Operator Manual

Plains Plow Series II
9322PP, 9326PP, 9533PP, 9540PP, 9744PP, 9748PP,
9752PP & 9756PP

Great Plains Manufacturing, Inc.
www.greatplainsmfg.com

Read the operator’s manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

Illustrations may show optional equipment not supplied with standard unit.
Machine Identification

Record your machine details in the log below. If you replace this manual, be sure to transfer this information to the new manual.

If you or the dealer have added options not originally ordered with the machine, or removed options that were originally ordered, the weights and measurements are no longer accurate for your machine. Update the record by adding the machine weight and measurements with the option(s) weight and measurements.

<table>
<thead>
<tr>
<th>Model Number</th>
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<tbody>
<tr>
<td>Serial Number</td>
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<tr>
<td>Machine Height</td>
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<td>Machine Length</td>
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<td>Machine Width</td>
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<tr>
<td>Year of Construction</td>
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<tr>
<td>Delivery Date</td>
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<tr>
<td>First Operation</td>
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<tr>
<td>Accessories</td>
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</tbody>
</table>

Dealer Contact Information

Name: __________________________
Street: _________________________
City/State: ____________________
Telephone: _____________________
Email: _________________________
Dealer’s Customer No.: ________

⚠️ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov
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11/27/2018 580-043M
**Important Safety Information**

**Look for Safety Symbol**

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

**Be Aware of Signal Words**

Signal words designate a degree or level of hazard seriousness.

**DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

**WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

**CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

**Prepare for Emergencies**

- Be prepared if a fire starts
- Keep a first aid kit and fire extinguisher handy.
- Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.

**Be Familiar with Safety Decals**

- Read and understand “Safety Decals” on page 5, thoroughly.
- Read all instructions noted on the decals.
- Keep decals clean. Replace damaged, faded and illegible decals.
Wear Protective Equipment

Wear protective clothing and equipment.
Wear clothing and equipment appropriate for the job.
Avoid loose-fitting clothing.
Because prolonged exposure to loud noise can cause hearing impairment or hearing loss, wear suitable hearing protection such as earmuffs or earplugs.
Because operating equipment safely requires your full attention, avoid wearing entertainment headphones while operating machinery.

Handle Chemicals Properly

Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil and property.
Read and follow chemical manufacturer’s instructions.
Wear protective clothing.
Handle all chemicals with care.
Avoid inhaling smoke from any type of chemical fire.
Store or dispose of unused chemicals as specified by chemical manufacturer.

Avoid High Pressure Fluids

Escaping fluid under pressure can penetrate the skin, causing serious injury.
Avoid the hazard by relieving pressure before disconnecting hydraulic lines.
Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
If an accident occurs, seek immediate medical assistance from a physician familiar with this type of injury.

Use Safety Lights and Devices

Slow-moving tractors and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.
Use flashing warning lights and turn signals whenever driving on public roads.
Use lights and devices provided with implement
Keep Riders Off Machinery

Riders obstruct the operator’s view. Riders could be struck by foreign objects or thrown from the machine.

Never allow children to operate equipment.

Keep all bystanders away from machine during operation.

Transport Machinery Safely

Maximum transport speed for implement is 20 mph (32 kph), 13 mph (22 kph) in turns. Some rough terrains require a slower speed. Sudden braking can cause a towed load to swerve and upset.

Do not exceed 20 mph. Never travel at a speed which does not allow adequate control of steering and stopping. Reduce speed if towed load is not equipped with brakes.

Comply with state and local laws.

Do not tow an implement that, when fully loaded, weighs more than 1.5 times the weight of towing vehicle.

Carry reflectors or flags to mark Plains Plow in case of breakdown on the road.

Keep clear of overhead power lines and other obstructions when transporting. Refer to transport dimensions under “PP Specifications and Capacities” on page 24.

Do not fold or unfold the Plains Plow while the tractor is moving.

Shutdown and Storage

Lower Plains Plow, put tractor in park, turn off engine, and remove the key.

Secure Plains Plow using blocks and supports provided.

Detach and store machine in an area where children normally do not play.

Tire Safety

Tire changing can be dangerous and should be performed by trained personnel using correct tools and equipment.

When inflating tires, use a clip-on chuck and extension hose long enough for you to stand to one side—not in front of or over tire assembly. Use a safety cage if available.

When removing and installing wheels, use wheel-handling equipment adequate for weight involved.
Practice Safe Maintenance

Understand procedure before doing work. Use proper tools and equipment. Refer to this manual for additional information.

Work in a clean, dry area.

Lower the machine, put tractor in park, turn off engine, and remove key before performing maintenance.

Disconnect battery ground cable (-) before servicing or adjusting electrical systems or before welding on machine.

Inspect all parts. Make sure parts are in good condition and installed properly.

Remove buildup of grease, oil or debris.

Remove all tools and unused parts from machine before operation.

Safety At All Times

Thoroughly read and understand the instructions in this manual before operation. Read all instructions noted on the safety decals.

Be familiar with all machine functions.

Operate machinery from the driver’s seat only.

Do not leave Plains Plow unattended with tractor engine running.

Do not stand between the tractor and machine during hitching.

