X-LINE™

PAT. PENDING

Pneumatic Lifeline System.

Instruction Manual 08

Part# 4070 30ft. (9m) **Part# 4071** 50ft. (15m)

WARNING TO USER:
Use Only Super Anchor Safety (SAS) Instruction/Specification manuals for SAS equipment. You must read this manual before you use this equipment. Improper use can result in serious injury or death. Consult SAS—07 English/Spanish manual for more information about fall protection.

X-Line Conventional Rigging.
Snaphook is attached to anchor point.

Component Specifications: X-Line

12 strand polyester dyed blue w/abrasion coating. 1/2" (12mm) diameter 11,800lb (5,352kg) strength. The 12 strand splice is terminated with an ABS eye thimble and fitted with a corrosion resistant locking snaphook rated for 5,000lb (2,267kg). The **X-Line** with integrated tubing has a finished diameter of 3/4" (18mm).

Pneumatic Tubing:

1/4" (6.5mm) polyurethane braided tubing. Max p.s.i 250lb @70^0.
Tubing Fittings: Lifeline ends have tubing leads with brass 1/4" MP reusable fittings and bend restrictors. Requires 2 quick connectors to fit your equipment.

Rope Grab:

SAS Super Grab® #4015 is 7/16" (11mm), 7,300lb (331kg) double braid nylon/polyester dyed blue. ABS ***Super Grab*** cover is designed to crack or break when an 1,800lb (816 kg) force is applied. The **X-Line** must be used with the ***Super Grab*** only. Fig.1c. Carabiner: Red anodized aluminum auto-lock type, rated for 5,000lb (22.6kn). Part #5006

Specification of Use:

The **X-Line** is designed to be used for personal fall protection by 1 person with a maximum body weight of 310lb (140kg) including tools and equipment. Tripping hazards are reduced, and air tool operation is made more efficient by the integration of pneumatic tubing into the 12 strand. The use of a shock absorber is recommended. Not approved for horizontal line use.

Component Compatibility:

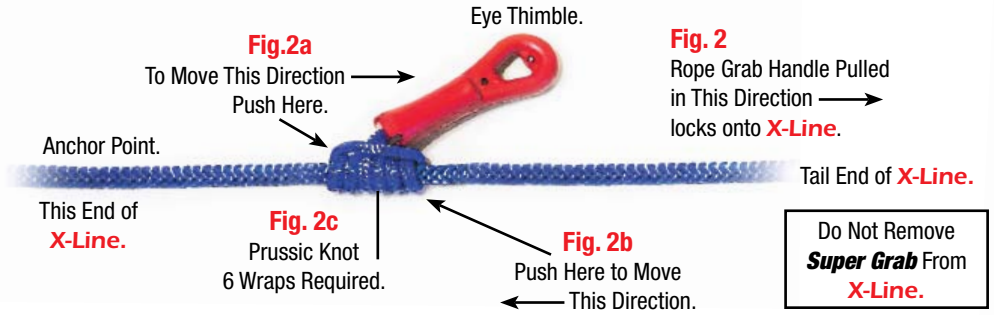
Use SAS personal fall protection equipment and anchorage devices to ensure component compatibility. Equipment manufactured by others must have component compatibility ensured by a qualified person. See OSHA definition for "qualified person".

Connecting the Lifeline to the Anchor:

The **X-Line**, ***Super Grab***, snaphook and carabiner must be inspected before each use following the guidelines in this manual. Connect the **X-Line** to an anchorage device that complies with OSHA 1926:502 or applicable industrial safety standards. See fig.3 on page 2. Avoid contact with sharp objects, edges and abrasive surfaces. Do not expose the **X-Line** or ***Super Grab*** to open flame, high heat or chemicals. A termination knot, shown In fig.1e, is required 12" (300mm) from the tail end of the **X-Line** to prevent the accidental disengagement of the ***Super Grab***. Do not tie a knot on the active part of the lifeline, the length between the anchor point and the ***Super Grab***. See fig.1b.

