



Farm planter

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Equipment description

A planter is a farm implement that is usually towed behind a tractor. It is found on farms that grow grain and forage-type crops. Its function is to sow seeds of proper row width into soil for creating evenly spaced crop rows and metered seed gaps. The seeds are stored in a seed-bin on the planter and conveyed to the meter and the seed drill in a precise sequence. The seed drill then takes the seed and places it beneath the soil to a desired preset depth. Planters can range in size from a two-row unit up to the largest, which plants 48 rows in one pass. The most common row spacing for U.S. farms is 30 inches; however, planter widths are usually adjustable to fit the needs of the farmer.

The best source of information and directions for application, operation, maintenance, and discussion of safety issues of planter equipment is the user/owner manuals provided by the original equipment manufacturer (OEM).

Maintenance, failure, and loss prevention tips

- Keep the planter meters working properly for best performance and to avoid missed seeds and duplicates. Clean meters with soapy water, not kerosene or diesel. Replace cracked covers and fingers.
- Keep nuts, bolts, bushings, chains, and sprockets tight and properly adjusted.
- Inspect seed drop tubes for cracking, obstructions, and misalignment. Clean the tubes and make proper adjustments.
- Inspect row cleaners and closing wheels for excess wear and misalignment. Replace or adjust them as needed.
- Crop yield loss can also be experienced from delayed plant emergence. Keeping disc openers sharp and the closing wheels properly adjusted can help with delayed emergence.

- Make certain that sealing surfaces on bulk tanks (seed hoppers) are free of damage and air leaks.
- Properly winterize seed hoppers and seed delivery systems to ensure accurate seed placement.
- If planter is equipped with PTO pump, check oil level regularly and replace filter according to the manufacturer's recommendations.
- Replace row-unit link bushings when worn or when wobble occurs.
- Inspect gage wheels for proper clearance, and gage wheel pin to see if bent or broken.
- Adjust opening and closing discs and down-force springs for soil type. Replace worn opening and closing discs.
- Replace scraper on opening disc when soil no longer gets properly scraped.
- Inspect seed shoe for wear and alignment.
- Inspect seed disc for wear and warping.
- Inspect and properly adjust seed singulators for wear. Replace in accordance with manufacturer's recommendations.
- Inspect rolling press wheel for damage and cracking.

Safety tips

- Prior to working on an implement, always remove or isolate the source of energy. This includes any PTOs, hydraulic lines, or electricity.
- When making adjustments and working on an implement, always use safety stands, blocking, or wheel chocks as needed for heavy parts to prevent sudden movement or slippage of equipment.

Energy savings/Conservation tips

- Saving tractor fuel when operating a planter will save money. Minimizing tractor operations and performing two or more operations (such as tilling and planting) at once can save fuel.
- Carefully lay out the field to be planted to minimize turning time and row overlaps, to help create the best yield per acre.
- Pay close attention to seed spacing, and monitor seed drops for plant spacing frequently. With plant spacing for corn ranging from 2 to 8.5 inches, it is estimated that 2.5 bushels of yield can be lost per acre without proper seed spacing.

