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:

First Time Field Setting Recommendation:

1) Gang Angle - 3-4 Degree
2) Working Depth - 2.5-3 Inches
3) Wing Down Pressure - Start in “FLOAT”. Increase to 200 PSI if pressure is needed
4) Fore/Aft - Machine must be level front to rear to ensure all blades are working the same depth
5) Finish Reel Down Pressure - Start in “FLOAT”. Increase to 200-300 PSI is pressure is needed
6) Operating Speed - 7-9 MPH
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 Terra Max.

<table>
<thead>
<tr>
<th>Tire Pressure</th>
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</thead>
<tbody>
<tr>
<td>Position</td>
</tr>
<tr>
<td>Gauge Wheel</td>
</tr>
<tr>
<td>Transport/ Center 20&amp;25</td>
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<tr>
<td>Transport/ Center 30</td>
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<tr>
<td>Transport/ Wings 25</td>
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<tr>
<td>Transport/ Wings 30</td>
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</tbody>
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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>Hydraulic Hose Hookup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
</tr>
<tr>
<td>Black</td>
</tr>
<tr>
<td>Green</td>
</tr>
<tr>
<td>Red</td>
</tr>
<tr>
<td>Yellow</td>
</tr>
</tbody>
</table>

Front to Rear Leveling:

1) Completely unfold the machine will 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) The leveling system and gang adjustment share the same hydraulic circuit. To change between the two different systems, use the switch mounted by the bypass valve. Note: The lights must be plugged in to switch between gang angle and fore & aft.

5) Using the (Red) hydraulic hoses, adjust the hydraulic cylinder so that the front coulter gangs are the same distance off the ground as the rear coulter gangs.
**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, and adjust the wing turnbuckles (shortening the turnbuckles lowers the wings and extending the turnbuckles raises 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. Note: If running gangs at an angle and the wings are going too deep, hydraulic weight transfer should be switched to float.

**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 (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 to secure the proximity sensor in position.

Proximity sensors have built in diagnostic LED’s. If the RED LED is illuminated, the switch is activated (sensor sees metal). If the GREEN LED is illuminated, the switch is not activated (sensor doesn’t see metal). The switch must have 12+V for the sensors to work which is powered by the light plug.
Hydraulic Down Pressure Adjustment: (HT1100-20, HT1100-25, HT1100-30)

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. 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 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.

Note: When operating machine with the blades in angled position it is generally unnecessary to apply wing down pressure. Only in very hard ground will wing down pressure be necessary.

CAUTION: When not operating with live down pressure the fold system must be in “FLOAT” position. Failure to operate in either float or active down pressure will damage the fold system. See your tractor operator’s manual to set system to “FLOAT” position if necessary.

Gang Angle Adjustment:

Several conditions will dictate the gang angle setting that will accomplish the desired result:

Research has shown that 3-5 degree of gang angle is recommended for most applications.

1) The Terra Max may be operated with gangs running from 0-8 degrees. Changing the angle does affect the operation of the unit. As indicated above, if the gangs are operated at an angle, down pressure is generally unnecessary. Operating speeds will need to be less when operating with the gangs angled 3-6 degrees. Operating speeds should be from 7-9 mph when operating gangs in the angled position and from 8-10 mph when operating in the straight position.

2) When operating the gangs in the straight position (0 degrees), down pressure may be necessary, usually between 200-400 psi.

CAUTION: When not operating with live down pressure the fold system must be in “FLOAT” position. Failure to operate in either float or active down pressure will damage the fold system. See your tractor operator’s manual to set system to “FLOAT” position if necessary.
Hydraulic Single Point Depth Stop Adjustment:
The hydraulic dept stop will ensure a consistent depth every time the implement is lowered.
1) Once the machine is level and set to the desired working depth, set the hydraulic depth stop at the front of the machine.
2) After setting the stop, if a change of depth is desired, one full turn of the handle either in or out will change the depth approximately 1/4” up or down respectively.

Note: Standard operating depth is 1-4”. For first time settings a depth of 2.5-3” is recommended unless it is too wet to go this deep.
Slight tire to ground pressure should be maintained to prevent cylinder pin and clevis wear. If after setting the depth stop, the detent on the tractor kick out before the stop contacts the button on the depth stop, slow the hydraulic flow speed down.

Finishing Reel (Single or Double)

Note: Finishing reel must either be ran in “FLOAT” or active hydraulics during field operation. Never run in Neutral.
1) Initially it is recommended to start these out in the “FLOAT” position so that we are not applying pressure which could affect other components of the machine. Once all previous settings have been completed, increase down pressure to the reels.
2) Initial down pressure should be about 200-300 PSI. Never exceed 800 PSI. Note: Do not run down pressure in very wet fields.
**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 on each gauge wheel.

2) Turn the jack handle 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.