

Model GXL

**VERTICAL LIFT
VERTICAL TURN/LIFT
HORIZONTAL LIFT
CAM ENGAGING LEVER
(LOCKING LEVER)
SPRING-LOADED CAM**

APPLICATION

The GXL clamp (Fig. 21) is a versatile clamp most commonly used for steel warehousing and benchwork. The GXL clamp can be used for vertical, vertical/turn or horizontal lifts. The GXL clamp is recommended for the turning of a single sheet or fabricated structure. Due to its swiveling pad and spring-loaded cam, the clamp always stays in contact with the work face of the load, even when the load is turning through 180 degrees. In addition, the clamp is also equipped with a cam engaging lever which allows a convenient way of closing and opening the clamp. The most exclusive feature of the GXL clamp is its wear indicator system. When any of the cam's teeth are flattened, chipped or dulled between the unique wear indicator grooves, (Fig. 22) it's time to change the cam. (Always replace the pad at the same time as the cam.) In addition, due to their forged components, GXL clamps have one of the lowest weight-to-Working Load Limit ratios of any clamps sold in the world. This means they are easy to use and less tiring for the user.

OPERATION

Step 1

Before using any Campbell® clamp, refer to the Applications section at the beginning of this manual to be sure the lift to be made is appropriate for the size and style of clamp. Know the type of material to be moved before making a lift. Some exotic steels are too hard to allow the teeth of the cam to sink in. This may be true of structural members and fabricated sections.



Figure 21

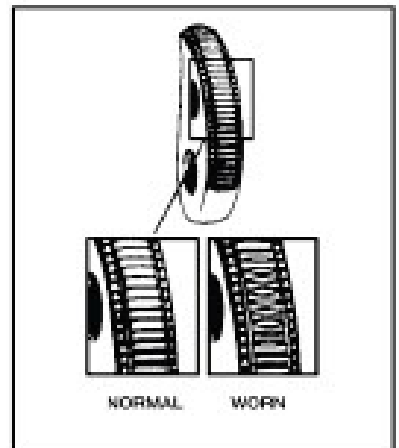


Figure 22

⚠ WARNING!: Do not lift a plate or member with a hardness greater than 400 Brinell (43 Rockwell C)

Step 2

Select a clamp with the appropriate capacity and grip range.

The model designation, capacity and grip range are indicated on the face of the clamp (Fig. 23).

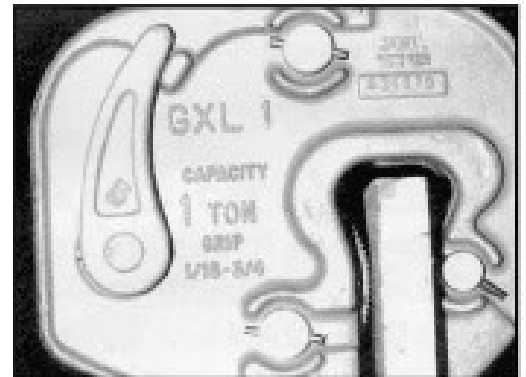


Figure 23

⚠ WARNING!: Never lift a weight greater than the Working Load Limit shown on the clamp.

Step 3

Inspect the clamp before each lift (Fig. 24).

- A. Inspect the cam and pad for wear and defects. Gripping surfaces must be free of foreign matter. If either the cam or pad are worn or defective, replace the cam and pad at the same time.
- B. Inspect the shackle and visible linkage for elongation, distortion, wear or damage.
- C. Inspect the clamp body for wear, damage or distortion.
- D. Do not use any clamp that needs repair.



Figure 24

If in doubt, refer to the Maintenance and Inspection section of this manual for detailed instructions.

Step 4

Determine if more than one sling is required to balance the load (Fig. 25). When the size or shape of a plate or fabricated section is too large for one clamp to properly balance the load, the use of a multiple sling or spreader bar is required.

- A. All clamps used in a multiple sling or spreader bar assembly must be rated at the same capacity.
- B. The lifting angle (Fig. 25) between the sling legs on opposite sides of the load should be less or equal to 60 degrees. The lifting angle (Fig. 26) between the sling legs on same side of the load should be less or equal to 20 degrees.
- C. The Working Load Limit of any multiple sling assembly or spreader bar assembly must not be more than the combined Working Load Limit of two clamps, no matter how many clamps are in the assembly.

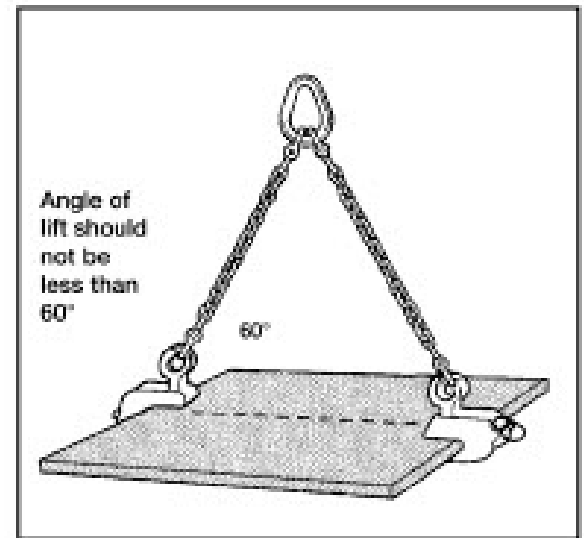


Figure 25

Step 5

Position the clamp(s) to balance the load. Position the clamp(s) so the lifting force of the crane is directly in line with each clamp's lifting shackle, and the load is evenly distributed (Fig. 26).

