2022/23
CATALOG

NORTHERN STRANDS
Canadian owned and operated since 1970

Rigging

WIRE ROPE SLINGS

(STANDARD FLEMISH EYE EACH END)

Wire Rope Sling Features:

- Lowest cost per ton of lift on all slings
- Ideal for heavy loads and rugged conditions
- Flexible and abrasion resistant
- Wide range of possible end terminations

CABLE SIZE	CABLE CONSTRUCTION	W.L.L. (VERTICAL)	LENGTH
1/4"	6X26	1,300 LBS	2 TO 20 FT.
5/16"	6X26	2,000 LBS	2 TO 20 FT.
3/8"	6X26	2,800 LBS	2 TO 20 FT.
7/16"	6X26	3,800 LBS	4 TO 20 FT.
1/2"	6X26	5,000 LBS	4 TO 20 FT.
9/16"	6X26	6,400 LBS	4 TO 20 FT.
5/8"	6X26	7,800 LBS	6 TO 20 FT.
3/4"	6X26	11,200 LBS	6 TO 20 FT.
7/8"	6X26	15,200 LBS	6 TO 20 FT.
1"	6X36	19,600 LBS	6 TO 20 FT.
1-1/8"	6X36	24,000 LBS	8 TO 20 FT.
1-1/4"	6X36	30,000 LBS	8 TO 20 FT.
1-3/8"	6X36	36,000 LBS	8 TO 20 FT.
1-1/2"	6X36	42,000 LBS	8 TO 20 FT.

Larger Sizes & Lengths Available Upon Request. Other Configurations Available.
W.L.L. based on EIPS wire rope.

RATED CAPACITY IN POUNDS

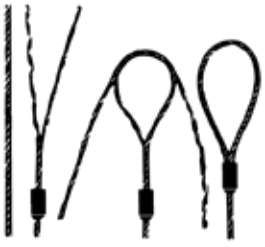
				BASKET AND 2 LEG BRIDLES			3 LEG BRIDLES				EYE DIMENSIONS (APPROXIMATE)	
											WIDTH INCHES	LENGTH INCHES
DIA.	VERTICAL	CHOKER HITCH	VERTICAL BASKET	30º	45º	60º	VERTICAL	30º	45º	60º	A	B
¼"	1300	960	2600	1300	1820	2200	3800	1940	2800	3400	2	4
5⁄16"	2000	1480	4000	2000	2800	3400	6000	3000	4200	5200	2 ½	5
⅜"	2800	2200	5800	2800	4000	5000	8600	4400	6000	7400	3	6
7⁄16"	3800	2800	7800	3800	5400	6800	11600	5800	8200	10000	3 ½	7
½"	5000	3800	10200	5000	7200	8800	15200	7600	10800	13200	4	8
9⁄16"	6400	4800	12800	6400	9000	11000	19200	9600	13600	16600	4 ½	9
⅝"	7800	5800	15600	7800	11000	13600	24000	11800	16600	20000	5	10
¾"	11200	8200	22000	11200	15800	19400	34000	16800	24000	30000	6	12
⅞"	15200	11200	30000	15200	22000	26000	46000	22000	32000	40000	7	14
1"	19600	14400	40000	19600	28000	34000	58000	30000	42000	52000	8	16
1 ⅛"	24000	18200	48000	24000	34000	42000	72000	36000	52000	62000	9	18
1 ¼"	30000	22000	60000	30000	42000	52000	88000	44000	62000	76000	10	20
1 ⅜"	36000	26000	72000	36000	50000	62000	106000	54000	76000	92000	11	22
1 ½"	42000	32000	84000	42000	60000	74000	126000	64000	90000	110000	12	24
1 ⅝"	48000	36000	98000	48000	70000	84000	146000	74000	104000	126000	13	26
1 ¾"	56000	42000	114000	56000	80000	98000	170000	84000	120000	148000	14	28
2"	74000	56000	146000	74000	104000	126000	220000	110000	156000	190000	16	32
2 ¼"	88000	70000	178000	88000	126000	154000	266000	134000	188000	232000	18	36
2 ½"	108000	84000	218000	108000	154000	188000	326000	164000	230000	282000	20	40
2 ¾"	130000	102000	260000	130000	184000	226000	390000	194000	276000	338000	22	44
3"	154000	120000	306000	154000	216000	266000	460000	230000	324000	398000	24	48

NOTE: DESIGN FACTOR = 5:1 WARNING: DO NOT EXCEED RATED CAPACITIES

RATED CAPACITIES BASKET HITCH BASED ON D/D RATIO OF 25/1.
RATED CAPACITIES BASED ON PIN DIAMETER NO LARGER THAN 1/2 NATURAL EYE WIDTH OR LESS THAN THE NOMINAL SLING DIAMETER.
HORIZONTAL SLING ANGLES LESS THAN 30 DEGREES SHALL NOT BE USED.
RATED CAPACITIES SHOWN APPLY ONLY TO 6 X 19 AND 6 X 37 EXTRA IMPROVED PLOW STEEL (EIPS) IWRC CLASSIFICATION WIRE ROPE.
ALWAYS REFER TO ASME B30.9 IN REGARDS TO PROPER INSPECTION AND REJECTION CRITERA FOR SLINGS.

WARNING!
WIRE ROPE WILL FAIL IF WORN-OUT, OVERLOADED, MISUSED, DAMAGED, IMPROPERLY MAINTAINED OR ABUSED. WIRE ROPE FAILURE MAY CAUSE SERIOUS INJURY OR DEATH! PROTECT YOURSELF AND OTHERS. ALWAYS INSPECT WIRE ROPE FOR WEAR, DAMAGE OR ABUSE BEFORE USE. NEVER USE WIRE ROPE THAT IS WORN-OUT, DAMAGED OR ABUSED, NEVER OVERLOAD A WIRE ROPE.

INFORM YOURSELF:
READ AND UNDERSTAND MANUFACTURER'S LITERATURE OR "WIRE ROPE AND WIRE ROPE SLING SAFETY BULLETIN". REFER TO APPLICABLE CODES, STANDARDS AND REGULATIONS FOR INSPECTION REQUIREMENTS AND REMOVAL CRITERIA.
* FOR ADDITIONAL INFORMATION OR THE BULLETIN, ASK YOUR EMPLOYER OR WIRE ROPE SUPPLIER.



FLEMISH EYE SPLICE

WEB & ROUND SLINGS

PRODUCT LISTING

POLYESTER WEB SLINGS

1" 2 ply from 2' up to 20' WLL 3,100 lbs Vertical

2" 2 ply from 2' up to 20' WLL 6,200 lbs Vertical

3" 2 ply from 4' up to 20' WLL 8,800 lbs Vertical

4" 2 ply from 4' up to 20' WLL 11,000 lbs Vertical

All other sizes and configurations available upon request.
All eyes have a protective covering. All eyes are tapered.

POLYESTER ROUND SLINGS (DOUBLE SLEEVED)

3,000 lbs Vertical WLL, Purple sleeve, up to 20'

6,000 lbs Vertical WLL, Green sleeve, up to 20'

9,000 lbs Vertical WLL, Yellow sleeve, up to 20'

12,000 lbs Vertical WLL, Tan sleeve, up to 20'

14,000 lbs Vertical WLL, Red sleeve, up to 20'

23,000 lbs Vertical WLL, Blue, up to 20'

26,000 lbs Vertical WLL, Orange, up to 20'

32,000 lbs Vertical WLL, Grey, up to 20'

40,000 lbs Vertical WLL, Orange, up to 20'

54,000 lbs Vertical WLL, Brown, up to 20'

68,000 lbs Vertical WLL, Olive, up to 20'

90,000 lbs Vertical WLL, Black, up to 20'

Other sizes and lengths available upon request.

SHACKLES

SCREW PIN ANCHOR BOW SHACKLE

Federal Specification RR-C-271D, Type IVA, Grade A, Class 2

- (6:1 WLL) Hot dip galvanized
- Forged – Quenched and Tempered
- Shackles are embossed for traceability
- Meets or exceeds all requirements of ASME B30.26

NOMINAL SIZE (IN.)	WORKING LOAD LIMIT (TON)
3/16	1/3
1/4	1/2
5/16	3/4
3/8	1
7/16	1-1/2
1/2	2
5/8	3-1/4
3/4	4-3/4
7/8	6-1/2
1	8-1/2
1-1/8	9-1/2
1-1/4	12
1-3/8	13-1/2
1-1/2	17
1-3/4	25
2	35

SAFETY ANCHOR BOW SHACKLE

Federal Specification RR-C-271D, Type IVA, Grade A, Class 3

- (6:1 WLL) Hot dip galvanized
- Forged – Quenched and Tempered
- Shackles are embossed for traceability
- Meets or exceeds all requirements of ASME B30.26

NOMINAL SIZE (IN.)	WORKING LOAD LIMIT (TON)
1/4	1/2
5/16	3/4
3/8	1
7/16	1-1/2
1/2	2
5/8	3-1/4
3/4	4-3/4
7/8	6-1/2
1	8-1/2
1-1/8	9-1/2
1-1/4	12
1-3/8	13-1/2
1-1/2	17
1-3/4	25
2	35

LONG REACH SCREW PIN & BOLT TYPE SHACKLES

- Design factor of 5:1
- Meets the requirements of ASME B30.26
- Forged – Quenched and Tempered
- WLL forged on body
- Shackles are embossed for traceability
- Durable orange powder coated finish

NOMINAL SIZE (IN.)	WORKING LOAD LIMIT (LBS.)
5/8	7,000
3/4	10,000
1	19,000
1-1/4	28,000
1-1/2	34,000
1-3/4	50,000

SNATCH BLOCKS

RIGGING BLOCKS

- Quality tensile steel treated hooks
- Forged swivel tees, yokes and end fittings
- All Blocks open for easy wire installation
- Design factor of 4:1

SNATCH BLOCK (SINGLE SHEAVE C/W HOOK)

WIRE SIZE	SHEAVE	WLL
5/16"-3/8"	3"	2 TON
3/8"-1/2"	4 1/2"	4 TON
5/8"-3/4"	6"	8 TON
5/8"-3/4"	8"	8 TON

SNATCH BLOCK (SINGLE SHEAVE C/W SHACKLE)

WIRE SIZE	SHEAVE	WLL
5/16"-3/8"	3"	2 TON
3/8"-1/2"	4 1/2"	4 TON
5/8"-3/4"	6"	8 TON
5/8"-3/4"	8"	8 TON

SNATCH BLOCK (DOUBLE SHEAVE C/W HOOK)

WIRE SIZE	SHEAVE	WLL
3/8"-1/2"	4 1/2"	4 TON
5/8"-3/4"	6"	12 TON
5/8"-3/4"	8"	12 TON

SNATCH BLOCK (DOUBLE SHEAVE C/W SHACKLE)

WIRE SIZE	SHEAVE	WLL
3/8"-1/2"	4 1/2"	4 TONNE
5/8"-3/4"	6"	12 TONNE
5/8"-3/4"	8"	12 TONNE

DEUER BLOCKS

DEUER FIXED FLANGE BLOCKS

Deuer Fixed Flange Blocks are rigging blocks perfect for any use. All blocks have a removable sheave for fast rigging, are zinc plated for corrosion resistance, are made with heavy duty steel construction, have a universal block center locking nut for maximum safety, includes a hairpin type removable cotter pin, has bronze bushings for longer life, and includes the stamped working load limit on each block.

