

Sleeve Safety Information

⚠ WARNING Warning icons are used to alert users to potentially hazardous conditions and situations, which if not avoided may result in SEVERE INJURY or DEATH.

“Must” denotes a mandatory requirement and is synonymous with the use of the term “shall”. In this guide, all components used for load handling activities, including but not limited to: slings, fittings, rigging hardware, and/or sling protection may also be referred to as rigging*. Slings must always be protected from cutting, abrasion and other types of damage by materials of sufficient strength, thickness and construction. This mandatory requirement is enforced by OSHA, stated in many consensus sling safety standards and is also mentioned multiple times in the Lift-It® Manufacturing Co., Inc. warnings.

- You must ALWAYS protect slings from all POTENTIALLY DAMAGING EDGES and SURFACES.
- There are two basic types of sling protection; protection used specifically for **cut protection** or other devices used for **abrasion protection**.
- Bulked Nylon (Cordura®) may be suitable for abrasion protection but will not prevent damage from cutting.

⚠ WARNING ABRASION PROTECTION WILL NOT PREVENT DAMAGE FROM CUTTING.

- If protection from cutting is necessary, only use sling protection that has been designed, tested, rated and labeled by the sling protection manufacturer.
- “Cut proof” sling protection does not exist, and sling protection MAY NOT prevent cutting or other damage especially if it is not properly used.
- Loads must be rigged properly and a Qualified Person** and/or Properly Informed and Trained Consumer must ensure that the sling protection is the correct type, capacity, shape and size to protect slings from damage.
- Sling protection and all rigging* must be compatible with the sling.
- Sling protection must not interfere with slings closing to the full gripping position for secure handling and load control.

Even if you consider all of the factors/issues involved in load handling activities, things can still go wrong. Therefore, all personnel must be alert to potential risks associated with the use of slings, rigging hardware and sling protection.

⚠ WARNING

MAKE SURE ALL PERSONNEL ARE CLEAR OF LOADS AND ALERT TO RISKS, ESPECIALLY IN THE “DANGER ZONE”.

The “Danger Zone” is any area where the load could fall onto or swing into, or anywhere an unplanned release of tension could strike personnel with deadly recoil and/or impact force.

Slings, rigging hardware and/or sling protection failure may result in SEVERE INJURY or DEATH. Gravity ALWAYS works and when rigging* failure occurs, personnel on, under, near or next to load handling activities are in grave danger from falling objects. OSHA refers to this area as the “fall zone”.

Personnel must never be on, under or near suspended loads. Personnel must stand clear of lifted loads and never stand or pass under a suspended load.

Personnel must not stand in-line with or next to rigging* under tension.

An unplanned release of tension could strike personnel with deadly recoil and/or impact force.

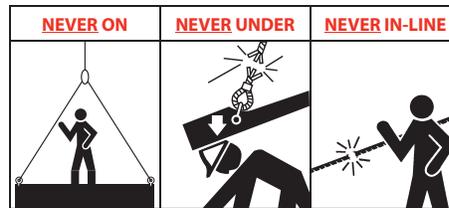
Sling users must know and understand the potential danger from the unplanned release of tension and deadly recoil and/or impact force that may result in SEVERE INJURY or DEATH.

The “Danger Zone” is sometimes referred to as “working in the bite”, “working in the line of fire” or “working in the strike zone”.

Never use slings and/or rigging* for pulling against stuck, snagged or restrained objects IF LOADING CANNOT BE DETERMINED. Load measuring devices and/or methods must be used to ensure that OVERLOADING DOES NOT OCCUR.

Personnel must be alert to the potential for the sling and/or load to become snagged or hung up during load handling activities.

When these conditions occur, the rigging* may be overloaded.



Overloaded and/or damaged slings, rigging hardware and sling protection may fail, and the unplanned release of tension could:

- Strike personnel with deadly recoil and/or impact force.
- Become deadly projectiles resulting in SEVERE INJURY or DEATH.

Personnel shall never ride the sling or load.

Once load handling activities begin, sling users must never place any part of the body between the sling and the load and/or between slings, shackles, hooks and/or other connection points.

