

Product Information Report

Swivel Hoist Rings



Overview

Swivel hoist rings are used in the same manner as shoulder pattern eye bolts to facilitate connecting hooks and chains to a workpiece. The ring pivots 180° and the base swivels 360° simultaneously to allow lifting from any direction.

Benefits

- A swivel hoist ring can rotate to the direction of force using its swivel bushing
- The swivel action allows the recommended working load limit (WLL) to be maintained regardless of the lifting angle

Swivel Hoist Ring Markings

- Manufacturer name or trademark
- Size or rated working load limit
- Recommended installation seating torque
- Each individually serial numbered

Reference: Department of Energy Standard: DOE-STD-1090-2007, 12.8 SWIVEL HOIST RINGS

Swivel Hoist Rings vs Machinery Eye Bolts



Recommended



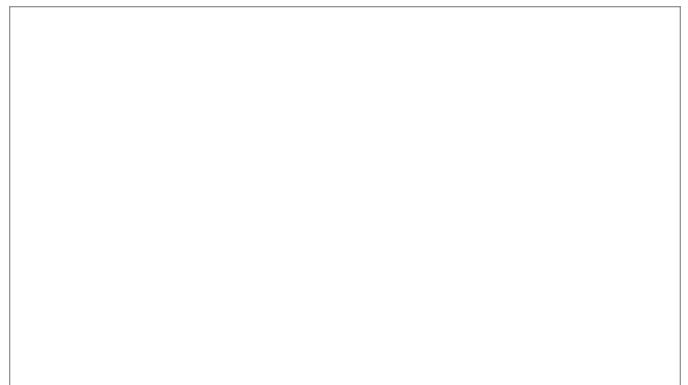
Not Recommended

Accidents can occur if either of these rigging hardware components are abused, misused, overloaded or shock-loaded. Since swivel eye rings do not have to be derated (recommended working load limit lowered) they are a better type of hardware for lifting loads at angles, especially when load movement or turning might be encountered.

Machinery eye bolts are best suited for straight loading. If a machinery eye bolt is used at an angle it will not handle the load that is marked on the eye. The recommended working load limit must be derated and they should not be used at all if the load angle is greater than 45° from the shaft of the bolt.

Of even greater significance is the susceptibility of eye bolts to being side-loaded or loaded out of the plane of the eye. This is one of the most common causes of catastrophic failure of eye bolts and can lead to equipment damage and serious injury.

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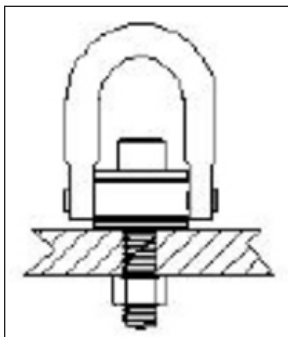


Instructions

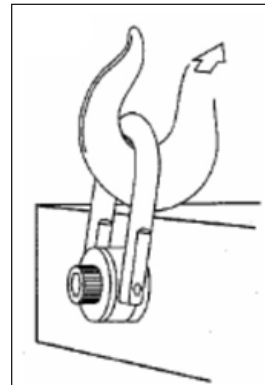
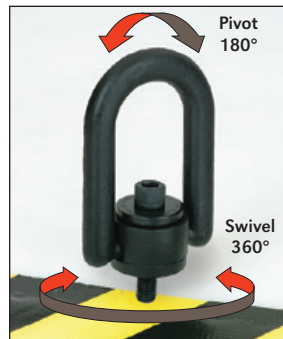


Swivel hoist ring in threaded hole

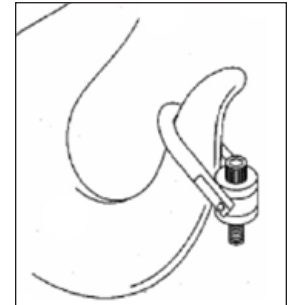
1. When used in a threaded hole, the effective thread length should be at least 1-1/2 times the diameter of the bolt.
2. Install hoist ring to recommended torque with a torque wrench, making sure the bushing flange meets the load (workpiece) surface.
3. Never use spacers between the bushing flange and mounting surface.
4. When a swivel hoist ring is installed in a through hole with a retention nut, the nut must have full thread engagement and must meet Grade 8 strength levels.
5. Attach lifting device ensuring free fit to hoist ring bail (lifting ring).
6. Apply partial load and check proper rotation and alignment. There should be no interference between load (workpiece) and hoist ring bail.
7. Remember, a swivel hoist ring must be able to rotate and pivot without interference during lifting.



Swivel hoist ring in through hole



Hook is wedged between workpiece and hoist ring



Hoist ring must seat in bottom of hook