



## CHAIN SAW OPERATION<sup>1</sup>

Train, Check and Plan: Before you put a chain saw into your hands. **SAFETY COMES FIRST!**

### Before you start the saw check for

1. Loose screws, nuts and bolts
2. Cracks/damage to the saw's body
3. Missing or damaged spark arrester
4. Proper tension on the chain
5. Operational chain brake
6. Operational start/stop switch
7. Operational throttle trigger lock
8. Intact chain catch and hand guard

Maintain the saw according to the manufacturer's specifications.

1. Keep the saw clean
2. Fuel and lubricate
3. Properly maintain bar
4. Properly sharpen the chain
5. Ensure air filter is clean

### Personal Protective Equipment

1. Hard hat
2. Eye protection
3. Hearing protection
4. Chain saw chaps or chain saw pants
5. Chain saw protective footwear
6. Hand Protection
7. First aid kit



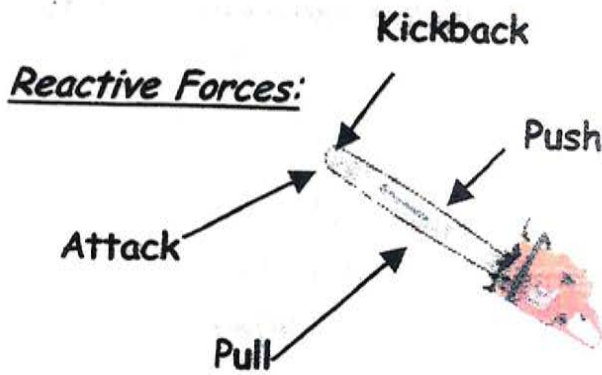
**Fueling:** Use the gas to oil ratio recommended by the saw's manufacturer. Do not add fuel within 20 feet of a flame source. Let the motor cool and place the saw on the ground before refueling. Wipe gas spills off the saw.

**Starting:** Start the saw at least 10 feet away from the fueling area, on flat, level ground or by another approved method where the saw is firmly supported. *Never* drop-start the saw. *Always* start the saw with the chain brake on.

**Handling and Carrying:** Keep your thumbs tightly wrapped around the handlebars. Carry the saw by the front handle with the motor stopped and the bar and muffler away from your body.

<sup>1</sup> Understanding the proper and safe use of a chain saw requires training. Never attempt to use a chain saw without training in safety and maintenance. Read the manual for your saw before attempting to use the saw.

- ◆ Do not work alone
- ◆ Recognize how climatic extremes (wind, heat, cold, precipitation) affect your health and safety.
- ◆ Use proper body positioning techniques to avoid back injuries.



**Kickback** is the violent backward and/or upward motion of the chain saw when the chain at the kickback corner of the guide bar tip contacts any object. Kickback can cause loss of control and serious injury.

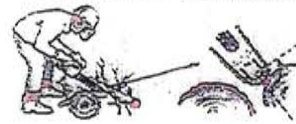


Illustration from [www.oregonchain.com](http://www.oregonchain.com)

### The Felling Five:

1. **Hazards.** What are they and how can they be mitigated or avoided?
2. **Lean or crown weight distribution.** Calculate forward or back and side (left or right) lean or weight distribution.
3. **Escape route.** Plan and clear an escape route at a 45° angle from the back of the tree, away from the falling direction.

4. **Hinge.** Calculate hinge length and width.

Length: minimum of 80% of dbh  
Width: maximum of 10% of dbh



5. **Cutting plan.** Plan and visualize how you will execute the notch and back cut to fell the tree safely and on target.

**CAUTION:** If any of these 5 cannot be planned and executed safely, do not cut the tree!

### The Cutter

1. Depth gauge: sets the thickness of the chip
2. Point: breaks into and begins to cut the fiber
3. Side plate: cuts the fiber off (0-10°)
4. Top plate: keeps the chain straight in the cut (25-30°)
5. Chisel: cuts the chip off (45.0°)

