

DR[®] TRIMMER/MOWER™ BEAVER BLADE[®]



SAFETY & OPERATING INSTRUCTIONS



Serial No. _____

Order No. _____

Original Language

DR Power Equipment
Toll-free phone: 1-800-DR-OWNER (376-9637)
Fax: 1-802-877-1213
Website: www.DRpower.com

WARNING

Read and understand this manual and all instructions before operating the DR TRIMMER/MOWER BEAVER BLADE.

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Conventions used in this manual

WARNING

This indicates a hazardous situation, which, if not avoided, could result in death or serious injury.

CAUTION

This indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE

This information is important in the proper use of your machine. Failure to follow this instruction could result in damage to your machine or property.

Additional Information and Potential Changes

DR Power Equipment reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your machine.

Chapter 1: General Safety Rules

WARNING

- Read this DR BEAVER BLADE Safety & Operating Instructions manual before you use the BEAVER BLADE. Become familiar with the operation and service recommendations to ensure the best performance from your machine.
 - Refer to your DR TRIMMER/MOWER Safety and Operating Instructions manual for all safety rules that apply to your Trimmer/Mower. If you have misplaced your copy of the DR TRIMMER/MOWER Safety and Operating Instructions manual one can be ordered from DR Power Equipment.
 - If you have any questions or need assistance, please contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) and one of our Technical Support Representatives will be happy to help you.
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General Safety

WARNING

Operating this BEAVER BLADE safely is necessary to prevent or minimize the risk of death or serious injury. Unsafe operation can create a number of hazards for you. Always take the following precautions when using this BEAVER BLADE:

- Wear gloves and safety glasses when handling or sharpening the BEAVER BLADE. Be sure your gloves fit properly and do not have loose cuffs or drawstrings.
 - Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people, their property, and themselves.
 - Keep bystanders at least 100 feet away from your work area at all times. Objects can be thrown far from the machine and at great speeds. To be safe, do not operate the machine near small children or pets, and never allow children to operate the machine. Disengage the blade and stop the engine when another person approaches.
 - Be sure all blade and wheel controls are DISENGAGED before attempting to start the engine. Engage and disengage the blade a few times to get used to it before cutting.
 - Keep your hands and feet away from the blade, belts, chains, blade pulleys, and concealed areas while the engine is running. NEVER reach under the deck or grab hold of any part of the deck when the engine is running.
 - ALWAYS keep the BEAVER BLADE maintained and in good condition.
 - DO NOT use a BEAVER BLADE that is bent, fractured, dulled or damaged in any way.
 - ALWAYS keep the BEAVER BLADE teeth sharpened. A dull blade may lead to improper cutting action, which could result in serious injury.
 - ALWAYS replace the BEAVER BLADE when damaged or cannot be sharpened any further. Using the BEAVER BLADE that is damaged or worn could result in serious injury.
 - DO NOT pound the BEAVER BLADE into vegetation like an axe. Such use may seriously damage the BEAVER BLADE and machine, and could result in serious injury.
 - DO NOT cut anything except wood and other vegetation. Cutting into dirt, rocks, metal and other materials could cause injury or damage to the operator and machine and will damage the blade teeth.
 - Watch for traffic when cutting near roadways.
 - NEVER use a BEAVER BLADE in any manner or for any purpose other than those recommended in these instructions.
 - The BEAVER BLADE is designed to cut wood, brush and small trees ONLY!
 - Before using your BEAVER BLADE, always inspect the work area before starting work, and remove any rocks, stones, glass, cans, wire, metal of any kind and any other foreign objects if possible. Cutting over these objects could damage the BEAVER BLADE and cause injury. Avoid these hazards if you're unable to remove them.
 - The BEAVER BLADE is not intended to be used as a replacement for a chain saw.
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No list of warnings and cautions can be all-inclusive. If situations occur that are not covered by this manual or your DR TRIMMER/MOWER SAFETY AND OPERATING manual, the operator must apply common sense and operate this BEAVER BLADE in a safe manner. Contact us at www.DRpower.com or call 1-800-DR-OWNER (376-9637) for assistance.

