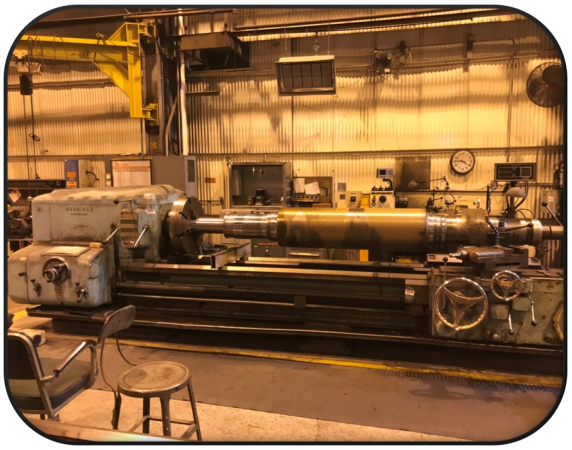
USW HEALTH & SAFETY

HAZARD ALERT

Unguarded Lathe Leads to Life-Altering Injuries

A USW machinist was working alone while attempting to remove rust from a shaft, 2-inches in diameter and 74-inches in length. He placed the shaft in the 20” Lathe to rotate the shaft while applying a piece of sandpaper to the shaft by hand to remove the surface rust. When the sandpaper was applied by hand to the rotating shaft, the victim’s gloved left hand became caught in the rotating chuck, pulling his left hand and arm into the rotating equipment. The victim’s right hand and arm also became entangled in the rotating shaft as he attempted to free his left arm. Although the victim was working alone, two USW members in the building heard his cries for help and came to his assistance. When they arrived at the scene of the incident, both of the victim’s arms were wrapped around the shaft with his head and neck close to the shaft.

The machine’s electric motor was still running, but the shaft and chuck were no longer rotating due to possible belt slippage on the drive shaft. One of the responders quickly pushed an emergency stop button which stopped the electric motor. The victim remained conscious and instructed the responders to put the lathe into “neutral”. The responders were then able to rotate the chuck and shaft to free the victim. Unfortunately, the USW has experienced many similar lathe incidents with employers across industries.



Recommendations:

- Install appropriate machine safeguarding to protect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips, and sparks. Hinged, electronically interlocked chuck-shields are a common method to protect operators from the rotating chuck. Hinged chuck shields made of metal, polycarbonate, or some combination of materials are commercially available. This also includes chip/coolant shields.
- Install a hands free engineering control for sanding and filing on all lathes machines - see example photo.
- Conduct risk assessments of all lathes to determine appropriate machine safeguarding with the assistance of operators and a labor-management safety committee.
- Audit the location of emergency stop button(s) on lathes for easy access by operators. Test emergency stops as outlined by the manufacturer’s guidelines.
- Purchase and use spring-loaded, self-ejecting chuck wrenches.
- Cover rotating components to protect operators from rotating components that includes the lead screw, feed rod, traverse rod, and camshaft, in the lower front portion of the lathe.
- Conduct working alone risk assessments. Develop a working alone policy and training. For example, no employee will be permitted to work unless there is at least one other person in seeing or hearing distance (above the ambient noise) as outlined in a risk assessment.

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