

Below the Hook ● Behind the Product ● Above the Standard

The logo for FIRST features the word "FIRST" in a bold, blue, sans-serif font with a white outline. The letter "S" is stylized with multiple parallel orange and white lines that curve around it. A blue horizontal bar with a white outline is positioned below the letters "F", "I", and "R".

**FIRST**<sup>®</sup>

**Full Inspection Round Sling Technology**

**Product Catalog**

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# FIRST Sling Technology

FIRST Sling's dedication to quality and service is the foundation and future of their success. Since the first generation arrived in Oklahoma, they have been engineering state-of-the-art rigging gear for the oil & gas, crane & construction, manufacturing, and power generation industries.

FIRST Sling Technology LLC was founded in 1997. Their team of second and third generation industry professionals share a common vision that their company is an integral source of quality American lifting products, aiming to become the region's preferred supplier of premium rigging gear. The same ethics and values their predecessors instilled in them are hard at work today as they continue to supply some of the most prominent names in the industry. The success of the company may be evident by their lifelong dedication, their loyal customer base or their new ever-expanding facility; yet, it is best defined by the lasting relationships with their customers sustained through an exceptional level of commitment and the extraordinary pride they have in the products and services they provide to them.

## Products & Services

Certified Rigging Inspections

Training Seminars

Non-destructive Testing

RFID Traceability

Wire Rope

Wire Rope Slings

Overhead Crane Inspections

Overhead Crane Repair

Pendant Lines

Chain

Chain Slings

Synthetic Slings

Hand Splicing

Hooks

Raising Lines

Winch Lines

Casing Slings

Pumping Unit Bridles

Drilllines

Socketing

Snublines

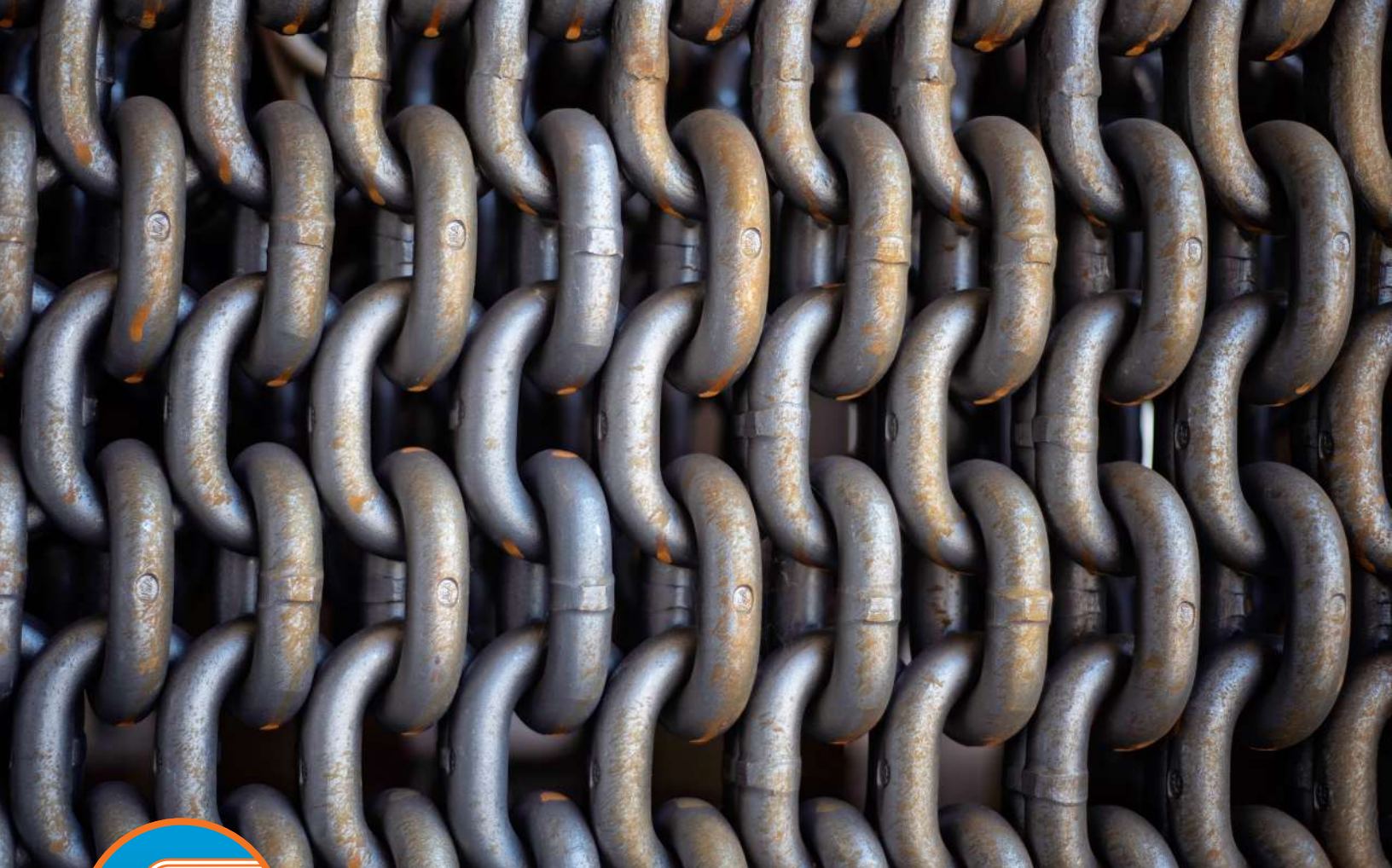
Loadbinders

Shackles

Turnbuckles

Tailchains

Blocks



# Hardware

From clips and clamps to turnbuckles and lifting beams, FIRST Sling is the one-stop shop for all your lifting and rigging hardware needs.

