

LESSON 4: Tractor Operation Basics

- A. Most common hazards when operating a tractor
 - 1. Slips and falls
 - 2. Rollovers
 - 3. Runovers
 - 4. Extra riders
 - 5. Entanglements
 - 6. Contact with hot components
 - 7. Pinch points
- B. Starting the tractor
 - 1. Transmission in park/neutral
 - 2. PTO disengaged
 - 3. Remote hydraulics in neutral
 - 4. Disengage clutch
 - 5. Engaging the starter
- C. Operating the tractor
 - 1. Role of neutral interlock/by-pass starting
 - 2. Engaging the clutch
 - 3. Engaging the PTO
 - 4. Activating hydraulic controls
 - 5. Disengaging the parking brake
- D. Most common cause of tractor-related fatalities
 - 1. Rollovers or overturns
 - 2. Runovers/extra riders
- E. Forces that contribute to tractor overturns
 - 1. Gravity
 - 2. Centrifugal force
 - 3. Rear-axle torque
 - 4. Force on the drawbar
 - 5. Pulling from above the drawbar
- F. Locating center of gravity on tractor
 - 1. Front load/frontend loader
 - 2. Rear load/rear mounted equipment
- G. Reducing the risk of tractor overturns
 - 1. Design features – wide front end, duals, ballast
 - 2. Operating procedures – locking brakes together, lower front end loader, set wheels apart
- H. Tractor hazards to bystanders
 - 1. Collapsing components
 - 2. Thrown objects
 - 3. Runovers
 - 4. Excessive noise
 - 5. Not being seen by operator
- I. Operating tractors inside buildings
 - 1. Risk of fire
 - 2. Exposure to carbon monoxide
 - 3. Low clearances
- J. Potential burn locations on tractors
 - 1. Cooling system
 - 2. Exhaust system
 - 3. Hydraulic components
 - 4. Battery
- K. Tractor drawn equipment
 - 1. Runovers
 - 2. Falls
 - 3. Extra riders
 - 4. Stopping capacity
- L. Electrocuting and underground hazards
 - 1. Portable augers and elevators
 - 2. Lightning
 - 3. Irrigation systems
 - 4. Low clearance power lines
 - 5. Buried utilities
- M. Freeing stuck equipment
 - 1. Operating procedures
 - 2. Snap-back hazards

