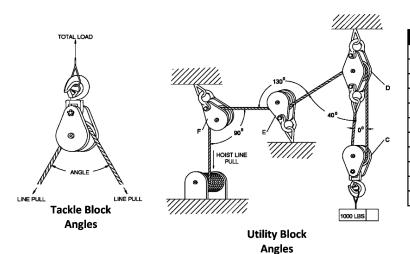**WAC 296-155-56125 Rigging blocks.** (1) The rigging block components must be fully engaged, with all fasteners and retaining devices in place and in good working order before use.

(2) The rope must be in the sheave groove when the rigging block begins to take load.

(3) The load line multiplied by the block load factor must not exceed the rated load of the rigging block. (See Figure 39, Block Load Factor Multipliers.)

(4) Load line fittings must not contact the rigging block sheave(s).

Tackle Block Angles

Utility Block Angles

Angle	Factor	Angle	Factor
0°	2.00	100°	1.29
10°	1.99	110°	1.15
20°	1.97	120°	1.00
30°	1.93	130°	.84
40°	1.87	135°	.76
45°	1.84	140°	.68
50°	1.81	150°	.52
60°	1.73	160°	.35
70°	1.64	170°	.17
80°	1.53	180°	.00
90°	1.41	—	—

Block Load = Line Pull X Multiplier Factor

**Figure 39
Block Load Factor Multipliers**

Example: Load = 1,000 lb

Line Pull: 1,000 lb ÷ 2 = 500 lb

Load Block "C" = 500 lb x 2 = 1,000 lb

(line pull x factor for 0 deg. angle)

Load Block "D" = 500 lb x 1.87 + 500 lb = 1,435 lb

(line pull x factor for 40 deg. angle + dead-end load)

Load Block "E" = 500 lb x 0.84 = 420 lb

(line pull x factor for 130 deg. angle)

Load Block "F" = 500 lb x 1.41 = 705 lb

(line pull x factor for 90 deg. angle)