

IMPORTANT: Give to Safety Manager

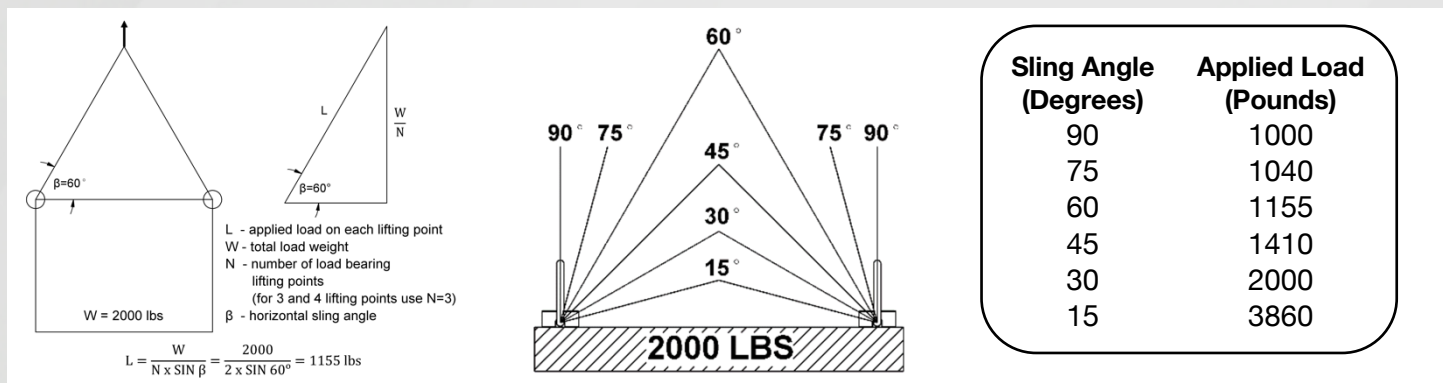
Pivoting Lifting Ring

ALWAYS READ AND UNDERSTAND THE SAFETY AND INSTALLATION INFORMATION. PLEASE FOLLOW THE SAFETY AND INSTALLATION GUIDE WHEN USING HOIST RINGS. CONTACT JERGENS INC. WITH ANY QUESTIONS.

ATTENTION: Wrong installed or damaged/defective hoist rings as well as improper use can lead to serious personal injuries or property damage.

Safety Information

Jergens Pivoting Lifting Rings are designed and rated to be pulled at any angle (within the angle range specified in Fig.4) at the rated load. However, the applied load on a multipoint lift will increase if the horizontal sling angle decreases. So be sure to consider the sling angle when selecting lifting equipment. See illustrations below.



- In order to maintain full load capacity of the Pivoting Lifting Ring it is required to use high strength per ASTM A574 or Class 12.9 Socket Head Cap Screws (not included in the standard package, must be ordered separately.)
- ALWAYS check lifting ring for free pivot action after installation. Any movement restrictions are the reason to remove the lifting ring from service.
- NEVER use an oversize hook or other oversize lifting device that will pry or tend to deform the bail/ring (Fig.1).
- Make sure the lifting ring bail/ring or hardware attached to it does not come in contact with the workpiece or any obstacles during the lift. The bail/ring must not bind on the edge of the workpiece. Use spreader beam to avoid binding (Fig.2).
- Depending upon the sling angle, the applied load may be more than the weight being lifted i.e., two-point lifting of a 2000 pounds weight with a horizontal sling angle of 30° will result in an applied load of 2000 pounds to each hoist ring! (chart above & Fig.5).
- NEVER exceed rated Load Capacity marked on each lifting ring.
- NEVER reeve slings from one lifting ring to another (Fig.6)
- When lifting, apply force gradually. **DO NOT APPLY SHOCK LOADS.** If shock load occurs, remove all lifting rings used in the application from service for further evaluation.
- To maintain full load capacity use Jergens lifting rings within the specified service temperature range only:
 - -20°F(-28°C) to 400°F(204°C)
- Avoid using Pivoting Lifting Rings in corrosive area, use Stainless Steel, plated Envirolox (Electroless Nickel) or with other plating, hardware instead.
- For those applications where both pivot and swivel actions are required, consider to use Jergens Center-Pull or Side-Pull hoist rings.
- NEVER alter lifting rings.
- All lifting rings shall be inspected per ASME B30.26 by a designated person.



