LOAD TONS	DIMENSIONS (INCHES)					WEIGHT IN POUNDS	
	A	B	C	D	E	SCREW PIN OR ROUND PIN	SAFETY BOLT
0.33	3/16	1/4	7/8	3/8	9/16	0.05	
0.5	1/4	5/16	1-1/8	1/2	3/4	0.1	
0.75	5/16	3/8	1-1/4	9/16	7/8	0.18	
1	3/8	7/16	1-7/16	11/16	1	0.25	
1.5	7/16	1/2	1-11/16	3/4	1-1/8	0.41	
2	1/2	5/8	1-7/8	13/16	1-3/16	0.61	0.8
3.25	5/8	3/4	2-7/16	1-1/16	1-9/16	1.2	1.4
4.75	3/4	7/8	3	1-1/4	1-7/8	2.12	2.5
6.5	7/8	1	3-5/16	1-7/16	2-1/8	3.28	3.8
8.5	1	1-1/8	3-3/4	1-11/16	2-3/8	4.6	5.5
9.5	1-1/8	1-1/4	4-1/4	1-7/8	2-5/8	6.3	7.5
12	1-1/4	1-3/8	4-1/2	2	2-15/16	9.25	10.8
13.5	1-3/8	1-1/2	5-1/4	2-1/4	3-5/16	12.19	14.3
17	1-1/2	1-5/8	5-3/4	2-3/8	3-5/8	16.15	19.0
21	1-5/8	1-3/4	6-1/4	2-5/8	3-13/16	21.0	23.0
25	1-3/4	2	7	2-7/8	4-5/16	27.0	30.5
35	2	2-1/4	7-3/4	3-1/4	5	39.5	45.0
42	2-1/4	2-1/2	8-3/4	3-7/8	5-1/2	65.0	69.0
55	2-1/2	2-3/4	10	4-1/8	6	72.0	82.0
60	2-3/4	3	11-1/4	4-1/2	6-1/4		98.0
85	3	3-1/4	13	5	6-3/4		135.0
120	3-1/2	3-3/4	15	5-3/4	8-1/2		187.0
150	4	4-1/4	17	6-1/2	9-3/8		360.0
175	4-1/2	4-3/4	19	7-1/4	10		445.0

Sizes 3/16" Thru 1" Available in Stainless Steel Safety Type
NOTES: Minimum breaking strength is six times rated working load.
Furnished in galvanized or self colored finish.

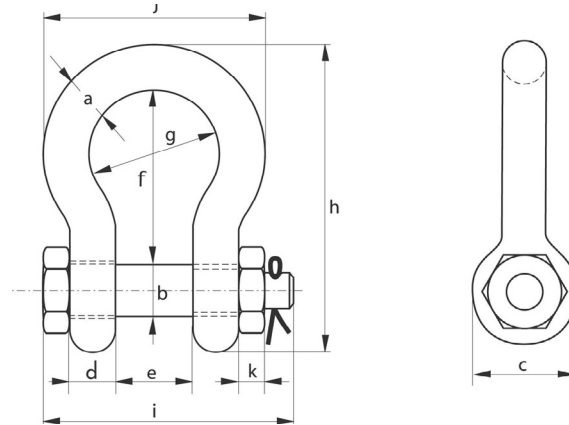
Pins are galvanized after threading.
Shackles can be furnished with complete traceability, proof test certificates,
and serial number at slight additional charge.

GREEN PIN SUPER[®] BOW SHACKLE BN

GRADE 8 BOW SHACKLE WITH SAFETY BOLT



G-5263



- **Material:** bow and pin alloy steel, grade 8, quenched and tempered MBL
- **Safety Factor:** equals 5 x WLL
- **Standard:** ASME B30.26 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 3, grade B
hot dipped galvanized (150 t and upward are painted)
-20°C up to +200°C
- **Finish:** hot dipped galvanized (150 t and upward are painted)
- **Temperature Range:** -20°C up to +200°C
- **Certification:** [2.1](#) [2.2](#) [3.1](#) [MTC](#) [LROS](#) [CE IIA](#) [ABS PDA](#) [ABS MA](#)

Working Load Limit	Diameter Bow	Diameter Pin	Diameter Eye	Width Eye	Width Inside	Length Inside	Width Bow	Length	Length Bolt	Width	Thickness Nut	Weight Each
t mm	a mm	b mm	c mm	d mm	e mm	f mm	g mm	h mm	i mm	j mm	k mm	kg
3.3	13.5	16	34	13	22	51	32	90	80	59	13	0.40
5	16	19	40	16	27	64	43	110	98	75	17	0.73
7	19	22	46	19	31	76	51	129	115	89	19	1.19
9.5	22	25	52	22	36	83	58	144	130	102	22	1.73
12.5	25	28	59	25	43	95	68	164	150	118	25	2.56
15	28	32	67	28	47	108	75	186	166	131	27	3.60
18	32	35	73	32	51	115	83	201	184	147	30	4.95
21	35	38	79	35	57	133	92	227	197	162	33	6.62
30	38	42	88	38	60	146	99	249	202	175	39	8.11
40	45	50	104	45	74	178	126	300	243	216	23	14.8
55	57	57	119	57	83	197	138	342	283	252	26	24.2
85	70	70	145	70	105	260	180	438	339	320	32	45.1
120	83	83	164	83	127	329	190	537	397	356	39	72
150*	95	95	204	95	147	400	238	644	453	428	50	112
175*	105	108	235	105	169	410	275	686	496	485	50	160

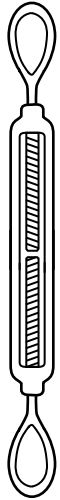
* For shackles WLL 150 t and WLL 175 t available with and without LROS