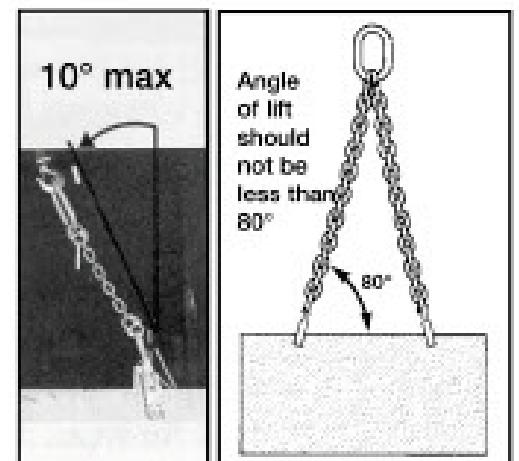


Figure 26

⚠ WARNING! Never attach a clamp directly to the crane hook. Use a sling between the crane hook and clamp to minimize interference in the clamp operation.

⚠ WARNING! Do not side load. Never exceed an angle of 10° from vertical.

Step 6

Engaging the clamp:

VERTICAL LIFT

VERTICAL TURN/LIFT

- A. Lower the clamp onto the plate with the lever in the “lever open” position until clamp rests on plate (Fig. 27). Occasionally, a cam may jam against a pad. To release, either tap the heel of the shackle, or grasp clamp by the shackle and tap bottom of clamp sharply against floor or other solid surface.
- B. Move lever to “lever closed” position while pushing the clamp down to ensure the plate is inserted to the full depth of the throat (Fig. 28 and 29). The cam is forced against the plate and you are now ready to lift the plate.

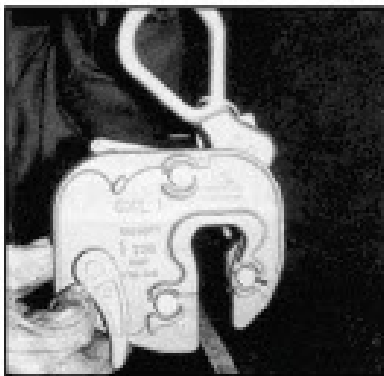


Figure 27

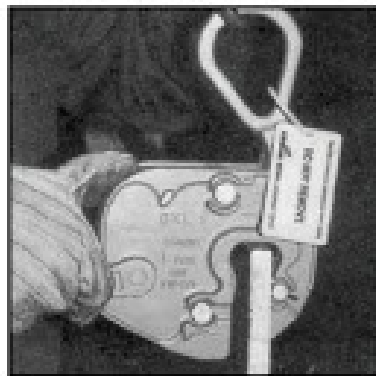


Figure 28

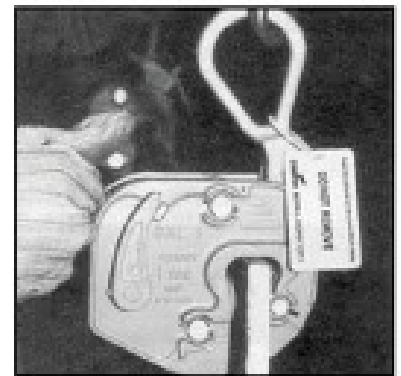


Figure 29

HORIZONTAL LIFT

- A. Place the clamp on the plate with the lever in “lever open” position and the short leg under the plate (Fig. 27). Occasionally, a cam may jam against a pad. To release, either tap the heel of the shackle, or grasp clamp by the shackle and tap bottom of clamp sharply against floor or other solid surface.
- B. Push the clamp onto the plate until the plate touches the back of the clamp’s throat and move lever to “lever closed” position (Fig. 28).
- C. Ensure that the plate is inserted to the full depth of the plate and the cam is engaged against the plate. You are now ready to lift the plate (Fig. 29).

Step 7

Lift slowly and smoothly. The operator should stand clear of the load and never lift over people or machinery.

⚠ WARNING! Do not begin to lift until all personnel are clear of the lift area. Never stand under or near a member being lifted.

⚠ WARNING! Do not jerk or bump load while lifting.

Step 8

After the plate is fully supported and at rest, the GXL clamp can be removed by retracting the cam away from the plate. To do so, open the lever to the “open” position or, press down on the lifting shackle while at the same time lifting the clamp from the plate. If the cam is difficult to retract, a slight tap on the heel of the shackle or the clamp’s body should release it.

 **WARNING!** Never tap the cam engaging lever or use a cheater pipe to force lever open.

Step 9

Campbell® recommends inspection of each lifting clamp before and after each lift. Refer to the Maintenance and Inspection section of this manual for detailed instructions.

 **WARNING!** Do not use a clamp that needs repair.