



### Farm Safety Association

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## SKID STEER LOADER SAFETY

Most farming operations today use skid steer loaders for a variety of purposes. This versatile piece of equipment is used inside farm buildings as well as outside. Accidents with skid steer loaders can occur when conditions have changed due to weather or when untrained individuals operate them.

### BEFORE YOU BEGIN OPERATIONS

#### Recognize the dangers

The first step to avoiding danger while operating a skid steer loader is hazard recognition. Read, understand, and follow instructions in the manufacturer's operating manual and safety decals on the loader. Identify specific hazards associated with the equipment.

Carefully evaluate each task you wish to perform before starting work. For example, a skid steer loader bucket is a poor choice for a human lift because the bucket is designed to dump its contents. It has no guardrails and no way to prevent the bucket from dropping if hydraulic power fails.

#### Recognize secondary hazards

Many accident victims recognize hazardous situations, but they misjudge the seriousness of the hazard because of secondary factors. For example, icy, muddy or manure-covered surfaces make the work area slick and increase the risk of injury. Bystanders or children in the work area can distract the operator, or limit operator vision.



In many situations you can't eliminate the hazard while working but you can reduce the hazard. Remove or eliminate secondary factors that are under your control. Keep the work area clean and uncluttered.

Control access to the work area and shut down operations when others enter it.

#### Consider human factors

Skid steer operators can misjudge their ability to stop or avoid a dangerous situation.

This is common when operators work around powerful equipment every day and become comfortable with their ability to control the

machinery. However, operators are limited by their reaction time. Time varies by individual, and with age and physical condition. Human reaction time is not quick enough to avoid accidents with machinery.

### **Gravity**

Gravity also is faster than human reaction. For example, it is very dangerous to reach underneath the hydraulic loader arm of a skid steer loader. If the hydraulic line breaks, gravity could pull the loader bucket to the ground at a rate of about 9 feet in three-fourths of a second, and crush the extended arm of the operator.

### **CHECK THE FOLLOWING BEFORE STARTING THE ENGINE:**

- Fuel and oil, hydraulic fluid, cooling system fluid, operator cab, seat belt and seat bar.
- Lift arm and cylinder pivot points, and tires.
- Follow the manufacturer's recommendations about how often to lubricate all the "lube" points
- Be familiar with the location and function of all the controls
- Start the engine and check all controls to see that they are functioning properly.
- Check horn and backup alarm to see that they are working
- Depending upon the job, you should wear some or all of the following safety equipment: sturdy pants and shirt, hard hat, safety glasses or goggles, hearing protection, safety shoes, gloves, and respirator.
- The skid steer loader should be equipped with seatbelt, rollover protective structure (ROPS), side screens, starter interlock switches, backup alarm system, and warning lights for maximum safety.
- Fill the engine with fuel when engine is shut off and still cool. Do not smoke. Wipe up any spills immediately.
- Check the machine daily for broken, loose,



or damaged parts.

- Check to see that counterweights as recommended by the manufacturer are in place. **NOTE:** This is very important as improperly balanced skid-steer loaders are easily upset.
- Clean steps, pedals, and floor of any slippery substances.
- Clear the driving compartment of loose items that might interfere with the controls.
- Check the work area for hazards such as holes, soft spots, and obstructions. Check overhead for utility lines, doorway clearances, or other obstructions.
- Mount the machine wearing clean, dry shoes using the grab bars or handrails provided.

### **OPERATING THE SKID STEER LOADER**

- Adjust the seat, fasten the seat belt, set the brake, and place transmission in park or neutral before cranking the engine.
- Riders must never be permitted on a skid steer loader –it is a one-person machine.
- Visually check for the presence of others in the area and warn them away. Be especially alert for children.
- If the machine is started indoors leave the door or some windows open for ventilating the exhaust. **CARBON MONOXIDE KILLS!**