## Other Products

Shackles

Hooks

Eyebolts

Swivel Hoist Rings

Ratchet Straps

Lifting Magnets

Binder Chain

Drum Lifters

Winches

Chain Hoists

Custom Hardware



Turnbuckles

## Turnbuckles

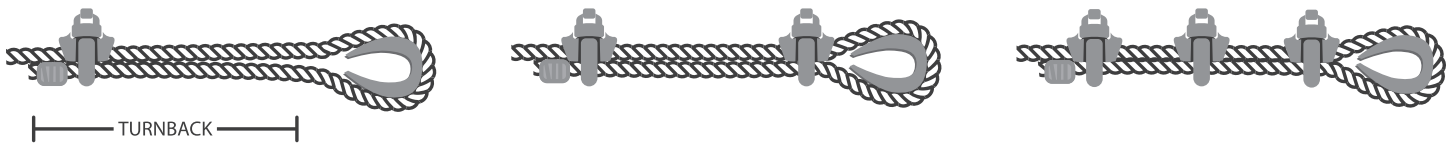
Turnbuckles are constructed with a long sleeve with internal screw threads that accept a variety of fittings used to pull anchor points closer together or push them apart by turning the turnbuckle body. Turnbuckles can be manufactured in galvanized hardware or stainless hardware. We carry the full line of turnbuckle types including Jaw & Jaw, Eye & Eye, Hook & Hook, Eye & Jaw, and Hook & Eye.



Thread Diameter	Take Up	WLL	Weight Each
IN	IN	LBS	IN
1/4	4	500	0.4
5/16	4 1/2	800	0.6
3/8	6	1,200	0.9
1/2	6	2,200	1.8
1/2	9	2,200	2.1
1/2	12	2,200	2.4
5/8	6	3,500	3
5/8	9	3,500	3.7
5/8	12	3,500	3.2
3/4	6	5,200	4.6
3/4	9	5,200	5.4
3/4	12	5,200	6
3/4	18	5,200	7.7
7/8	12	7,200	8.4
7/8	18	7,200	10.7
1	6	10,000	9.7
1	12	10,000	11.9
1	18	10,000	14.8
1	24	10,000	18.2
1-1/4	12	15,200	23.8
1-1/4	18	15,200	27.5
1-1/4	24	15,200	33.7
1-1/2	12	21,400	38.1
1-1/2	18	21,400	44.2
1-1/2	24	21,400	48.4

 G-450 U-Bolt Clip				 G-429 Fist Grip Clip			
Size (In.)	Number Of Clips	Turnback Length (In.)	Torque FT-LBS.	Size (In.)	Number Of Clips	Turnback Length (In.)	Torque FT-LBS.
1/8	2	3-1/4	4.5	3/16	2	4	30
3/16	2	3-3/4	7.5	1/4	2	4	30
1/4	2	4-3/4	15	5/16	2	5	30
5/16	2	5-1/4	30	3/8	2	5-1/4	45
3/8	2	6-1/2	45	7/16	2	6-1/2	65
7/16	2	7	65	1/2	3	11	65
1/2	3	11-1/2	65	9/16	3	12-3/4	130
9/16	3	12	96	5/8	3	13-1/2	130
5/8	3	12	96	3/4	3	16	225
3/4	4	18	130	1	5	37	225
1	5	26	225				

Some standards may require a minimum of 3 wire rope clips. The number of clips shown is based upon using RRL or RLL wire rope 6 x 19 or 6 x 37 class, FC or IWRC: IPS or XIP, XXIP, also applies to rotation - resistant RRL wire rope, 8 x 19 class, IPS, XIP, XXIP, sizes 1-1/2 inch and smaller. If a pulley (sheave) is used for turning back the wire rope, add one additional clip. Clips are 80% efficient under 1" and 90% 1" and above.



## Blocks

The snatch block is one of today's most widely used types of blocks. As generally applied, its title refers to that group of intermittent-service blocks which quickly attaches and "snatch" or moves loads over relatively short distances. This is opposed to long lifts and continuous service for which crane and construction blocks are designed.

We offer a wide variety of multipurpose snatch blocks. Over 235 models of single and double sheave snatch blocks are offered. Capacities range from 2 to 30 metric tons; sheave diameters, from 3 through 24 inches. Custom designs and sizes. Let our experienced team assist in your rigging gear selection today.





418  
With  
Hook



419  
With  
Shackle



404  
Tail  
Board

- Forged alloy heat treated hooks.
- Forged steel swivel tees, yokes and shackles.
- Can be furnished with bronze bushing or roller bearings.
- Opening feature permits insertion of rope while block is suspended from gin-pole.
- 3" - 18" 418 and 419 blocks have exclusive bolt-retaining spring to assure no lost bolts.
- Can be furnished with S-4320 hook latch.
- Pressure lube fittings.
- 3" - 10" feature dual rated Wireline sheaves.
- Fatigue rated.
- 4-1/2" and larger are RFID EQUIPPED.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these blocks meet other critical performance requirements including fatigue life and material traceability, not addressed by ASME B30.26.

### 418 / 419 / 404 Snatch Blocks

Sheave Diameter (in.)	Bearing Code	Stock No.			Wire Rope Size (in.) ‡	Working Load Limit (t)*	Weight Each (lbs.)			Rep. Sheave Stock No.	Rep. Latch Stock No.
		418 with Hook	419 with Shackle	404 Tail Board			418 with Hook	419 with Shackle	404 Tail Board		
** 3	BB	-	109091	-	5/16 - 3/8	2	-	4	-	460147	-
** 3	BB	108038	109037 †	102016	5/16 - 3/8	2	5	4	3	460147	1096421
** 4-1/2	BB	108065	109064	102025	3/8 - 1/2	4	12	12	7	2000232	1096468
6	BB	108127	109126	102098	5/8 - 3/4	8	27	28	15	460815	1096562
6	RB	108154	109153	102114	5/8 - 3/4	8	27	28	15	472688	1096562
8	BB	108225	109224	102169	5/8 - 3/4	8	33	34	21	461164	1096562
8	RB	108252	109251	102187	5/8 - 3/4	8	33	34	21	473277	1096562
10	BB	108323	109322	102230	5/8 - 3/4	8	41	42	29	461805	1096562
10	RB	108350	109359	102258	5/8 - 3/4	8	41	42	29	473776	1096562
12	BB	169169	202961	178890	5/8	8	48	49	36	462270	1096562
12	RB	199911	169347	178934	5/8	8	48	49	36	474141	1096562
12	BB	108421	109420	102301	3/4	8	48	49	36	462289	1096562
12	RB	108458	109457	102329	3/4	8	48	49	36	474150	1096562
14	BB	194920	169356	-	5/8	8	55	56	-	463625	1096562
14	RB	199948	167857	-	5/8	8	55	56	-	474766	1096562
14	BB	108528	109527	-	3/4	8	55	56	-	463834	1096562
14	RB	108546	109545	-	3/4	8	55	56	-	474775	1096562
16	BB	199975	203041	-	3/4	15	130	135	-	4100056	1096609
16	RB	200008	203087	-	3/4	15	130	135	-	4200028	1096609
16	BB	108608	109607	-	7/8	15	130	135	-	4100065	1096609
16	RB	108626	109625	-	7/8	15	130	135	-	4200037	1096609
18	BB	200099	203130	-	7/8	15	150	155	-	464571	1096609
18	RB	200151	203176	-	7/8	15	150	155	-	475792	1096609
18	BB	108644	109643	-	1	15	150	155	-	4104640	1096609
18	RB	108662	109661	-	1	15	150	155	-	6000000	1096609

