



# **CLAMP WITH FALL ARREST EQUIPMENT**

## **SSCC130**

### **Operation Manual**

This operation manual explains the basic operation and handling of the clamps. Please read this manual carefully before use and observe the precautions for safe operation.

**SUPER TOOL CO., LTD.**





brand CLAMP WITH FALL ARREST EQUIPMENT is lifting equipment to prevent a person from falling, which have been developed for safety when working at high places such as iron and steel, bridges, shipbuilding, civil engineering and construction. Please be sure to use this clamp together with a fall arrest equipment (safety belt).

## **Proper use**

Operate lifting clamps after carefully reading and understanding this instruction manual for enhancing efficiency and safety of operation.

## **Special considerations on safety**

We conduct a pulling test with a load three times (or twice) of rated capacity and a manufacturing serial number is marked on each product, thus directing a special attention to safety.

## ■ Features

1. Clamping is structured with Cam and Pad against detaching by shaking or loosening of rope.
2. In proportion to the weight of the load, Cam tilts and larger surface contact gives stronger grip and larger clamping force.
3. Easy handling because of a simple structure with its compactness and light weight.
4. Main body is a special alloy steel of mold forged with optimal heat treatment and thus, robust and durable.

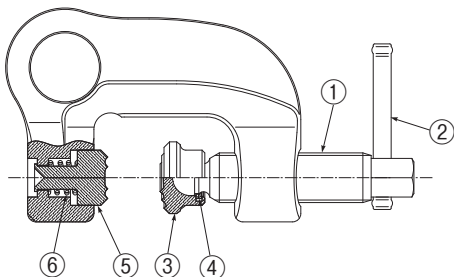
## ■ Specification

Maximum equipped weight (kg)	Clamp Range (mm)	Inside of lifting ring (mm)	Net weight (g)
※130	6-28	25	680

※ Equipped weight means the total weight of your body and all of your equipment.

※ Use Type 1 or Type 2 of standard fall arrest equipment.

## REPLACEMENT PARTS AND ASSEMBLIES



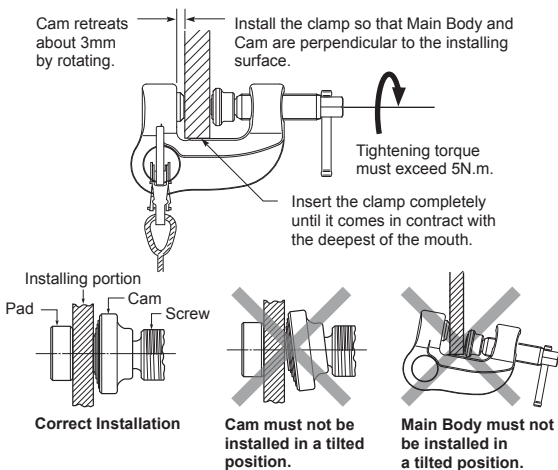
Part No.	Part Name	Item No.	Qty(pc)
1	Screw	SSCR130	1
2	Handle		1
3	Cam	SST130	1
4	Retaining Ring		2
5	Pad	—	1
6	Spring		1

※ Periodic lubrication is required at the spherical section of Cam and the sliding section of Screw.

## ■ How to use

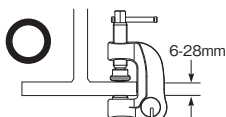
### 1. OPERATION METHOD

- 1) The screw tightens when turned clockwise, and loosens when turned counterclockwise. (Right screw)
- 2) When installing the clamp, insert it until the end face of the installing portion comes in contact with the deepest of the mouth, and install it so that Main Body and Cam are perpendicular to the installing surface.
- 3) Tightening torque of Screw must exceed 5N.m (about 50kgf.cm). Pad retreats about 3mm by tightening. (loosening prevention mechanism)
- 4) During the operation, special attention must be given to prevent the rope from loosening by its unintended contract with rope or any other objects.

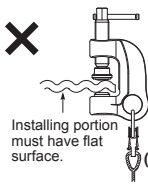


## 2. SHAPE AND DIMENSION OF INSTALLING PORTION

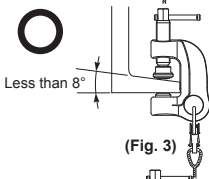
- The thickness of the installing portion must be in the range of 6-28 mm. (Fig. 1)
- Installing portion must have flat surface. (Fig. 2)
- The slope of the installing portion must be less than 8 degrees. (Fig. 3)  
(Even if the slope is less than 8 degrees, it cannot be used for an installing portion with a vertical slope as shown in the figure below.) (Fig. 4)
- The material of the installing portion must be steel. (Cannot be used for wood, resin, glass, etc.) (Fig. 5)
- The installing portion must not be quench-hardened. (Cannot be used the material with rockwell hardness of more than 30HRC.)



