

**ELEPHANT**  
LIFTING PRODUCTS™

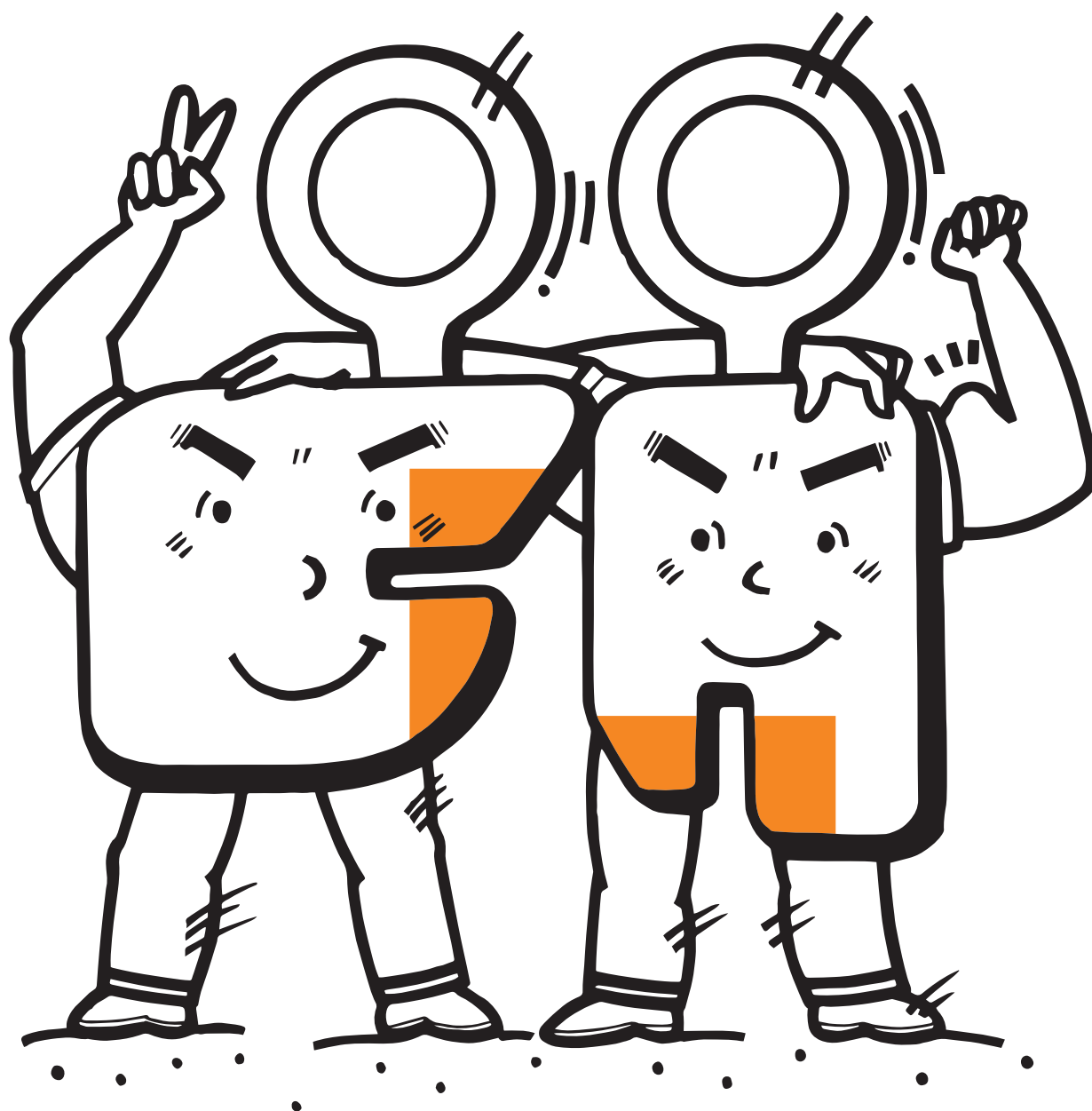


**ELEPHANT CHAIN BLOCK CO, LTD.**

# CLAMP

For VA, VAZ, VB, VBZ, and HA

**INSTRUCTIONS FOR USE**

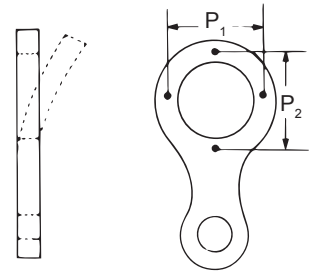


Read this manual before  
using the clamp.