\* Ultimate Load is 4 times the Working Load Limit. \*\* Available in Bronze Bushed only. 3" and 4-1/2" have self lubricating Bronze Bushing. † Fitted with 1-1/4" ID Swivel Eye. ‡ May be furnished in other rope sizes.



420  
With  
Hook



421  
With  
Shackle



406  
Tail  
Board

- Hooks and side plates are forged alloy steel and heat treated.
- Shackles and yokes are forged and heat treated steel.
- All parts are forged.
- Side plates are designed to eliminate possibility of rope jamming.
- Can be furnished with bronze bushings or sealed roller bearings.
- Opening feature permits insertion of rope while block is suspended from gin-pole.
- Can be furnished with S-4320 hook latch.
- Pressure lube fittings.
- Blocks furnished with dual rated Wireline sheaves.
- Fatigue Rated.
- All sizes are RFID EQUIPPED.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these blocks meet other critical performance requirements including fatigue life and material tracability, not addressed by ASME B30.26.

### 420 / 421 / 406 Snatch Blocks

Sheave Diameter (in.)	Bearing Code	Stock No.			Wireline Size (in.) †	Working Load Limit (t)*	Weight Each (lbs.)			Rep. Sheave Stock No.	Rep. Latch Stock No.
		420 with Hook	421 with Shackle	406 Tail Board			420 with Hook	421 with Shackle	406 Tail Board		
6	BB	169374	169481	167973	3/4 - 7/8	12	40	48	24	460940	1096609
6	RB	169392	204120	167982	3/4 - 7/8	12	40	48	24	473035	1096609
8	BB	169418	169515	167991	3/4 - 7/8	15	51	57	30	461360	1096609
8	RB	169445	204193	168008	3/4 - 7/8	15	51	57	30	473534	1096609
10	BB	110221	110720	103186	3/4 - 7/8	15	63	69	42	462001	1096609
10	RB	110258	110757	103202	3/4 - 7/8	15	63	69	42	474025	1096609

\* Ultimate Load is 4 times the Working Load Limit. † May be furnished in other rope sizes.





430  
With  
Hook



431  
With  
Shackle



407 Tail  
Board

- Drop forged, heat treated swivel hook or swivel shackle.
- Hook and shackle assemblies on 8” through 14” sizes can be interchanged.
- Can be furnished with bronze bushing or roller bearings.
- Pressure lube fittings
- 430 and 431 blocks have exclusive bolt-retaining spring to assure no lost bolts.
- Can be furnished with hook latch.
- 8” and 10” models furnished with dual rated Wireline sheaves.
- Fatigue Rated.
- All sizes are RFID EQUIPPED.
- Meets or exceeds all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, these blocks meet other critical performance requirements including fatigue life and material tracability, not addressed by ASME B30.26.

### 430 / 431 / 407 Snatch Blocks

Sheave Diameter (in.)	Bearing Code	Stock No.			Wireline Size (in.) †	Working Load Limit (t)*	Weight Each (lbs.)			Rep. Sheave Stock No.	Rep. Latch Stock No.
		430 with Hook	431 with Shackle	407 Tail Board			430 with Hook	431 with Shackle	407 Tail Board		
8	BB	120023	121022	103523	1 - 1-1/8	20	75	87	42	461440	1096657
8	RB	120041	121040	103541	1 - 1-1/8	20	75	87	42	473614	1096657
10	BB	120096	121095	103603	1 - 1-1/8	20	89	101	55	462083	1096657
10	RB	120112	121095	103603	1 - 1-1/8	20	89	101	55	474105	1096657
12	BB	208536	169917	184375	1	20	103	115	70	462680	1096657
12	RB	208554	209303	184393	1	20	103	115	70	474524	1096657
12	BB	120176	121175	103685	1 - 1/8	20	103	115	70	462699	1096657
12	RB	120194	121193	103701	1 - 1/8	20	103	115	70	474533	1096657
14	BB	208572	209321	184419	1	20	123	135	90	463457	1096657
14	RB	208590	170424	184437	1	20	123	135	90	475024	1096657
14	BB	120256	121255	103765	1 - 1/8	20	123	135	90	463466	1096657
14	RB	120274	121273	102783	1 - 1/8	20	123	135	90	475033	1096657
18	BB	208689	209410	184552	1	25	240	260	165	4100298	1090143
18	RB	208732	209465	184605	1	25	240	260	165	4200331	1090143
18	BB	119482	119561	119641	1 - 1/8	25	240	260	165	4103348	1090143
18	RB	119491	119570	119650	1 - 1/8	25	240	260	165	4200322	1090143
20	BB	208750	209483	184623	1 - 1/8	30	375	400	215	4103936	1090189
20	RB	208787	169864	184650	1 - 1/8	30	375	400	215	4200769	1090189
20	BB	119507	119589	119669	1 - 1/4	30	375	400	215	4102945	1090189
20	RB	119516	119598	119678	1 - 1/4	30	375	400	215	4200778	1090189
24	BB	208812	209526	184687	1 - 1/8	30	450	475	290	4104114	1090189
24	RB	208858	209553	184721	1 - 1/8	30	450	475	290	4200983	1090189
24	BB	119525	119605	119687	1 - 1/4	30	450	475	290	4104123	1090189
24	RB	119534	119614	119696	1 - 1/4	30	450	475	290	4200992	1090189

\* Ultimate Load is 4 times the Working Load Limit. † May be furnished in other rope sizes.