* With round headed bolt

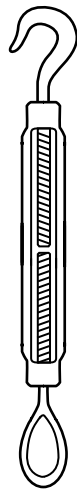
* Excluded from ABS Type Approval

TURNBUCKLES

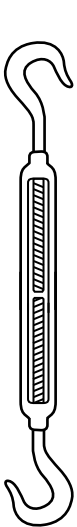
ACCORDING TO FEDERAL SPECIFICATION FF-T-79LB



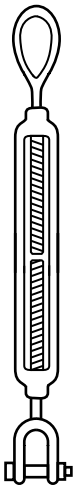
EYE & EYE



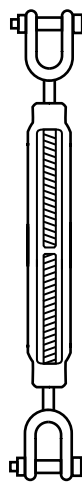
HOOK & EYE



HOOK & EYE



JAW & EYE



JAW & JAW

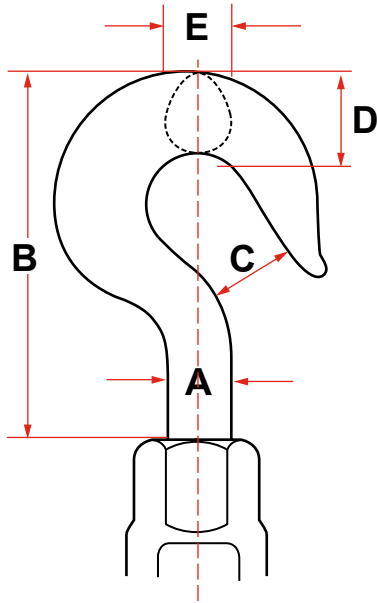
DIAMETER (A) AND TAKEUP (B) INCHES	AVERAGE OVERALL LENGTH (C) IN CLOSED POSITION INCHES	WEIGHT POUNDS EACH		
		WITH EVE OR HOOKS	JAW AND EYE	JAW AND JAW
1/4 x 4	8-1/4	0.31	0.33	0.35
5/16 x 4-1/2	9-9/16	0.50	0.53	0.58
3/8 x 6	11-7/8	0.79	0.86	0.93
1/2 x 6	13-5/16	1.42	1.54	1.66
9	16-5/16	1.83	1.95	2.07
12	19-5/16	2.01	2.19	2.37
5/8 x 6	15-1/2	2.61	2.81	3.02
9	18-1/2	2.81	3.01	3.22
12	21-1/2	3.12	3.32	3.53
18	28-1/8	6.00	6.20	6.40
3/4 x 6	17-1/16	3.60	3.87	4.18
9	20-1/8	4.69	4.98	5.27
12	23-1/16	5.07	5.36	5.65
18	29-1/16	6.21	6.51	6.81
7/8 x 12	24-5/8	8.10	8.75	9.40
18	30-5/8	9.93	10.60	11.20
1 x 6	20-5/8	8.75	9.15	9.50
12	26-5/8	10.40	11.20	12.10
18	32-5/8	13.20	14.10	14.90
24	38-5/8	15.90	16.80	17.60
1-1/4 x 12	29-7/8	19.00	20.50	22.00
18	35-7/8	23.40	24.90	26.40
24	41-7/8	27.80	29.30	30.90
1-1/2 x 12	32-3/8	26.10	28.20	30.30
18	38-3/8	37.50	39.60	41.80
24	44-3/8	43.10	45.20	47.30
36	58-3/4	52.60	54.80	57.00
1-3/4 x 18	41-3/4	45.00	48.80	52.40
24	47-3/4	52.20	56.00	59.60
2 x 24	51-3/4	89.80	94.60	100.00
2-1/2 x 24	58-1/2	140.00	150.00	161.00
2-3/4 x 24	61-1/2	194.00	200.00	216.00

When Ordering Be Sure to Specify:
 1st - Diameter of thread.
 2nd - Length of take-up.
 3rd - Self colored or galvanized.
 4th - The type of end fittings desired.

Larger sizes available per request.
 Lock nuts available per request.
 Jaw end fittings sizes 1/4" through 5/8" have bolts and nuts.
 Jaw end fittings sizes 3/4" through 2-3/4" have pins and cotters.
 Large jaw sizes available with bolts and nuts upon special request.

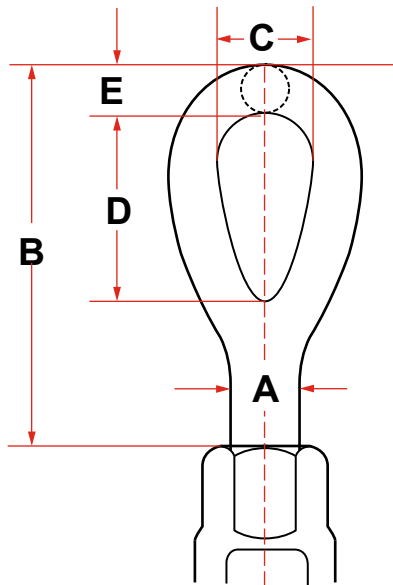
TURNBUCKLES

HOOK



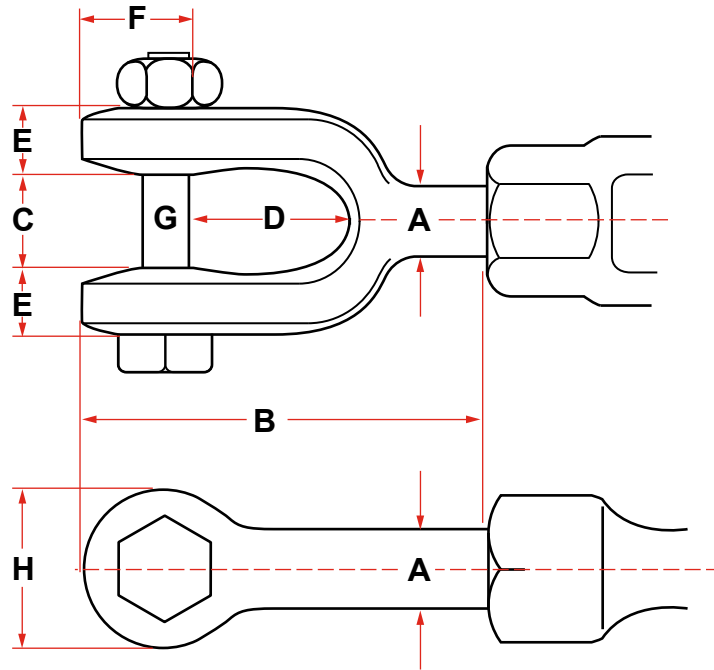
DIMENSIONS (INCHES)					RATED LOAD (LBS.)
A	B	C	D	E	
1/4	1-5/8	7/16	3/8	1/4	400
5/16	1-29/32	1/2	7/16	5/16	700
3/8	2-9/32	9/16	17/32	3/8	1000
1/2	2-27/32	21/32	11/16	1/2	1500
5/8	3-17/32	27/32	27/32	5/8	2250
3/4	4-5/16	31/32	1	3/4	3000
7/8	5	1-1/8	1-3/16	7/8	4000
1	5-11/16	1-1/4	1-3/8	1	5000
1-1/4	6-29/32	1-1/2	1-1/2	1-1/16	6500
1-1/2	8-11/16	1-7/8	1-3/4	1-5/16	7500

