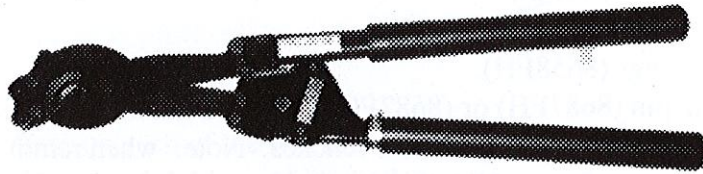
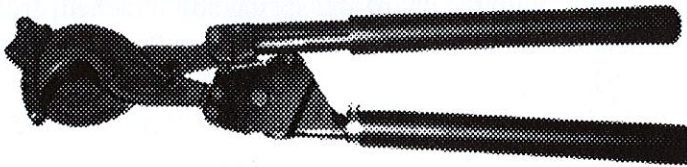


H.K.Porter®

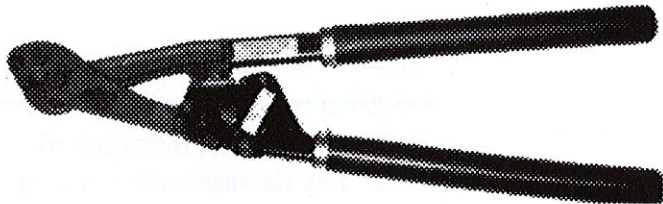
SERVICE MANUAL FOR 8690 RATCHET TYPE CUTTERS



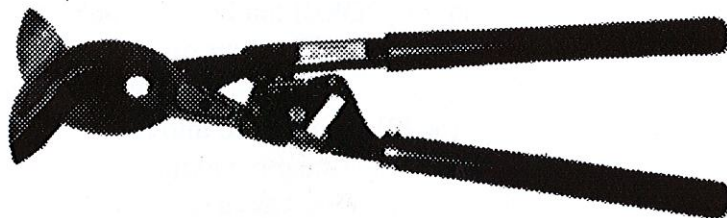
8690FH



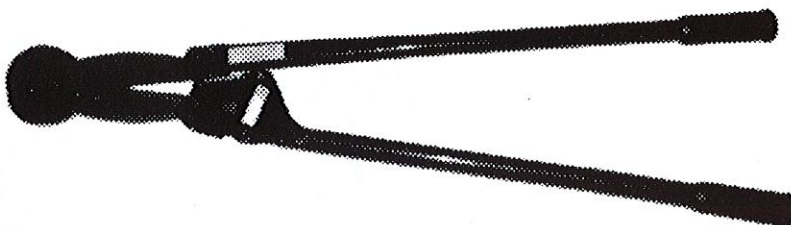
8690FSK



8690CK



8690CS



8690TN

COOPER

CooperTools

SERVICE MANUAL FOR 8690FSK, 8690FH, 8690CK , 8690CS AND 8690TN TOOLS

DISASSEMBLY

1. Hold the tool in a vise by the right handle (the one without the ratchet) with the left handle parallel to the floor and the head pointing away from you. (Steps 2, 3 and 4 apply to FSK, FH and CK models only. For TN model, see step #3a, 4a, 22a, 34a.)
2. Loosen the clamp screw (8648FS).
3. Pull the rubber handle grip (8681FH) with both hands to remove.
- 3a. Cut the rubber handle grip (0380M) from the handle-be careful not to damage the plastic sleeve.
4. Unhook the spring (8678FS) from the pin on the left handle using a hook type tool.
- 4a. Unhook the spring extension (8679TN) from the pin on the ratchet handle using a hook type tool.
5. Loosen nut (3171) from bolt (8635FS) using 7/16" wrenches.
6. Remove bolt and snubber (8654FS).
7. Remove tool from vise.
8. Unhook two closing springs (8658FH).
9. Remove closing spring pin (8687FH) or (8687FHS) bolt and nut and snubber (8654FS).
10. Remove cutterhead from handles using 9/16" wrenches. Note: when removing bolts, note the difference in length between the two sets of bolts.
11. Remove right handle assembly, with the chain and spring still attached, from the left handle.
12. Remove nut (0693C) from sprocket pivot bolt (8692FS) using 9/16" wrench.
13. Remove pivot bolt (8692FS).
14. Remove 2 side plates (8621FS), sprocket (8624FS), pin (8642FS), detent pawl (8637FS), spring (8677FS).
15. Remove 2 crank plate bushings (8646FS).
16. Clean all parts thoroughly with solvent.

