SAFETY BELT CLAMP
ALUMINUM ALLOY BODY

SSCC160A

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.

SUPERTOOL

For Proper Handling of Safety Belt Clamp

"Super" Safety Belt Clamp has been developed for safety use at a high location in various steel structures, bridges, shipbuilding, civil engineering and building construction for preventing an operator from an accidental falling of himself.
Be sure to use the clamp along with the safety belt.

Proper use of Safety Belt Clamp

You are kindly asked to operate the Safety Belt Clamp after careful reading and understanding of this instruction manual for the purpose of enhancing safety and efficiency at work.

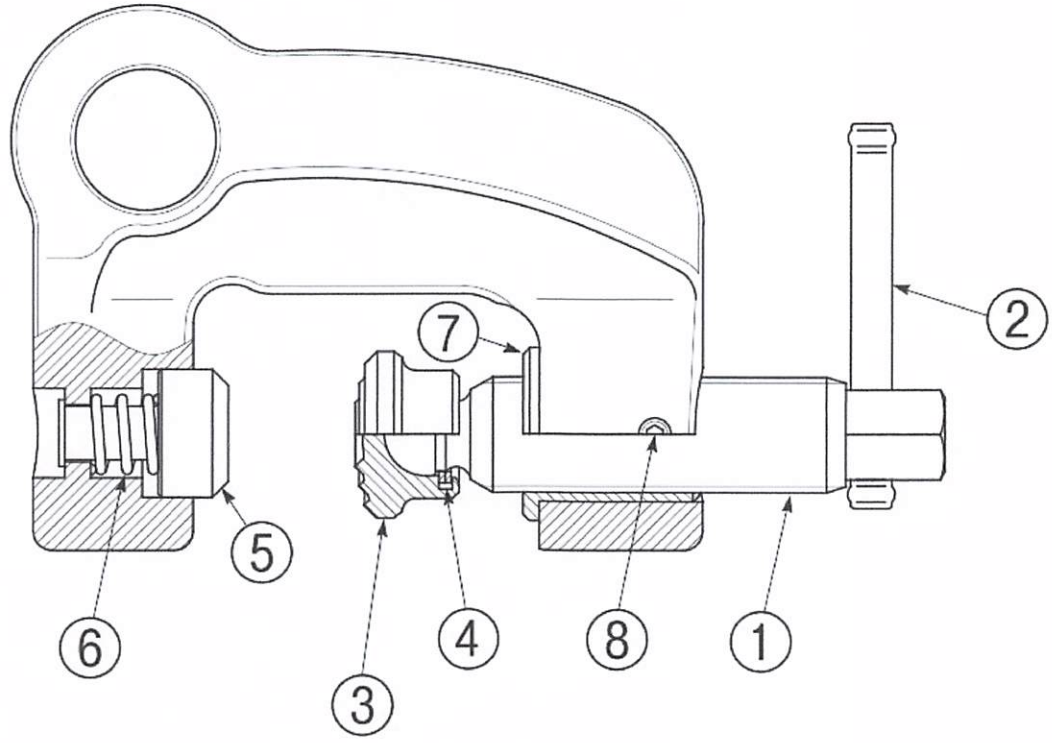
■ Features

1. Clamping is structured with cam and pad against detaching by shaking or loosening of rope.
2. Pad is equipped with a spring for anti-loosening screw, which absorbs vibration from the operation of an electric drill or impact wrench.
3. In proportion to the weight of the load, circular cam tilts and larger surface contact will give stronger grip and larger clamping force.
4. Easy handling because of a simple structure with its compactness and light weight.
5. Main body is a special alloy steel of mold forged with optimal heat treatment and thus, robust and durable.

■ Specification

Maximum load (kg)	Clamp Range (mm)	Inside of lifting ring (mm)	Net weight (g)
85	6~28	22	500

■ REPLACEMENT PARTS AND FITTINGS



PARTS NO.	PARTS NAME	ITEM NO.	QTY.
1	SCREW	SSCR160A	1
2	HANDLE		1
3	CAM	SST160A	1
4	RETAINING RING		2
5	PAD	SSP160A	1
6	SPRING		1
7	SLEEVE	SSN160A	1
8	SET SCREW		2

※Periodic lubrication is needed for circular cam and screw.

