

SAFETY MATTERS



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:

Roll-Over Protection

POTENTIAL HAZARDS

- Struck by
- Crushing
- Asphyxiation
- Burns

PRECAUTIONS

- ALWAYS wear the seat belt provided with a roll-over protective structure (ROPS) unless the ROPS is folded down (if equipped).
- Do not operate a machine with a folded-down ROPS for more than a few minutes and never on a slope. A seat belt should not be worn when the ROPS is folded down.
- Stay off slopes and uneven ground when possible.
- ALWAYS keep heavy end of equipment uphill.
- Travel slowly on slopes and uneven ground.
- Travel cautiously on covered/obscured ground.
- Engage traction control (if equipped) when working on a slope.
- Keep all loads as low to the ground as possible.
- Avoid starting, stopping or turning on slopes.
- NEVER exceed the rated operating capacity of attachments or equipment and keep attachments low.
- Only use attachments approved by the original equipment manufacturer.
- Inspect ROPS and seat belt regularly. Replace if rust, cracks, or damage are present. Correctly tighten loose fittings.
- Never drill or weld on ROPS. Never use the ROPS as an attachment point for pulling. This can weaken the structure.
- Reference manufacturer's operator's manual for proper driving position.
- Do not position any objects in the space between the operator and ROPS members.

INFORMATION/FACTS

- Many different things affect stability and can contribute to an overturn. Including, but not limited to: terrain, ground conditions, travel speed, tire pressure, load weight and placement, and equipment configuration.
- ROPS are intended to be used with a seat belt. If not wearing a seat belt during an overturn, an operator can be thrown from the operator's station and crushed by the tractor or even the ROPS itself.
- ROPS are designed to create a protective zone around the operator when a rollover occurs. When used with a seat belt, the ROPS will help prevent the operator from being thrown from the protective zone and crushed from an overturning tractor or from equipment mounted or hooked to the tractor.
- NIOSH estimates there are 250 tractor roll-over deaths per year. The use of a ROPS and seat belt are 99 percent effective in preventing death or serious injury from a roll-over.
- Hidden obstacles, such as tree stumps or rocks, can cause a machine to overturn.
- Overturned equipment can catch on fire.
- Modification of equipment can affect stability.

TALES FROM THE TRENCH

- A forty-year-old man was mowing the side of a ditch. His mower ran over an obscured rock and overturned. He wasn't wearing his seat belt. He was thrown from the operator's station and his leg was pinned underneath the machine. The mower caught on fire and the man couldn't escape.
- A worker was clearing brush and trees from a cemetery using a loader attached to a tractor without a ROPS. A stump was secured to the loader by a log chain around it and the loader bucket. The tractor was aimed at an angle forward and downward across a slope, tilting to the left as he attempted to lift the heavy tree stump by raising the front-end loader. The tractor tipped onto its left side and continued to roll onto its top, stopping upside down on top of the operator. The victim was found by another worker who came to the cemetery to mow grass later in the day. He died from asphyxia due to a crushing chest injury.

**DON'T LEARN SAFETY
BY ACCIDENT**

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