

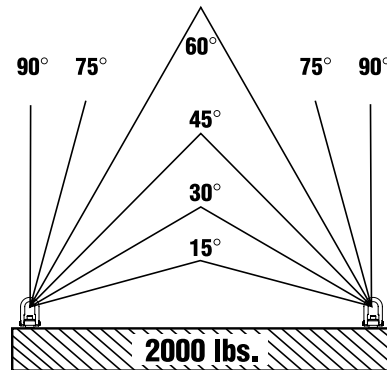
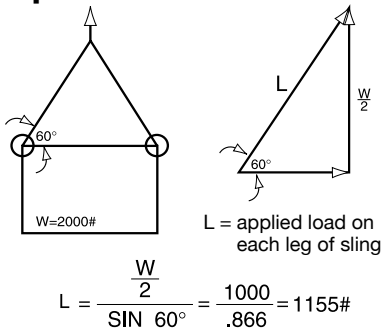
## Engineer The Lift!!

- Jergens recommends the use of swiveling and pivoting hoist rings, rather than conventional eye bolts.
- Are you using the proper hoist ring for the application?
- Is the hoist ring free to swivel and pivot? Any movement restrictions?
- Are lifting hole(s) in the proper location?
- Do you have the correct hole size for the hardware - safe lift capacity?
- Are the holes tapped deep enough to assure full thread engagement? (See figure #3 on Installation Information; page 11.3.)
- Recommended hole depth:  
Steel – 1-1/2 times the bolt diameter (min.)  
Aluminum – 2 times the bolt diameter (min.)
- **RULE OF THUMB, IF IN DOUBT – DON'T!!!**

## Applied Load Changes With Sling Angle

Jergens swivelling hoist rings are designed and rated to be pulled at any angle at the rated load. However, the applied load on a multipoint lift will increase if the sling angle is less than 90°. So be sure to consider the sling angle when selecting lifting equipment. See illustration below.

### Sample Calculation:



Sling Angle (Degrees)	Applied Load (Pounds)
90	1000
75	1040
60	1155
45	1410
30	2000
15	3860

### DO'S

1. Observe working load limitations (be especially careful with eyebolts used for angle lifts – see sling angle chart).
2. Visually inspect hoist ring prior to use.
3. Fully tighten hoist ring to recommended torque. Full thread engagement is required (no space between swivel bushing and lift).
4. Assure proper thread depth - do not shim.
5. Make sure hoist rings have free travel - it must swivel and pivot without restrictions.
6. When installing in soft metal, such as aluminum, the minimum effective thread engagement should be two times the diameter of the thread (1-1/2 times bolt diameter – steel).

### DON'TS

1. Never pull a Center Pull Style hoist ring from the side.
2. Never use an oversized hook in eyebolts or hoist rings (See figure #1 on Installation Information; page 11.3).
3. Never use excessive sling angle.
4. Never steam clean or degrease hoist rings (could cause rusting and binding).
5. Never apply shock loads.
6. Never allow the side of a hoist ring to make contact with the lift. (See figure #2 on Installation Information; page 11.3.)