



# SAFETY ENGINEERED SWIVEL HOIST RING

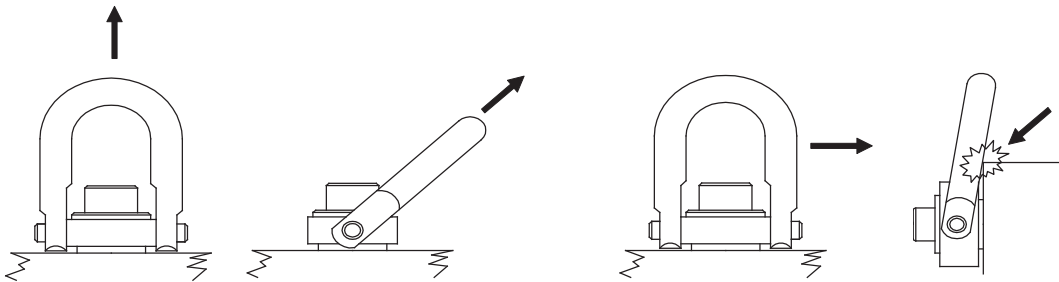
## SAFETY PRECAUTION

**WARNING: PRIOR TO USING ANY HOIST RING, PLEASE READ THE FOLLOWING FOR PROPER INSTALLATION AND USAGE.**

As with all mechanical devices, regular inspection for wear and strict adherence to use instruction is necessary to prevent misuse failure.

- Despite the 5:1 safety factor, **NEVER EXCEED THE RATED LOAD CAPACITY**. This safety margin is needed in case of misuse, which could drastically lower load capacity.
- Tighten mounting screws to torque recommended. Periodically check torque because screws could loosen in extended service.
- Tensile strength of parent material should be above 80,000 PSI to achieve full load rating. For weaker material, consider through-hole mounting with a nut and washer on the other side.
- **DO NOT APPLY SHOCK LOADS**. Always lift gradually. Repeat magnaflux testing if shock loading ever occurs.

**Make sure the hoist ring pivots and rotates in all directions freely.**



**RIGHT**

**RIGHT**

**WRONG**

**WRONG**

**Important:** The load on each hoist ring is not simply total weight divided by the number of hoist rings. The resultant force can be significantly greater at shallow lift angles and with unevenly distributed loads. See the example below.

L = Load      N = Number of hoist rings = 4      W = Total weight = 2,000 Lbs.      A = Lifting angle

$$L = \frac{W}{N \sin A}$$

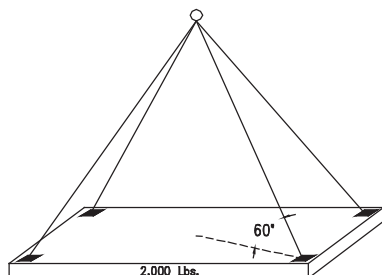
If A = 60:

$$L = \frac{2000}{4 \sin 60} = 577 \text{ Lbs.}$$

If A = 20:

$$L = \frac{2000}{4 \sin 20} = 1,462 \text{ Lbs.}$$

**GOOD**



**BAD**

