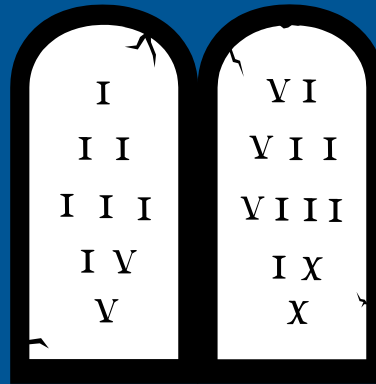


The Ten Commandments of Tractor Safety



December, 2010

The Ten Commandments (of Tractor Safety)



The “Ten Commandments ” of tractor safety were developed by Kubota, and they are considered industry standard among tractor companies.

John Deere, Massey Ferguson, Ford, and others all have similar tractor safety rules.

**KNOW THE RULES
FOLLOW THE RULES**

Commandment One

Know Your Tractor, Its Implements, and How They Work

The operator's manual is required reading. All training of employees must incorporate the operators manual.

Training is also required by DOSH agriculture rules: WAC 296-307-08018 if the tractor is equipped with roll-over protection.

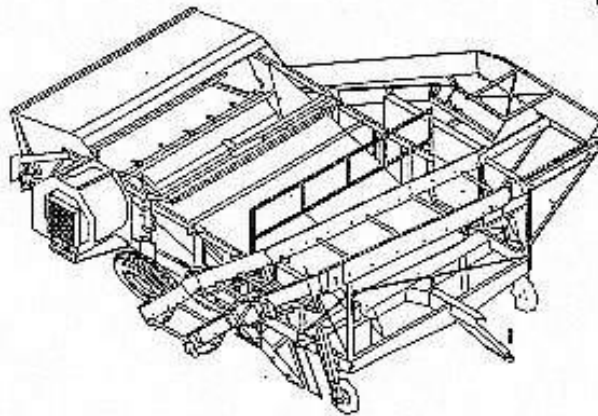


Example manual

\$12.95
U.S. Currency

The "Harvester"

Model 853 & 855



Double L
Manufacturing Inc.

Operating Instructions & Parts Manual

Part no. 019945 9/98

Find, read and understand the operators manual for each piece of agricultural equipment you will be operating.

Know the operating rules and equipment limitations before you begin work.

Commandment One

How To Train Operators

- Train new and inexperienced operators.
- Point out special hazards on the farm and how to avoid them.
- Do not let operators drive on public roads without a driver's license.



Source: Texas Dept. of Insurance – Div. Workers Compensation

Commandment One – Training Operators

Have operator practice in large, level field or yard.

Trainer should drive around yard, demonstrating how controls operate.

Trainer should walk near the tractor as the student drives, giving instruction.

Finally, after the student has learned to operate the tractor alone in a level area, then attach and operate the additional implements.

New operators should gradually work into more complex jobs of tractor operation.