1. HOW TO USE

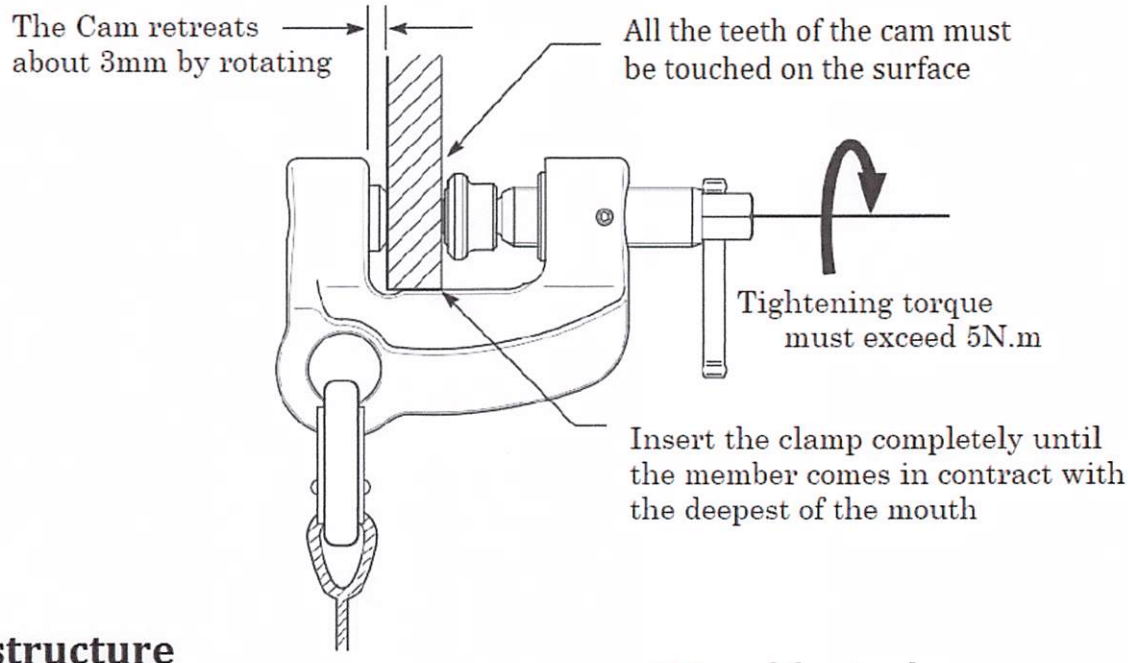
1. OPERATION METHOD

① The screw tightens when turned clockwise, and loosens when turned counterclockwise. (Right screw)

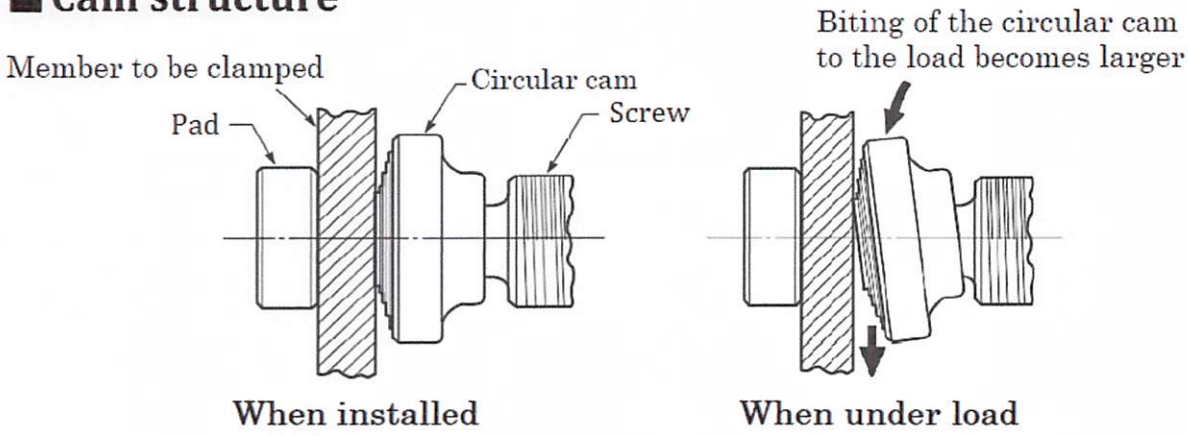
② When installing the safety belt clamp, insert a lifting load completely until it comes in contract with the deepest part of the mouth of main body and set in a manner that the entire inner circumferential teeth of the cam touch the surface of the load.

③ Tightening torque of the screw must exceed 5N.m (about 50kgf.cm). The circular cam 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.

