RECOMMENDED OPERATING,
CARE AND INSPECTION MANUAL
FOR

NYLON & POLYESTER SYNTHETIC WEB SLINGS

WSTDA-WS-2

MANDATORY AND ADVISORY RULES

Mandatory rules are characterized by the use of the word "must". If a rule is of an advisory nature, it is indicated by the use of the word "should", or it is stated as a recommendation.

The Web Sling & Tie Down Association has also formulated a Recommended Standard Specification for Synthetic Web Slings WSTDA-WS-1 to assist users in specifying the proper web sling for their particular needs; to serve as a guide to industry in the construction and use of web slings; and to serve as a guide to governmental and other regulatory bodies responsible for the proper use and inspection of web slings.

The Association suggests following the WSTDA-WS-1 Recommended Standard Specification for Synthetic Web Slings by all synthetic web sling users.

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INTRODUCTION

The Web Sling & Tie Down Association (WSTDA) is a tax-exempt, nonprofit, technical association dedicated to the development and promotion of voluntary recommended standards and associated reference materials. Originally established in 1973 as the Web Sling Association (WSA), the WSA serviced the synthetic web sling industry. In 1988, the WSA further defined its purpose to include synthetic web tie downs and became the Web Sling & Tie Down Association. Today, members of the WSTDA include manufacturers and suppliers of synthetic web slings and tie downs, load securement devices, roundslings, synthetic webbing, fibers, thread and related components. The WSTDA's mission is to foster and further, in every lawful manner, the common interests of its members and industry.

WSTDA is a global industry organization of manufacturers whose products are used in the manufacturing, transportation, recreation and forestry industries; also by the military and governmental agencies for applications which may include lifting, suspending, transporting, lowering and load handling under known conditions. In pursuance of this mission, the association has prepared this manual.

WARNING

This manual contains important safety information about the use of synthetic web slings. However, it DOES NOT contain all of the information you need to know about handling, lifting and manipulating materials and loads safely. Sling use is only one part of a lifting system and it is your responsibility to consider all risk factors prior to using any rigging device or product. Failure to do this may result in severe INJURY or DEATH due to sling failure and/or loss of load.

Accordingly, the Web Sling & Tie Down Association, Inc. disclaims any responsibility for the actual use of any of these products. The user should consult the manufacturer of such products for further information concerning the proper care and use of their products.

TRAINING

Safety is the paramount consideration involved in the use of any synthetic web sling. All users must be trained in sling selection, use and inspection, cautions to personnel, environmental effects and rigging practices.

It is important that all sling users be knowledgeable about the safe and proper use and application of slings and be thoroughly familiar with the manufacturers recommendations and safety materials provided with each product. In addition, all sling users need to be aware of their responsibilities as outlined in 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 web slings until you are absolutely sure of what you are doing. Remember when it comes to using web slings, lack of skill, knowledge and care can result in severe INJURY or DEATH to you and others.

SLING INSPECTION

Slings must be regularly and properly inspected. Even seemingly "minor" damage to a web sling can significantly reduce its capacity to hold or lift objects and increases the chance that the sling will fail during use. For example, one sling manufacturer has shown that a 3/8" cut, much smaller than the cut shown in Table 2, caused a sling to break under load at almost half its non-damaged capacity. Therefore, it is very important that web slings are regularly and properly inspected. If you are not sure whether a sling is damaged, **DO NOT USE IT**.

How to Inspect Slings

To detect possible damage, you should perform a visual inspection of the entire sling, and also feel along its entire length, as some damage may be felt more than seen. You should look and feel for any of the types of conditions listed in Table 1. Table 2 shows examples of some of these types of damage, but note they are relatively extreme examples provided for illustration purposes only.

What to Do If You Identify Damage In a Sling

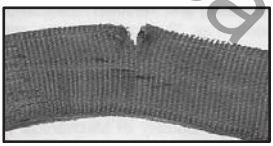
If you identify ANY of these types of damage in a sling, remove it from service immediately even if the damage you feel or see is not as extensive as shown in the pictures in Table 2. Slings that are removed from service must be destroyed and rendered completely unusable. You should never ignore sling damage or attempt to perform temporary field repairs of damaged slings (e.g., tie knots in the webbing, etc.).

Table 1. Web sling removal from service criteria

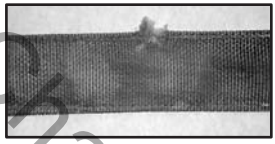
The entire web sling must be **inspected regularly** and it must be **removed from service** if ANY of the following are detected:

- If sling identification tag is missing or not readable.
- Holes, tears, cuts, snags or embedded materials.
- Broken or worn stitches in the load bearing splices.
- Knots in any part of the sling webbing.
- Acid or alkali burns.
- Melting, charring or weld spatter on any part of the web sling.
- Excessive abrasive wear or crushed webbing.
- Signs of Ultraviolet (UV) light degradation.
- Distortion, excessive pitting, corrosion or other damage to fitting(s).
- If provided, exposed red core yarn. However if damage is present and red yarns are not exposed DO NOT USE the sling.
- Any conditions which cause doubt as to the strength of the web sling.

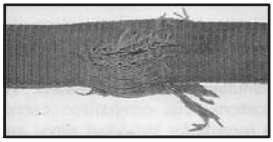
Table 2. Types of damage you should look and feel for in web slings



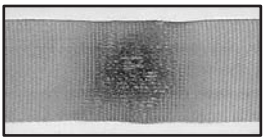
Cuts or Tears



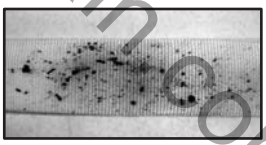
Snags



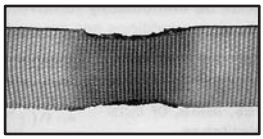
Holes/Punctures



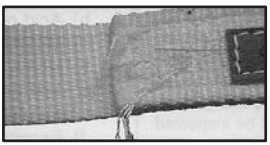
Melting or Charring



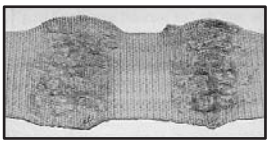
Weld Spatter



Acid / Alkali Burns

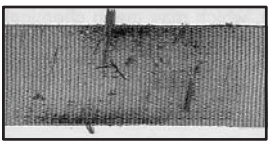


Broken / Worn Stitches

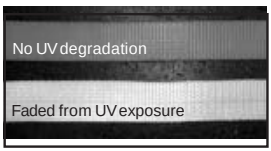


Crushed Webbing

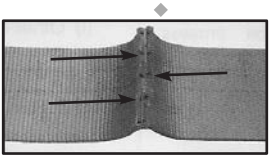
Knots



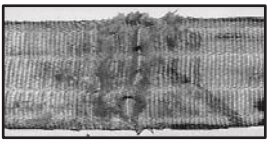
Embedded Materials



UV Degradation



Exposed Red Core Yarns



Excessive Abrasive Wear

Frequency of Inspection

A three-stage procedure is recommended to help ensure that web slings are inspected with appropriate frequency.

Initial Inspection – Whenever a sling is initially received, it must be inspected by a designated person to help ensure that the correct web sling has been received and is undamaged and that the web sling meets applicable requirements for its intended use.

Frequent Inspection – The entire sling must be **inspected before each shift or day in Normal service and before each use in Severe service applications. Written records are not required for frequent inspections.** Manufacturers recommendations must be followed if a higher rate of inspection frequency, such as Before Each Use, is prescribed.

Periodic Inspection – Every sling must be inspected "periodically" by a qualified and designated person. In order to validate the frequent level of inspection, the periodic inspection should be performed by someone other than the individual(s) who most commonly performs the frequent inspection. The frequency of periodic inspections is based on the sling's actual or expected frequency of use, severity of service conditions, the nature of the work performed with the sling and experience gained during the inspection of other slings used in similar circumstances. General guidelines for the frequency of periodic inspections are:

Normal Service – yearly

Severe Service – monthly to quarterly

Special Service – as recommended by a qualified person.

Periodic inspections intervals must not exceed one year. **A written record documenting that the most recent periodic inspection occurred must be maintained. Recording the condition of individual slings is not required.**

Dealing With Rejected Slings

If you identify ANY types of damage in a sling, **remove it from service immediately** even if the damage you feel or see is not as extensive as shown in the pictures in Table 2. Slings that are removed from service must be destroyed and rendered completely unusable. You should never ignore sling damage or attempt to perform temporary field repairs of damaged slings (e.g., tie knots in the webbing, etc.).

PROTECTING SLINGS FROM DAMAGE

SLINGS MUST BE ADEQUATELY PROTECTED FROM DAMAGE

Environmental Considerations

Environmental factors such as an exposure to sunlight, dirt or gritty-type matter and cyclical changes in temperature and humidity, can result in an accelerated deterioration of web slings. The rate of this deterioration will vary with the level of exposure to these conditions and with the thickness of the sling material. For example, single ply slings will generally degrade more rapidly with this exposure than multiple ply slings. Web slings that are used outdoors regularly should generally be permanently removed from service within a period of 2 to 4 years. All web slings that are exposed to these conditions should be highly scrutinized during their inspections.

