

## Operating & Maintenance Instruction for Miller Descent Device No. 8113

The Miller Descent Device operates on the principle of friction created by the work line sliding through the helical grooved contour of the aluminum mandrel. The speed of descent depends on the number of times the work line is wrapped around the mandrel and the manual tension applied to the end of the line by the user. The number of wraps to be used is determined by the weight of the person or the object to be lowered and the desired rate of descent.

### SLOW DESCENT (Fig. A)

To set up a slow descent, an individual weighing 150-200 pounds must wrap the work line around the mandrel a minimum of three (3) times. An additional one half (½) wrap should be used for each additional 75 pounds added to ensure a slow descent.

### MEDIUM DESCENT (Fig. B)

To set up a medium descent, an individual weighing 150-200 pounds must wrap the work line around the mandrel a minimum of two and one half (2 ½) times. An additional one half (½) wrap should be used for each additional 75 pounds added to ensure a medium descent.

### OPERATING INSTRUCTIONS

Remove cover by first unscrewing the large thumb screw nut until it stops (do not exert excessive pressure). Depress spring plunger on the lower side of the cover and slide the position to eliminate any drop or swing when user is ready to transfer to the descent line. Wrap work line around mandrel as shown in Figure B. After pre-setting the work line with the desired number of wraps, return and secure the cover by reversing the procedures used to remove the cover. BE CERTAIN THAT THE SPRING PLUNGER SECURES THE COVER AND BE SURE TO TIGHTEN THE LARGE THUMB NUT.

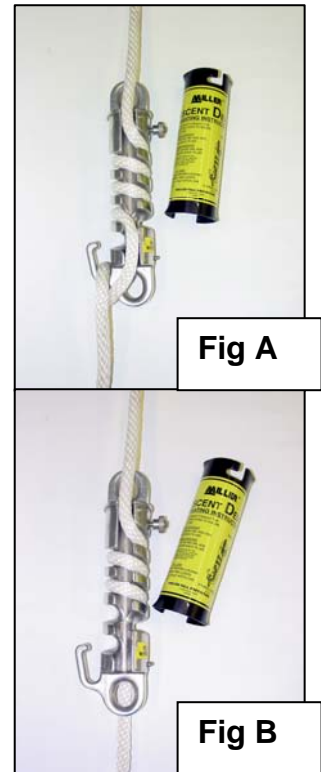
### TO LOCK WORK LINE IN POSITION

Wrap free line around locking hook (Fig A.), two wraps should be used. After the device has been locked in position, attachment of a belt or harness to the descent device can be made using a locking carabiner attached through the bottom eye of the mandrel.

### TO DESCEND

Always start with the work line in the locked position. Unlock the work line to descend. Allow work line to slide through hand. To decelerate or stop, apply slight downward and outward tension to free end of work line.

**CAUTION:** Do not use this device without the cover in its proper locked position. Also, the system is not appropriate or safe for use in emergencies by individuals who are unfamiliar with the device's proper use.



## MAINTENANCE

Proper use and care of synthetic rope:

**Avoid abrasion** – Outer and inner rope fibers contribute equally to the strength of rope. When worn, the rope is naturally weakened. If the rope is subject to rubbing against an object, protect it with chafing gear such as reinforced hose, tubing or canvas wrapped and tied around the rope.

**Avoid kinks and knots** – When rope is repeatedly turned or twisted in one direction, kinks will develop unless twists are constantly thrown in or out of rope. Pulling a kink through a restricted space will seriously damage the rope fibers. Knots decrease the strength of rope by at least 50%.

**Avoid sharp angles** – Sharp bends greatly affect the strength of a rope. Any sharp angle is a weak spot.

**Reverse ends** – Prolonged use or wear of one part of a rope will naturally decrease its effectiveness at that point. Occasionally reverse the rope, end-for-end to distribute the wear more evenly.

**Avoid sudden strain** – Rope that is strong enough under a steady strain can be broken with a sudden jerk. Care when working with rope is extremely important.

**CAUTION:** Immediately replace the rope after exposure to chemicals, such as hydrochloric acid, sulfuric acid, nitric acid, acetic acid, Oxalic acid, Phenol and Nitrobenzene. Consult the manufacturer for additional information.

**Keep the rope clean** – Foreign material (dirt, etc.) on the surface or embedded in rope acts as an abrasive on fibers. When rope becomes dirty, wash it thoroughly with commercial detergent for synthetic fibers.

**Inspection** – Inspect the rope carefully before each use. Look for broken, cut or pulled strands, worn fibers or any hardening or discoloring of portions of the rope. If any of the warning signs are present, the rope may break.

**Avoid improper storage** – Synthetic fiber ropes require no special storing conditions other than keeping them out of direct sunlight, away from the elements and extremely hot rooms. The ultraviolet rays of sunlight have a weakening affect on rope that is exposed for prolonged periods of time.

**NOTICE:** The recommendations and specifications stated herein are based on rope that has been tested and approved by Miller Fall Protection. If other synthetic or natural fiber ropes are used with this device, Miller Fall Protection disclaims liability for its installation, performance, application and use.



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