

# **SLING ANGLE CHARTS**

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### **EFFECTS OF SLING ANGLES**

SLING LIFTING CAPACITIES ARE AFFECTED BY ANGLE OF LIFT (ROUND SLING TO LOAD ANGLE) MEASURED FROM THE HORIZONTAL, WHEN USED WITH MULTI-LEGGED ROUND SLINGS OR CHOKER/BASKET HITCHES. TO DETERMINE THE ACTUAL CAPACITY AT A GIVEN ANGLE OF LIFT, MULTIPLY THE ORIGINAL SLING RATING BY THE APPROPRIATE ANGLE FACTOR SHOWN.

**EXAMPLE:** A SIZE 1 (PURPLE) ROUND SLING IS BEING USED TO LIFT A LOAD IN A BASKET HITCH AT A 60 DEGREE ANGLE. IT HAS A RATED CAPACITY OF 2,600 LBS. IN A VERTICAL HITCH, AND 5,200 LBS. IN A BASKET.

**ANSWER:** The angle factor for 60 degrees is .866. The lifting capacity for this sling at 60 degrees in a basket hitch is:

(5,200 LBS.) X (.866 ANGLE FACTOR) = 4,500 LBS.

THE FOLLOWING ILLUSTRATES THE EFFECT OF SEVERAL DIFFERENT SLING ANGLES.



#### SINGLE ANGLE CHART ANGLE IN DEGREES ANGLE FROM HORIZONTAL FACTOR 90° 1.000 85° 0.996 80° 0.985 75° 0.966 **70°** 0.940 0.906 65° 60° 0.866 55° 0.819 50° 0.766 0.707 45° 40° 0.643 35° 0.574 **30°** 0.500

## **CHOKER HITCH ANGLE**

When a choker hitch is used, the choker hitch rating is affected by the choker angle for choke angles of less than 120 degrees. The choker hitch rating should be multiplied by the choke angle factor as shown below.

CHOKER HITCH ANGLE CHART	
Angle of Choke (degrees)	CHOKE ANGLE FACTOR
120° - 180°	1.00
105° - 120°	0.93
90° - 105°	0.87



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