Tillage

Turbo-Max

Document # TLUS600C-0001B  Date: March 26, 2018

Models Affected: 850TM, 1000TM, 1200TM, 1500TM, 2400TM, 3000TM, 3500TM, 4000TM, 4800TM

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:
Tire Inflation Chart:
Ensure all tires are inflated to the proper operating pressure per the table to the right. Note: Proper inflation is important to ensure safe transport and level operation of the Turbo-Max.

<table>
<thead>
<tr>
<th>Position</th>
<th>Size</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>AW-708-19/45-17” 18-Ply BKT</td>
<td>65 PSI</td>
</tr>
<tr>
<td>Transport</td>
<td>AW-708-19/45-17” 22-Ply BKT</td>
<td>78 PSI</td>
</tr>
<tr>
<td>Transport</td>
<td>480/45Rx17 AW711 BKT</td>
<td>73 PSI</td>
</tr>
<tr>
<td>Transport</td>
<td>480/45x17” Titan</td>
<td>58 PSI</td>
</tr>
<tr>
<td>Transport</td>
<td>380/55Rx16.5 Load F RI</td>
<td>73 PSI</td>
</tr>
<tr>
<td>Transport</td>
<td>340/60R16.5</td>
<td>73 PSI</td>
</tr>
<tr>
<td>Transport</td>
<td>440/55R18 Load 159A8/B Titan</td>
<td>78 PSI</td>
</tr>
<tr>
<td>Wings</td>
<td>12.5Lx15” 12-Ply</td>
<td>55 PSI</td>
</tr>
<tr>
<td>Wings</td>
<td>11Lx15SL 12-Ply</td>
<td>52 PSI</td>
</tr>
<tr>
<td>Gauge Wheel</td>
<td>9.5Lx15” 8-Ply</td>
<td>44 PSI</td>
</tr>
</tbody>
</table>

Hydraulic Hose Hookup:
Great Plains hydraulic hoses have colored coded handle grips to help hook up hoses to the tractor remotes. Hoses with the same color use the same remote.

<table>
<thead>
<tr>
<th>Color</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Lift (2 Hoses)</td>
</tr>
<tr>
<td>Green</td>
<td>Fold (2 Hoses)</td>
</tr>
<tr>
<td>Red</td>
<td>Gang Adjustment (2 Hoses)</td>
</tr>
<tr>
<td>Yellow</td>
<td>Hydraulic Reel Att. (2 Hoses) (Option)</td>
</tr>
</tbody>
</table>

Front to Rear Leveling (Turnbuckle Option):
1) Completely unfold the machine while observing the unit for any hydraulic leaks or loose fittings.
2) Once unfolded, raise the unit to re-phase the lift circuit. Hold the lift circuit open for 30 seconds to ensure all air is purged from the hydraulic system.
3) Lower the machine so the front coulter gangs are 1-2” off of a level surface.
4) Loosen the jam nut (1) and adjust the turnbuckle (2) (shorten the turnbuckle to lower the front or extended the turnbuckle to raise the front) until the front coulter gangs are the same distance off the ground as the rear coulter gangs.
5) Once level, re-tighten the jam nut (1).
Front to Rear Leveling (Hydraulic Option):
1) Completely unfold the machine while observing the unit for any hydraulic leaks or loose fittings.
2) Once unfolded, raise the unit to re-phase the lift circuit. Hold the lift circuit open for 30 seconds to ensure all air is purged from the hydraulic system.
3) Lower the machine so the front coulter gangs are 1-2" off of a level surface.
4) Using the (yellow) hydraulic hoses, adjust the hydraulic cylinder so that the front coulter gangs are the same distance off the ground as the rear coulter gangs.

Level Bar Spring Adjustment:
1) To adjust the level bar spring assembly to the factory setting of 26 5/8", loosen the jam nut (3).
2) Adjust the nut (4) until the 26 5/8" dimension is reached between the backside of the spring guide and front side of the level bar spring rod plate.
3) Once 26 5/8" is achieved, re-tighten the jam nut (3).

Wing Adjustment Turnbuckle:
Note: Prior to leveling the wings, ensure that the machine is level front to rear.
1) Lower the machine until the coulter gangs are 1-2" off of the ground.
2) Loosen the jam nuts (5), and adjust the wing turnbuckles (6) (shortening the turnbuckles raise the wings and extending the turnbuckles lowers the wings) to match the center frame.
3) Once the machine is leveled side to side, any further adjustment in the field should be down with the hydraulic down pressure.
Gang Angle Adjustment:
Several conditions will dictate the gang angle setting that will accomplish the desired result:

Example Of Suggested Settings:

1) Fall Operation: Cover residue and aggressively fill in tracks.
   Setting:
   - 4-6 Degree Gang Angle
   - 4-5” Working Depth
   - 6-8 mph

2) Final Pass: Creating a level surface/planter-ready seedbed.
   Setting:
   - 0 Degree Gang Angle
   - 2” Working Depth
   - 7-10 mph

Wing Fold Assist Proximity Sensors Adjustment (If Installed):

Note: Wings must be folded up and the wing safety lock pins installed when adjusting the proximity sensors to prevent damage to the sensor and bracket.

