

THE TEN COMMANDMENTS OF TRACTOR SAFETY



Kubota
KUBOTA TRACTOR CORPORATION

FORWARD

A two-year-old Idaho boy and his father were crushed to death when the tractor they were riding, not equipped with a roll-bar and seat belt, turned over while they were trying to pull an immovable object with a heavy chain.

Unfortunately, this type of rollover accident is not an isolated case; and the involvement of a child in a tractor accident also happens far too often. Several hundred fatal farm accidents, and a lot more injuries, occur every year, with overturns accounting for nearly fifty percent of the tractor fatalities. Sadly, the vast majority of them could have been prevented.

Accidents do not "just happen". Accidents are caused. Which is why they can be prevented! An ounce of prevention is still worth a pound of cure.

Your Kubota tractor has been designed and built with your safety in mind. Its safe operation, however, is entirely in your hands. It is a useful and valuable farm machine – not a plaything or toy – and was not intended for joy-riding or carrying passengers.

The tragedy of the Idaho two-year-old and his father, and that of thousands of others, could have been prevented. That's a very good reason for every tractor owner and operator to read this booklet carefully and follow its safety rules. Do not, however, use this booklet as your only source of information when operating your tractor – read and understand the tractor and implement Operator's Manuals.

The number of farm tractor deaths each year can be greatly reduced. It's up to you. Kubota does not want you to be another statistic.

THE TEN COMMANDMENTS OF TRACTOR SAFETY

1. Know your tractor, its implements and how they work. Please read and understand the Operator's Manual(s) before operating the equipment. Also, keep your equipment in good condition.

2. Use ROPS and seat belt whenever and wherever applicable. If your tractor has a foldable ROPS, fold it down only when absolutely

necessary and fold it up and lock it again as soon as possible. Do not wear the seat belt when the ROPS is folded. Most tractor fatalities are caused by overturns.*

3. Be familiar with your terrain and work area – walk the area first to be sure and drive safely. Use special caution on slopes, slow down for all turns and stay off the highway whenever possible.

4. Never start an engine in a closed shed or garage. Exhaust gas contains carbon monoxide, which is colorless, odorless – and deadly.

5. Always keep your PTO properly shielded. Make it a habit to walk around your tractor and PTO driven implement – never over, through or between the tractor and implement, particularly if either is running. The PTO rotates with enough speed and strength to kill you.

6. Keep your hitches low and always on the drawbar. Otherwise, your tractor might flip over backwards.

7. Never get off a moving tractor or leave it with its engine running. Shut it down before leaving the seat. A runaway tractor can be extremely dangerous.

8. Never refuel while the engine is running or hot. Additionally, do not add coolant to the radiator while the engine is hot; hot coolant can erupt and scald.

9. Keep all children off and away from your tractor and its implements at all times. Children are generally attracted to tractors and the work they do. However, a tractor's work is not child's play. Remember, a child's disappointment is fleeting, while your memory of his or her injury or death resulting from riding the tractor with you, or being too close, will last a lifetime.

10. Never be in a hurry or take chances about anything you do with your tractor. Think safety first, then take your time and do it right.

**Kubota Tractor Corporation strongly recommends the use of ROPS and seat belts in almost all applications.*

FROM THE BEGINNING...



KNOW YOUR TRACTOR

Be thoroughly familiar with the Operator's Manual(s) for your tractor and any implements before starting up the equipment. Know each control, its location and how it works. Know how to stop the tractor and all implements quickly in the event of an emergency.

ROPS

Many tractor accidents are overturns. They are usually caused by inappropriate speed or application, terrain, inattention, lack of proper ballast, or a combination of these. The use of rollover protective structures (ROPS) and a fastened seat belt has saved many lives. They generally will limit a side overturn to ninety degrees (90°) and will provide an important safety zone for the operator *provided the operator is wearing the seat belt.*

Kubota has provided ROPS as standard equipment on new tractors since 1985, and has made ROPS available for all older tractor models. If you own or use an older model, *regardless of make or age*, ask your tractor dealer about a ROPS and make sure your tractor has this important safety device.

ROPS are attached to the tractor frame and come as either two post fixed or foldable, four post, or as an integral part of a ROPS cab. Fixed ROPS may interfere in areas of low clearance or overhead obstructions in certain situations, such as, low hanging roofs or low tree branches in orchards, where vertical clearance is not

sufficient for safe operation. In these limited circumstances, removal of the ROPS may be necessary. However, all fixed ROPS should be re-installed immediately after the low clearance condition of operation has passed.

