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Cutting Type Tools

This section covers the following tools and/or equipment:

- Axes
- Bolt Cutters
- Wire Cutters

AXES:

There are four types of axes:

1. Chisel
2. Pick
3. Flat Head
4. Hand axe


They are all used for rough and heavy chopping work.

The Chisel Axe is used for chopping. It is also used for wedging and prying operations. It is good for getting into door jams and under windows during forcible entry operations.



The Pick Axe is used for chopping. The pick end can also be used on concrete or other hard materials. The pick end can be driven into a roof to provide a foot hold during ventilation operations.



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The Flat Head Axe is used as a hammering tool in addition to it's use as a chopping tool.


It is frequently carried along with the Halligan tool; in this configuration it is referred to as a "Set Of Irons."



The Hand Axe is useful when working in close quarters.

Notes:

- Axes can be used to break glass for forcible entry. When used for this operation, the user should stand to the windward side and strike the upper part of the glass with the flat side of the blade and work downward. By using the axe in this manner, the broken glass cannot slide down the handle and cut the hand of the user.
- They are also used to force doors and windows and as door wedges to keep doors from closing. They are used to pry, such as, removing baseboards and door casings, removing sidewalk gratings, manhole covers, etc.
- When using an axe to pry, care must be taken so as not to break the handle by exerting excessive force or by twisting the head while prying.
- Maintenance of axes includes keeping the axe head clean and sharp at all times.
 - If rust should develop on the axe head, sand it lightly removing all rust, then coat axe head with oil or automobile wax to protect it from rusting.
 - Handles are to fit securely in the axe head and must be free of splinters. Occasional sanding may be necessary to remove any splinters.

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BOLT CUTTERS



Description:


The bolt cutter may be used to cut bolts, bars, cables and heavy screens having a diameter up to 9/16 of an inch. They are not to be used to cut case hardened steel.

Use and Operation:

To operate: spread the handles of cutter, place cutter on material to be cut and force handles together. This will cause the jaws to close with a shearing action.

Maintenance:

Bolt cutters are to be kept clean and free of rust. Moving joints are to be lubricated with light weight oil.

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WIRE CUTTERS



Description:

Wire cutters similar to the bolt cutters in design and action. They are equipped with insulating handles with a hook in front of the cutting jaws. The hook is used to maneuver the wire into the jaw.


Use and Operation:

The insulation on the handle is considered safe; however, extreme caution should be taken in cutting any wires.

In most instances, the wires to be cut will be those entering a building involved in a fire,

Wires entering the building from a pole can be considered the source of supply. Wires of ordinary voltage may be cut **ONLY DURING LIFE AND DEATH CIRCUMSTANCES AND WHEN ORDERD BY THE INCIDENT COMMANDER**. High voltage or transmission lines should not be cut. Top lines on poles are distribution lines and may be operating as high as 7500 volts. Insulated wires are usually under 500 volts.

Observe the wires and make the cut so that only the dead end of the wires will fall. Most wires are fastened to a building and looped to the mast head. This drip loop is where the wire should be cut so that the wires will not fall to the ground. Cut only one wire of the drip loop at a time, since the cutting of two wires would cause a short circuit when the blade came into contact with both wires. If the wires cannot be cut at the drip loop, they are to be cut at the pole, permitting the dead end of the wire to drop to the ground. **Cut the bottom wire first.** If the top wire is cut first, it may drop on the bottom wire, causing a short circuit. When cutting a wire, momentarily turn your eyes and face away from the cutters to prevent possible burns if a heavy current passes through them. ***Treat all wires as dangerous, since it is possible that there is more than one source of supply.*** When selecting a man to cut wires, give preference to a man with boots having no nail holes.

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Maintenance:

Keep cutter clean and free of rust. Blades are to be sharpened and properly adjusted. Insulated handles are to be inspected for cracks or other apparent breakdown of the insulation.