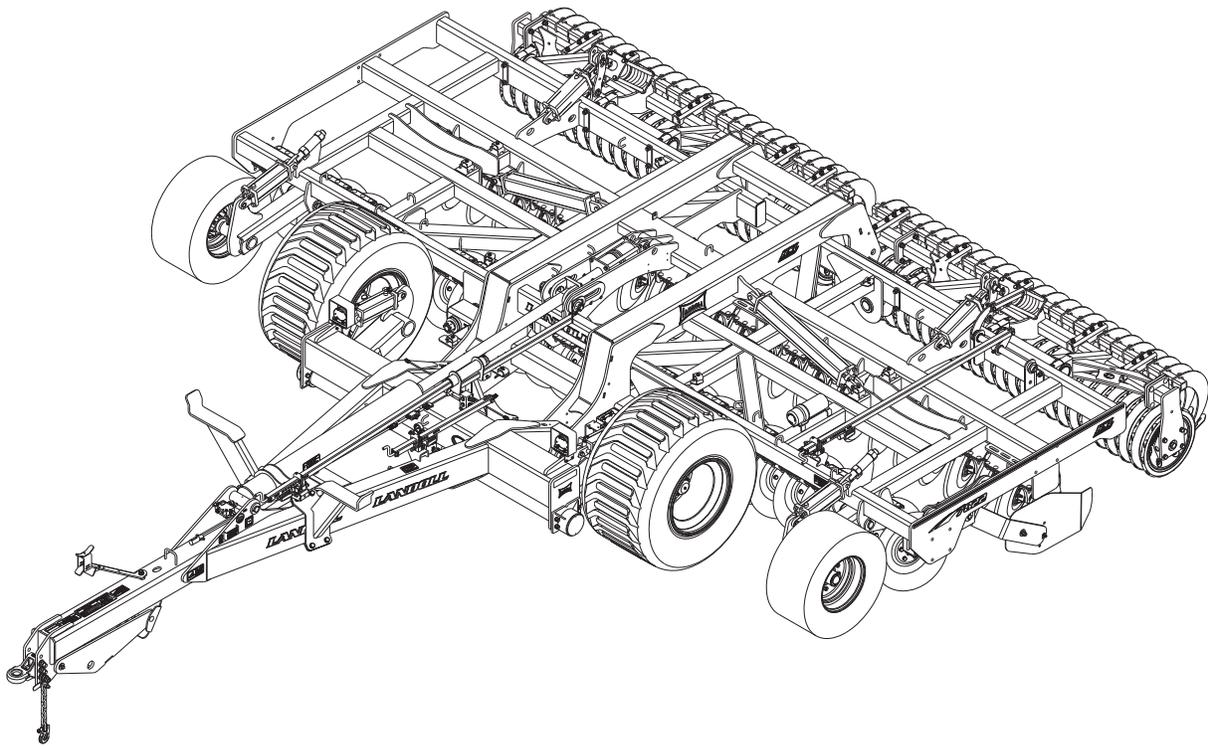




**7822 HSL**  
**High Speed Landoll**  
**Operator's Manual**



**LANDOLL COMPANY, LLC**

1900 North Street

Marysville, Kansas 66508

(785) 562-5381

800-428-5655 ~ [WWW.LANDOLL.COM](http://WWW.LANDOLL.COM)

# Instructions for Ordering Parts

**\*\* Repair parts must be ordered through an Authorized Dealer \*\***

## DEALER INSTRUCTIONS FOR ORDERING PARTS FROM LANDOLL PARTS DISTRIBUTION CENTER

Phone #: 800-423-4320 or 785-562-5381

Fax #: 888-527-3909

Order online: [dealer.landoll.com](http://dealer.landoll.com)

