

Safety Matters is intended to promote discussions of safety issues among underground construction professionals. You should always read and understand the operator's manual before operating any equipment. For additional information, please e-mail safety@ditchwitch.com.

TOPIC: TRENCHING

Potential Hazards

- Caught in
- Struck by
- Laceration
- Drawn into
- Buried hazards
- Falls onto

Precautions

- ALWAYS have all underground utilities located prior to digging. Know and follow local regulations for excavating near utilities
- Stay away and keep others at least 6 ft (1.8 m) away from machine and moving parts of machine. Stop machine if others get too close.
- Learn how to use all controls prior to operating.
- ALWAYS wear the seatbelt provided with a roll-over protective structure (ROPS) when the ROPS is in place.
- Keep operator presence systems operating correctly.
- Clear objects such as landscaping fabric, cable, and wire from the work area.
- Start trenches away from obstructions such as curbs, slabs, and fences that digging teeth may catch.
- Stop trenching to make trench observations such as trench depth.
- Operate only with personnel restraint bar or trench cleaner in place.
- When operating a pedestrian machine, hold the handles with an open grip and stand back from the console.
- Let the trencher and digging chain come to a complete stop before lowering the trench cleaner shoe into digging position.
- Keep chain well maintained.

Information/Facts

- Trench sides can cave in up to a distance of $\frac{3}{4}$ x the depth of the trench. For example, if the trench is 4 ft (1.2 m) deep, the cave-in can start up to 3 ft (0.9 m) away from trench.
- Trencher booms can "kick up" if the chain hits an underground obstruction such as a tree branch or concrete footing. On pedestrian machines, this will cause the handles to be forced downward suddenly.
- Machine may jerk when digging starts.

TALES FROM THE TRENCH

- ▶ The injured was using a shovel on the right side of the digging chain to cave off the trench side and allow the digging chain to pull soil from the trench. The accident occurred when the injured got too close and attempted to step across the trench with his left leg. His foot slipped down the trench side and into the digging chain. His leg was amputated below the knee and he had severe tissue damage to his thigh.
- ▶ An experienced construction supervisor was stepping across a 12-inch (305 mm) trench while the trencher was running. He was too close, his foot slipped, and he fell into the trench and digging chain. He died on the scene.
- ▶ The spoils flap on a trencher was missing, so the crew placed a wooden board with one end on the tractor and one end on the restraint bar. A crew member was riding on the board to hold it in place. A rock was thrown and hit the board, causing the crew member to fall. His leg was caught in the digging chain. He had severe tissue damage and subsequently suffered numerous infections.
- ▶ A crew was trenching next to a sidewalk. A crew member was straddling the trench while the trencher was running, holding a piece of cardboard to keep dirt off the sidewalk. The trencher chain struck the sidewalk and knocked the boom out of the trench. The crew member suffered severe cuts to both of his arms.
- ▶ An operator was trenching in a field that had a cross-country gas main buried underneath. The trencher struck the gas line, and it exploded. A huge hole was blown in the ground. The trencher was blown into the air and landed 100' away on its top. It is presumed that the operator died instantly.