Chapter 2: Installing Your DR TRIMMER/MOWER™ BEAVER BLADE®

First identify the model of the mower you have, then familiarize yourself with the parts of your DR TRIMMER/MOWER BEAVER BLADE assembly by reviewing **Figure 1** before beginning the steps outlined in this chapter. If you have any questions at all, contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) for support.

Installation

Read and follow these notes and warnings before installing the BEAVER BLADE.

WARNING

- The 12" BEAVER BLADE may ONLY be used with 2000 SPRINT® or later (Yellow frame) or any STANDARD, PRO or COMMERCIAL model DR® TRIMMER/MOWER™. The 12" BEAVER BLADE is not designed to be mounted on SPRINT® models manufactured before 2000 (Orange frame), or COMPACT models.
- DO NOT use the standard Mow-Ball™ Support mounting bolt for mounting the 12" BEAVER BLADE as serious injury may result. Use the hardened mounting bolt supplied.

CAUTION

DO NOT use height adjustment disks or line plates when using the 12" BEAVER BLADE. The heat created by the friction of the blade may damage them.

Note: When using the aluminum Mow-Ball™ Support, you will NOT need to use the rectangular washer because one is built in.

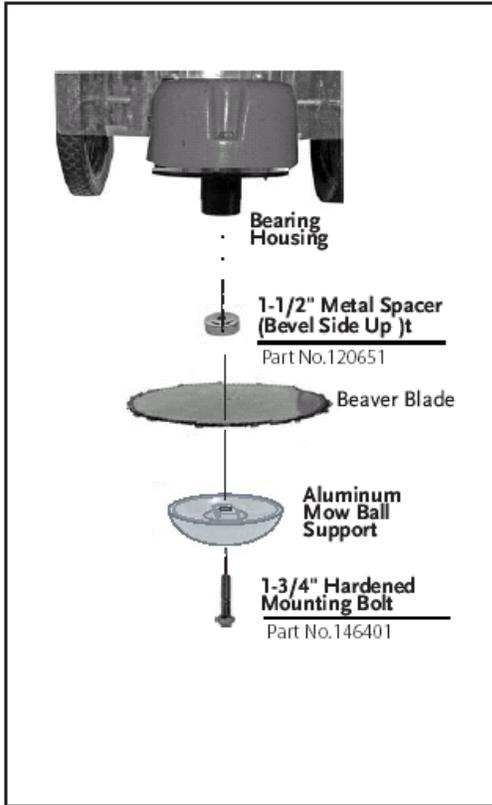
Tools Needed:

- Long Phillips head screwdriver or the head-locking tool that was supplied with your Mower
- Gloves
- DR® TRIMMER/MOWER™ Safety & Operating Instructions for reference.

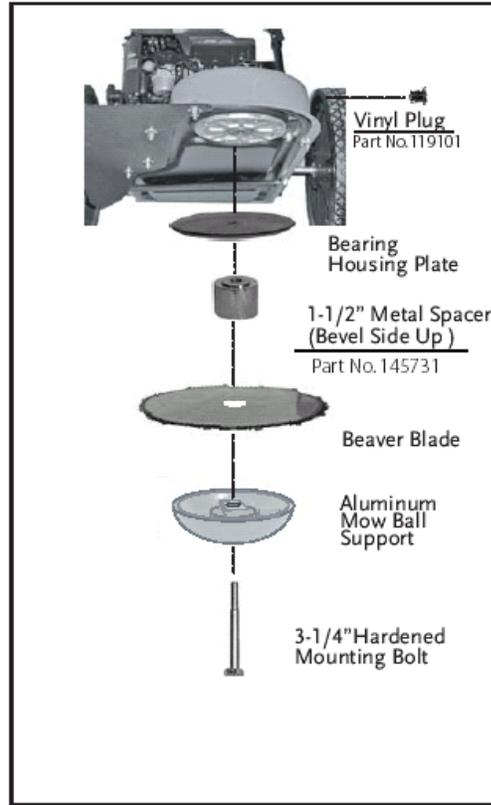
WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