# PERIODICAL INSPECTION STANDARDS

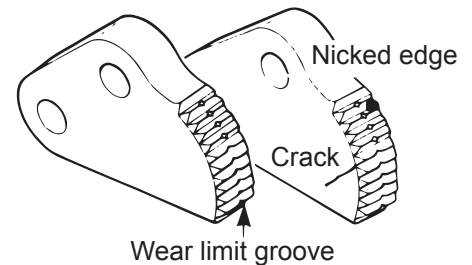
## ■ Loop hole

- When the difference of punched mark distance  $P_1$  and  $P_2$  is more than 2mm, the loop hole must be replaced with a new one.
- When the clamp is under overload condition, loop hole will be deformed first.
- Replace the loop hole which is deformed or bent with a new one.



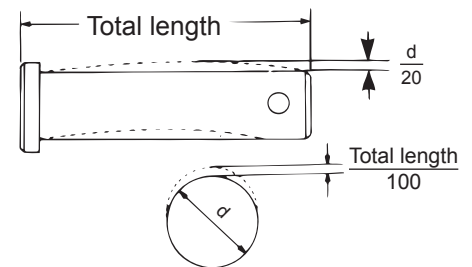
## ■ Cam and Jaw

- Cam and jaw have wear limit grooves, and when even a single one of them is found missing, replace them with new ones.
- When there is any single crack or nicked edge, replace them with new ones.



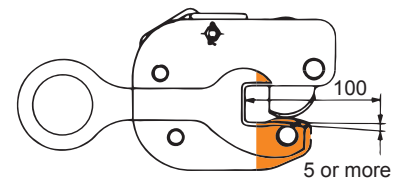
## ■ Pins and Screws

- When the curve of pin attains 1/100 of the total length, discard the pin.
- When the pin hole wear reaches more than one 1/20, discard the pin.



## ■ Main Body

- For the total depth of 100mm, when the front edge is opened by more than 5mm, do not use the clamp.
- Do not use the clamp when the main body is cracked or deformed.



## ■ Spring

- When the clamp is locked, if the spring is found to be slack, replace the spring with a new one.
- When the spring is found to be broken or rusty, replace it with a new one.

★ The correct moment to effectuate the periodical maintenance differs on the using situation of the clamp, but determine an appropriate interval and carry out periodical inspection without fail.

# MAINTENANCE

1. Check without fail for any abnormality after the use, and if found any, repair or stop using the clamp.
2. If any obstruction is found in the cam and/or jaw, wipe it clean with a brush or similar tool.
3. Store the clamp without fail indoors and avoid leaving yet outdoors.
4. When any abnormalities are found and those that would cause danger if continued using them, post a sign to the effect of "DANGER - DON'T USE THIS", and repair or discard it immediately.
5. Keep the clamps grouping them accordingly to their capacity, and make their capacities perceivable at a glance.

## CERTIFICATE OF INSPECTION

This is to certify that the product mentioned herein below has passed a rigorous quality inspection according to the standards established in our Company.

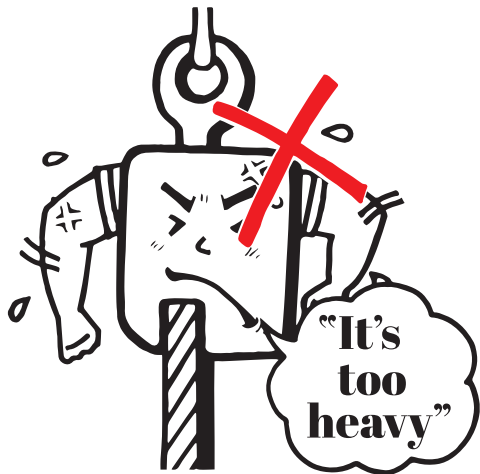
Date of Inspection:

Type and model of machine		Capacity		Serial No.		Inspected by:

