

## LOAD HUGGER BASICS

Lift-All Load Hugger cargo control and load securement products offer the van and flatbed operator a wide variety of options to meet U.S. DOT, FMCSA (Federal Motor Carrier Safety Administration), and CVSA (Commercial Vehicle Safety Alliance) requirements.\*

### Features and Benefits

- Meets all U.S. DOT, FMCSA, and CVSA regulations.
- Low stretch polyester webbing allows for more secure cargo control.
- All hooks and chain assemblies equal or exceed webbing strength.
- Webbing is soft and comes in varying widths; will not damage expensive cargo.
- Large selection; choose the capacity that is right for the load carried.
- Lightweight and easy to handle.
- Large selection of end fastenings, winches, and ratchets make choosing and using the correct assembly easy.
- Custom lengths available.

### Inspection Criteria

Remove from service if any of the following are visible:

- Cuts, holes, surface abrasion or crushed areas.
- Burns or chemical damage.
- Separation of load carrying stitch pattern.
- Hardware, fittings or tensioning devices which are broken, bent, twisted, cracked, or have nicks and gouges.
- Knotted webbing.
- Splices or other makeshift repairs.
- The loop ends are damaged.

See illustrations of damaged webbing on pages 34 & 35; damaged chain and hooks on pages 107 and 108.

### Environmental Considerations

- Synthetic webbing severely degrades at temperatures above 200°F.
- Prolonged exposure to ultraviolet light adversely affects synthetic webbing. Tiedown straps become bleached and stiff when exposed to sunlight or arc welding.
- Many acids, alkalis, and chemicals have an adverse effect on nylon and polyester. See chart on page 16.

### Safe Operating Practices

- Inspect tiedown straps and all hardware when the load is first being secured.
- Re-tighten tiedowns periodically during use.
- Never use *Load Huggers* for anything other than securing cargo. Do not use for lifting loads or towing vehicles.
- The load should be securely blocked and stabilized before tensioning the straps.
- Never exceed rated capacities.
- Use caution when tossing straps and chain anchor assemblies over a load.
- Check installation of portable winches. The ratchet pawl must be at the top of the toothed wheel and bolts tight against the rub rail.
- Weld-on winches should not be cracked.
- Corner protectors or sling protection must be used to protect *Load Huggers* from edges and abrasion.
- All hardware must be in line with the direction of pull to achieve full strength.

### Definitions

**Working Load Limit (WLL):** The maximum load that may be applied to an assembly or component in straight tension.

**Ultimate Breaking Strength:** The load at which an assembly or component will fail in testing.

Department of Transportation Regulations 393.102(b) uses the Ultimate Breaking Strength to calculate the number of tiedown assemblies required to secure a load.

Lift-All publishes Ultimate Breaking Strength for this purpose only. For safety, we recommend that only Working Load Limits are used for your calculations.



**Always protect synthetic slings from being cut by corners and edges. See the Sling Protection section in this catalog.**

Always protect tiedowns from being cut by corners and edges.

\*CVSA (Commercial Vehicle Safety Alliance) [www.cvsa.org](http://www.cvsa.org)

General Information  
Webbing  
Round Slings  
Sling Protection  
Wire Rope  
Chain Slings  
Rigging Hardware  
Mesh Slings  
Load Huggers  
Tow Products  
Lift-All Hoists  
Hoist Rings  
Plate Clamps  
Lifting Devices

## WEB SELECTION

Two **styles** of webbing are available for our 2" through 4" ratchet assemblies and winch straps:  
**Standard Yellow** and **Hi-Vis Tuff-Edge**<sup>®</sup>