SHEAVE DIA. (IN.)	MAX CABLE SIZE (IN.)	CAPACITY (LBS.)
1-1/2"	1/4"	420
2"	1/4"	480
2-1/2"	1/4"	550
3"	5/16"	650
3-1/2"	5/16"	1250

DEUER SWIVEL BLOCKS

Deuer Swivel Blocks are rigging blocks perfect for any use. All blocks have a removable sheave for fast rigging, are zinc plated for corrosion resistance, are made with heavy duty steel construction, have a universal block center locking nut for maximum safety, includes a hairpin type removable cotter pin, has bronze bushings for longer life, and includes the stamped working load limit on each block.

SHEAVE DIA. (IN.)	MAX CABLE SIZE (IN.)	CAPACITY (LBS.)
1-1/2"	1/4"	420
2"	1/4"	480
2-1/2"	1/4"	550
3"	5/16"	650
3-1/2"	5/16"	1250

OFF ROAD RECOVERY BLOCKS

Off Road Recovery blocks are generally used to assist in vehicle recovery. It's a basic pully used to redirect the line. They are great to have on hand for your off-road adventures where getting stuck is a likely occurrence.
Available in 4, 8 and 10 tonne sizes.

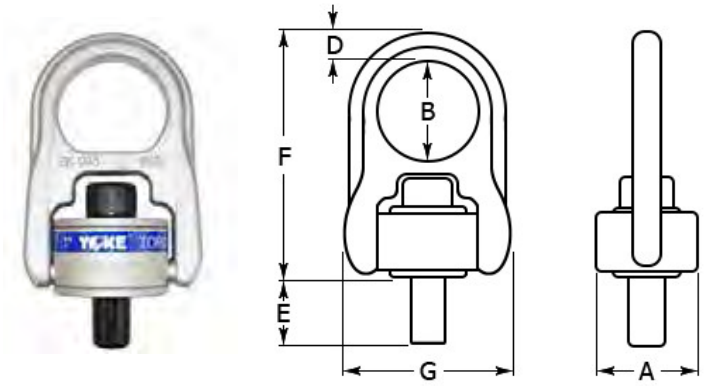
WIRE SIZE	SHEAVE	WLL
5/16" to 3/8"	2.5"	4 TONNE
5/8"	4"	8 TONNE
5/8"	4.5"	10 TONNE

SWIVEL - HOIST RING, UNC THREAD, GRADE 80

Material: Alloy Steel, Grade 80
Standard: ASME B30.26, Bolt: ASTM A574
Finish: Powder Coated, Yellow & Galvanized
Design Factor: 5:1
Identification: Trademark, SIZE/WLL, Batch Code, Grade

- Minimum Ultimate Load is 5 times the Working Load Limit
- Proof Load is 2.5 times the Working Load Limit
- Additional styles available for soft metal products
- The depth of thread needs to be a minimum of 1 times the thread diameter for steel, 1.25 times for cast iron, 2 times for aluminum

W.L.L (LBS)	THREAD SIZE	TORQUE FT. (LBS)	DIMENSIONS (IN)						WT./EA (LBS)
			A	B	D	E	F	G	
800	5/16" - 18X2.0	7	1.57	1.61	0.35	0.71	4.02	2.56	0.9
1000	3/8" - 16X2.0	12	1.57	1.61	0.35	0.71	4.02	2.56	0.9
2500	1/2" - 13X2.5	28	2.56	2.32	0.59	0.75	6.26	4.13	3.7
2500	1/2" - 13X3.0	28	2.56	2.32	0.59	1.26	6.26	4.13	3.7
4000	5/8" - 11X2.5	60	2.56	2.32	0.59	0.74	6.26	4.13	4
4000	5/8" - 11X3.25	60	2.56	2.32	0.59	1.69	6.26	4.13	4
5000	3/4" - 10X2.75	100	2.56	2.32	0.59	1.18	6.26	4.13	4
5000	3/4" - 10X3.25	100	2.56	2.32	0.59	1.65	6.26	4.13	4.2
7000	3/4" - 10X3.00	100	3.35	2.87	0.87	0.79	8.03	5.28	9
7000	3/4" - 10X3.75	100	3.35	2.87	0.87	1.58	8.03	5.28	9.5
8000	7/8" - 9X3.50	160	3.35	2.87	0.87	1.43	8.03	5.28	9.3
8000	7/8" - 9X4.25	160	3.35	2.87	0.87	2.37	8.03	5.28	9.7
10 000	1" - 8X3.50	230	3.35	2.87	0.87	1.36	8.03	5.28	9.5
10 000	1" - 8X4.50	230	3.35	2.87	0.87	2.36	8.03	5.28	9.7
15 000	1-1/4" - 7X4.5	470	3.95	3.15	1.00	2.25	8.58	6.3	14.8
24 000	1-1/2" - 6X6.5	800	4.72	4.29	1.38	2.17	12.09	8.66	36.4
30 000	2" - 4.5X6.50	1100	4.72	4.29	1.38	3.01	12.09	8.66	38.6

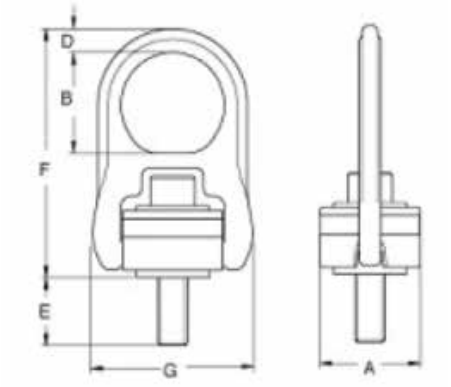


SWIVEL - HOIST RING, METRIC THREAD, GRADE 80

Material: Alloy Steel, Grade 80
Standard: ASME B30.26, Bolt: ASTM A574
Finish: Powder Coated, Yellow
Design Factor: 5:1
Identification: Trademark, Size/WLL, Batch Code, Grade

- Minimum Ultimate Load is 5 times the Working Load Limit
- Proof Load is 2.5 times the Working Load Limit
- Additional styles available for soft metal products
- The depth of thread needs to be a minimum of 1 times the thread diameter for steel, 1.25 times for cast iron, 2 times for aluminum

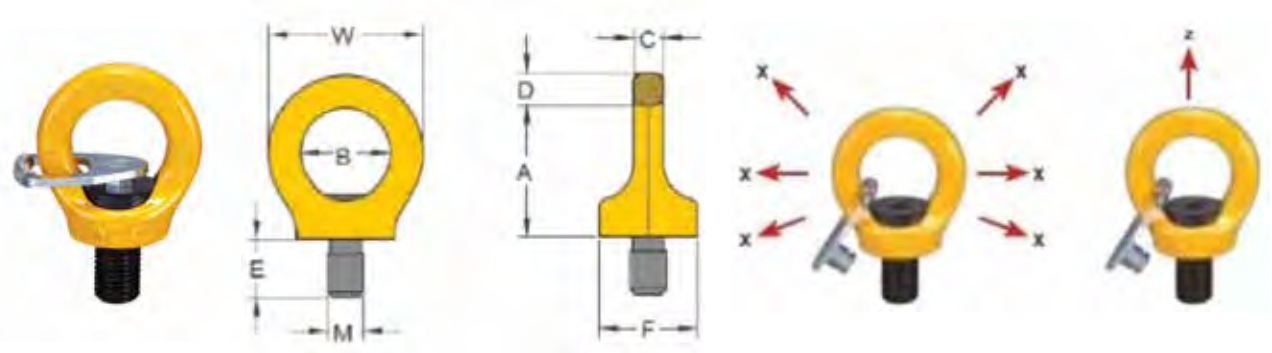
W.L.L (t)	THREAD SIZE	TORQUE (NM)	DIMENSIONS (MM)						WT./EA (KG)
			A	B	D	E	F	G	
0.40	M8 - 1.25X50	10	40	41	9	17	102	65	0.4
0.45	M10 - 1.50X45	16	40	41	9	11	102	65	0.5
0.45	M10 - 1.50X60	16	40	41	9	26	102	65	0.5
1.05	M12 - 1.75X60	38	65	64	15	15	158	105	1.7
1.05	M12 - 1.75X75	38	65	64	15	30	158	105	1.7
1.90	M16 - 2.00X65	81	65	64	15	20	158	105	1.8
1.90	M16 - 2.00X80	81	65	64	15	35	158	105	1.8
2.15	M20 - 2.50X70	136	65	64	15	25	158	105	1.9
2.15	M20 - 2.50X90	136	65	64	15	45	158	105	2.1
3.00	M20 - 2.50X80	136	85	79	19	25	204	134	4.2
3.00	M20 - 2.50X100	136	85	79	19	45	204	134	4.2
4.20	M24 - 3.00X80	312	85	79	19	26	204	134	4.2
4.20	M24 - 3.00X105	312	85	79	19	56	204	134	4.3
7.00	M30 - 3.50X135	637	100	100	25	81	241	160	6.7
11.00	M36 - 4.00X160	1005	120	111	30	76	286	194	15.5
12.50	M42 - 4.50X175	1005	120	111	30	65	286	194	16.5
13.50	M48 - 5.00X190	1350	120	111	30	70	286	194	16.8



SWIVEL - LIFTING KEY EYE POINTS, METRIC THREAD, GRADE 80

Material: Alloy Steel, Grade 80
Standard: EN 1677-1, Bolt: ANSI B18.3. 1M, ISO 4762
Finish: Powder Coated, Yellow
Design Factor: 4:1
Rated in Metric Ton(s)