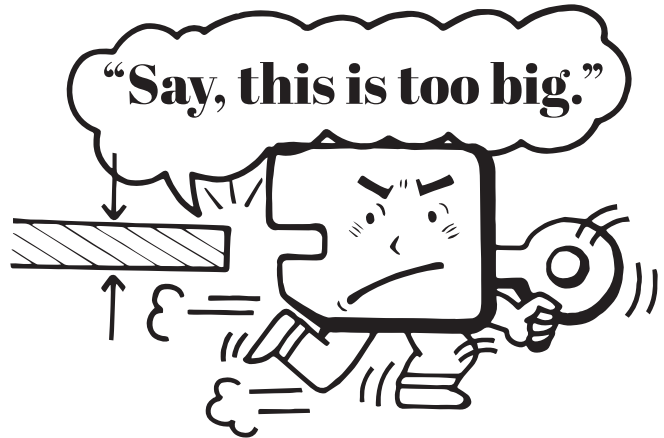
**ELEPHANT CHAIN BLOCK CO, LTD.**

# CLAMP

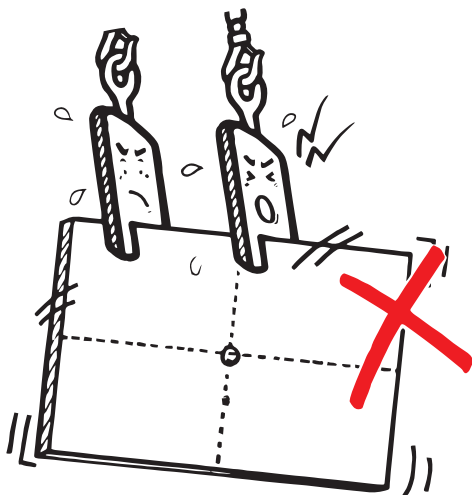
## INSTRUCTIONS FOR USE



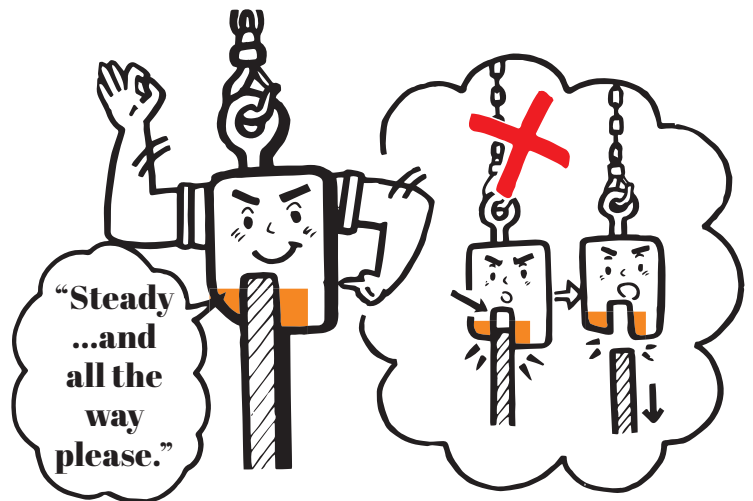
- Check for the weight of lifting material and do not use the clamp for materials surpassing the clamp capacity (indicated tonnage).



- Do not try to lift any loads out of clamping range.
- Take a particular care when lifting a load having a thickness less than one fourth of clamping range. The load maybe torn away by the clamp.



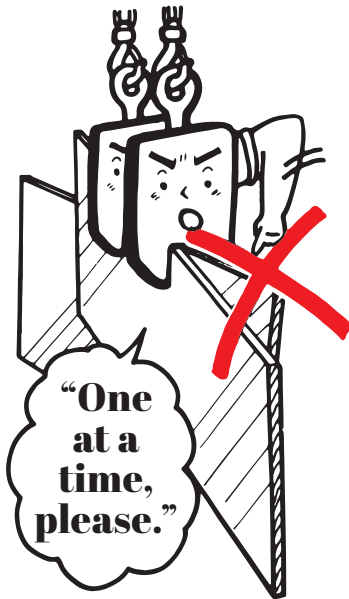
- Take care of clamping position of the load so that it will be lifted with good balance.



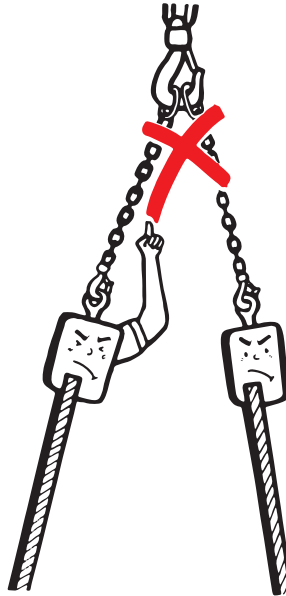
- Insert the load to the utmost end of the opening and lock it with a safety lock, then lift it.

