**Objective: Explain what safety precautions to take when working with a chain saw and demonstrate proper maintenance of the chain saw.**

**Trainer’s Note**

Chain saws are powerful but dangerous tools. For this module:

 • Review the information below on how to use a chain saw safely.

 • Ask an experienced chain saw user to demonstrate the proper procedure. Reinforce
 safety practices during the demonstration.

 • Allow employees to practice the safe methods of using a chain saw.

 • Stress the use of protective clothing and equipment.

 • Review the important points.

 • Have workers take the True/False quiz to check their learning.

**Background**

Chain saws are great tools for landscapers and arborists. Their powerful motors cut through heavy trunks, branches, and brush quickly and easily. However, that power also brings danger. Safe practices are critical in using chain saws.

**Operator’s Manual**

Keep the operator’s manual with the chain saw. A good place to store it is in the chain saw case. If the manual is missing, contact the manufacturer for a replacement. Periodically review the manual for safe operating procedures.

**Personal Protection Equipment**

Use the proper Personal Protection Equipment (PPE) for the job. Use the following as a guide:

* Clothing should fit well and be free of dangling or ragged edges that can become tangled in the saw.
* Nylon mesh protective leg chaps and/or kneepads can provide increased protection for the legs.
* A hard hat protects the head from falling limbs or branches. A properly fitted hat is cool, comfortable, and provides protection from head injury.
* A full-face shield or safety goggles/glasses that have side shields prevent injury from flying wood chips, twigs, and sawdust.
* Protect ears from the high level of noise by using earplugs in combination with earmuffs.
* Safety boots or shoes with high tops protect ankles in the event of accidental contact with a moving saw blade. Steel-toed boots will help protect the feet from falling limbs or logs.
* Lightweight leather gloves protect hands from cuts, splinters, and abrasions.

**Preventive Maintenance**

Keep the saw in good repair. Consult the operator’s manual and check for needed maintenance before each use. The operator’s manual can be the best source of information for this procedure.

**When to Sharpen the Saw**

* If the chain tends to “walk” sideways while cutting.
* If the cut shows fine powder instead of chips.
* If it is necessary to press hard to cut.
* If you smell burnt wood or see smoke coming from the blade area.

With correct chain tension, you get good cutting action and a long chain life. If too loose, a chain will derail; if too tight, a chain will bind.

Proper lubrication prolongs the life of the saw and increases safety.

**Follow These Precautions When Fueling and Starting the Chain Saw Engine**

* **Never smoke** when you are fueling or using a chain saw.
* With electric saws, use caution to avoid shock hazards.
* Fuel in gasoline-powered saws can cause a fire or burns.
* Only refuel the engine when it is cool.
* Never smoke when working with a power saw.
* To start the saw, always brace the saw by placing it on the ground and putting one foot on the bracket to the rear of the saw.
* Grip the top handle of the saw firmly with one hand and use the other to pull the starting rope.
* **Never** drop-start the saw. That is, never try to start the saw by holding it in one hand while pulling the rope with the other hand.

**Transporting and Storing the Chain Saw**

Transport a power chain saw in a chain guard or a carrying case. Do not carry the saw in the passenger area of a vehicle. Brace the saw so that it cannot tip.

When storing the saw, drain the fuel tank back into the supply container and run the engine at the idle until it stops. Remove the chain and store in oil. Disconnect the spark plug to prevent an accidental starting. Keep out of the reach of children.

**Review These Important Points**

* Wear close-fitting clothing.
* Use a face shield or safety goggles, ear protection, safety boots, and gloves.
* Keep equipment in good repair and make adjustments as needed.
* Follow recommendations for refueling and safely starting saws.
* Only use saws that are equipped with chain brakes you can trigger in an emergency or that are automatically triggered by a kickback, a life-threatening situation.

**Verbal Quiz**

1. Transport a power chain saw in a chain guard or a carrying case. **T F**

2. Start a chain saw by putting one foot on the rear of the saw. **T F**

3. Refuel the engine as soon as it runs out of gas. **T F**

4. Correct chain tension results in good cutting action and a long chain life. **T F**

5. A hard hat will protect the head from falling limbs or branches. **T F**

|  |
| --- |
| Answer Key |
| 1 | T |
| 2 | T |
| 3 | F |
| 4 | T |
| 5 | T |