

TABLE OF CONTENTS

1. SAFETY

2. PREPARATION

3. FRAME

4. TRANSMISSION

5. DRIVE

6. ROW UNIT

7. OPTIONAL EQUIPMENT

SAFETY PRECAUTIONS



This symbol means:
**ATTENTION - BECOME ALERT
YOUR SAFETY IS INVOLVED.**



When you see this symbol on the machine or in this manual, be alert to the potential for personal safety. Follow all recommended precautions. Safety of the operator is one of the main concerns in designing and developing a new piece of equipment. You, the operator, can avoid many accidents by observing the warning signs.

Keep safety warning signs clean and readable. Replace all labels on your machine that are damaged, unreadable, or missing.

The signal words used in this manual and on the machine are **DANGER, WARNING, and CAUTION**. Signal words designate a level of hazard:

DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.

WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed, or to alert against unsafe practices.

CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury, or to alert against unsafe practices.

Listed below are safety precautions that should become standard practice before and during operation, transport, and maintenance of the planter.



GENERAL SAFETY

Any alterations to the design of this planter may create safety hazards. In the case of alterations or changes, you **MUST** follow all appropriate safety standards and practices to protect you and others near this machine from injury.

Agricultural chemicals can be dangerous. Improper use can result in injury to persons, animals and soil. Handle with care and follow instructions of the chemical manufacturer.



BEFORE OPERATION

- Carefully study and understand this manual.
- Learning takes time. Do not hurry the learning process or take the unit for granted. Ease into it and become familiar with your new planter.
- Practice operating your planter and its attachments. Completely familiarize yourself and other operators with its operation before using.
- Do not wear loose fitting clothing that could catch in moving parts.
- Wear suitable protective clothing, shoes, protective hearing and safety glasses. Have necessary safety equipment for handling certain materials you may come in to contact with, such as extremely dusty, molds, fungi, bulk fertilizers, insecticides, etc.
- Inflate the planter tires evenly.
- Inspect the planter for loose bolts, worn parts or cracked welds, and make necessary repairs. Never operate equipment that is not in safe working condition.
- Before applying pressure to the hydraulic system, make sure all connections are tight and that hoses and fittings are not damaged. Hydraulic fluid escaping under pressure can penetrate the skin causing serious injury.
- Before operating the planter for the first time and periodically thereafter, check to be sure the lug nuts on the transport wheel are properly torqued. This is especially important you are going to transport the planter for a long distance.
- Do not allow anyone to stand between the tongue or hitch and the towing vehicle when backing up to the planter.
- Lower the toolbar stands to support the planter. Do not stand between the tractor and the planter when connecting or disconnecting the implement.
- Install lock ups on markers, as provided prior to transporting the planter or working around the unit.
- Stay clear when raising or lowering folding sections. Make sure no one else is near the planter when the folding sections are raising or lowering.
- Remove any tools that are on or in the planter.

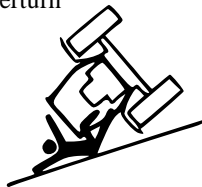


SAFETY PRECAUTIONS



DURING OPERATION

- Beware of bystanders, particularly children! Always look around to make sure that it is safe to start the engine of the towing vehicle.
- Use necessary safety lights and devices and observe legal regulations before transporting on public roads. Check to be sure that all warning lights are working properly before transporting machine.
- Do not allow passengers anywhere on or in the planter during operation.
- Be especially observant of the operating area and terrain – watch for holes, rocks or other hidden hazards.
- Always inspect the operating area prior to operation. Do not operate near the edge of drop-offs or banks. Be extra careful when working on inclines.
- Do not operate on steep slopes as overturn may result.
- Avoid sudden uphill turns on steep slopes, as shift of weight could cause a rollover.
- Reduce speed prior to turns to avoid the risk of overturning.
- Keep hands and clothing clear of moving parts.
- Always make sure there are no persons near the planter when the marker assemblies are in operation.
- If a marker cylinder was removed for any reason, do not attach the rod end of the cylinder until the cylinder is cycled several times to remove any air that may be trapped in the system.
- Serious injury or death can result from contact with electric lines. Use care to avoid contact with electric lines when moving or operating this machine.
- This planter is designed to be driven by ground tires only. The use of hydraulic, electric or PTO drives may create serious safety hazards to you and the people nearby. If you install such drives you must follow all appropriate safety standards and practices to protect you and others near this planter from injury.



- Lower the planter when not in use and cycle the hydraulic control lever to relieve pressure in hoses.



FOLLOWING OPERATION

- When you stop operation of the planter, even if periodically, stop the tractor, set the tractor or towing vehicle brakes, disengage the PTO and all power drives, shut off the engine and remove the ignition key.



UNHOOKING THE PLANTER

- Lower the toolbar stands to support the planter. Do not stand between the tractor and the planter when connecting or disconnecting the implement.
- Before unhooking the planter from the tractor, fully extend the jack stands to the point where the toolbar will remain level. Lock the stands securely in place with the locking pins.
- Lower the planter to the ground. Set the tractor or towing vehicle brakes, disengage PTO and all power drives, shut off the engine and remove the ignition key.
- Unhook the tractor lift arms from hitch pockets and remove center link. If a quick attach is used, position levers so that the locking mechanism is in the “unlatched” position and lower.
- When the lift arms or quick attach arms are clear of the tractor, slowly drive the tractor away from the planter.



