

Portable Disc Grinder

I. Competencies

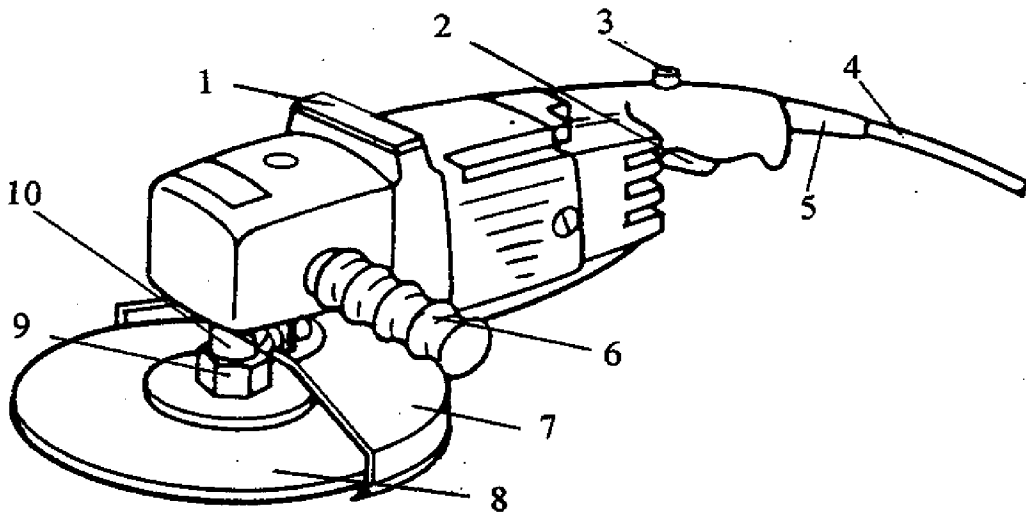
Given a properly adjusted portable disc grinder, accessories, instruction and demonstration of use, each student will be able to:

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

II. Instructional Materials and Procedures

A. Identification of basic portable disc grinder parts.

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| 1. Tool Rest | 7. Guard |
| 2. Off/On Switch | 8. Grinding Disk |
| 3. Switch Lock | 9. Locking Nut |
| 4. Electrical Cord | 10. Spindle |
| 5. Cord Strain Reliever | |
| 6. Handle | |



B. Portable Disc Grinder Safety

1. Wear safety glasses, or face shield at all times when using the portable disc grinder.
2. Wear hearing protection when grinding operating the portable disc grinder.
3. Position the grinder so that sparks and grit thrown of during grinding will not hit the operator or others working in the area.
4. Make sure the material being ground is well secured.
5. Never grind with the portable disc grinder in an area which houses flammable materials or combustible gases.
6. Replace the grinding disk when it becomes worn to half its original diameter.
7. Wear long sleeve leather gloves when grinding with the portable disc grinder to protect hands and forearms.
8. Hold the portable disk grinder with both hands when grinding.
9. Never lay the portable disc grinder down until the disk as stopped rotating.
10. Keep the electrical cord and extension cords out of the way of the work when grinding.
11. When using the wire brush attachment on the portable disc grinder, hold the grinder extra firm to prevent it from being thrown about and cause an accident.
12. Caution others in the work area to wear safety glasses, hearing protection and to watch out for flying sparks and grit.

C. Operating Procedures

1. Tighten the grinding disk snugly when mounting it on the portable disc grinder. The disk will tighten itself during normal operation.
2. Be sure to hold the portable disc grinder firmly when the off/on switch is turned on. The centrifugal force created by the rotating disk will cause the portable disc grinder to move or jump.

3. For extended periods of grinding the operator may lock the off/on switch in the on position to avoid fatigue from holding the switch on manually.
4. When an extension cord is used with the portable disc grinder make sure the cord is sufficiently large in size for the grinder being used. A #14 gauge extension cord is minimum and #12 gauge is preferred.
5. Keep the electrical and extension cords positioned away from the grinding area. Cords are easily severed by the portable disc grinder.
6. When laying the portable disc grinder down, always position it on the tool rest.
7. Before using the switch lock on the portable disc grinder always check to make sure the lock is functioning properly.
8. Hold the portable disc grinder so that sparks and grit are thrown away from the operator and others working in the area.
9. Using the portable disc grinder is hard work and causes rapid fatigue, rest frequently and do not become exhausted to help avoid accidents.