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

1. After using your drill for several hours, check all bolts to be sure they are tight. Refer to the torque value chart in your operator’s manual.
2.   A. Lubricate the seed cup drive sprocket shaft by coating with never seeze.
     B. Lubricate all chains with chain lube.
     C. Grease the clutch cam fittings. With the clutch jaws in the open position, lubricate with slip plate or a chain lube between the jaws.
     D. Grease the coulter arm pivots every 6 to 8 hours.
     E. Grease the wheel arm pivot castings every 6 to 8 hours.
     F. Grease coulter hub bearings and end wheel hub bearing before start of each planting season.
3. Disk scrapers should be properly adjusted.
4. Check for the proper air pressure in the implement tires (9.00 x 24) 40 psi.
5. Check all chain idlers for proper adjustment. Check that each idler is taking up excess chain slack. To adjust the chain in the drive axle tube, loosen jam nut on top of axle tube and screw adjusting stud in to tighten and retighten jam nut.

NOTE: DO NOT OVER TIGHTEN CHAINS. Adjust until the pull side of chain has no more than a ¼ inch of movement per foot of chain from the centerline of the pull.
TRANSPORTING

When transporting the drill, transport locks should always be used. This will prevent damage to the drill and possible personal injury should hydraulic failure occur. Always disengage the lockout hub before transporting the drill.

ADJUSTMENT BEFORE GOING TO THE FIELD

1.) After hooking the drill to the tractor and attaching hydraulic hoses, raise the drill up to maximum height and hold the hydraulic lever in the detent for 30 seconds, to allow the cylinders to rephase. This procedure will remove any air in the system allowing the drill to raise and lower evenly. The rephasing procedure should be repeated several times a day to ensure that the drill continues to lift evenly. Remove the transport locks.

2.) Lower the drill to the ground and pull ahead at field speed and inspect the coulter depth. Once set, visually check to see if the drill box lid and tongue are parallel to the ground, if not, raise or lower the draw bar clevis until the drill lid is level when drilling.
3.) Check the seed cups for any foreign objects. Loosen wing nut on seed rate handle and open to 100% on the brass plate. Move handle back until the edge of the flute is flush with the seam in the center of the cup (this is 50% open). A 7/8” block can also be used to measure the 50% open measurement. If brass plate does not read 50 on the seed rate handle, loosen the screws holding the brass plate and adjust plate to 50%. If an individual cup is not consistent, loosen the bolts holding the cup to the bottom of the seed box and adjust seed cup housing left or right as needed.

4.) 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 seed is cracking in the second position.
   D. The bottom position is for clean out of the seed cup and will drain any grain left in the seed box.

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 not change the seeding rate.

NOTE: When storing the drill, it is best to place the handle in the bottom position with brass gauge reading “0” to help prevent rodent damage.
5.) Locate the desired seeding rate for the type of seed on the chart in the owner’s manual or on the lid of drill.

   A. Set the drive type for the seed and rate desired.
   B. Loosen wing nut on seed rate adjustment handle and move it past the required number and then back to the correct number on the brass plate.
   C. Check seeding rate by running the calibration procedure outlined in owner’s manual or on the seed rate chart of drill lid.

**NOTE:** The gear box has four drive types. Refer to the operator’s manual for the correct drive for a given seed. If the desired rate is not given, it is possible to refer to the drive type rates and shift to a new drive type.

<table>
<thead>
<tr>
<th>MAIN SEEDBOX DRIVE TYPE RATIOS</th>
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<tbody>
<tr>
<td>Drive Type 2 is 2.06 times faster than drive 1</td>
</tr>
<tr>
<td>Drive Type 3 is 3.08 times faster than drive 1</td>
</tr>
<tr>
<td>Drive Type 4 is 5.03 times faster than drive 1</td>
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6.) Heavy duty down pressure springs are standard equipment. The “W” clips are shipped from the factory in the bottom hole and should be left there in all applications. The “W” clips can be raised one hole in the wheel tracks in extreme conditions. **NOTE:** If the “W” clips are raised too high, spring pressure increases accordingly. This will take away weight available to penetrate the coulters.

7.) 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. 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 center.
8.) With the drill in the raised position, the clutch should be fully disengaged. The cam plates will be on top of each other, and the jaws of the clutch will be fully separated. When the drill is lowered to planting position, the jaws of clutch should be fully engaged. To adjust, loosen bolts on clutch tab, slide tab forward or rearward to change and retighten bolts.

FIELD ADJUSTMENTS

1.) SET COULTER DEPTH: With the drill lowered, pull ahead at field speed until desired coulter depth is achieved. Once satisfied, set the cylinder stop on the master cylinder (the cylinder on the left side of drill). Re-check the coulter depth and adjust if needed. By doing this the coulter depth will always return to the same depth.

A. If the cylinders are completely retracted and the coulters are not penetrating, add weight to the drill. DO NOT re-adjust the coulter shanks, as lowering the coulter shanks will not increase coulter penetration.
B. Coulter springs are preset at the factory giving the coulters an initial operating force of 400+ lbs. This setting is adequate for most field conditions. Re-setting the coulter spring shorter than 9¾ inches can cause premature failure of parts.
2.) SPRING TENSION ON THE OPENERS: 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 in the wheel tracks only if penetration is not adequate.

3.) SEED DEPTH: All opener “T” handles should be set the same (about mid range) when starting. Check seed depth by digging down to the seed, adjust to desired depth by moving the “T” handle. It may be desirable to put the T-handles in the rows behind the wheel tracks, one hole deeper to maintain proper seed depth.

OPTIONS

1.) COIL TINE HARROW: A coil tine harrow is available as optional equipment that will pull residue over the seed and help in reducing soil crusting. Adjust the harrow for no-till by raising the front bar to run 1 inch to 1½ inches higher than the rear bar. The front set of teeth should be set to run flatter than the rear bar.