DRILL MAINTENANCE

Proper servicing and adjustment is key to the long life of all farm equipment. With careful and systematic inspection of your grain drill, you can avoid costly maintenance, time and repair.

1.) After several hours of operation inspect all bolts and hydraulic fittings for looseness or leakage. Refer to torque chart in your operator's manual.

2.) Reference the operator's manual section 5 for all grease locations and intervals.

ADJUSTMENTS BEFORE GOING TO THE FIELD

1). Attach the unit to the tractor and air drill cart. Be certain to properly attach the hydraulic couplers, as outlined in the operator’s manual.

2). Be certain that all wiring harnesses are attached and functioning correctly.

3). Install all monitors and drive console power leads to the battery (12-volt only). DO NOT ATTACH ANY ELECTRONIC DEVICE TO THE TRACTOR IN CAB POWER PORT. DOING SO WILL VOID THE WARRANTY OF THE ATTACHED COMPONENTS.

4). Refer to the monitor section of the operators manual to get the proper cal number for the crop to be planted.

5). Place seed in the cart bin and perform the calibration function as outlined in the operator’s manual.
6). Leveling Drill.
   a. Unlock all transport fold locks.
   b. Carefully unfold the drill.
   c. Lock all field locks into place.
7). Check to make sure all field latches function correctly.
8). Remove all six transport lock channels and lift the drill fully to rephase the cylinders. Lower the openers until they almost touch the ground. Make sure the drill is lowering evenly.

   a). If the unit is un-level use the end gaugewheel eyebolts to level the drill side to side. Shortening the eyebolt will lower the wings.

   b). If the unit is unlevel front to rear use the eyebolt on the rear casters to level the unit. Shortening the eyebolt will lower the rear of the drill.

   Refer to the operator's manual for more explanation on the correct procedures.

9). Pull ahead slowly with the openers and coulters just touching the ground to make sure that the track left by the coulter is centered on the opener.
10). With the openers at planting depth inspect the box lead of the unit. The outside end of the wing box should lead the inside end of the wing box by 0 to 1/4". Decreasing the bolt length decreases the box lead. Increasing the bolt length increases the box lead. Adjust stop bolts (#7) in or out until dimension (#9) is 0 to 1/4” greater than dimension (#8).

FIELD ADJUSTMENTS

1). Unlock the transport locks, unfold the drill and place in field position (follow procedure outlined in operator's manual).
2). Fully lift the drill to rephase the system. Remove the cylinder lock channels and place them in the storage position. Manually lock wings and front caster wheels in the field position.
3). Place the T handles of the depth control trunion in the 3rd hole from the rear of the opener as a starting position.
   NOTE: Use only tractors equipped with a closed center hydraulic system.
4). Lower the drill and pull ahead to Re-inspect the levelness of the drill.
   a). Level the drill side to side using the eyebolts used on the end gaugewheels.
   b). Level the drill front to rear using the eyebolts located on the rear casters.
5.) **Hydraulic depth stop:** The depth of the coulters is adjusted at the hydraulic depth stop located on the left-hand side of the center section. Raising the depth stop will decrease the coulter depth. Lowering the depth stop will increase the depth.

6). Pull ahead at field speed and check overall setting of drill.
   A). Inspect the actual depth of seed in several places along the drill.
      Check 1: Behind the wing gauge wheels.
      Check 2: Towards the outer end of the drill but not behind the wing gauge wheel tracks.
      Check 3: Behind the wheel tracks of the tractor.
      Check 4: Towards the center of the drill but not behind the tractor tracks.
   B). Recheck settings after making any necessary adjustments.

**INDIVIDUAL COMPONENT ADJUSTMENT**

Frame height adjustment methods depend on coulter configuration:
1. Frame-Mounted Coulters
2. Unit-Mounted Coulters
3. No Coulters
Frame height (#1) is measured from the bottom of the opener tool bar (the largest of the tool bars), and is measured with the drill lowered in the field position. The recommended height depends on your field conditions, and whether unit-mounted coulters are installed.

For no-till conditions, a 26 in. height allows the opener parallel arms to run parallel to the ground giving the opener maximum upward or downward flotation. In loose or conventional planting conditions, a frame height above 26 in. helps keep the no-till spring forces from burying the openers.

**Note:** Setting the frame above the 26 in. limits the opener downward flotation.

**Note:** Running with the frame below 26 in. limits opener upward flotation and could cause opener damage especially at the center of the drill.

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Opener Tool Bar Height</th>
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<tbody>
<tr>
<td>Light no-till, or conventional tillage, with unit-mounted coulters or no coulters</td>
<td>Above 26in (above 66cm)</td>
</tr>
<tr>
<td>Moderate to challenging no-till with unit-mounted coulters</td>
<td>At 26in (66cm)</td>
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The hydraulic lift system includes an adjustable stop valve (see Step #5) to fix the height of the opener frame when the drill is lowered. Make sure the drill is level and the lift system bled and re-phased before adjusting the tool bar height.