EYE



DIMENSIONS (INCHES)					RATED LOAD (LBS.)
A	B	C	D	E	
1/4	1-25/32	11/32	25/32	7/32	500
5/16	2-3/16	7/16	15/16	9/32	800
3/8	2-9/16	17/32	1-1/8	11/32	1200
1/2	3-7/32	23/32	1-7/16	7/16	2200
5/8	3-7/8	7/8	1-3/4	1/2	3500
3/4	4-11/16	1	2-1/8	5/8	5200
7/8	5-1/4	1-1/4	2-3/8	3/4	7200
1	6-3/8	1-7/16	3	7/8	10000
1-1/4	7-3/4	1-13/16	3-9/16	1-1/8	15200
1-1/2	8-5/8	2-1/8	4-1/8	1-1/4	21400
1-3/4	10	2-3/8	4-11/16	1-1/2	28000
2	12-1/8	2-11/16	5-3/4	1-3/4	37000
2-1/2	13-9/16	3-1/8	6-1/2	2	60000
2-3/4	15	3-1/4	7	2-1/4	75000

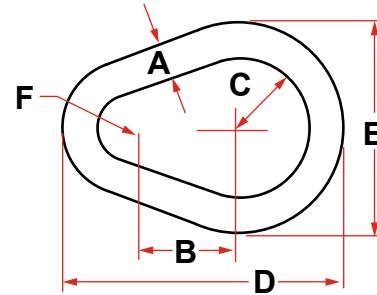
JAW



DIMENSIONS (INCHES)								RATED LOAD (LBS.)
A	B	C	D	E	F	G	H	
1/4	1-5/8	13/32	5/8	9/32	1/2	1/4	5/8	500
5-16	2	15/32	7/8	9/32	1/2	1/4	11/16	800
3/8	2-3/16	1/2	7/8	5/16	19/32	5/16	13/16	1200
1/2	2-3/4	5/8	1-1/16	13/32	3/4	3/8	1	2200
5/8	3-1/2	3/4	1-5/16	1/2	1-1/32	1/2	1-5/16	3500
3/4	4-1/8	15/16	1-1/2	9/16	1-9/32	5/8	1-5/8	5200
7/8	4-27/32	1-1/8	1-3/4	11/16	1-15/32	3/4	1-7/8	7200
1	5-17/32	1-3/16	2-1/16	25/32	1-21/32	7/8	2-1/8	10000
1-1/4	7-3/16	1-3/4	2-13/16	1	2-3/32	1-1/8	2-5/8	15200
1-1/2	7-7/8	2-1/16	2-13/16	1-1/16	2-15/32	1-3/8	3-1/8	21400
1-3/4	9-3/8	2-1/8	3-3/8	1-1/4	2-29/32	1-5/8	3-1/2	28000
2	10-7/8	2-1/2	3-11/16	1-9/16	3-17/32	2	4-3/16	37000
2-1/2	13-11/16	2-7/8	4-7/16	1-9/16	4-5/8	2-1/4	5-5/8	60000
2-3/4	15	3-1/2	4-3/16	1-5/8	5-3/8	2-3/4	6-1/2	75000

ALLOY PEAR SHAPE LINK

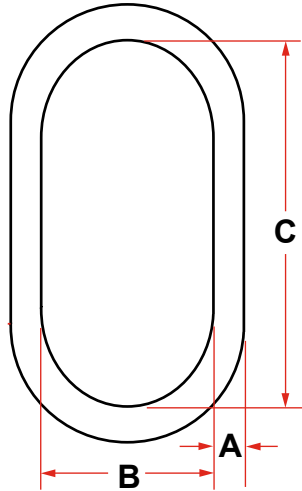
- Quenched & Tempered Alloy Steel
- Unless noted otherwise, each link is individually proof tested to values shown on the certificate.
- Each link is shipped with a proof test certificate.
- Sizes 1" and under are drop forged. Sizes over 1" are welded and magnetic particle inspected.



Never Exceed Working Load Limit.

SIZE A (INCHES)	WORKING LOAD LIMIT (LBS.)	PROOF LOAD (LBS.)	WEIGHT EACH (LBS.)	DIMENSIONS (INCHES)				
				B	C	D	E	F
1/2	7000	14000	0.55	1.50	1.00	4.00	3.00	0.50
5/8	9000	18000	1.10	1.88	1.25	5.00	3.75	0.63
3/4	12300	24600	1.76	2.25	1.50	6.00	4.50	0.75
7/8	14000	28000	2.82	2.63	1.75	7.00	5.25	0.88
1	24360	48700	4.22	3.00	2.00	8.00	6.00	1.00
1-1/8	30600	61200	6.25	3.38	2.25	8.75	6.75	1.13
1-1/4	36200	72400	8.25	3.75	2.50	10.00	7.50	1.25
1-3/8	43000	86000	11.25	4.13	2.75	11.00	8.25	1.38
1-1/2	54300	113200	14.25	4.50	3.00	12.00	9.00	1.50
1-5/8	62600	125200	18.50	4.88	3.25	13.00	9.75	1.63
1-3/4	84900	169800	22.50	5.25	3.50	14.00	10.50	1.75
1-7/8	95800	191600	29.00	5.63	3.75	15.00	11.25	1.88
2	102600	205200	34.00	6.00	4.00	16.00	12.00	2.00
2-1/4	143100	289200	48.00	6.75	4.50	18.00	13.50	2.25
2-1/2	160000	320000	66.00	7.50	5.00	20.00	15.00	2.50
2-3/4	216900	433800	88.00	8.25	5.50	22.00	16.50	2.75
3	228000	456000	114.00	9.00	6.00	24.00	18.00	3.00
3-1/4	262200	524400	146.00	9.75	6.50	26.00	19.50	3.25
3-1/2	279000	558000	181.00	10.50	7.00	28.00	21.00	3.50
4	373000	746000	271.00	12.00	8.00	32.00	24.00	4.00