Rigging the Lifeline using Conventional Method:

Shown in fig.1, attach the splice end of the **X-Line** to the anchor point with the snaphook. The ***Super Grab*** is attached to the workers shock absorber or lanyard using the carabiner. Position adjustments are made by moving the ***Super Grab*** up or down the **X-Line** as shown in figs. 2a and 2b. Excess rope slack trails behind the worker.



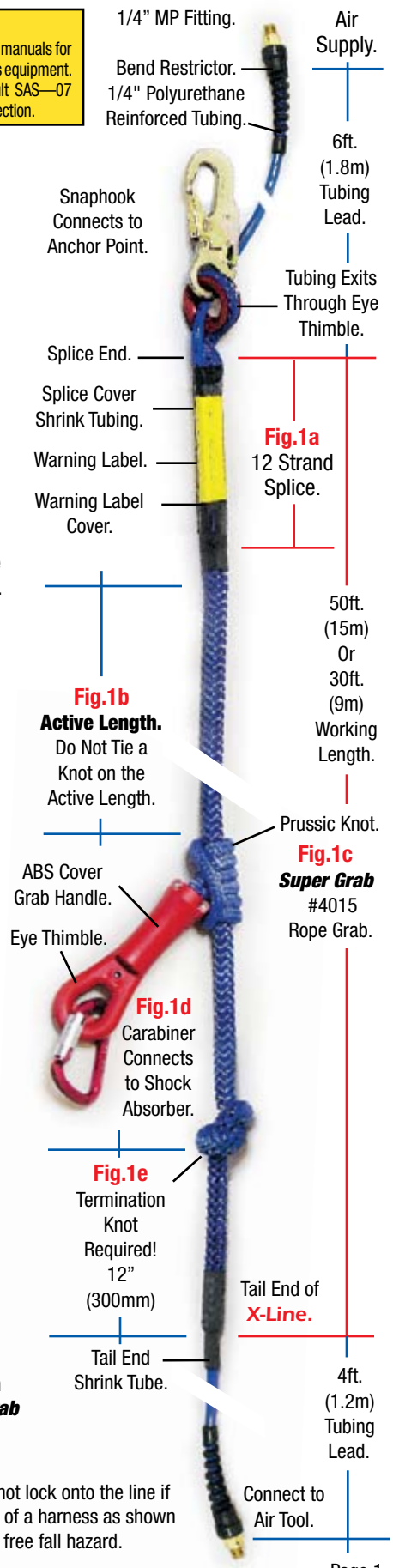
Rope Grab:

The ***Super Grab*** locks onto the **X-Line** when a force is exerted in tension. See fig.2. Adjust the grab position on the lifeline by pushing or pulling the outside wraps of the prussic knot as shown in fig.2a. and 2b. The ***Super Grab*** must have 6 wraps around the **X-Line** as shown in fig.2c.

Grab Cover/Handle:

Use only a carabiner to connect your equipment to the ***Super Grab*** as shown in fig.1d. WARNING: The grab will not lock onto the line if you are holding the prussic wraps in your hand. Do not attach the ***Super Grab*** directly to the back center D-ring of a harness as shown in fig.7c on page 2. The side or front D-ring of a harness may be used only when the worker is not exposed to a free fall hazard.

Fig.1



Mfg. **Super Anchor Safety** ◆ 8522-216th St. SE, Woodinville, WA 98072 USA ◆ Phone: 425-488-8868 ◆ www.superanchor.com

RLS (Reverse Lifeline System) **Rigging Method:**

Shown in fig.4, the **X-Line** is attached to the anchor point with the ***Super Grab*** and a carabiner. A termination knot is required between the lifeline tail end and the ***Super Grab*** as shown in fig. 4a. The snaphook end of the **X-Line** is connected to the workers lanyard or shock absorber. Position adjustments are made by moving the line through the ***Super Grab***. Excess line slack is stored above the anchor point.

SAS Anchorage Devices:

Shown in fig. 3, the RS-10, Retro-Fit, 5-K and 3-K are mounted over the sheathing onto a top chord. The Universal anchor can be mounted directly onto the sheathing and is reusable. The ARS series mounts over the top chord and has several flashing systems available for permanent installation. See our website for further information.