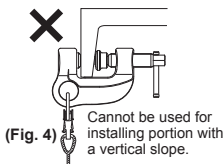
(Fig. 1)



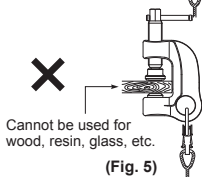
(Fig. 2)



(Fig. 3)



(Fig. 4)



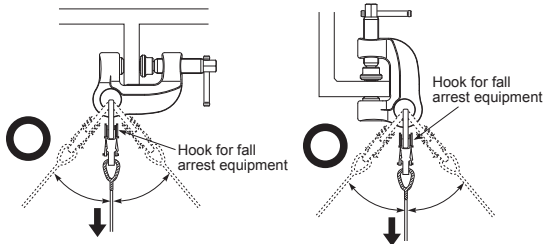
(Fig. 5)

### Caution

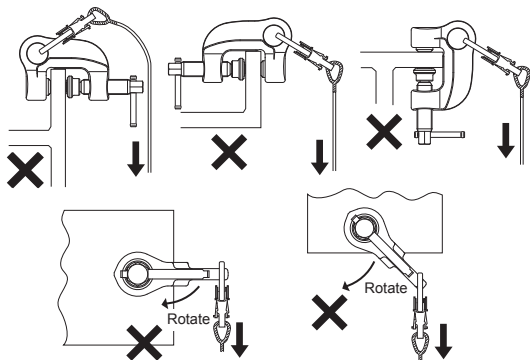
When installing the clamp, be sure that the installing portion is strong enough to withstand the impact of a possible falling accident. The installing portion may get deformed or damaged, depending on the structure or shape of the object, even when it is used in the effective thickness range of the plate.

### 3. HOW TO CLAMP

- As shown in the figure below, clamp in a direction that the hook for fall arrest equipment moves smoothly.



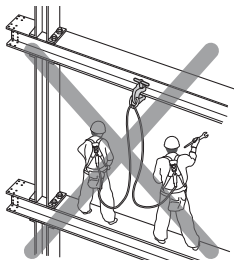
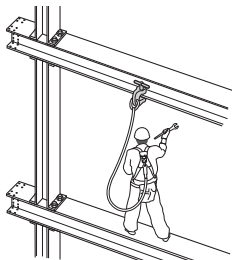
- As shown in the figure below, clamp in a direction that the hook for fall arrest equipment and rope do not come into contact with the outer circumference of Main Body, screws, handles, etc. Also, do not clamp (sideways or diagonally) in such a way that it rotates when a load is applied in the case of falling or other accidents.





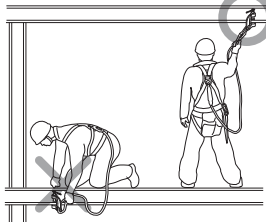
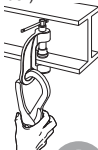
## 4. OTHER CAUTIONS

- This clamp with fall arrest equipment is for only one person's use. Never be used or shared for more than one person.

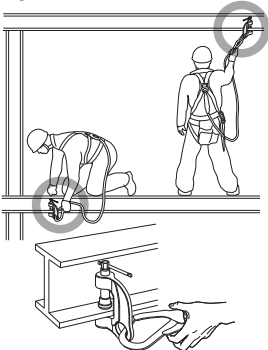


- The clamping position of this clamp must match the height at which the hook is to be hung, as selected based on the height of the work place.

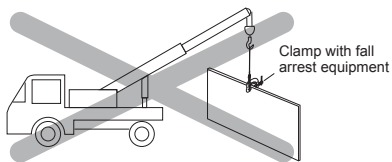
Type 1 Lanyard  
(Type 1 Shock Absorber)  
At waist height or higher



Type 2 Lanyard  
(Type 2 Shock Absorber)  
Higher than waist and below the feet



- This clamp must not be used for any operations of pulling or lifting of steel material.



- Do not use the clamp which had an impact load even once before.

## 5. DISASSEMBLING AND ASSEMBLING OF PARTS

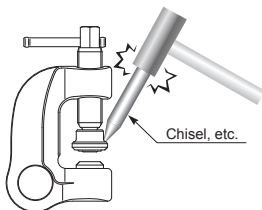
### ① How to disassemble

#### Cam • Screw

Tap the part shown in the figure below with a chisel and hammer or other tool to release the cam from the screw.

#### Note:

**Once removed, the cam and screw cannot be reused. Be sure to replace them with new ones.**



### ② How to assemble

#### Cam • Screw

Apply grease to the spherical holes of Cam. Install the screw into Main Body and press Cam with the retaining ring attached into the spherical part at the end of Screw.

