

RIGGING REFERENCE GUIDE



800.444.4899 TOTALTOOL.COM

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Total Tool specializes in standard below-the-hook rigging, custom rigging equipment, and lifting devices. We also stock a large inventory of slings-including web, round, wire rope, and chain-as well as rigging hardware.

Total Tool assembles rigging in house, at our headquarters in St. Paul, Minnesota, USA. This allows us to accommodate custom sling lengths and rigging applications to meet all of your lifting needs.



SCAN CODE TO SHOP IN-STOCK

> RIGGING EQUIPMENT

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TRAINING & EDUCATION through

Total Tool can provide individuals and teams with professional rigging training to stay compliant and safely handle rigging applications.

As a long-standing member of the Web Sling & Tie Down Association as well as the Associated Wire Rope Fabricators, we have the expertise to offer professional rigging training and education across various trades to ensure your team stays safe.

POPULAR RIGGING TRAINING TOPICS

- RIGGING APPLICATIONS
 - Web slings
- Chain slings
- Round slings
- Hardware
- Wire rope slings
- BENEFITS OF EACH RIGGING TYPE
- RIGGING INSPECTION
- UNDERSTANDING RIGGING ANGLES





WEB SLINGS are used for lifting highly-polished, fragile or delicate loads needing protection from damage. They are made of nylon or polyester webbing and offer a wide surface area to ensure a secure grip around the load. Their superb flexibility allows them to be quickly and safely handled by riggers.

WEB SLING CAPACITIES

| 1-Ply and 2-Ply • Triangle and Eye/Eye Type • Rated Capacity in Pounds | | | | | | | | |
|--|---|---|---|--|---|---|--|--|
| Sling Body Width (inches) 1-Ply | Vertical | Choker | Vertical Basket | Sling Body Width (inches) 2-Ply | Vertical | Choker | Vertical Basket | |
| 1 | 1,600 | 1,200 | 3,200 | 1 | 3,200 | 2,500 | 6,400 | |
| 2 | 3,200 | 2,500 | 6,400 | 2 | 6,400 | 5,100 | 12,800 | |
| 3 | 4,800 | 3,800 | 9,600 | 3 | 8,800 | 7,100 | 17,600 | |
| 4 | 6,400 | 5,100 | 12,800 | 4 | 11,500 | 9,200 | 23,000 | |
| 5 | 8,000 | 6,400 | 16,000 | 5 | 14,000 | 11,200 | 28,000 | |
| 6 | 9,600 | 7,600 | 19,200 | 6 | 16,300 | 13,000 | 32,600 | |
| 8 | 12,800 | 10,200 | 25,600 | | | | | |
| 10 | 16,000 | 12,800 | 32,000 | | | | | |
| 12 | 19,200 | 15,300 | 38,400 | | | | | |
| 1-Ply and 2-Ply • Endless Type • Rated Capacity in Pounds | | | | | | | | |
| | 1-Ply a | nd 2-Ply • E | ndless Type | Rated Capa | city in Poun | ds | | |
| Sling Body Width | 1-Ply a Vertical | nd 2-Ply • Ei Choker | Vertical | Sling Body | city in Poun Vertical | ds Choker | Vertical Basket | |
| Sling Body Width (inches) 1-Ply | | _ | | | | | Vertical Basket | |
| Width (inches) | | Choker | Vertical | Sling Body Width (inches) | | | | |
| Width (inches) | Vertical | Choker & | Vertical Basket | Sling Body Width (inches) | Vertical | Choker & | Basket U | |
| Width (inches) 1-Ply 1 2 3 | 3,200 6,400 9,600 | 2,500 5,100 7,600 | Vertical Basket 6,400 12,800 19,200 | Sling Body Width (inches) 2-Ply 1 2 | Vertical 6,400 12,800 17,700 | 5,100 10,200 14,200 | 12,800 25,600 35,400 | |
| Width (inches) 1-Ply 1 | 3,200 6,400 | 2,500 5,100 | Vertical Basket 6,400 12,800 | Sling Body Width (inches) 2-Ply 1 2 | Vertical | 5,100 10,200 | 12,800 25,600 | |
| Width (inches) 1-Ply 1 2 3 4 5 | 3,200 6,400 9,600 12,800 16,000 | 2,500 5,100 7,600 10,200 12,800 | Vertical Basket 6,400 12,800 19,200 25,600 32,000 | Sling Body Width (inches) 2-Ply 1 2 3 4 | 6,400 12,800 17,700 23,000 28,000 | 5,100 10,200 14,200 18,400 22,400 | 12,800 25,600 35,400 46,000 56,000 | |
| Width (inches) 1-Ply 1 2 3 4 5 6 | 3,200 6,400 9,600 12,800 16,000 19,200 | 2,500 5,100 7,600 10,200 12,800 15,300 | Vertical Basket 6,400 12,800 19,200 25,600 32,000 38,400 | Sling Body Width (inches) 2-Ply 1 2 3 | Vertical 6,400 12,800 17,700 23,000 | 5,100 10,200 14,200 18,400 | 12,800 25,600 35,400 46,000 | |
| Width (inches) 1-Ply 1 2 3 4 5 6 8 | 3,200 6,400 9,600 12,800 16,000 19,200 25,600 | 2,500 5,100 7,600 10,200 12,800 15,300 20,400 | Vertical Basket 6,400 12,800 19,200 25,600 32,000 38,400 51,200 | Sling Body Width (inches) 2-Ply 1 2 3 4 | 6,400 12,800 17,700 23,000 28,000 | 5,100 10,200 14,200 18,400 22,400 | 12,800 25,600 35,400 46,000 56,000 | |
| Width (inches) 1-Ply 1 2 3 4 5 6 | 3,200 6,400 9,600 12,800 16,000 19,200 | 2,500 5,100 7,600 10,200 12,800 15,300 | Vertical Basket 6,400 12,800 19,200 25,600 32,000 38,400 | Sling Body Width (inches) 2-Ply 1 2 3 4 | 6,400 12,800 17,700 23,000 28,000 | 5,100 10,200 14,200 18,400 22,400 | 12,800 25,600 35,400 46,000 56,000 | |