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WARNING

1. JERGENS HOIST RING COMPONENTS ARE NOT INTERCHANGEABLE WITH OTHER MANUFACTURERS' HOIST RINGS. SUBSTITUTION OF PARTS VOIDS ALL LIABILITIES AND MAY RESULT IN HOIST RING FAILURE AND POSSIBLE INJURY.
2. JERGENS HOIST RING ASSEMBLIES ARE PROOF-TESTED TO 200% OF RATED LOAD CAPACITY. CERTIFICATE OF PROOF TEST ACCOMPANIES PRODUCT IN FINAL PACKAGING.
3. PROPER WARNING LABEL AFFIXED TO EACH HOIST RING.
4. 5:1 STRENGTH FACTOR
5. JERGENS HOIST RINGS ARE HEAT TREATED, MAGNETIC PARTICLE INSPECTED, PROOF LOAD TESTED AND CERTIFIED TO MANUFACTURING SPECIFICATIONS.

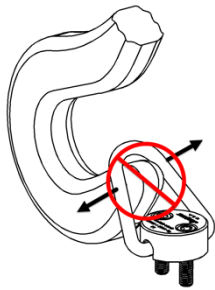


Fig 1

NEVER use an oversize hook or other oversize lifting device!

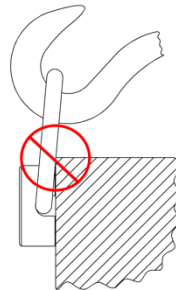


Fig 2

The lifting ring bail or attached hardware **MUST NOT** bind on anything!

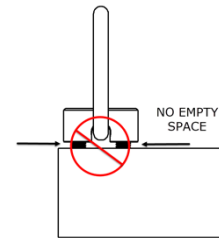


Fig 3

ALWAYS ensure full thread engagement!

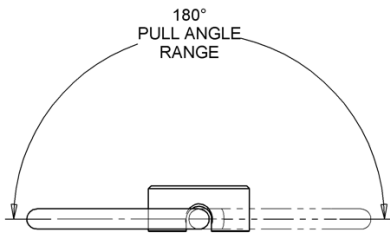


Fig 4

Acceptable pulling area, restrictions apply (see Fig. 2 and Safety Information above)

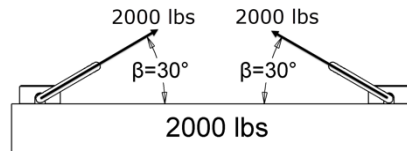


Fig 5

Depending upon the sling angle, the applied load may be more than the weight being lifted.

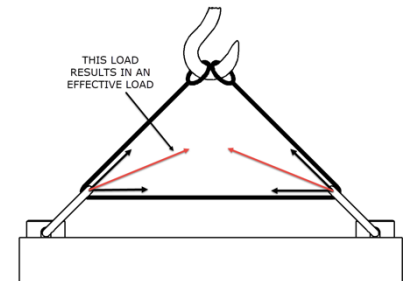


Fig 6

NEVER reeve slings from one lifting ring to another.



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Installation Information

Before installation each lifting ring shall be visually inspected by the user and any condition that may result in hazard shall be the reason to remove the lifting ring from service.

