Lister Cultivator

Document # TLUS850C-0001A  Date: August 4, 2015

Models Affected: LC25, LC40

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:
Row Unit Down Pressure (Springs):

Increase individual row spring down pressure for rows that run in tire tracks.

The following table provides the down-force values with the tool bar and parallel arms level with the ground:

<table>
<thead>
<tr>
<th>Down Force</th>
<th>Bolt Reveal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pounds</td>
<td>kg</td>
</tr>
<tr>
<td>350</td>
<td>160</td>
</tr>
<tr>
<td>390</td>
<td>175</td>
</tr>
<tr>
<td>450</td>
<td>205</td>
</tr>
<tr>
<td>490</td>
<td>220</td>
</tr>
<tr>
<td>540</td>
<td>245</td>
</tr>
</tbody>
</table>

To Adjust Spring Pressure:
1) Measure the current bolt reveal (1) from the top of the cast spring plug to the bottom of the bolt head (top of washer) on each spring.
2) Loosen the jam nut (2) at the cast plug.
3) Turn the bolt head (3) to obtain the new reveal value. Make the same adjustment to both springs.

Coulter Adjustment:
1) Raise the implement high enough to take pressure off of the coulter. Adjustments can be made with the coulters on the ground but requires more effort.
2) Remove the hairpin (4) and release the crank handle from storage.
3) Note the current setting on the scale at the row being adjusted. Each 1/2 number graduation represents approximately 1” (2.5 cm) of vertical coulter movement.
4) Remove the hair pin (5) from the adjustment shaft.
5) Place the crank on the threaded rod (6) and rotate the crank until the desired scale value appears at the top of the pivot plate (7).
6) Adjust the crank to re-align the pin hole in the thread rod with the slot in the scale.
7) Once adjusted, repeat steps for all rows.
Coulter Scraper Adjustment:

This adjustment needs to be made as scrapers wear or when the scrapers are replaced. At each row, check the gaps (8) between the lower edges of the scrapers and the coulter depth band. The factory setting is 3/32" (0.9 inch, 2.4 mm).

To adjust the scraper:
1) Loosen the nuts (9) at the slots.
2) Slide the scraper down until the correct gap is achieved. Keep the scraper centered on the coulter blade and tighten the nuts.

Note: If the scraper reaches the end of its slots, and the gap (8) is larger than 3/32" (2.4 mm), the scraper is worn out and must be replaced.

Barring-Off Adjustments (Option):

Sliding tubes and bent pins provide a choice of widths (measured at the disc bottom edges), ranging from 11.3" (28.7 cm) to 31.3" (79.5 cm). By alternating tube and sleeve holes, the total width may be adjusted in increments of 5/8" (16 mm).

To adjust:
1) Raise the implement slightly.
2) Remove the hairpin (10) and each bent pin (11).
3) Slide the disc mounting tubes in or out depending on the desired width.
4) Secure the disc mount with the bent pin and hairpin.

Note: If a cap is present, do not mount a barring-off tube in that receiver. In that current row spacing, a barring-off disc installed in this tube would strike other implement parts during fold.

Lister Shovel Adjustments:

Great Plains recommends operating with the lister shovel fully raised unless conditions dictate otherwise.

To adjust the shovel height:
1) Loosen the nuts (12) on the lower shear bolts and the lock nut (13) on the top pivot bolt.
2) Slide the mounting bar (14) up or down and re-tighten the nuts.
Note: If a lower shear bolt ever fails during operation, replace it with an identical (#802-720C). Do not use a high grade bolt, or equipment damage may result.

3) Tighten all three nuts to Grade 5 torque specification (50 foot-pounds).

4) Ensure that all rows have identical adjustments. The only time they may differ is for rows in tire tracks.

**Furrower Disc Angle Adjustment:**
This setting needs to be adjusted per the furrow profile and conditions. The other furrower adjustments are often satisfactory at their factory setting.

1) Loosen the eight nuts (15) on the slotted bolts and pivot bolts. Ensure that both top and bottom bolts are all loose.

2) Set the disc angle to the desired setting and re-tighten the nuts.

**Furrower Disc Height Adjustment:**
If it is necessary to change the furrower height, first see if the channel/mount adjustment suffices.

1) Loosen both nuts (16) on one disc side and slide the mount up or down on the channel. Re-tighten the nuts when adjusted.

**Cultivator Height Adjustment:**

1) Loosen the nuts (17) at the lower shear bolts, and the lock nut (18) at the upper pivot bolt.

2) Slide the shank (19) up or down to the desired height. The factory setting is 10 1/2 inches, measured from the bottom of the row unit frame to the top of the sweep shank weldment.

3) Tighten the lower nuts and upper lock nut to 50 foot-pounds. Note: If the lower shear bolt is ever failed by a field obstruction, replace it with an identical (802-720C) HHCS 7/16-14x3 1/2 GR5 PLT. Do not use a higher grade bolt, or equipment damage may result. Using a lower grade bolt may result in nuisance shears.

**Cultivator Pitch Angle:**
The upper cultivator mounting bolt (20) passes through a slot in the shank, allowing some pitch angle adjustment. The factory setting is maximum nose up.

1) Loosen both the upper (20) and lower (21) nuts. Adjust the pitch angle and secure both nuts.
Cultivator Deflector Height and Angle:
1) To adjust the angle, loosen the nuts (22) at the curved slots and move the deflector shields (23) to the desired angle. Re-tighten the nuts.
2) To adjust the height, loosen the nuts (24) at the mount and slide the mount (25) up or down. Re-tighten the nuts when the desired height is achieved.

Note: To obtain further lowering, the shield mount (25) can be inverted to gain more distance.

Shield Adjustment:

Inward/Outward Adjustments:
1) For different row spacings, loosen the two bolts (26) that clamp the tubes to adjust the shield inward/outward.

Forward/Rear Adjustments:
1) To move the shields forward or backwards, loosen the U-bolts (27) on the clamp bar (28) and slide the shield to the desired adjustment.

Vertical Adjustments:
1) To adjust the shields vertically, there are three holes (29) approximately 3 inches apart.

Height Adjustments:
1) The chain (30) length can be adjust for fine tuning height.