Keep hands, feet and clothing away from power-driven parts.

Wear snug-fitting clothing to avoid entanglement with moving parts.

Watch out for wires, trees, etc., when folding and raising machine. Make sure all persons are clear of working area.
Safety Decals

Safety Reflectors and Decals
Your implement comes equipped with all lights, safety reflectors and decals in place. They were designed to help you safely operate your implement.

Read and follow decal directions.
Keep lights in operating condition.
Keep all safety decals clean and legible.
Replace all damaged or missing decals. Order new decals from your Great Plains dealer. Refer to this section for proper decal placement.

When ordering new parts or components, also request corresponding safety decals.

To install new decals:
1. Clean the area on which the decal is to be placed.
2. Peel backing from decal. Press firmly on surface, being careful not to cause air bubbles under decal.

818-055C
Slow Moving Vehicle Reflector
On the back of the center frame.;
1 total

838-615C
Amber Reflectors
Two on light bracket and two on center frame. Two on rear of finishing attachment (not shown), visible from side while folded for transport;
6 total
838-614C
Red Reflectors
On rear of light brackets (top);
2 total

838-603C
Orange Reflectors
On rear of light brackets (bottom);
2 total

CAUTION
1. Read and Understand the Operator's Manual before using machine.
2. Stop tractor engine, lower machine to the ground, place all controls in neutral, set park brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing, unplugging or lifting.
3. Keep hands, feet, hair and clothing away from earth-working points and blades.
4. Do not allow riders.
5. Clean reflectors, SWM and lights before transporting.
6. Install safety lights before transporting or working beneath components.
7. Add extra lights and use pilot vehicle when transporting during times of limited visibility.
8. Use hazard flashes on tractor when transporting.
9. Install safety chain when attaching to tractor.
10. Review safety instructions with all operators annually.

838-598C
Caution: Read Operator's Manual
On top, front of hitch;
1 total
Great Plains Manufacturing, Inc.

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**Important Safety Information**

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**838-599C**

**Danger: Electrocution Hazard**

On top, front of hitch; 1 total

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**838-600C**

**Danger: Crushing Hazard**

On front of hitch; 1 total

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**838-602C**

**Warning: Overhead Wing Hazard**

On outside of center and wing frames (both sides); 4 total 3-section

6 total 5-section

7 total 7-section
**838-094C**
**Warning: High Pressure Fluid**
On top, front of hitch; 1 total

**838-611C**
**Warning: Hand Crushing**
On top, front of hitch; 2 total

**838-613C**
**Notice: Transport Lock**
On outside of center frame, cylinder lift arm (both sides); 2 total
**WARNING**

WINGS COULD FALL SUDDENLY
Keep Wing Safety Pins in Place Until Cylinder & Lines Are Full of Oil & Free of Air

838-612C
Warning: Wings Could Fall Suddenly
On front of wing stop (both sides); 2 total

**WARNING**

To prevent serious injury or death:
- Tongue rises rapidly when unhitched from tractor.
- Lower implement to ground before unhitching.

838-606C
Warning: Tongue Rising
On front of hitch; 1 total

**DANGER**

CUTTING OF FOOT TO PREVENT SERIOUS INJURY
- Always lower unit to ground before adjusting tine/wire.
- Keep feet away from all ground engaging tine when working on the machine.
- Keep others away.

848-271C
Danger: Cutting of Foot
On outside of cylinder lift arms (both sides); 4 total 3-section
6 total 5-section
8 total 7-section
Introduction

Great Plains welcomes you to our growing family of new product owners. The Plains Plow has been designed with care and built by skilled workers using quality materials. Proper setup, maintenance, and safe operating practices will help you get years of satisfactory use from the machine.

Models Covered

<table>
<thead>
<tr>
<th>Model Code</th>
<th>Width</th>
<th>Sections</th>
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<tbody>
<tr>
<td>9322PP</td>
<td>22-Foot</td>
<td>3-section</td>
</tr>
<tr>
<td>9326PP</td>
<td>26-Foot</td>
<td>3-section</td>
</tr>
<tr>
<td>9533PP</td>
<td>33-Foot</td>
<td>5-section</td>
</tr>
<tr>
<td>9540PP</td>
<td>40-Foot</td>
<td>5-section</td>
</tr>
<tr>
<td>9744PP</td>
<td>44-Foot</td>
<td>7-section</td>
</tr>
<tr>
<td>9748PP</td>
<td>48-Foot</td>
<td>7-section</td>
</tr>
<tr>
<td>9752PP</td>
<td>52-Foot</td>
<td>7-section</td>
</tr>
<tr>
<td>9756PP</td>
<td>56-Foot</td>
<td>7-section</td>
</tr>
</tbody>
</table>

Description of Unit

The Plains Plow is a three, five or seven-section V-Blade undercutting tillage tool. Working width ranges from 22 to 56 feet. The implement is designed to undercut, kill weeds, apply fertilizers, break up hardpan, manage residue for greater moisture retention and wind erosion protection.

Definitions

The following terms are used throughout this manual.

