

GripHook™ Forklift Hoist Assembly Safety Bulletin 045



WARNING

Failure to Read, Understand and Follow the information in this bulletin may result in severe **INJURY** or **DEATH** due to sling failure and/or loss of load. This bulletin contains important safety information. It **DOES NOT** contain all of the information you need to know about handling, lifting and manipulating materials and loads safely. It is your responsibility to consider all risk factors prior to using any rigging device or product.

1. **Users must be trained** in rigging practices, including equipment selection, use, inspection, rigging practices, cautions to personnel and effects of environment.
2. **Inspect at least daily** and remove from service if damaged.
3. **Use properly:** Do not exceed the rated capacities of any equipment and always consider how pull angle affects tension.
4. **Stand clear of load.** Do not stand on, under or near a load, and be alert to dangers from falling and moving loads and the potential for snagging.
5. **Maintain and store properly.** Protect from mechanical, chemical and environmental damage.

1. Users Must be Trained and Knowledgeable

GripHooks provide a secure method for lifting and moving loads using the single fork of a fork truck. Users must be knowledgeable about the safe and proper use of both rigging and forklift equipment and be aware of their responsibilities as outlined in all applicable standards and regulations.

ASME B30.9 states: "Synthetic web sling users shall be trained in the selection, inspection, cautions to personnel, effects of the environment and rigging practices".

If you are unsure whether you are properly trained and knowledgeable, or if you are unsure of what the standards and regulations require of you, ask your employer for information and/or training—DO NOT use rigging equipment if you are unsure of what you are doing. Lack of skill, knowledge or care can result in severe INJURY or DEATH to you and others.

2. Inspecting GripHooks for Damage

Damage to a GripHook can significantly reduce its capacity to hold or lift loads and increases the chance that it will fail during use. If you are not sure if it is damaged, DO NOT USE IT.

2a. How to inspect

Perform a visual inspection of the entire GripHook assembly for any of the types of conditions listed in Table 2-1.

2b. Removal from service

Remove GripHook from service immediately if ANY of the listed types of damage are detected. Never ignore damage or attempt to perform temporary repairs.

2c. Inspection Frequency

Initial Inspection – Each new product must be inspected by a designated person to help ensure that the correct item has been received, is undamaged, and meets applicable requirements for its intended use.

Frequent Inspection – GripHooks must be inspected by a designated person before each day or shift in Normal service conditions, or before each use in applications where a rapid rate of wear or other degradation may exist (Severe service conditions).

Periodic Inspection - Every GripHook must be inspected "periodically". The designated person should be someone other than the person performing the frequent inspection.

The frequency of periodic inspections should be based on the equipment's actual or expected use, severity of service, and experience gained during the inspection of other equipment used in similar circumstances but must not exceed a one-year interval. General guidelines for the frequency of periodic inspections are:

- Normal service—yearly
- Severe service—monthly to quarterly
- Special service—as recommended

A written record of the most recent periodic inspection must be maintained.

Table 2-1 Removal from service criteria

- Holes, tears, cuts, snags or embedded materials in the webbing.
- Excessive abrasive wear of any component.
- Exposed red core warning yarn if provided.
- Broken or worn stitches in the load bearing splices.
- Identification tag is missing or not readable.
- Signs of ultraviolet (UV) light degradation.
- Any heat or chemical damage, i.e. acid or alkali burns, melting or weld spatter.
- Fittings with any cracks, excessive wear, or other damage, such as deformation, corrosion, or pitting.
- Hooks with throat opened more than 15% or twisted more than 10 degrees out of plane.
- Any conditions which cause doubt as to the strength of the equipment.

3. Selection and Use

A qualified person must select the rigging materials, and methods. To use *GripHooks* properly, consider the following:

- Each *GripHook* is designed for use on a particular fork width and they must not be used on forks other than the noted size. For in-between sized forks, use the next size larger *GripHook*.
- Load information including size, shape, weight, composition and center of gravity.
- Lifting conditions including overhead clearance, temperature, and chemicals.

3a. *GripHook* Placement and Position

When placing *GripHooks* onto a fork, it may be positioned anywhere on the fork except at the very tip of the fork. This will improve the loads center of gravity position on the fork and it will also provide a buffer area to allow the operator time to adjust the setup should the *GripHook* start to slide toward the tip. The selected fork of the forklift may be moved to a central position of the carriage to improve the weight balance of the forklift and load.

Security of *GripHook* Position on Forks

Each *GripHook* will automatically apply a frictional force onto the fork to reduce the amount of sliding on the fork. However, also consider the following:

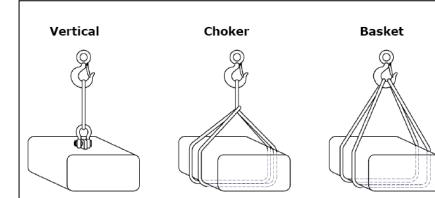
- **Monitor *GripHook* Position**
During load handling operations, monitor the *GripHook* position on the fork. If the *GripHook* is adequately secure for the operation, it should not alter from its original position.
- To further reduce the possibility of the *GripHook* sliding toward the fork tip, or when a positive locking position is needed, a securing lanyard may be attached between the *GripHook* and the fork mast.