## McKissick® Oilfield Servicing Blocks

New design provides the dependability of standard McKissick® Snatch Blocks along with features that make it perfect for the challenging needs of Tugger Hoist and Tower Erection applications.

- A wide variety of configurations
  - 4, 8, 12, 15, 25 or 30 metric ton capacity
  - 3/8", 7/16", 1/2", 9/16", 5/8", 7/8", 1", 1-1/8" and 1-1/4" Wireline sizes
- Painted or Galvanized finish
- All sizes are furnished with dual rated Wireline sheaves.
- Forged steel swivels, toes, yokes and shackles are Quenched & Tempered.
- Sheave lubrication through center pin for easy maintenance.
- Design factor of 4 to 1.
- All blocks 14" and larger are furnished with McKissick® Roll Forged sheaves with flame hardened grooves.
- Recessed sideplate design reduces the gap between the sheave rim and the sideplate, allowing the sheave assembly to be captured in the block if loss of center pin occurs.
- Sealed tapered roller bearings extend the life of the center pin and bearings and allows for faster line speeds than recommended with standard snatch blocks.
- Shackle fitting swivels for easy positioning.
- Suitable for hoisting personnel contingent upon all employees including the winch operator, being trained to follow applicable Federal, local and industry standards.
  - Tugger/Derrick applications: API RP54
  - Tower applications: OSHA directive CPL 2-1-36
- Holes through side plates are available for secondary block securement device.
- Manufactured by an API Q1 Certified facility.
- Type approval in accordance with ABS 2005 Steel Vessell Rules.
- All sizes are RFID EQUIPPED.



M-491  
Tower Hoist Block



M-491G  
Derrick Hoist Block

### M-491 / M-491G Tower/Derrick Hoist Blocks

Working Load Limit (t)*	Sheave Diameter (in.)	Wireline Size (in.)	M-491 Stock No. Painted	G-491 Stock No. Galvanized	Weight Each (lbs.)
4	8	3/8 - 1/2	2020161	2020170	35
8	10	3/8 - 1/2	2020806	2020815	55
8	10	1/2 - 9/16	2020824	2020833	55
12	10	1/2 - 9/16	2021118	2021127	55
12	14	1/2 - 5/8	2021136	2021145	95
12	14	5/8 - 3/4	2021154	2021163	95
15	16	3/4 - 7/8	2021172	2021181	150
15	16	7/8 - 1	2021190	2021199	150
25	18	1 - 1 1/8	2032312	2032315	260
30	20	1 1/8 - 1 1/4	2032321	2032324	675

\* Ultimate Load is 4 times the Working Load Limit

## Hooks

FIRST Sling offers a wide variety of alloy hooks for use as bottom fittings on alloy chain slings, wire rope slings, and synthetic web slings to reach and secure most any load's pick-point. Whether you need a sling hook, self-locking hook, foundry hook, or container lifting hook, FIRST Sling has you covered. Our most popular hooks are featured here, or you can browse the extensive interactive online catalog and search through a selection of Crosby hooks, fittings, and other accessories. Contact us and one of our industry professionals can help you find the best hook for your assembly or application.

Size (in)	Grade	Working Load Limit (LBS)
7/32	100	2,700
9/32	100	4,300
5/16	100	5,700
3/8	100	8,800
1/2	100	15,000
5/8	100	22,600
3/4	100	35,300
7/8	80	34,200
1	80	47,700



**Self-Locking Eye Hook**

- The Original Self-Locking Hook
- Latch closes automatically under load.
- Hook will not open when under load.
- Oversized eye allows attachment to either chain or wire rope slings
- Stainless steel spring release trigger will only operate when hook is unloaded
- Full traceability
- Proof tested to 2 ½ times working load limit



**Self-Locking Swivel Eye Hook**

- Swivels on a bushing to position hook before loading
- Latch closes automatically under load.
- Hook will not open when under load.
- Full traceability
- Proof tested to 2 ½ times working load limit
- Stainless steel spring release trigger will only operate when hook is unloaded



**Self-Locking Clevis Hook**

- Clevis prevents hook to chain size mismatch
- Latch closes automatically under load.
- Hook will not open when under load.
- Full traceability
- Proof tested to 2 ½ times working load limit



**Sling Hook with Latch**

- Wide throat opening for easy rigging
- Hood forged in hook protect latch top
- Latch spring is stainless steel
- Heavy duty latch tip interlocks with hook body
- Replacement latch can be installed in the field
- Full traceability
- Proof tested and certified



**Foundry Hook**

- I-Beam construction allows thinner hook body to reach more pick-points than most other foundry hooks
- Oversize eye connection permits fabrication into chain or wire rope slings
- Full traceability
- Proof tested to 2 ½ times working load limit



**Grab Hook/ Shortening Hook**

- No reduction in Working Load Limit due to supporting cross bar in saddle of hook
- Deep chain pocket
- Full traceability
- Proof tested and certified

## Loadbinders

If you're in a bind, let FIRST Sling help you out. We stock a variety of Lever Type, Claw Hook, and Ratchet Type Load Binders from the nation's top manufacturers. Below are some of our most popular Load Binders or you may contact us for additional types, sizes and availability.

### Lever Type Load Binder



- All components are forged, no cast parts
- Forged binders are lighter and stronger than cast binders
- Under equal force, a forged handle will yield and bend while a cast handle may break

Rated Load	SIZE				Handle Take Up	WL Length	Weight
	G30	G43	G70	G80			
(LBS)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(LBS)
2,600	1/4	1/4	-	-	3.75	11.25	3.0
5,400	3/8	3/8	5/16	-	4.50	16.12	8.1
9,200	1/2	1/2	3/8	-	4.75	16.62	10.6
7,100	3/8	3/8	3/8	3/8	4.50	16.62	8.1

### Claw Hook Load Binder



#### Load binder operating instructions

1. Follow D.O.T. Federal Motor Carrier Safety Regulations S 392.9, S 393.100, and S 393.102
2. Inspect before use. Replace worn and deformed binders. Lubricate pivot and swivel points for optimum performance.
3. Do not operate with anyone on load.
4. Always apply lever binder in straight line hook to hook manner without bending and such that handle goes down when securing load.
5. Tighten binders before moving and recheck frequently.
6. Do not use cheater bar or handle extension as their use can overload binder system and result in injury.
7. Do not use cheater bar or handle extension as their use can overload binder system and result in injury.
8. Secure handle down with a positive retaining method.
9. Release handle/load with extreme care. Make sure everyone is clear. Lever binder handle can snap back over center. Use open palm under handle and push up.