Source: Cornell University
Cooperative Extension

Commandment Two

Use ROPS and Seat Belt

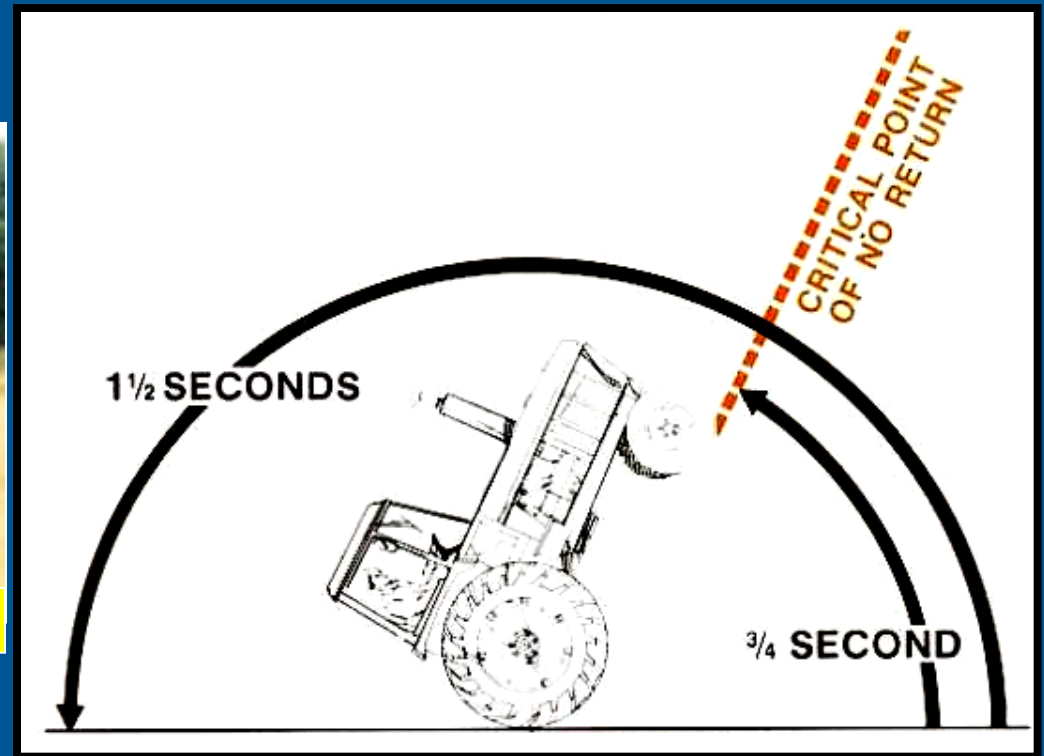
Rollover Protective Structures (ROPS) do not prevent rollovers, but are 95% effective in preventing death or serious injury.



Tractor Roll Over – side or back



TRACTOR HITS DEPRESSION & TIPS



A rollover happens so fast, your human reflexes cannot possibly react in time to change the outcome. Typically, a victim of a tractor rollover without ROPS protection will experience injuries such as broken bones, lacerations and contusions. Crushing head, chest and pelvic injuries, along with collapsed lungs should also be expected.

Foldable ROPS



This ROPS folded down resulted in fatality



If you have a foldable ROPS, keep it in the “up” position and always use a seatbelt. Only fold it down when you must and do not use the seatbelt when the ROPS is folded down. A ROPS and seatbelt assures that you will stay in the “protective zone”.

Commandment Three

Be Familiar With Your Terrain and Work Area

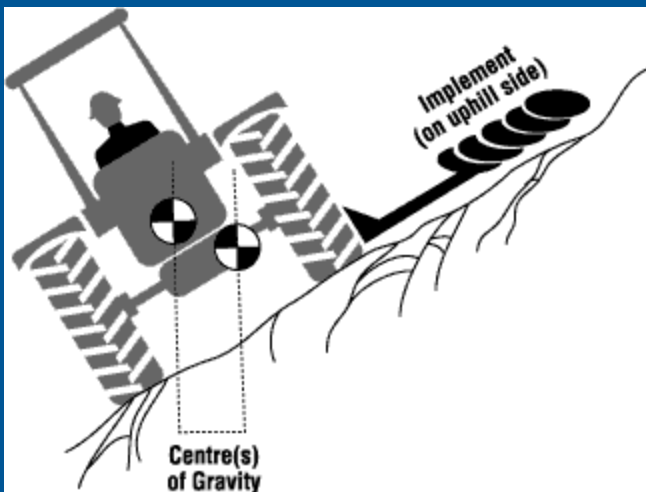
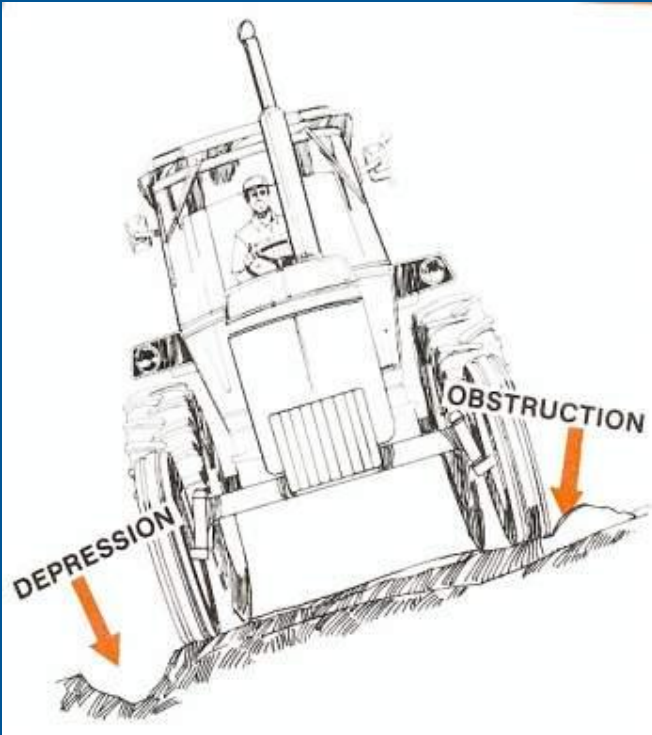
Walk the area first, use special caution on slopes, slow down for turns, and avoid the highway if possible. Be especially aware of conditions at the end of rows.