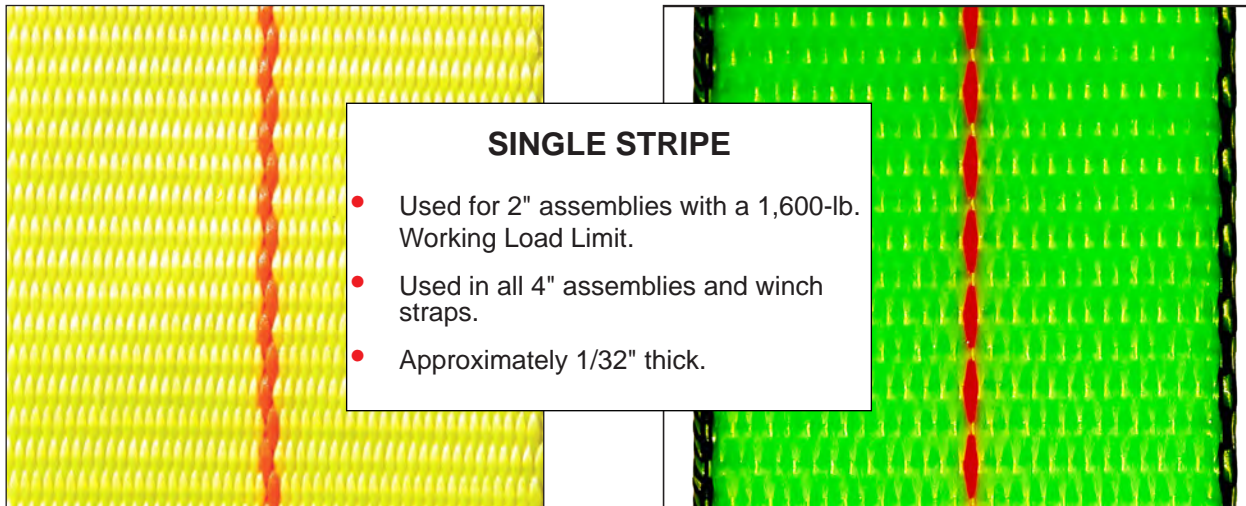
Two strength classes are available for 2" assemblies:  
**Single Stripe** and **Double Stripe**

### STANDARD TIEDOWN WEBBING

This polyester webbing offers exceptional value for everyday use.

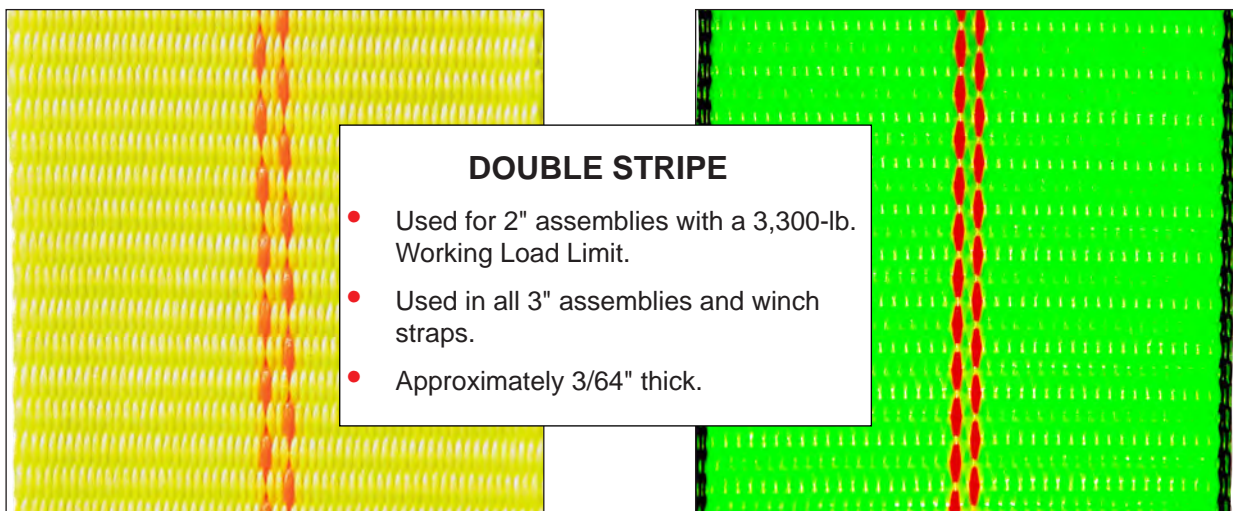
### HI-VIS TUFF-EDGE WEBBING

The brightness of our polyester **Hi-Vis Tuff-Edge** webbing allows for increased visibility on the roadside. Special black polymer edge yarns provide 32% better edge cut resistance for longer assembly life.



**SINGLE STRIPE**

- Used for 2" assemblies with a 1,600-lb. Working Load Limit.
- Used in all 4" assemblies and winch straps.
- Approximately 1/32" thick.