NOTICE

A crucial point of information related to the preceding topic. Read and follow the directions to remain safe, avoid serious damage to equipment and ensure desired field results.

Document Family

580-043Q-ENG Assembly Manual
580-043Q Pre-Delivery Manual
580-043M Operator Manual (this document)
580-043P Parts Manual

Using This Manual

This manual will familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.

The information in this manual is current at printing. Some parts may change to assure top performance.
Owner Assistance

If you need customer service or repair parts, contact a Great Plains dealer. They have trained personnel, repair parts and equipment specially designed for Great Plains products.

Refer to Figure 2

Your machine’s parts were specially designed and should only be replaced with Great Plains parts. Always use the serial and model number when ordering parts from your Great Plains dealer. The serial-number plate is located on the left end of the top front tool bar.

Record your 9322-9756PP Plains Plow model and serial number here for quick reference:

Model Number: ____________________________
Serial Number: ____________________________

Your Great Plains dealer wants you to be satisfied with your new machine. If you do not understand any part of this manual or are not satisfied with the service received, please take the following actions.

1. Discuss the matter with your dealership service manager. Make sure they are aware of any problems so they can assist you.
2. If you are still unsatisfied, seek out the owner or general manager of the dealership.

Further Assistance

Great Plains Manufacturing, Inc. wants you to be satisfied with your new plains plow. If for any reason you do not understand any part of this manual or are otherwise dissatisfied with the product please contact:

Great Plains Service Department
1525 E. North St.
P.O. Box 5060
Salina, KS 67402-5060

Or go to www.greatplainsag.com and follow the contact information at the bottom of your screen for our service department.
Preparation and Setup

This section helps you prepare your tractor and 9322-9756PP Plains Plow for use, and covers tasks that need to be done seasonally, or when the tractor/Plains Plow configuration changes.

Before using the Plains Plow in the field, you must hitch it to a suitable tractor, inspect systems and level the Plains Plow. Before using the Plains Plow for the first time, and periodically thereafter, certain adjustments and calibrations are required.

Prior to Going to the Field Checklist

Complete this checklist before routine setup:

- Read and understand “Important Safety Information” on page 1.
- Check that all working parts are moving freely, bolts are tight, and cotter pins are spread.
- Make sure your tractor horsepower matches the implement you are pulling. This is important so the implement can do the best possible job.
- Clean all hydraulic couplings and connect to tractor as shown on page 13 and 14.
- If machine is folded, remove the transport pins from wing stops. (DO NOT remove pins if the wing is leaning against the pins or putting pressure on the pins. Use the hydraulics to pull the wings in completely before unpinning them.) Once the pins are removed, slowly unfold the unit. Make sure no one is under the wings during the unfolding process.
- Check again for hydraulic leaks and watch that hoses do not get pinched in hinges, wing stops, etc.

After the machine is completely unfolded, raise and lower the Plains Plow several times to purge air from the hydraulic system. Again check for hydraulic leaks and tighten or replace if necessary.

- Check safety chain hookup. Make sure all warning lights are hooked up and functioning correctly.
- Check that all grease fittings are in place and lubricated. See “Lubrication” on page 22. The hubs will come pre-greased and will not need greased at this time.
- Check that all safety decals and reflectors are correctly located and legible. Replace if damaged. See “Safety Decals” on page 5.
- Inflate tires to pressure recommended and tighten wheel bolts as specified. See “Tire Inflation Chart” on page 25.
- Put transport locks in place and refold the machine slowly. Put wing stop pins in place. Always use the transport pins when moving from field to field. You are now ready to go to the field.
Hitching Tractor to Plains Plow

**Danger**

**Crushing Hazard:**
Do not stand or place any body part between Plains Plow and moving tractor. You may be severely injured or killed by being crushed between the tractor and Plains Plow. Stop tractor engine and set parking brake before attaching cables and hoses.

To prevent soil compaction on rows, set tractor wheels between rows. For hillsides and steep slopes, set tractor wheels as wide as possible for maximum stability.

1. Raise tractor three-point arms (if equipped) clear up to clear Plains Plow.

2. For TWO-WHEEL DRIVE and MFWD tractors, pin drawbar in fixed center position for field and transport. For FOUR-WHEEL DRIVE and TRAC-DRIVE tractors, leave one hole clearance on each side of drawbar for field position, hitch damage may occur if pinned solid. Pin in center position for transport to maintain maximum steering control.

3. Hitch the tractor to the Plains Plow using the block or yoke clevis determined by the tractor drawbar. Use the correct size pin for clevis or block.

**Load Sway Hazard:**

Lock drawbar swing to center position to minimize any side-to-side sway to assure proper tracking in the field, and safe road travel. See “Transporting” on page 16, for safe transporting

**Refer to Figure 3**

6. Use jack 1 to raise and lower Plains Plow tongue.

**Refer to Figure 4**

7. After hitching tractor to Plains Plow, store jack on storage tube 2 on center brace bar.

8. Secure safety chain to an anchor on the tractor capable of pulling the unit.
Hydraulic Hose Hookup

Great Plains hydraulic hoses are color coded to help you hookup hoses to your tractor outlets. Hoses that go to the same remote valve are marked with the same color.