- Operate with caution on uneven surfaces. Avoid steep slopes completely.
- If it is essential to drive over a bumpy surface, travel slowly and raise the bucket just high enough to clear the ground. Always travel up and down slopes never across.
- Try to go around obstacles, rather than over or through them. Typical hazards include ditches and curbs. If these have to be crossed, reduce speed to maintain control, raise the bucket just high enough to clear the obstacle and cross at an angle.
- Carry the load as low as possible. Avoid sharp turns and slopes with a raised load.
- Always keep skid arms down when traveling or turning. Stability of the machine decreases as the loader arms are raised. Also you need to keep the arms down to be able to see the front and sides of the machine.
- Keep the back of the machine pointed uphill. **BACK UP AND DRIVE DOWN!**
- Operate with extreme caution near areas with a sharp drop off. The earth could shear and send your machine crashing to the bottom. The general rule is to stay as far away from the edge of the drop off as possible.
- Do not undercut banks or materials that are piled high, to avoid falling rocks or cave-ins.
- Be alert, when back-filling, for unstable soils that could collapse under the weight of the machine.
- Keep your feet on the pedals when operating the loader.
- Use only approved attachments and buckets. Do not over fill buckets.
- Carry bucket or attachments as low as possible
- Most skid steer loaders feature a quick attach system. Always make sure that locking devices are in place, even if you are switching attachments for only a few minutes. Otherwise, the attachment could break free and roll back down the loader arms, or fall onto a bystander.
- Drive with caution and check behind you before backing up.
- Load, unload, and turn on level ground.
- With a full bucket go up and down slopes with the heavy end of the loader pointed uphill. With a full load the front carries the most weight.
- With an empty bucket go up and down slopes with the heavy end pointed up With no load the front of the loader is the heaviest
- Keep Skid steer road travel to a minimum. It is safer and often more efficient to transport a loader on a trail. If is necessary to go on the road, be sure to display a slow moving vehicle sign on the rear of the loader and obey all traffic rules and regulations.
- Before starting maintenance work , you should lower the loader arms, engage the parking brake , shut down the engine , remove the key ,and tag the loader as “out of service”
- If it is necessary to carry out repairs with the loader arms raised, be sure to lock the arms in place.
- Never leave the machine without first lowering the bucket, stopping the engine, setting the parking brake, and placing the shift in park or neutral.
- If stopping for any length of time lock the ignition and remove the key.
- Never ram the attachment in to a manure pack or pile of material. The greatest amount of power is transferred to the wheels with minimal steering lever movement. Drive slowly into the material, then raise the front of the attachment. Back away from the load in the tilted-up bucket or fork.
- Drive to the unloading site with the arms down. Stop, raise the lift arms and drive forward slowly until the bucket is just over the spreader or pile. Be ready to lower the load quickly if the skid steer becomes unstable. Use the hydraulics to keep the bucket level while raising the loader arms. This will prevent the material from falling over the back of the bucket. Tilt the bucket fully forward to dump the load.
- Because hydraulic failure is always a possibility, a loader must never be used as work platform or personnel carrier.

- To backfill a trench, lower the lift arms and put the bucket's cutting edge on the ground. Drive slowly into the material; push it into the hole. Tilt the bucket forward as soon as it clears the edge of the trench.
- Never lift, swing, or otherwise move a load over anyone. Material could fall from the bucket and strike a person. There is also a risk of hydraulic system failure.
- Take care when handling loose materials, such as rocks. Lifting the load too high and rolling the bucket back too far could cause the objects to fall into the cab. That's why it is so important to keep the attachment level while the arms are being raised.
- Avoid dumping over a fence or similar obstructions that could enter the cab if the loader were to tip forward.

## WHAT SHOULD I AVOID WHEN OPERATING A LOADER?

- Do not use loader without approved rollover protection (ROPS) and falling object protection (FOP) cab.
- Do not exceed rated operating capacity.
- Do not carry passengers.
- Do not use the bucket lift people or use as a work platform.
- Do not make sharp, fast turns or move bucket controls abruptly.
- Do not travel or turn with lift arms up.
- Do not leave loader with engine running or with lift arms up.
- Do not travel across a slope. Go straight up or down slopes with the "heavy" end of the loader pointed uphill.
- Do not approach overhead wires.

The information and recommendations contained in this publication are believed to be reliable and representative of contemporary expert opinion on the subject material. The Farm Safety Association Inc. does not guarantee absolute accuracy or sufficiency of subject material, nor can it accept responsibility for health and safety recommendations that may have been omitted due to particular and exceptional conditions and circumstances.

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