

## Bench Grinder-6" Variable Speed Maximum 055-3503-6

### Potential Injuries and Hazards



	Amputation
<input checked="" type="checkbox"/>	Burns
	Concussion / Head Injury
<input checked="" type="checkbox"/>	Cuts / Lacerations
<input checked="" type="checkbox"/>	Electric Shock
<input checked="" type="checkbox"/>	Eye Injury
	Fatality
	Fire / Combustible Material
<input checked="" type="checkbox"/>	Moving Machinery / Parts
	Pinch Points / Sharp Points
	Respiratory Damage
	Slips, Trips, or Falls
	Other: _____



### KEY NOTES:

1. This task may expose workers to risk of musculoskeletal injury (MSI). Signs and symptoms include pain, burning, numbness, tingling, swelling, stiffness, and/or loss of movement or strength in a body part. Report these to your supervisor immediately.
2. This task may only be performed by trained and authorized personnel. Supervisors must ensure workers are trained and following the SOP.

### Personal Protective Equipment (PPE) Requirements

Safety Glasses	Safety Footwear	Hearing Protection	Face Shield	Respirator	Cut Resistant Gloves	Nitrile Gloves	Electrical Gloves	Hard Hat	Fall Protection	Hot Work PPE
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							

- Inspect all PPE prior to use. Report any worn or damaged equipment to your supervisor immediately.
- Ensure all PPE is properly cleaned, maintained, and stored.
- All relevant PPE must be CSA approved as per Personal Protective Equipment (PPE) Doc 10210

Other:

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## General Safety Rules

- Keep bystanders out of the work area while operating the tool.
- Stand to the side of the grinder during start-up. Switch it on and let the grinder operate at full speed for approximately one minute so that any undetected flaws or cracks will become apparent.
- Keep guards in place and working properly.
- Keep hands clear of grinding wheels.
- Never reach behind or beneath the grinding wheels.
- **DO NOT** attempt to cut anything with the grinding wheel.
- **DO NOT** wear gloves, neckties, jewellery or loose clothing when using tool.
- **HOLD THE WORKPIECE FIRMLY** against the tool rest. Loss of control of the workpiece can cause serious injury.
- **INSPECT WHEELS** before starting the machine for cracks or fragments. Parts of the wheel can be thrown at high speeds causing serious injury. If damaged is found pull the Lockout Key and immediately hand it to your supervisor.
- **ADJUST EYE SHIELDS** close to the grinding wheel, and re-adjust as the wheel wears down. Flying sparks are dangerous and can cause fires or explosions.
- **ALWAYS MAKE SURE** the eye shields are in place, properly adjusted, and secured.
- **ADJUST TOOL RESTS** close to the grinding wheel (1/8" separation or less). Tighten the tool rest securely to prevent shifting positions, and re-adjust as the wheel wears down. The workpiece can be drawn into the wheel, causing damage to the workpiece and/or serious injury.
- **OBTAIN ADVICE** from your supervisor, instructor, or another qualified person if you are not thoroughly familiar with the operation of this machine. Knowledge is safety.
- **NEVER START THE MACHINE** with the workpiece against the grinding wheel. The workpiece can be drawn into the wheel, causing damage to the machine and/or serious injury.
- **GRIND A WORKPIECE** using the face of the grinding wheel only. Loss of control of the workpiece can cause serious injury.
- **PROPERLY SUPPORT LONG OR WIDE** workpieces. Loss of control of the workpiece can cause serious injury.

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### ON/OFF

1. Press the side marked **I** to turn the grinder **on**.
2. Press the side marked **O** to turn the grinder **off**.



3. To lock the grinder put the switch in the "O" position, grasp the end of the switch key, and pull it out.



### ADJUSTING THE SPEED OF THE GRINDER

1. To increase speed, rotate the variable speed control knob clockwise.
2. To reduce speed, rotate the variable speed control knob counter-clockwise.



### Grinding

- Always keep the work piece moving across the face of the grinding wheel. Grinding continuously on the same spot on the wheel will cause grooves to be worn into the wheel. The wheel may crack or become damaged more easily, and grinding of other objects will be difficult.
- Always grind on the face of the wheel (around the diameter), **NEVER on the sides**. Side pressure on grinding wheels can cause cracking and damage.

### TWIST DRILL BITS

Begin on one side of the point at the existing angle, and then twist the bit while maintaining a constant angle with grinding surface.

Sharpen only the tip. Be sure to maintain the original cutting edge angle as this is important to the efficiency of your bits.

The tool rest with the V-groove is correctly angled for most drill bits.



### COOLANT TRAY

When grinding, metal objects become heated quickly. It is important to keep moving the object back and forth across the face of the grinding wheel and to cool the object frequently using the coolant tray.





# Standard Operating Procedure

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### Training / Reference Material

Document #11557 Bench Grinder - Maximum	

### Revisions

Rev.#:	Reason for Change:	Revised By:	Revision Date:
00	New SOP	Initial Release	October 23, 2018