<table>
<thead>
<tr>
<th>Color</th>
<th>Hydraulic Function</th>
</tr>
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<tbody>
<tr>
<td>Black</td>
<td>Lift (2 hoses)</td>
</tr>
<tr>
<td>Green</td>
<td>Fold (2 hoses)</td>
</tr>
<tr>
<td>Yellow</td>
<td>Fold (2 hoses) (Models 9744-9756 center right)</td>
</tr>
</tbody>
</table>

**WARNING**

High Pressure Fluid Hazard:
Relieve pressure before disconnecting hydraulic lines. Use paper or cardboard, NOT BODY PARTS, to check for leaks. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. Escaping fluid under pressure can have sufficient pressure to penetrate the skin causing serious injury. If an accident occurs, seek immediate medical assistance from a physician familiar with this type of injury. Only trained personnel should work on system hydraulics.

Hose Handles
Refer to Figure 5

To distinguish hoses on the same hydraulic circuit, refer to hose label.

- The hose with an extended-cylinder symbol feeds a cylinder base end.
- The hose with a retracted-cylinder symbol feeds a cylinder rod end.

Secure hoses and cables so that they have sufficient slack for hitch movements, but cannot get caught between moving parts of tractor, Max Chisel or hitch. Failure to safely route and secure hoses and cables could result in damage requiring component repair/replacement, and lost field time.

To distinguish hoses on the same hydraulic circuit, refer to, “Hydraulic Hose Hookup” on page 14. Clean all hydraulic couplings and hook hoses to tractor.
First Time Field Adjustments

Pre-Leveling of Machine

Side to Side Leveling

Refer to Figure 6

9. Pre-leveling of machine can be done on a concrete slab or level surface. Lower machine so sweeps are 1” off of ground on the center frame. Adjust the long turnbuckles on the front of the frames that do not fold, by loosening jam nut and turning center part of turnbuckle to an initial setting of 19” pin center to center. Check the center frame for level, if one side is higher than the other side, extend that side, turnbuckle to bring the center level. (Shorten to bring up, extend to bring down).

10. Re-tighten jam nut.

11. After the center frame is level, do the same for each wing frame moving outward from the center frame. The first folding wing (short) turnbuckle initial setting is 17” pin center to center. The second folding wing (short) turnbuckle initial setting is 16⅓/₄”.

12. Make any minor adjustments to these setting to level the machine (shorten to bring up, extend to bring down). The wings may need to be adjusted slightly lower than the center in soft field conditions.

WARNING

Do not adjust turnbuckle with machine lifted up. Turnbuckle may disassemble and cause machine to fall. Turnbuckle maximum center to center length is 17⅓/₄”.

13. If machine is equipped with coulters, set coulters at 1” to 1⅓/₂” above the depth of the sweep blades.

14. You are now ready to operate the machine in the field.
Operating Instructions

This section covers general operating procedures. Experience, machine familiarity, and the following information will lead to efficient operation and good working habits. Always operate farm machinery with safety in mind.

Pre-Start Checklist

Perform the following steps before transporting the 9322-9756PP Plains Plow to the field.

- Carefully read “Important Safety Information” on page 1.
- Lubricate Plains Plow as indicated under “Lubrication” on page 22.
- Check all tires for proper inflation.
- Check all bolts, pins, and fasteners. Torque as shown in “Tire Inflation Chart” on page 25.
- Check Plains Plow for worn or damaged parts. Repair or replace parts before going to the field.
- Check hydraulic hoses, fittings, and cylinders for leaks. Repair or replace before going to the field.

Transporting

See “Hitching Tractor to Plains Plow” on page 13 before transporting the Plains Plow.

Check Tractor Capacity and Configuration

- Consult your tractor manual for 3-point limitations.
- Add weights to tractor as required.

When determining the weight of your Plains Plow, be sure to include the weight of any options.

Transport Checklist

- Plan the route. Avoid steep hills. Keep Clearances in mind.
- Make all electrical and hydraulic connections. See “Hitching Tractor to Plains Plow” on page 13.
- Raise Plains Plow.
- Be sure all transport locks are installed.
- Always have lights on for highway operation.
- Comply with all federal, state and local safety laws when traveling on public roads.

Travel with caution. Allow safe clearance. Remember that the Plains Plow is wider than the tractor.

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**WARNING**

High Pressure Fluid Hazard:
Relieve pressure and shut down tractor before connecting, disconnecting or checking hydraulic lines. Use a piece of paper or cardboard, NOT BODY PARTS, to check for leaks. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. Escaping fluid under pressure can have sufficient pressure to penetrate the skin causing serious injury. If an accident occurs, seek immediate medical assistance from a physician familiar with this type of injury.

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**WARNING**

Loss of Control Hazard:
Use a tractor rated for the load. Add tractor ballast as needed. Do not exceed 20 mph. Towing the Plains Plow with a vehicle that is not adequate, or at high speeds, could lead to loss of vehicle control. Loss of vehicle can result in a serious road accident, severe injury or death. Check that your tractor has enough weight to handle the weight of the Plains Plow. Refer to your tractor’s operator manual for capacities and ballast requirements.
Folding Instructions for 5 or 7 Section Plains Plow

5 Section Machines
15. When operating the plains plow, the hydraulic flow settings for the lift system may be set at or near full flow to allow optimum lift and lower cycle times. The fold system flow settings should be reduced to 10-15 gpm (usually \( \frac{1}{2} \) full flow on most tractors). This will prevent damage to the fold system during the folding and unfolding process.

