What is an agricultural tractor?
An agricultural tractor is a two or four-wheel drive vehicle or track vehicle, of more than 20 engine horsepower. It furnishes the power to pull, carry, propel, or drive implements designed for agriculture. Articulating tractors ‘bend’ in the middle. Many commercial grain facilities use agricultural tractors.

How does it work?
Tractors are work horses and used for a variety of purposes. Implements are attached to tractors by a hitch or a power take off (PTO) shaft at the front or back. Each requires special attention for safe use. Tractors are the leading cause of death on farms.

Hazards:
Per year tractor rollovers account for over 250 fatalities and runovers result in approximately 65 deaths (NIOSH). Unguarded PTOs pose entanglement hazards. Other hazards include striking overhead objects such as limbs or power lines (electrocution); falls from the tractor; collisions with other vehicles or objects; carbon monoxide poisoning; being crushed from poor support while making repairs.

Injury Example:
#1 Doug was using the tractor to push a brush pile together when the side of a drainage ditch gave way. The tractor went down the embankment and landed upside down.

1. What could Doug have done differently?
2. What are likely results without a ROPS?
A ROPS provided 6-10” of clearance between Doug’s face and the tractor’s fender. Doug slid out of the tractor and sought assistance.

Before Using a Tractor:
✓ Read the operator’s manual!
✓ Perform a safety/maintenance check before use.
  • ROPS & seatbelts for wear
  • Fluids, tires, battery
  • Guards
  • Lights, flashers, slow moving vehicle sign
  • Keep it clean to avoid projectiles
✓ Prevent carbon monoxide poisoning – Always fuel outdoors. Never run a tractor in an enclosed area.
✓ ROPS – Rollover Protection Structure. All tractors should have a properly manufactured and engineered ROPS.
  • Always wear a seat belt with ROPS to keep you in the safety zone.

Tractor Operation:
✓ Turn wide & slow.
✓ Reduce speed in slick environments.
✓ Back up steep slopes; go forward down slopes.
✓ Avoid operating the tractor near ditches, holes and embankments.
✓ Avoid hitching above the drawbar which increases the risk of a rear overturn. Keep hitch low & never above 21 inches.
✓ Mount & dismount using 3 points of contact.
✓ NEVER bypass start the tractor.
✓ Watch for overhead hazards such as power lines.
✓ When operating, clear area of people and animals.
✓ Ensure PTO guards are in place & in good repair.
  • Avoid jewelry, loose clothing & loose hair.
✓ PPE – hearing protection, non-slip footwear, other appropriate personal protection as necessary.
✓ NEVER ALLOW AN EXTRA RIDER.

Let’s Talk about our Worksite
1. Are we performing checks before using the tractor? How can we ensure we do this?
2. Have all the operators familiarized themselves with the operator’s manual?
3. What are some excuses we have for not wearing seatbelts, or for operating the tractor in a risky manner? What can we do to improve?
TRACTOR SAFETY AT WORK

Perform safety and maintenance check before use.

Equip tractors with ROPS and use a seatbelt.

Operate safely to avoid rollovers.

NO extra riders!
Additional Resources:

OSHA regulation 1928.51

Tips
- http://www.ehs.iastate.edu/occupational/farms/tractor-tips
- http://farmsafety.mo.gov/safety-topics/tractor/

Checklist

Rollovers