



CAMBUCKLE TIE DOWN STRAPS

MANUAL NO. 14534

SKU:JFTDS00004 JFTDS00005



PRODUCT OVERVIEW

Package Contents:

Cam buckle tie-down straps with double S-hooks

1 x User manual

Key Specifications:

Parameter: Value

Working Load Limit (WLL): 330 lbs ($\approx$ 150 kg)

Break Strength : 992 lbs ($\approx$ 450 kg)

Webbing Width : 1 inch ($\approx$ 25 mm)

Webbing Thickness : 1 mm

Webbing Length : 10 feet ($\approx$ 3 m)

Webbing Material: High-tenacity polyester

Hook Type: Double S-hooks, vinyl-coated steel

Buckle Type: Cam buckle (cam-action tensioning)

MANDATORY SAFETY WARNINGS & LEGAL STATEMENTS

READ BEFORE USE

⚠ DANGER

Failure to follow these instructions may result in severe injury, death, cargo loss, or traffic accidents.

⚠ WARNING

A tensioned strap that breaks can produce a deadly whiplash effect. Keep all personnel clear during operation and inspection.

1. Load Limits & Safety Factor – MOST IMPORTANT! Read Carefully

The Working Load Limit (WLL) is 330 lbs – this is printed on the product label. This number is the maximum cargo weight you must NEVER exceed in actual use. It is the legal red line and the ONLY basis for safe loading.

The Break Strength is 992 lbs – this is the physical ultimate force at which a brand-new strap breaks under laboratory conditions. This product is designed with a 3:1 safety factor ($992 \div 330 \approx 3.0$) to compensate for strength loss from abrasion, aging, UV exposure, and shock loads during service.

WARNING: Under NO circumstances shall the Break Strength be used as the basis for loading weight! If you load based on Break Strength, even slight wear or a sudden brake will erase the safety margin and cause immediate failure.

Simple Formula:

Maximum Load $\leq$ WLL (330 lbs) – This is the ONLY correct standard.

Maximum Load $\neq$ Break Strength (992 lbs) – This is a FATAL mistake!

2. Anchor Point Strength

The vehicle anchor point must have a strength of at least $2 \times$ the WLL (i.e., ≥ 660 lbs) of this tie-down strap. Weak anchors will compromise securement. The double S-hooks are designed to attach securely to E-track rings, D-rings, bolt-on eyes, chain anchors, and similar anchor points.

3. Edge Protection – FMCSA Mandatory Requirement

Where the webbing contacts sharp corners, rough surfaces, or friction points of the cargo or vehicle structure, edge protectors / corner pads MUST be used. Sharp edges can cut the webbing at

loads far below the WLL.

4. Pre-Use Inspection – Mandatory Before Each Use

DO NOT USE if any of the following defects exist:

Cuts, abrasions (>25% of width), burns, chemical corrosion, knots, or broken stitching on the webbing.

Rust, deformation, or cracks on metal parts, including S-hooks and the cam buckle mechanism.

Missing, stuck, or non-returning cam release spring.

Pay special attention to the S-hooks – inspect for any bending, cracking, or deformation that could affect their holding ability.

5. Prohibited Actions

DO NOT use for lifting/hoisting – This product is for cargo securement ONLY.

DO NOT apply shock loads – Never jerk or use vehicle inertia to tighten. Shock loads can multiply forces several times over, causing failure.

DO NOT tie knots – Knots reduce webbing strength by over 50%.

DO NOT modify or repair – Never sew webbing, weld, or hammer the cam buckle.

DO NOT use S-hooks on anchor points where the hook cannot

fully seat (e.g., round bars or oversized holes) – this may cause point loading and reduce holding capacity.

6. In-Transit Monitoring

Must check tension within the first 15 km (10 miles) of transit and periodically thereafter. Vibration causes loosening. Re-tighten if slack is observed.

7. Environment & Storage

Operating temperature range: -40°F to +175°F (-40°C to +80°C).

Do not use outside this range.

Store away from direct sunlight, moisture, and solvents. UV rays degrade polyester strength.

8. Labeling & Product Information

The product label must remain legible and contain the WLL, Break Strength, material, and lot number. If damaged or illegible, do not use and contact the manufacturer for a replacement.

9. Regulatory Applicability & User Responsibility

The operating instructions in this manual are intended to assist users in meeting the basic requirements of the U.S. FMCSA Cargo

Securement Regulations (49 CFR 393.104). Users are solely responsible for ensuring:

Vehicle anchor points have a strength of at least $2 \times$ the Working Load Limit (WLL) marked on this strap (i.e., ≥ 660 lbs).

All sharp edges are protected with edge protectors.

Actual load weight does not exceed the WLL printed on the product label (330 lbs per strap).

The S-hooks are properly seated onto suitable anchor points with full surface contact for maximum holding strength.

The manufacturer assumes no liability for any loss or injury resulting from overloading, insufficient anchor strength, failure to use edge protection, improper anchor selection, or improper operation.