ALLOY MASTER LINK

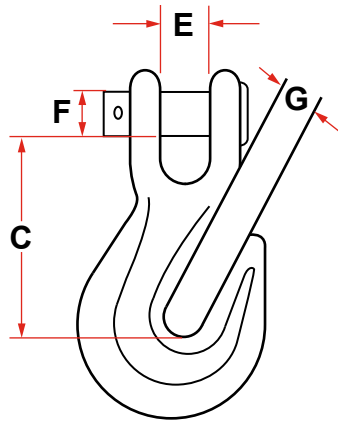


- Quenched & Tempered Alloy Steel
- Unless noted otherwise, each link is individually proof tested to values shown on the certificate. Proof tested according to ASTM A952 to avoid localized point loading.
- Each link is shipped with a proof test certificate.
- Sizes 2" and under are drop forged. Sizes over 2" are welded and magnetic particle inspected.

Never Exceed Working Load Limit.

SIZE A (INCHES)	WEIGHT (LBS.)			DIMENSIONS (INCHES)	
	WORKING LOAD LIMIT	PROOF LOAD	WEIGHT EACH	B	C
1/2	7000	14000	0.82	2.50	5.00
5/8	9000	18000	1.52	3.00	6.00
3/4	12300	24600	2.07	2.75	5.50
1	24360	48700	4.85	3.50	7.00
1-1/4	36200	72400	9.57	4.38	8.75
1-1/2	54300	113200	16.22	5.25	10.50
1-3/4	84900	169800	25.22	6.00	12.00
2	102600	205200	37.04	7.00	14.00
2-1/4	143100	289200	54.10	8.00	16.00
2-1/2	160000	320000	67.75	8.00	16.00
2-3/4	216900	433800	87.70	9.50	16.00
3	228000	456000	115.00	9.00	18.00
3-1/4	262200	524400	145.00	10.00	20.00
3-1/2	279000	558000	200.00	12.00	24.00
3-3/4	336000	672000	198.00	10.00	20.00
4	373000	746000	228.00	10.00	20.00
4-1/4	354000	708000	302.00	12.00	24.00
4-1/2	360000	720000	345.00	14.00	28.00
4-3/4	389000	778000	436.00	14.00	28.00
5	395000	790000	516.00	15.00	30.00

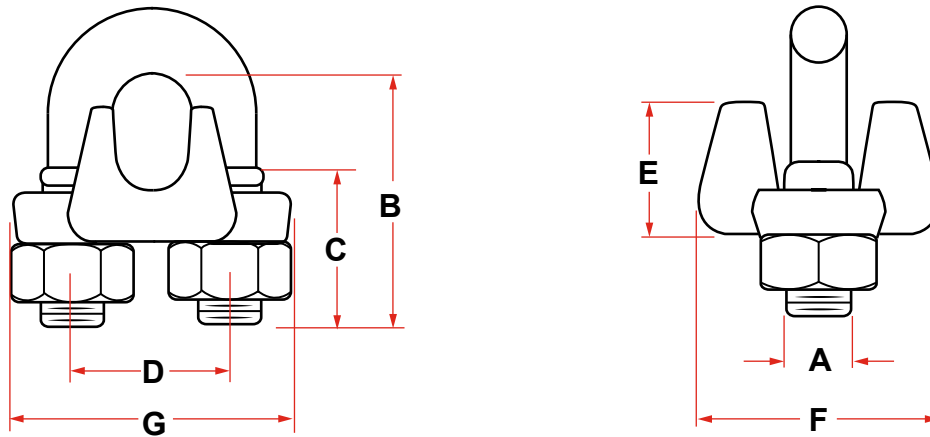
CHAIN HOOKS



CLEVIS GRAB HOOK

SIZE OF CHAIN	RATED LOAD POUNDS			APPROXIMATE DIMENSIONS (INCHES)				WEIGHT POUNDS EACH
	HIGH TEST	TRANSPORT	LOW ALLOY	C	E	F	G	
1/4	2600	3150	3600	1-13/16	7/16	3/8	11/32	0.36
5/16	3900	4700	5400	2-5/32	1/2	7/16	7/16	0.60
3/8	5400	6600	7500	2-15/32	19/32	15/32	1/2	1.00
7/16	7200	8750	10000	2-25/32	21/32	9/16	9/16	1.31
1/2	9200	11300	12750	3-7/32	3/4	5/8	21/32	2.06
5/8	12750	16500	19000	4-3/32	29/32	3/4	25/32	4.25
3/4	18500		27000	4-5/8	15/16	7/8	15/16	7.19

WIRE ROPE CLIPS



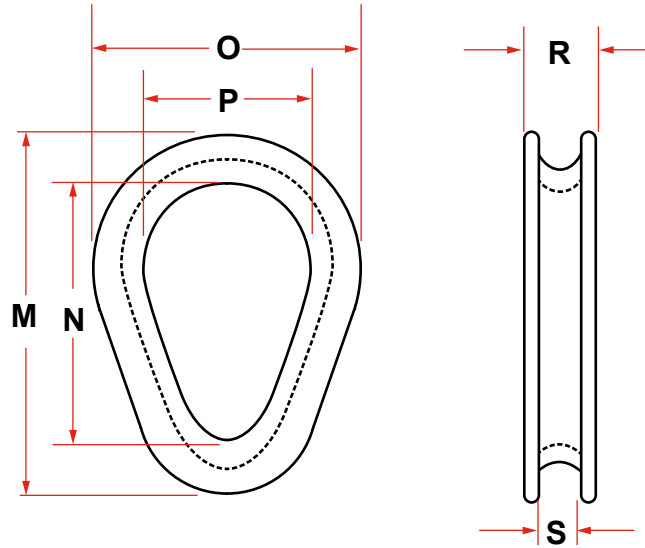
DROP FORGED U-BOLT TYPE

Meets Federal Specification FF-C-450 Type 1 Class-1.

