

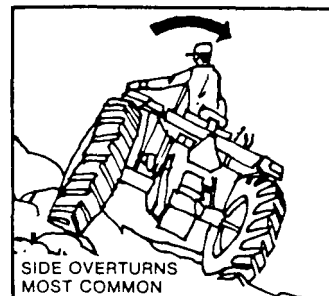
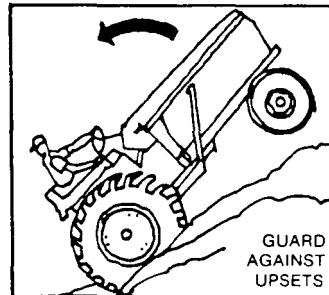
Tractor Safety

Farm tractor accidents are the major cause of farm work deaths. It is estimated that more than 800 are killed each year in tractor accidents; and, for every person killed, at least 40 others are injured.

Upsets account for more than half of the tractor deaths. Falls are another major type of tractor accident. Accidental falls involve both tractor operators and extra riders.

Examples of some typical fatal tractor accidents are:

- An 18-year old was killed when he tried to get his tractor back onto the road. The tractor upset on him, crushing his chest and fracturing his skull.
- A 64-year old man fell from his tractor and was run over by the right rear wheel as the tractor slipped over a bank.
- An 11-year old boy jumped from the tractor scoop and was run over by the tractor.
- A 3-year old boy was killed when he fell beneath a chicken house being hauled by a tractor.
- A 49-year old man was killed when his tractor hit a stump and overturned.
- A 61-year old man caught his clothing in the power-take-off (pto).



Ž A 34-year old man died from a crushed skull when his tractor overturned while towing a car.

These are only a few examples of the tragedies caused by unsafe use of farm tractors. Most tractor accidents occur during peak cropping months, from April through October. Most tractor accidents occur to persons aged 25-64; but operators under 15 and over 64 have 7 to 10 times more accidents per hour of machine use than operators in 25-64 age group.

Know How To Operate The Tractor Safely

More than 85 percent of all tractor accidents involve members of the farm family. Of course, in many situations, members of the family do most of the tractor work. However, few tractor operators, family or otherwise, have had training for the job of tractor operation.

A vitally important tractor safety rule is to be sure that each person who operates a tractor is trained, physically fit, and qualified to do the job.

The new tractor operator should first practice, without equipment attached, in a level field or a large, level yard. A skilled operator should be the trainer. The trainer should start the tractor, demonstrating the procedure for the new operator. The trainer should drive the tractor around the yard, showing the student how each element operates. Then, the new operator can take the seat and operate the tractor, while the trainer stands on the drawbar to give assistance if needed.

If your tractor is equipped with a cab, the trainer will need to ride in the cab to give needed instruction. Normally, extra riders should not be allowed anywhere on the tractor. The hazard is not so great during the training, since the tractor is operating on level ground at slow speed without attached equipment.

After the new operator has learned to operate the tractor alone in a level area, the next step is to attach and operate the equipment. The trainer should now

stay off the tractor. The new operator should gradually work into the more complex jobs of tractor operation.

Make Maintenance Inspection

Many factors affect the reliability and safety of your tractor. Safe operation begins with making a pre-operational check before each tractor use. Keeping the tractor in good repair is an important part of safety.

Before starting the tractor, check:

- Tires -- condition and inflation level
- Fuel, oil, hydraulic fluid levels and condition of hydraulic lines
- Shields in place
- Platform and steps clean, free of debris
- Visibility clean from within cab, mirrors clean
- Brakes operational
- Steering operating correctly
- Air cleaner and coolant
- Lighting operating
- Neutral-start safety switches operating correctly

Your tractor operator's manual is an important safety manual. Read it, know and understand the information in it. Follow all operating precautions and the recommendations outlined in the manual.

Before starting the tractor, make one more check -- of your clothing. Loose, torn, or bulky clothing can catch on moving parts, pedals, or levers. Clothing should fit well and be in good repair. Your shoes or boots should be in good condition and have slip-resistant soles. Laces should be tightly tied and not extend out beyond the shoe. Long hair should be tied back or kept under a hat.

Safe Refueling

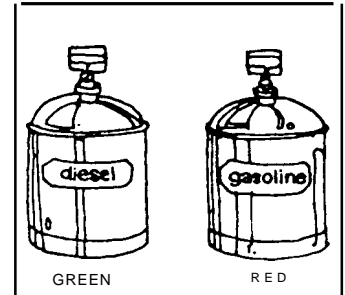
Prevent fires and explosions when refueling. The greatest danger occurs when handling gasoline or LP-gas, because these fuels vaporize easily to form explosive mixtures.