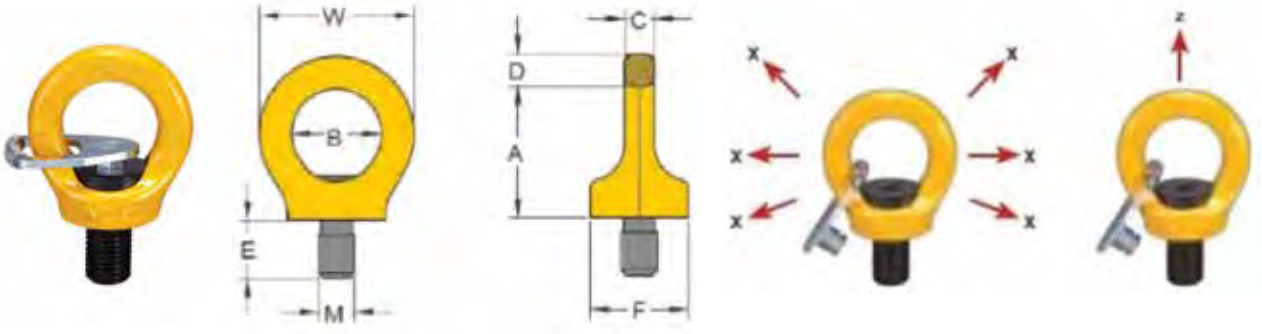
W.L.L (t)		THREAD SIZE			DIMENSIONS (MM)							TORQUE (NM)	WT. (KG)
X	Z	M (mm)	E (mm)	Pitch DIN13	A	B	C	D	F	S	W		
0.30	1	M8	12	1.25	36	25	8	9	25	6	44	10	0.10
0.40	1	M10	15	1.5	36	25	8	9	25	6	44	10	0.10
0.75	2	M12	18	1.75	45	30	10	11	33	8	52	10	0.20
1.50	4	M16	24	2	52	35	14	13	35	10	61	30	0.30
2.30	6	M20	30	2.5	60	40	16	15	44	12	70	70	0.60
3.20	8	M24	36	3	72	48	19	18	52	14	84	150	1.00
4.50	12	M30	45	3.5	90	60	24	22	60	17	105	350	1.80
7.00	16	M36	54	4	109	72	29	27	76	22	126	410	3.20
9.00	24	M42	63	4.5	123	82	34	32	88	24	147	550	5.00
12.00	32	M48	72	5	144	94	38	37	104	27	168	550	7.60
12.00	32	M56	84	5.5	147	102	40	43	124	27	178	800	9.20
12.00	32	M64	95	6	147	102	40	43	124	27	178	800	10.00



SWIVEL - LIFTING KEY EYE POINTS, UNC THREAD, GRADE 80

Material: Alloy Steel, Grade 80
Standard: EN 1677-1, Bolt: ANSI B18.3. 1M, ISO 4762
Finish: Powder Coated, Yellow
Design Factor: 4:1
Identification: Trademark, Size/WLL, Batch Code, Grade
Rated in Metric Ton(s)

W.L.L (t)		THREAD SIZE			DIMENSIONS (MM)							TORQUE (NM)	WT. (KG)
X	Z	M (in)	E (in)	TPI	A	B	C	D	F	S	W		
0.30	1	5/16	0.47	18UNC	1.42	0.98	0.31	0.35	0.98	0.25	1.73	10	0.02
0.40	1	3/8	0.57	16UNC	1.42	0.98	0.31	0.35	0.98	0.25	1.73	10	0.02
0.75	2	1/2	0.75	13UNC	1.77	1.18	0.39	0.43	1.30	0.31	2.05	10	0.04
1.50	4	5/8	0.94	11UNC	2.05	1.38	0.55	0.51	1.38	0.37	2.4	30	0.07
2.30	6	3/4	1.13	10UNC	2.36	1.57	0.63	0.59	1.73	0.50	2.76	70	1.3
2.30	6	7/8	1.31	9UNC	2.36	1.57	0.63	0.59	1.73	0.50	2.76	150	1.3
3.20	8	1	1.50	8UNC	2.83	1.89	0.75	0.71	2.05	0.56	3.31	150	2.2
4.50	12	1-1/4	1.88	7UNC	3.54	2.36	0.94	0.87	2.36	0.63	4.13	350	4
7.00	16	1-1/2	2.25	6UNC	4.29	2.83	1.14	1.06	2.99	0.87	4.96	410	7
9.00	24	1-3/4	2.63	5UNC	4.84	3.23	1.34	1.26	3.46	1.00	5.79	550	11
12.00	32	2	3.00	4.5UNC	5.67	3.70	1.50	1.46	4.09	1.00	6.61	550	16.7



SWIVELS

We carry various types and brands of swivels.

ANGULAR CONTACT BEARING SWIVELS

- AS -7 Bullet Style Jaw & Jaw
- AS -11 Thimble & Jaw
- AS -14 Thimble & Bullet
- AS -17 Bullet Style Jaw & Jaw Slurry Swivel
- AS -5 Eye & Eye
- AS - 6 Eye & Hook
- AS - 3 Jaw & Eye
- AS - 4 Eye & Jaw
- AS - 20 Thimble Insert
- AS - 1 Jaw & Hook
- AS - 2 Jaw & Jaw

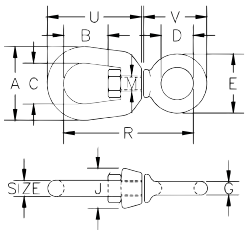
SWIVELS EQUIPPED WITH TAPERED ROLLER THRUST BEARING

- S - 4 Eye & Jaw
- S - 5 Eye & Eye
- S - 6 Eye & Hook
- S - 1 Jaw & Hook
- S - 2 Jaw & Jaw
- S - 3 Jaw & Eye

CROSBY® FORGED SWIVELS

- Hot Dip galvanized.
- Quenched & Tempered

- Crosby products meet or exceed all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importanty, Crosby products meet other critical performance requirements, including fatique life, impact properties and material traceability, not addressed by ASME B30.26.

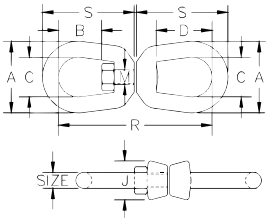


G-401 CHAIN SWIVELS

- Meets the performance requirements of Federal Speciication RR-C-271F, Type VII, Class 1, except for those provisions required of the contractor.

Size (in)	Working Load Limit (lbs.)*	Weight Each (lbs.)	Dimensions (in)										
			A	B	C	D	E	G	J	M	R	U	V
1/4	850	.13	1.25	.69	.75	.62	1.12	.25	.69	.31	2.25	1.69	1.25
5/16	1250	.25	1.63	.81	1.00	.75	1.38	.31	.81	.38	2.72	2.06	1.47
3/8	2250	.54	2.00	.94	1.25	1.00	1.75	.38	1.00	.50	3.44	2.50	1.88
1/2	3600	1.12	2.50	1.31	1.50	1.25	2.25	.50	1.31	.63	4.25	3.19	2.44
5/8	5200	2.09	3.00	1.56	1.75	1.50	2.75	.62	1.50	.75	5.13	3.88	2.94
3/4	7200	3.09	3.50	1.75	2.00	1.75	3.25	.75	1.88	.88	5.78	4.94	3.46

*Ultimate Load is 5 times the Working Load Limit.

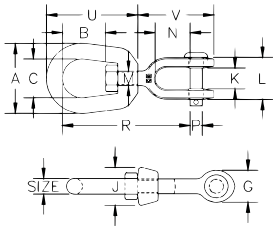


G-402 REGULAR SWIVELS

- Meets the performance requirements of Federal Speciication RR-C-271F, Type VII, Class 2, except for those provisions required of the contractor.

Size (in.)	Working Load Limit (lbs.)*	Weight Each (lbs.)	Dimensions (in.)							
			A	B	C	D	J	M	R	S
1/4	850	.21	1.25	.69	.75	1.06	.69	.31	2.94	1.69
5/16	1250	.39	1.63	.81	1.00	1.25	.81	.38	3.56	2.06
3/8	2250	.71	2.00	.94	1.25	1.50	1.00	.50	4.31	2.50
1/2	3600	1.32	2.50	1.31	1.50	2.00	1.31	.63	5.44	3.19
5/8	5200	2.49	3.00	1.56	1.75	2.38	1.50	.75	6.56	3.88
3/4	7200	4.02	3.50	1.75	2.00	2.63	1.88	.88	7.19	4.31
7/8	10000	6.25	4.00	2.06	2.25	3.06	2.13	1.00	8.38	5.00
1	12500	8.95	4.50	2.31	2.50	3.50	2.38	1.13	9.63	5.75
1-1/4	18000	16.37	5.63	2.69	3.13	3.69	3.00	1.50	11.44	6.75
1-1/2+	45200	45.79	7.09	3.88	4.09	3.88	3.75	2.25	16.69	9.91

*Ultimate Load is 5 times the Working Load Limit. + Manufactured with two 1 1/2" bails connected by a stud with a nut on each side.



G-403 JAW END SWIVELS

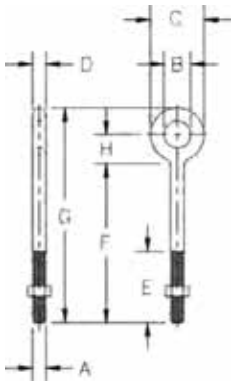
- Meets the performance requirements of Federal Speciication RR-C-271F, Type VII, Class 3, except for those provisions required of the contractor.

Size (in.)	Working Load Limit (lbs.)*	Weight Each (lbs.)	Dimensions (in.)												
			A	B	C	G	J	K	L	M	N	P	R	U	V
1/4	850	.21	1.25	.69	.75	.69	.69	.47	1.03	.31	.88	.25	2.63	1.69	1.69
5/16	1250	.34	1.63	.81	1.00	.81	.81	.50	1.13	.38	.88	.31	2.94	2.06	1.81
3/8	2250	.66	2.00	.94	1.25	1.00	1.00	.63	1.41	.50	1.06	.38	3.63	2.50	2.25
1/2	3600	1.34	2.50	1.31	1.50	1.31	1.31	.75	1.75	.63	1.31	.50	4.50	3.19	2.88
5/8	5200	2.48	3.00	1.56	1.75	1.63	1.50	.94	2.06	.75	1.50	.63	5.31	3.88	3.44
3/4	7200	3.88	3.50	1.75	2.00	1.88	1.88	1.13	2.53	.88	1.75	.75	6.06	4.31	4.00
7/8	10000	5.87	4.00	2.06	2.25	2.13	2.13	1.34	2.79	1.00	2.06	.88	7.00	5.00	4.53
1	12500	9.84	4.50	2.31	2.50	2.63	2.38	1.75	3.72	1.13	2.81	1.13	8.56	5.75	5.94
1-1/4	18000	15.75	5.69	2.69	3.13	3.13	3.00	2.06	4.31	1.63	2.81	1.38	9.75	7.06	6.38
1-1/2	45200	54.75	7.00	3.88	4.00	5.63	4.00	2.88	6.00	2.25	4.44	2.25	14.25	10.00	10.84

*Ultimate Load is 5 times the Working Load Limit.