ASSEMBLY

1. Assemble pivot bolt (8692FS) to one side plate (8621FS), matching the flat on the bolt with the flat in the plate hole. Lay this assembly on the bench with the bolt head down and the notched edge of the plate nearest to you. (See illustration #1.)
2. Apply a light film of grease to the shank of the bolt.
3. Slide sprocket, (8624FS) onto the bolt.
4. Apply grease to the detent spacer bushing (8642FS) and slide into the detent pawl. Place the detent spring (8677FS) onto the pin making sure the springs ends have not been bent out of shape. The cross arm of the spring goes under the flat side of the arrow shaped point of the detent pawl. (See illustration #2.)
5. Assemble one end of detent spacer bushing (8642FS) into the hole on side plate (8621FS) and engage the rounded end of the pawl with the sprocket (8624FS). (See illustration #3.)

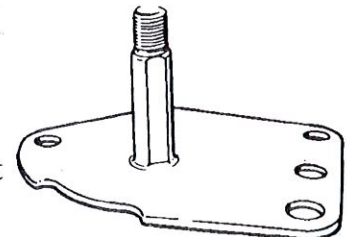


illustration #1

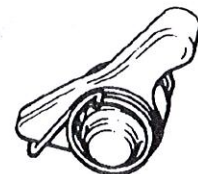


illustration #2

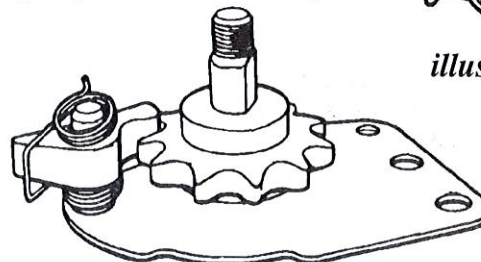
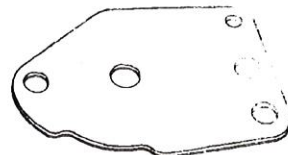


illustration #3

- Match up the second plate (8621FS) with the first, and place over the detent spacer and pivot bolt. Do not insert spring ends into plates at this point. (See **illustration #4.**)

illustration #4



- Hold the left handle (8606FH) in vise with the drive pawl facing up and the handle pointing to your left. (See **illustration #5.**) Pull the drive pawl up, moving counter clockwise, and insert a 1/8" rod or nail through the small holes in the plates near the drive pawl to hold it in a horizontal position. (See **illustration #5.**)

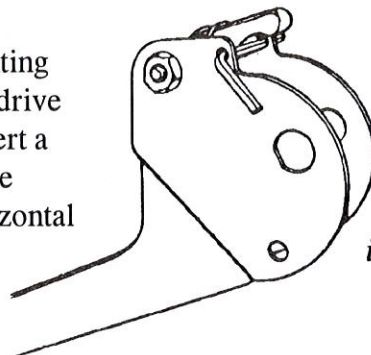


illustration #5

- Place a dab of grease on each of the two crank plate bushings (8646FS) at the shoulder and insert them into the pivot bolt hole with the shoulders on the inside. The grease will hold them in.

- Grasp the side plate assembly firmly with the notched edges of the plate facing down. While holding tightly between fingers, remove the pivot bolt.

- Carefully insert the plate assembly into the left handle between the bushings (8646FS). Align the pivot bolt holes and slide the pivot bolt into position from the far side of the handle. (See **illustration #6.**)

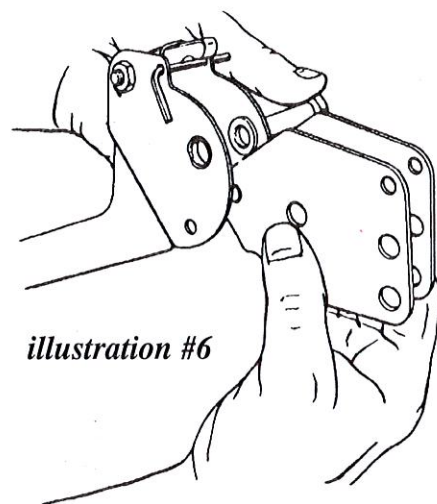


illustration #6

- Assemble washer (8644FS) and nut (0693C) to the pivot bolt and tighten just up snug. (This assembly must be free to pivot freely.)

