



OWNER'S MANUAL

467-SRT

SHOCK REDUCTION TETHER 6.5'

DESCRIPTION

The Shock Reduction Tether (SRT) is LSC's latest technology in restraint tethers. The SRT is designed to reduce or mitigate the forces experienced by personnel during a fall or other high acceleration event such as vehicular direction change (momentum), etc. The Shock Reduction Tether system is constructed primarily of MIL-SPEC webbing and stainless steel hardware for strength and corrosion resistance in the marine environment.

At the core of the SRT system is a patented sacrificial strap that is folded and secured within a protective sleeve forming the shock reduction element. The strap is woven in a special manner such that the fibers will begin to separate and break once a force of approximately 700-800 lbs is experienced. It is the separation and breaking of the fibers that permits the tether system to dissipate and absorb the energy of the moving mass/body that is in free fall, etc. The shock-reducing element will expand in length, as the fibers are broken. The maximum extension will not exceed 18 inches.

Note, this extended length is in addition to the original length. During this extension or energy-absorbing phase, the force experienced by the personnel being restrained is limited to approximately 800 lbs. Once the maximum extension of 18 inches has been let out, no further energy will be absorbed by the shock reduction element, and the unit will serve as a standard nylon-webbing tether up to the rated breaking limit of 3300 lbs. The design of the tether is self-indicating and a warning label will be exposed if the system has been subjected to an over limit force of approx. 800 lbs or greater.

TECHNICAL DATA

Drop tests performed by LSC show the shock reduction element will arrest a 220 lb body mass from a 3-foot free fall (i.e. one "G" of acceleration) within 14 inches of elongation and subject to a maximum impact of 820 lbs force. This provides an approximate 54% reduction in impact force when compared to the same test performed without the use of the shock reduction element resulting in an impact of 1810 lbs force.

Tests were performed using a 220 lb wooden body form wearing a full body harness and dropped a distance of 3 feet. It is important to note that the percent reduction for this test is specific to the given parameters. Changes in drop distance (resulting in higher or lower speed of the restrained mass at impact), additional acceleration factors, and weight of the body form will provide different results. The above test data is provided for reference only. An increase in any parameter (body mass, fall distance, acceleration or initial velocity) will increase the maximum impact force experienced by restrained personnel. Additionally the type of harness or other personal protective gear worn will affect the results.

WARNINGS

1. Ensure the tether is properly secured to appropriate attachment and hard/tether points. Ensure the #513 Talon II Safety Hook is closed securely before use.
2. Check both ends of the plastic sleeve protecting the shock reduction element. If a warning label is fully exposed outside the protective sleeve (indicating an over limit force) or should the tether fail any of the inspection requirements, immediately remove tether from service.
3. Recommended Working Load Limit (WLL) not to exceed one (1) person or 600 lbs. Breaking Limit is 3300 lbs.
4. The product(s) covered by this manual is (are) of a rescue and survival equipment nature. Inherent to all rescue and survival environments is an increased risk of injury and/or possible death to an individual or group of individuals. This equipment is intended to aid the professional rescuer(s) and/or survival victim(s). However, all risks for injury or death cannot be completely eliminated or foreseen. Equipment training, including continued proficiency reviews and maintenance, is vital to the proper and safe use of all rescue and survival type equipment. It is the responsibility of the purchasing and end-user organization or individual to define the operational procedures and safety guidelines associated with the proper utilization, maintenance (including service life) and storage of the rescue and survival equipment. All individuals must be thoroughly trained and familiarized with the intended purpose, correct use and function of the equipment. Failure to do so may result in serious injury or death.

CAUTION

The SRT is intended to reduce the impact or shock load experienced by the wearer. When used for the intended application the SRT system will limit the impact force to approx. 800 lbs. However extreme conditions (high acceleration, turns, long tethers etc.) can exceed the limits of the shock reduction element and users can be subjected to shock loads up to the rated breaking limit of the tether. To minimize the shock load in all applications the user shall remain diligent at all times.

INSPECTIONS

1. While LSC has designed and manufactured the SRT to be as reliable as possible, periodic inspections are necessary to ensure functional reliability. Prior to each use, inspect the entire tether assembly for cuts, broken stitches or unusual wear.
2. Ensure there are no warning labels fully exposed. Full exposure of a warning label indicates tether has been subject to an over limit force. Remove tether from service immediately if any discrepancy is identified.
3. Inspect the #513 Talon II Safety Hook:
 - a. The user shall verify proper function of the auto-locking features prior to each use as follows:
 - b. Press and hold the Lock Button and check for proper operation of the Latch Gate. Latch Gate should be free to move into the open position and return to the closed and locked position when both are released.
 - c. Verify that the Latch Gate is completely closed and engaged in the hook slot and that the Lock Button is in the locked position.
 - d. Verify that the Swivel is operational and able to move freely.

MAINTENANCE

As required, apply a lightweight lubricant, such as WD-40 to the #513 Talon II Safety Hook. Wipe off excess lubricant. If unit has excessive soiling, or after direct exposure to salt water, salt spray, fuel, oils or other chemicals clean the entire belt with fresh water and mild detergent. Thoroughly rinse and allow to completely air dry, away from direct exposure to sunlight. After washing lubricate snap shackles as previously described. Service Life: Pending passing of inspections, but not to exceed 10 years from date of manufacture (DOM).

WARRANTY

LSC products are warranted to the first consumer purchaser to be free from defects in material or workmanship for a period of twelve (12) months. Please contact LSC for our complete Warranty information and Policies, or visit our website.

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