⚠ WARNING The sleeves featured in this guide **DO NOT provide protection against cutting**. Bulked Nylon (Cordura®) and Chap Sleeves provide protection against abrasion. The other types of sleeves discussed in this guide (i.e., felt, leather, neoprene and web) **DO NOT protect against cutting and provide little, if any, protection against abrasion**. See page 3 for additional information.

Sleeve Types	Protection Capabilities/Limitations
 Bulked Nylon Sleeve  Chap Sleeve (Bulked Nylon over Felt)	Bulked Nylon (Cordura®) and Chap Sleeves provide protection against abrasion, but DO NOT provide protection against cutting . These types of sleeves DO NOT provide protection against cutting and provide little, if any, protection against abrasion. • Decades ago when synthetic slings were first used, “engineered” sling protection was not available. • Sleeves made from web and cut up slings were used as “softeners”. • Leather sleeves are highly overrated for use as sling protection. • Sleeves made from web, bulked nylon, felt, leather and/or neoprene DO NOT provide protection against cutting.
 Felt	
 Leather	
 Neoprene	
 Web	

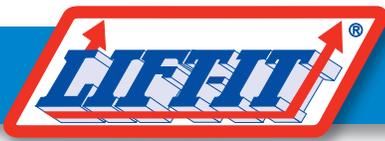


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Sleeve Safety Information

USERS NEED TO BE TRAINED AND KNOWLEDGEABLE

⚠ WARNING This guide contains important safety information about the use of Lift-It® Sleeves. However, it DOES NOT provide you with all the information you need to know in order to be considered trained and knowledgeable. The proper use of slings, rigging hardware, sling protection and/or sleeves are only some of the many necessary ingredients for proper and safe use in successful load handling activities.

You must be properly trained, and it is your responsibility to consider all risk factors prior to all load handling activities. Improper use and/or lack of proper training may result in SEVERE INJURY or DEATH due to rigging* failure, the unplanned release of tension, deadly recoil and/or impact force and/or the loss of load control.

All Lift-It® products are sold with the express understanding that users are thoroughly familiar with safe and proper product usage. A manufacturer does not (and cannot) have complete knowledge or insight into the specific details and potential hazards associated with your particular load handling activities. The user is responsible for proper use as detailed in all applicable standards, regulations and warnings.

The American Society of Mechanical Engineers in the ASME B30.9 Sling Safety Standard, Section 9-X.1 clearly states the requirement for training. "Sling users shall be trained in the selection, inspection, cautions to personnel, effects of the environment and rigging practices, covered by this chapter."

Rigging* practices include the use of slings, rigging hardware and sling protection. Sling protection is a mandatory requirement for all synthetic rope, web, roundsling and Twin-Path® slings whenever there is a possibility of damage from cutting and/or abrasion.

⚠ WARNING DO NOT use slings, rigging hardware, sling protection and/or sleeves until you are absolutely sure of what you are doing. Remember, failure to follow proper use, care and inspection criteria and/or lack of skill, knowledge and/or training may result in SEVERE INJURY or DEATH. Slings, rigging hardware, sling protection and/or sleeves may fail if damaged, abused, misused, overloaded or improperly maintained and may result in SEVERE INJURY or DEATH.

Occupational Users using Lift-It® products as part of their work must have sufficient training and knowledge of all applicable standards and regulations. 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 Lift-It® products until you are ABSOLUTELY sure of what you are doing.

Consumers using Lift-It® products must be properly informed and trained to safely use Lift-It® products. An important part of becoming properly informed is to read and fully understand the information in all warning/instructions, tags, labels and guides that accompany Lift-It® products. To increase your level of comprehension, training and competence, consider completing an accredited rigging course offered by an industry recognized sling and rigging training organization, trade/technical school, union or industry association. Online rigging courses, instructional videos and rigging publications may also provide valuable information for your specific load handling activities.

DO NOT use Lift-It® products until you are ABSOLUTELY sure of what you are doing. Please contact us at 800.377.5438, scan the QR Code on the Protection Capacity Tag or email us at info@lift-it.com and NEVER TAKE CHANCES!

