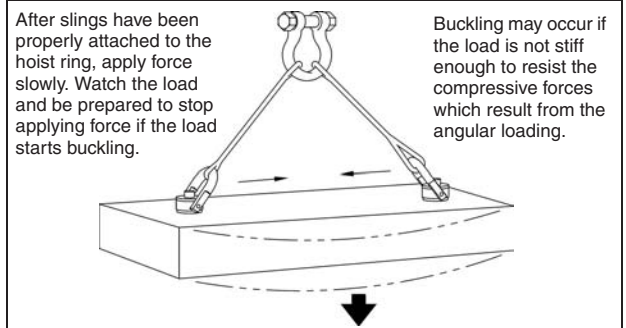
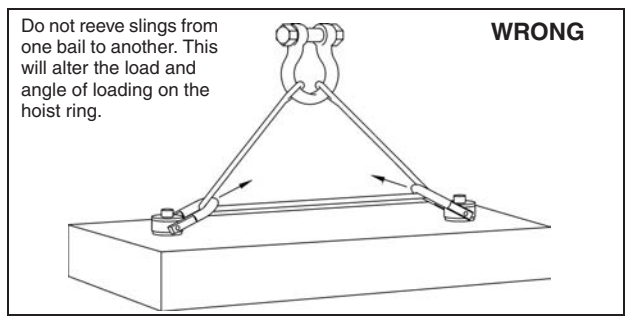


Table 1					
Working Load Limit* 5:1 (lbs.)	Hoist Ring Bolt Torque in Ft. lbs. †	HR-125		HR-1000	
		Bolt Size ‡ (in.)	Effective Thread Projection Length (in.)	Bolt Size ‡ (in.)	Effective Thread Projection Length (in.)
800 ††	7	5/16 - 18 x 1.50	.59	5/16 - 18 x 1.50	.52
1000 ††	12	3/8 - 16 x 1.50	.59	3/8 - 16 x 1.50	.52
2500	28	1/2 - 13 x 2.00	.71	1/2 - 13 x 2.25	.69
2500 ††	28	1/2 - 13 x 2.50	1.21	1/2 - 13 x 2.75	1.19
4000	60	5/8 - 11 x 2.00	.71	5/8 - 11 x 2.25	.69
4000 ††	60	5/8 - 11 x 2.75	1.46	5/8 - 11 x 3.00	1.44
5000	100	3/4 - 10 x 2.25	.96	3/4 - 10 x 2.50	.94
5000 ††	100	3/4 - 10 x 2.75	1.46	3/4 - 10 x 3.00	1.44
7000 **	100	3/4 - 10 x 2.75	.90	3/4 - 10 x 3.00	.85
7000 ††**	100	3/4 - 10 x 3.50	1.65	3/4 - 10 x 3.50	1.35
8000	160	7/8 - 9 x 2.75	.90	7/8 - 9 x 3.00	.85
8000 ††	160	7/8 - 9 x 3.50	1.65	7/8 - 9 x 3.50	1.35
10000	230	1 - 8 x 3.00	1.15	1 - 8 x 3.50	1.35
10000 ††	230	1 - 8 x 4.00	2.15	1 - 8 x 4.50	2.35
15000	470	1-1/4 - 7 x 4.50	2.22	1-1/4 - 7 x 5.00	2.09
24000	800	1-1/2 - 6 x 6.50	2.98	1-1/2 - 6 x 5.50	2.59
30000	1100	2 - 4-1/2 x 6.50	2.98	—	—
50000	2100	2-1/2 - 4 x 8.00	4.00	—	—
75000	4300	3 - 4 x 10.50	5.00	—	—
100000	5100	3-1/2 - 4 x 13.00	7.00	—	—



** Ultimate Load is 4.5 times Working Load Limit for 7000# Hoist Ring when Tested in 90° orientation. All sizes are individually proof tested to 2-1/2 times the Working Load Limit.

*, †, ††, ‡ (See footnote at bottom of page).

Table 2				
HR-125C Swivel Hoist Ring to Grade 8 Chain				
Working Load Limit 4:1 (lbs.) **	Hoist Ring Bolt Torque in Ft. lbs. †	Bolt Size (in.) ††	Effective Thread Projection Length (in.)	Spectrum 8 Chain Size (in. - mm)
4500	60	5/8 - 11 x 2.00	.71	1/4 - 5/16 - 7 - 8
4500 ††	60	5/8 - 11 x 2.75	1.46	1/4 - 5/16 - 7 - 8
7100	100	3/4 - 10 x 2.75	.90	3/8 - 10
7100 ††	100	3/4 - 10 x 3.50	1.65	3/8 - 10
12000	230	1 - 8 x 3.00	1.15	1/2 - 13
12000 ††	230	1 - 8 x 4.00	2.15	1/2 - 13
18100	470	1-1/4 - 7 x 4.50	2.22	5/8 - 16

Table 3						
Working Load Limit (Kg) ***		Hoist Ring Bolt Torque in Nm †	HR-125M		HR-1000M	
Design Factor 5:1	Design Factor 4:1		Bolt Size †† (mm)	HR-125M Effective Thread Projection Length (mm)	Bolt Size †† (mm)	HR-1000M Effective Thread Projection Length (mm)
400	500	10	M 8 X 1.25 X 40	16.9	M 8 X 1.25 X 40	15.2
450	550	16	M 10 X 1.50 X 40	16.9	M 10 X 1.50 X 40	15.2
1050	1300	38	M 12 X 1.75 X 50	17.2	M 12 X 1.75 X 55	15.2
1900	2400	81	M 16 X 2.00 X 60	27.2	M 16 X 2.00 X 65	25.5
2150	2700	136	M 20 X 2.50 X 65	31.2	M 20 X 2.50 X 70	30.5
3000	3750	136	M 20 X 2.50 X 75	28.1	M 20 X 2.50 X 80	25.4
4200	5250	312	M 24 X 3.00 X 80	33.1	M 24 X 3.00 X 90	35.4
7000	8750	637	M 30 X 3.50 X 120	65.1	M 30 X 3.50 X 140	66.2
11000	13750	1005	M 36 X 4.00 X 150	60.6	M 36 X 4.00 X 130	56.2
12500	15600	1005	M 42 X 4.50 X 160	70.6	—	—
13500	16900	1350	M 48 X 5.00 X 160	101	—	—

* Ultimate load is 5 times the Working Load Limit. Individually proof tested to 2-1/2 times the Working Load Limit.

** Ultimate load is 4 times the Working Load Limit. Individually proof tested to 2-1/2 times the Working Load Limit.

*** Individually proof tested to 2-1/2 times the Working Load Limit based on 4:1 design factor.

† Tightening torque values shown are based upon threads being clean, dry and free of lubrication.

†† Long bolts are designed to be used with soft metal (i.e., aluminum) work piece. While the long bolts may also be used with ferrous metal (i.e., steel & iron) work pieces, short bolts are designed for ferrous work pieces only.

‡ Bolt specification is a Grade 8 Alloy socket head cap screw to ASTM A574. All threads are UNC.

‡‡ Bolt specification is a Grade 12.9 Alloy socket head cap screw to DIN 912. All threads are metric (ASME/ANSI B18.3.1m)

All Swivel Hoist Rings are individually proof tested.