Visible indications of such deterioration can include the following:

- Fading of webbing color.
- Uneven or disoriented surface yarn of the webbing.
- Shortening of the sling length.
- Reduction in elasticity and strength of the sling material due to an exposure to sunlight, often evident by an accelerated abrasive damage to the surface yarn of the sling.
- Breakage or damage to yarn fibers, often evident by a fuzzy appearance of the web.
- Stiffening of the web, which can become particularly evident when web slings are exposed to outdoor conditions without being used or cyclically tensioned.

Mechanical Considerations

You should always avoid any action that causes the types of damage identified in the previous section of this manual, including (but not limited to):

- Dropping or dragging slings on the ground, floor or over abrasive surfaces.
- Pulling slings from under loads when the load is resting on the sling. Place blocks under load if feasible.
- Shortening or adjusting sling using methods not approved by the sling manufacturer or qualified person.
- Twisting, kinking or knotting the sling.
- Exposing slings to damaging acids or alkalis.
- Exposing slings to sources of heat damage or weld splatter.
- Using slings or allowing exposure to temperatures above 194°F (90°C) or below -40°F (-40°C).
- "Tip loading" a sling on a hook instead of centering it in the base or "bowl" of the hook.
- Using hooks, shackles or other hardware that have edges or surfaces that could damage the sling.
- Running/driving over slings with a vehicle or other equipment.

Synthetic slings are affected by some chemicals ranging from little to total degradation. Time, temperature and concentration factors affect the degradation. For specific applications, consult the manufacturer. In addition, water absorption can decrease the strength of nylon web slings by as much as 10-15% (its strength returns when the sling dries completely). For specific applications, consult the manufacturer

Sling Protection Considerations

Synthetic web slings can be damaged, abraded or cut as tension and compression between the sling, the connection points and the load develops. Surfaces in contact with the sling do not have to be very abrasive or have "razor" sharp edges in order to create the conditions for sling failure. **Therefore, web slings must ALWAYS be protected from being cut or damaged by corners, edges, protrusions or abrasive surfaces with materials of sufficient strength and construction to prevent sling damage.**

There are a variety of types of ways to protect slings from such damage. A qualified person might select and use appropriately engineered protectors/softeners—commercially available products (e.g., sleeves, wear pads, edge wraps, body wraps, corner protectors, etc.) specifically designed to protect slings from damage. A qualified person might also

design and construct methods of protection so long as the sling is adequately protected from and/or kept off of the damaging edge surface.

Regardless of the particular method chosen, the goal is to ensure that the sling, under tension, maintains its ability to securely handle the load while avoiding contact with damaging or abrasive surfaces under tension. A qualified person must carefully consider the most appropriate means to accomplish this goal. The protection used should not be makeshift (i.e., selecting and using cardboard, work gloves or other such items based solely on convenience or availability).

Regardless of the approach taken, a qualified person must ensure that the protection method chosen is appropriate for the types of damage to which the slings will be exposed. For instance, some protection provides abrasion resistance, but offers virtually no protection against cuts.

Several "test" lifts, done in a non-consequence setting may be necessary to determine the suitability of the protection device(s). After each "test" lift, the protection device(s) and the sling(s) need to be inspected for damage and suitability. You should keep in mind that no protection is "cut proof" and you should always operate within the specified limits of the sling and its accessories (e.g., fixtures, hardware, protection, etc.).

USING SLINGS PROPERLY

When lifting loads, a trained, qualified and knowledgeable user must take into account the factors and issues addressed in this manual, as well as consider any other relevant factors not addressed herein (see Table 3). Among the factors related specifically to web slings, users must perform several activities, including (but not limited to) those discussed in the following categories.

Table 3. Issues and Factors to Consider

Safe handling, lifting and manipulation of materials and loads requires consideration of a number of factors and issues, including (but not limited to):

Categories	Issues / Factors to consider		
Environment	Wind Weather Visibility	Environmental temperature Object temperature Chemical conditions & exposure	Ground stability Underground installations
Load	Weight Dimensions Center of Gravity (CG)	Attachment point integrity Susceptibility to crushing/compression Loose parts that could fall from load	Combination loads Damaging surfaces/edges Structural stability (bend/flex)
Equipment /Lift	Single/multiple cranes/hoists Maximum planned operating radius Allowable load Ratio of lift to allowable load	Clearance to surrounding facilities Power lines & other environmental hazards Clearance between boom and lift Emergency/contingency set down area	Equipment inspection Ensure a clear load path
Rigging	Sling selection Load control Lift point (over the CG) Positive sling-to-load engagement	Coefficient of friction: Sling-to-load Appropriate hitch (for CG and load control) Load is fee to move and is not snagged Coordination of multiple lifts	Suitable sling protection Sling capacity is adequate for angle and tension
Personnel	Area clear of unnecessary personnel Personnel are trained and qualified	Signals: Visual, audible, electronic, etc. Personnel away from load & other dangers	Pre-lift plan and meeting Tag lines/spotter requirements

Assessing the Load

Determine the weight of the load and make sure it does not exceed the sling's rated capacity or the capacity of any of the components of the rigging system. Users must also determine the load's center of gravity (CG) to make sure the rigging system used will be able to retain and control the load once lifted.

Sling Selection

Select a sling having suitable characteristics for the type, size and weight of the load, the type of hitch and the environment. The sling must be securely attached to the load and rigged in a manner to provide for load control to prevent slipping, sliding and/or loss of the load. A trained, qualified and knowledgeable user must determine the most appropriate method of rigging to help ensure a safe lift and control of the load.

Common Types Of Sling Hitches

Loads vary in physical dimension, shape and weight. Where and how to attach web slings is important to a rigger.

Hitch: Choker - A method of rigging in which the web sling is passed around the load and then through itself, normally through the sling eye, and then attached to the lifting device. In a single choker hitch, there is always a part of the synthetic web sling at the choke point not in contact with the bundle being lifted.

Slings used in a choker hitch must be of sufficient length to ensure that the choke point is always on the sling body – not on the sling eye, fitting, base of the eye or fitting, splice or tag.

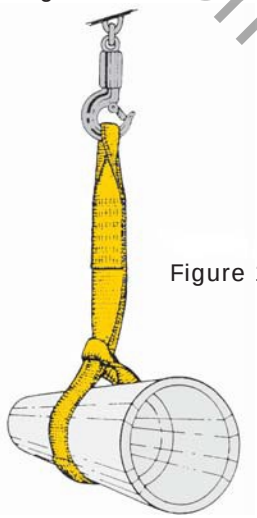


Figure 1

WARNING

Any single sling hitch must never be used to transport a load that is not balanced.

Hitch: Double Wrapped Choker - A method of rigging in which the web sling is passed around the load twice and then through itself, normally through the sling eye, and then attached to the lifting device.

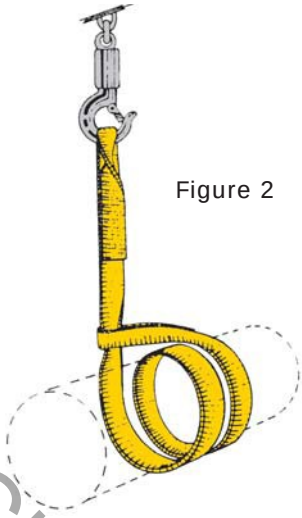


Figure 2

WARNING

Any single sling hitch must never be used to transport a load that is not balanced.

Hitch: Basket - A method of rigging in which the synthetic web sling is passed around the load and both ends are attached overhead.

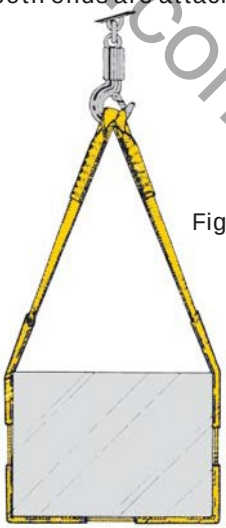


Figure 3

WARNING

Rated capacities are affected by the sling to load angle when used in multi-leg bridles or basket hitches. Table 4 provides information about increased tension as a function of sling-to-load angle. Sling angles of less than 30 degrees are not recommended.

Hitch: Vertical - A method of rigging in which the load is attached to one end of the synthetic web sling, usually being attached by means of a hook or shackle, and the other end of the sling is attached to the lifting device. A tag line should be used to prevent load rotation.

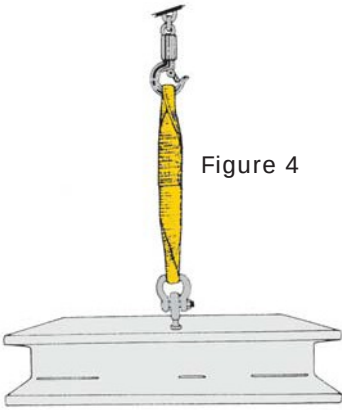


Figure 4

WARNING

Any single sling hitch must never be used to transport a load that is not balanced.

