

WAC 296-155-56105 Shackles. (1) Pins must be connected to the choking eye of the sling when a shackle is used in a choker hitch.

(2) Screw pins must be:

(a) Fully engaged, with the shoulder in contact with the shackle body (see Figure 27, Typical Shackle Components).

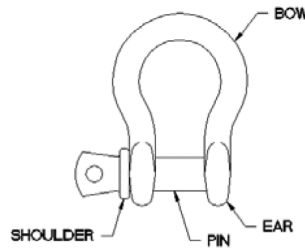
(b) Rigged in a way that keeps the pin from unscrewing while in use.

(c) Secured from rotation or loosening if used for long-term installations.

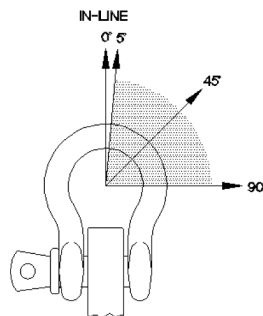
(3) You must keep cotter pins in good working condition.

(4) If the shackle is side loaded, reduce the rated load, according to the recommendations of the manufacturer or a qualified person (see Figure 28, Side Loading).

Note: See Figure 29, Shackle Types, for examples of types of shackles covered by this rule.



**Figure 27
Typical Shackle Components**



**Figure 28
Side Loading**

Side Loading Angle, deg.	% Rated Load Reduction
In-line (0) to 5	None
6 to 45	30%
46 to 90	50%
Over 90	Not permitted unless authorized by manufacturer or qualified person

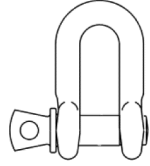
Anchor Shackles

Chain Shackles

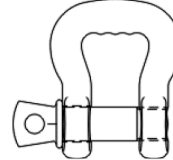
Synthetic Sling Shackles



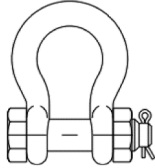
Screw Pin Type



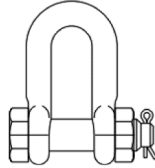
Screw Pin Type



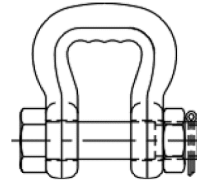
Screw Pin Type



Bolt Type



Bolt Type



Bolt Type

**Figure 29
Shackle Types**

[Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.060. WSR 16-09-085, § 296-155-56105, filed 4/19/16, effective 5/20/16. Statutory Authority: RCW 49.17.010, 49.17.040, 49.17.050, 49.17.440, 49.17.060, and 29 C.F.R. 1926, Subpart CC. WSR 12-01-086, § 296-155-56105, filed 12/20/11, effective 2/1/12.]