

# T & J Synthetics Web Slings

Recommended Safety Practices  
Synthetic Web Slings



# Safety is the paramount consideration involved in the use of any web sling



- Have an understanding of terminology and definitions of synthetic web slings
- Select the appropriate web sling for the specific lift
- Have knowledge on the proper method of lifting items
- Understand how synthetic web slings will react under normal and emergency situations
- Be knowledgeable about industry local, state, federal, and provincial regulation applicable to items being lifted
- Personnel should always stay clear of suspended loads

# Synthetic Web Sling Inspection Criteria

Synthetic web slings are designed for long life under punishing conditions, but will eventually wear out after extended use or under extreme conditions. The KEY is knowing when to replace them. Most importantly is the inspection prior to every use (no exceptions). End users should develop an inspection program based on the procedures outlined in ANSI B30.9. The inspections should be done by a QUALIFIED person trained in rigging and inspections and the program should be based on four sound beliefs:

1. Follow REGULAR and UNIFORM inspections
2. Know and Respect the capabilities and limitations of synthetic web slings
3. Document and keep permanent records
4. Most importantly – Use Common Sense

***When in Doubt, throw it OUT***



# Sling Inspections

## 2 Types

1. Initial Inspection – before any new or repaired sling is placed in service the sling shall be inspected
2. Frequent Inspections – should be done by a designated and trained person

## Frequency of Inspection Depends on

1. Sling Usage
2. The Working Environment
3. Sling Service Life



*When in Doubt,  
Throw it OUT*



# Synthetic Web Sling Inspection Items

## When to replace synthetic web slings

- Remove all slings from service if you see damage
- If an identification tag is missing or illegible- remove from service
- Slings being used beyond the rated load capacity –**remove from service**

### Removal criteria established by ANSI B30.9

1. Acid or caustic burns
2. Melting or charring of any part of sling
3. Holes, tears, cuts, or snags
4. Broken or worn stitching
5. Excessive abrasive wear
6. Excessive pitting, corrosion, cracking, distortion, or broken fittings
7. Any visible damage pertaining to shock loading
8. Missing or illegible sling identification tag



# Synthetic Web Sling Inspection Items

## WEB SLING AND TIE DOWN ASSOCIATION REMOVAL FROM SERVICE CRITERIA

### SYNTHETIC WEB SLING SAFETY BULLETIN (WSSB-1) 2010

- The entire web sling must be inspected regularly and it shall 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 that cause doubt as to the strength of the web sling.

# Removal Identification

Weld  
Splatter



Knotted  
Sling



Abrasion  
Damage



Double  
Knotted  
Sling



Acid  
Damage



Before using or installing synthetic web Slings, always visually inspect, read and follow warnings tag and make good judgment

# Web Sling Inspection

If any damage such as the following is visible, the sling shall be removed from service immediately.

Photos depict examples of sling damage, but note they are extreme examples provided for illustration purposes only.



ACID OR CAUSTIC BURNS



CUT



EDGE CUT



MELTING OR CHARRING



ABRASIONS



PUNCTURE



WELD SPATTER



BROKEN OR WORN STITCHES



DAMAGED EYE



EMBEDDED MATERIALS



TENSILE BREAK



MISSING OR ILLEGIBLE TAG



UV DEGRADATION



RED CORE YARN



KNOT



CRUSHED WEBBING



SNAG



DAMAGED HARDWARE



# Synthetic Web Slings

## Repair Guidelines

1. Damaged slings should be repaired only by a sling manufacturer
2. Inspection records for slings should be updated with all relevant information

*They also meet or exceed the following military/federal specifications:*

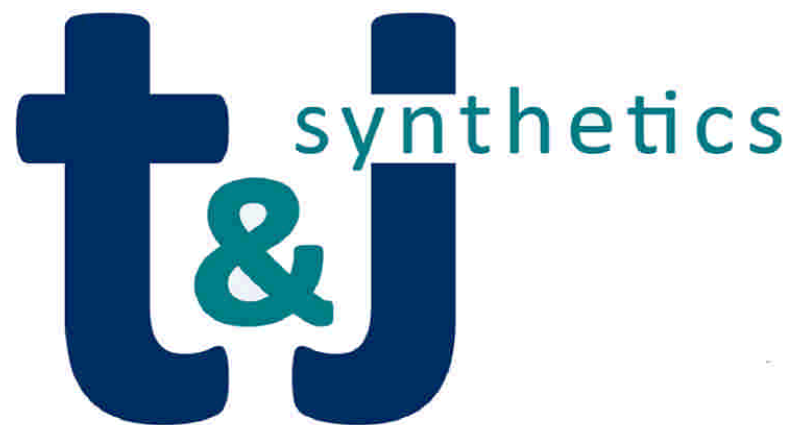
- ANSI Standard Z1.8
- MIL-Standard-105
- Fed. Spec. VT-285-E
- Fed. Spec. VT-295-E
- MIL-W-4088F
- MIL-W-23223A
- OSHA 1910.184

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<b>T&amp;J SYNTHETICS</b>		Cert. #: <b>MCR</b>	
Vertical: Ⓜ <b>11000</b> LBS.	Type: <b>EE 2-904</b>	MFG Date:	
Choker: Ⓜ <b>8800</b> LBS.	Width: <b>4"</b>	Length:	In Service Date:
Basket: Ⓜ <b>22000</b> LBS.			

# REMEMBER...

*“When in doubt, throw it out!”*



Nylon Web Slings

## Testing Criteria

Nylon is tested at 2 x Vertical lift (T&J – 5 x WWL) up to 6% stretch

Polyester is pull tested at 2 x Vertical lift (T&J – 5 x WWL) up to 3% stretch

T&J Synthetics batch test web slings on a quarterly basis on various flat and round slings based on WSTDA standards.

**REMEMBER...**

*“When in doubt, throw it out!”*