1. Follow the steps in your DR® TRIMMER/MOWER™ *Safety & Operating Instructions* to remove the flanged bolt or the standard bolt and rectangular washer insert completely. Store them for future use, as they will not be required when using the aluminum Mow-Ball™ Support.
2. Carefully unpack the BEAVER BLADE. Wear gloves when handling the BEAVER BLADE—the teeth are very sharp!
3. Choose the package with the hardened mounting bolt, metal spacer and illustration appropriate for your machine (**Figure 1**)
4. Mount the BEAVER BLADE as shown in **Figure 1**. Use the hardened mounting bolt supplied with the BEAVER BLADE kit. Insert the hardened mounting bolt through the aluminum Mow Ball Support, the BEAVER BLADE (*with the printed side of the blade facing up*), the metal spacer (with the beveled side up), the bearing housing plate (if it's a later model) and then into the bearing housing. Use a Phillips head screwdriver or the head locking tool to keep the shaft from turning while tightening the BEAVER BLADE and Mow-Ball™ Support as described in your DR TRIMMER/MOWER *Safety & Operating Instructions*. Tighten the hardened mounting bolt firmly.



*Older Standard, Pro & Commercial models
Kit number 131151*



*New model – Standard Pro Commercial &
Sprint 2000 model w/yellow frame
Kit number 146011*

Figure 1

Chapter 3: Operating your DR TRIMMER/MOWER™ BEAVER BLADE®

Note: We again recommend using the aluminum Mow-Ball™ Support with the BEAVER BLADE. It will withstand the heat generated by heavy or continuous use better than the standard nylon Mow-Ball™ Support.

! WARNING

Read and understand the warnings listed in “Chapter 2 General Safety Rules” of these instructions and in your DR Trimmer/Mower Safety and Operating Instructions manual before operating this BEAVER BLADE.

! CAUTION

The BEAVER BLADE is designed to cut wood, brush and small trees ONLY! Before using your BEAVER BLADE, always inspect the work area before starting work, and remove any rocks, stones, glass, cans, wire, metal of any kind and any other foreign objects if possible. Avoid these hazards if you're unable to remove them.

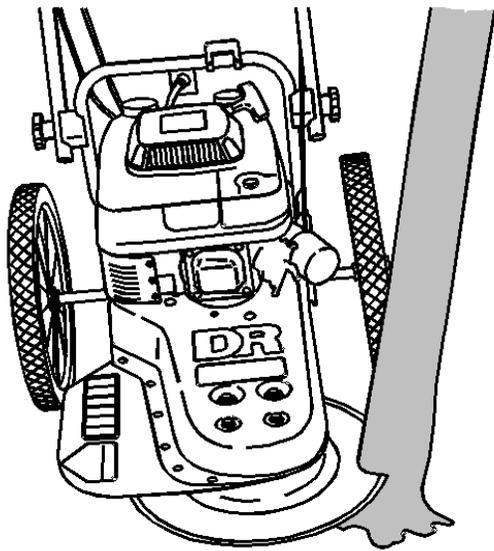


Figure 2

Operation

1. Start your DR TRIMMER/MOWER as usual. Stand behind the handlebar in the normal operating position. DO NOT engage the trimmer head clutch until you are certain that no one is in the area of the machine.
2. Always look at the tree or sapling before you begin cutting to judge the direction it will fall (See paragraph “Felling Trees” in next section). Let the trimmer get up to full throttle before trying to cut with it.
3. Engage the trimmer head and EASE the blade into the brush or saplings you wish to cut. Use the side of the blade to cut instead of heading straight into the trunk (**Figure 2**). DO NOT ram the blade into what you are cutting. Ramming could damage the blade and cause injury. When cutting small trees that cannot be cut in one bite, pull the blade back and cut again from the opposite side. (See paragraph Felling of Trees)
4. Turn off the engine and wait for the blade to stop turning BEFORE clearing cut debris out of the way.

