

## Portable Circular Saw

### I. Competencies

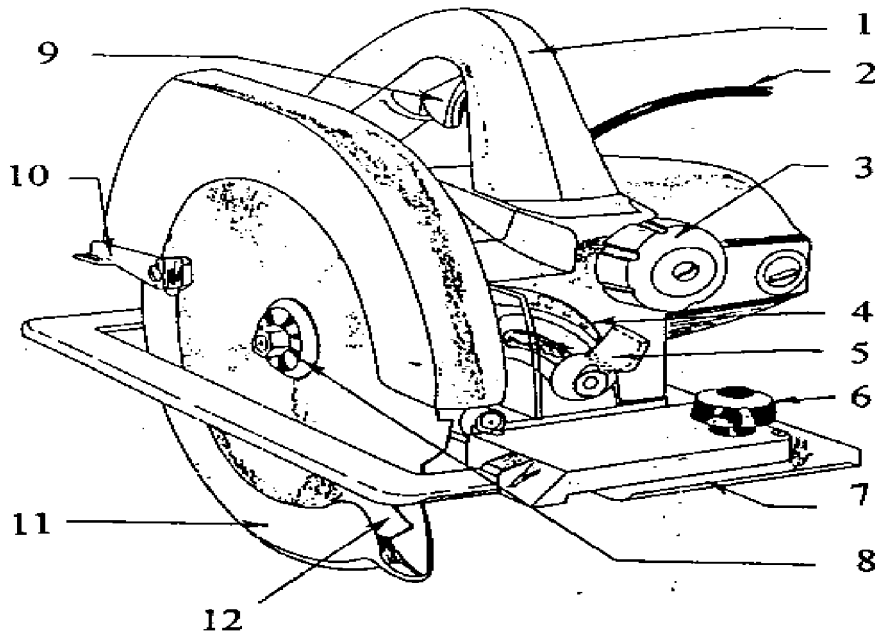
Given a properly functioning portable circular saw, accessories, instruction and demonstration of use, each student will be able to:

- A. Identify the major parts of the portable circular saw.
- B. Pass a written test on safety and operating procedures of the portable circular saw with 100 percent accuracy.
- C. Demonstrate ability to use the portable circular saw, following suggested safety rules and correct operation procedures.

### II. Instructional Materials and Procedures

#### A. Identification of basic portable circular saw parts.

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|------------------------|-------------------------|
| 1. Handle              | 7. Tilting Base         |
| 2. Electrical cord     | 8. Anti-Kickback Clutch |
| 3. Guide knob          | 9. Trigger Switch       |
| 4. Angle Scale         | 10. Guard Lift Handle   |
| 5. Tilt Lock Knob      | 11. Retractable Guard   |
| 6. Rip Guide Lock Knob | 12. Blade               |



## B. Portable Circular Saw Safety

1. Wear safety glasses and hearing protection.
2. Stock must be well supported so the kerf will not close, bind the blade, and cause a kickback
3. Support thin materials near the cut; Clamp small pieces to a sturdy base before cutting.
4. Adjust the depth of cut so the ends of three teeth are visible as the blade extends through the stock, 1/4" teeth extension is maximum.
5. Before using a saw, check the base and angle adjustments to be sure they are tight.
6. Locate the electrical cord so it will not become entangled in the work or be cut by the saw blade.
7. Always place the saw base on the stock with the blade not touching the material before starting the saw.
8. Keep both hands on the saw if two handles are provided.
9. Make sure the saw blade has topped rotating before putting the saw down.
10. Always unplug the saw to make adjustments or to change blades.
11. Always use sharp blades and keep the blade guard functional.
12. Do not overextend or over reach and lose your balance when using the portable circular saw.
13. Try to saw materials so that saw dust will not be thrown or blown in the operators face.

## C. Portable Circular Saw Operating Procedures

1. Select the correct blade for the type of cut being made and the type of material being cut.
2. Adjust the saw base so the blade extends through the material being cut by no more than 1/4"
3. Mark material so that a good visible line is present to help guide the cut.

4. Align the saw blade on the waste side of the cut line. The line should still be visible after the cut has been made.
5. Use one hand to grasp the saw guard lift handle and retract the retractable (movable) guard a little to get the cut started.
6. Align the cut line on the material with the proper notch or mark on the saw base to get the desired location of the cut. Most saws will have more than one notch or mark so the operator can adjust the saw position to get the desired cut.
7. Push the saw through the material at a steady pace. Avoid going too fast, this condition can be recognized by noticeable reduction in the RPM's of the saw blade.
8. For long straight cuts a guide can be clamped to the material and the saw base can be pushed along the guide.
9. For long cuts the operator may desire to lock the trigger switch in the "on" position. Be sure to check and see that the ON/OFF lock on the trigger switch is functioning properly.
10. To make a "plunge" or internal cut in a piece of material rest the front of the base on the material, retract the retractable guard, hold the saw good and sturdy, turn the switch on, and slowly lower the saw blade into the material. Continue to push the saw blade down until the blade cuts completely through the material.