### DATA PLATE

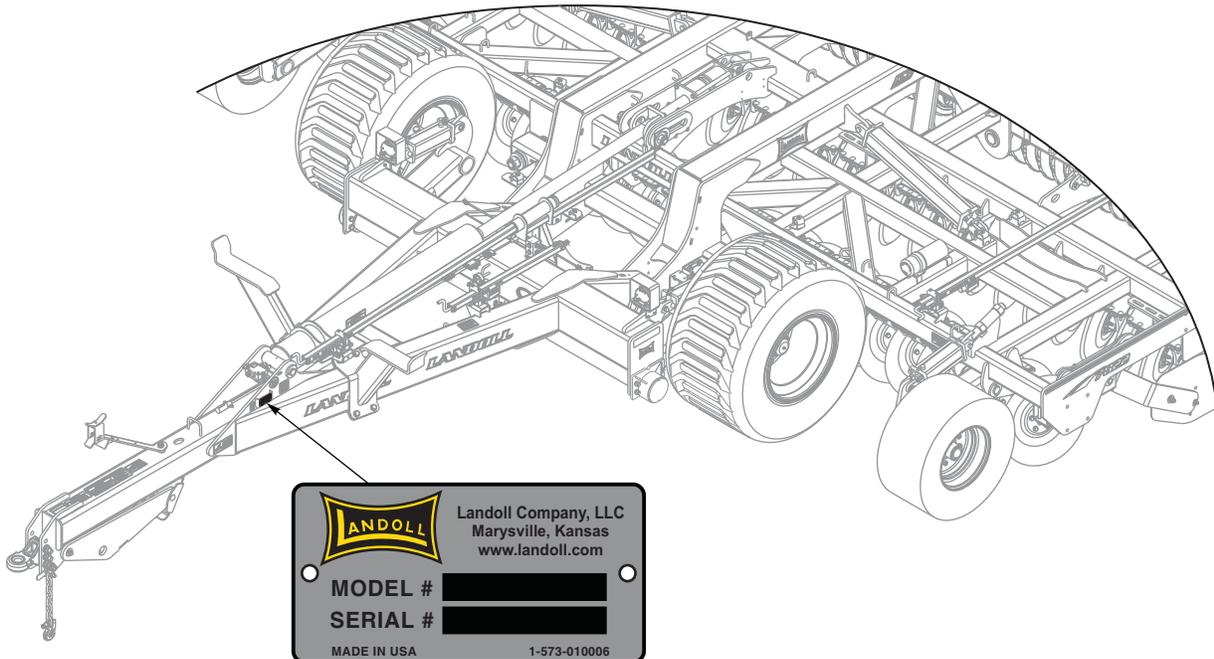
The Data Plate which lists the model number and serial number, is located on the front of the frame.

### SERIAL NUMBER

The following information will help decode the Landoll serial number.

**78D2400100 = xxmysssss**

|              |  |
|--------------|--|
| <b>xx</b>    | = model series<br>(i.e. "78" for all 7822 HSL)                             |
| <b>m</b>     | = month of manufacture<br>(ex. "D" means April. The letter I is not used.) |
| <b>yy</b>    | = last digits of the year manufactured<br>(ex. "24" means 2024)            |
| <b>sssss</b> | = Sequential number used to track warranty<br>and service information.     |



**Figure: Data Plate and Location**

## Manuals for 7822 High Speed Landoll (HSL)

| Manual Number | Manual Type       |
|---------------|-------------------|
| F-1045        | Operator's Manual |
| F-1034        | Parts Manual      |



## **DANGER**

**DO NOT** operate or perform any maintenance tasks on this equipment until you have completed the following:

- 1. Receive proper training to operate this equipment safely.**
- 2. Read and understand the operator's manual.**
- 3. Be thoroughly trained on inspection and repair procedures.**

**Failure to comply with this warning may result in serious injury or possibly death.**



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# Introduction and Safety Information

## Introduction

The implement described in this manual has been designed with care and built by skilled workers using quality materials and processes. Proper assembly and maintenance, and safe operation will allow this machine to provide you with satisfactory use for seasons to come.

DANGER

**Read this entire manual before attempting to assemble, adjust or operate this implement. Failure to comply with this warning can result in personal injury or death, damage to the implement or its components and inferior operation.**

## Using this Manual

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

- The information in this manual is current at time of printing. Some parts may have changed to assure top performance.
- Location reference: Right and Left designations in this manual are determined by facing the direction the implement will travel during field operation, unless otherwise stated.

## Owner Assistance

If customer service or repairs are needed, contact your Landoll dealer. Implement parts should only be replaced with Landoll parts. Have the Serial Number and complete Model Number available when ordering parts from your Landoll dealer. If items covered in this manual are not understood, contact your local Landoll dealer.

## Warranty Registration

To be eligible for Warranty, registration must be on file at Landoll Company, LLC. It is the responsibility of the dealer to register the machine within 10 days of purchase or lease on the Dealer Portal. Check with the dealer to verify the machine has been registered.