READ AND FOLLOW ALL WARNINGS & INSTRUCTIONS

- Always read and understand tags, labels and information that accompany all products.
- Sleeves with an illegible or missing Sleeve Warning Tag must not be used. If the Sleeve Warning Tag is missing or illegible, the Sleeve must be **immediately** removed from service.



Some sling protection materials like Bulked Nylon and/or Chap Sleeves may be suitable for abrasion resistance, but offer no protection against cutting.

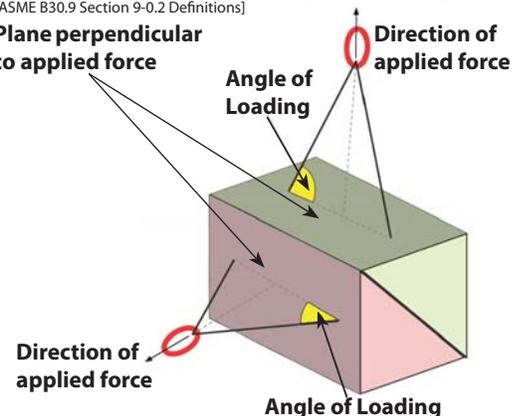
Perhaps you have not been trained and are under the false impression that Sleeves made from web, Bulked Nylon, felt, leather and/or neoprene will protect slings from cutting. THEY DO NOT!

Contact us for training and/or information on Sling Protection that will assist in preventing damage from cutting and/or abrasion.

ANGLE OF LOADING

The acute angle between the sling leg and the plane perpendicular to the direction of the applied force, referred to as the horizontal angle when lifting. [ASME B30.9 Section 9-0.2 Definitions]

Plane perpendicular to applied force

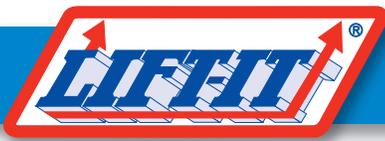


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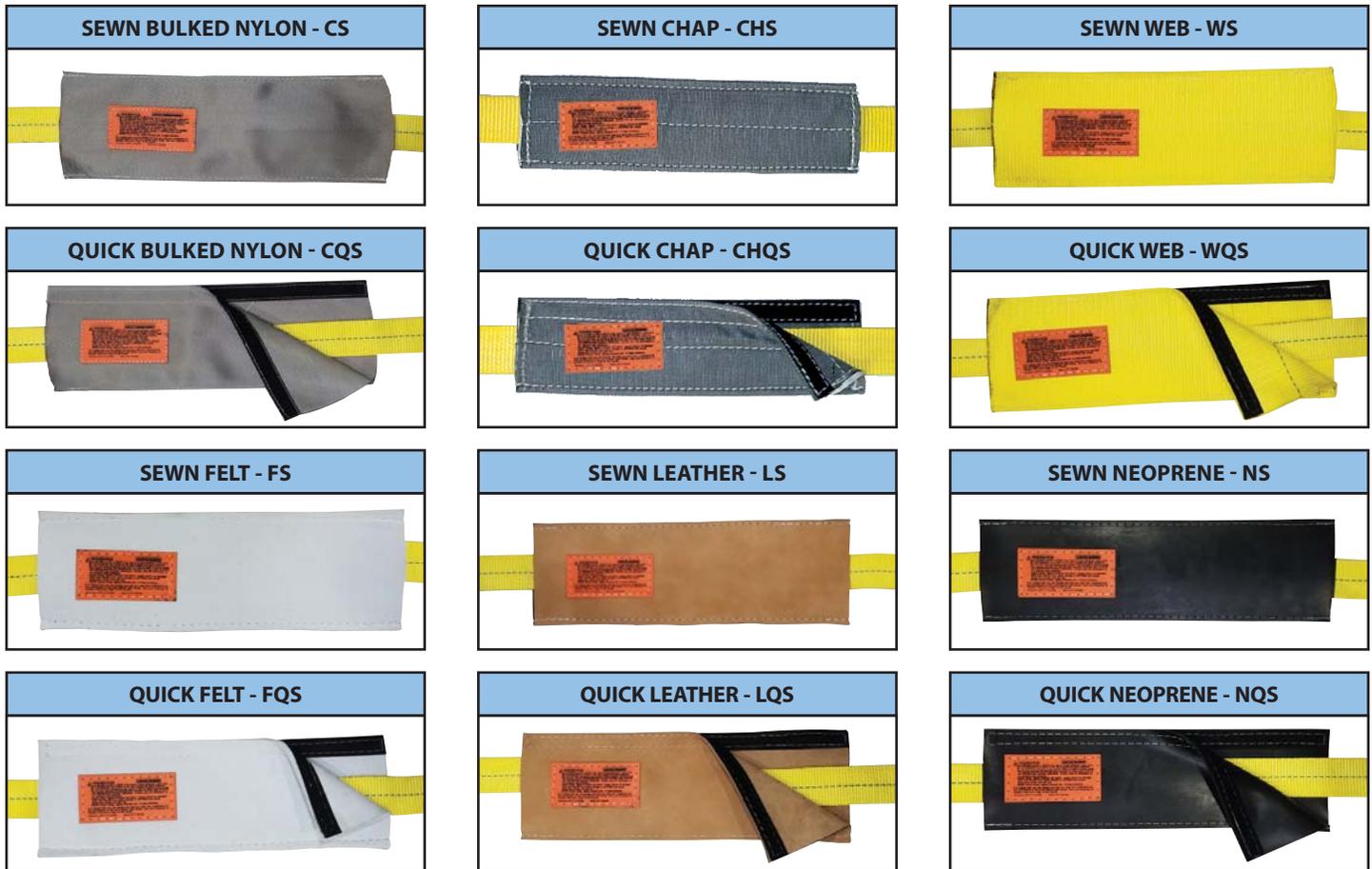


