

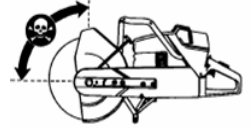


Company Name: \_\_\_\_\_ Job Site Location: \_\_\_\_\_

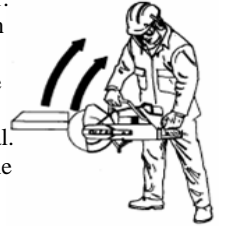
Date: \_\_\_\_\_ Start Time: \_\_\_\_\_ Finish Time: \_\_\_\_\_ Foreman/Supervisor: \_\_\_\_\_

## Topic 625: Cut-Off Saws (Part B)

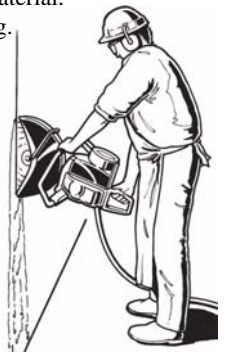
**Introduction:** Cut-off saws can be used to cut concrete, masonry, tile, sheet metal, rebar, steel beams, angle iron, and steel or aluminum channeling. The most commonly used cut-off saws are portable and gas powered with blades up to sixteen inches in diameter. Following are safety guidelines for properly operating and maintaining cut-off saws:



**Footing, stance, and grip:** The cut-off saw is a powerful hand-held tool. Operators of these saws must have a secure footing and stance for balance and support. The saw must be held in a comfortable and balanced position in front of the operator. Grip the saw firmly with one hand on each handle. A kickback can occur extremely fast and cause severe injury. When the top segment of the blade contacts the material, the blade can kick the saw back toward the operator with great force. The forward arm must be held straight to keep the saw from kicking back toward the operator. Skill in handling the cut-off saw can only be learned through practice and experience. Safety considerations must be followed, even by the most experienced operators.



- **Make sure** all material is supported so that the blade will not bind in the cut. Before beginning a cut, make sure to support the material in such a manner that the piece being cut off will not fall toward the operator. The cut must be as close as possible to the supporting surface. When beginning a cut, keep the throttle wide open and lower the blade, slowly, down onto the material.
- **Do not** drop the blade down hard onto the surface of the material. Hold the saw so that the blade is at right angles to the material, and use only the cutting edge of the blade.
- **Always** shut-down the saw when moving it to another work area. Carry the saw with hot engine parts away from your body.
- **Beware** of blade run-on. The blade may continue to rotate after the cut has been made. Make sure the blade stops before setting the saw down.
- **Secure and support** the material at a comfortable position before starting the cut. Make sure that the material will not move or shift during cutting.
- **Do not** cut material that is above chest height. When reentering a cut, do so without causing the blade to be pinched by the material.
- **Always** keep a steady balance and solid footing when making a cut. Do not support the material on, or against your foot or leg.
- **Use** both hands to control the saw. Maintain a firm grip with both hands fully around the handles of the saw.
- **Never** make cuts with the top 90 degrees of the blade. Making cuts using the top 90 degrees of the blade will increase the possibility of kickback injuries. Always make cuts using the lower 90 degree section of the blade.
- **Remember**, pull-in occurs when the blade suddenly binds while making a cut. The saw may pull forward and throw the operator off balance. Properly supporting the material will reduce the possibility of pull-in accidents.



**Cutting blades:** Always use the type of blade that will cut the material with the least amount of effort. Standard abrasive blades can be used to cut softer material such as aluminum. Carbide blades can be used to cut mild steel, or diamond impregnated blades can be used to cut very hard material such as concrete or titanium.

- **Water cooling** is recommended for cutting masonry materials. It prolongs the life of the blade and reduces dust exposure.
- **Keep** pressure on the saw reasonably light and let the saw do the work. Although a little more pressure may be necessary for harder materials, it can cause a blade to chip or break. A broken saw blade can cause severe injury.
- **Never** use the side of a blade for grinding or cutting. Do not force the saw to one side of the cut; this will bend the blade causing it to break.
- **Use** only blades that are compatible with your saw and rated for its maximum rpm. Blades may break when their maximum rpm rating is exceeded.
- **Check the blade to make sure** that it is approved for use on high-speed cut-off saws and that it has a rated rpm suitable to the saw being used.
- **Always** inspect new or used blades before installing them. Blades tapped lightly with a piece of wood should ring true. When the sound is dull or flat, the blade is damaged and must be discarded. Discard blades that are badly worn, cracked, warped, or out of round.
- **Make sure** that the contact surfaces between the blade and the saw run true on the arbor, and that they are clean and free of damage. Check that flanges are the correct size and not warped or sprung. Always use the correct fasteners when installing blades.

**Personal protective equipment (PPE):** Operators of cut-off saws must wear snug-fitting clothing, hearing protection, eye protection, face protection, heavy-duty leather gloves, and heavy duty work boots. Dry cutting of masonry or concrete material will require respiratory protection. For general dust hazards, a half-mask cartridge respirator for dust, mist, and fumes will provide adequate protection when properly fitted and worn. Training in the proper use of personal protective equipment (PPE) is one of the most important safety considerations an employee can have.

**Conclusion:** Cut-off saws must be used for the intended purpose for which they were designed and built. Never attempt to use them for anything other than those purposes. Utilize these safety guidelines when operating and maintaining cut-off saws.

### Work Site Review

Work-Site Hazards and Safety Suggestions: \_\_\_\_\_

Personnel Safety Violations: \_\_\_\_\_

**Employee Signatures:** \_\_\_\_\_  
*(My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)*


**Foreman/Supervisor's Signature:** \_\_\_\_\_

*These guidelines do not supersede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.*