Capacities listed are for web slings manufactured by Total Tool Supply, Inc.



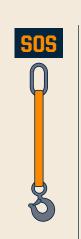
WEB SLINGS



WEB SLINGS require four different sling check points to reaffirm length, product description, working load limits, and safety bulletins to assure ASME and WSTDA manufacturing standards are met.

CUSTOM WEB BRIDLES

Available up to 4-leg.









TYPES OF WEB SLINGS

TWISTED EYE • FLAT EYE ENDLESS • REVERSE EYE

- Available with options up to 12 inches wide, 4-ply and no maxium length.
- Adaptable for use as a vertical, choker, or basket hitch.



ROUND SLINGS



relatively inexpensive. Their pliable design allows them to hug a load better than other types of lifting slings. They are covered with a durable polyester color-coded fabric jacket to indicate the weight capacity of the sling, making it easy to recognize the weight ratings at a glance.

Round slings are lightweight, which reduces ergonomic concerns. They are made with a design factor of 5:1 and can be manufactured into bridles, recovery slings, and eye & eye slings, as well as any customized sling.

- Up to 100,000 lbs. working load limit capacity
- Available 4–50 ft. in most capacities
- Custom slings available up to 4-leg bridles

ROUND SLING CAPACITIES

| Code | Color | U Vertical | Choke | U Basket | Min. Length | Approximate Diameter | Approximate Weight Per Ft. |
|--------|--------|---------------|--------|-------------|----------------|-------------------------|----------------------------------|
| TTRS1 | Purple | 2,600 | 2,100 | 5,200 | 3′ | 5/8" | 0.2 lb. |
| TTRS2 | Green | 5,300 | 4,200 | 10,600 | 3′ | 7/8" | 0.3 lb. |
| TTRS3 | Yellow | 8,400 | 6,700 | 16,800 | 3′ | 1-1/8" | 0.5 lb. |
| TTRS4 | Tan | 10,600 | 8,500 | 21,200 | 3′ | 1-1/8" | 0.6 lb. |
| TTRS5 | Red | 13,200 | 10,600 | 26,400 | 3′ | 1-3/8" | 0.8 lb. |
| TTRS6 | White | 16,800 | 13,400 | 33,600 | 3′ | 1-3/8" | 0.9 lb. |
| TTRS7 | Blue | 21,200 | 17,000 | 42,400 | 3′ | 1-3/4" | 1.3 lb. |
| TTRS8 | Orange | 25,000 | 20,000 | 50,000 | 4′ | 2" | 1.6 lb. |
| TTRS9 | Grey | 31,000 | 24,800 | 62,000 | 4′ | 2-1/4" | 1.7 lb. |
| TTRS10 | Orange | 40,000 | 32,000 | 80,000 | 6′ | 2-1/2" | 2.5 lb. |
| TTRS11 | Brown | 54,000 | 43,200 | 108,000 | 6′ | 2-3/4" | 2.8 lb. |
| TTRS12 | Olive | 66,000 | 52,800 | 132,000 | 8′ | 3-1/8" | 3.4 lb. |
| TTRS13 | Orange | 90,000 | 72,000 | 180,000 | 8′ | 3-5/8" | 3.8 lb. |
| TTRS14 | Black | 100,000 | 80,000 | 200,000 | 8′ | 3-3/4" | 4.3 lb. |

Capacities listed are for round slings manufactured by Total Tool Supply, Inc.



