

RIGGING SHACKLE TYPES (UNDER 150 tons)

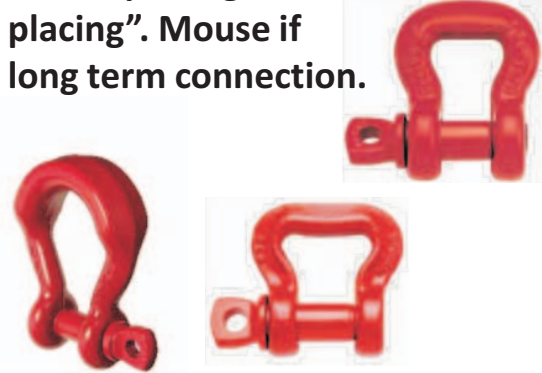
Screw Pin Anchor Shackle:
Use for lifting, pulling when “picking and placing”. Mouse if long term connection.



Bolt Type Anchor Shackle:
Use for lifting, pulling when permanent or long term application.

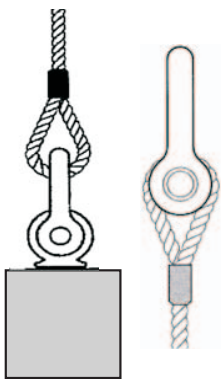


Synthetic Sling Shackles:
Use for lifting, pulling when “picking and placing”. Mouse if long term connection.



SIZING THE SHACKLE - NEVER EXCEED THE WORKING LOAD LIMIT

Wire rope slings



Select shackle with capacity greater than load and diameter greater than wire rope but smaller than 1/2 the eye length or less.



Synthetic Slings

Match size of synthetic sling shackle to sling size and capacity,

OR

Select standard shackle with capacity greater than load and width of sling < 75% of shackle bow width. Shackle diameter large enough to avoid cutting or abrading but less than 1/3 eye length. Avoid placing eye on shackle pin (never pinch).

In a choker hitch:

Select capacity equal or greater than single leg sling capacity.



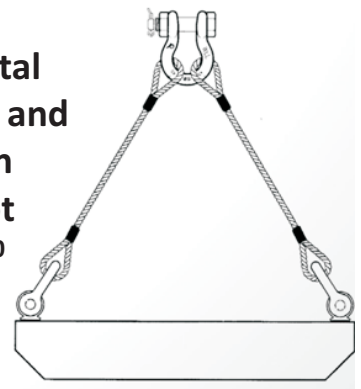
When placing into hook:

Size shackle to ensure that pin rests on hook and is not hung up on ears.



Used as collector:

Size shackle based on total load weight and proper fit on hook, do not exceed 120° included angle.

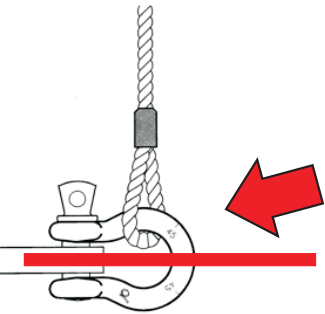


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ADJUSTED WORKING LOAD LIMIT (RIGGING UNDER 150 tons)

Example for 12 ton side loaded shackle:

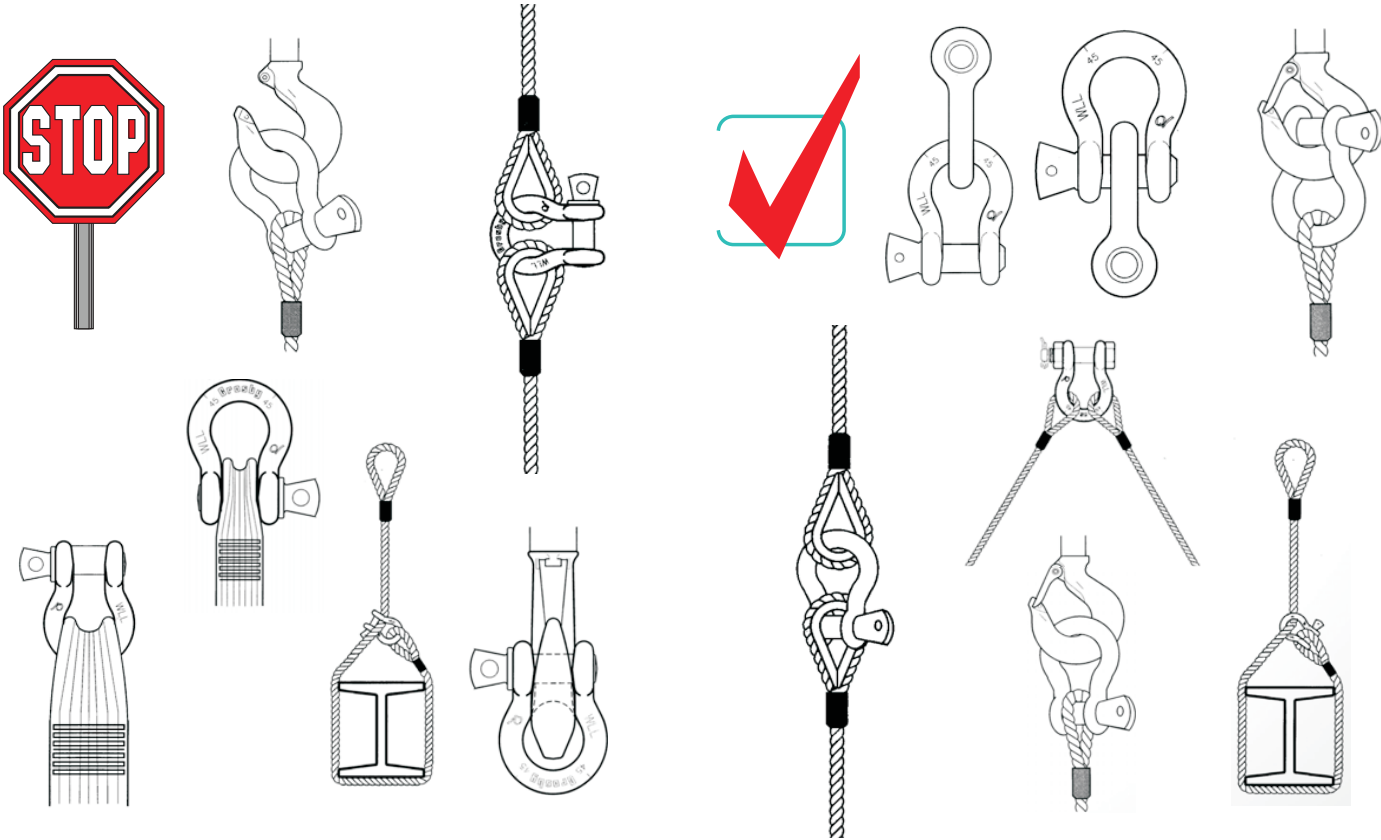
1. At 45° side pull, adjusted W.L.L. = .70 x 12 = 8.4 tons
2. At 90° side pull, adjusted W.L.L. = .50 x 12 = 6 tons



Never side load a round pin shackle

| Angle From In-Line (Degrees) | Reduction in W.L.L. |
|------------------------------|---------------------|
| 0 to 10 | 0% |
| 11 to 20 | 15% |
| 21 to 30 | 25% |
| 31 to 45 | 30% |
| 46 to 55 | 40% |
| 56 to 70 | 45% |
| 71 to 90 | 50% |

SHACKLE APPLICATION



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