



**!WARNING TO USER!**  
 You are required to read and use the Instruction/ Specification manual supplied at the time this device was shipped. Improper use and installation can result in serious injury or death. Follow inspection requirements before each use.

## 1093 Loop Top Fall Protection Anchors Instruction/Specification Manual 2019

ENGLISH VERSION

### Material Specifications

**No. 1093 Loop Top:** Q345 cast steel.  
 Finish: Raw Uncoated or HDG(Hot Dip Galvanized).  
**No. 1093-S Loop Top:** 316 stainless steel.  
 Bare Wt. 2.7lb  
**Low Temperature:** -30°F to +130°F  
 ☒ Inspection Points pg. 2

### Strength Rating all Directions of Load

**Loop Top Casting:** Min. 10,000lb  
**Bolt attached or Field Welded:** Min. 5,000lb  
**4-1 Design Load:** 1,250lb

### Fall Protection Specifications of Use

1 person max. user wt. 340lb including tools and equipment. Use as an anchorage connector to support a suspended component/tie-back line or an active fall protection system with a maximum free fall exposure of 6ft(1.8m).

**Horizontal Lifelines (HLL):** End anchors or intermediate anchors. Consult SAS HLL and CRO manuals.

**User PPE:** Users are required to wear a full body harness (FBH), a personal energy absorber with other fall protection components that comply with current OSHA/ANSI/CSA standards.

**Window Washing:** Loop Tops used for window washing must have their structural attachment specified by the project architect, engineer or 3<sup>rd</sup> party. Stud bolt models shown at Figs.2,3 are not recommended for use for window washing.

### PPE Connectors/Compatibility

Use only Class 1 connectors that comply with current ANSI, CSA, or OSHA standards that have 3,600lb gate strengths. Lines used for window washing may be attached as specified by IWCA 1-14.1 or later versions. Loop tops mfg. prior to 2020 may not be compatible with some standard size snaphooks. See Fig.4. Loop tops with DOM dates of 20-1 and later are compatible with snaphooks that comply with the above specifications.

### Anchor Locations

Install on horizontal, vertical, sloped, and overhead surfaces. Anchor locations should be specified by the project architect, engineer or SAS Plan Service. Typical spacing is 20ft or less between anchor points.

### Attachment Bolt Specifications

End users supplying their own attachment bolts are required to use certified 5/8" d. grade 8, 18-8sst or A-307 threaded rod with the same grade lock nuts and flat washers. Bolts must penetrate a min. of 1/8" through the lock nut's exposed face. See Figs.2,7,8.

### Loop Top Installation

**Wood Substrates:** Install through plywood with a min. thickness of 3/4". Plywood substrates less than 3/4" or any thickness of OSB require a 3/4" plywood backer board as shown at Fig.7. Stud Bolt models (SBS) have a maximum substrate thickness of 1-1/2". Thicker substrates use bolt through models as shown at Fig.8.

### Concrete Embedment

Poured in place or wedge bolt installation must be specified by the project architect or engineer. Bolt through concrete may require a 6x6x3/8" backer plate.

### Field Welded

Must be performed by a certified welder and attached to a structural steel member as shown at Fig.3, with a min. thickness of 1/4" or as specified by the project architect or engineer.

### Structural Support

The anchor attachment point must be structurally capable of supporting 5,000lb or 2x the intended fall protection load per OSHA 1910.140(13). 3<sup>rd</sup> party structural engineering is available from SAS upon request.

For example: 1 person w/energy absorber maximum arrest force of 1,800lb x 2 = 3,600lb attachment point.

### Compliance

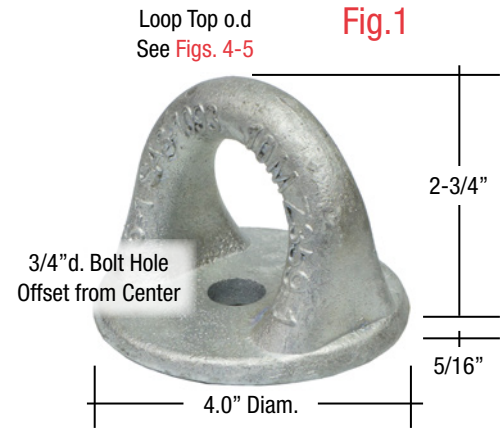
1093/S are 3<sup>rd</sup> party certified to comply with OSHA 1926:502/1910.140(13), ANSI/IWCA 1-14.1/CAL-OSHA title 8.

**Warning! Stud bolt loop tops are not rated for window washing or fall restraint use.**

**Proof Loading:** Maximum proof loading without any permanent deformation 5,000lb(23.5kn).

### Bolt Through Models

Specified Use: Designed for attachment through steel, wood or concrete substrates with 5/8" d. bolts.



### 5/8" d. Stud Bolt Attached

Specified Use: Steel and wood substrates with a max. thickness of 1-1/2".