FORGED EYE BOLTS

- Forged Steel - Quenched and Tempered.
- Fatigue rated at 1-1/2 times the Working Load Limit at 20,000 cycles.
- All Bolts Hot Dip galvanized after threading (UNC).
- Furnished with standard Hot Dip galvanized hex nuts.
- Recommended for in-line pull.
- Meet or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these bolts meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.



G-291
Regular Nut Eye Bolt

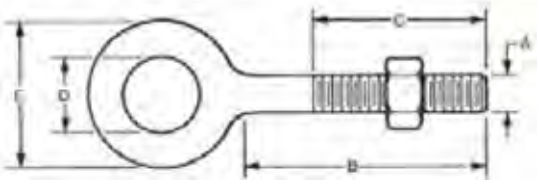
G-291 Regular Nut Eye Bolts

Shank Dia. & Length (in.)	Working Load Limit (lbs.)*	Weight Per 100 (lbs.)	Dimensions (in.)							
			A	B	C	D	E	F	G	H
1/4 x 2	650	8.20	.25	.50	1.00	.25	1.50	2.00	3.06	.56
1/4 x 4	650	11.70	.25	.50	1.00	.25	2.50	4.00	5.06	.56
5/16 x 2-1/4	1200	13.30	.31	.62	1.25	.31	1.50	2.25	3.56	.69
5/16 x 4-1/4	1200	25.00	.31	.62	1.25	.31	2.50	4.25	5.56	.69
3/8 x 2-1/2	1550	23.30	.38	.75	1.50	.38	1.50	2.50	4.12	.88
3/8 x 4-1/2	1550	29.50	.38	.75	1.50	.38	2.50	4.50	6.12	.88
3/8 x 6	1550	35.20	.38	.75	1.50	.38	2.50	6.00	7.62	.88
1/2 x 3-1/4	2600	50.30	.50	1.00	2.00	.50	1.50	3.25	5.38	1.12
1/2 x 6	2600	66.10	.50	1.00	2.00	.50	3.00	6.00	8.12	1.12
1/2 x 8	2600	82.00	.50	1.00	2.00	.50	3.00	8.00	10.12	1.12
1/2 x 10	2600	88.00	.50	1.00	2.00	.50	3.00	10.00	12.12	1.12
1/2 x 12	2600	114.20	.50	1.00	2.00	.50	3.00	12.00	14.12	1.12
5/8 x 4	5200	103.10	.62	1.25	2.50	.62	2.00	4.00	6.69	1.44
5/8 x 6	5200	118.20	.62	1.25	2.50	.62	3.00	6.00	8.69	1.44
5/8 x 8	5200	135.10	.62	1.25	2.50	.62	3.00	8.00	10.69	1.44
5/8 x 10	5200	153.60	.62	1.25	2.50	.62	3.00	10.00	12.69	1.44
5/8 x 12	5200	167.10	.62	1.25	2.50	.62	4.00	12.00	14.69	1.44
3/4 x 4-1/2	7200	168.60	.75	1.50	3.00	.75	2.00	4.50	7.69	1.69
3/4 x 6	7200	184.50	.75	1.50	3.00	.75	3.00	6.00	9.19	1.69
3/4 x 8	7200	207.90	.75	1.50	3.00	.75	3.00	8.00	11.19	1.69
3/4 x 10	7200	235.00	.75	1.50	3.00	.75	3.00	10.00	13.19	1.69
3/4 x 12	7200	257.50	.75	1.50	3.00	.75	4.00	12.00	15.19	1.69
3/4 x 15	7200	298.00	.75	1.50	3.00	.75	5.00	15.00	18.19	1.69
7/8 x 5	10600	270.00	.88	1.75	3.50	.88	2.50	5.00	8.75	2.00
7/8 x 8	10600	308.00	.88	1.75	3.50	.88	4.00	8.00	11.75	2.00
7/8 x 12	10600	400.00	.88	1.75	3.50	.88	4.00	12.00	15.75	2.00
1 x 6	13300	421.00	1.00	2.00	4.00	1.00	3.00	6.00	10.31	2.31
1 x 9	13300	468.50	1.00	2.00	4.00	1.00	4.00	9.00	13.31	2.31
1 x 12	13300	540.00	1.00	2.00	4.00	1.00	4.00	12.00	16.31	2.31
1 x 18	13300	650.00	1.00	2.00	4.00	1.00	7.00	18.00	22.31	2.31
1-1/4 x 8	21000	750.00	1.25	2.50	5.00	1.25	4.00	8.00	13.38	2.88
1-1/4 x 12	21000	900.00	1.25	2.50	5.00	1.25	4.00	12.00	17.38	2.88
1-1/4 x 20	21000	1210.00	1.25	2.50	5.00	1.25	6.00	20.00	25.38	2.88

*Ultimate Load is 5 times the Working Load Limit. Working Load Limit shown is for in-line pull. Maximum Proof Load is 2 times the Working Load Limit.

EYE BOLT - REGULAR

- Forged carbon steel quenched & tempered
- Hot dip galvanized
- With heavy hex nuts
- Embossed with 'OCEAN', and size to meet ASME B30.26



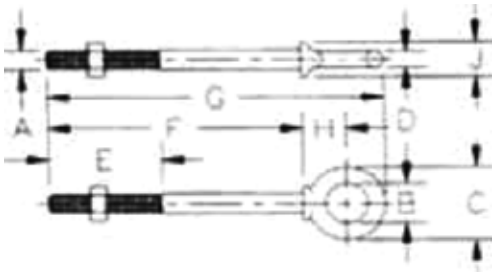
DIAMETER & LENGTH	W.L.L (LBS.)	WT./100	DIMENSIONS (IN.)				
			A	C	B	D	E
3/8 x 6	1,550	35.20	0.38	2.50	6.00	0.75	1.50
1/2 x 8	2,600	82.00	0.50	3.00	8.00	1.00	2.00
1/2 x 10	2,600	88.00	0.50	3.00	10.00	1.00	2.00
5/8 x 8	5,200	135.10	0.62	3.00	8.00	1.25	2.50
5/8 x 10	5,200	153.60	0.62	3.00	10.00	1.25	2.50
3/4 x 4 1/2	7,200	168.60	0.75	2.00	4.25	1.50	3.00
3/4 x 6	7,200	184.50	0.75	3.00	6.00	1.50	3.00
3/4 x 8	7,200	207.90	0.75	3.00	8.00	1.50	3.00
3/4 x 10	7,200	235.00	0.75	3.00	10.00	1.50	3.00
3/4 x 12	7,200	257.50	0.75	4.00	12.00	1.50	3.00
1 x 12	13,300	540.00	1.00	4.00	12.00	2.00	4.00

EYE BOLT - SHOULDER MACHINE

W.L.L (LBS.)	SHANK (IN)		EYE (IN.)		WT./100
	DIA.	LENGTH	I.D.	O.D.	
650	1/4	1	0.75	1.13	4.9
1,200	5/16	1-1/8	0.88	1.38	8.5
1,550	3/8	1-1/4	1.00	1.62	14.0
2,600	1/2	1-1/2	1.19	1.95	29.5
5,200	5/8	1-3/4	1.38	2.38	58.0
7,200	3/4	2	1.50	2.76	88.50
10,600	7/8	2-1/4	1.75	3.25	129.0
13,300	1	2-1/2	2.00	3.76	198.5
21,000	1-1/4	3	2.50	4.50	396.0
24,000	1-1/2	3-1/2	3.00	5.50	654.0

EYE BOLT - SHOULDER

- Forged carbon steel quenched & tempered
- Hot dip galvanized
- With heavy hex nuts
- Embossed with 'OCEAN', and size to meet ASME B30.26

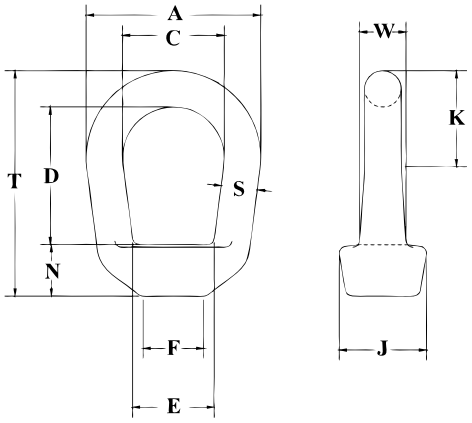


Size (in)	WLL lbs	Wt. 100	Dimensions (in)								
			A	B	C	D	E	F	G	H	J
1/4 x 2	650	6.6	0.25	0.50	0.88	0.19	1.50	2.00	2.94	0.50	0.47
1/4 x 4	650	9.1	0.25	0.50	0.88	0.19	2.50	4.00	4.94	0.50	0.47
5/16 x 2 1/4	1200	12.5	0.31	0.62	1.12	0.25	1.50	2.25	3.50	0.69	0.56
5/16 x 4 1/4	1200	18.8	0.31	0.62	1.12	0.25	2.50	4.25	5.50	0.69	0.56
3/8 x 2 1/2	1550	21.4	0.38	0.75	1.38	0.31	1.50	2.50	3.97	0.78	0.66
3/8 x 4 1/2	1550	25.3	0.38	0.75	1.38	0.31	2.50	4.50	5.97	0.78	0.66
1/2 x 3 1/4	2600	42.6	0.50	1.00	1.75	0.38	1.50	3.25	5.12	1.00	0.91
1/2 x 6	2600	56.8	0.50	1.00	1.75	0.38	3.00	6.00	7.88	1.00	0.91
5/8 x 4	5200	68.6	0.62	1.25	2.25	0.50	2.00	4.00	6.44	1.31	1.12
5/8 x 6	5200	102.4	0.62	1.25	2.25	0.50	3.00	6.00	8.44	1.31	1.12
3/4 x 4 1/2	7200	144.5	0.75	1.50	2.75	0.62	2.00	4.50	7.44	1.56	1.38
3/4 x 6	7200	167.5	0.75	1.50	2.75	0.62	3.00	6.00	8.94	1.56	1.38
7/8 x 5	10600	225.0	0.88	1.75	3.25	0.75	2.50	5.00	8.46	1.84	1.56
1 x 6	13300	366.3	1.00	2.00	3.75	0.88	3.00	6.00	9.97	2.09	1.81
1 x 9	13300	422.5	1.00	2.00	3.75	0.88	4.00	9.00	12.97	2.09	1.81
1 1/4 x 8	21000	650	1.25	2.50	4.50	1.00	4.00	8.00	12.72	2.47	2.28
1 1/4 x 12	21000	795	1.25	2.50	4.50	1.00	4.00	12.00	16.72	2.47	2.28
1 1/2 x 15	24000	1425	1.50	3.00	5.50	1.25	6.00	15.00	20.75	3.00	2.75

FORGED EYE NUT

- Forged Steel - Quenched and Tempered.
- Hot Dip galvanized.
- Tapped with standard UNC class 2 threads after galvanizing.
- Also available in blank (as forged) item (S-4028) or on request with metric threading (M-400).
- Recommended for In-Line pull.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these products meet other critical performance requirements including fatigue life, impact properties and material traceability, not addresses by ASME B30.26.