Proper Hitching Methods

HITCH: SINGLE LEG - Single leg hitches such as the single leg vertical and the single choker hitch may not provide optimum control over the load. In these hitches only one synthetic web sling supports the load. In a single choker hitch, there is always a part of the synthetic web sling at the choke point not in contact with the bundle being lifted.

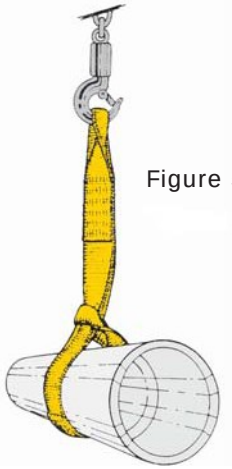


Figure 5

WARNING

Any single sling hitch must never be used to transport a load that is not balanced.

HITCH: DOUBLE WRAP CHOKER - The double wrap choker hitch or the double wrap hitch provides full 360 degree contact with the load.

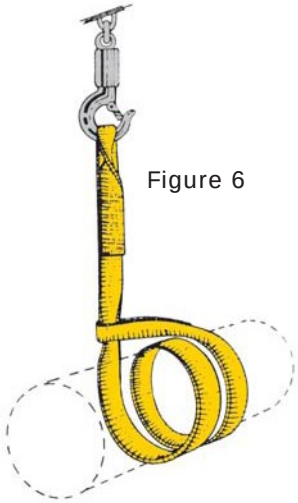


Figure 6

WARNING

Any single sling hitch must never be used to transport a load that is not balanced.

HITCH: DOUBLE CHOKER - The double choker hitch appears to be preferred by many riggers because it is twice as strong as a single choker hitch in the same sling type.

When this hitch is made in the right way, both legs will automatically equalize over the crane hook. However, when it is made wrong, there is usually no equalization and one of the legs will support most of the load.

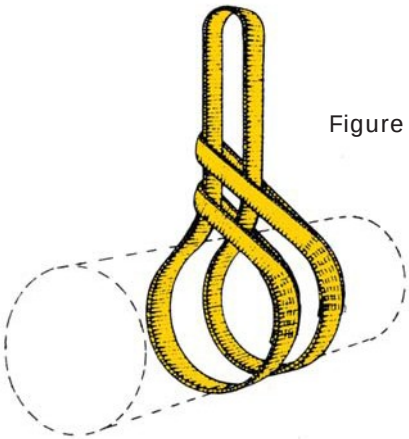
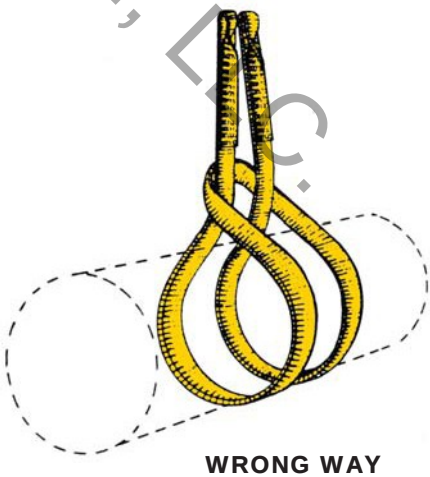


Figure 7

RIGHT WAY



WRONG WAY

HITCH: BASKET - Basket hitches, whether single or double, may be used successfully in a variety of applications. However, they have inherent limitations, which Figures 8 and 9 depict.

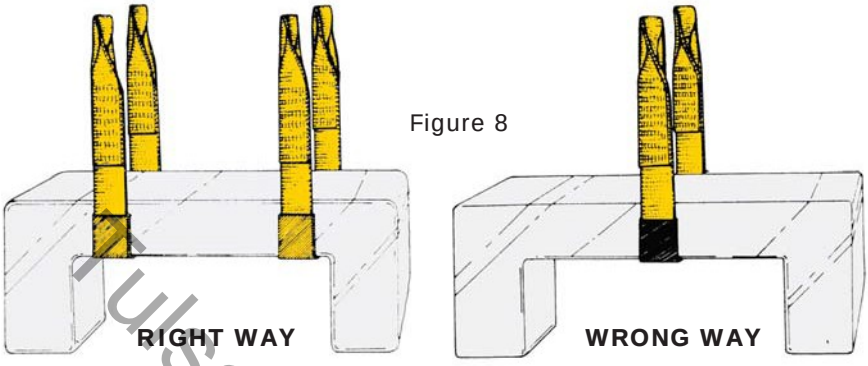


Figure 8

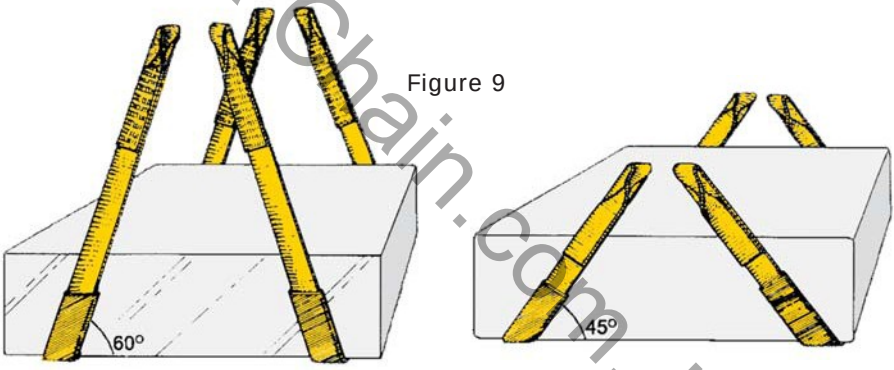


Figure 9

WARNING

As sling angles decrease, the risk of slings skipping across the load or the load slipping out of the slings becomes greater, creating an unbalanced condition.

HITCH: TURNING - When turning a load, always use a choker hitch. If the turning hitch is made the wrong way, the turning action of the load will loosen the hitch, causing it to slip.

Figure 10

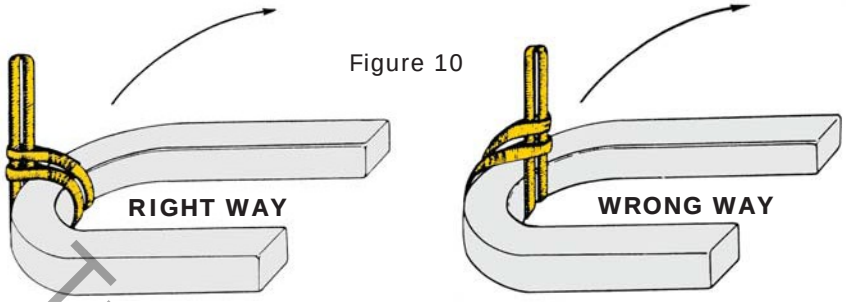
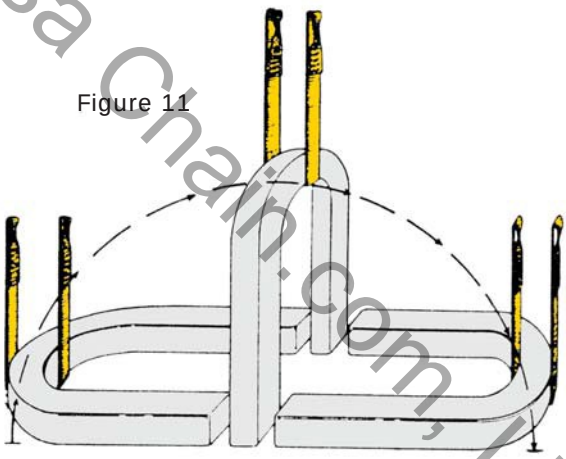


Figure 11

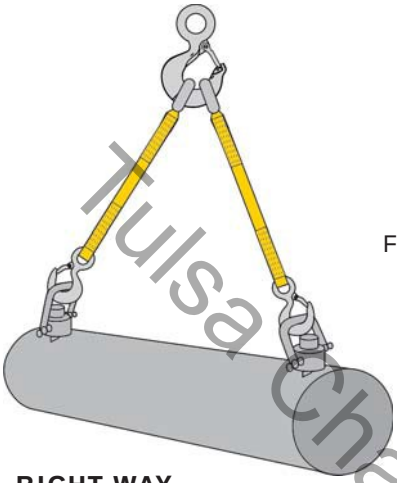


WRONG WAY

Note: A basket hitch should not be used for turning a load.

