

TOOLBOX TALK: CUTTING AND GRINDING

Job or site _____

Date _____

Led by _____

Open with this

Whoever is running a grinder or a cutoff saw today, bring the wheel over. We are reading the rating on it out loud before it goes anywhere near the tool.

The talk

The first thing is speed matching. Every abrasive wheel has a maximum rpm printed on it and every tool has a no load speed on the plate. The wheel rating has to be equal to or higher than the tool speed. A wheel rated below the tool is a grenade with a timer on it.

The second is the right wheel for the job. A cutoff wheel is thin and made for cutting on its edge. A grinding wheel is thick and made for its face. Using a cutoff wheel to grind, or leaning a grinding wheel on its edge, loads it in the direction it was never designed for.

Inspect the wheel before it goes on. Chips, cracks, and anything that has been dropped. On the heavier bonded wheels the ring test still works: hang it on a pin, tap it gently with a non metallic handle and listen. A dead thud instead of a ring means a crack you cannot see.

The guard stays on and it stays positioned between the wheel and you. That is what a guard is for. Most grinder injuries are to the face, the neck and the hands, and most of them happened with the guard rotated out of the way or taken off entirely.

Let it come up to speed before it touches the work, and after you fit a new wheel stand to the side and run it for a minute. If a wheel is going to fail, it usually fails in that first minute.

Then the sparks. A cutoff saw throws a stream of hot metal twenty or thirty feet. That is a fire watch issue, a combustible material issue, and a burn issue for everybody downstream of you. Look at where the sparks are going before you start, not after something smells like smoke.

Point at these before anybody starts

- The rpm rating on the wheel against the rpm on the tool nameplate
- The wheel itself, checked for chips, cracks and impact damage
- The guard, present and positioned between the wheel and the operator

- Where the sparks will land: combustibles, other trades, gas lines, vehicles
- Face and eye protection, a full face shield over safety glasses for grinding
- The flange and the nut, correct for the wheel and tightened properly

The rules that apply

- The wheel's maximum rpm must be at or above the tool's rated speed. Check it every time you change a wheel.
- Use the wheel the way it was designed: cut with a cutoff wheel, grind with a grinding wheel, never the other way round.
- Inspect every wheel before mounting and discard any that is chipped, cracked or has been dropped.
- Guards stay fitted and positioned between the wheel and the operator.
- After fitting a new wheel, stand aside and run the tool at full speed for one minute before use.
- Clear combustibles from the spark path or shield them, and keep an extinguisher within reach for hot work.

Ask the crew

- What is the rpm on the wheel in your grinder right now? Not a guess.
- Where are your sparks going today, and who is standing in that line?
- Has anybody here had a wheel come apart on them? What happened?

Close with this

Right wheel, rated for the tool, guard in place, sparks aimed at nothing that burns. Face shield over glasses.

Attendance

Everybody who was present signs, including subcontractors and anybody visiting the site.

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This talk is general safety information for a crew briefing, not legal advice and not a substitute for the training your employees are required to have. Standards are quoted for orientation only. Check the current text of the standard and your own state plan, which may be stricter than the federal rule.