G-400
Eye Nut



G-400 Eye Nuts

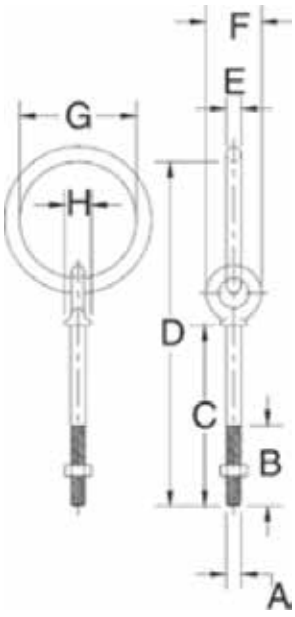
Size No.	Stock Size (in.)	Std. Tap Size (in.)	Working Load Limit (lbs.)*	Weight Per 100 (lbs.)	Dimensions (in.)									
					A	C	D	E	F	J	K	N	T	W
1	.25		520	.09	1.25	.75	1.00	.75	.50	.69	.63	.38	1.72	.31
2	.31	3/8	1250	.17	1.62	1.00	1.20	.83	.56	.81	.89	.50	2.09	.41
3A	.38	1/2	2250	.28	2.00	1.25	1.44	1.08	.81	1.00	1.09	.62	2.55	.50
4	.50	5/8	3600	.60	2.50	1.50	1.92	1.35	1.00	1.31	1.31	.69	3.25	.69
5	.63	3/4	5200	1.00	3.00	1.75	2.38	1.59	1.12	1.50	1.57	.88	3.89	.84
6	.75	7/8	7200	1.65	3.50	2.00	2.63	1.96	1.38	1.88	1.77	.94	4.32	1.00
7	.88	1	10000	2.69	4.00	2.25	3.06	2.21	1.56	2.13	2.02	1.07	5.01	1.19
8	1.00	1-1/4	15500	4.38	4.50	2.50	3.50	2.46	1.88	2.38	2.27	1.25	5.78	1.38
9	1.13	1-3/8	18500	5.00	5.00	2.75	4.00	2.69	2.00	2.56	2.53	1.38	6.51	1.50
10	1.25	1-1/2	22500	6.78	5.62	3.12	4.31	3.09	2.25	3.00	2.82	1.50	7.06	1.66
11	1.50	2	40000	14.60	7.12	4.10	6.20	4.09	3.13	3.75	3.68	2.06	9.91	1.94

*Working Load Limit shown is for In-Line pull. Ultimate Load is 5 times the Working Load Limit. Rating based on standard tap size.

SHOULDER NUT RING BOLT

- Forged Steel - Quenched and Tempered.
- Hot Dip galvanized.
- All Bolts Hot Dip galvanized after threading.
- Diameter of ring stock is same as shank diameter.

G-257
Shoulder Nut Ring Bolts



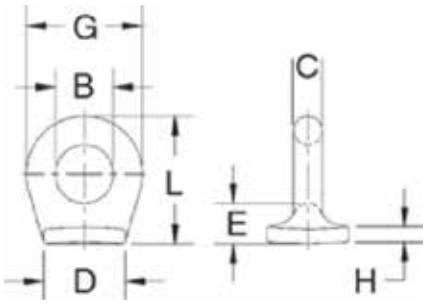
G-257 Shoulder Nut Ring Bolts

Ring Bolt Size (in.)	Working Load Limit (lbs.)*	Weight Per 100 (lbs.)	Dimensions (in.)							
			A	B	C	D	E	F	G	H
3/8 x 4-1/2	1200	56.60	.38	2.50	4.50	7.66	.38	1.38	2.00	.66
1/2 X 6	2200	100.00	.50	3.00	6.00	10.00	.50	1.75	2.50	.91

*Ultimate Load is 5 times the Working Load Limit.

PAD EYES

- Forged Steel - Quenched and Tempered.
- Forged from 1035 Carbon Steel.
- Excellent welding qualities.
- Widely used on farm machinery, trucks, steel hulled marine vessels and material handling equipment.
- Reference American Welding Society specifications for proper welding procedures.



S-264
Pad Eye

S-264 Pad Eyes

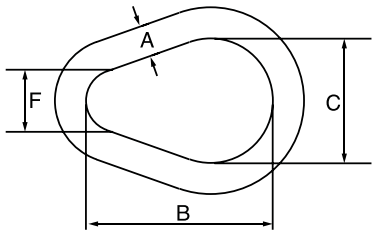
Size No.*	Weight Per 100 (lbs.)	Dimensions (in.)						
		B	C	D	E	G	H	L
* 0	2.80	.25	.19	.63	.31	.63	.09	.75
* 1	6.50	.38	.25	.88	.41	.88	.13	1.03
* 1-1/2	10.40	.63	.25	1.00	.44	1.13	.16	1.31
2	21.10	.75	.38	1.06	.50	1.50	.19	1.63
4	52.20	1.00	.56	1.44	.78	2.13	.22	2.34
5	82.50	1.25	.69	1.75	.81	2.63	.25	2.75

*Meets the requirements of Military Specification MS-51930A.

PEAR SHAPED LINKS

- Alloy Steel - Quenched and Tempered
- Individually Proof - Tested at 2 times Working Load Limit with certifications.
- Proof Test certification shipped with each link.
- Sizes 1/2", 5/8", 3/4", 7/8", 1", 1-1/2", and 1-3/8" are forged.

A-314
Alloy Pear Shaped Links



A-341 Alloy Pear Shaped Links

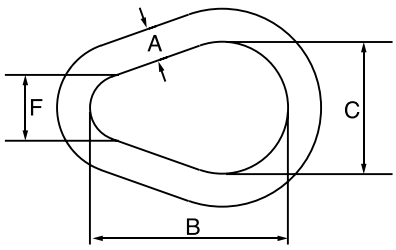
Size (A) (in.)	Working Load Limit		Weight Each (lbs.)	Dimensions (in.)		
	(lbs.)*	(t)		B	C	F
1/2	7000	3.15	.55	3.00	2.00	1.00
5/8	9000	4.09	1.10	3.75	2.50	1.25
3/4	12300	5.59	1.76	4.50	3.00	1.50
7/8	15000	6.81	2.82	5.25	3.50	1.75
1	24360	11.0	4.22	6.00	4.00	2.00
†† 1 1/8	30600	13.9	6.25	6.50	4.50	2.25
1 1/4	36000	16.4	8.25	7.75	5.00	2.50
1 3/8	43000	19.5	11.25	8.25	5.50	2.75
†† 1 1/2	54300	24.7	14.25	9.00	6.00	3.00
†† 1 5/8	62600	28.4	18.50	9.75	6.50	3.25
†† 1 3/4	84900	38.6	22.50	10.50	7.00	3.50
†† 1 7/8	95800	43.5	29.00	11.25	7.50	3.75
†† 2	102600	46.6	34.00	12.00	8.00	4.00
†† 2 1/4	143100	65.0	48.00	13.50	9.00	4.50
†† 2 1/2	147300	66.9	66.00	15.00	10.00	5.00
†† 2 3/4	216900	98.6	88.00	16.50	11.00	5.50
†† 3	228000	103	114.00	18.00	12.00	6.00
†† 3 1/4	262200	119	146.00	19.50	13.00	6.50
†† 3 1/2	279000	126	181.00	21.00	14.00	7.00
†† 4	373000	169	271.00	24.00	16.00	8.00

*Based on single leg sling (in-line load), or resultant load on multiple legs with an included angle less than or equal to 120°. Minimum Ultimate load is 5 times the Working Load Limit. †† Welded Link.

WELDLESS SLING LINK

- Forged carbon steel - Quenched and Tempered
- Self coloured or Hot Dip galvanized.

G-341 / S-341
Weldless Sling Link



G-341 / S-341 Weldless Sling Links

Size (A) (in.)	Working Load Limit Single Pull (lbs.)*	Weight Each (lbs.)	Dimensions (in.)		
			B	C	F
3/8	1800	.23	2.25	1.50	.75
1/2	2900	.55	3.00	2.00	1.00
5/8	4200	1.06	3.75	2.50	1.25
3/4	6000	1.88	4.50	3.00	1.50
7/8	8300	2.75	5.25	3.50	1.75
1	10800	4.35	6.00	4.00	2.00
1 1/4	16750	7.60	7.75	5.00	2.50
1 3/8	20500	11.30	8.25	5.50	2.75

* Ultimate Load is 6 times the Working Load Limit. Based on single leg sling (in-line load), or resultant load on multiple legs with an included angle less than or equal to 120°.

