

<b>Number:</b>	OH&S 18.31.1
<b>Revision Date:</b>	02/27/2014
<b>Angle and Pedestal Grinder Safety Procedures</b>	

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### 1. PURPOSE

- 1.1. To provide safe operational guidelines in the use, dressing and maintenance of Angle and Pedestal Grinders

### 2. SCOPE

- 2.1. Safe work procedures for the angle and pedestal grinders should be reviewed with all employees, instructors and students who will in the course of their work or training will operate one of these pieces of equipment.

### 3. PRECAUTIONS

#### **POTENTIAL HEALTH & SAFETY HAZARDS**

<b>HAZARD</b>		<b>TO PROTECT YOURSELF</b>
<b>PINCH POINTS</b> There are gears and exposed moving parts on machinery.		Use LOCK-OUT procedures when performing maintenance or conducting any work within 12" of an exposed pinch point. NEVER put your hands or feet near an exposed pinch point or gears!
<b>ELECTRICAL HAZARD</b>		Ensure that all wires, connectors and plugs are in good condition.
<b>HIGH SOUND LEVELS</b> Sound levels exceed 85 dB		<b>HEARING PROTECTION</b> is required when working in designated areas.
<b>FOOT INJURY</b>		Approved protective footwear is needed when there is the risk of foot injury due to slipping, uneven terrain, abrasion, crushing potential, temperature extremes, corrosive substances, puncture hazards, electrical shock and any other recognizable hazard
<b>LASER HAZARD</b>		Wear suitable eye protection

**4. PERSONAL PROTECTIVE EQUIPMENT**

	<p>Safety glasses must be worn at all times in work area!</p>
	<p>Work Boots must be worn at all times when working in an area where there is risk of serious foot injury due materials falling onto the foot.</p>
	<p>Work Gloves should be worn when there is a risk of hand injury during the course of work tasks.</p>
	<p>Hard hats must be worn when working in an environment where there is a risk of objects falling from above or where there is a high risk of striking your head on objects.</p>
	<p>Close fitting clothing or protective clothing must be worn.</p>
	<p>Rings, jewelry and any dangling jewelry must not be worn while operating these pieces of equipment.</p>

**5. PROCEDURES**

**5.1. PRE-OPERATIONAL CHECKLIST**

1. Always wear eye protection. (Safety glasses under a Face shield)
2. Remove ties, rings, watches and other jewelry. Long hair must be tied back and loose sleeve should not be worn.
3. Make sure the wheel guards are in place and properly adjusted and tightened to

contain fragments of the wheel should it break apart while turning. A portable grinder when it is being used for grinding root passes in welded pipe, provided it has a protective hood covering at least 120° of the wheel periphery and the operator wears adequate eye and face protection.

4. **DO NOT** adjust a grinder when it is running.
5. Blotter on wheel flanges used to mount the grinding wheels on the shaft of the grinder must be in place.
6. Tool rests must be adjusted and tightened to ensure that there is less than 1/8" gap from the wheel.
7. Wheels should be inspected prior to tuning on the power. Wheels with cracks or chips or that are badly ruttled should not be used. They may require dressing or permanent removal from service.
8. Do not grind on the side of the abrasive wheel.
9. Check that the speed rating of the grinding wheel is equal or exceeds the speed rating of the grinder. The maximum approved speed stamped on the wheel blotter should be checked against the arbor speed on the machine to ensure that the safe peripheral speed is not exceeded. Allowable arbor or shaft speed of the abrasive equipment must be clearly marked on the equipment.

## 5.2 SAFE OPERATIONAL PROCEDURES FOR GRINDERS

1. Wear proper personal protective equipment:
  - Eye, ear, and face protection
  - Metatarsal safety boots where required
  - Respiratory protection may be required depending on the work
  - Wear gloves only where necessary
2. Stand to one side of the wheel when turning on the power.
3. Before commencing grinding, allow the grinding wheel to run at operating speed for at least one minute.
4. When commencing a grinding operation, bring the object into contact with the grinding wheel slowly and smoothly avoiding impact or bumping motions.
5. Move the object being ground, back and forth across the face of the wheel, as this prevents ruts and grooves from forming on the wheel.
6. Dress the wheel on the face only. Dressing the sides may cause it to become too thin for safe use.

7. Use the face of the wheel when grinding. Do not press too hard on the wheel.
8. Non-ferrous materials must not be ground unless the wheel is designed for such use.
9. Vibrating wheels should not be used. They must be dressed or replaced or the bearings of the shaft replaced if they are worn.
10. Do not touch the ground portion of the work piece until you are sure it is cool.
11. Shut off power and do not leave until the wheel has come to a complete stop.
12. Clean the work area when finished using the grinder.
13. Disconnect **angle grinders** from the power source when making repairs or changing discs.
14. Turn off power switch to **pedestal grinders** and lock out the electrical switch before doing any repairs.

### 5.3 WHEEL DRESSING PROCEDURES

1. Wear a face shield over safety glasses for protection against heavy particles.
2. Use a dressing tool approved for the job.
3. Inspect star dressers for loose shafts for the job.
4. Round off the wheel edges with hand stone before and after dressing to prevent the edges from chipping.
5. Use the work rest to support and guide the tool.
6. Use moderate pressure slowly and evenly.
7. Always apply diamond dressers at the centre or slightly below the centre, never above.

### 6. SUMMARY OF CHANGES

Revision #	Date	Change (include section #)	Issued By
1	02/27/2014	NEW	OHS Officer