

Title of Training	CHAIN SAW SAFETY TRAINING	
Equipment Info.	Make/Model/Type/Size	Hands On- Training w/employee participation on starting and handling of Chain Saw
Material Needed	Chain Saw-Tool Kit- Owner's Manual- Examples of approved PPE Equipment	Gloves, Hearing Protection, Face Shield, Chaps, STIHL Helmet System for Forestry Use



Due to the nature of our work, it is necessary at times to use chainsaws. In order to ensure your safety and the safety of your Brieser co-workers, it is vital that you are properly trained and then refresher trainings are given periodically. This training has been developed to educate our workers about how to safely operate a chainsaw.

What Are The Risks?

The most common hazards associated with chainsaws are injuries caused by kickback, pushback, and pull-in. Kickback is the most common and poses the greatest hazard.

Kickback occurs when the rotating chain is stopped suddenly by contact with a more solid area throwing the saw rapidly backward toward the operator. The cause of most injuries can be traced to improper use of the saw or poor judgment on part of the operator.

THE STIHL CHAINSAW IS EQUIPPED WITH A **TWO-STROKE ENGINE. IT REQUIRES A FUEL MIXTURE OF GASOLINE AND TWO-STROKE ENGINE OIL.** MIX TWO GALLONS OF GASOLINE TO ONE PINT OF TWO-CYCLE OIL.

WARNING: BECAUSE A CHAINSAW IS A HIGH SPEED WOOD CUTTING TOOL SOME SPECIAL SAFETY PRECAUTIONS MUST BE OBSERVED AS WITH ANY OTHER POWER SAW TO REDUCE THE RISK OF PERSONAL INJURY. CARELESS OR IMPROPER USE MAY CAUSE SERIOUS OR EVEN FATAL INJURY.

THE PROPER PPE REQUIRED DURING THE USE OF A CHAINSAW IS HEAVY-DUTY, NONSLIP GLOVES TO IMPROVE YOUR GRIP AND PROTECT YOUR HANDS. WEAR STURDY STEEL TOED SAFETY BOOTS WITH NONSLIP SOLES. TO REDUCE THE RISK OF INJURY TO YOUR EYES NEVER OPERATE A CHAINSAW WITHOUT SAFETY GLASSES AND A FACE SHIELD. ALWAYS WEAR HEARING PROTECTION TO PREVENT HEARING LOSS. A HARD HAT AND CHAINSAW CHAPS ARE ALSO REQUIRED.

PRIOR TO STARTING THE CHAINSAW CHECK THE CHAIN TENSION. THE CHAIN MUST FIT SNUGLY AGAINST THE UNDERSIDE OF THE BAR AND WITH THE CHAIN BRAKE DISENGAGED. IT MUST STILL BE POSSIBLE TO PULL THE CHAIN ALONG THE BAR BY HAND. IF RETENSIONING OF THE CHAIN IS NEEDED, LOOSEN THE TWO NUTS ON THE GUIDE BAR. HOLD THE BAR NOSE UP AND USE A SCREWDRIVER TO TURN THE TENSIONING SCREW CLOCKWISE UNTIL THE CHAIN FITS SNUGLY AGAINST THE UNDERSIDE OF THE GUIDE BAR WHILE STILL HOLDING THE BAR NOSE UP, TIGHTEN



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DOWN THE NUTS FIRMLY. BEFORE FUELING, CLEAN THE FILLER CAP AND THE AREA AROUND IT TO ENSURE THAT NO DIRT FALLS INTO THE TANK. ALWAYS THOROUGHLY SHAKE THE MIXTURE IN THE CANISTER BEFORE FUELING THE SAW. **WARNING:** AFTER FUELING, **TIGHTEN FUEL CAP AS SECURELY AS POSSIBLE BY HAND.**

FILLING CHAIN OIL TANK

THOROUGHLY CLEAN THE FILLER CAP AND THE AREA AROUND IT TO ENSURE THAT NO DIRT FALLS INTO THE TANK. REFILL THE CHAIN OIL TANK EVERY TIME YOU REFUEL. A SMALL AMOUNT OF OIL MUST BE LEFT IN THE OIL TANK WHEN THE FUEL TANK IS EMPTY.

LOCKING CHAIN WITH CHAIN BRAKE

- IN AN EMERGENCY
- WHEN STARTING
- AT IDLING

THE CHAIN IS LOCKED AND STOPPED WHEN THE HAND GUARD IS PUSHED TOWARD THE BAR NOSE BY THE LEFT HAND OR WHEN BRAKE IS ACTIVATED BY INERTIA IN CERTAIN KICKBACK SITUATIONS.

RELEASING THE CHAIN BRAKE

PULL THE HAND GUARD BACK TOWARD THE FRONT HANDLE. **THE CHAIN BRAKE IS ACTIVATED BY THE INERTIA OF THE FRONT HAND GUARD** IF THE KICKBACK FORCE OF THE SAW IS HIGH ENOUGH.

THE HAND GUARD IS ACCELERATED TOWARD THE BAR NOSE EVEN IF YOUR LEFT HAND IS NOT BEHIND THE HAND GUARD, DURING FELLING CUT.