16. When folding the machine to transport position, it is important that the outside wing is folded completely before inner wings begin to fold. If the inner wings are folding at the same time as the outer wings, the hydraulic flow is too high and will cause damage to the machine. Reduce the flow! In some cases, if the flow settings are difficult to change, when the inside wing begins to fold before the outside wing is completely folded, center the fold lever. This will allow for the oil to transfer from the outer cylinders to the inner cylinders and the inside wings will fall. Once the outside wings are completely folded, proceed with folding the inner wings.

17. When unfolding the machine, the inner wings need to be completely unfold before the outer wings begin to unfold. If the outer wings are unfolding at the same time as the inner, the flow is too high and damage may occur. If adjusting the flow is difficult on your tractor, you may need to center the hydraulic lever at some point to allow the inside wings to stay ahead of the outer wing. Once the inner wings are completely to the ground, continue the unfolding process for the outer wings.

7 Section Machines
18. When folding or unfolding 7 section machines, it is important that the hydraulic flow is not too high, 10-15 gallon per minute is more than adequate for folding or unfolding. On most tractors, this is about \( \frac{1}{2} \) the maximum flow available. Prior to unfolding the plains plow, remove all transport safety pins. Do not remove pins if there is pressure against pins. If pressure exists, pull all the cylinders in, to relieve the pressure from pins.

19. After pins are removed, close the small cylinder between the two sections that remain on the ground. This will make these sections temporarily rigid. Begin the unfolding process. Make sure the inner wings unfold ahead of the outer wings. If the outer wings are unfolding along with the inner, slow the flow down. If this continues at a slower flow rate, center the hydraulic lever to allow the inner wings to get ahead of the outer wings. Once the inner wings are completely unfolded, continue to unfold the outer wings. Once the outer wings are unfolded completely, extend the small cylinders between the center sections to allow these to flex in the field.

20. When folding the 7 section machines, first close the small cylinder between the 2 sections that remain on the ground. Start the folding process. Make sure the outside wings fold completely before the inside wings start to fold. If the inner wings begin to fold too early, slow the outer wings to get ahead of the inner. Once the outside wings are folded completely, fold the inner wings and then the left hand inner most wing. Once unit is completely folded, extend the small cylinder between the two sections on the ground to allow the sections to flex during transport.

Note: Failure to follow these steps may cause damage to the fold cylinders and to the folding mechanisms and will void the manufactures warranty of these parts.
General Operation and In-Field Adjustments

21. Remove the transport lock pins and unfold the machine. Make sure the fold cylinders are fully extended to fully flex in the field.

22. If possible have someone observe the machine during first time operation for levelness, front to rear and wings to center frame. Adjust each as needed.

Front to Rear Leveling
Refer to Figure 7

23. Lower the machine to the desired working depth and then level the machine from front to rear if needed. Model 9322 will have a turnbuckle to adjust and Models 9326-9756 will have an eyebolt (shown). Loosen jam nut 1 on either the turnbuckle or eyebolt 2 and adjust other nut 1 up or down, moving front of hitch 3 until machine is level front to rear for most conditions. Re-tighten jam nut to secure.

24. The front could be adjusted slightly lower for hard soils. Do not adjust too much lower. Never run machine with the back lower (deeper) than the front.

25. Once the machine is leveled front to rear the treaders may be adjusted. In most cases the treader should be allowed to float and will not require additional down pressure.

26. The machine may need some additional adjustment from side to side. See “Side to Side Leveling” on page 15. Adjust the inside wings first, then the outside wings.

Gauge Wheel Adjustment
Refer to Figure 8

27. Once the machine has been adjusted and set to the desired working depth, you may now adjust the gauge wheels.

28. To adjust the gauge wheel arm 4, loosen the two 3/4 bolts 5. Remove pin 6 and slide gauge wheel arm 4 up or down until the gauge wheel is 1/2” to 1 1/2” above ground.

29. Re-install the pin 6 and tighten the two 3/4 bolts 5.

30. The ideal working speed for the Plains Plow is 5 1/2 to 6 1/2 mph. Working too slow may cause plugging, poor incorporation or mixing crop residue and reduced weed kill. Running too fast may cause streaks in chemical incorporation and ridging.
Depth Stop

Refer to Figure 9.

31. Once the machine is level and set to the desired depth, set the depth stop at the front of the machine to ensure that the unit will operate at a consistent depth every pass. After setting the stop, if a change of depth is desired, 1 full turn of the handle either in or out will change the depth approximately 1/4" up or down respectively.

Note: If after setting the depth stop, the detent on the tractor kicks out before the stop contacts the button on the depth stop, slow the hydraulic flow speed down. If this problem persists, contact the factory service representative for other possible adjustments. On tractors with a timed detent setting, set the detent so when you raise the machine, the pump will run for 1/2 to 1 full second after full raise. If it runs longer than this, damage to the seals of the lift cylinders may result. If the problem still persists, contact the factory service representative for the possible adjustments.