# CLAMP

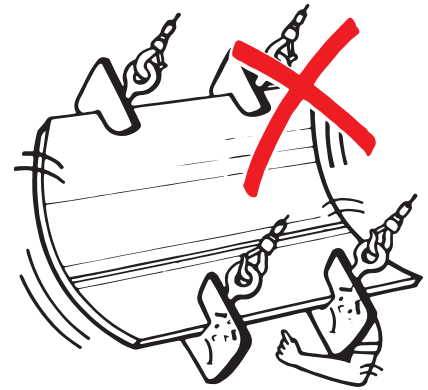
## INSTRUCTIONS FOR USE



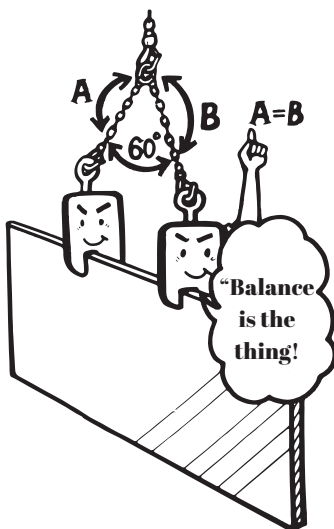
- Lifting of the load must be done always one by one, never two or more at a time.



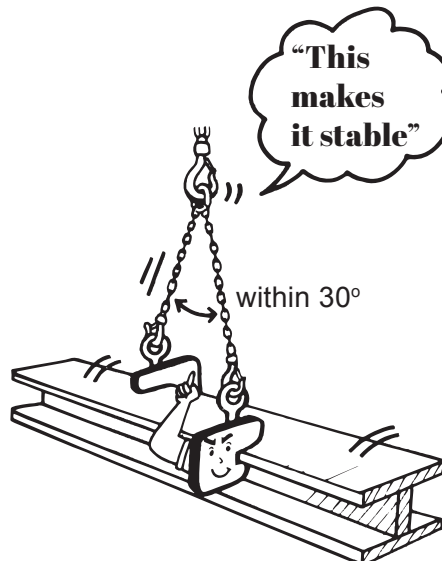
- Do not hang more than two sheets of load from one hook.
- It is dangerous because two clamps may bump against each other.



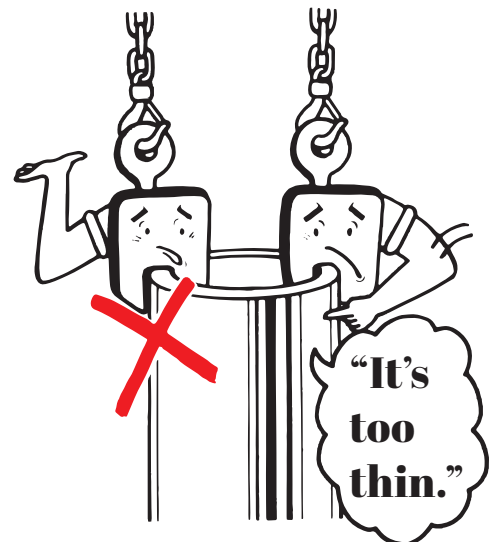
- Do not use the clamps for thin sheets that make curve.



- In case to vertical clamps should be use, used to chain slings with equal length. Limit the inner angle to 60° at that time.



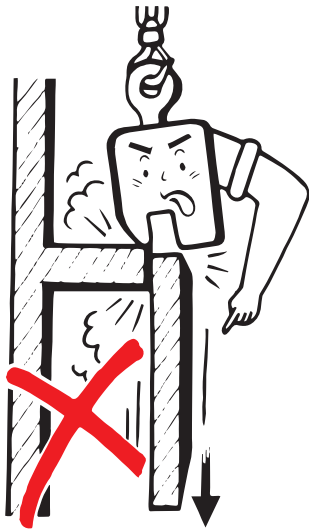
- When it is necessary to use horizontal clamp, use always more than two clamps. Limit the inner angle to 30° this time.
- In case it is necessary to lift up a long material, use more than two clamps.