TURNBUCKLES

Forged "Yellow End ™" Turnbuckles

- **End fittings are quenched and tempered, bodies heat treated by normalizing.**
- **Hot dip Galvanized Steel**
- **Embossed with "OCEAN", size and product identification for traceability to meet ASME B30.26**
- **Ends painted Yellow for quick recognition**
- **Sizes 1/4" through 1/2" c/w nut & bolt, sizes 5/8" through 2-3/4" c/w pin & cotter**
- **All sizes provided with Lock Nuts**

TURNBUCKLE JAW & JAW

- Galvanized. Conforms to Federal Specification FF-T-791B and ASTM F1145,Type 1, Form 1

SIZE	WLL (LBS.)	OPEN LENGTH	CLOSED LENGTH
1/4" X 4"	500	11.9"	7.9"
5/16" X 4 1/2"	800	13.9"	9.4"
3/8" X 6"	1,200	17.4"	11.4"
1/2" X 6"	2,200	19.0"	13.0"
1/2" X 9"	2,200	25.0"	16.0"
1/2" X 12"	2,200	31.0"	19.0"
5/8" X 6"	3,500	20.9"	14.9"
5/8" X 9"	3,500	26.9"	17.9"
5/8" X 12"	3,500	32.9"	20.9"
3/4" X 6"	5,200	22.6"	16.6"
3/4" X 9"	5,200	28.6"	19.6"
3/4" X 12"	5,200	34.6"	22.6"
3/4" X 18"	5,200	46.6"	28.6"
1" X 6"	10,000	26.1"	20.1"
1" X 12"	10,000	38.1"	26.1"
1"X 18"	10,000	50.1"	32.1"
1" X 24"	10,000	62.1"	38.1"
1-1/4" X 12"	15,200	42.54"	29.54"
1-1/4" X 18"	15,200	53.54"	35.54"
1-1/4" X 24"	15,200	68.04"	41.54"
1-1/2" X 12"	21,400	45.68"	33.68"
1-1/2" X 18"	21,400	58.50"	37.50"
1-1/2" X 24"	21,400	70.50"	43.50"
1-3/4" X 18"	28,000	59.16"	41.16"
1-3/4" X 24"	28,000	71.18"	47.18"
2" X 24"	37,000	76.72"	52.72"
2-1/2" X 24"	60,000	82.18"	58.18"
2-3/4" X 24"	75,000	82.50"	61.50"

TURNBUCKLE EYE & EYE

- Galvanized. Conforms to Federal Specification FF-T-791B, Type 1, Form 1 – Class 4

SIZE	WLL (LBS.)	OPEN LENGTH	CLOSED LENGTH
5/16" X 4-1/2"	800	14.12"	9.62"
3/8" X 6"	1,200	18.16"	12.16"
1/2" X 6"	2,200	19.96"	13.96"
1/2" X 9"	2,200	25.96"	16.96"
1/2" X 12"	2,200	32.08"	19.08"
5/8" X 6"	3,500	21.68"	15.68"
5/8" X 9"	3,500	27.68"	18.68"
5/8" X 12"	3,500	34.93"	21.68"
3/4" X 9"	5,200	29.62"	20.62"
3/4" X 12"	5,200	35.62"	23.62"
7/8" X 12"	7,200	36.82"	24.82"
1" X 12"	10,000	39.97"	27.72"

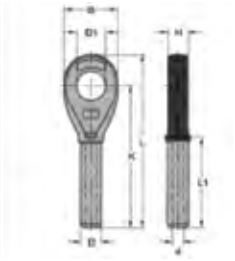
TURNBUCKLE STUB END

- Self Colored, Conforms to Federal Specification FFT-T-791B, Type 1, Form 1 – Class 3

SIZE	WLL (LBS.)	OVERALL LENGTH
1/2" X 6"	2,200	16"
5/8" X 6"	3,500	16"
3/4" X 6"	5,200	17"
7/8" X 6	7,200	18"
1" X 6"	10,000	19"
1-1/4" X 6"	15,200	20"

SOCKET - SWAGE, CLOSED, FORGED, YOKE®

- Yoke swage sockets properly applied have an efficiency rating of 100% based on catalog strength of wire rope.
- Yoke swage sockets are recommended for use with 6x19, 6x37, IWRC wire rope, and galvanized bridge rope.
- Yoke swage sockets are not recommended for use on fiber core or lang lay wire rope. Rope (in) Before Swage Dimensions

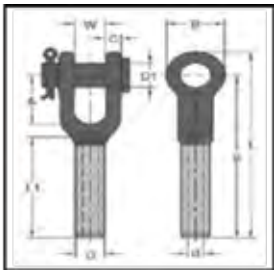


Rope (in)	Before Swage Dimensions (in)								Max. after Swage (in)	Wt./ea. (LBS)
	B	D	D1	d	H	K	L	L1		
1/4	1.38	0.50	0.75	0.27	0.50	3.50	4.33	2.13	0.46	0.3
5/16	1.63	0.77	0.89	0.34	0.67	4.50	5.50	3.15	0.71	0.8
3/8	1.63	0.77	0.89	0.41	0.67	4.50	5.50	3.15	0.71	0.7
1/2	2.00	0.98	1.06	0.55	0.89	5.75	6.93	4.25	0.91	1.4
5/8	2.40	1.25	1.26	0.67	1.14	7.28	8.70	5.31	1.16	2.9
3/4	2.87	1.55	1.44	0.80	1.31	8.54	10.20	6.38	1.42	5.0
7/8	3.11	1.70	1.70	0.94	1.50	10.16	11.97	7.44	1.55	6.8
1	3.62	1.98	2.05	1.06	1.77	11.54	13.46	8.50	1.80	10.4
1-1/8	4.02	2.25	2.32	1.19	2.00	12.72	15.04	9.57	2.05	14.8
1-1/4	4.50	2.53	2.56	1.33	2.25	14.33	16.97	10.63	2.30	21.6

All slings swaged with sockets shall be proof loaded in accordance with ASME B30.9

SOCKET - SWAGE, OPEN, FORGED, YOKE®

- Yoke swage sockets properly applied have an efficiency rating of 100% based on catalog strength of wire rope.
- Yoke swage sockets are recommended for use with 6x19, 6x37, IWRC wire rope, and galvanized bridge rope.
- Yoke swage sockets are not recommended for use on fiber core or lang lay wire rope. Rope (in) Before Swage Dimensions

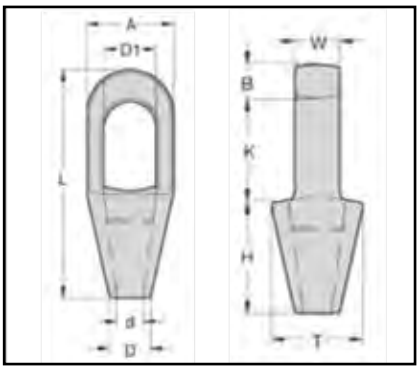


Rope (in)	Before Swage Dimensions (in)										Max. after Swage (in)	Wt./ea. (LBS)
	A	B	C	D	D1	d	K	L	L1	W		
1/4	1.50	1.38	0.35	0.50	0.69	0.27	4.02	4.80	2.17	0.67	0.46	0.5
5/16	1.77	1.65	0.47	0.77	0.81	0.34	5.31	6.26	3.15	0.79	0.71	1.1
3/8	1.77	1.65	0.47	0.77	0.81	0.41	5.31	6.26	3.15	0.79	0.71	1.3
1/2	1.96	2.00	0.55	0.98	1.00	0.55	6.85	7.83	4.33	1.00	0.91	2.1
9/16	2.25	2.36	0.68	1.25	1.19	0.61	8.27	9.45	5.31	1.22	1.16	4.7
5/8	2.25	2.36	0.68	1.25	1.19	0.67	8.27	9.45	5.31	1.22	1.16	4.5
3/4	2.75	2.75	0.79	1.55	1.38	0.80	10.07	11.61	6.34	1.50	1.42	8.0
7/8	3.23	3.15	0.94	1.70	1.63	0.94	11.81	13.39	7.44	1.77	1.55	11.5
1	3.86	3.94	1.02	1.98	2.00	1.06	13.58	15.55	8.50	2.00	1.80	17.8
1-1/8	4.26	4.06	1.19	2.25	2.20	1.19	15.08	17.40	9.37	2.25	2.05	25.3
1-1/4	4.72	4.45	1.34	2.53	2.48	1.33	16.50	19.06	10.59	2.48	2.30	35.6

All slings swaged with sockets shall be proof loaded in accordance with ASME B30.9

SOCKET - SPELTER, CLOSED, FORGED, YOKE®

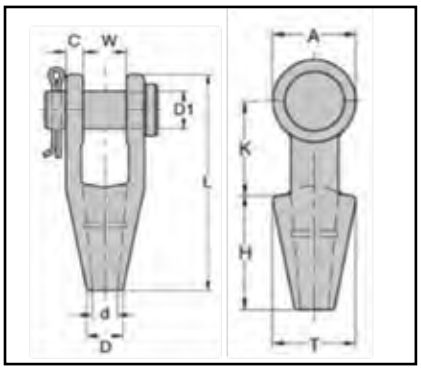
- Spelter sockets are forged from special bar quality carbon steel with the very finest in hardness controls.
- Spelter sockets properly applied have an efficiency rating of 100% based on catalog strength of wire rope.
- Socket size range 1/4" through 3/4" using one groove, 7/8" through 1-1/2" uses 2 grooves.
- Yoke Closed Spelter Sockets meet the performance requirements on Federal Specification RR-S-550E, Type A.



Wire Size (in)	Structural Strand Dia. (in)	Dimensions (mm)										
		L	B	A	D1	d	D	T	H	W	K	Wt./ea. (LBS)
5/16 - 3/8	--	4.88	0.62	1.69	0.98	0.50	0.83	1.70	2.25	0.71	2.00	0.8
7/16 - 1/2	--	5.43	0.71	2.00	1.19	0.55	0.98	1.96	2.52	0.87	2.25	1.5
9/16 - 5/8	1/2	6.31	0.83	2.63	1.41	0.71	1.12	2.50	3.00	0.98	2.52	2.6
3/4	9/16 - 5/8	7.58	1.06	3.00	1.61	0.81	1.26	2.75	3.50	1.26	3.00	4.3
7/8	11/16 - 3/4	8.75	1.26	3.63	1.89	0.94	1.50	3.46	3.98	1.50	3.50	7.9
1	13/16 - 7/8	9.88	1.38	4.13	2.28	1.14	1.77	3.78	4.50	1.77	4.02	10.5
1 1/8	15/16 - 1	10.98	1.50	4.50	2.56	1.26	2.00	4.12	5.00	2.00	4.50	15.2
1 1/4 - 1 3/8	1 1/16 - 1 1/8	12.31	1.63	5.31	2.80	1.50	2.25	4.75	5.50	2.25	5.00	22.7
1 1/2	1 3/16 - 1 1/4	13.94	1.93	5.31	3.19	1.63	2.75	5.25	6.00	2.52	6.00	30.9

SOCKET - SPELTER, OPEN, FORGED, YOKE®

- Spelter sockets are forged from special bar quality carbon steel with the very finest in hardness controls.
- Spelter sockets properly applied have an efficiency rating of 100% based on catalog strength of wire rope.
- Socket size range 1/4" through 3/4" using one groove, 7/8" trough 1-1/2" uses 2 grooves. Yoke Open Spelter Sockets meet the performance requirements on Federal Specification RR-S-550E, Type A.



