

Chainsaws

Chainsaws - Maintenance and Service

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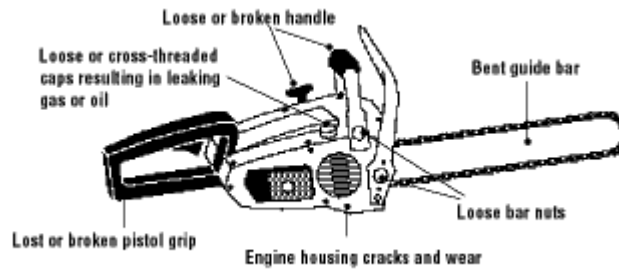
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What are some general points I should know about maintaining and servicing chain saws?

Routine maintenance and service can minimize the hazards of working with chain saws.

- Follow the manufacturer's instructions for maintenance and repair in the chain saw operator's manual.
- Do not use a chain saw that is damaged or not adjusted properly. Before using it, have it repaired and adjusted according to the manufacturer's specifications.
- Use only replacement parts that are intended for the chain saw that you are using.
- Turn off the engine before attempting to make any adjustments, clean, do maintenance, or repair the chain saw.
- Take the chain saw to a chain saw service centre to be repaired by qualified staff if the repairs required are not described in the operator's manual. In any case, chain saws should be returned to a service centre periodically (every few months to a year, depending on the usage) to be inspected and serviced by technically trained staff.
- Follow proper storage procedures if the saw will not be used for some time. It may be necessary to drain the gas/oil mixture.
- Dispose of fuel appropriately.

What are some things that I should know about the engine?



- Keep the muffler, air intake filter clean, and the spark arrester in place.
- Remove and service the starter if the starter cord does not fully retract.
- Use the correct fuel (gasoline or a gas/oil mix) as recommended by the manufacturer. For fuel mixtures, mix gasoline and engine oil according to the manufacturer's recommendations. Too much oil will make the saw run "dirty"; too little oil will damage the engine parts.
- Do not use a saw that needs repair. Remove and replace any damaged parts as recommended by the manufacturer.

What should I know about the chain and guide bar?

- Check the chains for excessive wear and replace them when necessary.
- Inspect the drive links, sprockets, cutters and track for damage:
 - Repair or replace badly hammered links.
 - If cutters need replacing, file them to the same length as the existing cutters.
 - Replace the bar if nicked or distorted.
 - Replace the bar and chain if the bar is damaged.
 - Replace the worn or damaged drive sprocket before it damages the chain.
- Use the proper size files to sharpen the chain. Two files are necessary:
 1. a flat file for adjusting the depth gauge
 2. a round file of uniform diameter for sharpening cutters and maintaining drive links
- Check depth gauges every third or fourth time you sharpen the chain.

- Adjust the tension of the saw chain after it has been in use for five to ten minutes. The chain stretches as it heats up and requires adjustments at intervals throughout its operation. Do not adjust the tension or replace the chain while it is hot. Damage to the guide bar or crankshaft can occur when an overly tightened chain cools.
 - Keep the chain lubricated.
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How do I adjust the chain tension?

A loose chain increases wear on drive sprockets, drive links, and the bar, which can endanger the operator if it climbs out of the track. A chain that is too tight will also increase wear on components.

- When adjusting chain tension, follow the manufacturer's instructions. General tips include:
 - Shut off the saw.
 - Wear gloves to avoid cuts.
 - Loosen bar nuts.
 - Rest the tip of the bar on a small piece of wood to hold the tip up.
 - Tighten the chain by turning adjustment screws until the chain is snug against the bar but able to be turned freely.
 - Tighten bar nuts for correct chain tension by pulling on bar upwards with a gloved hand or supporting it firmly from below.
 - Check tension frequently and adjust as required.
 - Make sure the chain rotates smoothly after tensioning.
 - Clean out the chain-oil portal when maintaining the guide bar. Sawdust can block the delivery of oil to the cutting chain.
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What should I know about chain brakes?

- Always test the saw and brake before cutting.
 - Apply the chain brake with the saw held firmly in both hands and the engine running at operating power. If the chain does not stop running immediately, have the saw serviced. The CSA Standard Z62.1-15 (R2020) Chain Saws recommends that the average brake stopping time not exceed 0.12 seconds, and the maximum stopping time not exceed 0.15 seconds.
 - Remove the brake housing periodically and clean out any dirt, oil or sawdust.

Refer to OSH Answers [Chain Saws - Safe Use of Chain Saws](#) for more information.

What should I know about chain lubrication?

- Always follow the manufacturer's instructions.
 - Check that the chain is receiving oil.
 - Use the correct grade and type of chain saw oil.
 - Many chain saws are designed such that it will need lubrication at the same time the saw needs fuel. Always check the oil level and refill accordingly.
 - Follow the manufacturer's instructions for refilling, including the sprocket, if present.
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