Felling Trees

! WARNING

Do not cut a tree in any manner that would endanger people, cause property damage, or strike a utility line. Notify the utility company immediately if a tree makes contact with a utility line. If this happens, do NOT attempt to remove tree from line or your trimmer from the tree.

! CAUTION

Clear a path to retreat when cutting small trees before starting to cut the tree.

Felling of Saplings less than 3 inches

If you know the direction of fall (**Figure 3**):

1. Balance the Trimmer on the wheels so the Mow Ball is off the ground and the blade is approximately level. Start the single felling cut on the side away from the direction of fall.

2. Cut all the way through by rotating the Trimmer to the left into the tree.
3. Stop the BEAVER BLADE and clear away felled trees before cutting additional trees.

Felling of Small Trees

The notch method is used when two cuts are required. The first cut is on the side of the tree in the desired direction of fall. After a felling cut is made on the opposite side of the tree, the tree will tend to fall in the direction of the first cut.

1. Balance the Trimmer on the wheels to the desired height and make the first (lower) cut through 1/3 of the diameter of the tree (**Figure 4**).
2. Make the felling cut on the opposite side of the notch by balancing the Trimmer a little higher if possible.
3. Leave enough uncut wood between the felling cut and the notch to form a hinge (**Figure 5**).

Note: The hinge helps to keep the tree from twisting and falling in the wrong direction.

4. Use a wedge if there is any chance that the tree will not fall in the desired direction.

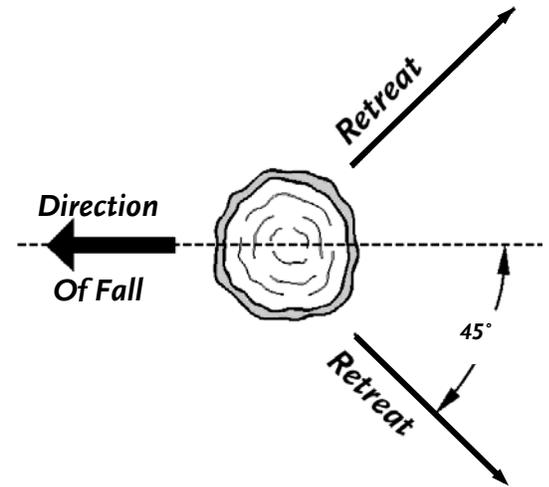


Figure 3

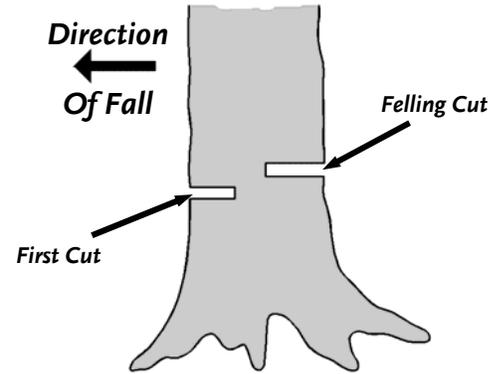


Figure 4

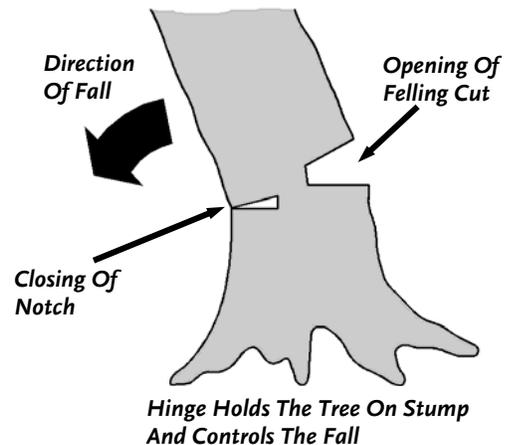


Figure 5

⚠ WARNING

Stay on the uphill side of the terrain to avoid being in the way if the tree begins rolling or sliding downhill after it is felled.

ALWAYS put yourself in these positions when cutting a tree:

- Always cut so the tree will fall in the direction wind is blowing (**Figure 6**).
- Always cut on the opposite side of the lean.
- Always cut on the un-weighted side.