Sleeve Safety Information

SLEEVE SELECTION & USE INFORMATION

- A Qualified Person** and/or Properly Informed and Trained Consumer must ensure that loads are properly rigged and carefully evaluate and select appropriate sling protection for the application and potential type(s) of damage.
- Sling protection should not be makeshift (i.e., cardboard, work gloves, rags, carpet, fire hose or other items were not designed to be used as sling protection).
- Trial lifts may be extremely valuable in determining and validating sling protection suitability and adequacy. Several trial lifts done by a Qualified Person** and/or Properly Informed and Trained Consumer in a set of no consequence circumstances that WILL NOT RESULT IN INJURY or DEATH may be necessary. See page 4 for additional information on trial lifts.
- A Qualified Person** and/or Properly Informed and Trained Consumer must consider and evaluate many factors that may affect sling protection and/or sleeve performance. Factors such as, but not limited to: sling elongation, edge type and condition (rough or case hardened), spatial considerations, angle of loading, sling protection usage angle, protection contact surface (flat or curved), sling protection contact (full or partial), exposure temperature, chemical environment, etc.

⚠ WARNING Slings, rigging hardware and/or sling protection may fail if damaged, misused or overloaded resulting in SEVERE INJURY or DEATH.



⚠ WARNING

Sleeves featured in this guide DO NOT protect slings from damage caused by cutting.

Contact the Lift-It® sales professionals for information on sling protection that is cut-resistant, if properly used.

Remember, "cut-proof" sling protection does not exist!

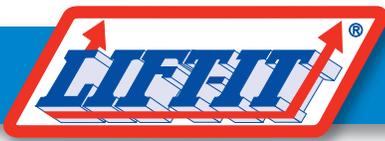


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Sleeve Safety Information

SLEEVES & SLING PROTECTION MUST BE PROPERLY USED

⚠ WARNING Slings, rigging hardware, sling protection and/or sleeves may fail if damaged, misused or overloaded. SEVERE INJURY or DEATH may occur from improper use, inspection and maintenance.

DO NOT USE Bulked Nylon Sleeves, Chap Sleeves and/or Sleeves made from, web, felt, neoprene and leather for protection against cutting. ABRASION SLEEVES AND OTHER SLEEVE TYPES WILL NOT PREVENT DAMAGE FROM CUTTING.