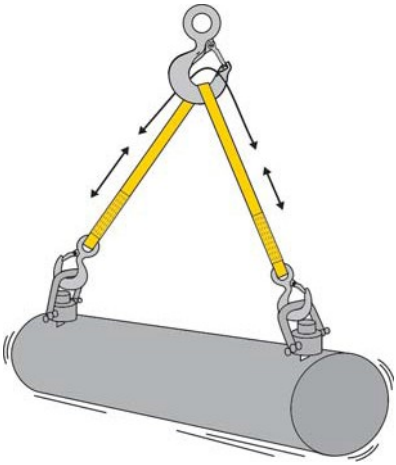
HITCH: TWO ENDS DOWN-SINGLE BASKET - The following hitches can all be classified as "hook equalizing hitches".

Since the bite of the sling is on the hook, the sling is free to slip through the hook according to the distribution of weight on the various legs. There are dangers to be avoided in the use of these hitches (See Figures 12, 13, 14).



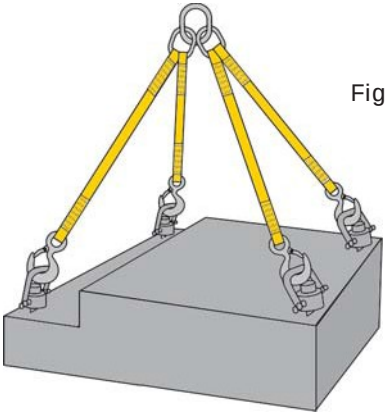
RIGHT WAY

Figure 12



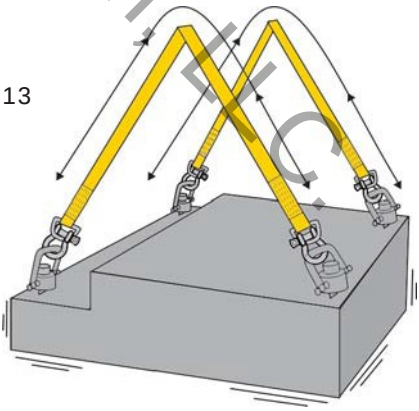
WRONG WAY

HITCH: FOUR ENDS DOWN - DOUBLE BASKET



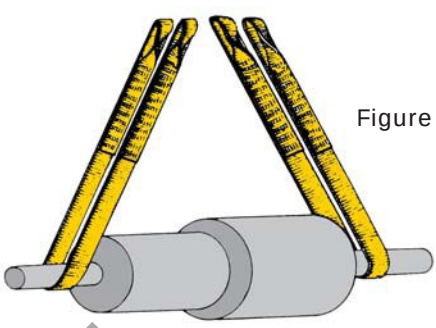
RIGHT WAY

Figure 13



WRONG WAY

HITCH: FOUR ENDS DOWN - DOUBLE BASKET - (cont.)



RIGHT WAY

Figure 14

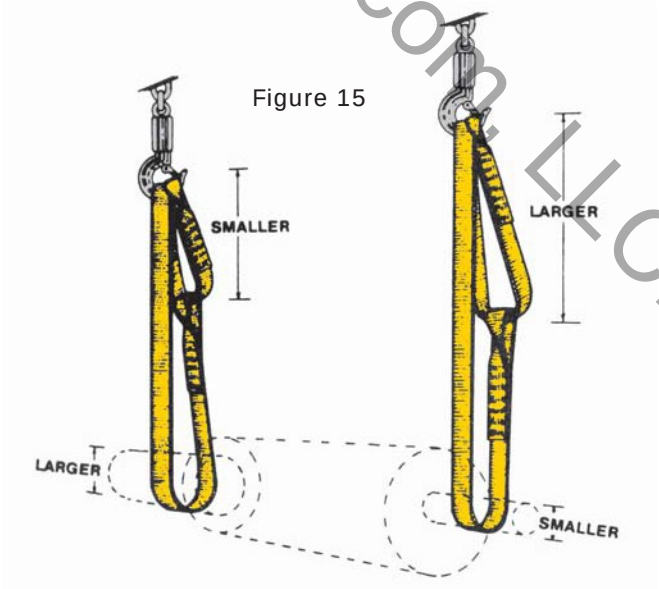
WRONG WAY

HITCH: ADJUSTING - One of the useful hitches available to riggers is the adjusting hitch. It is particularly useful when lifting an object which is heavier on one end than the other. Adjusting hitches make it fairly easy to adjust the length of the legs to balance the load.

Once the weight of the load comes onto the sling, no further change in length occurs. The Adjusting Hitch (Figure 15) should not be loaded in excess of the vertical hitch rating.

Sling widths over 2 inches are not recommended for Adjusting Hitches.

Figure 15

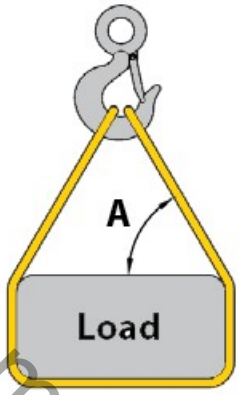


Increased Tension on Slings Used at Angles

Another important consideration is the sling-to-load angle which is the angle formed between a horizontal line and the sling leg or body. This angle is very important and can have a dramatic effect on the rated capacity of the sling. When the sling-to-load angle decreases, the load on each leg increases. This principal applies in a number of conditions, including when one sling is used to lift at an angle and when a basket hitch or multi-legged bridle sling is used. Table 4 provides information about increased tension as a function of sling-to-load angle (assuming equally-loaded sling legs). Sling angles less than 30 degrees are not recommended.

Table 4. Increased sling tension as a function of sling-to-load angle

Angle "A" Degrees from Horizontal	Tension Factor
90	1.000
85	1.004
80	1.015
75	1.035
70	1.064
65	1.104
60	1.155
55	1.221
50	1.305
45	1.414
40	1.555
35	1.742
30	2.000

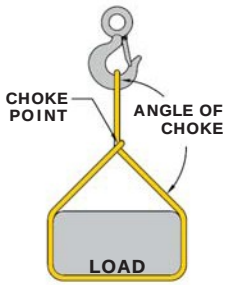


Multiply the load weight (per leg) by the tension factor to determine the increased tension on the sling leg(s).

Similarly, when the angle of choke is less than 120 degrees, the sling choker hitch capacity decreases. To determine the actual sling capacity at a given angle of choke, multiply the sling capacity rating (for a choker hitch) by the appropriate Angle of Choke Reduction Factor determined from Table 5.

Table 5. Reduction in rated capacity as a function of angle of choke

Angle of Choke (degrees)		Angle of Choke Reduction Factor
= or >	<	
120	180	1.000
105	120	0.82
90	105	0.71
60	90	0.58
0	60	0.50



Actual Sling Capacity =
Rated Capacity x Reduction Factor

Misuse of Slings

Avoid accelerating or decelerating the load too quickly (i.e., “shock loading”). Do not use slings to pull on stuck, snagged or constrained objects and do not use slings for towing purposes. A web sling should only be used for handling loads under known conditions.

Cautions to Personnel

Make sure all personnel are clear of loads and alert to risks. Even if you account for all of the factors/issues in this manual, things can still go wrong. Therefore, all personnel must stand clear of lifted loads and never be under, on or near suspended loads or slings under tension.

When using slings, no part of the body should be placed between the sling and load or between the sling and lifting hook. In addition, personnel must be alert to the potential for the sling or the load to become snagged during a lift or other load handling applications. Never use a web sling to pull on objects in a snagged or constrained condition.

STORAGE AND MAINTENANCE OF SLINGS

In order to prevent damage to slings when not in use, you should store slings in a cool, dry and dark location. Slings should be stored in an area free from environmental or mechanical sources of damage, such as: weld spatter, splinters from grinding or machining, heat sources, chemical exposure, etc. Also keep slings clean and free of dirt, grime and foreign materials.

Do not wash web slings as loss of strength is possible due to mechanical/ chemical damage.

ADDITIONAL RESOURCES

This manual does not provide you with all the information you need to know in order to be considered trained and knowledgeable about rigging and lifting loads, but it does provide important information about the use of web slings within a rigging system. If you need more information about web slings and rigging practices or your responsibilities according to regulations and standards, talk to your employer. You and your employer can consult a number of sources of information to help ensure that you are properly trained and knowledgeable when using web slings, including (but not limited to):

- WSTDA-WS-1 Recommended Standard Specification for Synthetic Web Slings
- ASME B30.9 Synthetic Webbing Slings: Selection, Use and Maintenance
- OSHA 29CFR 1910.184 Slings
- Rigging Handbooks
- OSHA Guidance on Safe Sling Use (http://www.osha.gov/dsg/guidance/slings/synth-web.html)
- Manufacturer's catalog, manual, website, bulletins, etc.
- Formal training provided by manufacturers or other outside entities

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-1
U.S.S. Inch-Pound Units - Class 5, 1 Ply Slings - Types I, II, III, IV

Sling Width	SINGLE LEG HITCH TYPES			2 LEG OR SINGLE BASKET HORIZONTAL ANGLES			
	Vertical	Choker	Vertical Basket	90°	60°	45°	30°
							