CLIP AND ROPE SIZE (INCHES)	DIMENSIONS (INCHES)							MINIMUM NUMBER OF CLIPS REQUIRED	TORQUE IN FT. (LBS.)	MINIMUM ROPE TURNBACK (INCHES)	WEIGHT LBS. PER 100
	A	B	C	D	E	F	G				
1/8	7/32	23/32	7/16	15/32	13/32	13/16	15/16	2	4.5	3-1/4	5
3/16	1/4	31/32	9/16	19/32	1/2	15/16	1-5/32	2	4.5	3-3/4	9
1/4	5/16	1-1/32	1/2	3/4	21/32	1-3/16	1-7/16	2	15	4-3/4	18
5/16	3/8	1-3/8	3/4	7/8	23/32	1-5/16	1-11/16	2	30	5-1/4	30
3/8	7/16	1-1/2	3/4	1	29/32	1-5/8	1-15/16	2	45	6-1/2	42
7/16	1/2	1-7/8	1	1-3/16	1-1/32	1-13/16	2-9/32	2	65	7	70
1/2	1/2	1-7/8	1	1-3/16	1-1/8	1-29/32	2-9/32	3	65	11-1/2	75
9/16	9/16	2-1/4	1-1/4	1-5/16	1-7/32	2-1/16	2-1/2	3	95	12	100
5/8	9/16	2-3/8	1-1/4	1-5/16	1-11/32	2-1/16	2-1/2	3	95	12	100
3/4	5/8	2-3/4	1-7/16	1-1/2	1-13/32	2-1/4	2-27/32	4	130	18	150
7/8	3/4	3-1/8	1-5/8	1-3/4	1-19/32	2-7/16	3-5/32	4	225	19	240
1	3/4	3-1/2	1-13/16	1-7/8	1-25/32	2-5/8	3-15/32	5	225	26	250
1-1/8	3/4	3-7/8	2	2	1-29/32	2-13/16	3-19/32	6	225	34	310
1-1/4	7/8	4-1/4	2-1/8	2-5/16	2-3/16	3-1/8	4-1/8	7	360	44	460
1-3/8	7/8	4-5/8	2-5/16	2-3/8	2-5/16	3-1/8	4-3/16	7	360	44	520
1-1/2	7/8	4-15/16	2-3/8	2-19/32	2-17/32	3-13/32	4-7/16	8	360	54	590
1-5/8	1	5-5/16	2-5/8	2-3/4	2-21/32	3-5/8	4-3/4	8	430	58	730
1-3/4	1-1/8	5-3/4	2-3/4	3-1/16	2-15/16	3-13/16	5-9/32	8	590	61	980
2	1-1/4	6-7/16	3	3-3/8	3-9/32	4-7/16	5-7/8	8	750	71	1340
2-1/4	1-1/4	7-1/8	3-3/16	3-7/8	3-15/16	4-9/16	6-3/8	8	750	73	1570
2-1/2	1-1/4	7-11/16	3-7/16	4-1/8	4-7/16	4-11/16	6-5/8	9	750	84	1790
2-3/4	1-1/4	8-5/16	3-9/16	4-3/8	4-7/8	5	6-7/8	10	750	100	2200
3	1-1/2	9-3/16	3-7/8	4-3/4	5-11/32	5-5/16	7-5/8	10	1200	106	3200
3-1/2	1-1/2	10-3/4	4-1/2	5-1/2	6	6-3-16	8-3/8	12	1200	149	4000

Furnished in galvanized finish. Also Available in stainless steel and bronze.

HAWSER THIMBLES



HEAVY DUTY HAWSER THIMBLE GALVANIZED OR SELF-COLORED

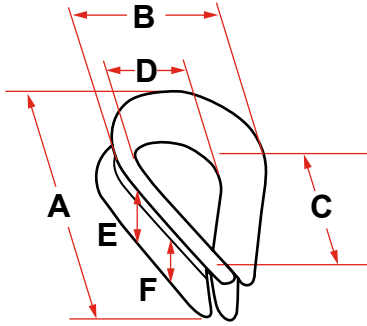
CAST, 1035 S

DIMENSIONS (INCHES)							WEIGHT (LBS.)
ROPE DIAMETER	M	N	O	P	R	S	
5/8 - 3/4	6-3/4	4-7/8	5	3	1-1/4	13/16	2-1/2
7/8 - 1	8-5/8	5-3/4	6-1/4	3-3/4	1-7/16	1-1/16	4-1/2
1-1/8 - 1-1/4	10-1/8	6-3/4	7-1/4	4-1/4	1-11/16	1-5/16	9
1-3/8 - 1-1/2	11-1/2	8	8-1/2	5	2-1/4	1-5/8	14
1-5/8 - 1-3/4	12-1/2	8	9-3/4	5	2-1/2	1-7/8	20
1-7/8 - 2	14-3/4	9-1/4	11-1/4	5-3/4	2-3/4	2-3/16	30
2-1/8 - 2-1/4	17	10-1/2	12-3/4	6-1/4	3-1/4	2-1/2	52
2-3/8 - 2-1/2	21	14-1/2	15-1/2	9-1/2	3-3/4	2-3/4	80
2-3/4 - 3	21	14-1/8	16	9	4-1/4	3-1/4	115

Larger Sized Available Upon Application.
Furnished with or without Reinforcement Plate (*Gusset). Cast Alloy Available upon Request.