STORING THE PLANTER

- Store the planter on a dry, level surface. An uneven surface could cause the planter to shift or fall, resulting in injury or death. Store planter in an area away from human activity.
- Do not permit children to play on or around the stored planter.
- The planter should be stored in a dry and dust-free location with the hydraulic cylinders closed.
- Engage all safety devices for storage.
- You may need wheel chocks to prevent the parked planter from rolling.
- Never work under the planter while in raised position without installing safety lockup pin.

SAFETY PRECAUTIONS



PERFORMING MAINTENANCE

- Good maintenance is your responsibility.
- Make repairs in an area with plenty of ventilation. Never operate the engine of the towing vehicle in a closed building. The exhaust fumes may cause asphyxiation.
- As a precaution, always recheck the hardware on equipment following every 100 hours of operation. Correct all problems.
- Before working on the planter, stop the towing vehicle, set the brakes, disengage the PTO and all power drives, shut off the engine and remove the ignition keys.
- Never work under the planter while it is in a raised position.
- Be certain all moving parts have come to a complete stop before attempting to perform maintenance.
- Always use the proper tools or equipment for the job at hand.
- Never use your hands to locate a hydraulic leak. Use a small piece of cardboard or wood. Hydraulic fluid escaping under pressure can penetrate the skin. If injured by escaping hydraulic fluid, see a doctor at once. Gangrene can result. Without immediate medical treatment, serious infection and reactions can occur.
- Replace all shields and guards after servicing and before moving.
- After servicing, remove all tools, parts and service equipment from on or in the planter.
- If the planter has been altered in anyway from the original design, the manufacturer does not accept any liability for injury or warranty. Any alterations to the design of this planter may create safety hazards. Follow safe practices to avoid injury.



TIRE SAFETY

- Inflating or servicing tires can be dangerous. Do not attempt to mount a tire unless you have the proper equipment and experience to do the job. Whenever possible, call a trained person to service and/or mount tires.
- Failure to follow proper procedures when mounting a tire on a rim can produce an explosion that may result in serious injury or death.
- Check wheels for low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts.



DRIVE LINE SAFETY

- DANGER.** Contact with a Rotating drive line can cause death – keep away. Do not operate without all driveline, tractor and equipment shields in place. Make sure driveline is securely attached at both ends, and that driveline shields turn freely on driveline.



HYDRAULIC SYSTEM SAFETY

- DANGER.** Before applying pressure to the hydraulic system, check that all connections are tight and that the hoses and fittings have not been damaged. Hydraulic fluid escaping under pressure can penetrate the skin causing serious injury. If injured by escaping hydraulic fluid see a doctor at once. Gangrene can result.



- Relieve pressure on system before repairing, adjusting or disconnecting.

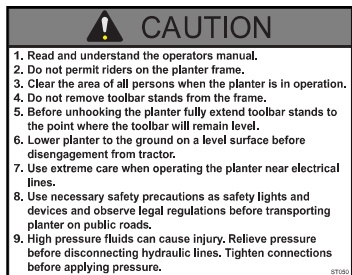
- Wear proper hand and eye protection when searching for leaks. Use wood or cardboard instead of hands.



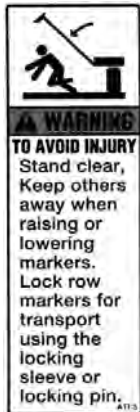
- Keep all components in good repair.

SAFETY PRECAUTIONS

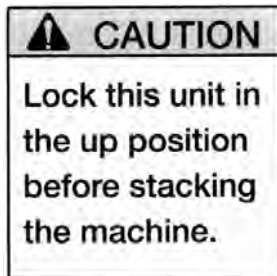
Shown below are various safety stickers, their part number and location. Keep the safety warning signs clean and readable. **Replace all damaged, unreadable, or missing warning labels on your machine.**



ST050 On Front Toolbar



ST052 Row Marker



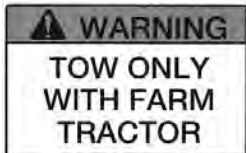
ST053 Front of hopper of inside wing unit of stacker



ST054 Front Toolbar



ST055 Inside of Granular hopper lid.



ST056 Front of Pull-Type toolbar.



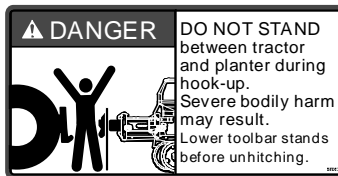
ST057 PTO Shaft.



ST058



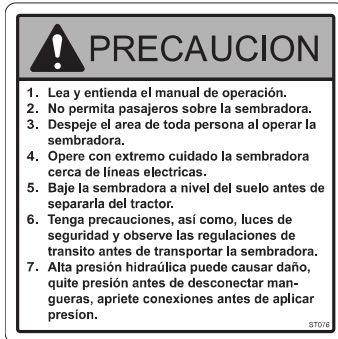
ST059



ST061 Front Toolbar Near Hitch



ST075 Spanish ver. of ST054



ST076 Spanish ver. of ST050



ST077 Spanish ver. of ST055



ST079 Spanish ver. of ST057