Rated Load	SIZE		Handle Take Up	WL Length	Weight
	G43	G70			
(LBS)	(IN)	(IN)	(IN)	(IN)	(LBS)
5,400	3/8	-	4.50	16.12	0.69
9,200	-	3/8	4.75	16.62	1.00
6,600	3/8	3/8	4.50	16.62	2.02

## Ratchet Type Load Binder



- Each ratchet component is forged from pure alloy steel
- Handle is designed loose using self-locking one-way bolts allowing easy removal of unwanted debris such as mud, snow or ice
- Proof tested to 50% of the minimum breaking strength
- Gears are permanently welded to the barrel

End Fittings	Rated Load	SIZE					Take Up	Handle Length	Barrel Size O.D.	Screw Dia.	Weight
		G30	G43	G70	G80	G100					
	(LBS)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(LBS)	(LBS)	(LBS)
Hook/ Hook	2,600	1/4	1/4	-	-	-	4.00	11.00	1-5/16 X 6	3/4	5.4
Eye/Eye (No Hook)	5,400	-	-	-	-	-	8.00	12.00	1-5/16 X 6	3/4	8.6
Eye/Eye (No Hook)	13,000	-	-	-	-	-	8.00	14.00	1-1/2 X 10	1	9.8
Body Only	5,400	3/8	3/8	5/16	-	-	8.00	-	1-1/2 X 10	1	11.0
Body Only	9,200	1/2	1/2	3/8	-	-	8.00	-	1-1/2 X 10	1	11.7
Handle Only	-	-	-	-	-	-	-	14.00	-	-	4.3
Hook/ Hook	5,400	3/8	3/8	5/16	-	-	8.00	12.00	1-5/16 X 6	3/4	8.6
Hook/ Hook	7,100	3/8	3/8	3/8	3/8	-	8.00	14.00	1-1/2 X 10	1	13.0
Hook/ Hook	5,400	3/8	3/8	5/16	5/16	-	8.00	14.00	1-1/2 X 10	1	12.0
Hook/ Hook	9,200	1/2	1/2	3/8	3/8	-	8.00	14.00	1-1/2 X 10	1	13.0
Hook/ Hook	13,000	3/8	3/8	1/2	1/2	-	8.00	14.00	1-1/2 X 10	1	16.0
Hook/ Hook	12,000	-	1/2	1/2	1/2	-	8.00	14.00	1-1/2 X 10	1	13.0
Hook/ Hook	8,800	-	3/8	3/8	3/8	3/8	8.00	14.00	1-1/2 X 10	1	16.0

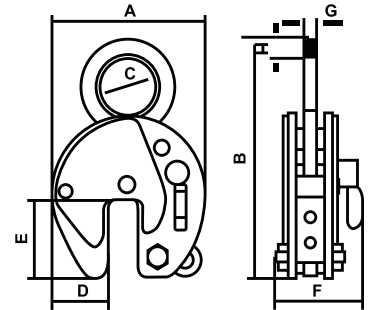
## Plate Clamps

Plate clamps are intended to assist with the lifting of steel plate or other sheet material. In the course of fabrication, plate clamps are typically utilized in pairs, particularly for oversized materials. Plate clamps encompass two key types: vertical plate clamps and horizontal plate clamps. Universal plate lifting clamps are also available, these offer a mixture of both lifting varieties. Plate clamps are available in heavy duty models, high grip models, hinged models as well as twin clamp models, all intended for particular forms of lifting. The majority of plate lifting clamps contain teeth on their jaws that bite into the material leaving marks; however, we can supply models without teeth, non-marking plate clamps. These do not leave any marks whatsoever, which may be vital in some applications

### CZ Universal Plate Clamp



- Body of clamp is welded construction
- Can be used to lift plate from horizontal to vertical position and vice versa
- Clamp jaws and pads are manufactured from high tensile steel

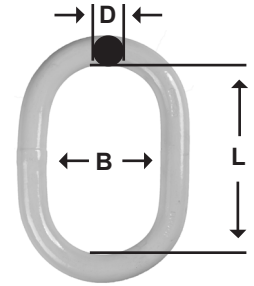


Working Load Limit (LBS)		Jaw Capacity	DIMENSIONS								Weight
MIN	MAX	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(LBS)
120	1,100	0 to 5/8	3.898	7.677	1.142	1.299	1.850	1.969	0.393	0.433	3.3
350	3,300	0 to 3/4	4.961	8.858	1.969	1.929	2.756	3.228	0.472	0.472	6.6
450	4,400	0 to 1-1/4	7.559	12.283	3.150	2.953	3.790	3.937	0.787	0.787	17.6
675	6,600	0 to 1-1/4	7.559	12.283	3.150	2.953	3.790	3.937	0.787	1.181	26.5
1,100	8,800	0 to 1-1/4	7.756	14.606	3.150	2.677	3.661	5.079	0.787	1.181	26.5
1,100	8,800	1-1/8 to 2-3/8	8.976	15.354	3.150	2.677	3.661	5.079	0.787	1.181	39.7
1,600	13,200	0 to 2	11.535	19.055	3.504	3.740	5.630	5.079	0.984	1.378	46.3
2,150	17,600	0 to 2	11.535	19.370	3.504	3.740	5.630	5.079	0.984	1.654	57.3
2,150	17,600	2 to 4	14.252	20.630	3.504	4.488	5.630	5.079	0.984	1.654	70.5
3,350	22,000	0 to 2	11,535	21.457	4.331	3.740	5.630	5.472	0.984	1.772	66.1
3,350	22,000	2 to 4	14.252	21.457	4.331	4.488	5.630	5.472	0.984	1.772	81.6
6,650	33,000	0 to 2	14.173	24.134	5.118	4.921	6.378	8.031	1.772	2.165	165.3
6,650	33,000	2 to 4	18.110	26.693	5.118	6.890	6.378	8.031	1.772	2.165	194.0
8,850	44,000	0 to 2-1/2	18.188	29.724	5.118	6.496	8.268	9.252	1.772	2.559	271.2
8,850	44,000	2-1/2 to 5	22.047	31.683	5.118	7.677	8.268	9.252	1.772	2.559	299.8
13,250	66,000	0 to 2-1/2	18.189	28.819	2.362	6.496	3.268	11.614	2.559	-	429.9

## Master Links

To support a wide range of end-user applications, FIRST Sling carries a wide range of Grade 80 & Grade 100 alloy steel master links. The master link is joined to alloy steel chain slings using G-Link connectors, SK connectors, and BL connectors. Our master links are made using the most modern technology.