Note: Do not try to adjust the rebound valve without contacting the factory service rep.

Wheel Arm

Refer to Figure 10

32. If the tire on the outside wings, on models 9533, 9744 and 9748, are riding in loose or already worked ground and running too deep, you can correct the problem by moving the wheel arms to the optional position as shown. Start by lowering machine to ground until wheel arm pins are loose. Remove both wheel arm pins, rear cylinder arm bolt, and rod end cylinder pin. Switch the RH and LH wheel arms side to side and move wheel arm linkage over to inside lug on front of frame. Re-install all pins and bolts to secure. This will move the tires inward 5" to let wings run level.
Treader Adjustment

Refer to Figure 11

33. Adjust the treaders ① to leave the desired result. In most cases the treader should be allowed to float and will not require additional down pressure. The spring bolt ② should be pre-set in the 3rd hole (normal position) of treader mount bracket ③.

34. To increase down pressure and make the treaders more aggressive, the spring bolt ② may be moved forward to the 2nd hole of treader mount bracket ③, from front. This will also reduce transport height so you may need to tighten the nut ⑥ at the top of the spring bolt to raise the treaders up slightly for transport.

Treader Angle Adjustment

Refer to Figure 12

35. The treaders are designed to be run at angles of either 15° or 20°. 15° is the preferred setting in most instances. To set the treader gangs ⑤ to 15°, install the 3/4 x 4 bolt ⑥ in the inside hole of treader gang tube ⑤. For 20°, install in outside hole of treader gang tube ⑤.

36. If plugging of the treaders occurs, they may need to be moved back one hole in the wishbone arm assemblies. The further back you move these the more tail heavy the unit is. Do not move them unless absolutely necessary.

Note: Most of the extra mounting holes in the brackets are needed to allow our treaders to be mounted on competitors machines. Under most circumstances, it is not necessary to vary the settings from the factory recommended settings for our machines.
Rear Stand

Refer to Figure 13

**NOTICE**

*If machine is equipped with a rear attachment, be sure you install the rear jack stand so machine doesn’t tip backwards when unhooking machine from tractor.*

37. Attach the rear stand bracket ① to the center of the rear tube of the drag frame with ⁵⁄₈ x 4⁷⁄₃₂ x ⁵⁄₂ u-bolts ②, ⁵⁄₈ lock washers and ⁵⁄₈ nuts.


39. Slide the rear stand ③ through the rear stand bracket ①, secure with the ³⁄₄ x 4⅜ pin ④ and retainer.

40. Once the options are installed, fold the plains plow to check for clearance and interferences, also watch that hoses do not get pinched.

Note: Double check that all bolts are tightened to specs, See “Torque Values Chart” on page 26. Consult the “Operator’s Manual”, for the first time field adjustments before going to the field.
Maintenance and Lubrication

Maintenance

1. Always use the transport lock when working on or doing maintenance to the Plains Plow. If folded, be sure your wing stop pins are in place. Read and understand all safety decals on your equipment.
2. During the first season of operation, and periodically after that, check your bolts for tightness. Check shank pivot bolts for tightness. Check coulter mounting and frog bolts for tightness.
3. Replace or rotate worn parts as needed -- hinge bolts, clevis pins, bearings, sweeps, shanks, etc.
4. Check and tighten or replace any hydraulic leaks. Check hoses for any leaks. It is important that there are no leaks on the equipment.
5. Grease wheel bearings and walking beams sparingly. Over greasing may cause damage to seals and reduce the life of the bearing. Grease hinge points periodically.
6. Check drag bolts for loosness or excessive wear. Replace broken or bent teeth. Your drag is an important part of the tillage operation.
7. If machine is stored outdoors over the winter months, it is a good idea to fold the machine then set it down on the ground so all the cylinders are retracted to protect the cylinder rods. This will extend the life of the cylinder seals and reduce internal and external leaks.

By following and maintaining a routine service and lubrication program, your tillage equipment will give you many years of service.

For the most current manual information, visit Great Plains website listed below. For more information on operating, adjusting or maintaining your Great Plains Plains Plow, assistance is available. Please contact:

Great Plains Service Department
1325 E. North St.
PO Box 5060
Salina, KS 67402-5060

Or go to www.greatplainsag.com and follow the contact information at the bottom of your screen for our service department.

Lubrication

Walking Beam Pivot Bearings

One on each walking beam
Type of Lubrication: Grease
Quantity: Sparingly and check for endplay
If there is a lot of end play take apart, check bearings and re-pack

Intervals (service hours) at which lubrication is required

50

41730
All Hinge Points

One on each bearing
Type of Lubrication: Grease
Quantity: Grease every 10 hours, until grease emerges.

Treader Gang Bearings

One on each bearing
Type of Lubrication: Grease
Quantity: Grease every 50 hours, 2 to 3 pumps. In heavy conditions grease every 20 hours, 2 to 3 pumps.