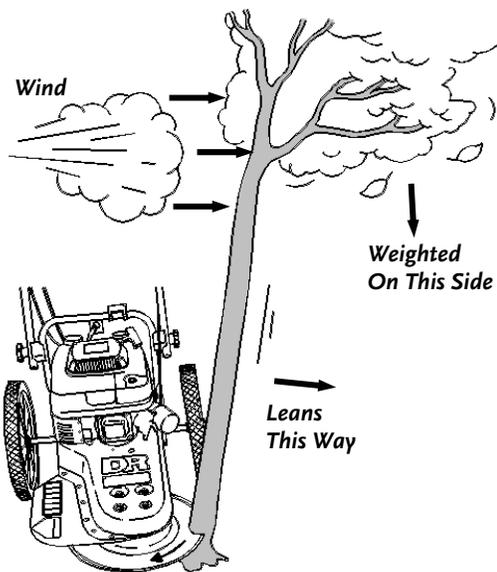


Figure 6

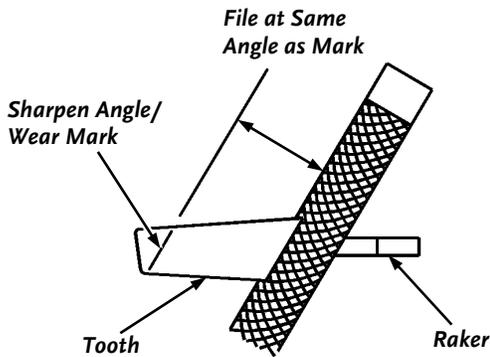


Figure 7

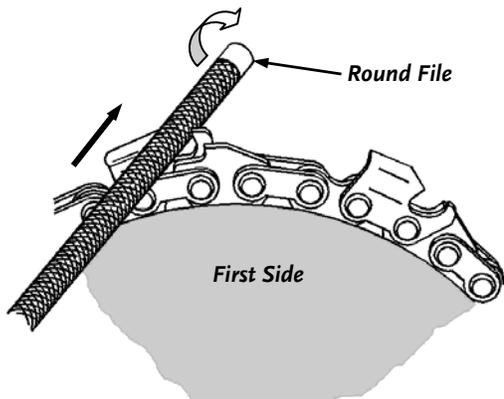


Figure 8

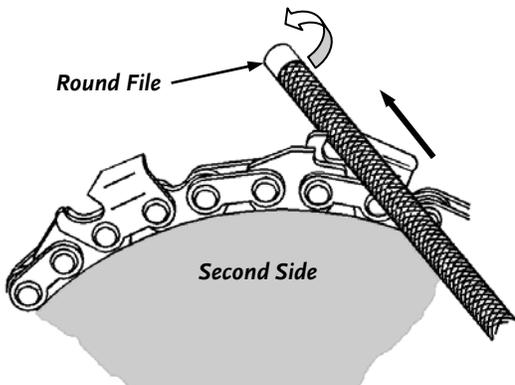


Figure 9

Regular maintenance is the way to ensure the best performance and long life of your BEAVER BLADE. Please refer to this manual for maintenance procedures.

- Use the BEAVER BLADE for cutting wood, brush and small trees ONLY.
- It's a good practice to sharpen the BEAVER BLADE before each use. This allows you to maintain the proper cutting angle of the teeth before the chain gets too dull. See the following page for sharpening instructions.
- The BEAVER BLADE does not need to be oiled.
- To avoid premature dulling, keep the blade out of contact with the ground.
- If you are planning to do heavy brush cutting, please consider purchasing the aluminum Mow-Ball™ Support, which better withstands the heat created by the BEAVER BLADE and is more durable under heavy use.

If you have any questions at all, please feel free to contact us at www.DRpower.com or call toll-free 1 (800) DR-OWNER (376- 9637) and one of our Customer Service Representatives will be happy to help you.

Sharpening the BEAVER BLADE

Tools Needed:

- 3/16" (4.8mm) saw chain file.
- Flat file
- Gloves
- Safety Glasses

⚠ WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

1. Remove the BEAVER BLADE from the cutting (or trimming) head. Leave the chain on the blade.
2. Draw a mark on the chain or BEAVER BLADE where you will begin sharpening.