Operating on Sloped Ground

Most tractor overturns occur to the side. Typical causes include hitting an obstacle, operating on steep slopes, using front-end loaders and operating at excessive speeds.

In many cases, an implement is attached to the tractor or being towed. The attached equipment can increase the severity of the accident and complicate rescue operations.



Commandment Four

Never Start An Engine In A Closed Shed or Garage

All internal combustion engines, diesel or gasoline, generate carbon monoxide – a colorless, odorless gas.



The symptoms of mild carbon monoxide poisoning may be non-specific and similar to those of viral cold infections: headache, nausea, dizziness, sore throat and dry cough. More severe poisoning can result in a fast and irregular heart rate, over-breathing (hyperventilation), confusion, drowsiness and difficulty breathing. Seizures, loss of consciousness and death can occur at high levels.

Commandment Five

Always Keep Your PTO Properly Shielded

PTO accidents cause serious injury or death. Human reflexes cannot compete with the speed and power of a rotating PTO shaft. Once caught, a victim has no time to escape.



PTO properly shielded



Clothing caught on unguarded PTO

Commandment Five

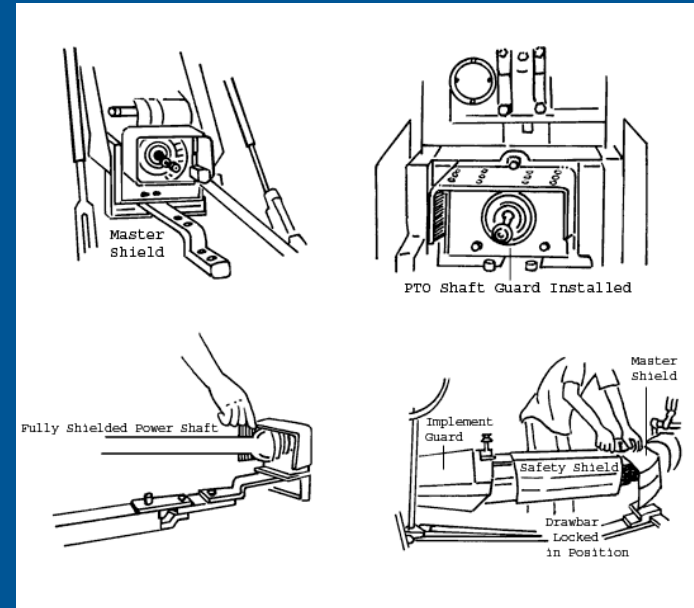
To Prevent PTO Accidents

Ensure that PTO shields are in place before work begins.

Replace cracked or defective shields immediately.

Stop PTO before dismounting.

Keep clothing, hair and all body parts away from a rotating PTO.