Wire Size (in)	Structural Strand Dia. (in)	Dimensions (in)										
		L	W	D1	d	D	T	H	K	A	C	Wt./ea. (LBS)
5/16 - 3/8	--	4.84	0.83	0.79	0.51	0.83	1.73	2.25	1.77	1.50	0.44	1.3
7/16 - 1/2	--	5.62	1.00	0.98	0.56	0.98	1.96	2.48	2.13	1.91	0.50	2.3
9/16 - 5/8	1/2	6.77	1.26	1.19	0.70	1.14	2.25	3.00	2.52	2.28	0.55	3.7
3/4	9/16 - 5/8	7.96	1.50	1.38	0.81	1.26	2.64	3.62	3.00	2.64	0.62	5.8
7/8	11/16 - 3/4	9.25	1.77	1.63	0.94	1.50	3.35	4.02	3.50	3.17	0.80	10.4
1	13/16 - 7/8	10.55	2.05	2.00	1.14	1.75	3.75	4.48	4.02	3.78	0.91	16.3
1-1/8	15/16 - 1	11.81	2.25	2.25	1.26	2.00	4.12	5.00	4.62	4.12	1.00	22.0
1 1/4 - 1 3/8	1 1/16 - 1 1/8	13.20	2.52	2.50	1.50	2.25	4.72	5.51	5.00	4.75	1.14	32.8
1-1/2	1 3/16 - 1 1/4	15.12	3.00	2.75	1.63	2.75	5.25	6.00	6.00	5.38	1.19	45.9

WIRE ROPE END FITTINGS - SB-427 BUTTON SPELTER SOCKET

- Available in six sizes from 1/2" to 1-1/2", (13mm - 38mm).
- Button Spelter terminations have a 100% efficiency rating, based on the catalog strength of the wire rope.
- Designed for use with mobile cranes. Can be used ot terminate high performance, rotation resistant ropes, and standard 6 strand ropes.
- Easy to install assembly utilizes Crosby WIRELOCK® socketing compound.
- Sockets and buttons are re-usable.
- Replacement buttons and sockets are available.
- Locking feature available to prevent rotation of rope.
- Button contains cap with eye that can be attached to, and used to pull, rope during reeving process.
- Manufactured to the requirements of API-2C.

SB-427
Button Spelter Socket

SB-427 Button Spelter Sockets

Wire Rope Size		SB-427 Stock No.	Ultimate Load (t)	Weight Each (lbs.)	Socket Only Stock No.	Button Only Stock No.	Dimensions (in.)										Toler-ance +/-
(in.)	(mm)						A	B	C	D	E	F	J	K	L	M	C
1/2 - 5/8	13-16	1052005	27	6.1	1052107	1052309	7.94	3.23	1.28	1.19	1.22	.57	1.50	3.50	.25	2.93	.06
5/8 - 3/4	16-19	1052014	45	10.3	1052116	1052318	9.44	3.88	1.53	1.38	1.44	.66	1.75	4.28	.38	3.43	.06
3/4 - 7/8	19-22	1052023	57	17.1	1052125	1052327	10.81	4.41	1.78	1.62	1.69	.75	2.06	4.78	.38	3.96	.06
7/8 - 1	22-26	1052032	82	29.2	1052134	1052336	12.88	5.48	2.03	2.00	2.00	.89	2.44	5.62	.62	4.52	.09
1-1/8 - 1-1/4	28-32	1052041	136	46.0	1052143	1052345	14.90	5.68	2.53	2.25	2.50	1.11	2.94	7.08	.75	5.72	.09
1-3/8 - 1-1/2	35-38	1052050	161	78.0	1052152	1052354	18.06	7.17	3.03	2.75	2.75	1.24	3.62	8.08	.75	6.76	.09

SB-427TB (Bolt, Nut and Cotter Pin)

Wire Rope Size		SB-427TB Stock No.	Ultimate Load (t)	Weight Each (lbs.)	Socket Only Stock No.	Button Only Stock No.	Dimensions (in.)										Tolerance +/-
(in.)	(mm)						A	B	C	D	E	F	J	K	L	M	C
1/2 - 5/8	13-16	1052406	27	6.1	1052107	1052309	7.94	3.23	1.28	1.19	1.22	.57	1.50	3.50	.25	2.93	.06
5/8 - 3/4	16-19	1052415	45	10.3	1052116	1052318	9.44	3.88	1.53	1.38	1.44	.66	1.75	4.28	.38	3.43	.06
3/4 - 7/8	19-22	1052424	57	17.1	1052125	1052327	10.81	4.41	1.78	1.62	1.69	.75	2.06	4.78	.38	3.96	.06
7/8 - 1	22-26	1052433	82	29.2	1052134	1052336	12.88	5.48	2.03	2.00	2.00	.89	2.44	5.62	.62	4.52	.09
1-1/8 - 1-1/4	28-32	1052442	136	46.0	1052143	1052345	14.90	5.68	2.53	2.25	2.50	1.11	2.94	7.08	.75	5.72	.09
1-3/8 - 1-1/2	35-38	1052451	161	78.0	1052152	1052354	18.06	7.17	3.03	2.75	2.75	1.24	3.62	8.08	.75	6.76	.09

Wirelock® Requirements

Wire Rope Size		WIRELOCK Required (cc)	WIRELOCK Stock No.	WIRELOCK Kit Size (cc)
(in.)	(mm)			
1/2 - 5/8	13-16	35	1039602	100
5/8 - 3/4	16-19	60	1039602	100
3/4 - 7/8	19-22	100	1039602	100
7/8 - 1	22-26	140	1039602*	100
1-1/8 - 1-1/4	28-32	250	1039604	250
1-3/8 - 1-1/2	35-38	420	1039606	500

* 2 kits required.

WIRE ROPE END FITTINGS - US-423T SUPER TERMINATOR

- The 423T wedge socket terminations have a minimum efficiency rating on most high performance, high strength, compacted strand, rotation resistant wire ropes of 80% based on the catalog breaking strength of the various ropes.**
- Design eliminates the difficulty of properly seating the wedge with high performance wire rope into a wedge socket termination.
- Proper application of the Super TERMINATOR eliminates the "first load" requirement of conventional wedge socket terminations.
- Wedge and accessories provided with a zinc finish.
- Meets the performance requirements of EN13411-6:2003.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these sockets meet other critical performance requirements including fatigue life, impact properties and material traceability, not addressed by ASME B30.26.
- US Patent 8,375,527 B1.
- Basket is cast steel and individually magnetic particle inspected.
- Pin diameter and jaw opening allows wedge and socket to be used in conjunction with closed swage and spelter sockets.
- Secures the tail or "dead end" of the wire rope to the wedge, thus eliminates loss or "punch out" of the wedge.
- Eliminates the need for an extra piece of rope an dis easily installed.
- The TERMINATOR® wedge eliminates the potential breaking off of the tail due to fatigue.
- The tail, which is secured by the base of the clip and the tensions device, is left underformed and available for reuse.
- Available with Bolt, Nut, and Cotter Pin.

S-423T
Super Terminator

S-423T WEDGE SOCKETS Assembly includes Socket, Wedge, Pin, Wire Rope Clip, Tensioner, Bolts and Secondary Retention Wire.

Wire Rope Dia.		S-423T Assembly with Round Pin and Cotter Pin				S-423TB Assembly with Bolt, Nut and Cotter Pin				S-423TW** Wedge Kit		
			API 2C	S-423T Weight Each			API 2C	S-423TB Weight Each			S423TW Weight Each	
(in.)	(mm)	S-423T Stock No.	S-423T Stock No.	(lbs.)	(kg)	S-423TB Stock No.	S-423TB Stock No.	(lbs.)	(kg)	S-423TW Stock No.	(lbs.)	(kg)
5/8	14- 16	1035123	1035128	12.7	5.8	1035218	1035223	13.1	5.9	1034018	5.2	2.4
3/4	18-19	1035132	1035137	19.4	8.8	1035227	1035232	19.1	8.7	1034027	7.2	3.3
7/8	20-22	1035141	1035146	28.8	13.1	1035236	1035241	27.8	12.6	1034036	10.3	4.7
1	24-26	1035150	1035155	39.2	17.8	1035245	1035250	37.3	16.9	1034045	11.9	5.4
1-1/8	28	1035169	1035174	57.1	25.9	1035254	1035259	57.9	25.9	1034054	19.9	9.0
1-1/4	30-32	1035178	1035183	88.6	40.2	1035272	1035277	88.1	39.9	1034063	33.8	15.3

**Kit contains Wedge, Wire Rope Clip and Bolts, Tensioner Bolt and Secondary Retention Wire.

Wire Rope Dia.		S-423T Stock No.	Dimensions (in.)															
(in.)	(mm)		A	B	C	D	E	F	G	H	J*	L	P	R	S	T	U	V
5/8	14-16	1035123	8.25	4.50	1.25	1.19	3.00	4.06	2.13	4.61	12.31	1.22	2.25	.56	3.25	.75	6.88	2.60
3/4	18-19	1035132	9.88	5.20	1.50	1.38	3.25	4.81	2.44	5.37	14.69	1.40	2.62	.66	3.63	.88	7.65	3.02
7/8	20-22	1035141	11.25	5.88	1.75	1.63	3.81	5.73	2.69	6.16	16.98	1.67	3.13	.75	4.31	1.00	9.47	3.47
1	24-26	1035150	12.81	6.56	2.00	2.00	3.81	5.73	2.94	7.05	18.54	2.01	3.75	.88	4.70	1.13	10.41	3.82
1-1/8	28	1035169	14.38	6.94	2.25	2.25	4.00	6.85	3.38	7.81	21.23	2.26	4.25	1.00	5.44	1.25	11.83	4.22
1-1/4	30-32	1035178	16.34	8.63	2.62	2.50	4.50	7.76	3.57	9.38	24.10	2.34	4.50	1.06	6.62	1.38	13.87	5.82

* Nominal **NOTE: For intermediate wire rope sizes, use next larger size socket.** The S-423T Super TERMINATOR wedge is designed to be assembled only into the Crosby S-421T TERMINATOR socket body. IMPORTANT: The S-423TW for sizes 5/8" through 1-1/8" will fit respective size standard Crosby S-421T basket. The 1-1/4" S-423TW will only fit the Crosby S-421T 1-1/4" basket marked with TERMINATOR.