- Select the proper hardware style that have suitable characteristics for the type of load, angle of loading, hitch and environment.
- Drill and tap the workpiece so that the installation screws are perpendicular to the surface of the workpiece. Countersink the tapped holes to prevent “swelling” of the top thread when the screws are torqued. The workpiece surface must be flat, providing complete contact for the lifting ring bearing surface. The tapped holes must be deep enough to ensure the lifting ring screws are fully engaged and there is no empty space between the lifting ring bearing surface and the workpiece surface (Fig.3).
- Do not use spacers between the lifting ring bearing surface and the workpiece surface.
- Always tighten the lifting ring screws to the torque value specified in the table below (+/-10%). DO NOT install/uninstall screws by using an impact wrench.

Lifting Ring Part Number	Load Capacity Lbs (kg)	Screw Part Number Inch/Metric	Mounting Screw Size		Length of Thread Engagement Inch (mm)	Number of Screws Required	Recommended Torque ft.lbs (Nm)
			Inch	Metric			
47411	2000 (909)	47421 / 47471	5/16-18 x 1	M8 x 1.25 x 35	9/16 (14)	2	4-7 (6-10)
47412	2500 (1136)	47422 / 47472	3/8-16 x 1-1/4	M10 x 1.5 x 40	3/4 (19)	2	7-10 (10-14)
47413	5000 (2273)	47423 / 47473	1/2-13 x 1-1/4	M12 x 1.75 x 45	5/8 (16)	2	20-25 (27-34)
47414	12000 (5455)	47424 / 47474	1/2-13 x 1-3/4	M12 x 1.75 x 55	7/8 (22)	4	20-25 (27-34)
47415	20000 (9091)	47425 / 47475	5/8-11 x 2-1/4	M16 x 2.0 x 65	1 (25)	4	42-50 (57-68)

- Loosening of the screws may develop during use. Re-tightening to the recommended torque shall be done whenever the screws loosen.
- The recommended torque should prevent from self-unscrewing/loosening of the lifting ring screws when under load and during positioning of the lifted object. However, to make sure an unintended loosening from i.e. vibration will not occur, if possible, using different locking systems i.e. liquid locking fluids such as Loctite (respect manufacturer specification), locknuts, castle nuts etc. and tighten with the specified torque is recommended.
- Install ring so that lifting force is applied in the direction of the pivot.
- After installation check the lifting ring to make sure the ball pivots freely in all directions.

Hoist Ring Care & Maintenance

In addition to following a routine maintenance schedule, all lifting rings shall be inspected per ASME B30.26.

- The black oxide finish provides slight lubrication and mild corrosion resistance. However, over time some of the coating may be worn off during normal use. To prolong the lifespan of Jergens® lifting rings:
 - Use only as directed in the data sheet.
 - Limit exposure to water or high humidity environment. Dry or wipe off water and foreign chemicals that accumulate on the surface or in the gaps of the product.
 - Lightly coat and lubricate the product with standard machine oil (any grade) and store indoors in a low humidity environment. A rust preventative coating can also be applied.
- Surface rust can be brushed or sanded off. Rust preventative coating can be applied to areas where the black oxide has been removed. For a more corrosion resistant solution, Jergens® does offer Stainless Steel products or products with an Envirolox™ or other protective finishes. The Envirolox™ (Electroless Nickel) plating also provides surface hardness, lubricity, more effective corrosion protection and is environmentally friendly.

Stainless Steel and Plated Hoist Rings

Stainless Steel and plated hoist rings shall also follow a routine maintenance schedule depending on severity of the service environment. Even these products shall not be submerged or exposed to saltwater environment for extended period of time due to an aggressive attack.

- After every use in such environment flush with fresh water, and in case of contact with questionable chemicals clean immediately with a mild automobile detergent.
- Applying light coat of standard machine oil or rust inhibitor after cleaning is also recommended.
- Do not use any abrasive compounds or metal abrasives to clean stainless steel or plated products. If your hardware requires harsh chemicals or abrasive to clean, you need to reconsider your maintenance schedule.
- Never use strong chemical solutions or strong acids that will destroy the hardware. Use radially available car wash or boat wash products to clean stainless steel or plated hardware instead.



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If there are any questions, please contact Jergens Customer Service: 877-440-LIFT (5438) lifting@jergensinc.com