**NOTE: IMPROPER ASSEMBLY, MODIFICATION, OR MAINTENANCE OF YOUR LANDOLL MACHINE CAN VOID YOUR WARRANTY.**

Enter your product information below for quick reference. Refer to the Data Plate as shown. [See Figure 1-1.](#)

MODEL NUMBER \_\_\_\_\_

SERIAL NUMBER \_\_\_\_\_

DATE OF PURCHASE \_\_\_\_\_

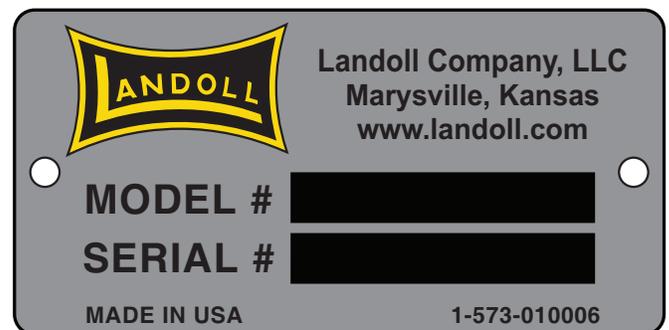


Figure 1-1: Data Plate

# Safety

**NOTE**

*Investigation has shown that nearly 1/3 of all farm accidents are caused by careless use of machinery. Insist that all people working with you or for you abide by all safety instructions.*

## Understanding Safety Statements

You will find various types of safety information on the following pages and on the implement decals (signs) attached to the vehicle.

**NOTE**

*Means failure to follow these instructions could cause damage to the equipment or cause it to operate improperly.*

**IMPORTANT**

Special notice - read and thoroughly understand.

|  |
|--|
| <b>NOTICE</b>                                    |
| Special notice - read and thoroughly understand. |

|   |
|---|
|  <b>CAUTION</b>                          |
| Caution means serious equipment or other property damage can occur if instructions on this label are not properly followed. |

|   |
|---|
|  <b>WARNING</b>                          |
| Warning means serious injury or death can occur if safety measures or instructions on this label are not properly followed. |

|   |
|---|
|  <b>DANGER</b>   |
| Danger means a life-threatening situation exists. Death can occur if safety measures or instructions on this label are not properly followed. |

**NOTE**

*You should read and understand the information contained in this manual and on the implement decals before you attempt to operate or maintain this equipment.*

- Examine safety decals and be sure you have the correct safety decals for the implement.
- Order replacement decals through your Landoll dealer.
- Keep these signs clean so they can be observed readily. It is important to keep these decals cleaned

more frequently than the implement. Wash with soap and water or a cleaning solution as required.

- Replace decals that become damaged or lost. Also, be sure that any new implement components installed during repair include decals which are assigned to them by the manufacturer.
- When applying decals to the implement, be sure to clean the surface to remove any dirt or residue. Where possible, sign placement should protect the sign from abrasion, damage, or obstruction from mud, dirt, oil etc.

|   |
|---|
|  <b>DANGER</b>  |
| <ul style="list-style-type: none"> <li>• Do not allow anyone to ride on the tractor or implement. Riders could be struck by foreign objects or thrown from the implement.</li> <li>• Never allow children to operate equipment.</li> <li>• Keep bystanders away from implement during operation.</li> </ul> |

## Transporting Safety

**IMPORTANT**

**It is the responsibility of the owner/operator to comply with all state and local laws.**

- When transporting the machine on a road or highway, use adequate warning symbols, reflectors, lights and slow moving vehicle sign as required. Slow moving tractors and towed machines can create a hazard when driven on public roads. They are difficult to see, especially at night.
- Do not tow a machine that, when fully loaded, weighs more than 1.5 times the weight of the towing vehicle.
- Carry reflectors or flags to mark the tractor and machine in case of breakdown on the road.
- Do not transport at speeds over 20 MPH under good conditions. 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.
- Avoid sudden stops or turns because the weight of the machine may cause the operator to lose control of the tractor.
- Use caution when towing behind articulated steering tractors; fast or sharp turns may cause the machine to shift sideways.
- Keep clear of overhead power lines and other obstructions when transporting. Know the transport height and width of your machine. **See "Model Specifications" on page 2-1.**

## Safety Instructions for Towing Vehicles

The maximum travel speed is the lesser of

- The limit of the road conditions;
- The maximum specified ground speed;
  - for towing operations as indicated in this manual or SIS;
  - of the towed vehicle as indicated in its operator's manual, SIS, or information sign;
- The maximum ground speed of the towed equipment combination shall be limited to the lowest specified ground speed of any of the towed machines. This speed is the ground speed limitation.

**EXAMPLE:** If the tractor is capable of 25 mph, the first implement has a SIS for 19 mph, and the last implement's operator's manual states its specified ground speed is 15 mph, the towed equipment combination ground speed limitation is 15 mph.