- With a small hook tool, reach up from the bottom of the assembly, between the plates, and hook the ends of the detent spring into their respective holes. (See **illustration #7.**) Check to be sure spring loops are not caught between the pin and the side plate.

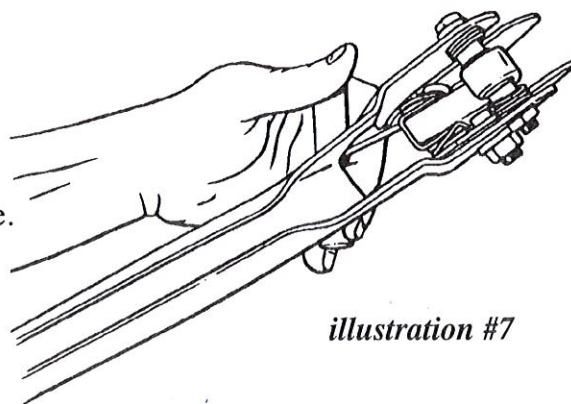


illustration #7

- Remove the 1/8" pin from under the pawl and engage the drive pawl with sprocket (8624FS).

- Remove the handle from the vise.

15. Hook the longer loop on the chain spring (8678FS) onto the free end of the chain (8653FS). Lay the left and right handles on the bench with the drive pawl on the left handle and the chain on the right handle facing each other. Feed the spring on the chain over the sprocket and into the left handle. (See **illustration #8.**)

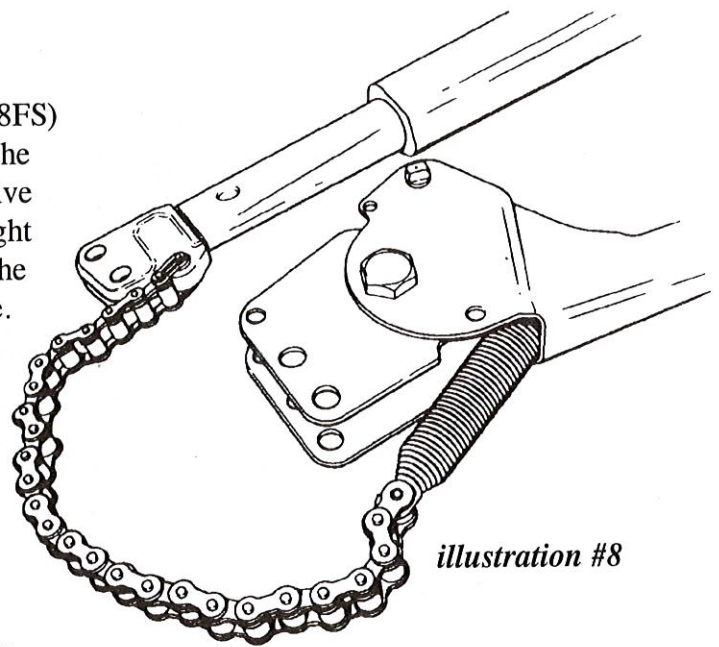


illustration #8

16. With the handles remaining in this position, assemble the cutting head to the left handle. The thicker washer (8654FS) goes on the bottom between the handle and the jaw, while the thinner one (8644FS) goes on top. (See **illustration #9.**) Use the longer bolt (8628FS) and nut (0693C) and tighten securely.