Never refuel your tractor while the engine is running or is hot. Static electricity, a spark from the ignition

system, or a hot exhaust could cause the fuel to ignite. Grounding out the tractor by use of a ground wire or by dropping mounted equipment so it touches the ground can reduce static electricity.

Always refuel your tractor outside. Large storage tanks should be located at least 40 feet from any building.

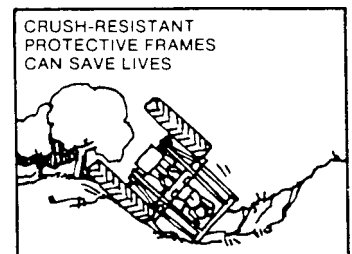
Keep the storage area free from weeds and other burnable materials. Label your fuel containers so they can be identified quickly and accurately. Carry gasoline and diesel fuel in approved safety cans. Approved cans bear Underwriters Laboratories (UL) or Factory Mutual (FM) labels. Never smoke while refueling.



Carry a first aid kit and an approved dry chemical extinguisher. Tractors should have at least a 5-pound extinguisher.

A Cab and ROPS Can Save Lives

More and more farmers are recognizing the safety, comfort and utility of a cab. A cab built around a crush-resistant protective frame will give protection from overturns, dust, weather, and will reduce fatigue. It should also be designed to keep noise at a safe level. A Rollover Protective Structure (ROPS) and seat belts can save your life.

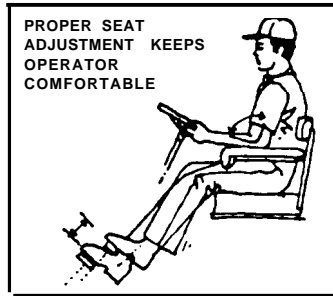


A pressurized air-filtering and air-conditioning system is another comfort factor. However, cabs do not protect against chemical fumes such as those from pesticides, unless very specialized equipment is installed.

The Human Safety Factor

Knowing what to do and how to do it goes a long way to ensure safe tractor operation. Another vital factor is you . . . the operator. It is important to be in good physical and emotional condition when you are operating a tractor. If you are ill, tired, angry, emotionally upset, or if your mind is on something else, you could make a fatal mistake.

It is important too, that you are comfortable enough while operating the tractor so that you can function well. If you are too cold or too hot, or the tractor noise level is too high, or the seat adjustment is incorrect, you will not operate the tractor as well as you would if you were comfortable. Discomfort is distracting and it contributes to fatigue.



Short, frequent breaks will rest you better and faster than longer, less frequent ones. And, if you are exhausted, **stop**. You could save your life by doing so.

Some Basic Safety Practices

No extra riders

Don't allow extra riders and don't ask to be an extra rider. Make this a firm rule and avoid a major cause of tractor accidents. Tractors are designed only for the drivers. Even in cabs, riders have only limited protection, and they may interfere with the tractor's operation. The warning "hold tight" is practically useless after the first minute or two.

Keep pto shields and guards in place

An unshielded or partially shielded shaft can catch clothing and wrap a person around it in a fraction of a second. A power-take-off can maim, cripple, and cause death even though only a small part of the shaft or knuckle is exposed.

Get on and off safely

Don't mount or dismount when tractor is moving. Keep the mounting steps, handleholds, and operator platform clean and dry. Do not jump from the tractor. Set brakes if there is the slightest chance of rolling.

Stuck in hole

When stuck in a hole or soft spot, a tractor can easily upset backwards when the clutch is engaged. If power is applied and wheels stick, the chassis may revolve around the axle. When you can't back out, get help!

Hitch to the drawbar only

Never hitch to the axle or seat bracket -- you're inviting a backward upset. Engage the clutch smoothly and avoid sudden acceleration.

Use tractors only for jobs intended

Tractors are meant to be implement carriers, transport units, remote power sources, and road movers.

Tractors are **not** designed for recreation, nor for use as a tow truck or to run errands, herd cattle, etc.

