



Toolbox Talks

Spotlight on Safety



Operating Cut-Off Saws Safely

Kickback is the primary cause of the serious injuries and fatalities associated with using cut-off saws to cut pipe, concrete, brick, block, etc. To reduce the risk of injury and/or death, special safety precautions must be followed. Without exception, only workers who are trained and authorized by their foreman/supervisor are permitted to operate a cut-off saw.

Cut-off saws are high-speed cutting tools that are very dangerous to operate; therefore it is very important that you fully understand the safety precautions. If you do *not* understand the following precautions, DO NOT operate the saw, until you have had your foreman, supervisor or safety director explain them to you or consulted the operator's manual.



Pothier Renterprises

The following covers the basics of what you should know before you use a cut-off saw:

- Operating this tool can be strenuous. Employees who use cut-off saws must be in good physical condition and should not be allowed to become fatigued lest tiredness result in loss of control.
- Before each use, inspect the saw for damage, make sure the guard is in place and secured, verify that the throttle and stop switch are working, and check the abrasive wheel* for damage or cracks. Only use the type of wheels that have been specified by the saw manufacturer. Never use circular saw blades, carbide-tipped blades, rescue blades, wood-cutting blades or toothed blades of any kind unless the machine has been designed to accept such blades.
- Wear the proper PPE, i.e., eye/face protection, non-slip gloves, ear protection (ear plugs or muffs), hard hat, long-sleeve shirt and long pants, and a respirator when dusty conditions exist.
- Fuel the saw outdoors in a well-ventilated area when the engine is cool. No smoking while handling gasoline!
- Prevent the cutting blade from hitting the ground or any other object when it is carried. The saw should NEVER be rolled around on its wheel because it can damage the wheel and cause it to shatter or break violently during operation.
- Operate the saw only when there are no bystanders near where you are working.
- Start the saw by resting it on the ground or other solid object with the blade away from you and clear of the ground and all other obstructions. Follow the manufacturer's recommended starting procedures. NEVER drop-start a cut-off saw.
- Cut-off saw abrasives must not be used for rough grinding or beveling because large bending stresses occur during such work and the machine wheel is not designed to handle stresses placed on the side. DO NOT grind on the side of the abrasive. Bending stresses can damage the wheel and cause it to shatter or break.
- Hold the cut-off saw firmly with both hands, keeping the handles cradled between the thumb and forefingers when the engine is running. The left hand should be placed on the front handle bar and the right hand on the rear handle bar and throttle trigger. Left-handed users should follow the same instructions. NEVER attempt to operate the saw with one hand.
- Control the cut-off saw's movement. Reactive forces may occur anytime the saw contacts a solid object, is pinched by the material being cut or too much pressure is applied. Sudden contact or pinching will cause the cut-off to pull away if contact is made at the bottom of the wheel, climb if contact is made at the front of the wheel, or kickback if the wheel is pinched at the front.

- Secure and support the material you intend to cut before starting the cut. Support it in a way that the cut remains open. Material that sags or moves during a cut could bind the wheel or cause a kickback.
- Wet cutting helps keep the abrasive cool and reduces dust. Wet cut when feasible. In a pinch situation the water can act as a lubricant and reduce the energy of reactive forces.
- Abrasives are not designed to cut wood. Do not cut any material for which the abrasive is not authorized.
- Position the cut-off saw in such a way that your body is clear of the cutting attachment. Avoid standing in direct line with the wheel. Never bend over the cutting attachment, especially when the guard is pushed back towards the top and there is a risk of reactive forces.
- Maintain good balance and footing at all times. Do not overreach. Never cut while standing on a ladder. Never cut above shoulder height.
- Release the pressure on the cut-off machine as you reach the end of the cut. Too much pressure may cause you to lose control of the cut-off machine when the abrasive completes the cut.
- Carry a saw with a hot muffler on the side away from your body.
- Turn off the engine and let the wheel stop rotating before carrying the saw or setting the saw down.
- Abrasives should be stored in a cool dry place because they are heat and moisture sensitive. Do not use a wheel that has been dropped. Follow the wheel manufacturer's recommendation for the use and storage of cut-off saw wheels.

Since their introduction, portable cut-off saws have made many construction workers' jobs easier and in some respects safer. However, it is up to you to follow all safety rules and procedures to ensure that you are using the saw properly and safely. **REMEMBER, ONLY AUTHORIZED EMPLOYEES SHOULD BE PERMITTED TO USE CUT-OFF SAWS.**

**"Wheel," "blade" and "abrasive" are used interchangeably in this document.*

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