

# TTWG-500 TUF-TUG WIRE ROPE GRABS

(ANSI A14.3, CSA Z259.2.5 & BSEN 353-1:2014+A1:2017

WARNING! YOU MUST READ AND FULLY UNDERSTAND OR HAVE THESE INSTRUCTIONS EXPLAINED TO YOU BEFORE USING THIS EQUIPMENT. FAILURE TO OBSERVE THE LIMITATIONS, CAUTIONS AND WARNINGS IN THESE INSTRUCTIONS COULD RESULT IN SEVERE PERSONAL INJURY.

Equipment users must be fully trained in and conversant with all regulatory requirements applicable to the workplace in which the fall protection equipment is to be used. If in doubt contact your local Safety office for clarification. These instructions are not a substitute for a formal climbing and Fall Protection Training Program. Such training should include information about local circumstances, rules and regulations applicable to the work situation, a hands on opportunity to learn how to wear and attach equipment properly, instructions about adequate anchor points and the proper techniques for securing and connecting lanyards, drop lines or lifelines, and guidance and demonstration on how to inspect and maintain the equipment. End user should have access to these instructions for reference.

SYSTEM REQUIREMENTS: TUF-TUG Wire Rope Grabs are designed to meet the performance requirements of ANSI A14.3, CSA Z259.2.5 & BSEN 353-1:2014+A1:2017 for personal fall arrest on fixed ladders. It is intended for use on 3/8" (9.5 mm) solid core cable system with an anchorage capable of maintaining a minimum of 5000 lbs. (22.2 KN) tensile load. The lower end of the lifeline shall have a termination that prevents the fall arrester from passing through that termination. When the line is installed, the bottom end shall have a counterweight (i.e. eye bolt tensioning) to provide stiffness. (NOTE: specials are provided for other size wire rope and will be specifically identified on the housing of the mechanism i.e. 01/4", 05/16" and/or 01/2"). It is recommended that the TTWG-500 be attached to a full body harness with a sternal/front "D" ring (TTFBH-C/P) with a 2" Self-Locking Carabiner/Hook that meets the proper safety requirements. The maximum length of the connector to the wire grab from the harness should not exceed 9 inches (228.6 mm).

NOTE: This Wire Rope Grab is intended to be used as part of an individual's complete personal fall protection system. All components, subsystems and connectors should be compatible and meet the appropriate OSHA/ANSI/CSA/EN safety requirements for the intended application. Substandard or non-approved components could compromise the reliability of the system and jeopardize the safety of the user. Use of incompatible combinations of equipment may present a danger in which the safe function of any one item is affected by or interferes with the safe function of another. The TUF-TUG TTWG-500 has been cross certified for use on DBI Sala Lad-Saf climb system by CSA &CE.

**BEFORE EACH USE:** Inspect mechanism for proper operation by pivoting cams back and forth. Movement should be free and easy without binding. Check units for deformation, defects, corrosion or wear that may affect the free movement and/or operation of the mechanism. Check that all markings are legible before use. Units with signs of any of the above check items should be removed from service and disregarded.

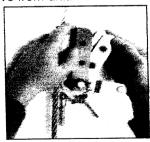
KNOW YOUR WORKPLACE: Assess the workplace for hazards such as heat, flames, chemical, electrical, environmental, sharp objects, moving equipment, unstable/uneven or slippery surfaces. Identify the potential hazards and plan the installation to avoid dangerous paths, obstructions and zones. Have an emergency rescue/contingency plan in place in the event that an accident may occur.

## INSTALLATION

A) Release pull pins by depressing end buttons and remove from unit.









- B) Open unit by pivoting clamp bar assembly away from housing.
- C) Attach to cable as shown in Figures A/B with arrow up.
- D) Close unit by pivoting cams onto rope, making sure that arrow is pointing up as shown in Figures B/C.
- E) Reinsert pins into housing making sure that ball detent passes through assembly (Figure D).
- F) Check security of pins by trying to remove without releasing button.
- G) Work cams back and forth and run fall arrester up and down to assure functionality and freedom of movement.
- H) Test installation by pulling down sharply on the attachment eye to ensure that the mechanism locks onto the cable with full body weight to load system and avoid incorrect use.
- Check harness fit to assure a snug fit before and during each use.

## USE.

- A) After wire grab has been secured to safety cable, attach to safety harness front sternal/front "D" Ring with an approved double locking carabiner/hook. (Installation of wire grab to safety line can take place after harness attachment if desired). Always keep wire grab above user's center of gravity to minimize potential for falls and potential fall distance.
- B) To ascend safety cable, climb ladder in a normal fashion with torso centered and close to the mechanism. Wire grab is designed to rotate freely around cable safe climb system and will operate with the user sideway leaning up to 15° left or right off center. There-of, the mechanism should self-align and/or follow the user up the safe climb system with a normal steady/even pull. Wire grab should also work freely up and down forward leaning on incline up to 15° off the vertical, up and down.
- C) If cable system has guides/supports, remove cable from stand-offs as they are encountered and reinsert after passing. DO NOT REMOVE WIRE ROPE GRAB FROM SAFETY CABLE to pass over guides, supports or standoffs, etc., unless a secondary OSHA approved attachment is made to the structure (lanyard, rope grab, etc.) prior to doing so. \*Do not handle wire grab or override lever during operation, this may compromise the function of the braking mechanism and should be done from a safe position to reduce the risk of falling.
- D) To descend safety cable, again climb down ladder in a normal fashion with torso centered and close to the mechanism. This will keep the attachment lever up, disengaging the clamping bar and allow the wire grab to freely lead the climber.
- E) If the lever is pulled back past center by leaning back, the clamp bar will engage the cable and the wire grab will lock up. To unlock the mechanism, simply move upward to pivot the lever over center. This will allow the wire grab to operate freely.
- F) Always keep a safe distance of 10 ft. (3 m) from potential hazards to avoid contact if a fall occurs.
- G) Make sure to check security of harness and adjust for snug fit during ascent and descent from a secured
- H) IF THE WIRE GRAB ARRESTS A FALL, REMOVE IT FROM SERVICE AND REPLACE IT.