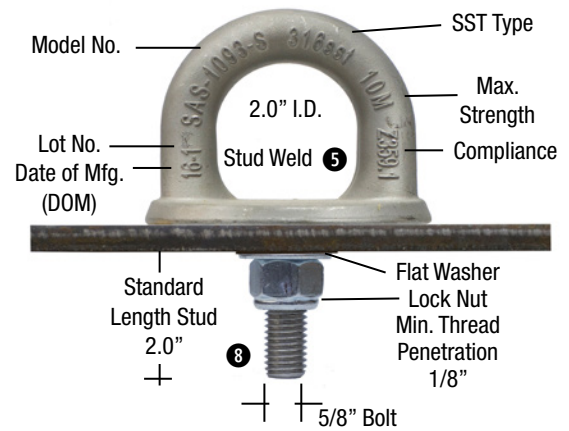


Fig.2.1



Fig.3

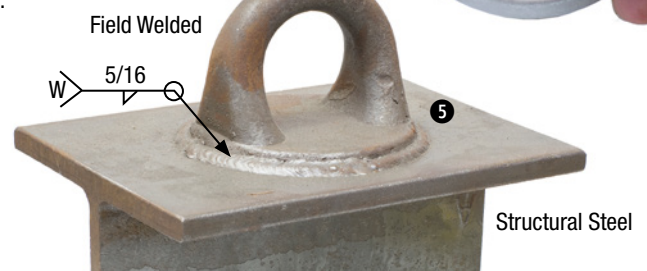


Table 1: Part No./ Model Types:

Type	Field Weld	△ Bolt Attached	2" Stud Bolt
Raw	1093-R	1093-RB	1093-RBS
HDG	1093-G	1093-GB	1093-GBS
316sst	1093-S	1093-SB	1093-SBS

△ User supplied attachment bolt

### Loop Top Compatibility w/Pre-20-1 DOM Date

Carabiners, Rebarhooks and some models of snaphooks. Coupler 1086-S is required for all HLL accessories shown at Figs. 6.1-6.3.



Fig. 4

### Loop Top Compatibility w/20-1 DOM Date

Carabiners, Snaphooks, Rebarhooks and HLL accessories shown in Figs. 6.2-6.3. 1086-S Coupler is required for wire rope eye thimbles shown at Fig. 6.1.



Fig. 5

### Wood Substrates

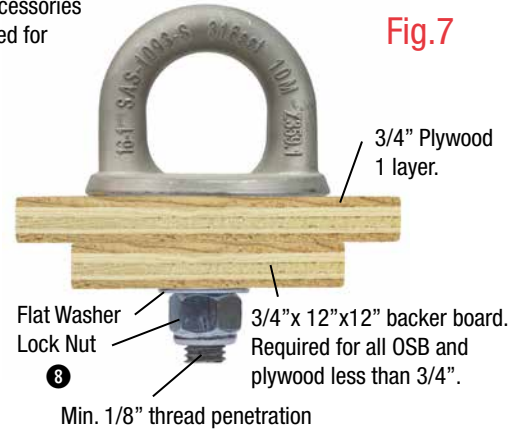


Fig. 7

### Coupler No. 1086-S

11 gauge 316 stainless steel designed for use with all 1093 model Loop Tops.

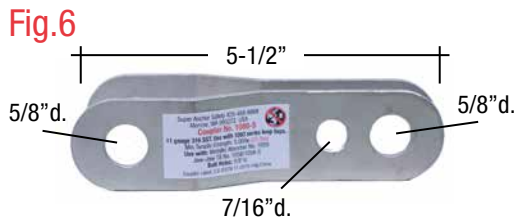


Fig. 6

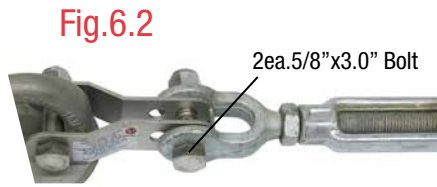


Fig. 6.2

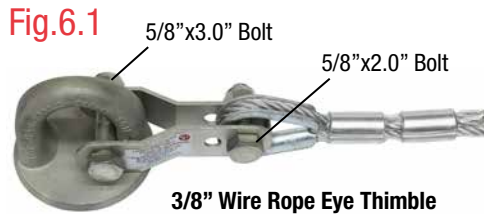


Fig. 6.1



Fig. 6.3



Fig. 8

### Daily and Annual Inspections

Loop Tops should be inspected prior to each use and inspected annually by a qualified or "competent" person. Record inspections on the inspection label. The following inspection points are intended as a guideline only. Safety personnel are responsible for drafting their own fall protection inspection and maintenance program.

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

#### Primary Inspection Points

- 1 Subjected to a free fall or other force.
- 2 Obvious damage to any component.
- 3 Has not been inspected annually.
- 4 Fails to pass inspection.

=Remove From Service    =Perform Maintenance

- 5 Loop Top is deformed or damaged. Field welds or stud welds are cracked.
- 6 Red rust or oxidation is present. Clean the surface and coat with zinc spray or exterior grade paint.
- 7 Labels are damaged, unreadable or missing. Replace labels.
- 8 Stud bolts/nuts are damaged.  Through bolts are damaged replace with new.

### Fall Protection Plan

The following SAS manuals contain important information about fall protection systems and guidelines to guard against fall hazards.

- 20pg SAS Fall Protection Manual. CRA-CRO Manuals
- SRL, Horizontal Lifeline and Personal Lifeline manuals.

**WARNING!** A plan for prompt rescue in the event of a free fall is required to prevent suspension trauma that may result in serious injury or death.

### Product I.D (PID) and Inspection Labels

PID/Inspection labels are required to be attached to the loop top. Replacement labels are supplied upon request.

#### Bolt Through Label

Fig. 9



7 3

#### Stud Bolt Label

Fig. 9.1



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#### Tapped Bolt Label Permanent Field Welded

Fig. 9.2



7 3

#### Zip Tie Option Temporary Field Welded

Fig. 9.3



7 3