



Hex-Body Swivel Hoist Ring Inspection Procedure

Purpose:

This procedure defines how Carr Lane inspects Hex-Body Swivel Hoist Rings

Responsibility:

Engineering

Quality Control

Production

Scope:

This procedure applies to all newly manufactured and/or purchased standard Hex-Body Swivel Hoist Ring items and its components.

Reference Procedures:

Definition:

SHR - Swivel Hoist Ring

Inspection Interval

Hex-Body Swivel Hoist Rings (SHRs) shall be given periodic visual inspections. The higher the frequency of use, and/or the more hazardous the environment in which they are used, shall result in a more frequent visual inspection.

Inspection Procedure:

1. Manually manipulate the SHR to determine if it rotates and swivels freely in all directions. If it does not, please skip to item 6 on this procedure.

2. Dis-assemble the SHR by carefully removing the retaining washer on the bolt. (See Image 1) This may be made of steel or plastic depending upon the item. If this is damaged during removal replacements are available for a nominal fee. Carefully segregate components. Do not mix components. (Mixing components may void all warranties.)
3. Visually inspect all components (See Image 2) for areas of:
 - a. Corrosion
 - b. Excessive wear
 - c. Material that is cracked, torn, or bent.
4. Visually inspect the sub-assembly; specifically, the area where the shoulder pins meet the hex body. (See Image 3) Ensure that the shoulder pins are parallel to the body and equally spaced on both sides. (Angled shoulder pins, or shoulder pins unequally spaced from the body are non-conforming.)
5. Visually inspect the sub-assembly for areas of:
 - a. Corrosion
 - b. Excessive wear
 - c. Material that is cracked, torn, or bent.
6. If any of the conditions above is observed in the components, please contact CLM engineering department for further instructions. (Some wear is normal. The precise amount of normal wear is dictated by too many conditions for all of them to be defined in this document.)
7. If none of these conditions are found, re-assemble the SHR. Do not mix components.

Recommended Additional Inspection for SHRs with Load Ratings of 10,000 Lbs or Greater.

While not required it is the recommendation of CLM that all SHRs with load ratings of 10,000Lbs or greater (4,5 Metric Tons) be disassembled and Magnetic Particle inspected (ASTM E 1444, ASTM-A574, ASTM F788/F788M) for material defects on an annual basis.

Inspection after “Shock-Load” Incident

A “Shock-Load” event is an event in which a significant load was applied to the SHR very quickly. This is a condition that can occur when “rolling” over a workpiece, when there is an issue with the lifting hardware, if the SHR becomes “frozen” or is unable to swivel and rotate freely, or many other possible causes.

In the event that an SHR has been subjected to a “Shock-Load”, the SHR must be inspected using the criteria above and must also be Magnetic Particle inspected. If any defects are found the entire assembly must be scrapped. Do not retain components.

Image 1

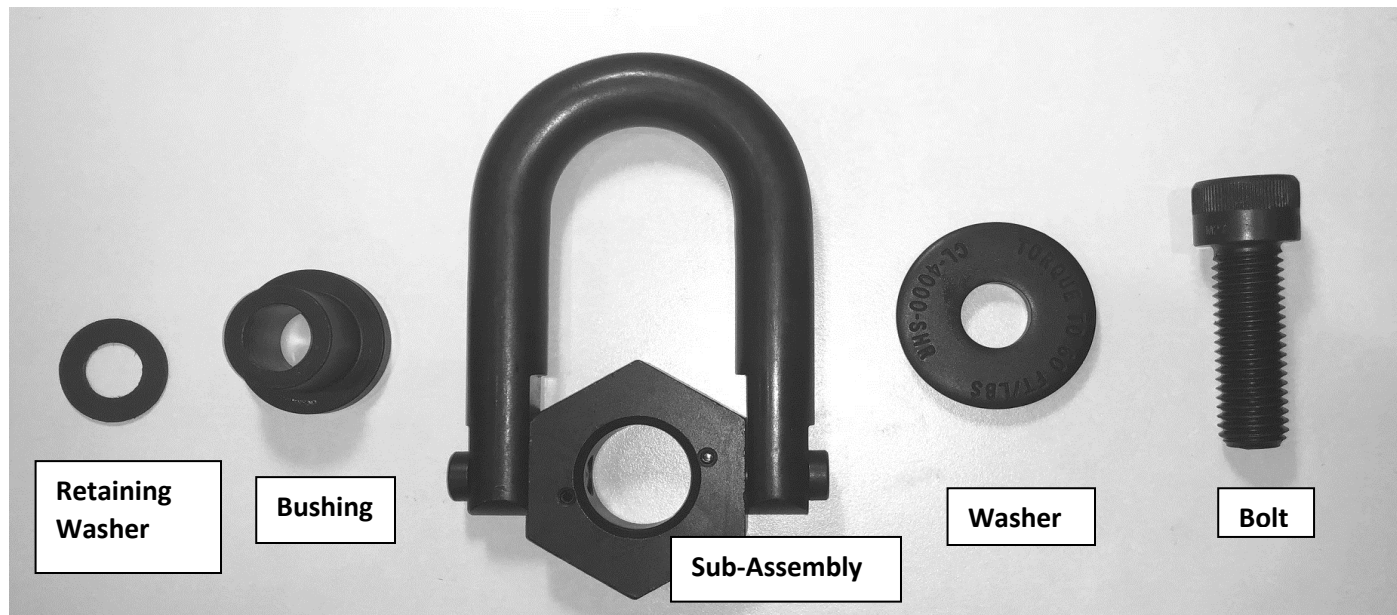


Image 2



Image 3

