5400 Mulch-Till Grain Drill and 5400 No-Till Grain Drill

Operators Manual

Sas 9-15116

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OPERATING INSTRUCTIONS



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This section covers features, controls, optional equipment, tractor requirements, mounting of the drill or caddy cart to the tractor, and important information on transporting the grain drill.

NOTE: *Additional information on operating many of the features and controls are covered in the FIELD OPERATION section which follows this section.*

- The STANDARD FEATURES AND CONTROLS portion includes information for you to become familiar with the controls and features of your grain drill.
- The OPTIONAL FEATURES AND CONTROLS portion includes information about equipment which may have been factory installed or field installed on to your grain drill, but which are not standard on all 5400 model grain drills.
- The TRACTOR REQUIREMENTS part of this chapter covers the necessary capabilities and features of tractors which can use your grain drill.
- The TRACTOR TO MOUNTED DRILL CONNECTIONS portion covers the procedure for mounting the 5400 Mulch-Till Grain Drill to the tractor using either the 3-Point hitch only, or using the 3-Point Quick Hitch Coupler.
- The TRACTOR TO CADDY CART CONNECTIONS part of this chapter covers the procedure for mounting a tractor to the 5400 No-Till Grain Drill (equipped with the 5000 Caddy Cart) or to other grain drills equipped with the 5000 Caddy Cart and it's Coulter attachments.
- The TRANSPORTING portion of this chapter covers information on preparing the grain drill (and it's options) for transport, as well as information on transporting on public roads.

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Calculating the Wheel Slip

The sowing rates given in the Grain Sowing Charts at the end of the book are based on drive wheel travel of 2210 mm (87 inches) per revolution.

If there is drive wheel slippage, the actual sowing rate will differ from those given in the Grain Sowing Charts. In case of wheel slippage, the sowing rates will have to be recalculated using the wheel slippage compensation factor.

To determine wheel slippage and the corresponding compensation factor:

1. Put a reference mark on one of the front drive wheel tires and also mark the ground.



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1. REFERENCE MARK

2. Drive the tractor forward at a normal drilling speed for 10 complete drive wheel revolutions. (One person count the drive wheel revolutions while another person drives the tractor.)

3. Mark the ground where the drive wheel tire mark is down on the ground on the 10th revolution.

4. Measure the distance between the two ground reference marks and divide the measured distance by 10. The result is the average distance traveled per revolution.

If the distance traveled is greater than 2210 mm (87 inches) per revolution, there is wheel slippage and the sowing rates must be recalculated with the wheel slippage factor.

Wheel Slip Calculation Examples

English Examples:

DISTANCE MEASURED		AVERAGE		SLIP FACTOR
870 inch	/ 10 =	**87 inch**	/ 87 =	**1**
1000 inch	/ 10 =	**100 inch**	/ 87 =	**1.15**

Metric Examples:

DISTANCE MEASURED		AVERAGE		SLIP FACTOR
22100 mm	/ 10 =	**2210 mm**	/ 2210 =	**1**
25415 mm	/ 10 =	**2542 mm**	/ 2210 =	**1.15**

Wheel Slip Compensation Examples

English Example:

- With NO wheel slippage, and using a drill with 7.5 inch spacing, and planting wheat at a desired sowing rate of 127 lbs/acre, the Grain Sowing Chart recommends an indicator setting of 30.
- To compensate for wheel slippage of 1.15 (from the example above) we would take the desired 127 lbs/acre and multiply it by 1.15 (which equals 146.05). This means we would look up 146 lbs/acre in the Grain Sowing Chart and would arrive at a new indicator setting of 34.

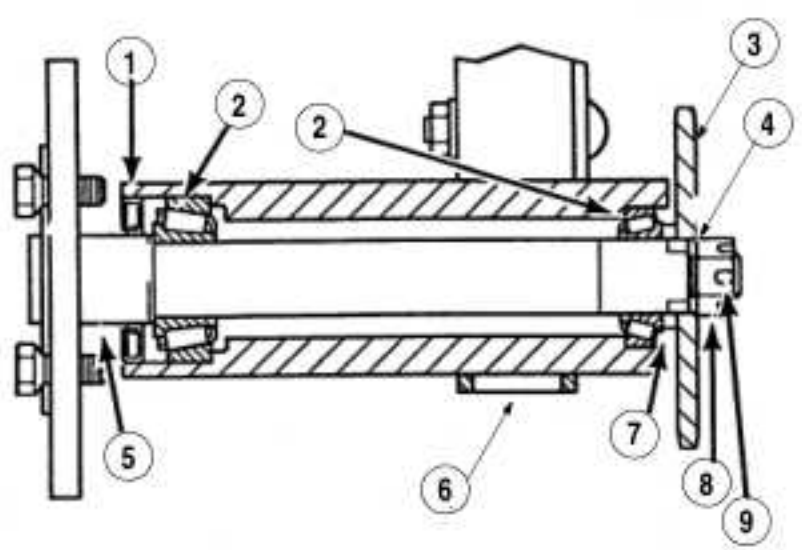
Metric Example:

- With NO wheel slippage, and using a drill with 7.5 inch spacing, and planting wheat at a desired sowing rate of 143 kg/ha, the Grain Sowing Chart recommends an indicator setting of 30.
- To compensate for wheel slippage of 1.15 (from the example above) we would take the desired 143 kg/ha and multiply it by 1.15 (which equals 164.45). This means we would look up 164 kg/ha in the Grain Sowing Chart and would arrive at a new indicator setting of 34.

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GRAIN DRILL DRIVE WHEEL BEARINGS

Disassemble, clean and lubricate the drive wheel bearings once a year or at the end of the season. Use Case 251H EP or equivalent NGLI No.2 Multi-Purpose Lithium grease.



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1. SEAL
2. BEARING CUP AND CONE
3. DRIVE CHAIN SPROCKET
4. WASHER
5. DRIVE WHEEL SHAFT ASSEMBLY
6. WHEEL SUPPORT ASSEMBLY
7. SPACER
8. SLOTTED NUT
9. COTTER PIN

1. Raise the drill until the drive wheel is clear of the ground.
2. Place a safety stand under the wheel support assembly.
3. Remove the drive wheel.
4. Remove the chain from the drive sprocket.
5. Remove the cotter pin, slotted nut, washer, drive chain sprocket and spacer from the drive wheel shaft assembly.
6. Pull the drive wheel shaft assembly from the wheel support assembly and remove the bearing cones and seal.
7. Wash the old grease from the wheel support assembly, bearing cups, spacer, drive wheel shaft assembly, seal and bearing cones.
8. Inspect the condition of the bearing cups, cones and seal. Replace if necessary.
9. Apply Case 251H EP grease or equivalent Number 2 Multi-Purpose Lithium grease on each bearing. Make sure the space around each roller is filled. Lubricate the bearing cups.
10. Position the larger bearing in the cup and install the seal. Lubricate the seal lips and proceed with reassembly of the removed parts including the wheel and tire (wheel bolt torque is 66 to 77 lb ft or 89 to 104 Nm). DO NOT install the drive chain.
11. Tighten the slotted nut to 10 to 15 lb ft (13 to 20 Nm) or until a definite drag is felt when the wheel hub assembly is turned by hand. Back off the nut one slot position to line up the cotter pin hole with a slot.
12. Install and adjust the drive chain. Remove the safety stand and lower the drill wheel to the ground.

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GRAIN SOWING CHART FOR CASE MOUNTED & FOLDING DRILLS

| SPEED SETTING | FEED CUP NOTCH SETTING | DRILL SPACING | | INDICATOR SETTING | | |