Foldable ROPS should only be folded down when absolutely necessary and should be folded up and locked again immediately after the low clearance condition of operation has passed. Seat belts are an integral part of any ROPS and should always be used. However, the seat belt should not be used when a foldable ROPS is down, or a fixed ROPS is removed.



ADDITIONAL SAFETY ITEMS

Consider outfitting your equipment with a first aid kit, a small tool kit for minor repairs, and a fire extinguisher. Be sure these items are within easy reach and are secure.

SAFETY LABELS

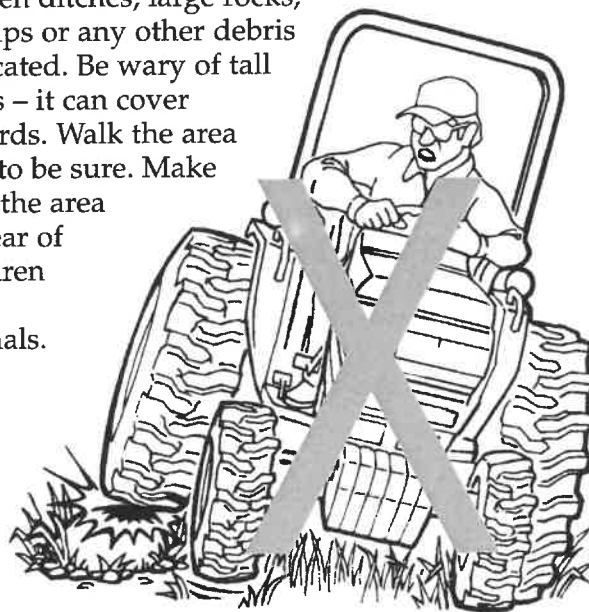
Read and follow the messages they provide for your safety and the safety of others. In particular, be familiar with the "Safety Alert" symbols: **▲** "Danger", "Warning" and "Caution". Keep safety labels clean and free from obstructing material. Replace damaged or missing labels with new ones. If a component having a safety label is replaced, make sure a new safety label is attached in the same location on the new part.

DRESS PROPERLY

Well-fitted, belted clothing is a must. Flared pants, shirt tails, scarves and other loose clothing are too easily (and too often) caught in moving parts or controls. Further protect yourself from this hazard of entanglement by wearing long hair under a hat or net and by avoiding jewelry. Invest in sturdy, safety work shoes or boots with non-skid soles and steel toe caps; wear eye and hearing protection as appropriate or required. Protect yourself from the sun in summer and the cold in winter. Take extra care with cold weather and rain gear. Heavy work gloves are a plus, as are safety goggles or sunglasses with shatter-proof lenses.

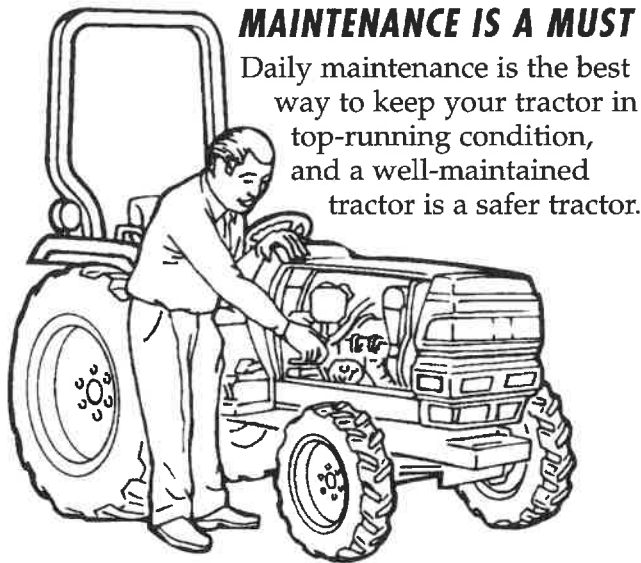
CHECK THE WORK AREA

Know in advance where hidden ditches, large rocks, stumps or any other debris is located. Be wary of tall grass – it can cover hazards. Walk the area first to be sure. Make sure the area is clear of children and animals.