The design is wider than many standard alloy steel master links to accommodate modern crane hooks. The additional width, especially in larger sizes, allows the fabricator to install thimbles for larger sized wire ropes used in bridle configurations. Primarily manufactured to support alloy steel chain sling fabrication, these links are very often used for wire rope and synthetic web slings.



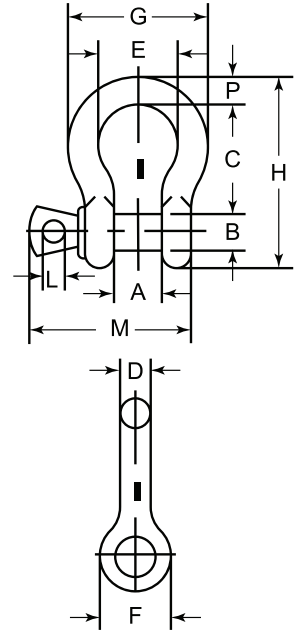
### Oblong Master Links, Grade 100 - Types M & MT Design Factor 5:1 - for use with Wire Rope

			DIMENSIONS								
Size		Grade	WLL	L	B	D	L1	l	b	d	Weight
IN	MM		(LBS)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(IN)	(LBS)
3/8	11	100	3,300	3.9	2.4	0.43	-	-	-	-	0.44
1/2	14	100	7,000	4.7	2.8	0.55	-	-	-	-	0.88
3/8	17	100	11,400	5.5	3.1	0.67	-	-	-	-	1.8
3/4	19	100	12,300	5.9	3.5	0.75	-	-	-	-	2.2
7/8	22	100	17,200	6.3	3.7	0.87	-	-	-	-	3.3
1	25	100	29,900	7.5	4.3	1.0	-	-	-	-	5.1
1 1/4	30	100	35,200	7.9	4.7	1.2	-	-	-	-	7.7
1 3/8	23	100	45,300	9.4	5.5	1.3	-	-	-	-	11.7
1 1/2	38	100	68,000	9.8	5.9	1.5	-	-	-	-	15.4
1 5/8	40	100	70,400	9.8	5.9	1.6	-	-	-	-	17.6
1 3/4	45	100	84,900	11.8	7.1	1.8	-	-	-	-	26.4
2	50	100	102,600	11.8	7.9	2.0	-	-	-	-	33.1
2 1/4	55	100	143,100	13.8	7.9	2.2	-	-	-	-	46.3
2 1/2	60	100	160,000	14.8	8.3	2.4	-	-	-	-	57.3
2 3/4	70	100	220,200	17.7	9.8	2.8	-	-	-	-	94.8
3 1/4	80	100	275,300	17.7	10.2	3.1	-	-	-	-	125.6
3/4	19	100	11,000	5.9	3.5	0.75	10.6	4.7	2.8	0.55	4.0
7/8	22	100	17,600	6.3	3.7	0.87	11.8	5.5	3.1	0.67	6.6
1	25	100	21,300	7.5	4.3	1.0	13.4	5.9	2.5	0.75	9.5
1 1/4	30	100	35,200	7.9	4.7	1.2	14.2	6.3	3.7	0.87	14.3
1 5/8	40	100	57,200	9.8	5.9	1.6	17.7	7.9	4.7	1.2	33.1
2	50	100	77,000	11.8	7.9	2.0	19.7	7.9	4.7	1.3	50.7
2 1/4	55	100	110,100	11.8	7.9	2.2	21.7	9.8	5.9	1.5	72.7
2 1/2	60	100	165,100	13.8	7.9	2.4	24.0	10.2	5.5	1.8	101.4
2 3/4	70	100	220,200	17.7	9.8	2.8	28.7	11.0	6.3	2.0	156.5
3 1/4	80	100	275,300	17.7	10.2	3.1	29.5	11.0	6.3	2.2	200.6

\*Design Factor 5:1, Proof tested to 2 times Working Load Limit (WLL).

## Shackles

FIRST Sling offers one of the most complete lineups of shackles available from the most trusted names in the industry. Our stock Carbon Shackles offer extremely high Working Load Limits, consistently exhibiting more strength than other alloy shackles of the same nominal section size. Our most popular shackle is the Bolt Type Anchor but we maintain a complete stock of both screw pin and bolt type style.



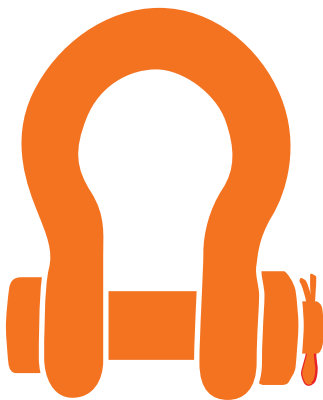
### G-209 / S-209 Screw Pin Anchor Shackles