**※ Replacement of Pad and Spring should be done by the manufacturer's repair.**

## ■ CAUTION

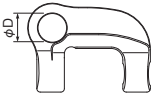
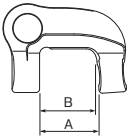
- ◆ Use within the maximum capacity.
- ◆ Use within the clamp thickness range.
- ◆ Do not use in any objects other than steel materials.
- ◆ Do not use for a hard (30 HRC or higher) load.
- ◆ It cannot be used for a load with a taper down direction.
- ◆ Multiple steel objects in a pile cannot be clamped together.
- ◆ Before using the product, be sure to check for clogging and wear of the teeth of Cam, Screw and any other parts.
- ◆ Do not modify. Heating, processing, etc. can significantly reduce the quality (strength).
- ◆ Do not use the clamp which had an impact load even once before.

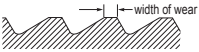
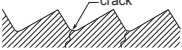
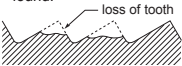
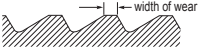
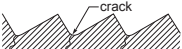
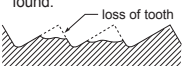
## ■ DAILY INSPECTION

Conduct daily checks and maintenance to prevent the loss of safety and efficiency.

1. Check that there are no scratches or cracks in Main body, Cam, or Screw.
2. Check the operation and lubrication condition of each part are good.
3. Check for wear, defects, and clogging of the teeth of Cam and Pad,
4. Refer to inspection standards.

# INSPECTION STANDARDS

Item	Inspection method	Limit of use	Remedy				
<p><b>Main Body</b></p>	<ul style="list-style-type: none"> <li>• Visually check or use color dyes to find cracks.</li> <li>• Visually check or measure for wear or deformation of holes of Shackle.</li> </ul>	<ul style="list-style-type: none"> <li>• When found visually.</li> <li>• When the diameter of any one part of circumference of any hole exceeds the respective size in the table below.</li> </ul>  <table border="1" data-bbox="533 639 771 708"> <tr> <td></td> <td>D</td> </tr> <tr> <td>Diameter (mm)</td> <td>26</td> </tr> </table>		D	Diameter (mm)	26	<p>Discard</p>
		D					
Diameter (mm)	26						
<ul style="list-style-type: none"> <li>• Measure for wear of thread of Screw.</li> <li>• Measure the jaw opening.</li> </ul>	<ul style="list-style-type: none"> <li>• When the displacement with Screw exceeds 2mm.</li> <li>• When the difference of "A" and "B" exceeds 2mm or more against 100mm in depth (2mm).</li> </ul>  <ul style="list-style-type: none"> <li>• When the displacement of the center of Screw and Pad exceeds 2mm.</li> <li>• When applied an impact load even once before.</li> </ul>						

Item	Inspection method	Limit of use	Remedy
<b>Cam</b>	<ul style="list-style-type: none"> <li>● Visually check or measure the degree of wear.</li> <li>● Visually check or use color dyes to find cracks at the bottom of cam teeth.</li> <li>● Visually check for broken cam teeth.</li> </ul>	<ul style="list-style-type: none"> <li>● When the degree of wear exceeds 0.5mm.  </li> <li>● When found visually.  </li> <li>● When any broken tooth is found.  </li> </ul>	Replace
<b>Retaining ring</b>	<ul style="list-style-type: none"> <li>● Visually check to find twisting or deformation.</li> </ul>	<ul style="list-style-type: none"> <li>● When the cam does not move smoothly or comes off easily due to deformation, etc.</li> </ul>	Replace
<b>Pad</b>	<ul style="list-style-type: none"> <li>● Visually check or measure the degree of wear.</li> <li>● Visually check or use color dyes to find cracks at the bottom of cam teeth.</li> <li>● Visually check for broken cam teeth.</li> </ul>	<ul style="list-style-type: none"> <li>● When the degree of wear exceeds 0.5mm.  </li> <li>● When found visually.  </li> <li>● When any broken tooth is found.  </li> </ul>	Manufacturer's repair

Item	Inspection method	Limit of use	Remedy
<b>Spring</b>	<ul style="list-style-type: none"> <li>● Visually check if the repulsive power is appropriate when inserting Pad.</li> </ul>	<ul style="list-style-type: none"> <li>● When the resilience becomes weak and Pad does not operate smoothly.</li> </ul>	<p>Manu- facturer's repair</p>
<b>Screw</b>	<ul style="list-style-type: none"> <li>● Visually check or use color dyes to find cracks.</li> <li>● Visually check for bending or scratches.</li> <li>● Measure for wear of thread of screw.</li> </ul>	<ul style="list-style-type: none"> <li>● When found visually.</li> <li>● When the displacement of the center of Screw exceeds 2mm.</li> <li>● When the rotation is not smooth.</li> <li>● When the diameter of any one part of circumference of Spring becomes less than 17.3mm.</li> </ul>	<p>Replace</p>
<b>Handle</b>	<ul style="list-style-type: none"> <li>● Check for deformation or bending.</li> </ul>	<ul style="list-style-type: none"> <li>● When normal fastening is no longer possible.</li> </ul>	<p>Replace</p>