1 in.	1,100 lb.	850 lb.	2,200 lb.	2,200 lb.	1,900 lb.	1,550 lb.	1,100 lb.
1½ in.	1,600 lb.	1,250 lb.	3,200 lb.	3,200 lb.	2,750 lb.	2,250 lb.	1,600 lb.
1¾ in.	1,900 lb.	1,500 lb.	3,800 lb.	3,800 lb.	3,250 lb.	2,650 lb.	1,900 lb.
2 in.	2,200 lb.	1,750 lb.	4,400 lb.	4,400 lb.	3,800 lb.	3,100 lb.	2,200 lb.
3 in.	3,300 lb.	2,600 lb.	6,600 lb.	6,600 lb.	5,700 lb.	4,650 lb.	3,300 lb.
4 in.	4,400 lb.	3,500 lb.	8,800 lb.	8,800 lb.	7,600 lb.	6,200 lb.	4,400 lb.
5 in.	5,500 lb.	4,400 lb.	11,000 lb.	11,000 lb.	9,500 lb.	7,750 lb.	5,500 lb.
6 in.	6,600 lb.	5,250 lb.	13,200 lb.	13,200 lb.	11,400 lb.	9,300 lb.	6,600 lb.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 6,800 pounds per inch of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **ALWAYS CHECK THE IDENTIFICATION TAG TO DETERMINE IF THE WEB SLING RATED CAPACITY IS APPROPRIATE FOR THE LIFT.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-2
U.S.S. Inch-Pound Units - Class 5, 1 Ply Slings - Type V

Sling Width	ENDLESS HITCH TYPES			HORIZONTAL ANGLES		
	Vertical	Choker	Vertical Basket	60	45°	30°
						
1 in.	2,200 lb.	1,750 lb.	4,400 lb.	3,800 lb.	3,100 lb.	2,200 lb.
1½ in.	3,200 lb.	2,550 lb.	6,400 lb.	5,500 lb.	4,500 lb.	3,200 lb.
1¾ in.	3,800 lb.	3,000 lb.	7,600 lb.	6,550 lb.	5,350 lb.	3,800 lb.
2 in.	4,400 lb.	3,500 lb.	8,800 lb.	7,600 lb.	6,200 lb.	4,400 lb.
3 in.	6,600 lb.	5,250 lb.	13,200 lb.	11,400 lb.	9,300 lb.	6,600 lb.
4 in.	8,800 lb.	7,000 lb.	17,600 lb.	15,200 lb.	12,400 lb.	8,800 lb.
5 in.	11,000 lb.	8,800 lb.	22,000 lb.	19,050 lb.	15,550 lb.	11,000 lb.
6 in.	13,200 lb.	10,550 lb.	26,400 lb.	22,850 lb.	18,650 lb.	13,200 lb.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 6,800 pounds per inch of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **ALWAYS CHECK THE IDENTIFICATION TAG TO DETERMINE IF THE WEB SLING RATED CAPACITY IS APPROPRIATE FOR THE LIFT.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-3
SI-Units - Class 5, 1 Ply Slings - Types I, II, III, IV

Sling Width	SINGLE LEG HITCH TYPES			2 LEG OR SINGLE BASKET HORIZONTAL ANGLES			
	Vertical	Choker	Vertical Basket	90°	60°	45°	30°
							
25 mm	475 kg.	375 kg.	975 kg.	975 kg.	850 kg.	700 kg.	475 kg.
38 mm	725 kg.	575 kg.	1,450 kg.	1,450 kg.	1,250 kg.	1,025 kg.	725 kg.
44 mm	850 kg.	675 kg.	1,700 kg.	1,700 kg.	1,475 kg.	1,200 kg.	850 kg.
51 mm	975 kg.	775 kg.	1,975 kg.	1,975 kg.	1,725 kg.	1,400 kg.	975 kg.
76 mm	1,475 kg.	1,175 kg.	2,975 kg.	2,975 kg.	2,575 kg.	2,100 kg.	1,475 kg.
102 mm	1,975 kg.	1,575 kg.	3,975 kg.	3,975 kg.	3,450 kg.	2,800 kg.	1,975 kg.
127 mm	2,475 kg.	1,975 kg.	4,975 kg.	4,975 kg.	4,300 kg.	3,525 kg.	2,475 kg.
152 mm	2,975 kg.	2,375 kg.	5,975 kg.	5,975 kg.	5,175 kg.	4,225 kg.	2,975 kg.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 121.43 kilograms per millimeter of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **Always check the identification tag to determine if the sling rated capacity is appropriate for the lift.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-4
SI-Units - Class 5, 1 Ply Slings - Type V

Sling Width	ENDLESS HITCH TYPES			HORIZONTAL ANGLES		
	Vertical	Choker	Vertical Basket	60	45°	30°
						
25 mm	975 kg.	775 kg.	1,975 kg.	1,725 kg.	1,400 kg.	975 kg.
38 mm	1,450 kg.	1,150 kg.	2,900 kg.	2,500 kg.	2,050 kg.	1,450 kg.
44 mm	1,700 kg.	1,375 kg.	3,425 kg.	2,975 kg.	2,425 kg.	1,700 kg.
51 mm	1,975 kg.	1,575 kg.	3,975 kg.	3,450 kg.	2,800 kg.	1,975 kg.
76 mm	2,975 kg.	2,375 kg.	5,975 kg.	5,175 kg.	4,225 kg.	2,975 kg.
102 mm	3,975 kg.	3,175 kg.	7,975 kg.	6,900 kg.	5,625 kg.	3,975 kg.
127 mm	4,975 kg.	3,975 kg.	9,975 kg.	8,625 kg.	7,050 kg.	4,975 kg.
152 mm	5,975 kg.	4,775 kg.	11,950 kg.	10,350 kg.	8,450 kg.	5,975 kg.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 121.43 kilograms per millimeter of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **Always check the identification tag to determine if the sling rated capacity is appropriate for the lift.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-5
U.S.S. Inch-Pound Units - Class 5, 2 Ply Slings - Types I, II, III, IV

Sling Width	SINGLE LEG HITCH TYPES			2 LEG OR SINGLE BASKET HORIZONTAL ANGLES			
	Vertical	Choker	Vertical Basket	90°	60°	45°	30°
							
1 in.	2,200 lb.	1,750 lb.	4,400 lb.	4,400 lb.	3,800 lb.	3,100 lb.	2,200 lb.
1½ in.	3,300 lb.	2,600 lb.	6,600 lb.	6,600 lb.	5,700 lb.	4,650 lb.	3,300 lb.
1¾ in.	3,800 lb.	3,000 lb.	7,600 lb.	7,600 lb.	6,550 lb.	5,350 lb.	3,800 lb.
2 in.	4,400 lb.	3,500 lb.	8,800 lb.	8,800 lb.	7,600 lb.	6,200 lb.	4,400 lb.
3 in.	6,600 lb.	5,250 lb.	13,200 lb.	13,200 lb.	11,400 lb.	9,300 lb.	6,600 lb.
4 in.	8,200 lb.	6,550 lb.	16,400 lb.	16,400 lb.	14,200 lb.	11,550 lb.	8,200 lb.
5 in.	10,200 lb.	8,150 lb.	20,400 lb.	20,400 lb.	17,650 lb.	14,400 lb.	10,200 lb.
6 in.	12,300 lb.	9,800 lb.	24,600 lb.	24,600 lb.	21,300 lb.	17,350 lb.	12,300 lb.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 6,800 pounds per inch of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **ALWAYS CHECK THE IDENTIFICATION TAG TO DETERMINE IF THE WEB SLING RATED CAPACITY IS APPROPRIATE FOR THE LIFT.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-6
U.S.S. Inch-Pound Units - Class 5, 2 Ply Slings - Type V

Sling Width	ENDLESS HITCH TYPES			HORIZONTAL ANGLES		
	Vertical	Choker	Vertical Basket	60	45°	30°
						
1 in.	4,400 lb.	3,500 lb.	8,800 lb.	7,600 lb.	6,200 lb.	4,400 lb.
1½ in.	6,600 lb.	5,250 lb.	13,200 lb.	11,400 lb.	9,300 lb.	6,600 lb.
1¾ in.	7,600 lb.	6,050 lb.	15,200 lb.	13,150 lb.	10,700 lb.	7,600 lb.
2 in.	8,800 lb.	7,000 lb.	17,600 lb.	15,200 lb.	12,400 lb.	8,800 lb.
3 in.	13,200 lb.	10,550 lb.	26,400 lb.	22,850 lb.	18,650 lb.	13,200 lb.
4 in.	16,400 lb.	13,100 lb.	32,800 lb.	28,400 lb.	23,150 lb.	16,400 lb.
5 in.	20,400 lb.	16,300 lb.	40,800 lb.	35,300 lb.	28,850 lb.	20,400 lb.
6 in.	24,600 lb.	19,650 lb.	49,200 lb.	42,600 lb.	34,750 lb.	24,600 lb.

