



FIRE CREW FIREFIGHTER TRAINING

Procedures Handbook 4200

CUTTING TOOLS

TOPIC: HOW TO USE CUTTING TOOLS

TIME FRAME: 1:00

LEVEL OF INSTRUCTION: Level II

BEHAVIORAL OBJECTIVE:

Condition: Given a brush hook, a pulaski, and a double bit axe

Behavior: The student will demonstrate the safe handling, use, carrying and storage of each cutting tool, while wearing full wildland PPE

Standard: To the satisfaction of the fire captain/instructor

MATERIALS NEEDED:

- Job breakdown
- Crew Carrying Vehicle (CCV)
- One set full wildland PPE per student
- A cutting area

REFERENCES:

- [CDF Fire Protection Training Handbook 4300](#)

PREPARATION:

The cutting tool section of a fire crew is responsible for removal of the woody vegetation, trees, brush and limbs, during line construction. Brush hooks, pulaski's and double bit axes make up the basic cutting tool section. However, after you are assigned to fire crews, some will be trained in the use of chainsaws.



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OPERATIONS	KEY POINTS
1. Conduct a tailgate safety session	1a. Documenting on appropriate Illness and Injury Prevention Plan (IIPP) forms
2. Inspect tool handle	2a. For straightness b. Smoothness c. Strength d. Security
3. Inspect tool head	3a. Security b. Rivets/bolts c. Cracks d. Wedges e. Sharpness
4. Ground the tool to transfer it to another crewmember	4a. Arms length from feet b. Head on ground – handle up c. Cutting edge away from receiving crewmember d. Receiver stating "got it"
5. Pass a tool between crewmembers	5a. With both hands on handle b. Tool horizontal c. Tool chest high d. Cutting edge down e. Receiver stating "got it"
6. Carry the tool	6a. At balance point



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7. Ensure proper stance and footing in preparation for tool

8. Visually check entire arc of future swing

b. Horizontally

c. Tool head forward

d. Cutting edge down

7a. Feet apart

b. Body positioned appropriately (check by touching target with cutting edge)

c. Solid footing

d. Well balanced for entire motion

e. Feet and legs clear of glance or miss-hit area

8a. Canopy

b. Rocks

c. Personnel

d. Dangers of misses, ricochets, loss of tool head, loss of tool



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OPERATIONS	KEY POINTS
9. Swing the tool	9a. Maintaining control of tool head b. Using firm grip c. Cutting at a 45 degree angle in relation to fuel d. Cutting away from body, legs and feet e. Keeping eye on the target f. Cutting perpendicular to fire crew for safety g. Without swinging at overhead targets (misses can be serious) h. At ground level, under a canopy – swing with one knee in contact with the ground
10. Chip	10a. When one stroke is not enough b. “V” pattern with converging 45 degree angle cuts c. Allowing chips to clear
11. Grub (pulaski)	11a. Digging out roots and small stumps b. Trenching c. Scraping char from logs and stumps
12. Ground tool when not is use (fireline)	12a. Out of the way b. Where tool will not be lost c. Flat on ground



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KEY POINTS

13. Build a “wagon wheel” formation

13a. When entire crew is not using tools

b. Laying tools flat in circular configuration

c. Heads in, handles out

d. McLeods standing in the middle



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APPLICATION:

Fire Captain/instructor will demonstrate proper use of each cutting tool. Four or five students will use tools following each demonstration. The rest of the crew will observe students using the tools until it is their turn to rotate in. Student will practice using each tool under Fire Captain/instructor supervision.

EVALUATION:

Practice the use of cutting tools in preparation for the handline construction exercise. Student may be asked to demonstrate at any time.

ASSIGNMENT:

None.