Spot The Safety Violation: The Dos & Don’ts of Safe Grinder Use

There are so many things wrong with how this worker is using the grinder. How many safety issues can you spot’

Grinders, or tools that use abrasive/grinding/cutting wheels and discs, are a type of tool often found in many workplaces. But as with other power tools, grinders can injure workers if they’re not used properly.

Fortunately, this picture of a worker using a grinder was staged. But it does illustrate some of the safety hazards that can arise when using such tools.

First, the area in which the worker is using this tool is a mess. Work areas should be kept clean and free from clutter. (See, the housekeeping requirements under the OHS laws.)

Second, you shouldn’t use a grinder near flammable materials. In the photo, there are paper bags near the worker that could catch fire if a spark from the grinder lands on them. There are also flammable fluids and electrical cabinets nearby.

Third, it may look like the worker is wearing hearing protection but he’s actually wearing headphones and listening to music, oblivious to his surroundings’including the fact

that a co-worker is standing very close to him. (Learn why you need a policy on the use of music devices in the workplace.) And he's not wearing any other kind of appropriate PPE, such as respiratory or eye protection.

Lastly, the worker is holding the workpiece with one hand and the grinder with the other, when he should have both hands on the power tool. And the workpiece should be held in position in a vise or similar device.

GRINDER SAFETY DOS & DON'TS

You should have a power tool program to ensure the safety of workers when they're using grinders and other power tools. This program should comply with the power tool and grinder-specific requirements in your jurisdiction's OHS regulations. But here are some basic dos and don'ts from the WSCC and WorkSafeBC for the safe use of grinders that you should share with your workers who use these tools.

To minimize the risk of injury when using grinders, workers should **DO** the following:

- Only use a grinder after you receive proper training and authorization from your supervisor.
- Only use a grinder that has the manufacturer's guard safely in place.
- Adjust tool rests on bench or pedestal-mounted grinding wheels to within 3 mm (1/8 inch) of the wheels. Never adjust rests while the wheels are moving. Work rest height should be on the horizontal centre line of the machine spindle.
- Always wear appropriate eye, face and hand protection when using a grinder. Wear hearing protection if necessary.
- Choose the correct grinder for the job.
- Verify that the wheel or disc is suitable for the material, the correct size for the grinder (including

centre hole size), and suitable for use at the grinder's maximum r.p.m.
- Make sure the grinder is properly grounded or double-insulated.
- Always follow the safe operating procedures, including the correct body position to reduce exposure to flying sparks or debris and shielding in case of wheel failure or kickback.
- Stand to one side of the wheel when turning on the power to any grinder.
- Inspect grinder abrasives such as cups, discs and wheels for damage before each use. If a grinder appears to be defective or unsafe, tag it out of service and immediately report it to a supervisor.
- Operate grinders and other air-powered tools within the manufacturer's stated range of operating speed and pressures.
- Use the manufacturer's handle on a handheld grinder unless operating procedures allow its safe removal.

Workers should **NOT** do the following when using grinders:

- Modify, alter or remove the manufacturer's guard.
- Use a wheel that has been dropped.
- Use a grinder if the wheel vibrates. Try dressing the wheel. If that doesn't stop the vibration, turn off the grinder and check to see if the wheel or bearings of the shaft are worn and need to be replaced.
- Use a wheel or disc that doesn't fit properly to the spindle or guards.
- Use excessive force to tighten the wheel's nut. The force can crack the wheel.
- Grind wood, plastics and non-iron metals with ordinary wheels.
- Leave grinding wheels or discs lying on workbenches or other surfaces unprotected from impact damage.
- Leave grinding wheels standing in liquids, which can

cause balance problems.

- Grind on the side of a regular wheel.
- Use cutting discs for grinding’or grinding discs for cutting.
- Touch the ground portion of the workpiece until you’re sure it has cooled’grinding creates heat.