



Tractor rollover prevention

Tractor rollovers are one of the leading causes of farm fatalities. They can occur within seconds and often with little warning. There are two main types:

- **Rearward rollovers:** when the tractor tips backward because the rear wheels cannot rotate enough to move the machine forward
- **Sideways rollovers:** occur when turning too sharply, driving on steep slopes, or getting too close to ditches or embankments

Key engineering control: rollover protective structures (ROPS)

- Rollover protective structures (ROPS) create a protective zone around the operator in the event of an overturn
- When paired with a seatbelt, ROPS safety systems are 99% effective in preventing deaths and serious injuries
- Older tractors can be retrofitted with engineered and certified ROPS systems
- Do NOT wear a seatbelt on tractors without ROPS; being thrown clear may be your only chance of survival

Before you start the tractor

- Check your surroundings to ensure no people, especially children, are near the machine
- Conduct a daily maintenance check (tires, fluids, brakes, lighting, SMV (slow moving vehicle) emblem, shields, etc.)
- Review and follow the operator's manual

Seatbelt and operator positioning

- If ROPS is installed, always buckle your seat belt to stay within the protective zone during a rollover
- Never carry extra riders unless the tractor is equipped with a factory-installed buddy seat

Safe operating practices to prevent rollovers

1. Avoid steep slopes

- Stay off steep hillsides whenever possible
- Back the tractor up steep hills rather than driving forward
- Keep mounted equipment positioned on the uphill side when working across slopes

2. Reduce speed, especially when turning

- Slow down before making turns
 - Centrifugal force increases the chance of a rollover — a vehicle going twice as fast is at four times the risk
- Avoid taking fast sharp turns
- Avoid using the brake while taking a sharp turn

3. Stay away from ditches, holes, and embankments

- Keep the tractor behind the shear line when working near ditches
- Stay as far from a ditch as it is deep
- Look for holes, washouts, and soft edges that can lead to a sideways upset

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4. Stabilize the tractor before starting work

- Properly stabilize for the job (ballast, wheel spacing, etc.)
- Use tire chains or boards to improve traction when conditions require it

5. Hitch loads correctly

- Always hitch to the drawbar at the manufacturer's recommended height
- Hitching too high dramatically increases risk of a rearward rollover

6. Practice smooth, controlled operations

- Avoid jerky starts
 - Sudden engagement of power, especially when towing, can cause rearward rollovers
- Reduce engine speed before turning or stopping
- Avoid fishtailing and severe braking, which can lead to jackknifing and rollovers

Final reminders

- Rollovers happen fast — prevention depends on stable equipment, slow speeds, and good decisions
- Your best chance of going home safely is to pair ROPS safety system with a seatbelt
- Every operator must be trained annually in tractor safety per guidelines

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