WHO'S YOUR OPERATOR?

Please pay particular attention as to who operates your tractor. For example, someone with a short attention span and a tendency to be irresponsible or a person who is tired are not good candidates. Be sure the operator reads and understands the Operator's Manual(s); is familiar with the tractor; and is fully aware of his or her responsibilities. Have young operators take the 4-H or FFA Tractor Program for new operators. Be aware of your own responsibilities under OSHA regulations and local laws relating to tractors and tractor operation.



MAINTENANCE IS A MUST

Daily maintenance is the best way to keep your tractor in top-running condition, and a well-maintained tractor is a safer tractor.

Maintenance is not something to be put off until tomorrow. Guided by your Operator's Manual(s) and your dealer, set up a maintenance routine and follow it.

Most Kubota tractors use diesel fuel only. Use only the correct fuel and never fuel your tractor while it is running, or hot. Turn off the engine and let it cool. Wipe off the area around the fuel cap both before and after fueling. Don't smoke while handling fuel.

If diesel fuel is spilled on your hands or skin, wash it off right away so that you avoid skin irritation and to prevent your hands from slipping on the tractor controls when you drive off.

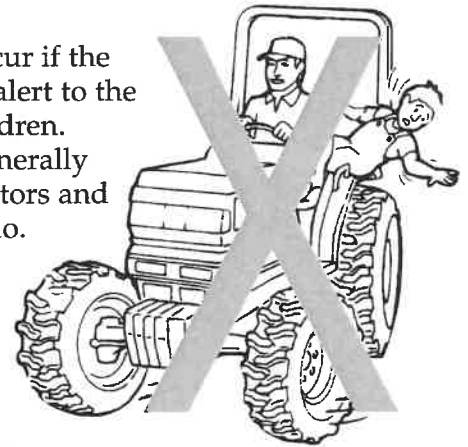
Before operating the tractor, visually check for oil leaks on the engine, transmission and axles. Correct such leaks as soon as possible. Also, hydraulic and diesel fuel leaks can occur under high pressure; these require special care and attention. Use a piece of cardboard or wood to locate suspected high pressure leaks – **DO NOT USE YOUR HANDS**. Hydraulic fluid or diesel fuel under high pressure can penetrate the skin causing very serious injury and allergic reaction. For your safety, repair hydraulic and diesel fuel leaks immediately.

NO RIDERS

There is only one seat on Kubota tractors – the operator's. There is no safe place for anyone else, either on the tractor itself, or on any of its implements. Make it a firm, unbreakable, no exceptions rule: **NO RIDERS!**

CHILDREN

Tragedy can occur if the operator is not alert to the presence of children. Children are generally attracted to tractors and the work they do.



- *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.*
- *Be alert and shut your tractor down if children enter the work area.*
- *Never carry children on your tractor. There is no safe place for them to ride. They may fall off and be run over or interfere with your control of the machine.*
- *Never allow children to operate the tractor, even under adult supervision.*
- *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.*
- *When parking your tractor, if at all possible, park on flat ground; if not, park across a slope. Set the parking brake(s), lower the implements to the ground, remove the key from the ignition and lock the cab door (if equipped) and chock the wheels.*

START UP

Follow your Operator's Manual. It contains start-up procedures. Do not start engine by shorting across starter terminals or bypassing the safety start switches. The machine may start in gear and move if normal starting circuitry is bypassed. **DO NOT IMPROVISE!** If your battery is dead and requires the use of jumper cables or needs recharging, there is the potential for an explosion and injury from acid burns if safe procedures are not followed. Follow instructions provided in your Operator's Manual(s).

Never start or run the engine in a shed or garage unless the door is wide open and the area well ventilated. *CARBON MONOXIDE IS COLORLESS, ODORLESS AND DEADLY!*

Don't ever start the engine from anywhere other than the seat. You must be firmly seated, seat belt buckled (if your tractor is equipped with ROPS), parking brake(s) on, clutch pedal fully depressed, all controls in neutral, immediate area clear of children, pets and livestock. Before driving off, check all gauges, warning lights and controls and listen for any unusual noises. Be sure the implement is in the proper transport position before shifting into gear.

SPEED

Always keep in mind that a tractor is a workhorse, not a racehorse. It must be operated at a safe speed. Be especially careful going to and from the field or work area – many tractor accidents happen during that trip! Again, never be in a hurry. To help assure straight-line stops when driving at transport, lock brake pedals together.