WIRE ROPE THIMBLES

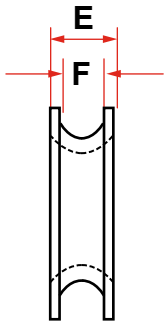
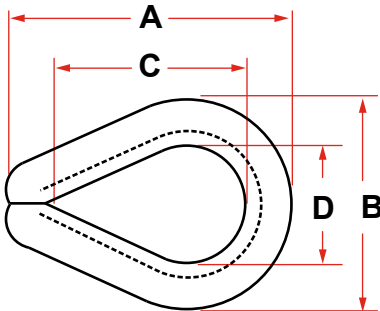
STANDARD WIRE ROPE THIMBLES, GALVANIZED STEEL



CLIP AND ROPE SIZE (INCHES)	DIMENSIONS (INCHES)						MAXIMUM PIN DIAMETER (INCHES)	WEIGHT LBS. PER 100
	A OVERALL	B OVERALL	C INSIDE	D INSIDE	E OVERALL	F INSIDE WIDTH OF SCORE		
1/8	1-15/16	1-1/16	1-5/16	11/16	1/4	5/32	5/8	3.3
3/16	1-15/16	1-1/16	1-5/16	11/16	5/16	7/32	5/8	3.4
1/4*	1-15/16	1-1/16	1-5/16	11/16	3/8	9/32	5/8	3.5
5/16*	2-1/8	1-1/4	1-1/2	13/16	7/16	3/8	3/4	4.0
3/8*	2-3/8	1-15/32	1-5/8	15/16	17/32	7/16	7/8	7.5
1/2*	2-3/4	1-3/4	1-7/8	1-1/8	11/16	9/16	1-1/16	15.8
5/8*	3-1/2	2-3/8	2-1/4	1-3/8	29/32	11/16	1-1/4	36.0
3/4	3-3/4	2-11/16	2-1/2	1-5/8	1-3/32	13/16	1-1/2	50.0
7/8	5	3-3/16	3-1/2	1-7/8	1-9/32	15/16	1-3/4	90.0
1	5-11/16	3-3/4	4-1/4	2-1/2	1-3/8	1-1/16	2-3/8	105.0
1-1/8 - 1-1/4	6-1/4	4-5/16	4-1/2	2-3/4	1-3/4	1-5/16	2-5/8	176.0
1-1/2	7-1/2	5-3/8	5	3-1/4	2-1/16	1-9/16	3-1/8	330.0
1-3/4	10-3/4	7-1/4	7-1/4	4-1/4	1-3/8	1-7/8	4-1/8	590.0
2	10-3/4	7-1/4	7-1/4	4-1/4	2-5/8	2-1/8	4-1/8	595.0

* Available in opened pattern. Suggested for light duty service only.

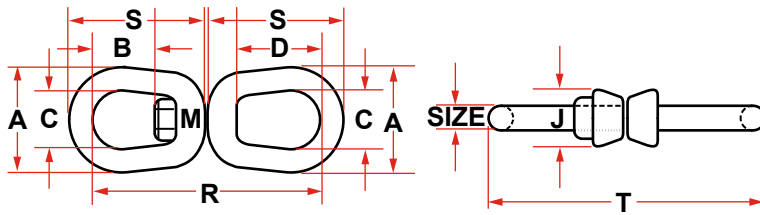
EXTRA HEAVY DUTY WIRE ROPE THIMBLES, GALVANIZED STEEL



CLIP AND ROPE SIZE (INCHES)	DIMENSIONS (INCHES)						MAXIMUM PIN DIAMETER (INCHES)	WEIGHT LBS. PER 100
	A OVERALL	B OVERALL	C INSIDE	D INSIDE	E OVERALL	F INSIDE WIDTH OF SCORE		
1/4*	2-3/16	1-1/2	1-5/8	7/8	13/32	9/32	13/16	7.5
5/16*	2-1/2	1-13/16	1-7/8	1-1/16	1/2	11/32	15/16	14.0
3/8*	2-7/8	2-1/8	2-1/8	1-1/8	21/32	13/32	1-1/16	25.0
7/16	3-1/4	2-3/8	2-3/8	1-1/4	3/4	15/32	1-3/16	36.0
1/2*	3-5/8	2-3/4	2-3/4	1-1/2	27/32	17/32	1-7/16	51.0
9/16	3-5/8	2-11/16	2-3/4	1-1/2	29/32	19/32	1-7/16	52.0
5/8*	4-1/4	3-1/8	3-1/4	1-3/4	1	21/32	1-5/8	75.0
3/4*	5	3-13/16	3-3/4	2	1-1/4	25/32	1-7/8	147.0
7/8	5-1/2	4-1/4	4-1/4	2-1/4	1-3/8	15/16	2-1/8	185.0
1*	6-1/8	4-15/16	4-1/2	2-1/2	1-9/16	1-1/16	2-3/8	295.0
1-1/8 - 1-1/4	7	5-7/8	5-1/8	2-7/8	1-7/8	1-5/16	2-3/4	390.0
1-1/4 - 1-3/8	9-1/16	6-13/16	6-1/2	3-1/2	2-1/4	1-7/16	3-1/4	820.0
1-3/8 - 1-1/2	9	7-1/8	6-1/4	3-1/2	2-5/8	1-9/16	3-3/8	1175.0
1-5/8	11-1/4	8-1/8	8	4	2-3/4	1-23/32	3-7/8	1625.0
1-3/4	12-3/16	8-1/2	9	4-1/2	2-7/8	1-27/32	4-3/8	1800.0
1-7/8 - 2	15-1/8	10-3/8	12	6	3-1/8	2-3/32	5-7/8	2600.0
2-1/4	17-1/8	11-7/8	14	7	3-5/8	2-3/8	6-7/8	3880.0
2-1/2**	20-1/2	13-1/2	15-3/4	8-1/2	4-1/4	2-5/8	8-1/4	7500.0

* Available in stainless steel. A rugged rope thimble suggested for heavy duty services. ** Available in Cast Steel. Larger sizes available per request (with or without Gusset Plates).