**DOUBLE STRIPE**

- Used for 2" assemblies with a 3,300-lb. Working Load Limit.
- Used in all 3" assemblies and winch straps.
- Approximately 3/64" thick.

## RATCHET ASSEMBLIES

### Type A Assemblies

One-piece assemblies for use without end fittings.  
Length measured from ratchet mandrel to end of webbing.



### Type B Assemblies

Two-piece assemblies with one piece attached to the ratchet, and the other end is adjustable. Numerous end fittings are available to handle any requirements. (See following pages).

### Series 1,000

- 1" Wide Polyester Webbing
- Ultimate strength: 2,100-lbs.\*
- Working Load Limit: 700-lbs.\*



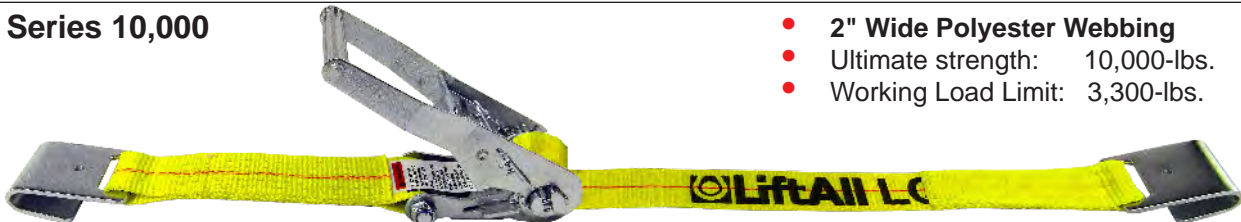
### Series 5,000

- 2" Wide Polyester Webbing
- Ultimate strength: 5,000-lbs.
- Working Load Limit: 1,600-lbs.



### Series 10,000

- 2" Wide Polyester Webbing
- Ultimate strength: 10,000-lbs.
- Working Load Limit: 3,300-lbs.



### Series 15,000

- 3" or 4" Wide Polyester Webbing
- Ultimate strength: 15,000-lbs.
- Working Load Limit: 5,000-lbs.

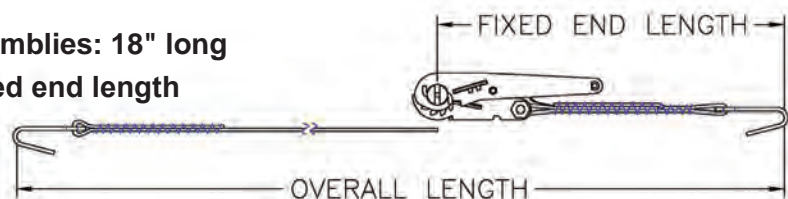


### Type B Measurement - FIXED END

2" Wide Assemblies: 16" long

1" Wide, 3" Wide, and 4" Wide Assemblies: 18" long

Note: Chain Anchor adds 14" to fixed end length



\* Series 1,000 Exception: Series 1,000 Ratchet Assembly with Flat Hooks, Ultimate Breaking Strength is 1,000-lbs. and Working Load Limit is 330-lbs.



## RATCHET ASSEMBLIES

		Series 5,000			Series 10,000		
WEB WIDTH & TYPE		2" Wide Polyester			2" Wide Polyester		
* ULTIMATE BREAKING STRENGTH		5,000 lbs.			10,000 lbs.		
WORKING LOAD LIMIT		1,600 lbs.			3,300 lbs.		
	Length**	Standard Part No.	Tuff-Edge® Part No.	Weight (lbs.)	Standard Part No.	Tuff-Edge Part No.	Weight (lbs.)
<b>Flat Hook</b> 	27'	60501	TE60501	4.6	61001	TE61001	5.8
	30'	60502	TE60502	4.8	61002	TE61002	6.0
<b>Stamped Triangle</b> 	27'	60503	TE60503	4.2	61003	TE61003	5.2
	30'	60504	TE60504	4.4	61004	TE61004	5.4
<b>Stamped Snap Hook</b> 	27'	60505	TE60505	4.6	61005	TE61005	6.2
	30'	60506	TE60506	4.8	61006	TE61006	6.4
<b>Twisted Snap Hook</b> 	27'	60507	TE60507	5.2	61007	TE61007	5.6
	30'	60508	TE60508	5.4	61008	TE61008	5.8
<b>Forged Snap Hook</b> 	27'	60509	TE60509	5.8	61009	TE61009	6.4
	30'	60510	TE60510	6.0	61010	TE61010	6.6
<b>D-Ring</b> 	27'	60511	TE60511	4.2	-	-	-
	30'	60512	TE60512	4.4	-	-	-
<b>U-Hook</b> 	27'	60513	TE60513	4.6	26422	TE26422	5.8
	30'	60514	TE60514	4.8	26423	TE26423	6.0
<b>Hook &amp; Keeper</b> 	27'	60515	TE60515	4.8	-	-	-
	30'	60516	TE60516	5.0	-	-	-
<b>Chain Anchor Assembly</b> 	27'	-	-	-	61013	TE61013	13.0
	30'	-	-	-	61014	TE61014	13.2
<b>Type A (Endless)</b> 	27'	60517	TE60517	3.8	61011	TE61011	4.4
	30'	60518	TE60518	4.0	61012	TE61012	4.6

