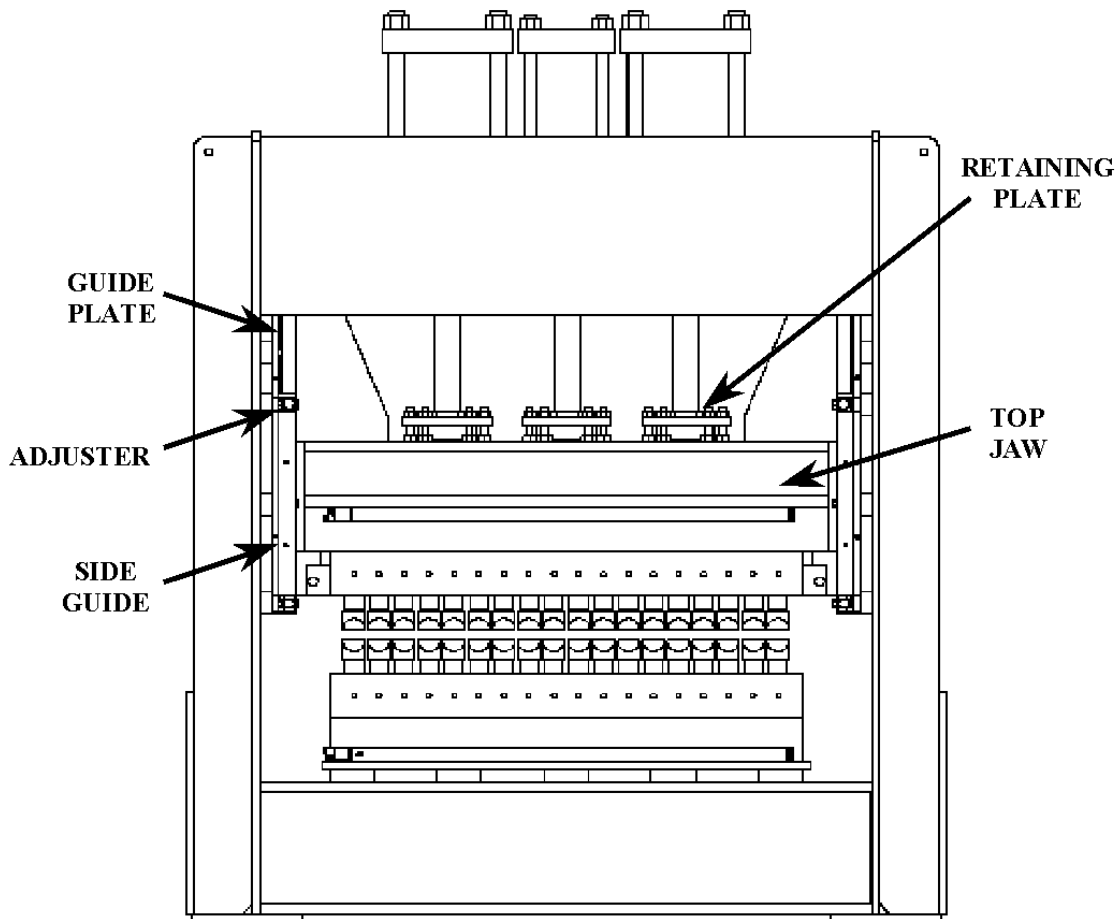


## Shim Instructions – Top Jaw – Chris Cutters

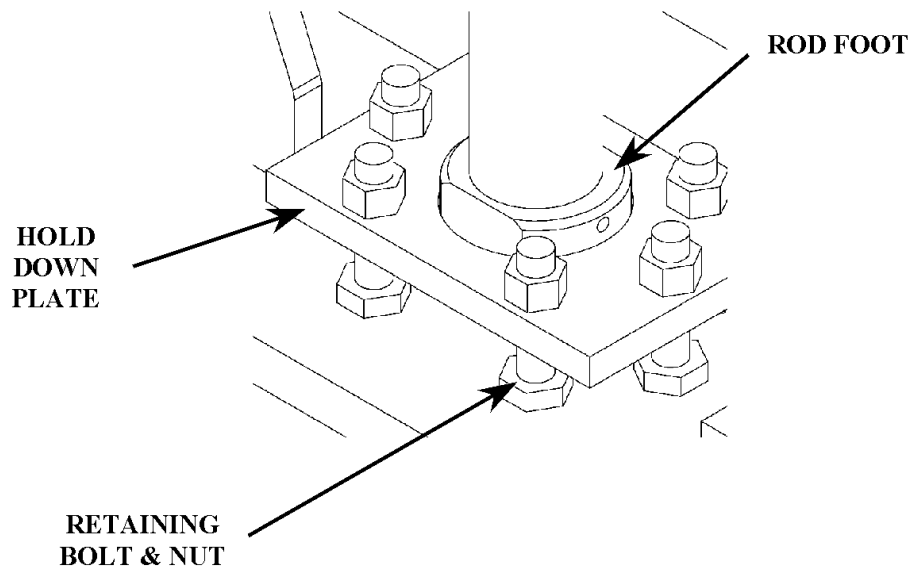
Under heavy usage, the top jaw assembly may be able to move from side to side between the guide plates. Shims will need to be placed between the frame and guide plates to tighten the gap. The instructions below will show step by step how to complete this operation.