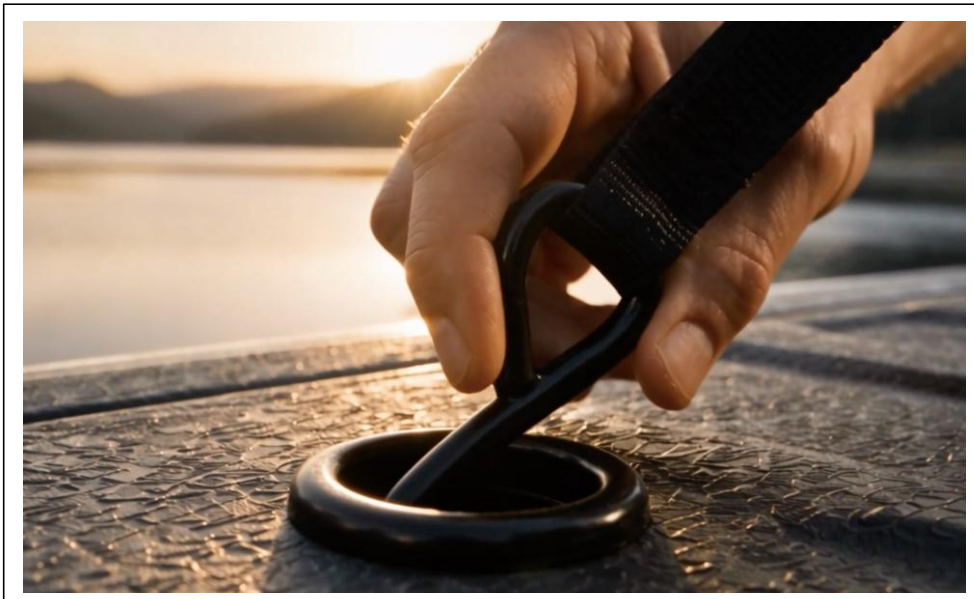
OPERATION

Before operation: Ensure you have read and understood all safety warnings above, especially Section 1 (Load Limits).

Step 1: Route the Strap & Attach the Hooks

Fully unwind the webbing. Route the fixed end (one S-hook) around the cargo or through its anchor point, ensuring the webbing lies flat and untwisted.

Attach the double S-hooks securely to suitable anchor points (e.g., D-rings, E-track rings, chain anchors) and to the cargo's attachment points. Ensure the full hook surface contacts the anchor – the vinyl coating helps prevent scratches and provides rust resistance.



Step 2: Insert the Webbing into the Cam Buckle

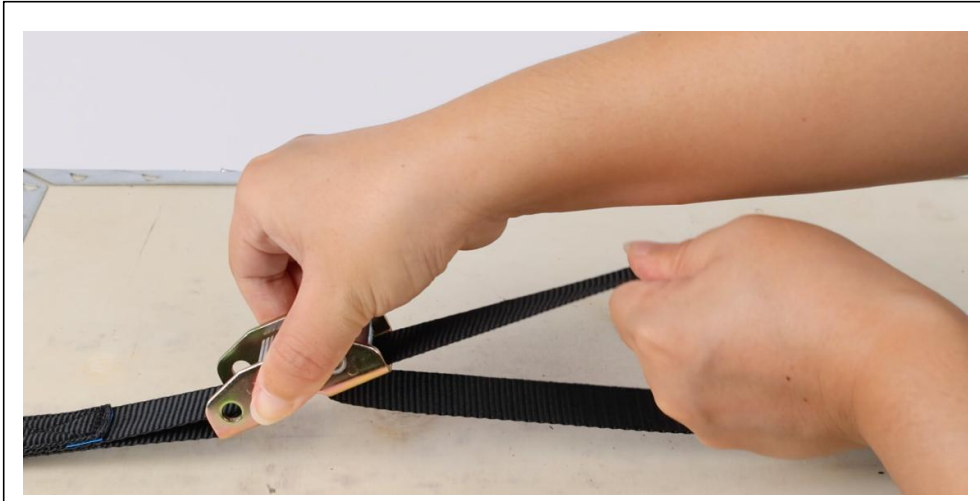
Take the free end (the strap not yet attached) and pass it through the cam buckle's slot – from the bottom, over the cam, and out the other side. Leave about 6 inches (15 cm) of tail. Keep the webbing flat and untwisted.

(See diagram below – the webbing passes through the buckle opening.)



Step 3: Pull to Tighten (Initial Take-up)

With one hand holding the buckle housing, grip the free end of the webbing and pull firmly. The cam mechanism allows the webbing to slide in one direction only – it will not slip back. Continue pulling until all visible slack is removed and the webbing just contacts the cargo surface.



Step 4: Lock the Cam (Automatic)

Once the desired tension is reached, simply release the free end. The spring-loaded cam will automatically engage and bite into the webbing, locking it securely. The strap is now locked and will hold tension without any further action.



Step 5: Release the Strap (Unloading)

Critical: Ensure cargo will not tip upon sudden release.

Press the cam release lever (or push the cam upward) to disengage the cam from the webbing.

While holding the release, pull the free end of the webbing outward to fully extract it from the buckle.

If the webbing is stuck, gently wiggle the buckle to assist.



Step 6: Disassembly and Coiling

After fully extracting the webbing, remove the S-hooks from the anchor points. Straighten and coil the straps into loops (do not tie knots). Store in a dry, dark place. If contaminated with oil or mud, clean with mild soap, rinse, and air-dry before storage.



Lot Number Location

The lot number is affixed to the label on the product packaging box. Please record or keep the packaging box for future reference before disposal.

This manual is for operational guidance only. For specific regulatory requirements, please refer to the latest FMCSA regulations. Contact the manufacturer for any questions.

Contact

Feel free to visit our website: www.ussolid.com

You can email us at service@ussolid.com