Connecting Hardware:

Locking type snaphooks and auto-locking type carabiners are the only types of connecting hardware approved for use with **SAS** equipment. Use **SAS** #5006 anodized aluminum or #5001 steel auto-locking carabiners.

Rope Grab Replacement:

Provided the lifeline / rope grab system has not been subjected to a fall impact, the rope grab may be replaced with #4015 Super Grab.

Required Inspections Before Each Use.

Remove from service if any of the following conditions are present:

X-Line and ***Super Grab:***

- Cuts, abrasions, pulled strands. Fig. 5b
- Eye thimble is missing or broken. Fig. 5a
- Missing warning label, shrink tube cover or tail end shrink tube. Fig. 5c
- Chemical, petroleum, or heat damage.
- Tubing leaks inside line or ends are cut off.
- Tubing does not exit eye thimble. Fig. 1
- Grab cover is cracked or broken.
- Cover fasteners are missing (require 4).
- Less than 6 wraps around **X-Line.**
- ***Super Grab*** is missing or replaced w/non-approved type rope grab.

Snaphook / Carabiner:

- Do not pass function tests, have cracks, breaks, gouges or frame is distorted or bent.

Function Tests for Snaphook / Carabiner:

The snaphook and carabiner locking gates must open only when the locking devices are activated and must remain in the locked position when in use. If any of the following function tests fail, remove from service.

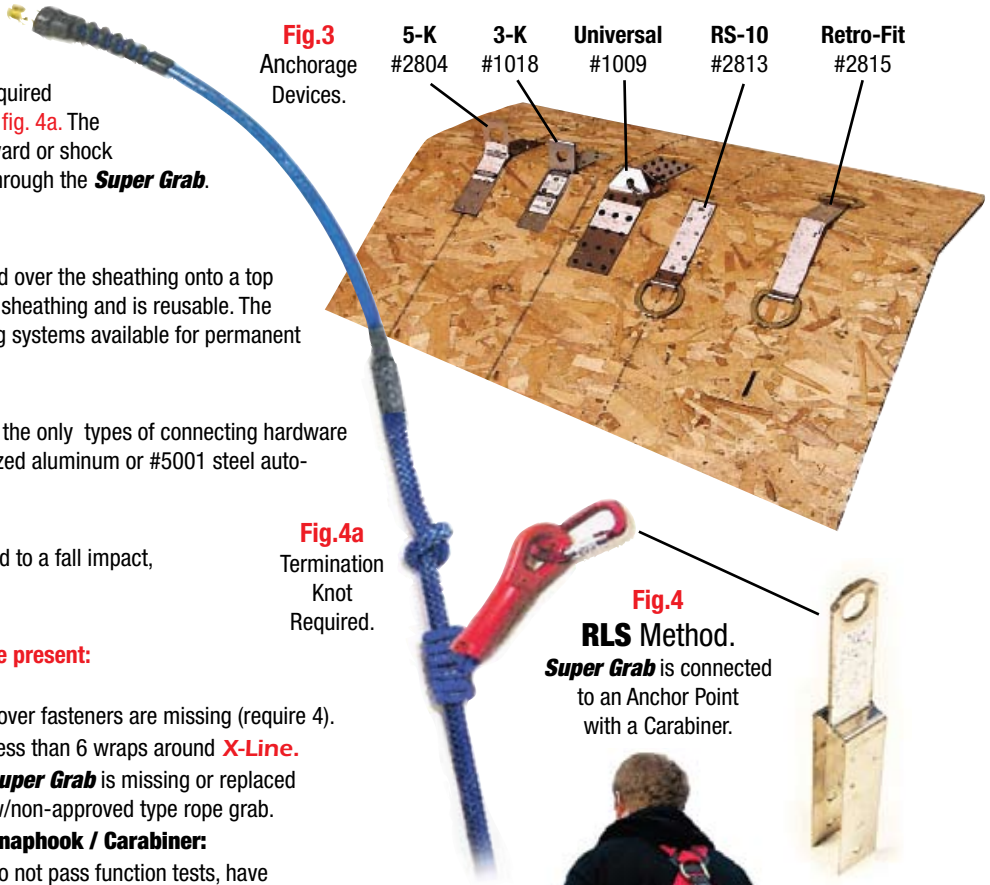


Fig.3 Anchorage Devices. 5-K #2804, 3-K #1018, Universal #1009, RS-10 #2813, Retro-Fit #2815

Fig.4a Termination Knot Required.