HILLSIDES

Use special caution on slopes and uneven ground. Drive at a speed slow enough to maintain complete control of the tractor at all times. Don't depress the clutch pedal or attempt to shift gears while going up or down a slope. If

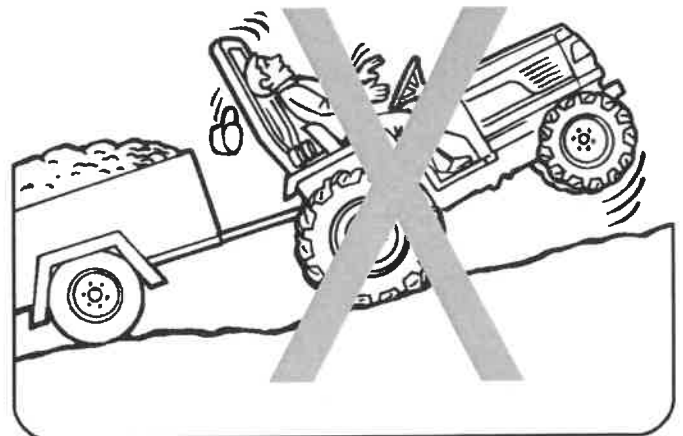
you have to go up a slope, it is best to back up. Be sure that your tractor is properly counter-weighted. Generally, if you feel uneasy about what you are doing with your tractor, stop doing it!

STORMY WEATHER

In rainy weather, stay alert for holes or ditches hidden under water. Cut your speed to the minimum. If there is a thunderstorm, stop; get off the tractor; stay away from large trees; power lines, etc.; and go indoors if possible. In icy conditions, use extreme caution. Use tire chains and wheel weights. Again, drive at a speed slow enough to maintain complete control of the tractor at all times.

THE DRAWBAR HITCH

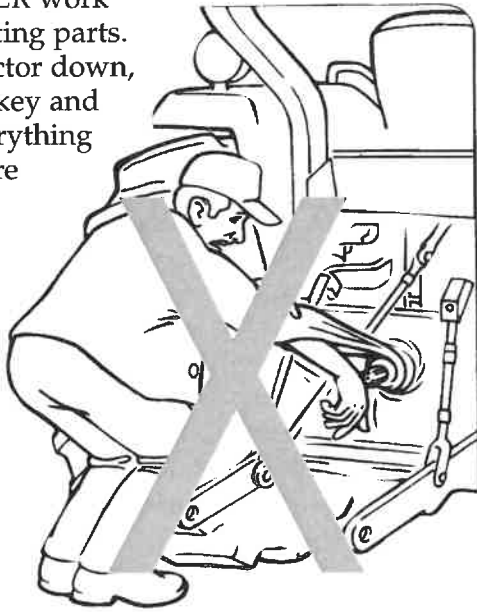
Hitch only to the drawbar when pulling a load – it's the only safe place for any kind of pulling or towing. Hitching to the axle or top link bracket can cause the tractor to flip over backwards very quickly. Be sure no loose chains, ropes or cable are dangling or dragging from either the tractor or the implement. They can catch under a wheel, or a stump, or on a rock and can cause a serious or fatal accident.



POWER TAKE-OFF

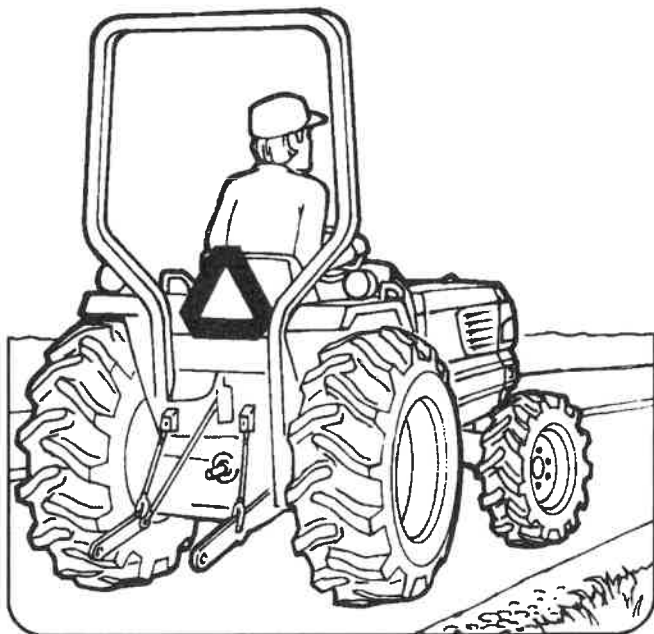
An operating power take-off (PTO) can be the most dangerous part of your tractor, which is why extra caution is necessary. Always keep the protection shields in place. An unguarded rotating shaft is very powerful, and can entangle your clothes at a rate to fast to be stopped in time.