Nominal Size (in.)	Working Load Limit (t)*	Weight Each (lbs.)	Dimensions (in.)											Tolerance +/-	
			A	B	C	D	E	F	G	H	L	M	P	C	A
3/16	1/3	.06	.38	.25	.88	.19	.60	.56	.98	1.47	.16	1.14	.16	.06	.06
1/4	1/2	.10	.47	.31	1.13	.25	.78	.61	1.28	1.84	.19	1.43	.25	.06	.06
5/16	3/4	.18	.53	.38	1.22	.31	.84	.75	1.47	2.09	.22	1.71	.31	.06	.06
3/8	1	.31	.66	.44	1.44	.38	1.03	.91	1.78	2.49	.25	2.02	.38	.13	.06
7/16	1-1/2	.38	.75	.50	1.69	.44	1.16	1.06	2.03	2.91	.31	2.37	.44	.13	.06
1/2	2	.72	.81	.63	1.88	.50	1.31	1.19	2.31	3.28	.38	2.69	.50	.13	.06
5/8	3-1/4	1.37	1.06	.75	2.38	.63	1.69	1.50	2.94	4.19	.44	3.34	.69	.13	.06
3/4	4-3/4	2.35	1.25	.88	2.81	.75	2.00	1.81	3.50	4.97	.50	3.97	.81	.25	.06
7/8	6-1/2	3.62	1.44	1.00	3.31	.88	2.28	2.09	4.03	5.83	.50	4.50	.97	.25	.06
1	8-1/2	5.03	1.69	1.13	3.75	1.00	2.69	2.38	4.69	6.56	.56	5.13	1.06	.25	.06
1-1/8	9-1/2	7.41	1.81	1.25	4.25	1.16	2.91	2.69	5.16	7.47	.63	5.71	1.25	.25	.06
1-1/4	12	9.50	2.03	1.38	4.69	1.29	3.25	3.00	5.75	8.25	.69	6.25	1.38	.25	.06
1-3/8	13-1/2	13.53	2.25	1.50	5.25	1.42	3.63	3.31	6.38	9.16	.75	6.83	1.50	.25	.13
1-1/2	17	17.20	2.38	1.63	5.75	1.54	3.88	3.63	6.88	10.00	.81	7.33	1.62	.25	.13
1-3/4	25	27.78	2.88	2.00	7.00	1.84	5.00	4.19	8.86	12.34	1.00	9.06	2.25	.25	.13
2	35	45.00	3.25	2.25	7.75	2.08	5.75	4.81	9.97	13.68	1.22	10.35	2.40	.25	.13
2-1/2	55	85.75	4.13	2.75	10.50	2.71	7.25	5.69	12.87	17.84	1.38	13.00	3.13	.25	.25



### G-2130 / S-2130 Bolt Type Anchor Shackles

Nominal Size (in.)	Working Load Limit (t)*	Weight Each (lbs.)	Dimensions (in.)										Tolerance +/-	
			A	B	C	D	E	F	H	L	M	N	C	A
3/16	1/3	.06	.38	.25	.88	.19	.60	.56	1.47	.98	1.29	.19	.06	.06
1/4	1/2	.11	.47	.31	1.13	.25	.78	.61	1.84	1.28	1.56	.25	.06	.06
5/16	3/4	.22	.53	.38	1.22	.31	.84	.75	2.09	1.47	1.82	.31	.06	.06
3/8	1	.33	.66	.44	1.44	.38	1.03	.91	2.49	1.78	2.17	.38	.13	.06
7/16	1-1/2	.49	.75	.50	1.69	.44	1.16	1.06	2.91	2.03	2.51	.44	.13	.06
1/2	2	.79	.81	.64	1.88	.50	1.31	1.19	3.28	2.31	2.80	.50	.13	.06
5/8	3-1/4	1.68	1.06	.77	2.38	.63	1.69	1.50	4.19	2.94	3.56	.69	.13	.06
3/4	4-3/4	2.72	1.25	.89	2.81	.75	2.00	1.81	4.97	3.50	4.15	.81	.25	.06
7/8	6-1/2	3.95	1.44	1.02	3.31	.88	2.28	2.09	5.83	4.03	4.82	.97	.25	.06
1	8-1/2	5.66	1.69	1.15	3.75	1.00	2.69	2.38	6.56	4.69	5.39	1.06	.25	.06
1-1/8	9-1/2	8.27	1.81	1.25	4.25	1.13	2.91	2.69	7.47	5.16	5.90	1.25	.25	.06
1-1/4	12	11.71	2.03	1.40	4.69	1.29	3.25	3.00	8.25	5.75	6.69	1.38	.25	.06
1-3/8	13-1/2	15.83	2.25	1.53	5.25	1.42	3.63	3.31	9.16	6.38	7.21	1.50	.25	.13
1-1/2	17	19.00	2.38	1.66	5.75	1.53	3.88	3.63	10.00	6.88	7.73	1.62	.25	.13
1-3/4	25	33.91	2.88	2.04	7.00	1.84	5.00	4.19	12.34	8.80	9.68	2.25	.25	.13
2	35	52.25	3.25	2.30	7.75	2.08	5.75	4.81	13.68	10.15	10.81	2.40	.25	.13
2-1/2	55	98.25	4.13	2.80	10.50	2.71	7.25	5.69	17.90	12.75	13.58	3.13	.25	.13
3	85	154.00	5.00	3.30	13.00	3.12	7.88	6.50	21.50	14.62	15.13	3.62	.25	.25
3-1/2	120	265.00	5.25	3.76	14.63	3.62	9.00	8.00	24.88	17.02	17.00	4.38	.25	.25
4	150	338.00	5.50	4.26	14.50	4.00	10.00	9.00	25.68	18.00	17.75	4.56	.25	.25



## Sling Inspection & Removal Criteria Quick-Guide PER ASME B30.9

### Wire Rope Slings (PER B30.9)

Wire Rope Slings shall be removed from service if any of the following conditions are present:

1. **Missing or illegible sling identification.**
2. **Broken Wires:**
  - For strand-laid and single-part slings, 10 randomly distributed broken wires in one rope lay, or 5 broken wires in one strand in one rope lay.
  - For cable-laid slings, 20 broken wires per lay.
  - For less than eight-part braided slings, 20 broken wires per braid.
  - For eight-part or more than eight braided slings, 40 broken wires per braid.
3. Severe localized abrasion or scraping.
4. Kinking, crushing, bird caging, or any other damage resulting in damage to the rope structure.
5. Evidence of heat damage.
6. End attachments that are cracked, deformed, or worn to the extent that the strength of the sling is substantially affected.
7. Severe corrosion of the rope, end attachments, or fittings.
8. For hooks, removal criteria as stated in ASME B30.10.
9. For rigging hardware, removal criteria as stated in ASME B30.26
10. Other conditions, including visible damage, that cause doubt as to the continued use of the sling.

