



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

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

## Topic 624: Cut-Off Saws (Part A)

**Introduction:** Cut-off saws can be used for cutting 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:



**Hazards:** Cut-off saws are very powerful and can be dangerous. Hazards include high-speed blade rotation, exposure to the blade during operation, and exhaust fumes from the internal combustion engine. Cut-off saws can create large clouds of dust when dry-cutting masonry and can create hot sparks when used to cut metal. Cut-off saw hazards include cuts, kick-back injuries, exposure to carbon monoxide, exposure to harmful dust, burns, particles hitting the eyes, and injuries incurred as a result of broken blades or material not securely fastened before cutting starts.

- **Always** use caution and follow all of the safety procedures when operating cut-off saws.
- **Make sure** employees are trained in the proper use of cut-off saws. Ensure no one is in the immediate area where operations are taking place.
- **Always** wear a hard hat, safety glasses and a full-face shield, ear muffs, a dust mask or respirator when needed, safety gloves, and safety work boots.
- **Make sure** saws are maintained in good working order, and are equipped with the correct blades, with all of the safety guards in place.
- **Ensure** all material that is to be cut is secured to keep it from shifting during cutting.
- **Use caution** around sharp edges left after all material has been cut. Always wear gloves to avoid cuts and abrasions from sharp edges.

**Training:** Employees must read the operators manual and receive instructions as to the proper care, maintenance, and operation of cut-off saws. The operating manual must be available on the job site for ready reference when the saw needs adjustment or repair. Following are the minimum instructions that an operator must receive prior to using a cut-off saw:



- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>■ Blade selection, Installing blades, Periodic blade inspection</li> <li>■ Mixing fuel and fueling the saw, Saw maintenance</li> <li>■ Starting the saw, Proper saw operation, Saw shut down</li> </ul> | <ul style="list-style-type: none"> <li>■ Proper cutting stance and grip</li> <li>■ Use of respiratory and eye protection</li> <li>■ Initial inspection of cut-off blades and guards</li> </ul> |
|--|--|

**Care:** Cut-off saws must be serviced and maintained according to the manufacturers' instructions. Replacement parts must be those recommended by the manufacturer. Cracked, broken, or worn parts must be replaced before the saw is used. Guards and air filters must be cleaned regularly. Cut-off blades must be inspected prior to installation. Correct any blade vibration before attempting to make a cut. In confined areas, make sure that ventilation is adequate. Gasoline powered tools will release carbon monoxide gas which is odorless, colorless, and highly toxic.

- **Always** shut off the saw before adding fuel. Keep fuel container away from work area. Do not spill fuel on hot exhaust parts.
- **Use caution** when preparing the oil/gasoline mixture, and when fueling the saw. No smoking or other ignition sources are allowed in the area where fuel is mixed or where cut-off saws are fueled. It may be necessary to let the saw cool-off before refueling to avoid fire from hot parts.
- **Always** fill the tank in a well ventilated area at least ten feet from the area where the saw will be used. Always wipe spilled fuel off of the saw.
- **Avoid** fueling the saw near formwork or other flammable material. Gasoline spills are an extreme fire hazard. Use a funnel to avoid spills.
- **Do not** overfill the saw or start it without securing the gas cap. Gasoline leaking from the tank can saturate clothing and ignite from sparks that are thrown off while cutting. Never start the saw in areas where gasoline is stored, or in an area where fuel has been spilled.
- **Check** all of the fuel lines on the saw for leaks. Vibrations from normal operating conditions might loosen a part and cause a gas leak.
- **Always** start the saw in an area that is clear of obstacles. All employees must stand clear of the front of the saw while it is running.
- **Always** rest the saw on a smooth hard surface when starting. The blade guard must be operating properly before attempting to start the saw.
- **Make sure** to place one foot on the rear handle of the saw, grip the top handle with one hand, and use the other hand to pull the starter cord.
- **Remember**, after the engine has started, release the throttle and make sure that the engine runs properly and slows to an idle without the blade moving.
- **Make sure** to rev up the engine several times so that the blade spins freely, and turns smoothly on the arbor, without wobbling or vibrating.

**Support:** One of the major hazards with cut-off saws occurs when the operator fails to support and secure the material to be cut. The saw is very powerful and can throw unsecured material causing severe injury. Standing on material to hold it down is not recommended. For repeated cuts of masonry or pieces of metal, use a jig for ideal safety and efficiency. The jig must be designed and built to hold material in place without further contact by the cut-off saw operator until after the cut has been made. Remember that eye protection is always required when operating any type of cut-off saw.

**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.*