### CARE:

- A) After use always clean mechanism wipe with a new towel and lubricate pivot points with machine oil. Inspect unit for wear, damage and/or defects. If the mechanism becomes wet, allow to air dry naturally.
- B) If wire grab shows signs of excessive wear or a defective condition, remove it from service and replace it. If in doubt return it to the factory for evaluation.
- C) You must ensure that the product markings remain legible during the entire lifetime of the product.
- D) Keep your wire grab/fall arrester in a safe/dry storage location to prolong its service life and assure its functionality.
- E) Never alter or use a wire rope grab that has been altered, the potential malfunction could result in serious injury or death. Per training module inspect for wear/damage before each use and repair/replace as required.

WARNING: All users of fall protection equipment must be in good health, must not have a medical history of conditions that could be aggravated by a fall, must be mentally fit and must not be under the influence of alcohol or drugs. Inattention to these factors could cause falls, serious injury or death!

WARNING: Do not use fall arrestor as a positioning device, use a secondary 100% tie-off system as required.

WARNING: Connection and disconnection from a rigid anchor line should be done from a safe place by using a separate personal fall protection system to assure 100% tie-off safety.

WARNING: Any component which has arrested a fall must be immediately removed from service.

**WARNING:** Do not attempt to repair damaged equipment. Remove from service immediately.

WARNING: Discard equipment if there is any evidence of excessive wear, damage or malfunction.

WARNING: Certification is applicable to the device only. CSA has not investigated the anchorage system.

ALWAYS BE CAREFUL! Your safety is important to us. If a situation is questionable, consult a qualified professional for proper procedures or reference appropriate specifications.

For other TUF-TUG Safety Hardware; Confined Space Tripods, Man Winches, Rope Grabs and/or Anchor Brackets and/or Full Body Harnesses, contact:

**TUF-TUG PRODUCTS** 

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TUF-TUG FALL PROTECTION CARABINERS AND DOUBLE LATCHED SAFETY HOOKS TTSMC, SMALL AUTOLOCK CARABINER TTLGC, LARGE AUTOLOCK CARABINER

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SYSTEM REQUIREMENTS. Your TUF-TUG Carabiners and Double Latched Hooks are produced to meet the OSHA/ANSI performance requirements of "anchorage connectors" for one person personal fall arrest and restraint systems. In accordance with these specifications the TUF-TUG TTSMC and TTLGC Carabiners (anchorage connectors) are capable of sustaining a static tensile load of 5000 lbs. Thereof, these Carabiners are suitable anchorage connectors for one person (310 lb.) fall arrest systems @ 5000 lb. when installed and used properly according to OSHA and ANSI specifications.

NOTE: TUF-TUG Carabiners are intended to be used as part of a complete personal fall protection system. All components, subsystems and connectors should be compatible and meet the appropriate OSHA/ANSI requirements for the intended application. Substandard or non-approved components could compromise the reliability of the system and jeopardize the safety of the user.

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#### USE CONSIDERATIONS

\*TUF-TUG Carabiners/Hooks are designed as a fall protection connector for one person with a 310# maximum load capacity including all equipment.

\*All TUF-TUG Carabiners/Hooks are self closing and self locking and require at least two deliberate actions to open (twist and pivot).

\*The carabiner/hook should throat the anchorage point and close into the locked position without assistance. If the carabiner/hook latch does not close over the anchorage, do not use assembly for the particular positioning application.

\*The Carabiner/Hook assembly is intended to be used in a straight inline loading only.

\*Avoid side loading or binding the assembly against the anchorage point - the resulting forces could damage the unit and compromise the integrty of the mechanism.

\*If the Carabiner/Hook assembly arrests a fall or experiences a shock load, remove from service and dispose of it.

#### USE

\*Inspect mechanism for damage/defects, work latches and pivot swivel. If unit is not operating properly, remove from service and disregard. \*Make sure that latches on spreader bar are closed and locked when engaged.

\*Do not detach your fall protection equipment from their anchorage points on elevated structures unless you have another tie-off.

\*After use always clean mechanism and lubricate pivot points. Inspect unit for wear, damage and/or defects. Record inspection results and keep on file.

\*Keep your Carabiner/Hook in a safe/dry storage location to prolong its service life and assure its functionality.

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WARNING. Disregard equipment if there is any evidence of excessive wear, damage or malfunction.

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