IF PROTECTION FROM CUTTING IS NECESSARY, ONLY USE SLING PROTECTION THAT HAS BEEN DESIGNED, TESTED, RATED AND LABELED BY THE MANUFACTURER.

Bulked Nylon Sleeves and Chap Sleeves may be suitable for abrasion resistance, but will not prevent damage from cutting.

- A Qualified Person** and/or Properly Informed and Trained Consumer must ensure loads are properly rigged and carefully evaluate and select appropriate sling protection and/or sleeves for the application and potential type(s) of damage.
- Sling protection and/or sleeves must always be evaluated for adequacy and suitability by a Qualified Person** and/or Properly Informed and Trained Consumer.
- As tension is being applied, before load handling activities begin, a Qualified Person** and/or Properly Informed and Trained Consumer must ensure the relationship between the sling, sling protection and/or sleeves is correct and sling protection and/or sleeve is properly placed to prevent damage to slings, sling protection and/or sleeves.

- Trial lifts (i.e., lifting a minimum height in conditions that WILL NOT RESULT IN INJURY or DEATH) are a critically important part of an evaluation. Even though trial lifts are “static” tests and do not simulate the “dynamic” nature of actual lifts, they may assist in identifying problems before the actual load handling activity begins. Several trial lifts may be necessary to ensure proper use and safety.
- Trial lifts provide a Qualified Person** and/or Properly Informed and Trained Consumer the opportunity to evaluate and take corrective action. Evaluation must include, but is not limited to: ensuring that the load is secure and balanced, assumes the intended position and that the sling and protection and/or sleeve relationship is correct and sling protection and/or sleeve is properly placed to prevent sling damage.
- After the trial lift, but before the actual lift, a Qualified Person** and/or Properly Informed and Trained Consumer must inspect slings, sling protection and/or sleeves. If possible, the sling protection and/or sleeve should be removed and/or repositioned to independently inspect not only slings, but also, the sling protection and/or sleeve. A Qualified Person** and/or Properly Informed and Trained Consumer must evaluate and, if necessary, take corrective action.
- Trial lifts are especially important with basket or other “loose” hitches where friction alone between the sling, sling protection and/or sleeve and the load contribute to load control. Multiple trial lifts, inspections and corrective actions may be necessary to determine the proper combination of factors for successful load handling activities.



- Tension on all rigging* increases as the Angle of Loading changes from 90° (see page 2 for more information on Angle of Loading).
- A Qualified Person** and/or Properly Informed and Trained Consumer must calculate and plan for tension and all rigging* components must be evaluated for strength adequacy to avoid overloading.
- Sleeves are not rated for cut protection, but may be damaged by tension and compressive forces as the Angle of Loading deviates from 90°.

⚠ WARNING DO NOT OVERLOAD SLINGS, RIGGING HARDWARE AND/OR SLING PROTECTION. Slings, rigging hardware, sling protection and/or sleeves may fail if damaged, misused or overloaded resulting in SEVERE INJURY or DEATH.

- Damage to slings, sling protection and/or sleeves may occur as tension and compression combine and cutting forces are increased.
- The maximum capacity for all rigging* used for load handling is limited by the component with the lowest work load limit, including but not limited to the sling protection. Remember to apply the “Weak Link” principle.
- Regardless of the sling protection and/or sleeve type, load control is affected by the Angle of Loading. As the Angle of Loading deviates from 90° the greater the likelihood that slings, sling protection and/or sleeves will slide against the load causing damage that may result in SEVERE INJURY or DEATH.
- **Slings must be properly rigged for load control. NO slipping and sliding – Positive sling to load engagement!**
- **NEVER allow slings, sling protection and/or sleeves to slip or slide over and/or across load edges, load surfaces, suspension points and/or connection points.**
- **Slipping and sliding may damage slings, sling protection and/or sleeves even if the sling protection and/or sleeves is properly placed.**
- **Slings, sling protection and/or sleeves that slip and/or slide may become damaged resulting in SEVERE INJURY or DEATH.**
- Read and understand tags, labels and information provided in this guide, included with all products, contained in our catalog and/or available by scanning the QR Code on the Protection Capacity Tag or Sleeve Warning Tag. Important safety and use information can also be found at www.lift-it.com
- Always operate within the limits of all recommended practices for slings, rigging hardware, sling protection and/or sleeves from a regulatory, industry, corporate, job site and manufacturer perspective.
- Use by untrained persons is hazardous. Please contact us if you have questions at 800.377.5438 or email us at info@lift-it.com and NEVER TAKE CHANCES!
- Inspect slings, rigging hardware, sling protection and/or sleeves before each use and **immediately** remove damaged items from service for evaluation by a Qualified Person** and/or Properly Informed and Trained Consumer.
- Do not use damaged slings, damaged rigging hardware, damaged sling protection and/or damaged sleeves for any purpose.
- Follow inspection procedures and removal-from-service criteria outlined in this guide. See pages 5 & 6.