1) Loosen the nuts (7) (one on the front and one on the back side of the sensor bracket, adjust the proximity sensor to 1/8” to 1/4” from the front of the proximity sensor to the rear of the wing tube).

2) Once adjusted, re-tighten the nuts (7) to secure the proximity sensor in position.
Hydraulic Down Pressure Adjustment: (1200TM, 1500TM, 1800TM, 2400TM, 3000TM)

Note: This setup procedure is for tractors with closed center pressure compensated or pressure and flow compensating hydraulic systems. Open center hydraulics are NOT SUPPORTED.

1) With the machine unfolded, engage the fold/unfold hydraulics for continuous flow (unfold position).

2) From the tractor cab, adjust the hydraulic flow so the needle on the bypass gauge is in the green zone 1000-1500 psi (8). Note: The faster the flow of oil through the system the greater the potential for oil heating, premature wear or tractor damage.

3) At the valve, adjust the valve (9) to set the initial down pressure. This is usually set at 300-400 psi (do not exceed 800 psi).

During field operation, if the wings are running too high, increase the pressure setting to help level the machine. If the center of the machine is running too high, decrease the pressure setting.

Hydraulic Down Pressure Adjustment: (3500TM)

Note: This setup procedure is for tractors with closed center pressure compensated or pressure and flow compensating hydraulic systems. Open center hydraulics are NOT SUPPORTED.

1) With the machine unfolded, engage the fold/unfold hydraulics for continuous flow (unfold position).

2) From the tractor cab, adjust the hydraulic flow so the needle on the bypass gauge is in the green zone 1000-1500 psi (10). Note: The faster the flow of oil through the system the greater the potential for oil heating, premature wear or tractor damage.

3) At the valve, adjust the valve (11) to set the initial down pressure. This is usually set at 300-400 psi (do not exceed 800 psi).

During field operation, if the wings are running too high, increase the pressure setting to help level the machine. If the center of the machine is running too high, decrease the pressure setting.
Hydraulic Down Pressure Adjustment: (4000TM, 4800TM)

Note: This setup procedure is for tractors with closed center pressure compensated or pressure and flow compensating hydraulic systems. Open center hydraulics are NOT SUPPORTED.

1) Close the rear valve (12) by turning it clockwise until it is completely closed. Then open the valve one complete turn.

2) Set the tractor flow rate for the hydraulic fold/unfold system to SLOW.

3) Engage the unfold hydraulic system (continuous flow).

4) Adjust the front valves (13)(14) to obtain 1200 psi each.

5) Adjust the rear valve (12) to 1100 psi. Once achieved, lock the valve using the locking disc.

6) Adjust the front valves (13)(14) to the desired down pressure. It is recommended to adjust valve (13) between 300-800 psi for the inner wings and adjust valve (14) between 200-500 psi for the outer wings.

During field operation, if the wings are running too high, increase the pressure setting on valves (13)(14) to help level the machine. If the center of the machine is running too high, decrease the pressure setting on valves (13)(14).

Hydraulic Single Point Depth Stop Adjustment:

The hydraulic dept stop will ensure a consistent depth every time the implement is lowered.

1) Prior to setting the single point depth stop, ensure that the machine is completely level front to back and side to side.

2) Lower the implement to the desired working depth and pull forward. Once satisfied with the working depth, adjust the depth stop handle to make contact with the depth stop valve. Note: If a change of depth is desired, 1 full turn of the depth stop handle either in or out will change the depth of the machine approximately 1/4” up or down.
Gauge Wheel Adjustment:
Note: The gauge wheels should be set in the field position to be 1/2" to 1 1/2" off the ground.
1) Loosen the set screws (16) on each gauge wheel.
2) Turn the jack handle (17) to adjust the spindle receiver. Adjusting the jack handle counterclockwise will run the wheel closer to the ground while turning the jack handle clockwise will cause the wheel to run further away from the ground.
3) After adjusting the gauge wheel to the desired position, re-tighten the set screws (16).

Rolling Reel Spring Adjustment:
The reel down pressure may be adjusted by removing the pin (18) and then either pushing the handle (19) forward to increase the spring pressure or by pulling the handle backwards to decrease the spring pressure. When the desired amount of spring pressure is achieved, re-insert the pin. Note: It is recommended to run little or no down pressure in wet conditions.

Hydraulic Rolling Reel Adjustment: (Option)
Reel down pressure can be adjusted on the move depending on the desired results.
Using the gauge on the back of the machine:
   0 = No pressure/transport position/wet conditions
   1-5 = Ideal operating range
   6 = Most pressure/extremely hard soil
Note: Running the rolling reel at 6 can raise the rear of the machine out of the ground and can cause the machine to be unlevel.