Wheel Bearing Hubs

Inspect bearings for end play Annually. If excessive endplay exists it is recommended to disassemble, clean and repack the wheel bearings.
For machines stored outdoors or operating in extreme conditions bearings should be checked more often.

All Turnbuckles and Threaded Adjustments

Overall Machine Maintenance;
Type of Lubrication: Multipurpose Lubricant
Quantity: Coat thoroughly.
## PP Specifications and Capacities

<table>
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<tr>
<th>Model No.</th>
<th>9322PP</th>
<th>9326PP</th>
<th>9533PP</th>
<th>9540PP</th>
</tr>
</thead>
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<tr>
<td>Tillage Width</td>
<td>22' 4&quot; (681cm)</td>
<td>26' 0&quot; (792cm)</td>
<td>33' 4&quot; (1016cm)</td>
<td>40' 8&quot; (1243cm)</td>
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<td>Center Section</td>
<td>7' 6&quot; (229cm)</td>
<td>10' 0&quot; (305cm)</td>
<td>10' 0&quot; (305cm)</td>
<td>10' 0&quot; (305cm)</td>
</tr>
<tr>
<td>Wing (1st)</td>
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<td>8' 0&quot; (244cm)</td>
<td>7' 0&quot; (213cm)</td>
<td>8' 0&quot; (244cm)</td>
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<tr>
<td>Wing (2nd)</td>
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<td>N/A</td>
<td>4' 0&quot; (122cm)</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Number of Sweeps</td>
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<td>7</td>
<td>9</td>
<td>11</td>
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<tr>
<td>Weight (Approximate)</td>
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<td>13480 lbs. (6114 kg)</td>
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<td>Transport Width</td>
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<td>18' 0&quot; (549cm)</td>
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<td>11L-15 8 ply</td>
<td>11L-15 8 ply</td>
<td>11L-15 8 ply</td>
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<tr>
<td>Tire Size (Gauge Wheel)</td>
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<td>9.5L-15 8 ply</td>
<td>9.5L-15 8 ply</td>
<td>9.5L-15 8 ply</td>
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<td>Horsepower (PTO)</td>
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<td>Kilowatt</td>
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<th>9744PP</th>
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<th>9752PP</th>
<th>9756PP</th>
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<tbody>
<tr>
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<td>44' 4&quot; (1351cm)</td>
<td>48' 0&quot; (1463cm)</td>
<td>51' 8&quot; (1578cm)</td>
<td>55' 4&quot; (1687cm)</td>
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<td>10' 0&quot; (305cm)</td>
<td>7' 6&quot; (229cm)</td>
<td>10' 0&quot; (305cm)</td>
</tr>
<tr>
<td>Wing (1st)</td>
<td>7' 6&quot; (229cm)</td>
<td>7' 0&quot; (213cm)</td>
<td>7' 0&quot; (213cm)</td>
<td>7' 0&quot; (213cm)</td>
</tr>
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<td>Wing (2nd)</td>
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<td>7' 0&quot; (213cm)</td>
<td>8' 0&quot; (244cm)</td>
<td>8' 0&quot; (244cm)</td>
</tr>
<tr>
<td>Wing (3rd)</td>
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<td>4' 0&quot; (122cm)</td>
<td>7' 0&quot; (213cm)</td>
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<tr>
<td>Number of Sweeps</td>
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<td>13</td>
<td>14</td>
<td>15</td>
</tr>
<tr>
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<td>20540 lbs. (9317 kg)</td>
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<td>25' 6&quot; (777cm)</td>
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<td>Transport Height</td>
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<td>14' 6&quot; (442cm)</td>
<td>14' 6&quot; (442cm)</td>
<td>14' 6&quot; (442cm)</td>
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<td>11L-15 Load F</td>
<td>11L-15 Load F</td>
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<td>11L-15 8 ply</td>
<td>11L-15 8 ply</td>
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<tr>
<td>Tire Size (Gauge Wheel)</td>
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<td>9.5L-15 8 ply</td>
<td>9.5L-15 8 ply</td>
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Tire Inflation Chart

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<th>Wheel Type</th>
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<th>Inflation</th>
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<tr>
<td>Gauge Wheel</td>
<td>9.5Lx15” 8-Ply</td>
<td>44 psi 303 kPa</td>
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<tr>
<td>Transport/Wing</td>
<td>11L x 15” 8-Ply</td>
<td>36 psi 248 kPa</td>
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<tr>
<td>Transport</td>
<td>11Lx15SL 12-Ply</td>
<td>52 psi 359 kPa</td>
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<tr>
<td>Transport</td>
<td>11Lx15” Load F</td>
<td>90 psi 621 kPa</td>
</tr>
</tbody>
</table>

Tire Warranty Information

All tires are warranted by the original manufacturer of the tire. Tire warranty information is found in the brochures included with your Operator’s and Parts Manuals or online at the manufacturer’s web sites listed below. For assistance or information, contact your nearest Authorized Farm Tire Retailer.