⚠ WARNING Slings, rigging hardware, sling protection and/or sleeves may fail if damaged, misused or overloaded, resulting in SEVERE INJURY or DEATH.

- BUNCHED Sleeves will not properly work.
- For Sleeves made of Bulked Nylon, Chap Sleeves, Web or Felt do not use at or allow exposure to temperatures above 194° F (90° C) or below -40° F (-40° C).
- For Sleeves made of Neoprene or Leather do not use at or allow exposure to temperatures above 180° F (82° C) or below -20° F (-28° C).
- If slings, rigging hardware, sling protection and/or sleeves will be exposed to potentially damaging chemical environments, contact us prior to use to avoid damaging the sling, rigging hardware, sling protection and/or sleeve from exposure.

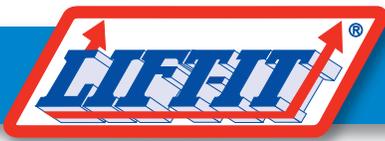


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ALWAYS PROPERLY INSPECT SLINGS, RIGGING HARDWARE, SLING PROTECTION & SLEEVES

All slings, rigging hardware, sling protection and/or sleeves must be inspected *initially* (upon receipt), *frequently* (before each use), and *periodically* (see page 6 for additional details on inspection frequency and methods). All damaged slings, damaged rigging hardware, damaged sling protection and/or damaged sleeves shall be **immediately** removed from service and not used for any purpose until approved by a Qualified Person** and/or Properly Informed and Trained Consumer.

Any damage detected in the sling protection and/or sleeves may also indicate potential damage to the sling.

Remember, any doubt, DON'T!

⚠ WARNING The use of damaged slings, damaged rigging hardware, damaged sling protection and/or damaged sleeves may result in SEVERE INJURY or DEATH.

- Inspect slings, rigging hardware, sling protection and/or sleeves before each use and **immediately** remove damaged items from service for evaluation by a Qualified Person** and/or Properly Informed and Trained Consumer. Damaged items shall not be used for any purpose.
- Follow inspection procedures and removal from service criteria featured on page 6 in this guide.

Damage may include, but is not limited to:

- Illegible or missing Sleeve Warning Tag
- Heat or chemical damage
- Cuts, tears or punctures
- Crushing or distortion
- Abrasion damage
- Unauthorized modifications
- Other conditions including visible damage that causes doubt as to the continued use of slings, rigging hardware, sling protection and/or sleeves.

If you identify any of the following types of damage, **IMMEDIATELY REMOVE SLEEVES FROM SERVICE**, even if the damage you see is not as extensive as shown in the following pictures. These are extreme examples provided only for illustration purposes.

		
<p>Missing or Illegible Tag Sleeve Warning Tag must be legible and include safety information.</p>	<p>Temperature or Chemical Damage If sleeves have temperature or chemical damage, remove from service.</p>	<p>Abrasion Damage If sleeves have abrasion damage, remove from service.</p>
		
<p>Cuts, Tears or Punctures If sleeves have cuts, tears or punctures, remove from service.</p>	<p>Crushed or Distorted If sleeves are crushed or distorted, remove from service.</p>	<p>Other Damage If sleeves have any other type of damage, remove from service.</p>

Always immediately remove slings, rigging hardware and/or sling protection from service if damaged or if you detect ANYTHING that causes doubt about proper and safe use.