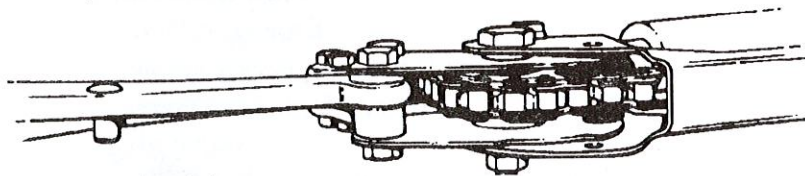


illustration #9

17. Assemble the other side of the head to the right handle using bolts (0135SK) and nut (0693C). Tighten securely.

18. Hook open end of closing spring (8658FH) into holes in handle (8606FHS) so that closed loops will be against side plates (8621FS).

19. Insert bolt (8687FH) through closed loop on one of the springs (8658FH) and insert through 1/4 inch hole in side plate (8621FS). At the same time assemble snubber (8654FS) and slide bolt through snubber.

20. Assemble other (8658FH) spring onto bolt and assemble nut onto bolt.

21. Tighten nut approx. one thread beyond end of bolt.

22. Hook the chain spring (8678FS) over pin at end of the left handle. (See **illustration #10.**)

- Hook the chain spring (8678FS), pull spring to near bottom

- 22a. of handle and attach spring extension (8679TN) to chain at one end and to handle pin at the other end.

23. Assemble snubber (8654FS) and bolt (8635FS) to handle. Assemble nut (3171) and tighten so as not to bind assembly. (See **illustration #11.**)

24. Check operation of the tool by opening and closing. If operation is satisfactory, assemble sleeve (8681FH) and tighten clamp (8648FS).

- 24a. Check operation of the tool by opening and closing. If operation is satisfactory, assemble new grip (0380M).

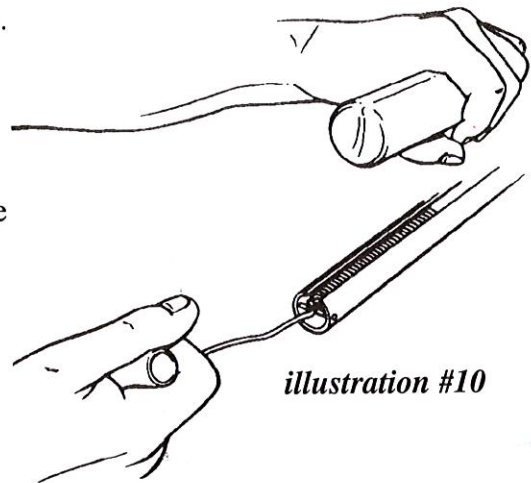


illustration #10

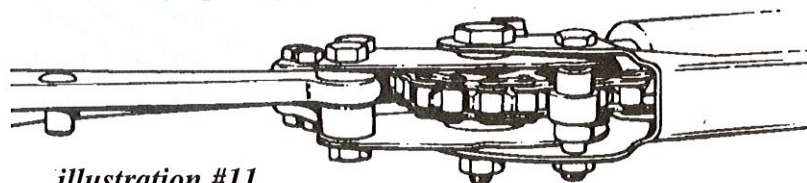
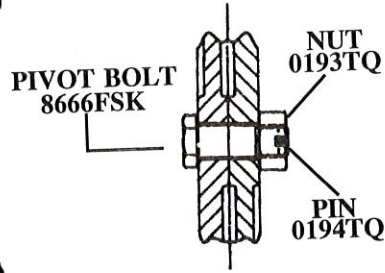
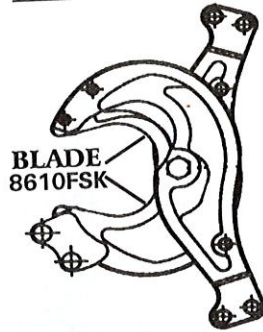
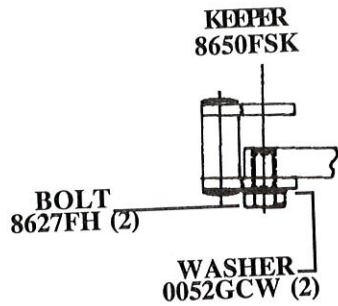
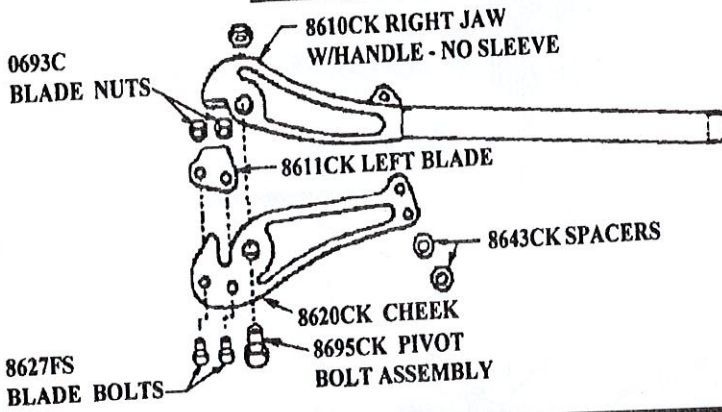