TIP: Using a vise to hold the Beaver Blade while sharpening will make it easier to make consistent sharpening strokes.

Note: File the chain with a light pressure into the cutting edge of the tooth. Do not bear down on the file. Give each tooth the same number of strokes. The teeth are made of a relatively soft metal. It is not necessary to remove a lot of metal.

3. While holding the beaver blade in a standing (vertical) position, Place the round file into the tooth at the same angle as the cutting edge of the tooth (**Figure 7**). Lightly push the file across the cutting edge and through the tooth, twisting the file a half turn with each stroke (**Figure 8**).
4. Skip the next tooth (because it is facing the opposite direction), and sharpen the following tooth and so on. When you get back to your mark, you are finished with ONE side of the BEAVER BLADE.
5. Turn the BEAVER BLADE around to sharpen the other side. Change the angle of the round file to follow the angle of the cutting edge for teeth on this side (**Figure 9**). Start sharpening at your mark. Sharpen the teeth that have not yet been touched. Remember to pay attention to the angle of the file on the tooth and use the same number of strokes per tooth.

Twist the file a half turn with each stroke into the cutting edge of the tooth, and don't bear down on the file. Sharpen every other tooth until you get back to your mark.

Note: A chain that is sharper on one side than it is on the other will not cut in a straight line, but will tend to drift up or down, consistent with the sharper side of the chain. If your blade drifts up or down, check to see that the chain is equally sharp and the Teeth are the same length on both sides.

Note: After the cutting edges are all sharp, the rakers need to be filed down to give the teeth the proper cutting depth. See the following procedure to complete the Beaver Blade sharpening.

6. Hold the flat file horizontal and file down the rakers to the suggested dimension (**Figure 10**).

Note: If not enough material is removed from the rakers, the teeth will not cut efficiently. If too much material is removed from the rakers, the teeth will cut too aggressively and cause instability in the cutting action.

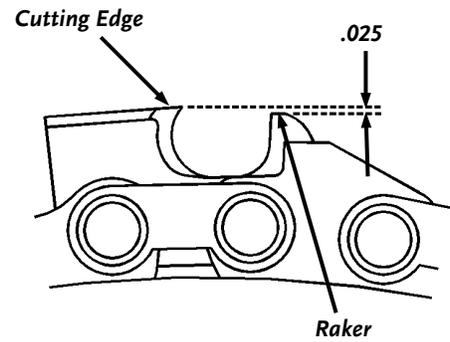


Figure 10

Chapter 5: Troubleshooting

Most problems are easy to fix. Consult the Troubleshooting Table below for common problems and their solutions. If you continue to experience problems, contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) for support.

WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

Troubleshooting Table

SYMPTOM	POSSIBLE CAUSE
<i>Blade is not cutting well. A fine dust is coming from the Blade instead of a wood chip.</i>	<p>⇒ The Blade may be dull; sharpen the Blade as described in Chapter 4.</p> <p>⇒ The Blade may be on backwards; turn the Blade over, painted side up</p> <p>⇒ The Rakers are too high for the height of the cutting Tooth; file Rakers as described in Chapter 4.</p>

Notes:

Daily Checklist for the DR TRIMMER/MOWER BEAVER BLADE

To help maintain your DR TRIMMER/MOWER BEAVER BLADE for optimum performance, we recommend you follow this checklist each time you use your BEAVER BLADE.

! WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

- [] Check that the Teeth are sharp.
- [] Check that the gap between the Teeth and Rakers is correct.
- [] Check that the Beaver Blade Bolt is secure.

End of Season and Storage

! WARNING

Before performing any maintenance procedure or inspection, stop the engine, wait five minutes to allow all parts to cool. Disconnect the spark plug wire, keeping it away from the spark plug.

- Clean off all sawdust and debris.
- Lightly oil the cutting Chain.
- Remove the Beaver Blade and store it in a clean and dry location.



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