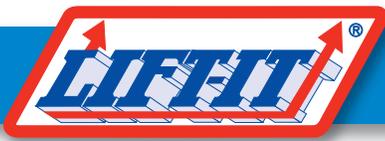


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INSPECTION AND REMOVAL FROM SERVICE CRITERIA

The strength and performance of all slings, rigging hardware, sling protection and/or sleeves is affected by wear and damage. It is critically important that sling users employ a three stage, inspection procedure: Initial, Frequent and Periodic, performed by a Qualified Person and/or Properly Informed and Trained Consumer.**

INITIAL INSPECTION

Sleeves must be inspected upon receipt by a Qualified Person** and/or Properly Informed and Trained Consumer to ensure:

- Damage did not occur during transit.
- Defective materials or inferior workmanship are not present.
- Verification that the Sleeve Warning Tag is attached and legible.

FREQUENT INSPECTION (PRE-USE)

The user must inspect slings, rigging hardware, sling protection and sleeves BEFORE EACH USE to determine if damage is present.

Damaged items must be **immediately** removed from service and not used for any purpose.

- Do not use slings, rigging hardware, sling protection and/or sleeves if damage is present.
- Damage and wear reduce the strength and performance of all items (i.e., slings, rigging hardware, sling protection and/or sleeves, etc.)
- Slings, rigging hardware, sling protection and/or sleeves found with damage must be **immediately** removed from service. Items removed from service must not be returned to service until approved by a Qualified Person** and/or Properly Informed and Trained Consumer.
- Any hazardous condition detected during inspection shall require further investigation, possible replacement and/or corrective action by a Qualified Person** and/or Properly Informed and Trained Consumer. Temporary repairs of slings, rigging hardware, sling protection and/or sleeves are not permitted.

DAMAGE MAY INCLUDE, BUT IS NOT LIMITED TO:

- Illegible or missing Sleeve Warning Tag.
- Heat or chemical damage.
- Cuts, tears, holes or punctures.
- Crushing and/or distortion.
- Unravelling and/or decomposition of the sleeve.
- Unauthorized modifications. Other conditions (including visible damage) that cause doubt as to the continued use of slings, rigging hardware, sling protection and/or sleeves.

Remember, any doubt, DON'T!

WARNING

These materials are current through March 28, 2020. It is the user's responsibility to independently verify the accuracy of these materials and all cited standards and regulations if these materials are used or referenced after March 28, 2020.

PERIODIC INSPECTION

Periodic Inspections should be conducted by a Qualified Person** and/or Properly Informed and Trained Consumer other than the person performing the frequent inspection. The interval for periodic inspections must never exceed one year and is also based upon: frequency of use, severity of the service conditions and the nature of the load handling activity. OSHA and ASME have specific definitions and guidelines for service conditions which dictate the intervals for periodic inspections.

Normal Service:

Annual periodic inspections must be performed for items used in Normal Service.

Severe Service:

Monthly or quarterly periodic inspections must be performed for items used in Severe Service conditions (i.e., abnormal conditions, extended exposure to extreme temperature limits, grit, etc.).

Special Service:

As recommended by a Qualified Person** and/or Properly Informed and Trained Consumer.

A record of the most recent periodic inspection should be maintained documenting that the event occurred. It is not required that the condition of individual sling protection devices and/or sleeves be recorded during periodic inspections.

If a sling protection device and/or sleeve has been idle or in storage for more than one year since the last periodic inspection, before use the sling protection device and/or sleeve must be thoroughly inspected on a periodic inspection level by a Qualified Person** and/or Properly Informed and Trained Consumer.

***Qualified Person: A person, who by possession of a recognized degree or certificate of professional standing in an applicable field, or who, by extensive knowledge, training and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.*

Lift-It® professionals have provided training for decades and have always promoted the proper and safe use of sling protection.

Why wouldn't everyone do the same?

Many dedicated Lift-It® professionals contributed enormous amounts of time, effort, knowledge, experience and financial resources to produce this guide. It demonstrates our commitment to you, your co-workers and your loved ones.

We've done our part, now you MUST do yours!



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