NEVER, EVER work around rotating parts. Shut the tractor down, remove the key and wait for everything to stop before entering the PTO area.



TRANSPORT OPERATIONS

General. Although tractors are not generally made for public roads, there are times when such travel cannot be avoided. Please remember that your tractor/implement combination can be large, heavy and relatively cumbersome and that the average motorist is not expecting to encounter such a vehicle on the road. With that in mind, and before you move your tractor and attachments over public roads, consider your route, be sure you are familiar with all local regulations. Use an SMV (Slow Moving Vehicle) sign, proper clearance flags, lights and

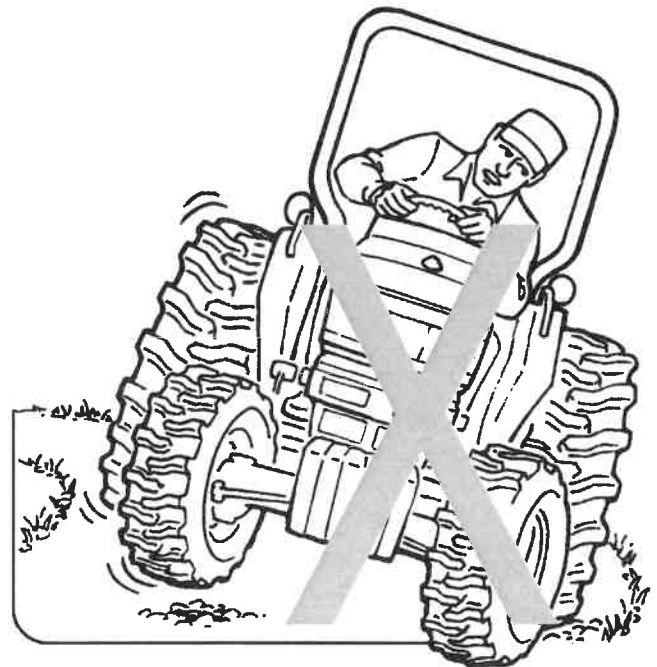


warning signals. Use an escort vehicle as appropriate or required for additional safety. Be sure the brake pedals are locked together and properly adjusted to assure straight-line stops.

Prepare Your Attachments. Make sure they are secure, properly mounted and the tractor is properly counter-weighted. Carry them in the transport position. Remove or cover sharp projections. Never operate attachments during transport. Keep the PTO lever in neutral.

On the Road. Safe driving on the road is a must, and a safe driver is a courteous driver. Slow down, pull over and let the normal traffic pass you. Be extremely careful at intersections. Remember, your tractor is not capable of fast starts, fast stops, or quick acceleration. When you approach a traffic light, adjust your speed to ensure the maximum time available for safe crossing and to minimize the need for stopping, particularly on a steep hill.

Control Your Speed. A tractor is designed for easy maneuverability at low speeds, not high speeds. A tractor's steering reacts quickly, especially in high gear, so keep both hands on the wheel. According to the National Safety Council, about one-third of all fatal tractor accidents occur on public roads – so be very careful.



Slow Down on Turns or Curves. A tractor's center of gravity is generally higher than that of most automobiles and taking a sharp curve too

fast can more easily result in an overturn. Slow down if you are pulling a heavy load on the highway. You have only two brakes – one on each rear wheel* and the load may have no brakes at all. Have the tractor in the same gear going downhill as you would to go up, in order to use engine compression for braking. Never, ever coast downhill. This is a very dangerous practice. It will allow the tractor speed to exceed that for which it was designed.

Know Your Stopping Distance. Always leave enough room to stop.