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Web site</th>
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<tbody>
<tr>
<td>Firestone</td>
<td><a href="http://www.firestoneag.com">www.firestoneag.com</a></td>
</tr>
<tr>
<td>Gleason</td>
<td><a href="http://www.gleasonwheel.com">www.gleasonwheel.com</a></td>
</tr>
<tr>
<td>Titan</td>
<td><a href="http://www.titan-intl.com">www.titan-intl.com</a></td>
</tr>
<tr>
<td>Galaxy</td>
<td><a href="http://www.atgtire.com">www.atgtire.com</a></td>
</tr>
<tr>
<td>BKT</td>
<td><a href="http://www.bkt-tire.com">www.bkt-tire.com</a></td>
</tr>
</tbody>
</table>

Hydraulic Connectors and Torque

Refer to Figure 14 (a hypothetical fitting)

Leave any protective caps in place until immediately prior to making a connection.

1. **NPT** - National Pipe Thread
   - Note tapered threads, no cone/flare, and no O-ring.
   - Apply liquid pipe sealant for hydraulic applications.
   - Do not use tape sealant, which can clog a filter and/or plug an orifice.

2. **JIC** - Joint Industry Conference (SAE J514)
   - Note straight threads and the 37° cone on “M” fittings (or 37° flare on “F” fittings).
   - Use no sealants (tape or liquid) on JIC fittings.

3. **ORB** - O-Ring Boss (SAE J514)
   - Note straight threads and elastomer O-Ring.
   - Prior to installation, to prevent abrasion during tightening, lubricate O-Ring with clean hydraulic fluid.
   - Use no sealants (tape or liquid) on ORB fittings.
   - ORB fittings that need orientation, such as the ell depicted, also have a washer and jam nut ("adjustable thread port stud"). Back jam nut away from washer. Thread fitting into receptacle until O-Ring contacts seat. Unscrew fitting to desired orientation. Tighten jam nut to torque specification.

<table>
<thead>
<tr>
<th>Dash Size</th>
<th>Fitting</th>
<th>F-torque Values</th>
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</thead>
<tbody>
<tr>
<td>-4</td>
<td>1/4 -18 NPT</td>
<td>1.5-3.0 turns past finger tight</td>
</tr>
<tr>
<td>-5</td>
<td>1/2 -20 JIC</td>
<td>20-25 14-15</td>
</tr>
<tr>
<td>-5</td>
<td>1/2 -20 ORB w/jam nut</td>
<td>14-16 9-12</td>
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<tr>
<td>-5</td>
<td>1/2 -20 ORB straight</td>
<td>26-28 14-19</td>
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<td>-6</td>
<td>5/16 -18 JIC</td>
<td>24-27 18-20</td>
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<tr>
<td>-6</td>
<td>5/16 -18 ORB w/jam nut</td>
<td>22-25 12-16</td>
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<tr>
<td>-6</td>
<td>5/16 -18 ORB straight</td>
<td>24-33 18-24</td>
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<tr>
<td>-8</td>
<td>3/4 -16 JIC</td>
<td>37-53 27-39</td>
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Figure 14
Hydraulic Connector ID
## Torque Values Chart

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<th>Bolt Size</th>
<th>Bolt Head Identification</th>
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<td>Grade 2</td>
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<tr>
<td>in-tpi(^a)</td>
<td>N-m(^b) ft-lb(^d)</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>5/16-20</td>
<td>7.4</td>
</tr>
<tr>
<td>5/16-18</td>
<td>8.5</td>
</tr>
<tr>
<td>5/16-24</td>
<td>15</td>
</tr>
<tr>
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<td>17</td>
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<td>5/16-16</td>
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<tr>
<td>mm x pitch(^c)</td>
<td>N-m</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>M 5 X 0.8</td>
<td>4</td>
</tr>
<tr>
<td>M 6 X 1</td>
<td>7</td>
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<tr>
<td>M 8 X 1.25</td>
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<td>M10 X 1.5</td>
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<tr>
<td>M36 X 2</td>
<td>1880</td>
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</table>

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

---

**a.** in-tpi = nominal thread diameter in inches-threads per inch  
**b.** N·m = newton-meters  
**c.** mm x pitch = nominal thread diameter in mm x thread pitch  
**d.** ft-lb = foot pounds
Warranty

Great Plains Manufacturing, Incorporated warrants to the original purchaser that this tillage equipment will be free from defects in material and workmanship for a period of one year from the date of original purchase when used as intended and under normal service and conditions for personal use; 90 days for commercial or rental purposes. This Warranty is limited to the replacement of any defective part by Great Plains Manufacturing, Incorporated and the installation by the dealer of any such replacement part. Great Plains reserves the right to inspect any equipment or part which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Great Plains’ judgement shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. This Warranty shall not apply if the product is towed at a speed in excess of 20 miles per hour.

Claims under this Warranty must be made to the dealer which originally sold the product and all warranty adjustments must by made through such dealer. Great Plains reserves the right to make changes in materials or design of the product at any time without notice.

This Warranty shall not be interpreted to render Great Plains liable for damages of any kind, direct, consequential, or contingent, to property. Furthermore, Great Plains shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, losses caused by harvest delays or any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

This Warranty is not valid unless registered with Great Plains Manufacturing, Incorporated within 10 days from the date of original purchase.
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