CHECK OPERATION OF THE CHAIN BRAKE BEFORE STARTING WORK. RUN ENGINE AT IDLE SPEED, ENGAGE THE CHAIN BRAKE (PUSH HAND GUARD TOWARD BAR NOSE). ACCELERATE UP TO FULL THROTTLE FOR NO MORE THAN 3 SECONDS. THE CHAIN MUST NOT ROTATE. THE HAND GUARD MUST BE FREE OF DIRT AND MOVE FREELY

Learning Objectives

At the end of this lesson, participants will be able to

- Properly use personal protective safety equipment and clothing.
- Start and operate a chain saw.
- Understand Kickback

Required Materials

- Demonstration chain saw, tool kit, and manual
- Examples of approved safety equipment. See Brieser PPE Matrix
- State or local information regarding chain saw use

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- Manufacturer's literature

Equipment

Safety Equipment

- Close-fitting but comfortable work shirt (hi-vis orange or yellow recommended).
- Hi-vis hard hat (orange or yellow)
- Eye protection
- Hearing protection
- Gloves
- Chaps
- Leather boots with high traction sole
- Falling ax (single-bit)
- First Aid Kit with emphasis on large pressure dressings
- Adequate drinking fluids

Operating and Fueling the Chain Saw

There are three recommended methods to start a chain saw.

Method 1

- Engage the chain brake and ensure that the chain is not contacting anything.
- Place the saw on firm, level ground so that the chain is not in contact with the ground.
- Kneel with your right knee next to the air filter cover or pistol grip. Place your left knee to the left side of the pistol grip.
- Turn on the ignition switch. If the saw has a compression release, open it.
- If the engine is cold, choke the carburetor. Some saws' throttles open along with the choking.
- Place one hand on handle bar and the other gripping starter handle. Either hand can be used as long as the saw is held firmly.
- Firmly grasp the starter cord handle. Pull sharply with a short pull. Guide the starter cord back into the starter assembly.

Method 2

- Engage the chain brake.
- Hold the chain saw with your right hand in pistol grip. Do not depress the throttle trigger during the starting procedure unless the saw is flooded.
- Rest the guide bar on a log or limb so that the bar tip extends beyond obstructions. Be careful not to stub the bar tip.



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- Assure firm footing and steady balance.
- Turn the ignition switch on. Open the compression release if there is one on the saw.
- If the engine is cold, choke the carburetor. Some saws' throttles open along with the carburetor choking. Be sure the chain brake is applied and that the chain is not contacting anything.
- With your left hand, firmly grasp the starter cord handle. Pull sharply with a short pull while counteracting force with a push from your right hand. Be aware of the bar tip and do not depress the throttle trigger. Guide the starter cord back into the starter assembly.

Method 3 (Standing Start)

- Engage chain brake and make sure guide bar is not contacting anything on every start.
- Grasp left side of handle bar at the bend of the handle bar with the left hand.
- Brace rear of pistol grip across front of left thigh and behind right thigh.
- Assure firm footing and balance.
- Ignition switch "on", compression release open. (If equipped.)
- Cold start – Close choke. With right hand, pull starter rope sharply and repeat until saw "pops". Open choke, pull starter rope sharply until saw fires and runs. "Blip" throttle to bring RPMs to idle.
- Hot start – With open choke, pull starter rope sharply until saw fires and runs.
- Guide starter rope back into starter assembly.

Fueling

- Shut off the saw, and allow it to cool for a few minutes before fueling.
- Clear an area on the ground for the saw to be positioned accordingly.
- Wipe dirt and wood chips off of the fuel tank cap and surrounding areas.
- Slowly loosen the cap, allowing any built-up pressure to escape.
- Use an approved safety fuel container with a funnel or spout to help avoid spillage.
- After fueling, replace the fuel cap, making sure the threads are not crossed and the cap is placed on securely.
- Move at least 10' away from fueling area before restarting.

While the saw is cool and idle for fueling, remember these few maintenance points.

- Always fill the chain oil reservoir. Wipe off the reservoir cap to prevent contamination.
- Always check chain tension.
- Always clean the air filter.

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Stance and Handling



Kickback is a strong thrust of the chain saw back toward the operator, generally resulting from improper use of the guide bar tip. Kickback also can occur when the top of the guide bar is pinched in a cut. Without proper control, the saw can severely injure the operator.

Accidentally stubbing the bar tip is the most common kickback mistake. It is important that the operator is aware of the tip location at all times. Stubbing the top of the tip will result in a thrust up and back; Controlling the chain saw at all times is essential for safe and effective operation. Control is possible only with proper stance and handling.

Stance and Handling

- Secure firm footing. Be sure loose material (bark, limbs, and rocks) is removed from underfoot before cutting. It may be necessary to form a flat foothold.
- Keep feet spread shoulder width apart in a balanced stance, and place feet and legs away from the guide bar and chain.
- Keep a firm grip on the saw with hands, thumbs and fingers encircling the handle. The major responsibility rests with the left hand on the handle bar to prevent loss of control. Be sure that the thumb is wrapped around the handle bar.
- Do not cross the hands. Wrap-around handle bars allow operator to make various cuts without crossing the hands. Moving to the opposite side of the material being cut will allow proper handling if a wrap-around handle bar is not being used.
- Fatigue is a major hazard. Do not operate a chain saw when fatigue makes proper stance, handling, and clear thinking difficult.



Important Notice

This Safety Training Topic (STT) does not necessarily cover all possible hazards associated with this equipment and should be used in conjunction with equipment manual. It is designed as a guide to be used to compliment training in the field at Brieser Construction and as a reminder to users prior to equipment use.

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EMPLOYEE NAME (Print or Type)	EMPLOYEE SIGNATURE	TRADE	JOB TITLE
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