Never use the differential lock while in transport because the tractor will tend to continue in a straight line when you are attempting to turn. Most states require that an SMV sign be placed on the rear of any tractor or its towed attachment when traveling 25 mph or slower. The sign, a florescent yellow-orange triangle with a dark red reflective border, should be centered and two to six feet above the ground.

Public road driving should be done in the daytime if at all possible, and during the lightest traffic hours. The best and safest rule is not to drive on any public road at night. If it becomes necessary, however, be sure you are completely in compliance with your state and local laws concerning lights – white for the front and red for the rear. There should also be an amber or red light on the farthest projection to the left (i.e., traffic) side, whether it's the tractor or the attachment. If you have to stop at night, pull completely off the road and set up flares or reflectors.

Stay off the shoulders when possible. If you must drive on the shoulder, reduce your speed and keep a sharp eye out for rocks, holes, soft spots, side rails, slopes and other hazards.

** Four wheel drive tractors behave and brake differently between two- and four-wheel drive. Some tractors have full-time, 4-wheel braking when both pedals are pressed together. Familiarize yourself with the difference and use carefully.*

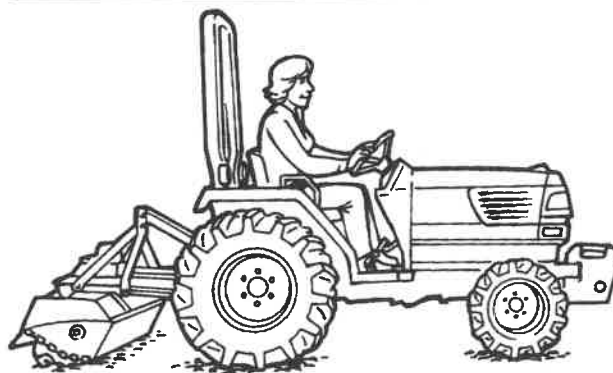
SHUTDOWN

When you shut down your tractor for one reason or another, put the PTO lever in neutral and lower attachments to the ground. Shut off the engine and set the parking brake(s). Remove the key. Whenever possible, park on level ground. If it is necessary to park on a

grade, position the tractor at right angles to the slope and chock the wheels securely.

Don't jump off the tractor. Use the steps and handholds, face towards the tractor, and watch your step. (The steps should be cleaned regularly and kept free of dirt, grease and oil. A slippery step is an invitation to a fall.)

THE TRACTOR AND ITS ATTACHMENTS



IN GENERAL

The tractor attachments should be regarded as tools. As such, they can be either very useful and labor saving, or, potentially dangerous if not handled with special care. Refer to the appropriate implement and attachment Operator's Manual(s) for operating guidelines and safety instructions. Also use common sense in the use and application of attachments for the job at hand.

Carelessness, impatience, and fatigue are your worst enemy around a tractor, and its attachments. Be in the habit of walking around, not between, the tractor and implement. If you are tired, you are more likely to make short cuts – and mistakes – so shut it down and rest. These simple precautions may save your life.

Always keep shields, guards and safety devices in place and working properly – they are installed for your safety. If shields, guards or safety devices are missing or not working, do not operate the equipment.

Always shut off engine, set the park brake(s) and remove the key to be sure implement motion has stopped before performing check over, adjustments or maintenance. Never work under a raised implement without securely blocking or supporting the implement first.

MOWER SAFETY

- Make sure all shields and guards are always in place and in good condition.
- Inspect the area to be mowed and remove anything that can be propelled by or entangled in the mower blades. Walk the area first to be sure and be alert for any obstacles.
- Avoid operation on steep slopes.
- Do not stop or start suddenly when going up or down a hill.
- Always mow so that discharge is directed away from people, pets or anything that could be damaged by articles thrown from the mower discharge.
- Mow only in daylight or good artificial light.
- Before making inspections, making adjustments, performing maintenance or cleaning blockages, disengage the drive to the mower, stop the engine, set brake(s), remove the key and wait for the mower blade(s) to stop.
- If you strike a foreign object, immediately shut the machine down completely and inspect for damage. Repair any damage before restarting.
- Frequently check blade condition and mounting bolts for proper tightness.