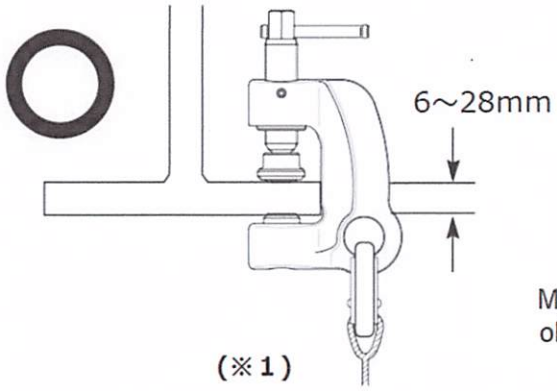


■ Cam structure

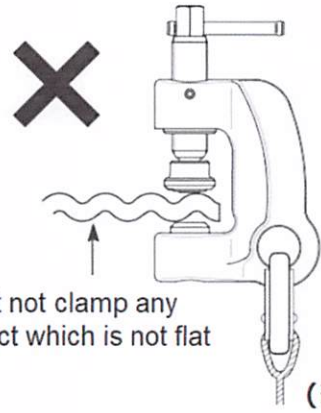


2. SHAPE AND DIMENSION OF THE CLAMPING POSITIONS

- The object to be clamped must have thickness between 6~28mm. (※1)
- The object to be clamped must have flat surface. (※2)
- Clamp cannot be used for the object that has a wedge shape over 8 degrees. (※3)
  (For vertical way of using this clamp, it cannot be used to any wedge shape of object even if it is under 8 degrees)(※4)
- The object to be clamped must be made of steel or iron.
  (Cannot clamp any object materials such as wood, resin or glass)(※5)
- The object to be clamped must not have quench processing.
  (Cannot clamp any hard object harder than 30HRC of Rockwell hardness.)



(※1)



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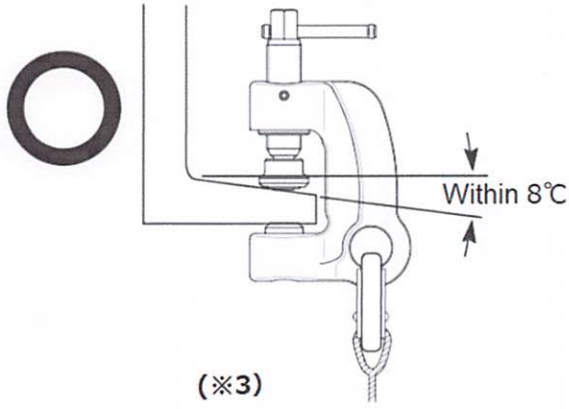

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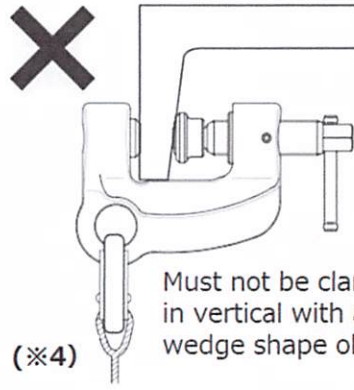

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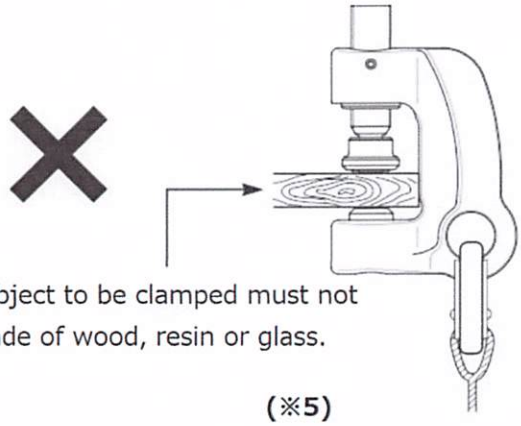