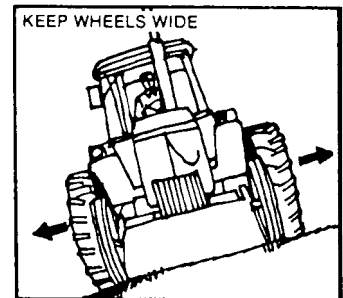
Stay clear of ditches and embankments

Keep tractors and implements away from ditch and embankment edges. Edges may be undercut or weakened and not be able to support the weight of the equipment. Implements that slip over the edge will tend to pull the tractor with them.

Operating on slopes and hillsides

Keep wheels spread as wide a possible for the job - even when on level ground. A tractor will overturn sideways much more

easily if the wheels are close together. Watch for rocks, humps, or holes which may cause the tractor to tip. Make uphill turns with caution, particularly with tricycle-type tractors. Turn downhill if stability becomes uncertain.



Backward upsets are apt to happen when climbing hills, going forward out of a ditch, or overloading the drawbar. If you have to go up a steep slope, back the tractor up the slope. Use lower gears when going downhill.

Sharp turns cause upsets

High speed, rough ground, and narrow hi-speed wheels greatly increase the chance of upset, especially when turning. Slow down before turning and avoid sharp turns if possible.

Sharp turns and short hitches

Equipment can "ride" up on tractor tires and cause a serious accident. Allow plenty of turning room, especially when using dual or extended wheels.

Loader accidents common

Move and turn tractor at low speeds. Keep load low while moving. Add rear weight and keep wheels wide. Lower loader when parking or servicing.

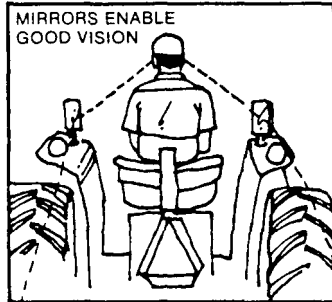
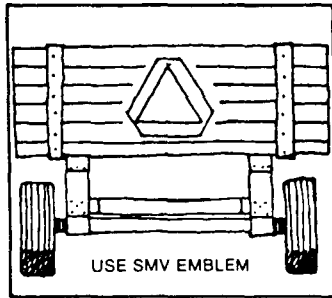
Drive at a safe speed

When speed is doubled the chance of a side upset is four times as great. Adjust speed to conditions.

Safety on Public Roads

Use all required and available safety devices and driving skills when operating tractors on public roads. The risk is high! Roll-over protection, safety hitch, SMV emblem, rear-view mirrors, signal lights, hand signals, clearance

lights and/or reflectors all are aids to safety on the highway. Make sure all loads are properly secured. Allow traffic to pass. Be considerate of others and pull over to the shoulder when necessary. Keep your tractor and implements in your lane. If your equipment is wider than the traffic lane, keep it over on the shoulder. Avoid excessive speed and drive defensively. Consult local or state officials for regulations on moving extra wide equipment on public roads.

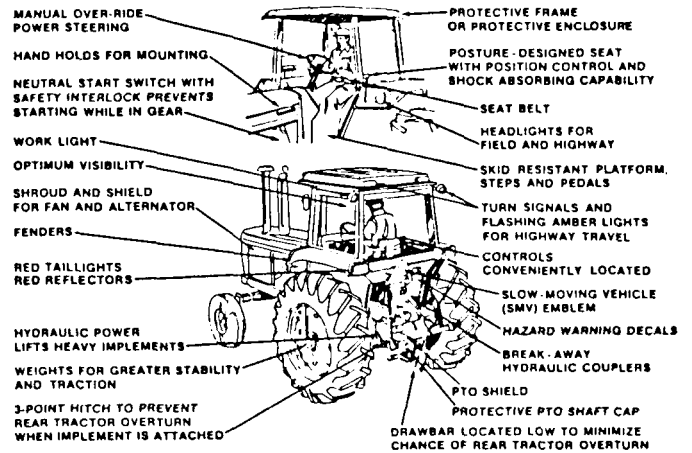


If You Are Under 16. . .

A federal labor law affects you. Except when working for your parent or guardian on a farm owned or operated by that person, you are not permitted to operate a tractor over 20 pto-hp and certain other farm machinery, although these jobs can be started at age 14 with special training.

Persons under 14 maybe employed to do any job that is not classified as particularly hazardous IF they have the written consent of their parent or guardian. There is one exception: those under 12 are not permitted to work on farms that used 500 or more mandays of farm labor during any quarter of the preceding calendar year.

TYPICAL SAFETY FEATURES AVAILABLE ON MOST NORTH AMERICAN MANUFACTURED TRACTORS



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