BEST PRACTICES



BEST PRACTICES FOR ALL TYPES OF SLINGS

- Ensure slings are hitched in a manner that provides control of the load.
- Ensure sharp edges that are in contact with slings are edge-protected with material of sufficient strength to protect the sling.
- Ensure slings are not constricted, bunched, or pinched by the load, hook, or any fitting.
- Do not shorten or lengthen a sling by knotting or twisting.
- Do not drag slings on the floor or over abrasive surfaces.
- Avoid twisting or kinking any sling.



WIRE ROPE SLINGS

WIRE ROPE SLINGS are more frequently used because they are lighter, more robust and durable, and have longer options than most other types of slings. They are typically less expensive and therefore, the most economical option for most lifting needs.

Total Tool supplies standard or multi-leg wire rope assemblies from 1/16" up to 2" diameter capacities. Smaller or larger capacities can be fabricated upon request.

Destruction tests are performed monthly to ensure slings meet or exceed the 5:1 ratio industry standard.



WIRE ROPE SLING CAPACITIES

6 x 19 or 6 x 37 • EIPS • IWRC • Rated Capacity in Pounds 1 LEG Vertical Basket **BASKET AND 2 LEG BRIDLE** Choker 60° Wire Rope Vertical or 2-Leg 45° 30° Diameter (inches) 8 1/4 1.300 960 2,600 2,200 1,820 1,300 5/16 1,480 4.000 2,000 3,400 2.800 2.000 3/8 2,800 2,200 5,800 5,000 4,000 2,800 7/16 3.800 2.800 7,800 6.800 5.400 3.800 1/2 5,000 3,800 10,200 8,800 7,200 5,000 9/16 6,400 12,800 9.000 4.800 11,000 6,400 5/8 7.800 5,800 15,600 13,600 11,000 7.800 3/4 11,200 8.200 22,000 19,400 15,800 11,200 7/8 15,200 30,000 26.000 15.200 11.200 22.000 19,600 19,600 14,400 40,000 34,000 28,000 1 1-1/8 24,000 18,200 48,000 42,000 34.000 24.000 22,000 1-1/4 30,000 60,000 52,000 42.000 30,000 1-3/8 36.000 26.000 72,000 62,000 50.000 36.000 1-1/2 42.000 32,000 84.000 74.000 60.000 42.000



BEST PRACTICES FOR WIRE ROPE SLINGS

- When selecting a wire rope sling, consider three characteristics:
 - Strength
 - · Bends without distortion
 - · Resists abrasive wear
- Ensure wire rope slings are suitable for the type of load, hitch, and environment and that they are not used with loads in excess of the rated load capacities.
- For multiple-leg slings used with non-symmetrical loads, ensure that an analysis by a qualified person is performed to prevent overloading of any leg.
- Do not use a fitting unless it is of the proper shape and size to ensure that it seats properly in the hook or lifting device.
- Store slings in an area where they will not be subjected to mechanical damage, corrosive elements, moisture, extreme temperatures, or kinking.

WIRE ROPE SLINGS



EXAMPLES OF WIRE ROPE SLINGS



CALL YOUR REP FOR DETAILS.



CHAIN SLINGS

CHAIN SLINGS are superior under high temperatures, near environmental hazards, and in rugged conditions that may cause damage when raising a load, as they resist abrasion and cutting.

Standard sizes include 1/4" up to 3/4" and can be assembled smaller or larger upon request. They can also be made adjustable in length to ensure they adhere securely.