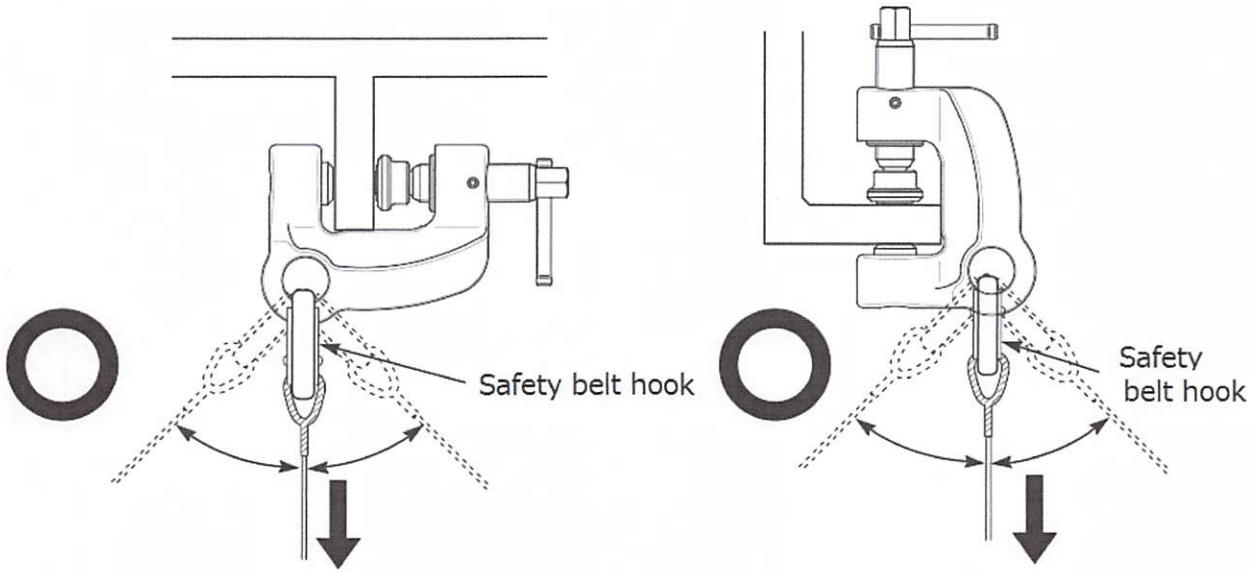
(※5)

Caution

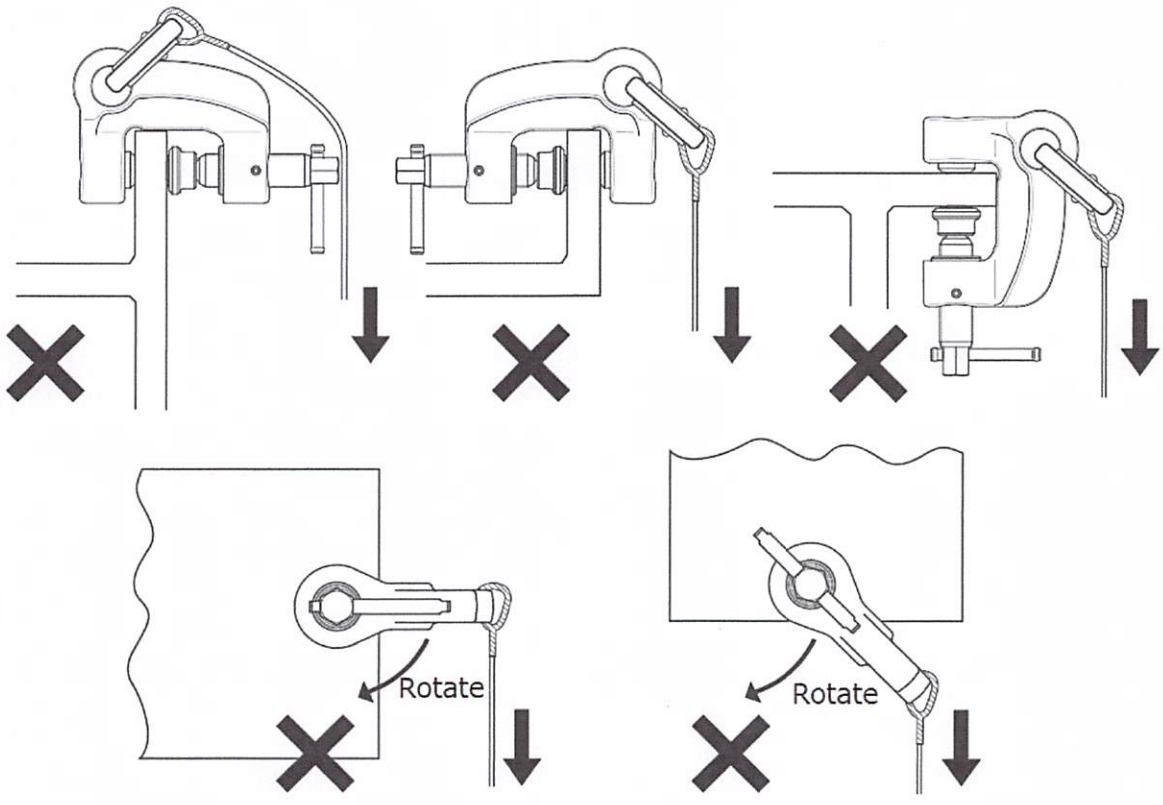
When installing the clamp, be sure that the object to be clamped is strong enough to withstand the impact of a possible falling accident. The object to be clamped may get deformed or damaged, depending on the structure or shape of the object, even when it is used in the effective thickness range of the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

3. HOW TO CLAMP

Clamp with enough operational space for the flexible move of the safety belt hook as following instruction images below.