REGULAR SWIVELS

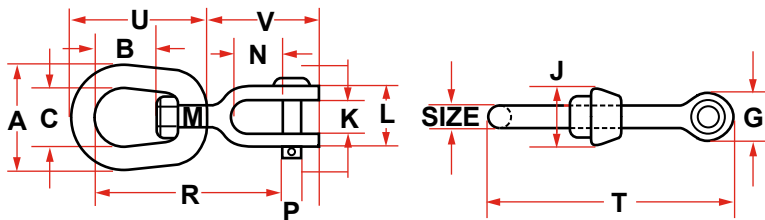


Hot Dip Galvanized
Quenched & Tempered

Meets the requirements of Federal
Specification RR-C-271D

SIZE (INCHES)	WORKING LOAD LIMIT (LBS.)	WEIGHT EACH (LBS.)	DIMENSIONS (INCHES)								
			A	B	C	D	J	M	R	S	T
1/4	850	0.21	1.25	0.69	0.75	1.06	0.69	0.31	2.94	1.69	3.44
5/16	1250	0.39	1.63	0.81	1.00	1.25	0.81	0.38	3.56	2.06	4.19
3/8	2250	0.75	2.00	0.94	1.25	1.50	1.00	0.50	4.31	2.50	5.06
1/2	3600	1.43	2.50	1.31	1.50	2.00	1.31	0.63	5.44	3.19	6.44
5/8	5200	2.50	3.00	1.56	1.75	2.38	1.50	0.75	6.56	3.88	7.81
3/4	7200	4.13	3.50	1.75	2.00	2.63	1.88	0.88	7.19	4.31	8.69
7/8	10000	6.25	4.00	2.06	2.25	3.06	2.13	1.00	8.38	5.00	10.13
1	12500	9.00	4.50	2.31	2.50	3.50	2.38	1.13	9.63	5.75	11.63
1-1/4	18000	16.37	5.63	2.69	3.13	3.69	3.00	1.38	11.13	6.75	13.35
1-1/2	45200	49.06	7.00	4.19	4.00	4.19	4.00	2.25	17.13	10.00	20.13

JAW END SWIVELS



Hot Dip Galvanized
Quenched & Tempered

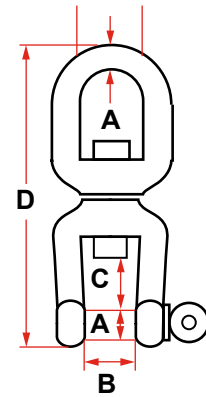
Meets the requirements of Federal
Specification RR-C-271D

SIZE (INCHES)	WORKING LOAD LIMIT (LBS.)	WEIGHT EACH (LBS.)	DIMENSIONS (INCHES)													
			A	B	C	G	J	K	L	M	N	P	R	T	U	V
1/4	850	0.25	1.25	0.69	0.75	0.69	0.69	0.47	1.03	0.31	0.88	0.25	2.63	3.38	1.69	1.69
5/16	1250	0.37	1.63	0.81	1.00	0.81	0.81	0.50	1.13	0.38	0.88	0.31	2.94	3.88	2.06	1.81
3/8	2250	0.70	2.00	0.94	1.25	1.00	1.00	0.63	1.41	0.50	1.06	0.38	3.63	4.75	2.50	2.25
1/2	3600	1.43	2.50	1.31	1.50	1.31	1.31	0.75	1.75	0.63	1.31	0.50	4.50	6.06	3.19	2.88
5/8	5200	2.48	3.00	1.56	1.75	1.63	1.50	0.94	2.06	0.75	1.50	0.63	5.31	7.31	3.88	3.44
3/4	7200	3.88	3.50	1.75	2.00	1.88	1.88	1.13	2.53	0.88	1.75	0.75	6.06	8.31	4.31	4.00
7/8	10000	5.75	4.00	2.06	2.25	2.13	2.13	1.19	2.75	1.00	2.06	0.88	7.00	9.53	5.00	4.53
1	12500	10.25	4.50	2.31	2.50	2.63	2.38	1.75	3.72	1.13	2.81	1.13	8.56	11.69	5.75	5.94
1-1/4	18000	15.75	5.69	2.69	3.13	3.13	3.00	2.06	4.31	1.38	2.81	1.38	9.44	13.13	6.75	6.38
1-1/2	45200	54.75	7.00	4.19	4.00	5.63	4.00	2.88	6.00	2.25	4.44	2.25	14.74	20.84	10.00	10.84

S181 EYE AND JAW SWIVEL

Stainless 316

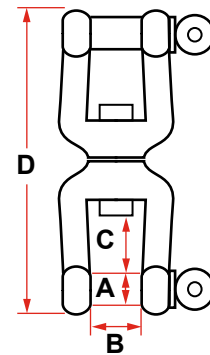
DIMENSIONS (INCHES)				WORKING LOAD LIMIT (LBS.)	WEIGHT (LBS.)
SIZE (A)	B	C	D		
1/4	0.50	0.43	2.62	600	0.14
5/16	0.62	0.62	3.62	1100	0.33
3/8	0.75	0.87	4.62	1540	0.63
1/2	1.00	1.12	6.00	2640	1.40
5/8	1.25	1.37	7.37	4750	2.38
3/4	1.50	1.62	8.62	7000	3.93



S0182 JAW AND JAW SWIVEL

Stainless 316

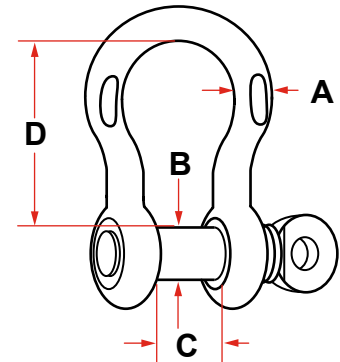
DIMENSIONS (INCHES)				WORKING LOAD LIMIT (LBS.)	WEIGHT (LBS.)
SIZE (A)	B	C	D		
1/4	0.50	0.43	2.50	600	0.15
5/16	0.62	0.62	3.50	1100	0.38
3/8	0.75	0.87	4.44	1540	0.74
1/2	1.00	1.12	5.88	2640	1.54
5/8	1.25	1.37	7.31	4750	2.63
3/4	1.50	1.62	8.63	7000	4.34