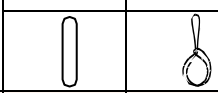
Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 6,800 pounds per inch of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **ALWAYS CHECK THE IDENTIFICATION TAG TO DETERMINE IF THE WEB SLING RATED CAPACITY IS APPROPRIATE FOR THE LIFT.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-7
SI-Units - Class 5, 2 Ply Slings - Types I, II, III, IV

Sling Width	SINGLE LEG HITCH TYPES			2 LEG OR SINGLE BASKET HORIZONTAL ANGLES			
	Vertical	Choker	Vertical Basket	90°	60°	45°	30°
							
25 mm	975 kg.	775 kg.	1,975 kg.	1,975 kg.	1,725 kg.	1,400 kg.	975 kg.
38 mm	1,475 kg.	1,175 kg.	2,975 kg.	2,975 kg.	2,575 kg.	2,100 kg.	1,475 kg.
44 mm	1,700 kg.	1,375 kg.	3,425 kg.	3,425 kg.	2,975 kg.	2,425 kg.	1,700 kg.
51 mm	1,975 kg.	1,575 kg.	3,975 kg.	3,975 kg.	3,450 kg.	2,800 kg.	1,975 kg.
76 mm	2,975 kg.	2,375 kg.	5,975 kg.	5,975 kg.	5,175 kg.	4,225 kg.	2,975 kg.
102 mm	3,700 kg.	2,975 kg.	7,425 kg.	7,425 kg.	6,425 kg.	5,250 kg.	3,700 kg.
127 mm	4,625 kg.	3,700 kg.	9,250 kg.	9,250 kg.	8,000 kg.	6,525 kg.	4,625 kg.
152 mm	5,575 kg.	4,450 kg.	11,150 kg.	11,150 kg.	9,650 kg.	7,875 kg.	5,575 kg.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 121.43 kilograms per millimeter of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **Always check the identification tag to determine if the sling rated capacity is appropriate for the lift.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-8
SI-Units - Class 5, 2 Ply Slings - Type V

Sling Width	ENDLESS HITCH TYPES			HORIZONTAL ANGLES		
	Vertical	Choker	Vertical Basket	60	45°	30°
						
25 mm	1,975 kg.	1,575 kg.	3,975 kg.	3,450 kg.	2,800 kg.	1,975 kg.
38 mm	2,975 kg.	2,375 kg.	5,975 kg.	5,175 kg.	4,225 kg.	2,975 kg.
44 mm	3,425 kg.	2,750 kg.	6,875 kg.	5,950 kg.	4,875 kg.	3,425 kg.
51 mm	3,975 kg.	3,175 kg.	7,975 kg.	6,900 kg.	5,625 kg.	3,975 kg.
76 mm	5,975 kg.	4,775 kg.	11,950 kg.	10,350 kg.	8,450 kg.	5,975 kg.
102 mm	7,425 kg.	5,950 kg.	14,875 kg.	12,875 kg.	10,500 kg.	7,425 kg.
127 mm	9,250 kg.	7,400 kg.	18,500 kg.	16,025 kg.	13,075 kg.	9,250 kg.
152 mm	11,150 kg.	8,925 kg.	22,300 kg.	19,325 kg.	15,775 kg.	11,150 kg.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 121.43 kilograms per millimeter of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **Always check the identification tag to determine if the sling rated capacity is appropriate for the lift.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-9
U.S.S. Inch-Pound Units - Class 7, 1 Ply Slings - Types I, II, III, IV

Sling Width	SINGLE LEG HITCH TYPES			2 LEG OR SINGLE BASKET HORIZONTAL ANGLES			
	Vertical	Choker	Vertical Basket	90°	60°	45°	30°
							
1 in.	1,600 lb.	1,250 lb.	3,200 lb.	3,200 lb.	2,750 lb.	2,250 lb.	1,600 lb.
1½ in.	2,300 lb.	1,800 lb.	4,600 lb.	4,600 lb.	3,950 lb.	3,250 lb.	2,300 lb.
1¾ in.	2,700 lb.	2,150 lb.	5,400 lb.	5,400 lb.	4,650 lb.	3,800 lb.	2,700 lb.
2 in.	3,100 lb.	2,450 lb.	6,200 lb.	6,200 lb.	5,350 lb.	4,350 lb.	3,100 lb.
3 in.	4,700 lb.	3,750 lb.	9,400 lb.	9,400 lb.	8,100 lb.	6,600 lb.	4,700 lb.
4 in.	6,200 lb.	4,950 lb.	12,400 lb.	12,400 lb.	10,700 lb.	8,750 lb.	6,200 lb.
5 in.	7,800 lb.	6,200 lb.	15,600 lb.	15,600 lb.	13,500 lb.	11,000 lb.	7,800 lb.
6 in.	9,300 lb.	7,400 lb.	18,600 lb.	18,600 lb.	16,100 lb.	13,150 lb.	9,300 lb.
8 in.	11,800 lb.	9,400 lb.	23,600 lb.	23,600 lb.	20,400 lb.	16,650 lb.	11,800 lb.
10 in.	14,700 lb.	11,750 lb.	29,400 lb.	29,400 lb.	25,450 lb.	20,750 lb.	14,700 lb.
12 in.	17,600 lb.	14,050 lb.	35,200 lb.	35,200 lb.	30,450 lb.	24,850 lb.	17,600 lb.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 9,800 pounds per inch of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **ALWAYS CHECK THE IDENTIFICATION TAG TO DETERMINE IF THE WEB SLING RATED CAPACITY IS APPROPRIATE FOR THE LIFT.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-10
U.S.S. Inch-Pound Units - Class 7, 1 Ply Slings - Type V

Sling Width	ENDLESS HITCH TYPES			HORIZONTAL ANGLES		
	Vertical	Choker	Vertical Basket	60	45°	30°
						
1 in.	3,200 lb.	2,550 lb.	6,400 lb.	5,500 lb.	4,500 lb.	3,200 lb.
1½ in.	4,600 lb.	3,650 lb.	9,200 lb.	7,950 lb.	6,500 lb.	4,600 lb.
1¾ in.	5,400 lb.	4,300 lb.	10,800 lb.	9,350 lb.	7,600 lb.	5,400 lb.
2 in.	6,200 lb.	4,950 lb.	12,400 lb.	10,700 lb.	8,750 lb.	6,200 lb.
3 in.	9,400 lb.	7,500 lb.	18,800 lb.	16,250 lb.	13,250 lb.	9,400 lb.
4 in.	12,400 lb.	9,900 lb.	24,800 lb.	21,450 lb.	17,500 lb.	12,400 lb.
5 in.	15,600 lb.	12,450 lb.	31,200 lb.	27,000 lb.	22,050 lb.	15,600 lb.
6 in.	18,600 lb.	14,850 lb.	37,200 lb.	32,200 lb.	26,300 lb.	18,600 lb.
8 in.	21,200 lb.	16,950 lb.	42,400 lb.	36,700 lb.	29,950 lb.	21,200 lb.
10 in.	26,500 lb.	21,200 lb.	53,000 lb.	45,850 lb.	37,450 lb.	26,500 lb.
12 in.	31,800 lb.	25,400 lb.	63,600 lb.	55,050 lb.	44,950 lb.	31,800 lb.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 9,800 pounds per inch of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **ALWAYS CHECK THE IDENTIFICATION TAG TO DETERMINE IF THE WEB SLING RATED CAPACITY IS APPROPRIATE FOR THE LIFT.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-11
SI-Units - Class 7, 1 Ply Slings - Types I, II, III, IV

Sling Width	SINGLE LEG HITCH TYPES			2 LEG OR SINGLE BASKET HORIZONTAL ANGLES			
	Vertical	Choker	Vertical Basket	90°	60°	45°	30°
							
25 mm	725 kg.	575 kg.	1,450 kg.	1,450 kg.	1,250 kg.	1,025 kg.	725 kg.
38 mm	1,025 kg.	825 kg.	2,075 kg.	2,075 kg.	1,800 kg.	1,475 kg.	1,025 kg.
44 mm	1,225 kg.	975 kg.	2,450 kg.	2,450 kg.	2,100 kg.	1,725 kg.	1,225 kg.
51 mm	1,400 kg.	1,125 kg.	2,800 kg.	2,800 kg.	2,425 kg.	1,975 kg.	1,400 kg.
76 mm	2,125 kg.	1,700 kg.	4,250 kg.	4,250 kg.	3,675 kg.	3,000 kg.	2,125 kg.
102 mm	2,800 kg.	2,250 kg.	5,600 kg.	5,600 kg.	4,850 kg.	3,975 kg.	2,800 kg.
127 mm	3,525 kg.	2,825 kg.	7,075 kg.	7,075 kg.	6,125 kg.	5,000 kg.	3,525 kg.
152 mm	4,200 kg.	3,350 kg.	8,425 kg.	8,425 kg.	7,300 kg.	5,950 kg.	4,200 kg.
203 mm	5,350 kg.	4,275 kg.	10,700 kg.	10,700 kg.	9,250 kg.	7,550 kg.	5,350 kg.
254 mm	6,650 kg.	5,325 kg.	13,325 kg.	13,325 kg.	11,525 kg.	9,425 kg.	6,650 kg.
305 mm	7,975 kg.	6,375 kg.	15,950 kg.	15,950 kg.	13,825 kg.	11,275 kg.	7,975 kg.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 175 kilograms per millimeter of webbing width 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **Always check the identification tag to determine if the sling rated capacity is appropriate for the lift.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-12
SI-Units - Class 7, 1 Ply Slings - Type V

