INSTALLATION AND SHARPENING INSTRUCTIONS

"J" AND (F) CHAIN

The chain you have purchased is a precision product of the world's largest chain saw manufacturer. It is made from materials calculated to give a long, troublefree cutting life.

But, like any other saw chain, your new chain will become dull through use and will need sharpening. These instructions will help you to renew your chain's factory sharpness and to increase its easy-action service life.

INSTALLATION INSTRUCTIONS

Before installing your new chain, coat it with 30-weight motor oil and work the links back and forth to ease the newness out. Then, give your new chain five minutes of easy cutting, with plenty of oil, before you start in with serious cutting. That five-minute break-in for your chain will add up to 50 percent more service life.

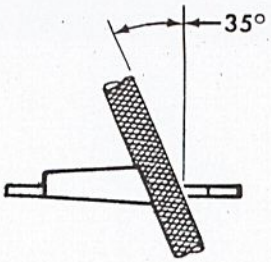
SHARPENING INSTRUCTIONS

File Size

A 3/8-inch diameter chain saw file is the correct file to use when sharpening "J" or (F) chain. Some expert filers use a 3/8-inch diameter file held in a filing fixture (such as the Nygran File-N-Joint machine, which insures uniform filing angles and sharpness) and a 5/16-inch diameter file when sharpening by hand. But most people find the 3/8-inch diameter file is best for both ways.

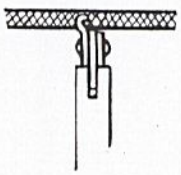
Top Filing Angle

The top filing angle controls the way the side of the cutter tooth cuts the wood. The correct top filing angle for all general cutting is 35 degrees. Some experts, who cut softwood only, increase the angle to 40 or 45 degrees. Others, cutting frozen wood or hardwood only, make the angle as small as 25 degrees. The "J" chain, normally used for general cutting, is factory-finished with a top filing angle of 35 degrees. The (F) chain, used mostly in cutting hardwood only, is finished with a 25-degree angle.



Vertical Cutting Angle

The vertical cutting angle helps control the shape of the top cutting edge. To get the best cutting edge for all kinds of wood, the file should be held level.

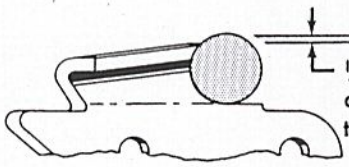


Filing DOs and DONTs

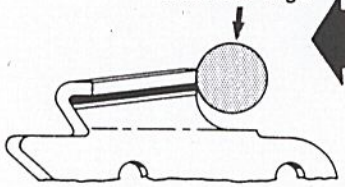
When sharpening in your shop, garage or home, mount your chain in a filing vise. You

can keep your chain on the bar when sharpening in the field, but tighten chain tension to prevent the chain from leaning over under your filing strokes.

One-fifth of the file should show above the cutting edge, as pictured at right. Push the file from the inside of the tooth to the outside to prevent filings from falling onto the chain. Press toward the cutting faces of the tooth and make sure your file always clears the gullet. Do not press downward on the file or you will cut into the side links and weaken the chain.



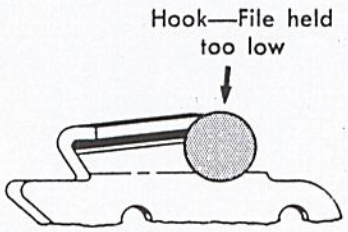
RIGHT



WRONG

HOLDING THE FILE TOO HIGH will cause a back slope on the top cutting edge. The chain will not be able to cut properly and you will have to lean on your saw to get any work done.

HOLDING THE FILE TOO LOW forms a very sharp feather-like edge which dulls quickly.

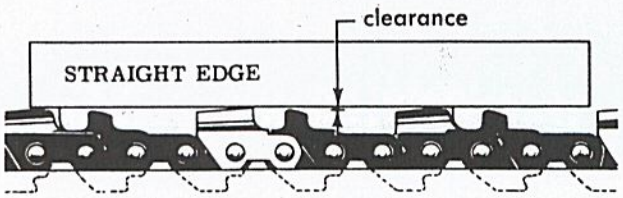


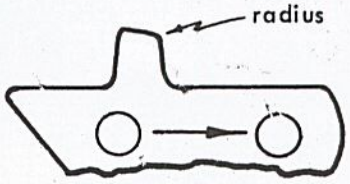
WRONG

It is important to make sure that both left- and right-hand teeth are filed to the same shape and at the same angle. Uneven teeth will cause the saw to operate very rough. If all teeth are not the same length, the saw will bind and not cut straight.

Depth Gauge

The depth gauge determines the "bite" taken by each tooth. Too much clearance causes teeth to dig in—too little clearance will not allow the teeth to take a full "bite."





RIGHT

Use a flat chain saw file for lowering depth gauges. The gauges should be filed, as shown at right, with a radius on the forward edge. A straight edge and a set of feeler gauges will help you keep all clearances the same. For all-around cutting with an average-powered saw, the depth gauges should have a clearance of from 0.025 to 0.045 inch. But, the clearance can range from 0.020 inch for hardwood to 0.055 inch for softwood. Most important is that all depth gauges are the same height.

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After you have sharpened your chain, wash it in kerosene or solvent. This will remove filings which could otherwise work between the links and eventually cause wear of the rivets and center link rivet holes. After washing your chain, coat it with oil before re-installing it. The oil coating will prevent rust and provide more efficient service.

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Litho in U.S.A.

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