**FIGURE 1**

1. Raise the top jaw. Wipe excessive grease off from the guides. A thin film left on the guides is ok. When finished, lower the top jaw all of the way back down.
2. Inspect the position of the top jaw. It needs to be true to the bottom jaw and centered under the upper hydraulic cylinder(s).
  - The rod foot needs to be centered within the hold down plate. See figure 2.

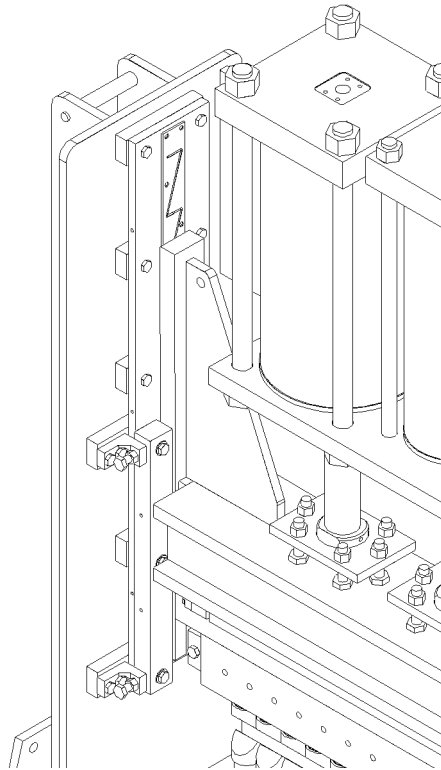
- The top teeth should be directly aligned above the bottom teeth. It may be helpful to take a mirror and look down the length of the teeth to verify that they are in line.



**FIGURE 2 – retaining plate assembly**

3. In most cases the jaw will naturally seek the correct alignment and so the objective is to not move the top jaw when tightening the guides. If the top jaw is out of alignment, then take a measurement of how much so that it can be moved back into position with the guide adjusters later.
4. The retaining nuts may appear to be loose. Do not over tighten the nuts on the retaining bolts (shown in figure 2). There may appear to be a gap between the rod foot and the top jaw beam. This is natural. Only the cylinder shaft should be pushing against the top jaw, not the rod foot. The system is designed to allow the rod foot to adjust to any misalignment with the top jaw.

5. Loosen all of the 5/8" hex head bolts that hold the guide plate assembly to the frame of the machine. There will be a total of 12 bolts for each guide plate. They should be loosened to give a 1/4" gap.



**FIGURE 3 – guide plate assembly**

6. (*side 1*) Place the shim tool 3" above the bottom crossbar at the center of the plate. Tighten the nut on the tool until snug. Do not try to over-tighten.
7. (*side 2*) Place the second shim tool at the same spot on the other guide plate assembly that is on the other side of the machine. Tighten this one with force. It will push the top jaw over against the other shim tool.
8. (*side 2*) Slide shims between the guide plate and the bottom crossbar until no more shims will fit in the gap.
9. (*side 2*) Move the second tool up below the second crossbar and tighten with force. Shim this spot until no more shims will fit.
10. (*side 1*) Move to the first guide plate. Place shims between the first crossbar and guide plate just as you have done before.

11. *(side 1)* Move the first tool up below the second crossbar. Shim that crossbar.
12. *(side 1)* Move the first shim tool up below the third crossbar. Shim there.
13. *(side 2)* Move to the second guide plate. Move the shim tool up below the third crossbar. Shim there.
14. *(side 2)* Move the tool up below the fourth crossbar. Shim there.
15. *(side 1)* Go to the first guide plate. Move the shim tool below the fourth crossbar. Shim there.
16. *(side 1)* Move the first tool under the fifth crossbar. Shim there.
17. *(side 2)* Go to the second guide plate. Move the shim tool below the fifth crossbar. Shim there.
18. *(side 2)* Move the shim tool under the sixth crossbar. Shim there.
19. *(side 1)* Go to the first guide plate. Move the shim tool under the sixth crossbar. Shim there.
20. Remove the shim tools.
21. Tighten each of the 5/8" guide plate bolts starting from the top and working down. Stop when you reach the side guides.
22. (both sides from now on) Lightly push the side guides up against the top jaw guides. Don't push too hard or you may move the top jaw out of alignment.
23. Screw in the 5/8" hex bolts on each of the side guides until finger tight.
24. Loosen the jam nuts on the adjusters.
25. Turn in the square headed bolt until it touches the side guides. Don't tighten or it will push the top jaw out of alignment.
26. Check to be certain the teeth are still aligned top and bottom and that the rod foot is still centered in the retaining plate.
27. Tighten the jam nuts.
28. Tighten the 5/8" hex bolts on each side guide starting from the tops and moving down.
29. Check again for correct alignment of the top jaw and for any remaining gaps between the guides. Re-adjust as necessary.
30. Grease the guides before running the machine.