Sling Width	ENDLESS HITCH TYPES			HORIZONTAL ANGLES		
	Vertical	Choker	Vertical Basket	60	45°	30°
						
25 mm	1,450 kg.	1,150 kg.	2,900 kg.	2,500 kg.	2,050 kg.	1,450 kg.
38 mm	2,075 kg.	1,650 kg.	4,150 kg.	3,600 kg.	2,950 kg.	2,075 kg.
44 mm	2,425 kg.	1,950 kg.	4,875 kg.	4,225 kg.	3,450 kg.	2,425 kg.
51 mm	2,800 kg.	2,250 kg.	5,600 kg.	4,850 kg.	3,975 kg.	2,800 kg.
76 mm	4,250 kg.	3,400 kg.	8,525 kg.	7,375 kg.	6,025 kg.	4,250 kg.
102 mm	5,625 kg.	4,500 kg.	11,250 kg.	9,725 kg.	7,950 kg.	5,625 kg.
127 mm	7,075 kg.	5,650 kg.	14,150 kg.	12,250 kg.	10,000 kg.	7,075 kg.
152 mm	8,425 kg.	6,750 kg.	16,850 kg.	14,600 kg.	11,925 kg.	8,425 kg.
203 mm	9,600 kg.	7,675 kg.	19,225 kg.	16,650 kg.	13,575 kg.	9,600 kg.
254 mm	12,000 kg.	9,600 kg.	24,025 kg.	20,800 kg.	16,975 kg.	12,000 kg.
305 mm	14,400 kg.	11,525 kg.	28,825 kg.	24,975 kg.	20,375 kg.	14,400 kg.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 175 kilograms per millimeter of webbing width 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **Always check the identification tag to determine if the sling rated capacity is appropriate for the lift.**

Rated Capacity Tables (cont.)

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-13
U.S.S. Inch-Pound Units - Class 7, 2 Ply Slings - Types I, II, III, IV

Sling Width	SINGLE LEG HITCH TYPES Vertical	Choker	Vertical Basket	2 LEG OR SINGLE BASKET HORIZONTAL ANGLES 90°	60°	45°	30°
1 in.	3,100 lb.	2,450 lb.	6,200 lb.	6,200 lb.	5,350 lb.	4,350 lb.	3,100 lb.
1½ in.	4,700 lb.	3,750 lb.	9,400 lb.	9,400 lb.	8,100 lb.	6,600 lb.	4,700 lb.
1¾ in.	5,400 lb.	4,300 lb.	10,800 lb.	10,800 lb.	9,350 lb.	7,600 lb.	5,400 lb.
2 in.	6,200 lb.	4,950 lb.	12,400 lb.	12,400 lb.	10,700 lb.	8,750 lb.	6,200 lb.
3 in.	8,800 lb.	7,000 lb.	17,600 lb.	17,600 lb.	15,200 lb.	12,400 lb.	8,800 lb.
4 in.	11,000 lb.	8,800 lb.	22,000 lb.	22,000 lb.	19,050 lb.	15,550 lb.	11,000 lb.
5 in.	13,700 lb.	10,950 lb.	27,400 lb.	27,400 lb.	23,700 lb.	19,350 lb.	13,700 lb.
6 in.	16,500 lb.	13,200 lb.	33,000 lb.	33,000 lb.	28,550 lb.	23,300 lb.	16,500 lb.
8 in.	22,700 lb.	18,150 lb.	45,400 lb.	45,400 lb.	39,300 lb.	32,100 lb.	22,700 lb.
10 in.	28,400 lb.	22,700 lb.	56,800 lb.	56,800 lb.	49,150 lb.	40,150 lb.	28,400 lb.
12 in.	34,100 lb.	27,250 lb.	68,200 lb.	68,200 lb.	59,050 lb.	48,200 lb.	34,100 lb.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 9,800 pounds per inch of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **ALWAYS CHECK THE IDENTIFICATION TAG TO DETERMINE IF THE WEB SLING RATED CAPACITY IS APPROPRIATE FOR THE LIFT.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-14
U.S.S. Inch-Pound Units - Class 7, 2 Ply Slings - Type V

Sling Width	ENDLESS HITCH TYPES Vertical	Choker	Vertical Basket	HORIZONTAL ANGLES 60	45°	30°
1 in.	6,200 lb.	4,950 lb.	12,400 lb.	10,700 lb.	8,750 lb.	6,200 lb.
1½ in.	9,400 lb.	7,500 lb.	18,800 lb.	16,250 lb.	13,250 lb.	9,400 lb.
1¾ in.	10,800 lb.	8,600 lb.	21,600 lb.	18,700 lb.	15,250 lb.	10,800 lb.
2 in.	12,400 lb.	9,900 lb.	24,800 lb.	21,450 lb.	17,500 lb.	12,400 lb.
3 in.	17,600 lb.	14,050 lb.	35,200 lb.	30,450 lb.	24,850 lb.	17,600 lb.
4 in.	22,000 lb.	17,600 lb.	44,000 lb.	38,100 lb.	31,100 lb.	22,000 lb.
5 in.	27,400 lb.	21,900 lb.	54,800 lb.	47,450 lb.	38,700 lb.	27,400 lb.
6 in.	33,000 lb.	26,400 lb.	66,000 lb.	57,150 lb.	46,650 lb.	33,000 lb.
8 in.	42,300 lb.	33,800 lb.	84,600 lb.	73,250 lb.	59,800 lb.	42,300 lb.
10 in.	52,900 lb.	42,300 lb.	105,800 lb.	91,600 lb.	74,800 lb.	52,900 lb.
12 in.	63,500 lb.	50,800 lb.	127,000 lb.	109,950 lb.	89,800 lb.	63,500 lb.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 9,800 pounds per inch of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **ALWAYS CHECK THE IDENTIFICATION TAG TO DETERMINE IF THE WEB SLING RATED CAPACITY IS APPROPRIATE FOR THE LIFT.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-15
SI-Units - Class 7, 2 Ply Slings - Types I, II, III, IV

Sling Width	SINGLE LEG HITCH TYPES			2 LEG OR SINGLE BASKET HORIZONTAL ANGLES			
	Vertical	Choker	Vertical Basket	90°	60°	45°	30°
							
25 mm	1,400 kg.	1,125 kg.	2,800 kg.	2,800 kg.	2,425 kg.	1,975 kg.	1,400 kg.
38 mm	2,125 kg.	1,700 kg.	4,250 kg.	4,250 kg.	3,675 kg.	3,000 kg.	2,125 kg.
44 mm	2,425 kg.	1,950 kg.	4,875 kg.	4,875 kg.	4,225 kg.	3,450 kg.	2,425 kg.
51 mm	2,800 kg.	2,250 kg.	5,600 kg.	5,600 kg.	4,850 kg.	3,975 kg.	2,800 kg.
76 mm	3,975 kg.	3,175 kg.	7,975 kg.	7,975 kg.	6,900 kg.	5,625 kg.	3,975 kg.
102 mm	4,975 kg.	3,975 kg.	9,975 kg.	9,975 kg.	8,625 kg.	7,050 kg.	4,975 kg.
127 mm	6,200 kg.	4,950 kg.	12,425 kg.	12,425 kg.	10,750 kg.	8,775 kg.	6,200 kg.
152 mm	7,475 kg.	5,975 kg.	14,950 kg.	14,950 kg.	12,950 kg.	10,575 kg.	7,475 kg.
203 mm	10,275 kg.	8,225 kg.	20,575 kg.	20,575 kg.	17,825 kg.	14,550 kg.	10,275 kg.
254 mm	12,875 kg.	10,300 kg.	25,750 kg.	25,750 kg.	22,300 kg.	18,200 kg.	12,875 kg.
305 mm	15,450 kg.	12,350 kg.	30,925 kg.	30,925 kg.	26,775 kg.	21,875 kg.	15,450 kg.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 175 kilograms per millimeter of webbing width 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **Always check the identification tag to determine if the sling rated capacity is appropriate for the lift.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-16
SI-Units - Class 7, 2 Ply Slings - Type V

Sling Width	ENDLESS HITCH TYPES			HORIZONTAL ANGLES		
	Vertical	Choker	Vertical Basket	60	45°	30°
						