Fatality report – employee killed when clothing caught on power take-off shaft

Commandment Five

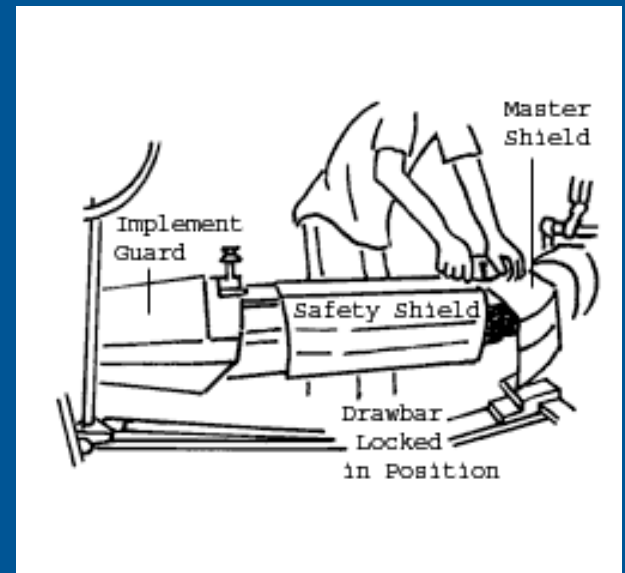
To Prevent PTO Accidents (Cont.)

Never step over a rotating PTO shaft. Instead, walk around it or turn off the equipment.

Always use the driveline or PTO shaft recommended for your machine.

Never use parts of one brand of machine in another model.

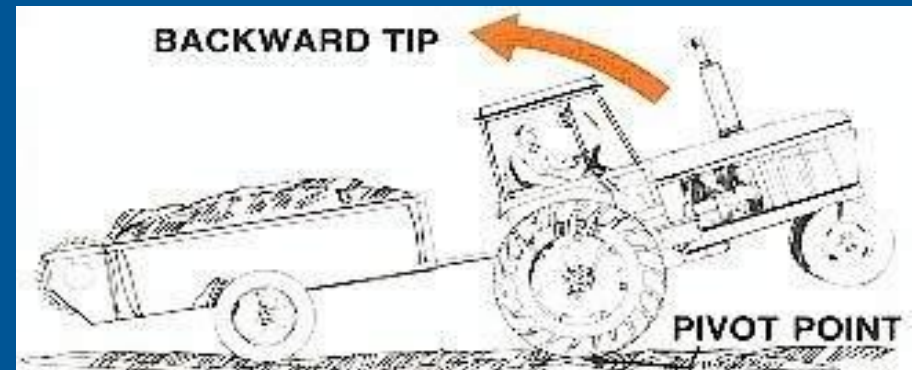
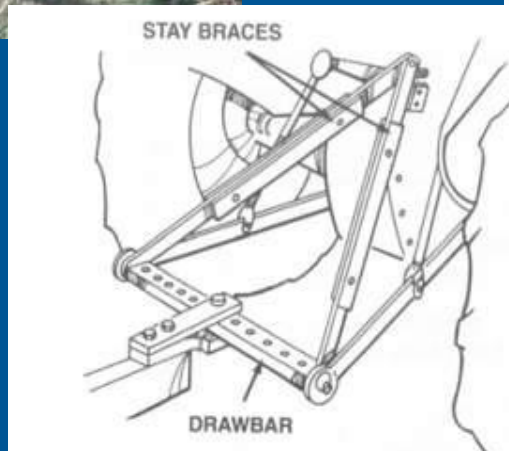
Position the drawbar properly for each type of implement used.