illustration #11

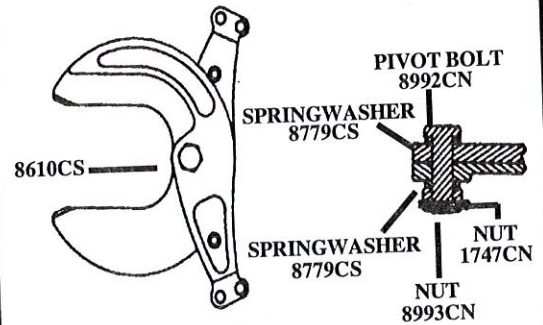
8613FSK CUTTERHEAD



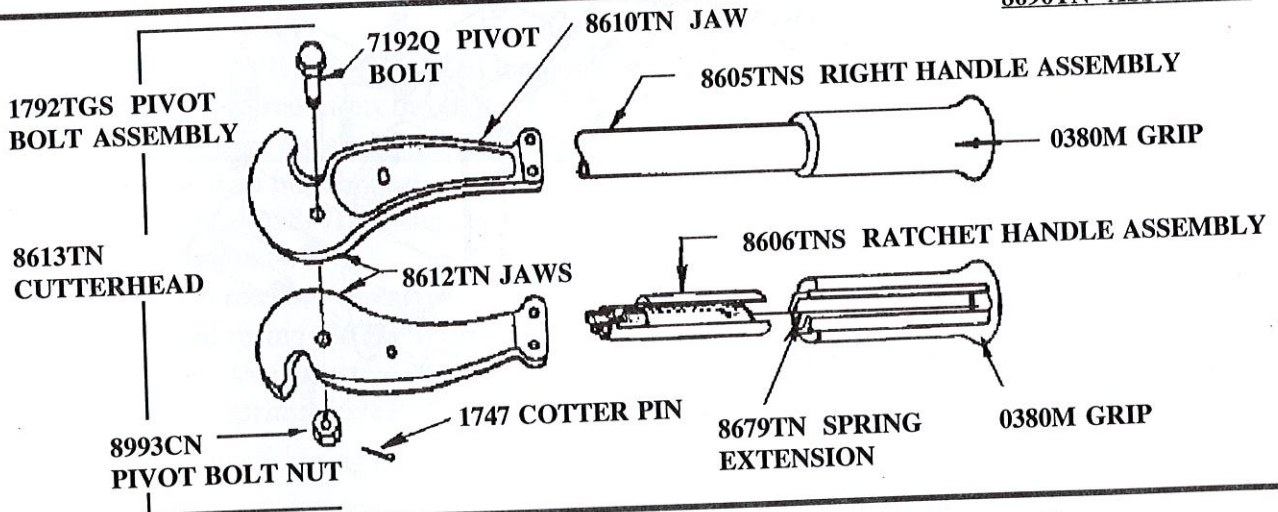
8690CK CUTTERHEAD PARTS



8613CS CUTTERHEAD PARTS



8690TN ASSEMBLY



REPAIR KITS

REPAIR KIT 8687FHR CONTAINS
(2) 8658FH SPRINGS
(1) 8654FS CHAIN SNUBBER
(1) 8687FHS BOLT & NUT
(REPLACES 8687FH PIN)

REPAIR KIT 8687FHS CONTAINS
(1) 8687FHS NUT & BOLT ONLY
(REPLACES 8687FH PIN)