- When a pipe is to be lifted, use the clamp placing the cam to inner side.
- The clamp cannot be used for a thin pipe with inner diameter less than 300 mm..

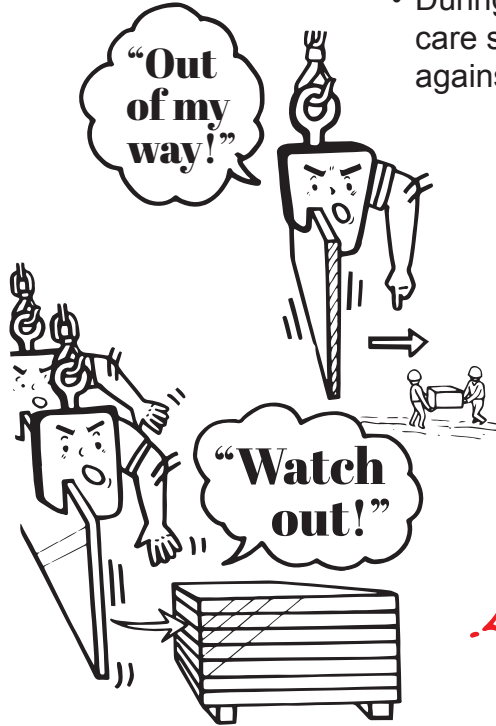
# CLAMP

## INSTRUCTIONS FOR USE



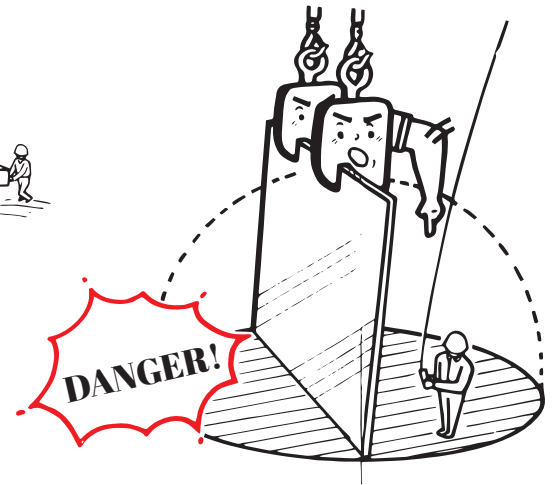
- When lowering the load down to the ground, and the clamp body is bumped against other material, the clamp will turn to no load condition and the lifted load may fall down. Take extreme care not to bump the clamp against other material.

“Out of my way!”

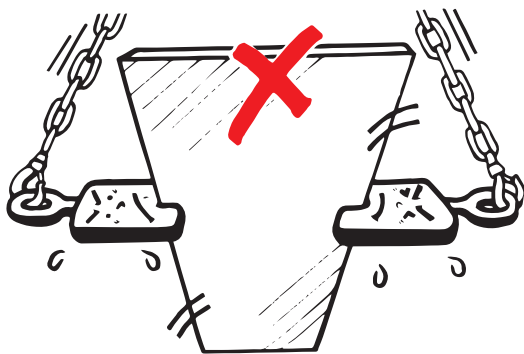


- During the traveling operation, do not come near the working radius of the clamp.

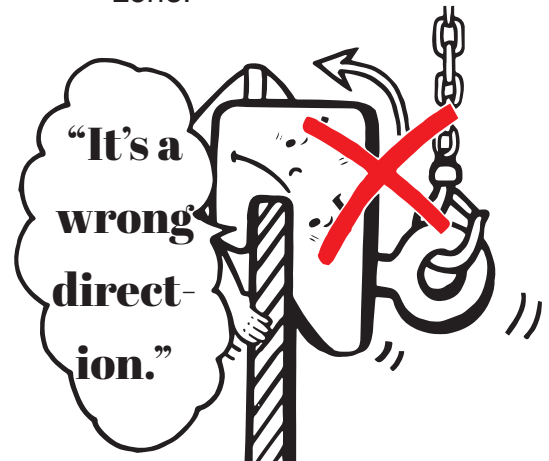
- During the lifting operation, take care so that the load will not bump against other material.