NOTE: COMMERCIAL TYPE

STAINLESS SCREW PIN ANCHOR SHACKLE

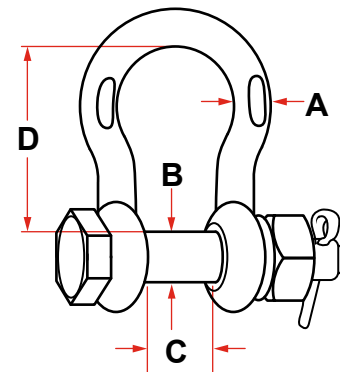
DIMENSIONS (INCHES)				LBS.	
A SIZE	B	C	D	WORKING LOAD LIMIT	WEIGHT
3/16	0.26	0.41	0.83	650	0.05
1/4	0.31	0.47	1.11	1000	0.10
5/16	0.38	0.53	1.20	1300	0.17
3/8	0.44	0.66	1.41	1500	0.30
7/16	0.50	0.72	1.77	2000	0.50
1/2	0.63	0.82	1.83	3000	0.71
5/8	0.75	1.02	2.41	4000	1.39
3/4	0.88	1.25	2.84	6000	2.31
7/8	1.00	1.48	3.30	8000	3.64
1	1.13	1.70	3.80	10000	5.18
1-1/4	1.38	2.03	4.69	14000	9.88



SCREW PIN

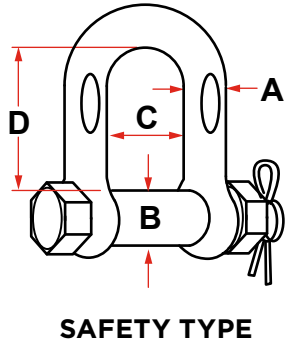
STAINLESS SAFETY ANCHOR SHACKLE

DIMENSIONS (INCHES)				LBS.	
A SIZE	B	C	D	WORKING LOAD LIMIT	WEIGHT
1/4	0.31	0.47	1.11	1000	0.12
5/16	0.38	0.53	1.20	1300	0.18
3/8	0.44	0.66	1.41	1500	0.35
7/16	0.50	0.72	1.77	2000	0.57
1/2	0.63	0.82	1.83	3000	0.84
5/8	0.75	1.02	2.41	4000	1.64
3/4	0.88	1.25	2.84	6000	2.75
7/8	1.00	1.48	3.30	8000	4.18
1	1.13	1.70	3.80	10000	5.61
1-1/4	1.38	2.03	4.69	14000	9.88



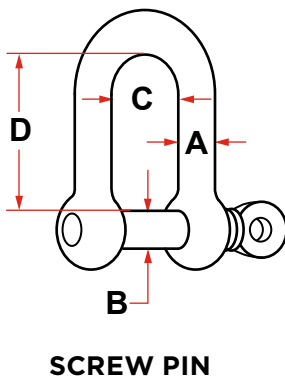
SAFETY TYPE

STAINLESS SAFETY CHAIN SHACKLE

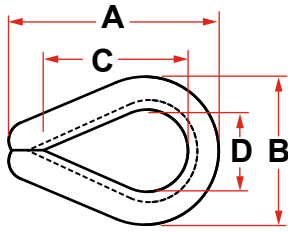


DIMENSIONS (INCHES)				LBS	
A SIZE	B	C	D	WORKING LOAD LIMIT	WEIGHT
5/32	0.17	0.32	0.55	200	0.02
3/16	0.19	0.37	0.69	500	0.03
1/4	0.23	0.47	0.82	750	0.05
5/16	0.31	0.62	1.10	1000	0.12
3/8	0.39	0.79	1.34	1200	0.23
1/2	0.47	0.95	1.65	1500	0.38

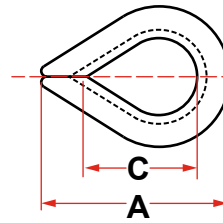
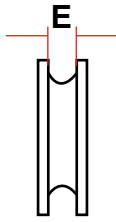
STAINLESS SCREW PIN CHAIN SHACKLE



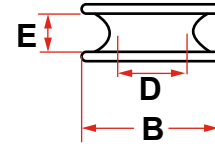
DIMENSIONS (INCHES)				LBS.	
A SIZE	B	C	D	WORKING LOAD LIMIT	WEIGHT
1/4	0.31	0.46	0.87	1000	0.11
5/16	0.38	0.52	1.02	1300	0.18
3/8	0.44	0.65	1.24	1500	0.31
7/16	0.50	0.75	1.43	2000	0.50
1/2	0.63	0.79	1.58	3000	0.74
5/8	0.75	1.05	1.94	4000	1.14
3/4	0.88	1.20	2.40	6000	2.36
7/8	1.01	1.45	2.88	8000	3.46
1	1.13	1.67	3.20	10000	4.85



HEAVY DUTY WIRE ROPE THIMBLE



REGULAR WIRE ROPE THIMBLE



According to Federal Specification FF-C-450, Type III, Class I.

STAINLESS HEAVY DUTY WIRE ROPE THIMBLES - TYPE 304 & 316

SIZE (INCHES)	DIMENSIONS (INCHES)					APPROX. WEIGHT (LBS.)
	A	B	C	D	E	
1/4	2.19	1.50	1.63	0.88	0.44	0.08
5/16	2.50	1.88	1.88	1.13	0.50	0.10
3/8	2.88	2.09	2.09	1.13	0.66	0.25
1/2	3.63	2.63	2.75	1.50	0.88	0.45
5/8	4.25	3.09	3.25	1.75	1.00	0.68
3/4	5.00	3.50	3.75	2.00	1.25	1.20
7/8	5.66	4.19	4.31	2.25	1.50	1.85
1	6.13	4.63	5.00	2.50	1.56	2.20
1-1/8 - 1-1/4	7.13	5.33	5.38	2.88	1.88	3.80
1-1/4 - 1-3/8	8.38	6.67	6.50	3.50	2.25	8.60

STAINLESS REGULAR WIRE ROPE THIMBLES - TYPE 316

SIZE (INCHES)	DIMENSIONS (INCHES)					APPROX. WEIGHT (LBS.)
	A	B	C	D	E	
1/16						0.01
1/8	1.88	1.06	1.25	0.69	0.16	0.02
3/16	1.88	1.06	1.25	0.69	0.22	0.02
1/4	1.94	1.06	1.31	0.69	0.28	0.03
5/16	2.13	1.25	1.50	0.81	0.38	0.05
3/8	2.38	1.47	1.63	0.94	0.44	0.06
1/2	2.75	1.75	1.88	1.13	0.56	0.12
5/8	3.50	2.38	2.25	1.38	0.69	0.24