## Attaching, Detaching and Storage

- Do not stand between the tractor and machine when attaching or detaching machine unless both are not moving.
- Before applying pressure to the hydraulic system, be sure all connections are tight and that hydraulic hoses are not damaged.
- Block implement so it will not roll when unhitched from the tractor.
- Relieve pressure in hydraulic lines before uncoupling hydraulic hoses from tractor.
- Use the Safety Chain to help control drawn machinery should it separate from the tractor drawbar.
- Store in an area where children do not play.

### **IMPORTANT**

**Never store the HSL with its weight on the disc blades.**

### **NOTE**

*To relieve hydraulic pressure: Depending on tractor hydraulic system, some can be relieved by actuating control lever after engine is stopped. If tractor has electric over hydraulic controls, it may be necessary to move the control lever to the float position. Refer to Tractor Operator's Manual.*

*Wear protective gloves and safety glasses or goggles when working with hydraulic systems.*

## Maintenance Safety

- Block the machine so it will not roll when working on or under it.
- Do not make adjustments or lubricate machine while it is in motion.
- Make sure all moving parts have stopped and all system pressure is relieved.
- Understand the procedure before doing the work. Use the proper tools and equipment.

## Protective Equipment

- Wear protective 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.

## Prepare for Emergencies

- Keep a First Aid Kit and Fire Extinguisher handy.
- Keep emergency numbers for doctor, ambulance, hospital and fire department near the phone.

## 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 to allow you to stand to one side, not in front of or over the tire assembly. Use a safety cage if available.
- When removing and installing wheels use wheel-handling equipment adequate for the weight involved.

## Chemical Safety

Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil and property.

- Read chemical manufacturer's instructions and store or dispose of unused chemicals as specified. Handle chemicals with care and avoid inhaling smoke from any type of chemical fire.
- Store or dispose of unused chemicals as specified by the chemical manufacturer.

## High Pressure Fluid Safety

Escaping fluid under pressure can be nearly invisible and have enough force to penetrate the skin causing serious injury. Use a piece of cardboard, rather than hands, to search for suspected leaks.

- Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result.
- Avoid the hazard by relieving pressure before disconnecting hydraulic lines.

### **NOTE**

*To relieve hydraulic pressure: Depending on tractor hydraulic system, some can be relieved by actuating control lever after engine is stopped. If tractor has electric over hydraulic controls, it may be necessary to move the control lever to the float position. **Refer to Tractor Operator's Manual.***

*Wear protective gloves and safety glasses or goggles when working with hydraulic systems.*

## Hydraulic Tongue Jack



### **CAUTION**

**Operate the jack slowly.**

Always make certain the Jack Leg is completely retracted after the HSL has been hooked to the tractor and before moving the HSL.

## Safety Chain

1. Use a Safety Chain to help control drawn machinery should it separate from the tractor drawbar.
2. Use a chain with a strength rating equal to or greater than the gross weight of towed machinery, in accordance with ASAE S338.2 specifications. If two or more machines are pulled in tandem, a larger chain may be required. Chain capacity must be greater than the total weight of all towed implements.  
A second chain should be used between each implement.
3. Attach the chain to the tractor drawbar support or specified anchor location. Never attach the chain to an intermediate support. Allow only enough slack in the chain to permit turning. The distance from hitch pin to attachment point or intermediate support point should not exceed 9 inches. If the distance from the drawbar pin to either the front or rear chain attachment point exceeds 9 inches, intermediate chain support is required.
4. Replace chain if any links or end fittings are broken, stretched or damaged.
5. Do not use a Safety Chain for towing.

# Standard Specifications

## Model Specifications

| 7822 High Speed Landoll (HSL) |               |                 |                                   |                          |                  |
|-------------------------------|---------------|-----------------|-----------------------------------|--------------------------|------------------|
| Model Number                  | Working Width | Transport Width | Number of Blades 24" Front & Rear | Hitch Weight (Transport) | Estimated Weight |
| 7822-15                       | 180'          | 13' 1"          | 19 Front - 18 Rear                | 3,343 lbs.*              | 19,725 lbs.*     |
| 7822-17                       | 200"          | 13' 1"          | 21 Front - 20 Rear                | 4,211 lbs.*              | 21,671 lbs.*     |
| 7822-20                       | 240"          | 13' 1"          | 25 Front - 24 Rear                | 4,807 lbs.*              | 23,583 lbs.*     |
| 7822-23                       | 280"          | 13' 1"          | 29 Front - 28 Rear                | 4,953 lbs.*              | 24,896 lbs.*     |

\* With Single Chevron Reel installed.

