

Training Module: Safe Use of Tractors and Self-Propelled Farm Equipment

Objective: To be able to safely operate tractors and other self-propelled farm equipment.

Trainer's Note: Summarize and present the information below. Let each worker practice the safety techniques on the equipment. Provide feedback to ensure that the worker clearly understands the safe operation of each piece of equipment. Let an experienced worker be the trainer. **DURING TRAINING** it is acceptable for the trainer to ride on the tractor with the trainee.

Background

Read and follow the equipment operations and safety manuals. Keep safety signs in good repair and replace them as needed. When replacing a part, be sure to transfer the safety equipment to the new part. Replacement safety signs are available from the dealer.

Knowing how to use and operate all controls on each piece of machinery is the first step towards hazard free operation. Keep the machines in proper working condition. Do not modify equipment. Unauthorized modifications impair the function, safety and affect machine life.

Tractors are large, heavy and powerful machines which require careful attention to operate and service. New tractors are equipped with safety devices to provide a reasonable amount of protection. Practice good safety habits and be aware of hazardous situations.

Safe Operation of Farm Equipment:

- Safe operation depends on alert, efficient handling, most accidents occur when the operator is tired or not alert.
- Limit use of equipment to those qualified.
- Wear safety glasses to prevent eye damage due to flying debris. Wear snug fitting clothing to decrease the chance of catching something on a moving part.
- Never ride double on farm equipment.
- Prior to working in a field, check the field for debris, obstacles, ditches and holes that could cause the tractor to overturn.
- Adjust operating procedures to environmental conditions. Control is more difficult in mud, snow or ice.
- For protection from an overturn, the tractor should be equipped with a rollover protective structure (ROPS) Fasten the seat belt only if there is a ROPS. (Refer to ROPS module).
- A first aid kit should be on or near all major equipment (Refer to First Aid Kit module).

When operating machines with mounted equipment, use adequate ballast for stability. Hitching loads to the draw bar prevents turning over backwards. Back out of deep ditches, up slopes and out of mud holes, to avoid overturning. Slow down and begin turning the wheels before applying the brake to assist in turning. This helps avoid overturns, skidding and bouncing. Sitting down when traveling over rough terrain lessens the chance that the driver could be thrown from the implement.

Review The Following Points

- Stay alert.
- No riders (except during training session).
- First aid should be readily available
- Follow recommended procedures in different terrains and weather conditions.
- Read and follow operators manual and safety precautions.

True or False Answer Key

1. T, 2. F, 3. T, 4. T, 5. T

True or False

Name _____

- | | | |
|---|---|---|
| 1. Always read the operator's manual before working with any piece of farm equipment. | T | F |
| 2. If driving a piece of self-propelled farm equipment, wear the seat belt even if there is no Rollover Protective Structure. | T | F |
| 3. The tractor is designed for only one person, the driver. | T | F |
| 4. Always check the field for ditches, fences or other obstacles. | T | F |
| 5. Let only qualified people operate the tractor or self-propelled equipment. | T | F |

Training Module: Safely Starting and Stopping a Tractor

Objective: To be able to start and stop a tractor the proper way.

Trainer's Note: Have an experienced tractor operator demonstrate the proper techniques for safely starting and stopping a tractor. An extra rider is only allowed for training purposes.

Background

Before mounting the tractor, make sure guards and shields are in place and in good working condition. Use provided handrails for mounting and dismounting. Adjust the operator's seat for fit and easy access to controls.

Before starting the engine remember to:

- Place the gearshift lever in "neutral" or "park."
- Place all hydraulic controls in neutral.
- Disengage the PTO.
- Apply the brakes.
- Depress the clutch pedal.



Tractors will start in gear if normal starting circuitry is bypassed. Start the engine from the operator's seat with the transmission in park. Do not start the engine by shorting across starter terminals. **Never** start the engine while standing on the ground.

If jumper cables are needed to start the engine, make sure polarity is correct. Reversed polarity will damage electrical system. Always connect the positive cable first and then the negative cable. Avoid sparks around the battery because escaping gas can cause an explosion. Avoiding sparks is difficult, so position the ground connection away from battery. This will help keep sparks away from the battery. Follow the instructions in the tractor operator's manual. Always wear eye protection when working around batteries.

Stopping the tractor safely involves more than just applying the brakes and turning off the engine. Use the following safety suggestions to avoid accidents:

- Apply the brakes evenly.
- Disengage the PTO.
- Lower all hydraulically powered equipment to the ground.
- Put the gearshift lever in "park" or "neutral", and set the brakes.
- Turn the ignition key off and remove it to prevent tampering or accidental starting.

Additional Safety Hints:

- Keep a copy of the operator's manual on the tractor.
- To prevent falls, keep the surface area of the tractor free of oil, grease, and mud.
- Keep trash away from the exhaust system to prevent a fire.
- Keep tires properly inflated.
- Maintain control lights and gauges.
- Ventilate to avoid asphyxiation, when operating tractors indoors.

Review The Following Points

- No extra riders (except for specific training purposes).
- Never start the engine by shorting across starter terminals.
- When jump starting an engine, avoid sparks around the battery, and wear eye protection.
- Always apply brakes evenly and disengage the PTO before when stopping the tractor.

True or False Answer Key

1. T, 2. T, 3. T, 4. T, 5. F

Safely Starting and Stopping a Tractor Quiz

True or False

Name _____

- | | | |
|--|---|---|
| 1. Never start the engine by shorting across starter terminals. | T | F |
| 2. If jumper cables are needed to start the engine, avoid sparks around the battery. | T | F |
| 3. Follow the instructions in the operator's manual. | T | F |
| 4. Never start the engine when standing on the ground. | T | F |
| 5. To stop the tractor just apply the brakes and quickly shut off the engine. | T | F |