General Information

Proper servicing and adjustment is key to the long life of all farm equipment. With careful and systematic inspection of equipment, costly maintenance, time and repair can be avoided. The following information will assist with recommended servicing and adjustments:
Transporting The Drill:
When transporting the drill, the transport locks should always be used. This will prevent damage to the drill and possible personal injury should hydraulic failure occur.

1) To install the transport locks, fully raise the drill and place the transport lock onto the rod of the cylinder and secure it in place with a pin and clip.

2) Always disengage the lockout hub before transporting the drill.

Hitching The Drill To The Tractor:
1) With the drill lowered and tongue jack in the parking position, level the tongue, then back the tractor to the drill hitch and adjust to match the draw bar height. Adjust the hitch height as needed with the implement jack to match the draw bar.

2) After hooking the drill to the tractor and attaching the hydraulic hoses, raise the drill up to the maximum height and hold the hydraulic lever for 30 seconds to re-phase the cylinders. This procedure will remove any air in the system, allowing the drill to raise and lower evenly. The re-phasing procedure should be repeated several times a day to ensure that the drill continues to lift evenly. Remove the transport locks.
Leveling The Drill:
1) Loosen the locknuts (1) and adjust the cylinder eye-bolts (2) so that there is initially about 4 3/4" of thread above the mounting plate.
2) Fully raise the drill, then lower the drill to the ground until the openers and coulters are 1 to 2 inches off the ground.
3) Measure the distance from the coulter tube to the ground on both ends of the drill.
4) Adjust the eye-bolts to level the drill from end to end.
5) Tighten the nuts on eye-bolts when the drill is level.
Note: Do not exceed 5" of thread above mounting plate. This could lead to hydraulic cylinder damage.

Coulter Depth Control:
The master-slave lift cylinders on the drill controls the depth of the coulters. A depth valve regulates the retracted length of these cylinders.
1) Lower the drill until the desired coulter depth is achieved and set the coulter depth stop. Raise the drill up and drive forward while lowering the drill as it’s moving. Recheck the coulter depth and adjust, by doing this the coulter depth will always return to the same depth.
Note: Changing the depth of the coulters will effect overall planting depth of the openers. Press wheels will need to be adjusted accordingly.

Individual Coulter Adjustment:
Coulter springs are preset at the factory giving the coulters an initial operation force of 400+ lbs. This setting is adequate for most fields conditions. Re-setting the coulter spring shorter than 9 3/4 inches can cause premature failure of parts.

Opener Down Pressure:
The “W” clips on the opener spring rods should be in the lowest hole. This is the correct location in all conditions. The “W” clips can be raised one hole on openers in wheel tracks only if penetration is not adequate.
**T-Handle Adjustment:**
The depth of each opener is controlled by the height of the press wheel. Varying the height of the press wheel changes the seeding depth of the opener. Moving the “T” handle to the front of the opener shallows the depth; moving the “T” handle towards the rear of the opener increases the depth. For a starting point, place the “T” handle in the center.

**Gauge Wheel Idler Adjustment:**
Located inside the left hand gauge wheel arm is two idler sprockets that should be readjusted after the first 100 acres of drill use. From then on, readjust the idler sprockets at the beginning of each season. **Note: Do not overtighten the chains to avoid excessive wear.**

**Seed Cup Adjustment:**
Check all seed cups to ensure that they are clean and free of obstructions. The seed rate handle should move freely and not have excessive play in it.

1) To check seed cups for accuracy, loosen the seed adjustment handle by unscrewing the wing nut located on the underside of the handle and sliding the seed box rate handle to 100.
2) Place a seed calibration tool (817-459C) into the seed cup from the top (use the 7/8” side).
3) Once the tool has been placed into the seed cup, slide the seed adjustment handle until the feed wheel presses up against the block tightly.
4) With the feed wheel pressed tightly against the calibration tool, the seed cups are set at exactly 50%. The brass gauge should read 50%. If the seed adjustment handle is not lined up on 50%, loosen the two screws holding the gauge and adjust the brass plate until it reads 50% then tighten the screws.
Select Drive Type:

The gearbox is designed to give a variety of drive speeds for different types of seeds and rates. It is a linear shift pattern design with constant mesh gearing and is totally sealed to keep any dirt out. No lubrication is required unless service is needed.

1) To set the gearbox, move the selector handle until the desired drive type appears in the window on the handle.

<table>
<thead>
<tr>
<th>Main Seed Box Drive Type Ratios</th>
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</thead>
<tbody>
<tr>
<td>Drive Type 2 is 2.06 Times Faster Than 1</td>
</tr>
<tr>
<td>Drive Type 3 is 3.08 Times Faster Than 1</td>
</tr>
<tr>
<td>Drive Type 4 is 5.03 times Faster Than 1</td>
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Feed Cup Adjustment:

Each feed cup is equipped with a four-position adjustment handle.

A) The highest position is for wheat and other small grains
B) The second is for soybeans and other large grains
C) The third is used if the seeds are cracking in the second position
D) The bottom position is for clean out and will drain all seed

Note: Do not open the seed cup handle to the bottom position with seed in the box unless complete clean out is desired. Changing this handle will change the seeding rate. When storing after drilling season, it is best to place the handle in the bottom position to prevent damage from mice.