

Some Hazards Related to Electricity that Woodworkers Might Encounter

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June 2017

What Are three types of electricity that wood workers might encounter?

- Alternating
- Direct
- Static

Alternating current

- 120/240 volts single phase is most common
- 230 volt 3 phase is commercial and there are wood tools out there on the used market. You need a phase converter to use them with single phase power. The exception is the Powermatic lathe that can use either single phase or 3 phase

Direct current

- Mostly seen in low voltage batteries.
- At low voltage, it is not dangerous

Static Electricity

- Potential an issue with dust collection systems. Moving dust particles can built up an electrostatic charge
- Fine dust is explosive. The original diesel engine was designed to run on pulverized coal dust

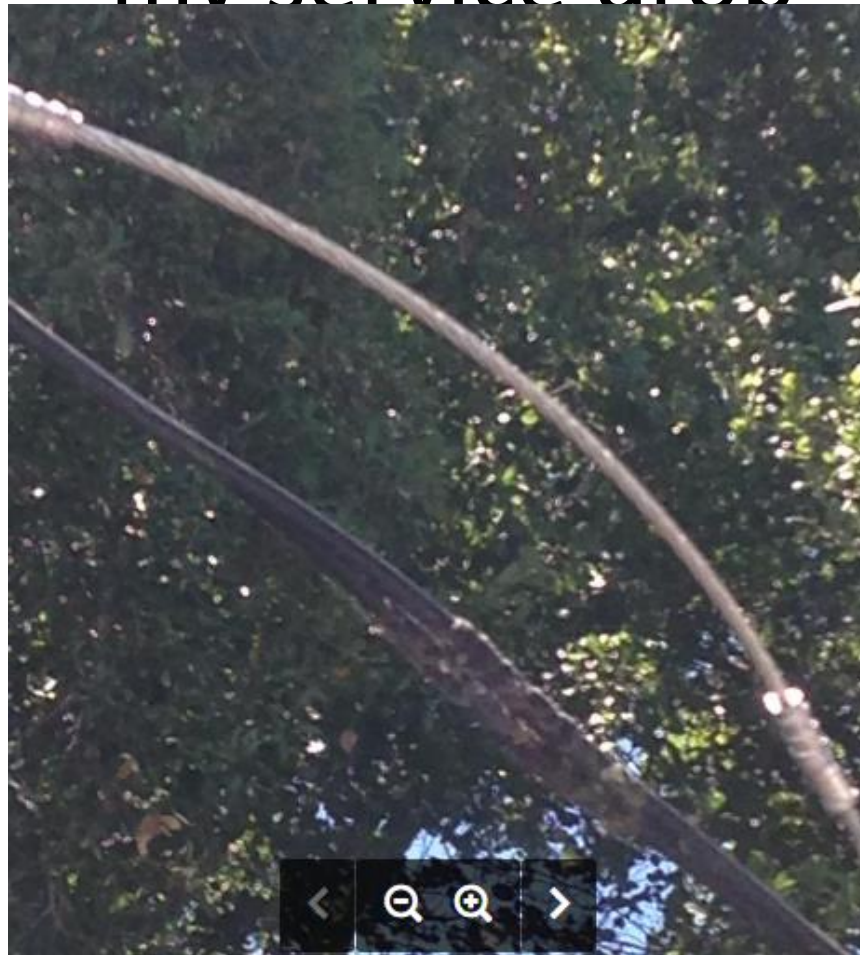
Issues in the wood shop: old wiring



Dust intrusion into electric boxes:



Funny voltages into my (90 and 135 volts) due to a broken neutral wire on my service drop



Takeaways

- Be aware of the hazards of electricity
- Think of how much energy can be delivered through such a small wire
- Dust around electricity can cause problems as well as static discharges