- To further improve control of possible *GripHook* sliding toward the mast, or when a positive locking position is needed, a rectangular tube section may be attached over the fork between the *GripHook* and the fork mast.
- When moving loads, always tilt the mast back slightly and position the load as low to the ground as practicable.
- When moving loads up or down inclines, keep the load uphill and do not travel down ramps in a forward direction. Travel down ramps in a reverse direction to allow the mast to serve as a stop should sliding occur at the connection with the fork.

3b. Rigging configuration and load stability

A qualified person must review each lift and create a rigging plan. When an additional sling is used for attachment to the load, any common sling hitch type may be used (see Figure 3-1).

Figure 3-1. Common types of sling hitches



Do not exceed the rated capacity –

Determine the load weight and verify that the amount of tension applied does not exceed:

- The *GripHook* capacity as noted on the tag.
- The sling capacity for the chosen hitch.
- The capacity of any rigging components.
- The forklift and fork capacity, which will change with the load position on the fork. See the forklift device's operating manual for further information on loading limits.

Load Attachment – Attach the *GripHook* to the load. If a separate sling is also used, select as short of a sling as practical to minimize load swinging.

Apply Tension onto *GripHooks* Vertically

Only apply loading vertically. Do not use *GripHooks* to apply side loading onto forks. Also, do not use more than one *GripHook* at a time on a forklift unless vertical loading to the forks will be maintained.

Travel Height – Position the load as close to the ground as practical to help maintain forklift stability

Control Movement – Accelerate smoothly in a controlled manner both laterally and when turning or rotating the forklift. Avoid unnecessary swinging of the load to prevent striking pedestrians or other objects. Always make sure personnel remain clear of the load and out of the danger zone whenever moving any load.

3c. Avoid actions that cause damage to *GripHooks*, such as:

- Using to pull on stuck or constrained objects.
- Dropping or dragging on the ground, floor or over abrasive surfaces.
- Exposing to temperatures above 200°F (90°C), or below -40°F (-40°C).
- "Tip loading" the hook instead of centering it in the base or "bowl" of the hook.
- Driving over rigging with a vehicle or other equipment.
- Accelerating or decelerating the load too quickly (i.e., "shock loading").
- Exposing to damaging acids or alkalis.

3d. Environmental Considerations

Exposure to sunlight, and other environmental factors such as dirt or gritty matter and cyclical changes in temperature and humidity, can result in an accelerated deterioration of webbing. The rate of this deterioration varies with the level of exposure and with the thickness of the webbing.

Visible indication of such environmental deterioration can include the following:

- Fading of webbing color.
- Uneven or disoriented surface yarn of the webbing.
- Reduction in elasticity of the webbing due to an exposure to sunlight, often evident by an accelerated abrasive damage to the surface yarn of the webbing.
- Breakage or damage to yarn fibers, often evident by a fuzzy appearance of the web.
- Stiffening of the web evident when exposed to outdoor conditions.

Additional Factors to consider when handling loads

- Power lines in the area.
- Secure a clear load path and avoid any contact with objects that would impede load movement.
- Integrity of the attachment points.
- Structural stability of the load.
- Loose parts that could fall from load.
- Tag lines can often be attached to the load and be used to aid in controlling load positioning.

For Additional Information

This bulletin does not contain all of the information that may be necessary to ensure the safe use of rigging. *GripHooks* are special construction web slings. Some additional sources of training information include:

- The Operating Manual for the Forklift
- WSTDA WS-1 Recommended Standard for Synthetic Web slings
- ASME B30.9 Sling Standard
- OSHA 29 CFR 1910.184 Regulations
- Lift-All Catalog and website at www.lift-all.com
- Rigging handbooks

Sunlight / UV Exposure Service Life

Synthetic webbing possesses a limited useful outdoor service life due to the degradation caused by exposure to sunlight, or other measurable sources of UV radiation.

Lift-All webbing products that are regularly exposed to outdoor conditions should be identified with the date they are placed into service and should be proof tested to twice its rated capacity every six months.

GripHooks shall be permanently removed from service when the cumulative outdoor exposure has reached an exposure limit of 2 years.

4. All Personnel Must Remain Clear of Loads and Alert to Risks

To prevent possible injury when using rigging equipment, all personnel must:

- Stand clear of lifted loads and never be under, on or near suspended loads.
- Avoid placing any parts of the body between the rigging and load, or between the webbing and lifting hook or connections.
- Be alert to the potential for materials to become snagged during a lift.

5. Maintain and Store Properly

Attempt to keep *GripHooks* clean and free of dirt. Hand wash with mild soap and water and:

- Do not use bleaching agents.
- Do not use pressure washer on any webbing.

When not in use, store in an area free from environmental or mechanical sources of damage, such as: weld spatter, splinters from grinding or machining, or sources of UV, heat, or chemical exposure, etc.

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Call 800-909-1964 for additional information.