Safely Starting and Stopping a Tractor for Trainers and Supervisors

Objective: Use safe procedures for starting and stopping a tractor.

Trainer’s Note

Tractors are common vehicles in the green industries. For this module:

- Present the information below on safe starting and stopping practices.
- Have an experienced tractor operator demonstrate safe techniques for starting and stopping a tractor. Explain each technique as it is demonstrated.
- Supervise workers carefully as they practice safe starting and stopping practices.
- Review the important points.
- Have workers take the True/False quiz to check their learning.

Note: If necessary, you can ride the tractor as an observer while workers practice. However, stress to workers that a rider is allowed only for training purposes.

Background

Tractors are common and look easy to operate. However, accidents can happen if safety is not carefully observed.

Mounting the Tractor

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.
Starting the Tractor

Before starting the engine remember to:

- Place the gearshift lever in Neutral or Park.
- Place all hydraulic controls in neutral.
- Disengage the power-take-off (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 you are standing on the ground.

If jumper cables are needed to start the engine, make sure polarity is correct. Reversed polarity will damage the electrical system. Always connect the positive cable first and then the negative cable. Escaping gas can cause an explosion, so position the ground connection away from the 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

Stopping the tractor safely involves more than just applying the brakes and turning off the engine. To avoid accidents:

- Lock the brake pedals together when driving.
- 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 or close by.
- To prevent falls, keep the operator station free of oil, grease, mud, and tools.
- 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 These Important Points

- No 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 stopping the tractor.
- Lock the brake pedals together when driving.
About These Modules

The author team for the training modules in the landscape and horticultural tailgate training series includes Dee Jepsen, Program Director, Agricultural Safety and Health, Ohio State University Extension; Michael Wonacott, Research Specialist, Vocational Education; Peter Ling, Greenhouse Specialist; and Thomas Bean, Agricultural Safety Specialist. Modules were developed with funding from the Occupational Safety and Health Administration, U.S. Department of Labor, Grant Number 46E3-HT09.

Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Agriculture or the U.S. Department of Labor.

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True or False?

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