Fig.4 **RLS** Method. ***Super Grab*** is connected to an Anchor Point with a Carabiner.

ARS 2x8 #2801

Fig.4b **X-Line** Connects to Shock Absorber.

Fig.5 **X-Line** Inspection:

5a Eye Thimble Broken or Missing.

5b Cut or Broken Strands.

5c Shrink Tube Missing.

Fig.6 Snaphook / Carabiner Function Test.

Open Position.

Locked Position.

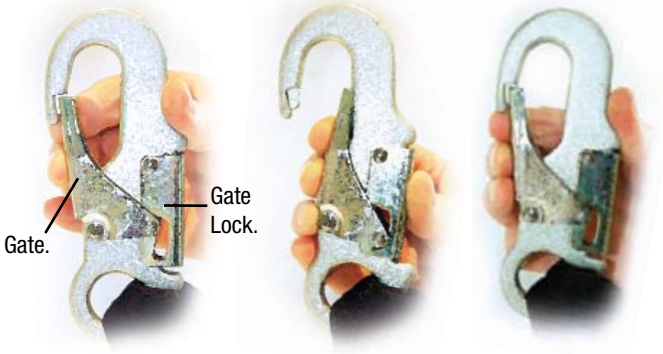


Fig.6a Pull against gate only. It should not open or move.

Fig.6b Activate locking device, pull against gate, it should open.

Fig.6c Release lock. The gate should snap back and lock.

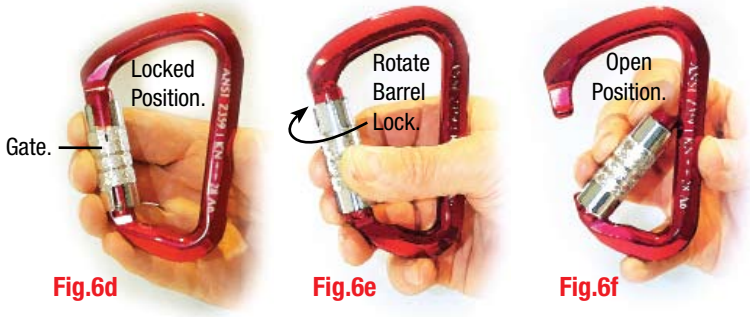
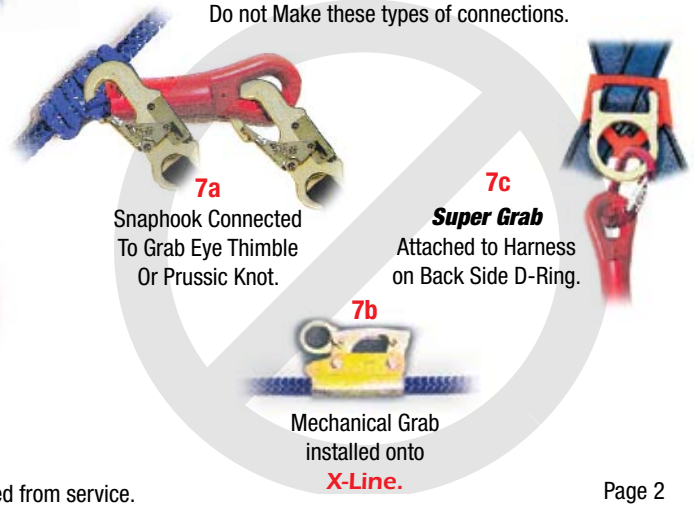


Fig.6d **Fig.6e** **Fig.6f**

Fig.7 **Non-Compatible Connections:** Do not Make these types of connections.



7a Snaphook Connected To Grab Eye Thimble Or Prussic Knot.

7b Mechanical Grab installed onto **X-Line.**

7c ***Super Grab*** Attached to Harness on Back Side D-Ring.

If a Fall Occurs:

All equipment subjected to fall impact must by OSHA rule, be permanently removed from service.