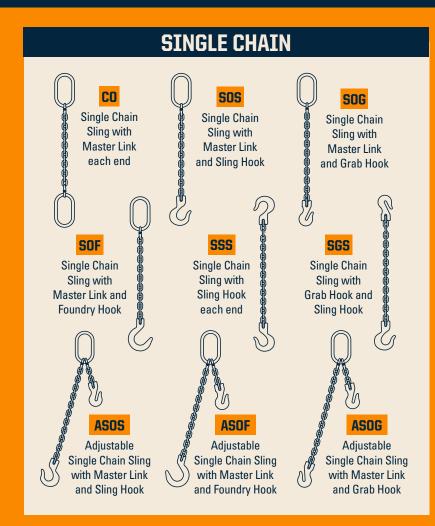
ALLOY STEEL CHAIN SLING CAPACITIES

| Grade 8 | O • Rated Ca | pacity in Pounds | | DOUBLE LEG | UBLE LEG TRIPI | | | PLE & QUAD LEG | |
|--|--|----------------------------------|---|--|--|--|---|---|--|
| | INEBO IN SIZE | SINGLE LEG | | | | A | | | |
| MM | IN | U 30 | 90°-60° | 90°-45° | 90°-30° | 90°-60° | 90°-45° | 90°-30° | |
| 6 | 7/32 | 2,100 | 3,600 | 3,000 | 2,100 | 5,450 | 4,450 | 3,150 | |
| 7 | 1/4 (9/32) | 3,500 | 6,100 | 4,900 | 3,500 | 9,100 | 7,400 | 5,200 | |
| 10 | 3/8 | 7,100 | 12,300 | 10,000 | 7,100 | 18,400 | 15,100 | 10,600 | |
| 13 | 1/2 | 12,000 | 20,800 | 17,000 | 12,000 | 31,200 | 25,500 | 18,000 | |
| 16 | 5/8 | 18,100 | 31,300 | 25,600 | 18,100 | 47,000 | 38,400 | 27,100 | |
| 20 | 3/4 | 28,300 | 49,000 | 40,000 | 28,300 | 73,500 | 60,000 | 42,400 | |
| 22 | 7/8 | 34,200 | 59,200 | 48,400 | 34,200 | 88,900 | 72,500 | 51,300 | |
| 26 | 1 | 47,700 | 82,600 | 67,400 | 47,700 | 123,900 | 101,200 | 71,500 | |
| 32 | 1-1/4 | 72,300 | 125,200 | 102,200 | 72,300 | 187,800 | 153,400 | 108,400 | |
| 02 | , | 72/000 | 120/200 | 102,200 | 72/000 | 101/000 | 100/100 | 100/100 | |
| | | pacity in Pounds | 120/200 | DOUBLE LEG | , | , | IPLE & QUAD | · | |
| Grade 10 | DO • Rated Ca | SINGLE LEG | <u> </u> | , | , | , | , | · | |
| Grade 10 | 00 • Rated Ca | pacity in Pounds | 90°-60° | , | , | , | , | · | |
| Grade 10 GUN CHAI | OO • Rated Ca INEBO IN SIZE | SINGLE LEG | | DOUBLE LEG | | TR | IPLE & QUAD | LEG | |
| Grade 10 GUN CHAI MM | OO • Rated Ca INEBO IN SIZE | SINGLE LEG | 90°-60° | DOUBLE LEG | 90°-30° | TR 90°-60° | IPLE & QUAD | 90°-30° | |
| Grade 10 GUN CHAI MM 6 | INEBO IN SIZE IN | SINGLE LEG 90° 3,300 | 90°-60° 5,500 | DOUBLE LEG 90°- 45° 4,625 | 90°-30° 3,300 | TR 90°-60° 8,400 | IPLE & QUAD 90°- 45° 6,800 | 90°-30° 4,850 | |
| Grade 10 GUN CHAI MM 6 | INEBO IN SIZE IN IN 9/32 | SINGLE LEG 90° 3,300 4,300 | 90°-60° 5,500 7,400 | DOUBLE LEG 90°-45° 4,625 6,100 | 90°-30° 3,300 4,300 | TR 90°-60° 8,400 11,200 | 90°- 45° 6,800 9,100 | 90°-30° 4,850 6,400 | |
| Grade 10 GUN CHAI MM 6 7 | INEBO IN SIZE IN | SINGLE LEG 90° 3,300 4,300 5,700 | 90°-60° 5,500 7,400 9,900 | DOUBLE LEG 90° – 45° 4,625 6,100 8,100 | 90°-30° 3,300 4,300 5,700 | TR 90°-60° 8,400 11,200 14,800 | 90°- 45° 6,800 9,100 12,100 | 90°-30° 4,850 6,400 8,500 | |
| Grade 10 GUN CHAI MM 6 7 8 10 | OD • Rated Ca INEBO IN SIZE IN ——————————————————————————————————— | 3,300 4,300 5,700 8,800 | 90°-60° 5,500 7,400 9,900 15,200 | 90°-45° 4,625 6,100 8,100 12,400 | 90°-30° 3,300 4,300 5,700 8,800 | 7R 90°-60° 8,400 11,200 14,800 22,900 | 90°- 45° 6,800 9,100 12,100 18,700 | 90°-30° 4,850 6,400 8,500 13,200 | |
| Grade 10 GUN CHAI MM 6 7 8 10 | OD • Rated Ca INEBO IN SIZE IN ——————————————————————————————————— | 3,300 4,300 5,700 8,800 | 90°-60° 5,500 7,400 9,900 15,200 26,000 | 90°-45° 4,625 6,100 8,100 12,400 21,200 | 90°-30° 3,300 4,300 5,700 8,800 15,000 | TR 90°-60° 8,400 11,200 14,800 22,900 39,000 | 90°- 45° 6,800 9,100 12,100 18,700 31,800 | 90°-30° 4,850 6,400 8,500 13,200 22,500 | |