### Synthetic Flat Web Slings (PER B30.9)

Synthetic Web Slings shall be removed from service if any of the following conditions exist:

1. **Missing or illegible sling identification.**
2. **Acid or caustic burns.**
3. **Melting or charring of any part of the sling.**
4. **Holes, tears, cuts, or snags.**
5. **Broken or worn stitching in load bearing splices.**
6. **Excessive abrasive wear.**
7. **Knots in any part of the sling.**
8. **Discoloration & brittle or stiff areas on any part of the sling, may mean chemical or ultraviolet/sunlight damage.**
9. **Fittings that are pitted, corroded, cracked, bent, twisted, gouged, or broken.**
10. For hooks, removal criteria as stated in ASME B30.10.
11. For rigging hardware, removal criteria as stated in ASME B30.26
12. Other conditions, including visible damage, that cause doubt as to the continued use of the sling.

### Alloy Steel Chain Slings (PER B30.9)

Alloy Steel Chain Slings shall be removed from service if any of the following conditions are present:

1. **Missing or illegible sling identification.**
2. **Cracks or breaks**
3. **Excessive wear, nicks, or gouges.**
4. **Stretched chain links or components**
5. **Bent, twisted, or deformed chain links or components.**
6. **Evidence of heat damage.**
7. **Excessive pitting or corrosion.**
8. **Lack of ability of chain or components to hinge (articulate) freely.**
9. **Weld splatter.**
10. For hooks, removal criteria as stated in ASME B30.10
11. For rigging hardware, removal criteria as stated in ASME B30.26
12. Other conditions, including visible damage, that cause doubt as to the continued use of the sling.

### Polyester Roundslings (PER B30.9)

Roundslings shall be removed from service if any of the following conditions exist:

1. **Missing or illegible sling identification.**
2. **Acid or caustic burns.**
3. **Evidence of heat damage.**
4. **Holes, tears, cuts, abrasive wear, or snags that expose the core yarns.**
5. **Broken or damaged core yarns.**
6. **Weld splatter that exposes core yarns.**
7. **Knots in the roundslings, except for termination points of core yarns inside the cover.**
8. **Fittings that are pitted, corroded, cracked, bent, twisted, gouged, or broken.**
9. For hooks, removal criteria as stated in ASME B30.10.
10. For rigging hardware, removal criteria as stated in ASME B30.26.
11. Any other condition that may cause doubt as to the continued use of the sling.

## Rigging Hardware Inspection & Removal Criteria Quick-Guide

### Hooks (PER B30.10)

Hooks having damage or wear described as follows shall be repaired or replaced:

1. **Cracks, nicks, and gouges that compromise the integrity of the hook. Repair of cracks, nicks, and gouges shall be carried out by a designated person by grinding longitudinally, following the contour of the hook, provided no dimension is reduced more than 10% (or as recommended by the manufacturer) of its original value.**
2. **Wear exceeding 10% (or as recommended by the manufacturer) of the original sectional dimension.**
3. **Any visibly apparent bend or twist from the plane of the unbent hook.**
4. **Any distortion causing an increase in throat opening of 5%, not to exceed 1/4 in. (or as recommended by the manufacturer)**
5. **Inability of self-locking hooks to lock.**
6. **A hook latch that is inoperative shall be repaired, replaced, or removed if not required.**
7. **If a required latch is inoperable and cannot be immediately repaired or replaced, the hook shall be sufficiently moused to retain loose items as defined in para. 10-1.3(c) until the latch is repaired or replaced.**
8. **When reassembling shank hooks, original securing methods or manufacturer's recommendations shall be followed.**
9. **All replacement parts shall be at least equal to the original manufacturer's specifications.**
10. **Hooks without provision for latches may be moused to retain loose items as defined in para. 10-1.3(c).**
11. **For special lifting applications where the throat opening is required to be closed, mousing may be used in place of the latch to retain loose items as defined in para. 10-1.3(c), when approved by a qualified person.**

### Shackles (PER B30.26)

Shackles shall be removed from service if damage such as the following is visible and shall only be returned to service when approved by a qualified person:

1. **Missing or illegible manufacturer's name or trademark and/or rated load identification.**
2. **Indications of heat damage including weld spatter or arc strikes.**
3. **Excessive pitting or corrosion.**
4. **Bent, twisted, distorted, stretched, elongated, cracked, or broken load-bearing components.**
5. **Excessive nicks or gouges.**
6. **A 10% reduction of the original or catalog dimension at any point around the body or pin.**
7. **Incomplete pin engagement.**
8. **Excessive thread damage.**
9. **Evidence of unauthorized welding.**
10. **Other conditions, including visible damage, that cause doubt as to the continued use of the shackle.**

### Eyebolts, Eye Nuts, Swivel Hoist Rings, Turnbuckles (PER B30.26)

Adjustable hardware shall be removed from service if damage such as the following is present and shall only be returned to service when approved by a qualified person:

1. **Missing or illegible identification.**
2. **Indications of heat damage including weld spatter or arc strikes.**
3. **Excessive pitting or corrosion.**
4. **Bent, twisted, distorted, stretched, elongated, cracked, or broken load-bearing components.**
5. **Excessive nicks or gouges.**
6. **A 10% reduction of the original or catalog dimension at any point.**
7. **Excessive thread damage or wear.**
8. **Evidence of unauthorized welding or modification.**
9. **For swivel hoist rings, lack of the ability to freely rotate or pivot.**
10. **Other conditions, including visible damage, that cause doubt as to continued use.**

### Links & Rings (PER B30.26)

Links, rings, and swivels shall be removed from service if conditions such as the following are present and shall only be returned to service when approved by a qualified person:

1. **Missing or illegible identification.**
2. **Indications of heat damage, including weld spatter or arc strikes.**
3. **Excessive pitting or corrosion.**
4. **Bent, twisted, distorted, stretched, elongated, cracked, or broken load bearing components.**
5. **Excessive nicks or gouges.**
6. **A 10% reduction of the original or catalog dimension at any point.**
7. **Evidence of unauthorized welding or modification.**
8. **For swivels, lack of the ability to freely rotate when not loaded.**
9. **For swivels, loose or missing nuts, bolts, cotter pins, snap rings, or other fasteners and retaining devices.**
10. **Other conditions, including visible damage that cause doubt as to continued use.**