WIRE ROPE END FITTINGS - S-423T SUPER TERMINATOR

THE CROSBY SUPER TERMINATOR OFFERS SEVERAL ADVANTAGES OVER TRADITIONAL METHODS OF WEDGE SOCKET TERMINATIONS:

The Crosby S-423T Super TERMINATOR is the first wedge socket designed to take advantage of the performance properties associated with high performance, high strength, compacted strand, rotation resistant wire rope.

The innovative design will significantly increase the termination efficiency over existing wedge sockets available today.

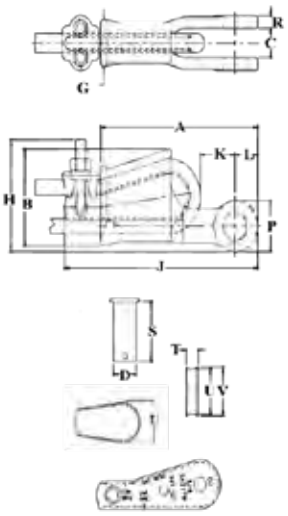
- Terminations on most ropes have a minimum efficiency rating of 80% of the rope's catalog breaking strength.
- Design eliminates the difficulty of properly seating the wedge with high performance, high strength, compacted strand, rotation resistant wire rope into a wedge socket termination.
- Proper application of the Super TERMINATOR eliminates the "first load" requirement of conventional wedge socket terminations.
- US Patent 8,375,527 B1.

Additional Features:

- Wire rope sizes available: 5/8" -1 1/4", 14 mm- 32 mm
- Available as a complete assembly, or as a wedge kit that can be retrofitted onto existing Crosby S-421T TERMINATOR wedge sockets.
- Wedge accessories provided with a zinc finish.
- Meets or exceeds all ASME B30.26 requirements including: identification, ductility, design factor, proof load, and temperature requirements. Importantly, they meet other critical performance criteria not addressed by ASME B30.26 including: fatigue life, impact properties and material traceability.
- Available with bolt, nut and cotter (S-423TB)

WIRE ROPE END FITTINGS - S-421T WEDGE SOCKETS

- Wedge socket terminations have an efficiency rating of 80% based on the catalog strength of XXIP wire rope.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these sockets meet other critical performance requirements including fatigue life, impact properties and materials traceability, not addressed by ASME B30.26.
- Type Approval and certification in accordance with ABS 2007 Steel Vessel Rules. 1-1-17.7, and ABS Guide for Certification of Cranes.
- Basket is cast steel and individually magnetic particle inspected.
- Pin diameter and jaw opening allows wedge and socket to be used in conjunction with closed swage and spelter sockets.
- Secures the tail or "dead end" of the wire rope to the wedge, thus eliminates loss or "Punch out" of the wedge.
- Eliminates the need for an extra piece of rope, and is easily installed.
- The TERMINATOR™ wedge eliminates the potential breaking off of the tail due to fatigue.
- The tail, which is secured by the base of the clip and the wedge, is left undeformed and available for reuse.
- Incorporates Crosby's patented QUIC-CHECK® "Go" and "No-Go" feature cast into the wedge. The proper size rope is determined when the following criteria are met:
  1) Utilizes standard Crosby Red-U-Bolt wire rope clip.
  2) The wire rope should NOT pass thru the "No-Go" hole in the wedge.
- Utilizes standard Crosby Red-U-Bolt® wire rope clip.
- The 3/8 through 1-1/8 standard S-421 wedge socket can be retrofitted with the new style TERMINATOR wedge.
- Available with Bolt, Nut, and Cotter Pin.
- U.S. patent 5,553,360 Canada patent 2,217,004 and foreign equivalents.
- Meets the performance requirements of EN 13411-6: 2003.



S-421T

Wedge sockets meet the performance requirements of federal specification RR -S-550E, Type C, except those provisions required of the contractor.

S-421T WEDGE SOCKETS (Assembly includes Socket, Wedge, Pin and Wire Rope Clip)

Wire Rope Dia.		S-421T Stock No.	API 2C S-421T Stock No.	Weight Each (lbs.)	S-421TW Stock No. Wedge Only	Wedge Only Weight Each (lbs.)	API 2C S-421TW Stock No. Wedge Only	Optional G-4082 API 2C Bolt, Nut & Cotter		API 2C S-421TW Stock No. Wedge Only	Optional G-4082 Bolt, Nut & Cotter	
(in.)	(mm)							G-4082 Stock No.	Weight Each (lbs.)		G-4082 Stock No.	Weight Each (lbs.)
3/8	9-10	1035000	1035005	3.18	1035555	.50	1092230	1092227	.38	1092230	1092227	.38
1/2	11-13	1035009	1035014	6.15	1035564	1.05	1092248	1092236	.69	1092248	1092236	.69
5/8	14-16	1035018	1035023	9.70	1035573	1.79	1092257	1092254	1.15	1092257	1092254	1.15
3/4	18-19	1035027	1035032	14.50	1035582	2.60	1092293	1092281	1.91	1092293	1092281	1.91
7/8	20-22	1035036	1035041	21.50	1035591	4.00	1092319	1092307	3.23	1092319	1092307	3.23
1	24-26	1035045	1035050	30.75	1035600	5.37	1092337	1092325	5.40	1092337	1092325	5.40
1-1/8	28	1035054	1035059	45.30	1035609	7.30	1092364	1092343	7.50	1092364	1092343	7.50
1-1/4	30-32	1035063	1035068	64.90	1035618	10.60	1092375	1092372	10.34	1092375	1092372	10.34

Wire Rope Dia.		S-421T Stock No.	API 2C S-421T Stock No.	Dimensions (in.)														
(in.)	(mm)			A	B	C +/- .09	D	G	H	J*	K*	L	P	R	S	T	U	V
3/8	9-10	1035000	1035005	5.69	2.72	.81	.81	1.38	3.06	7.80	1.88	.88	1.56	.44	2.13	.44	1.25	1.38
1/2	11-13	1035009	1035014	6.88	3.47	1.00	1.00	1.62	3.76	8.91	1.26	1.06	1.94	.50	2.56	.53	1.75	1.88
5/8	14-16	1035018	1035023	8.25	4.30	1.25	1.19	2.12	4.47	10.75	1.99	1.22	2.25	.56	3.25	.69	2.00	2.19
3/4	18-19	1035027	1035032	9.88	5.12	1.50	1.38	2.44	5.28	12.36	2.41	1.40	2.63	.66	3.63	.78	2.34	2.56
7/8	20-22	1035036	1035041	11.25	5.85	1.75	1.63	2.69	6.16	14.37	2.48	1.67	3.13	.75	4.31	.88	2.69	2.94
1	24-26	1035045	1035050	12.81	6.32	2.00	2.00	2.94	6.96	16.29	3.04	2.00	3.75	.88	4.70	1.03	2.88	3.28
1-1/8	28	1035054	1035059	14.38	6.92	2.25	2.25	3.31	7.62	18.34	2.56	2.25	4.25	1.00	5.44	1.10	3.25	3.56
1-1/4	30-32	1035063	1035068	16.34	8.73	2.62	2.50	3.56	9.39	20.48	2.94	2.34	4.50	1.06	6.13	1.19	4.62	4.94

* Nominal **NOTE:** For intermediate wire rope sizes, use next larger size socket. The S-423T Super TERMINATOR wedge is designed to be assembled only into the Crosby S-241T TERMINATOR socket body. **IMPORTANT:** The S-423TW for sizes 5/8" through 1-1/8" (14mm through 28mm) will fit respective size standard Crosby S-421T basket. The 1-1/4" (30-32mm) S-423TW will only fit the Crosby S-421T 1-1/4" basket marked with TERMINATOR.

HOOK – EYE WITH LATCH

A general use Eye Hook with latch that connects to rigging hardware.

SPECIFICATIONS:

- Material: Forged Alloy & Carbon Steel, Quenched & Tempered
- Standard: EN 1677-5,-2
- Finish: Powder Coated (Yellow)
- Design Factor: 5:1
- Identification: Trademark, Size/Load, BatchCode, (Alloy)
- Rated in Metric Ton(s)

WLL (t)		ID Ball Width (in)	Throat Opening no Latch (in)	Throat Opening with Latch (in)	Weight / ea. (LBS)
Carbon	Alloy				
3/4	1	1 1/4	15/16	7/8	0.78
1	1 1/2	1 1/2	1 1/32	31/32	1.32
1 1/2	2	1 3/4	1 1/16	1	2.02
2	3	1 3/4	1 7/32	1 1/8	2.57
3	4 1/2	2	1 1/2	1 11/32	4.89
5	7	2 1/2	1 7/8	1 11/16	10.29
	11	2 3/4	2 1/4	2 1/16	18.62
	15	3 1/8	2 1/2	2 1/4	25.43
	22	4 1/16	3 3/8	3 1/8	47.25
	30	4 1/16	4	3 1/4	70.50

HOOK -SWIVEL EYE WITH LATCH

A general use Swivel Hook with Latch that connects to rigging hardware.

SPECIFICATIONS:

- Material: Forged Alloy & Carbon Steel, Quenched & Tempered
- Standard: EN 1677-5,-2
- Finish: Powder Coated (Yellow)
- Design Factor: 5:1
- Identification: Trademark, Size/Load, BatchCode, (Alloy)
- Rated in Metric Ton(s)

WLL (t)		ID Ball Width (in)	Throat Opening no Latch (in)	Throat Opening with Latch (in)	Weight / ea. (LBS)
Carbon	Alloy				
3/4	1	1 1/4	15/16	7/8	0.78
1	1 1/2	1 1/2	1 1/32	31/32	1.32
1 1/2	2	1 3/4	1 1/16	1	2.02
2	3	1 3/4	1 7/32	1 1/8	2.57
3	4 1/2	2	1 1/2	1 11/32	4.89
5	7	2 1/2	1 7/8	1 11/16	10.29
	11	2 3/4	2 1/4	2 1/16	18.62
	15	3 1/8	2 1/2	2 1/4	25.43
	22	4 1/16	3 3/8	3 1/8	47.25
	30	4 1/16	4	3 1/4	70.50