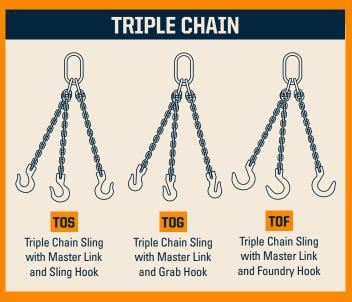


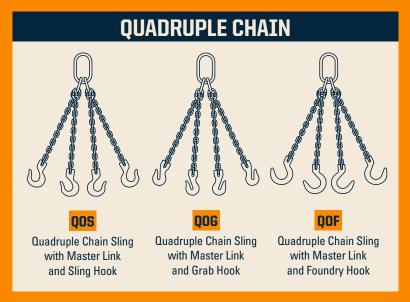
CHAIN SLINGS

TYPES OF CHAIN SLINGS









These codes can be named by every manufacturer, so the same build might be called something else by different manufacturers.



CHAINFALLS & HOISTS

CHAINFALLS are hand-powered hoists consisting of a chain working on the gear principle, used to lift and move large heavy objects.

We offer chainfall options for rent or for purchase from a 1/4-ton to 15-ton and lengths from 5' to 60'.



LEVER HOISTS are a basic and versatile piece of equipment used in numerous applications to aid in the handling, moving, and tensioning of loads. They are generally available in three types as defined by the medium used to tension or move the load: chain, wire rope, and web strap. We offer lever hoist from 3/4-ton up to 3-ton.





LIFTING & HARDWARE

the-hook lifters are helpful pieces of equipment that provide a secure connection point between the crane and the load being lifted. Total Tool provides a broad selection to meet the unique needs of many different industries.



ricludes a variety of fittings for many different applications, including shackles, wire rope clips, various types of hooks, eye bolts, lifting rings, end fittings and more.



OUR RIGGING SPECIALISTS AND SALES TEAM CAN GUIDE YOU AND YOUR TEAM TO THE BEST SELECTION.

TOTAL TOOL

RIGGING REPAIR experts at ortal Tool take great pride in reviv

Total Tool take great pride in reviving the out-of-commission equipment you and your team depend on.

Speed, efficiency, and quality workmanship are the measurements we take in order to hold ourselves to the highest of service standards.

Total Tool's Rigging Department repairs and services most rigging equipment and lifting devices. However, if parts, components and/or assembly are not up to ASME standards and/or they do not pass inspection criteria, they will be replaced. If we reuse your parts they will be proof tested to double the working load limit.



REPAIR & INSPECTIONS



STAY OSHA, ASME & ANSI COMPLIANT

INSPECTIONS are required by OSHA and ASME on all rigging applications and must be documented every 12 months. If it's time for your annual inspection, Total Tool has you covered!

Our expertise in rigging safety and compliance goes beyond rigging equipment to keep your team focused on the job at hand. Rigging inspection and maintenance is crucial in keeping your site up and running safely.

| OSHA INSPECTION REQUIREMENTS | Monthly | Annual |
|--|-----------------------|------------------|
| OVERHEAD CRANES | • | • |
| JIB CRANES | • | • |
| MONORAIL CRANES | • | • |
| ELECTRICAL HOISTS | • | • |
| COME-A-LONGS | | A |
| CHAIN FALLS | | A |
| CHAIN SLINGS | | • |
| Inspection Paguired with Pagards Inspection of Hook of | and Mire Bone/Chain (| Only with Boomis |





INDUSTRY-LEADING BRANDS STOCKED AND AT THE READY











SAFETY ASSOCIATION PARTNERSHIPS HELP YOU STAY SAFE AND COMPLIANT









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RIGGING REFERENCE GUIDE



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