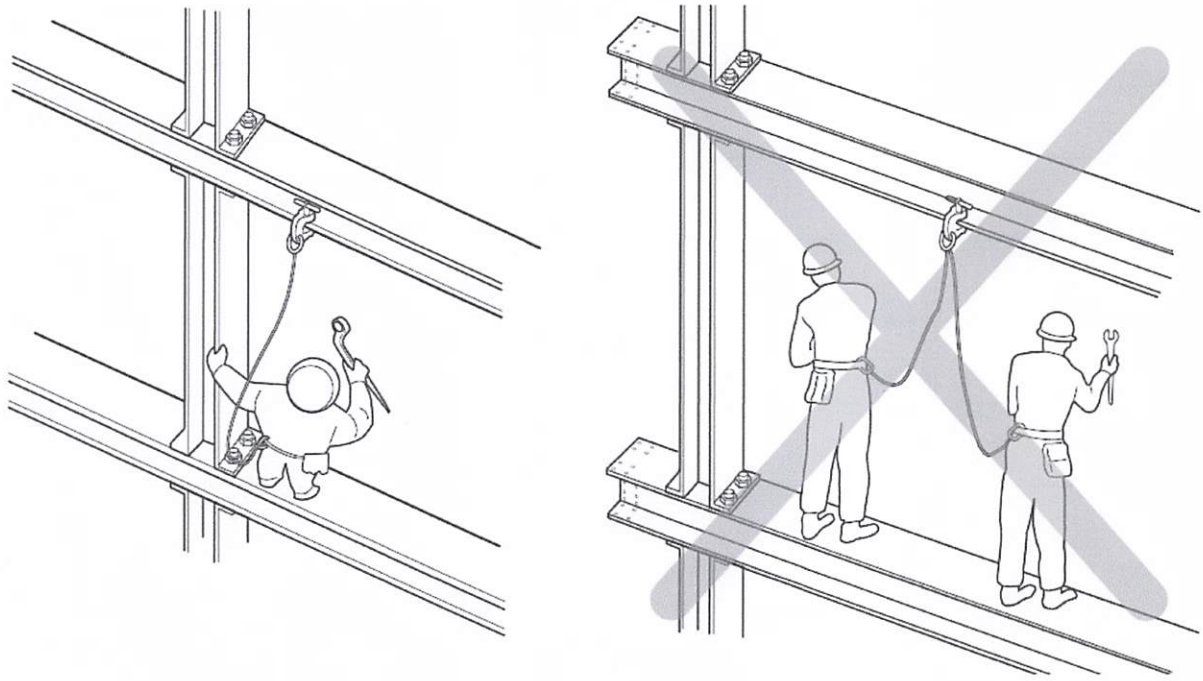


As following instruction images, the safety belt hook or rope must not be touched with the main body or screw handle. Also please do not let the clamp get rotated by the impact in any wrong way of using.