SNOWBLOWER SAFETY

- Before the first snowfall, check over your machine, clear the areas where the snow removal is to take place, removing large stones, sticks, toys, etc.
- Mark obstacles such as driveway markers, water shut-offs and gas shut-offs so their locations under the snow are obvious.
- Adjust the snowblower height to assure clearance above gravel or rock surfaces before operation.
- Before clearing the auger or discharge chute, shut off the engine, set brake(s), remove the key and wait for the attachment blades to stop. Disengage the drive to the attachment, stop the engine and remove the key before changing the position of the deflector on the chute.

- Clear snow by going up and down slopes, not across.

ROTARY TILLER SAFETY

- Never stand between the tractor and the tiller when inspecting or adjusting the tiller.
- Make sure there is no interference when you lift, back or turn the tiller.
- Never operate the tiller if any blade bolts are missing.
- If the tractor lunges while tilling hard soil, shift into a lower gear and/or reduce digging depth. If lunging persists, immediately stop the machine and review the tiller Operator's Manual.
- At the end of a row, always raise the tiller to clear soil so that the tractor is not propelled forward by the force of the tiller blades.
- Before making adjustments or performing maintenance to the tiller, shut off the engine, set brakes, remove the key and disengage the drive to the tiller.

DOZER SAFETY

- Before using the blade, make sure the trip mechanisms are working properly.
- Be careful to avoid stumps, bumps, expansion joints in roadways and other immovable obstacles.
- Don't use the dozer as a battering ram.
- Don't stand with your feet under the blade when changing the angle or removing the blade.

TRENCHER SAFETY

- Check with local authorities before digging.
- Follow instructions on any underground cable and pipeline signs.
- Use the trencher only in applications for which it was designed. Make sure overload protection mechanisms are functioning and not bypassed.
- Do not dismount during operations and never leave an operating trencher unattended.



LOADER SAFETY

- Never walk or work under a raised loader.
- Raise and lower loader arms slowly and steadily.
- Always carry load as low as possible to the ground and watch for obstructions.
- Before raising the loader to full height, make sure the tractor is on level ground; if not, it may tip over – even if the tractor is not moving.
- Allow for the extra length of the loader when making turns.
- Be careful when handling loose or shiftable loads.
- Never move or swing a load with people in the work area.
- Be extremely careful when back filling. The total weight of the material plus that of the tractor and loader could cause the trench wall to collapse.
- Avoid undercutting high banks. If you must do it, watch for such hazards as falling rocks and cave-ins.
- Stay away from the edges when working along banks and slopes.
- Watch for overhead or underground wires and obstacles when you use the loader.
- Never lift or carry people in the bucket.

BACKHOE SAFETY

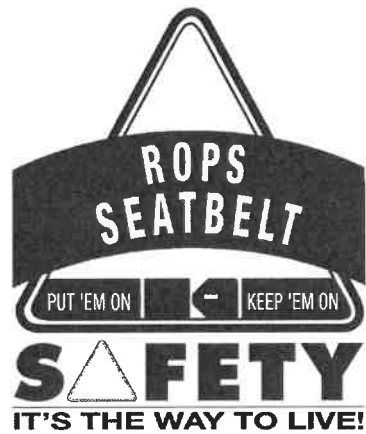
- Practice smooth, even transfer of loads. Sudden, jerky movements are dangerous and can damage equipment.
- Avoid excessive swing speed and sudden stops, especially when operating on a hillside or rough ground.
- Do not use the backhoe as a pulling or lifting device.
- When working close to fences, ditches, buildings, etc., make sure there is sufficient space to deploy the stabilizers.
- Always operate the backhoe from the backhoe operator's seat.
- Check overhead clearances before driving under electric lines, waterlines or other areas of low clearance.
- Never move or swing a load with people in the work area.
- Be extremely careful when operating on a slope. Swing the backhoe to the uphill side, if possible. (If downhill dumping is required, swing only as far as necessary to dump the bucket.)
- Make sure the tractor is level and not tilted to the slope angle.
- Make sure that the tractor is properly counter-weighted.

CONCLUSION

In the final analysis, safety is largely a matter of common sense and patience. Your Kubota equipment has been designed and built with your safety in mind, but a tractor and its attachments are unable to control their own operation, or to choose the environment in which they work. The ultimate responsibility for safe operation lies with you, the operator.

We at Kubota wish you safe operating! Follow The Ten Commandments of Tractor Safety faithfully.

If you have any questions, please consult your dealer.



Kubota®

KUBOTA TRACTOR CORPORATION

3401 Del Amo Boulevard
Torrance, CA 90503

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