

The Unsafe Reality of Lathes

Lathes are a common piece of machinery in many shops and industries. Most look at this equipment as generally harmless. The reality is, each year, workers across the nation sustain serious or deadly accidents while using lathe machines.

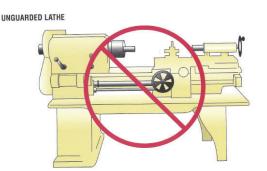
OSHA's website details more than 300 serious accidents involving lathes. These are just a few of those reported in 2017:

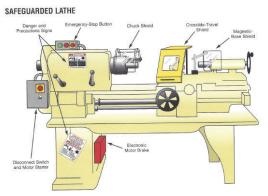
- Employee amputates finger when hand is pulled into lathe
- Employee amputates ring finger in spinning lathe
- Employee reaches into a spinning lathe, and his thumb is amputated
- Employee is caught in rotating lathe and killed
- Employee is pinned, crushed and killed in CNC lathe machine

Lathes Can Be Extremely Dangerous if Not **Used Properly!**

Only those who have been formally trained should operate a lathe. Operator training records should be retained on file. Read the owner's manual carefully for model-specific instructions and safety features.

Illustration of a Properly Guarded Lathe





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Always Inspect the Lathe Prior to Use

- Is the area around the lathe clean and free of obstruction or oil/grease?
- Are all moving parts guarded?
 - Chuck shield in place?
 - Crosslide travel shield in place?
 - Magnetic base shield in place?
- Is the emergency stop button clearly visible and accessible?
- Are danger and precaution signs posted?

Sample Signs for Posting Near Lathe







Lathe Safety Best Practices

- Wear appropriate safety glasses. It may also be necessary for others in the vicinity to wear safety glasses to control against potential projectile pieces.
- Remove entanglement hazards (loose clothing, unzipped jackets, unbuttoned shirts, jewelry, long hair).
- Ensure that the lathe has a start/stop button within easy reach of the operator.
- Follow job specifications for the speed, feed and depth of cut for materials being turned. Make sure all work runs true and centered.
- Center drill work deeply enough to provide support for the piece while it is turning.
- Secure and clamp the piece being worked.
- Adjust tool and tool rest so that they are slightly above the center of the work.
- Use a lifting device to handle heavy chucks or work.
- Inspect chucks for wear or damage.
- Remove chuck wrench immediately after adjusting chuck.
- Use a barrier guard when operating the lathe in semi-automatic or automatic mode.
- Guard all power transmission parts.
- Remove all tools, measuring instruments and other objects from saddle or lathe bed before starting machine.
- Keep all lathe cutting tools sharp.
- Ensure that the chip and coolant shields are in place.
- Shut off the power supply to the motor before mounting or removing accessories.
- Stop lathe before taking measurements of any kind.
- Use a vacuum, brush or rake to remove cuttings only after the lathe has stopped moving.
- Keep the work surface clean of scraps, tools and materials.
- Keep floor around lathe clean and free of oil and grease.

Prohibited Practices while Using a Lathe

- Do not wear gloves, rings, watches or loose clothing. Confine long hair.
- Do not lean on machine. Stand erect; keep your face and eyes away from flying chips.
- Do not make adjustments while the machine is operating. Wait until the machine has come to a complete stop.
- $\cdot~$ Do not place hands on work turning in the lathe.
- $\cdot\;$ Do not use calipers or gauges on a workpiece while machine is moving.
- Do not make heavy cuts on long slender pieces, because the work could bend and fly out of the lathe.
- · Do not leave lathe unattended while it is running.
- Do not remove guards or work on a lathe that is missing safeguards.



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