Commandment Six

Keep Your Hitches Low and Always on the Draw Bar

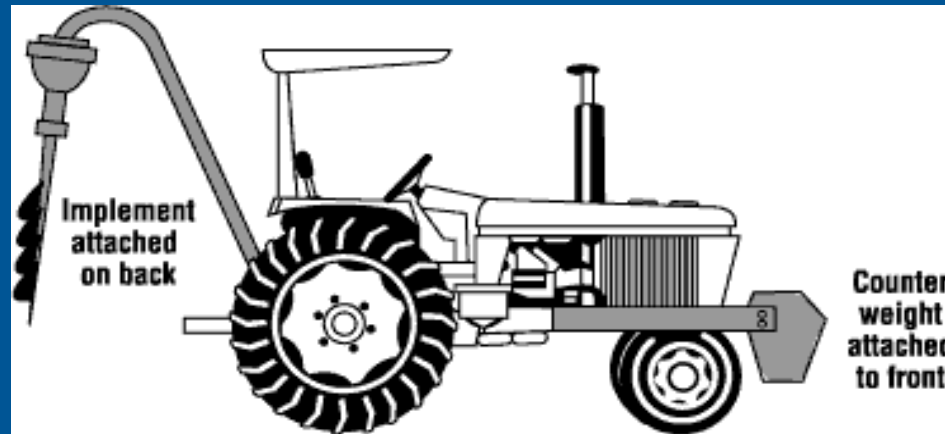
This prevents the tractor from flipping over backwards. Rear overturns are less frequent than sideways rollovers, but are just as likely to be fatal.



Hitching above normal drawbar height may tip a tractor backward.

Commandment Six

To Prevent Rear Overturns



Front chassis weights can be used to counterbalance rear-mounted implements and heavy drawbar loads.

Always start forward motion gradually.

Always drive around ditches, never cross them.

Commandment Six

To Prevent Rear Overturns (Con't.)

Whenever possible, back tractors up steep slopes and come down forward.

If you have to back down a slope, do it slowly in a low gear.

Never put boards or logs in front of drive wheels. Back out if you are stuck in the mud.



Commandment Seven

Never Get Off A Moving Tractor or Leave It With Its Engine Running.

Shut the tractor off, set the parking brake, then dismount.

Don't start the engine from anywhere but the seat.

Operators have been run over by not doing that.



When the tractor has been left running, and the operator is not in the tractor seat, there is the possibility that the tractor will malfunction in some way, start moving, and run over you or bystanders. A moving tractor can also damage or become damaged by objects in the area.

Commandment Eight

Never Refuel While the Engine is Running - or Hot

Always shut the tractor down when adding fluids, fuels, and performing maintenance. A spark from the ignition system or hot exhaust could cause the fuel to ignite.

Use caution when refueling tractors. Always refuel the tractor outside. There is always a risk of fire and explosion.

Grounding out the tractor with a ground wire or by dropping mounted equipment so it touches the ground can reduce static electricity.



Commandment Nine

Keep Children Away From Your Tractor & Its Implements At All Times

Don't allow children to ride with you on the tractor. No exceptions, unless it's an enclosed cab with a child seat. Some new, larger tractors come equipped with child seats.

Never assume that children will remain where you last saw them.

Keep children out of the work area and under the watchful eye of another responsible adult.

Never allow children to play on the tractor or implement.

Use extra caution when backing up, look behind and down - make sure area is clear before moving.



No Riders!!



Dangerous! Don't do this! A small bump and the rider can fall off and be run over. Additionally! There is no roll-bar on this tractor, putting the operator in extreme danger.

How many seats are on the tractor? The number of seats equals how many people should ride the tractor. There is no safe place either on the tractor or on any of the implements. Teach children to drive only when they have developed the maturity, size and strength to handle a tractor safely.

Commandment Ten

Never Be In A Hurry or Take Chances On Anything To Do With A Tractor.

There is always time to assure that your next step will not be your last step.

Remember, a tractor is workhorse, not a racehorse. A tractor is designed for easy maneuverability at low speeds, not high speeds.

Slow down on turns or curves. A tractor's center of gravity is higher than a car and a fast sharp turn can result in a side rollover.





As you have learned, there is plenty to remember when it comes to tractor safety. Do your work carefully and safely, so that you leave your worksite under your own power, and not in an ambulance! Leaving under your own power is a much better way to end the day.

More Information

Kubota Corporation – [Ten Commandants of Tractor Safety](#)

National Ag Safety Database(NASD) – [A Guide to Safe Farm Tractor Operation](#)

National Ag Safety Database(NASD) – [Power Take-off Safety](#)

Washington State University – [Tractor Safety](#)