\* Ultimate breaking strength of assembly when new.

\*\* Non-standard lengths available.





**WARNING**

Always protect Tiedowns from being cut by corners and edges.

**Note:** Since end terminations vary proportionally with size, check with *Lift-All* if critical dimensions are required. Non-standard lengths available upon request.

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Hoist Rings  
Plate Clamps  
Lifting Devices


## RATCHET ASSEMBLIES

		SERIES 15,000					
WEB WIDTH & TYPE		3" Wide Polyester			4" Wide Polyester		
* ULTIMATE BREAKING STRENGTH		15,000 lbs.			15,000 lbs.		
WORKING LOAD LIMIT		5,000 lbs.			5,000 lbs.		
	Length**	Standard Part No.	Tuff-Edge® Part No.	Wt. (lbs.)	Standard Part No.	Tuff-Edge Part No.	Wt. (lbs.)
<b>Flat Hook</b> 	27'	20482	TE20482	12.8	26424	TE26424	13.6
	30'	20483	TE20483	13.2	26425	TE26425	14.0
<b>Forged Triangle</b> 	27'	20484	TE20484	14.0	26430	TE26430	14.8
	30'	20485	TE20485	14.4	26431	TE26431	15.2
<b>Chain Grab Hook</b> 	27'	20486	TE20486	13.4	26426	TE26426	14.2
	30'	20487	TE20487	13.8	26427	TE26427	14.6
<b>Chain Anchor Assembly</b> 	27'	20488	TE20488	16.8	26432	TE26432	17.6
	30'	20489	TE20489	17.2	26433	TE26433	18.0
<b>U-Hook</b> 	27'	20494	TE20494	13.0	26436	TE26436	13.8
	30'	20495	TE20495	13.2	26437	TE26437	14.2
<b>7-in. Sewn Eye</b> 	27'	20490	TE20490	11.0	26428	TE26428	11.8
	30'	20491	TE20491	11.4	26429	TE26429	12.2
<b>Type A (Endless)</b> 	27'	20492	TE20492	10.6	26434	TE26434	11.4
	30'	20493	TE20493	11.0	26435	TE26435	11.8

\* Ultimate breaking strength of assembly when new.

\*\* Non-standard lengths available.

Part No.	SLIDING SLEEVES FOR LOAD HUGGERS (Offered in 1ft Lengths)
60117	1-1/2" Flat Sliding Sleeve for 1" Load Hugger
60118	2-1/2" Flat Sliding Sleeve for 2" Load Hugger
60119	3-1/4" Flat Sliding Sleeve for 3" Load Hugger
60120	4-1/2" Flat Sliding Sleeve for 4" Load Hugger
RATCHET PROTECTOR	
1RP	1" Ratchet Protector
2RP	2" Ratchet Protector
3RP	3" Ratchet Protector
4RP	4" Ratchet Protector
CORNER GUARD	
CG	Corner Guard to be used with 2"- 4" webbing



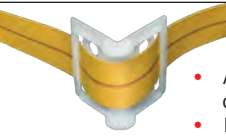
**Sliding Sleeve**

- Double-walled tubular product
- Protects Load Hugger webbing from abrasion and helps resist cutting.



**Ratchet Protector**

- A sewn fabric pad protects surface finish of cargo and ratchet mechanism.



**Corner Guard**

- A movable, rust-proof copolymer corner guard
- Protects from sharp edges
- Tough enough for chain or webbing