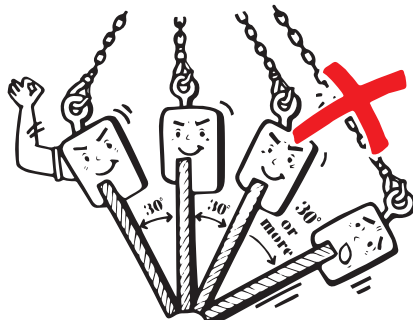
- During turning-over operation, or any other operation like that, do not enter the turn-over radius zone.



- Do not use vertical clamps for clamping a load horizontally.



- Limit the turn-over momentaneous angle of the steel plate to the maximum of 30°.



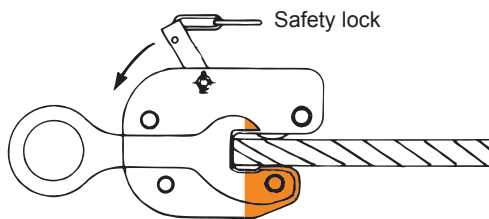
- Do not use horizontal clamps for clamping a load vertically.
- Operate the crane slowly and do not apply big shocks.
- Do not heat or weld the clamp.
- Do not, under any circumstances, modify the clamp.

# Preparation Before Operation and Instructions for Use

1. Use a clamp matched for application.

Model name Capacity (t)	Clamping Range (mm)				
	VA	VAZ	VB	VBZ	HA
0.5	0~22				0~22
1	0~25	0~25	0~32	0~32	0~25
2	0~36	0~36	0~40	0~40	0~36
3	0~40				
5	0~50				

2. Check if there is any anomaly in the clamp, and if any, stop using it immediately.
3. Confirm the weight and center of gravity of the load to be lifted and use the clamp correctly.  
(Do not use the clamp for lifting a load of 1/5 or less than the rated capacity.)  
Example: Load weighing less than 0.2 ton for a clamp whose capacity is 1 ton.
4. Do not use the clamp for lifting a load out of clamping range. (Take a particular care for lifting a material whose thickness is less than 1/4 of the clamping range.)  
Example: lifting load whose plate thickness is less than 10 mm when the clamping range is 0 to 40 mm.
5. Insert the load to the utmost end of the opening of the clamp and after locking with a safety lock, lift the load slowly. The load must be inserted further than the color marked point placed for accident prevention.



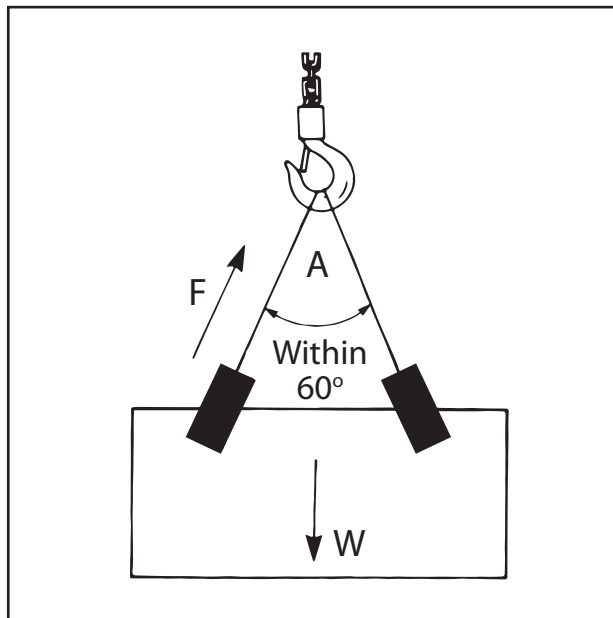
6. Inspect visually before starting the operation, to find out if there is any deformation in the loop holes, wears of cam and jaws, tooth broken down and cracks.
7. When the lockspring is abnormally weakened or broken down, stop using the clamp.

## In Case of Lifting with Two Clamps

- In case of lifting two loads, each one weighing one ton and two tons in total using two one-ton clamps, within an inter-angle of 60°, the force applied to one clamp will be 1.154 ton. Therefore, if we use only two one-ton clamps, the clamps will suffer overload condition. So that, in this case, use two two-ton clamps.

$\theta$	30°	60°	90°	120°
1. Force applied to one clamp	$1.035 \times \frac{W}{2}$	$1.154 \times \frac{W}{2}$	$1.414 \times \frac{W}{2}$	$2.000 \times \frac{W}{2}$

Note: Limit to the inner angle when the load is lifted to 60° or less.





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