25 mm	2,800 kg.	2,250 kg.	5,600 kg.	4,850 kg.	3,975 kg.	2,800 kg.
38 mm	4,250 kg.	3,400 kg.	8,525 kg.	7,375 kg.	6,025 kg.	4,250 kg.
44 mm	4,875 kg.	3,900 kg.	9,775 kg.	8,475 kg.	6,925 kg.	4,875 kg.
51 mm	5,625 kg.	4,500 kg.	11,250 kg.	9,725 kg.	7,950 kg.	5,625 kg.
76 mm	7,975 kg.	6,375 kg.	15,950 kg.	13,825 kg.	11,275 kg.	7,975 kg.
102 mm	9,975 kg.	7,975 kg.	19,950 kg.	17,275 kg.	14,100 kg.	9,975 kg.
127 mm	12,425 kg.	9,925 kg.	24,850 kg.	21,525 kg.	17,575 kg.	12,425 kg.
152 mm	14,950 kg.	11,975 kg.	29,925 kg.	25,925 kg.	21,150 kg.	14,950 kg.
203 mm	19,175 kg.	15,350 kg.	38,350 kg.	33,225 kg.	27,125 kg.	19,175 kg.
254 mm	23,975 kg.	19,175 kg.	47,975 kg.	41,550 kg.	33,925 kg.	23,975 kg.
305 mm	28,800 kg.	23,025 kg.	57,600 kg.	49,875 kg.	40,725 kg.	28,800 kg.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 175 kilograms per millimeter of webbing width 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **Always check the identification tag to determine if the sling rated capacity is appropriate for the lift.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-17
U.S.S. Inch-Pound Units - Class 7, 4 Ply Slings - Types I, II, III, IV

Sling Width	SINGLE LEG HITCH TYPES			2 LEG OR SINGLE BASKET HORIZONTAL ANGLES			
	Vertical	Choker	Vertical Basket	90°	60°	45°	30°
							
1 in.	5,500 lb.	4,400 lb.	11,000 lb.	11,000 lb.	9,500 lb.	7,750 lb.	5,500 lb.
2 in.	11,000 lb.	8,800 lb.	22,000 lb.	22,000 lb.	19,050 lb.	15,550 lb.	11,000 lb.
3 in.	16,400 lb.	13,100 lb.	32,800 lb.	32,800 lb.	28,400 lb.	23,150 lb.	16,400 lb.
4 in.	20,400 lb.	16,300 lb.	40,800 lb.	40,800 lb.	35,300 lb.	28,850 lb.	20,400 lb.
5 in.	25,500 lb.	20,400 lb.	51,000 lb.	51,000 lb.	44,150 lb.	36,050 lb.	25,500 lb.
6 in.	30,600 lb.	24,450 lb.	61,200 lb.	61,200 lb.	53,000 lb.	43,250 lb.	30,600 lb.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 9,800 pounds per inch of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **ALWAYS CHECK THE IDENTIFICATION TAG TO DETERMINE IF THE WEB SLING RATED CAPACITY IS APPROPRIATE FOR THE LIFT.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-18
U.S.S. Inch-Pound Units - Class 7, 4 Ply Slings - Type V

Sling Width	ENDLESS HITCH TYPES			HORIZONTAL ANGLES		
	Vertical	Choker	Vertical Basket	60	45°	30°
						
1 in.	11,000 lb.	8,800 lb.	22,000 lb.	19,050 lb.	15,550 lb.	11,000 lb.
2 in.	22,000 lb.	17,600 lb.	44,000 lb.	38,100 lb.	31,100 lb.	22,000 lb.
3 in.	32,900 lb.	26,300 lb.	65,800 lb.	56,950 lb.	46,500 lb.	32,900 lb.
4 in.	40,800 lb.	32,600 lb.	81,600 lb.	70,650 lb.	57,700 lb.	40,800 lb.
5 in.	51,000 lb.	40,800 lb.	102,000 lb.	88,300 lb.	72,100 lb.	51,000 lb.
6 in.	61,200 lb.	48,950 lb.	122,400 lb.	106,000 lb.	86,550 lb.	61,200 lb.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 9,800 pounds per inch of webbing width. 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **ALWAYS CHECK THE IDENTIFICATION TAG TO DETERMINE IF THE WEB SLING RATED CAPACITY IS APPROPRIATE FOR THE LIFT.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-19
SI-Units - Class 7, 4 Ply Slings - Types I, II, III, IV

	SINGLE LEG			2 LEG OR SINGLE BASKET			
	HITCH TYPES			HORIZONTAL ANGLES			
Sling Width	Vertical	Choker	Vertical Basket	90°	60°	45°	30°
							
25 mm	2,475 kg.	1,975 kg.	4,975 kg.	4,975 kg.	4,300 kg.	3,525 kg.	2,475 kg.
51 mm	4,975 kg.	3,975 kg.	9,975 kg.	9,975 kg.	8,625 kg.	7,050 kg.	4,975 kg.
76 mm	7,425 kg.	5,950 kg.	14,875 kg.	14,875 kg.	12,875 kg.	10,500 kg.	7,425 kg.
102 mm	9,250 kg.	7,400 kg.	18,500 kg.	18,500 kg.	16,025 kg.	13,075 kg.	9,250 kg.
127 mm	11,550 kg.	9,250 kg.	23,125 kg.	23,125 kg.	20,025 kg.	16,350 kg.	11,550 kg.
152 mm	13,875 kg.	11,100 kg.	27,750 kg.	27,750 kg.	24,025 kg.	19,625 kg.	13,875 kg.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 175 kilograms per millimeter of webbing width 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **Always check the identification tag to determine if the sling rated capacity is appropriate for the lift.**

RATED CAPACITY FOR SYNTHETIC WEB SLINGS - TABLE 6-20
SI-Units - Class 7, 4 Ply Slings - Type V

	ENDLESS					
	HITCH TYPES			HORIZONTAL ANGLES		
Sling Width	Vertical	Choker	Vertical Basket	60	45°	30°
						
25 mm	4,975 kg.	3,975 kg.	9,975 kg.	8,625 kg.	7,050 kg.	4,975 kg.
51 mm	9,975 kg.	7,975 kg.	19,950 kg.	17,275 kg.	14,100 kg.	9,975 kg.
76 mm	14,900 kg.	11,925 kg.	29,825 kg.	25,825 kg.	21,100 kg.	14,900 kg.
102 mm	18,500 kg.	14,800 kg.	37,000 kg.	32,050 kg.	26,150 kg.	18,500 kg.
127 mm	23,125 kg.	18,500 kg.	46,250 kg.	40,050 kg.	32,700 kg.	23,125 kg.
152 mm	27,750 kg.	22,200 kg.	55,500 kg.	48,075 kg.	39,250 kg.	27,750 kg.

Notes: 1) The rated capacities are based on stuffer weave construction webbing with a minimum certified tensile strength of 175 kilograms per millimeter of webbing width 2) Rated capacities for Type III and IV slings apply to both tapered and non-tapered eye constructions. Rated capacities for Type V slings are based on non-tapered webbing. 3) For Type VI slings and for other sling types, consult the manufacturer for rated capacities. **Always check the identification tag to determine if the sling rated capacity is appropriate for the lift.**

OTHER WEB SLING & TIE DOWN ASSOCIATION PUBLICATIONS

Recommended Standard Specifications for:

- Synthetic Web Slings (WSTDA-WS-1)
- Synthetic Polyester Roundslings (WSTDA-RS-1)
- High Performance Yarn (HPY) Roundslings (RS-1HP)
- Synthetic Webbing for Slings (WSTDA-WB-1)
- Sewing Threads for Slings & Tie Downs (WSTDA-TH-1)
- Synthetic Web Tie Downs (WSTDA-T-1)
- Winches Used With Web Tie Downs (WSTDA-T-3)
- Synthetic Webbing Used for Tie Downs (WSTDA-T-4)
- Load Binders Used with Chain Tie Downs (WSTDA-T-6)

Operating, Care & Inspection Manuals for:

- Synthetic Polyester Roundslings (WSTDA-RS-2)
- Synthetic Web Tie Downs (WSTDA-T-2)

Download free, single-use copies of the above Standards and Manuals at www.wstda.com

Available for Purchase from Web Sling & Tie Down Association:

Warning Products: Available in English, Spanish and French

- Fabric Warning Labels for Web Slings, Roundslings and Tie Downs
- Paper Safety Bulletins for Web Slings, Roundslings and Tie Downs

Illustrated Wall Chart

- Inspection of Web Slings & Roundslings (WSTDA-WSWC-1)

UV Degradation Reports

- UV Degradation Testing Program for Web Slings: Summary Report (2003) (WSTDA-UV-Sling-2003)
- UV Degradation Testing Program for Web Slings: Graphs (Mini Manual) (WSTDA-UV-MM-2005)
- UV Degradation Testing Program for Web Slings: Report (1981, revised 2005) (WSTDA-UVDR-1981)

For ordering information and prices, contact the association office or visit our website:

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This recommended manual has been formulated as a guide to users, industry and government to insure the proper operation, use, care (maintenance) and inspection of synthetic web slings. The existence of this recommended manual does not, however, prevent members of the Web Sling & Tie Down Association, Inc. and other manufacturers from manufacturing or selling products not conforming to the manual.