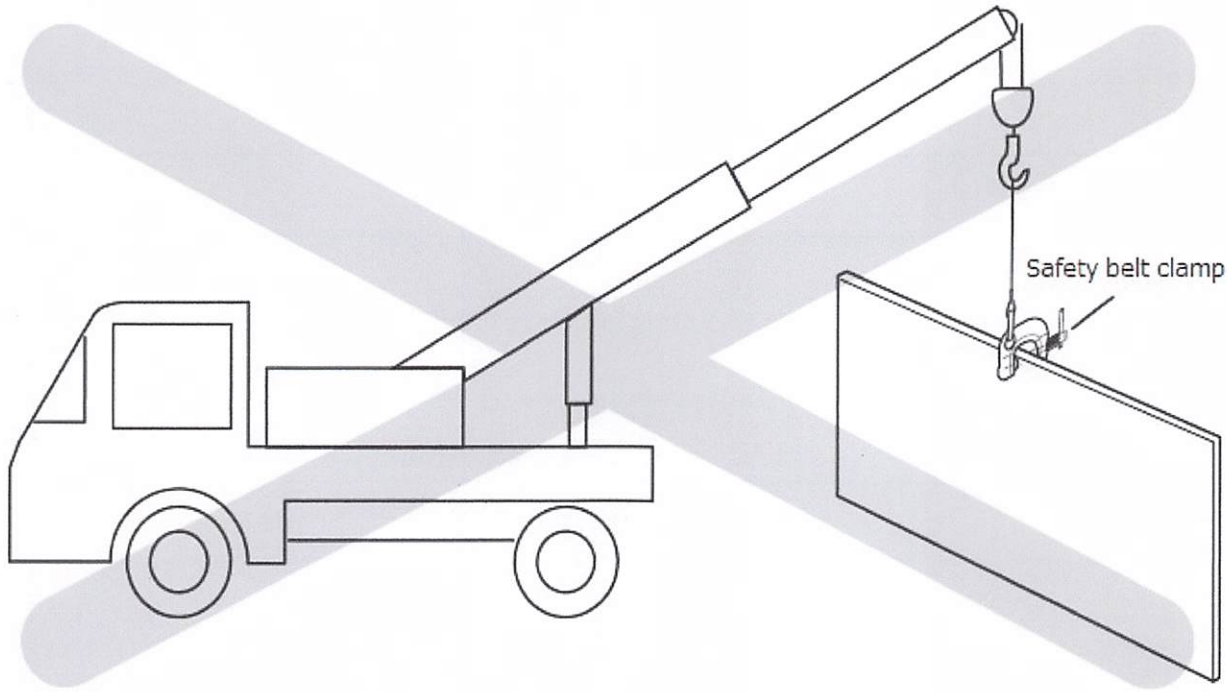


4. OTHER CAUTIONS

- This safety belt clamp is for only one person's use. Must not be used or shared for more than one person.



- This safety belt clamp must not be used for any operations of pulling or lifting.



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

5. DISASSEMBLING AND ASSEMBLING OF PARTS

① How to disassemble

1) CAM

Turn the screw counterclockwise until the cam comes in contract with the main body. Turn the screw even stronger, then cam will come out.

2) PAD · SPRING

Place a punch (around 8mm) behind the pad and hit the pad strongly with the Hummer and remove the spring with the pad.

3) SLEEVE

Remove the hex hole head screw from the both side of screw part of the body, and remove the sleeve.

② How to assemble

1) SLEEVE

Please do the reverse order of disassemble method.

2) CAM

Place the 2 pieces of retaining rings on the slot of spherical hole of the cam, and apply some grease on the hole. Push the screw into the main body, and press the cam with the retaining ring into the spherical part of the screw head.

3) PAD · SPRING

Insert the pad with spring into the hole of the main body, place a mild steel plate between the pad and the cam, tighten the screw, and clamp. Apply a punch (around 15mm) at the back of the pad, and hit the pad with a hammer to caulking. After caulking, loosen the screw and check whether the pad moves back and forth smoothly under the force of the spring.

■ 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 the circular cam, the screw and any other parts.

◆ Do not modify. Heating, processing, etc. can significantly reduce the quality (strength).

■ 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 the body, circular cam, or screw.
2. Check the operation and lubrication condition of each part is good.
3. Check for wear, defects, and clogging of the teeth of the circular cam and the pad.

■ INSPECTION STANDARDS

Category	Inspection points	Inspecting Method / Limit of use	Counter - measures
Main body	**Cracks**	When found visually checked or by color dyes.	Dispose
	Jaw opening	When the jaw is opened more than 1mm comparing to the brand new dimension.	
Pad · Cam	**Wear of teeth**	When the amount of wear exceeds 0.5mm.	Replace
	Broken teeth, cracks	When found visually checked or by color dyes.	
Spring	**Repulsive force**	When the spring doesn't push back properly and pad doesn't work smoothly.	Replace
Retaining rings (2pcs/set)	**Deformation**	When the cam is removed easily or doesn't work smoothly because of the deformation of the rings.	Replace
Screw · Sleeve	**Wear or damage of screw thread**	When the rattling of the screw exceeds 2mm.	Replace
	Cracks	When the crack is found by visually checked or color dyes.	
	Deformation or twist	When the rotation is not smooth. When the decentering of the screw center exceeds 2mm.	
Handle	**Deformation or twist**	When the handle cannot be tightened properly.	Replace

'19.1'