

Tractor Operation on the Highway:

- Attach a slow moving vehicle sign. Use headlights, flashing lights, or safety clearance flags.
- Always leave room to stop safely.
- Secure attachments in the transportation position. Do not operate attachments while in transit.
- Keep PTO in neutral.
- Don't travel on shoulder soft-spots, close to ditches or embankments.
- Drive slow and pull over when needed to let normal traffic pass. Use extra caution when approaching intersections, turns, and curves.
- Independent brakes must be locked together to avoid uneven braking in panic stop situations.
- Watch for blind spots.
- Have a cell phone readily available for emergency phone calls and carry emergency notification contacts.



Personal Protective Equipment:

- Hearing protection for prolonged noise exposure when operating off-road.
- Gloves that fit properly and are the right type for the job. Long pants to protect the skin from flying debris, exhaust burns, and other skin irritants.



- Make sure PPE is chemically resistant if spraying pesticides.
- Respirators to prevent the inhalation of dust, other particulates, and pesticide vapors.
- Eye protection should be impact resistant, provide UV protection, and protect from chemical splash when spraying chemicals.
- Portable eye wash bottles should be on hand when spraying pesticides that require eye protection.
- Foot protection is required to protect feet from injury. Steel toed shoes work best.

Getting Assistance

Contact EH & S if you have any questions about tractor safety.

Environmental Health and Safety

P.O. Box 641172
Pullman, WA 9164-1172
(509) 335-3041



World Class. Face to Face.

Wenatchee....509-663-8181
Tri-Cities.....509-372-7163
Vancouver....360-546-9706
Spokane.....509-358-7993
<http://www.ehs.wsu.edu>



Environmental Health and Safety

Tractor Safety and Operation Basics



General Requirements, Precautions, and Tips

A Tractor Operator:

- Must be at least 18yrs old and have a current driver's license.
- Be trained on the specific tractor and implements they will be using prior to operating equipment.



A Tractor Operator Is Responsible for the Following:

- Using the right tractor and implement for the job.
- Conducting tractor pre-operation checks.
- Knowing equipment blind spots.
- Previewing the route for obstacles, holes, slopes, ditches, terrain, etc. Removing debris in the tractor's pathway.
- Operating the tractor and implements safely in accordance to the manufacturer's directions.
- Continual awareness of potential hazards.

Tractor Operator Training Should Include:

- Tractor hazards, operational basics, and familiarity with operator manuals and their location.
- Importance of not operating equipment with mechanical problems, missing shields, or other safety devices.
- Familiarity of hazardous terrains where the tractor will be used.
- Passing a competency test drive for tractor and implement operation.
- Written training documentation.

Sowing Seeds of Safety!

Common Tractor Accidents:

- **Rearward Roll over occurs when:** the tractor is stuck in mud or snow preventing the rear wheels from rotating; the rear wheels cannot turn because the incline is too steep; the clutch is released too quickly with the transmission in a lower gear and the engine at a high speed; or the load is too heavy and/or hitched above the tractor's drawbar.
- **Sideways Roll Over occurs when:** the tractor is driven on a hillside that is too steep or too close to the edge of a roadside ditch or embankment; cornering too sharply or too fast; or the tractor's front-end loader is elevated too high on a hillside or in a turn at excessive speeds.
- **Front-End Loader Incidents occur when:** lift capacity is exceeded; there is a difficult load shape; a lack of safety equipment exists; there is inappropriate use such as lifting people; speeds are too fast for working conditions; or the tractor may not have proper counter balance for the load.
- **Falls From Tractors occur when:** improperly mounting or dismounting and carrying passengers. **DO NOT allow passengers on the tractor.**



- **Run Over Incidents occur when:** others are in the line of travel; extra riders fall from steps, cab or draw bar; there is limited visibility of small children or when backing the tractor toward machinery to be attached; or from by-pass starting.
- **Caught-Between Incidents occur when:** the tractor is backing up to an implement to hook up.



Tractor Safety:

- Use the tractor responsibly in enclosed spaces to avoid carbon monoxide poisoning. This can occur inside buildings, shops or outdoors in close proximity to the tractor .
- Decontaminate the equipment prior to any repair or maintenance work.
- Use seatbelts when roll over protection is installed and maintain per manufacturer's instructions.
- **Do not use the seatbelt if roll over protection is NOT installed.**
- If a Roll Over Protection (ROP) structure is not installed, contact EH & S to determine if one is required.
- **Do not use cell phones while operating the tractor.**
- Know the terrain such as small holes,



depressions, wet areas or stumps that can cause a tip over.

- Keep people and especially small children out of the area where a tractor is operating.
- Follow operator manual instructions especially for side mount implement placement and operating on slopes.
- Use clear communication methods between the operator and ground workers.
- Do not allow ground workers to enter the area between a tractor and its implement until the tractor is stopped, shifted into neutral, brakes applied, and the PTO is not rotating.
- When going up and down the tractor steps, use the handholds, **face the tractor**, use a **3-point mount**, and **DO NOT jump off.**
- Hitch loads properly to the drawbar.
- Keep the tractor speed low, especially when going down hill on slopes.
- Make wide **slow** turns. Set the wheels wide.
- It is better to use a tractor to pull out a tractor from a ditch or muck to avoid injury. Take care in using tire chains, boards, and other traction materials to improve tire traction.
- Fuel the tractor when the **engine is off and cool.**
- Fire extinguisher and first aid kit should be easily accessible in case of emergency.



Safety Awareness for Power Take Off (PTO) and Moving Part Hazards:

- Do not wear jewelry, loose clothing or allow hair to hang loosely. These can get entangled with the shaft, U-joints, belts, or other rotating/moving devices and cause serious injury.
- Check for missing or damaged shaft shields prior to hooking up PTO equipment. Do not operate PTO if the shields are damaged or missing.
- Switch off the engine; set engine brake and **wait for the tractor and PTO implements to come to a complete stop** before dismounting the tractor. **Don't leave a running tractor unattended!**
- Stay away from the PTO drive line until all parts have fully ceased rotating. Do not lean over; step across or crawl under the shaft. Do not unplug or adjust any PTO-powered machinery while it is in operation.
- A potential for accidents exists at wrap points; pinch points; shear and cutting points; crush points with hydraulic systems; and by thrown objects. Do not operate if a machine guard is damaged or not in place.