| Tire Inflation Recommended |                   |                                   |                                   |                       |
|----------------------------|-------------------|-----------------------------------|-----------------------------------|-----------------------|
| Tire Size                  | Tire Manufacturer | Ply/Load Rating                   | Inflation Pressure (psi)          | Model                 |
| 710/40R22.5                | Goodyear          | Load Rating 168/156 - 12,300 lbs. | 46 psi max.<br>40 psi recommended | All                   |
| VF 410/50R16.5             | BKT               | 153 A8/B                          | 73 psi                            | 7822-17, 20, 23 Wings |

| Recommended Torque Specification For Lug Bolts and Nuts |   |
|---|---|
| Bolt Size   | Torque (Ft-Lbs)   |
| M22 Stud w/ 2 Piece Flange Nut                          | 50 - 90 Ft-Lbs / Sequence 1<br>450-500 Ft. Lbs / Sequence 2 |

# General Torque Specifications

**LANDOLL**  
**FASTENER TORQUE SPECIFICATIONS**  
 (Rev. 23/04)

This chart provides general torque specifications for Standard Nuts and Caps Screws (as received condition) that are not called out on processes or drawings.

This **DOES NOT** apply if special lubrication such as graphite moly-disulfide or other extreme pressure lubricants are used.

Add 33% to the listed torque specification if the fastener is dry (solvent cleaned).

Cap screw grades are indicated by markings on the head, these vary among manufacturers.

Thick Nuts must be used on grade 8 cap screws.

**SAE TORQUE SPECIFICATIONS (FOOT-POUNDS)**  
 [ ] Indicates specifications for Prevailing Torque Nuts.

| UNC Size  |  Grade 2 |  Grade 5 |  Grade 8 |
|-----------|---|---|---|
| 1/4 - 20  | 4 [5]   | 6 [7]   | 9 [11]  |
| 5/16 - 18 | 8 [10]  | 13 [16]   | 18 [22]   |
| 3/8 - 16  | 15 [19]   | 23 [29]   | 35 [43]   |
| 7/16 - 14 | 24 [30]   | 35 [43]   | 55 [62]   |
| 1/2 - 13  | 35 [43]   | 55 [62]   | 80 [100]  |
| 9/16 - 12 | 55 [62]   | 80 [100]  | 110 [137]   |
| 5/8 - 11  | 75 [94]   | 110 [137]   | 170 [212]   |
| 3/4 - 10  | 130 [162]   | 200 [250]   | 280 [350]   |
| 7/8 - 9   | 125 [156]   | 320 [400]   | 460 [575]   |
| 1 - 8     | 190 [237]   | 408 [506]   | 680 [850]   |
| 1-1/8 - 7 | 270 [337]   | 600 [750]   | 960 [1200]  |
| 1-1/4 - 7 | 380 [475]   | 840 [1050]  | 1426 [1782]   |
| 1-3/8 - 6 | 490 [612]   | 1100 [1375]   | 1780 [2225]   |
| 1-1/2 - 6 | 650 [812]   | 1460 [1825]   | 2360 [2950]   |

See back side for SAE UNF and Metric torques.

Form No. F-257-0322

**SAE TORQUE SPECIFICATIONS (FOOT POUNDS)**  
 [ ] Indicates specifications for Prevailing Torque Nuts.

| UNF Size   |  Grade 2 |  Grade 5 |  Grade 8 |
|------------|---|---|---|
| 1/4 - 28   | 5 [6]   | 7 [9]   | 10 [12]   |
| 5/16 - 24  | 9 [11]  | 14 [17]   | 20 [25]   |
| 3/8 - 24   | 17 [21]   | 25 [31]   | 35 [44]   |
| 7/16 - 20  | 27 [34]   | 40 [50]   | 60 [75]   |
| 1/2 - 20   | 40 [50]   | 65 [81]   | 90 [122]  |
| 9/16 - 18  | 60 [75]   | 90 [112]  | 130 [162]   |
| 5/8 - 18   | 85 [106]  | 130 [162]   | 180 [225]   |
| 3/4 - 16   | 150 [188]   | 220 [275]   | 320 [400]   |
| 7/8 - 14   | 140 [175]   | 360 [450]   | 500 [625]   |
| 1 - 14     | 210 [263]   | 540 [675]   | 760 [950]   |
| 1-1/8 - 12 | 300 [375]   | 660 [825]   | 1080 [1350]   |
| 1-1/4 - 12 | 420 [525]   | 920 [1150]  | 1500 [1875]   |
| 1-3/8 - 12 | 560 [700]   | 1260 [1575]   | 2010 [2512]   |
| 1-1/2 - 12 | 730 [912]   | 1640 [2050]   | 2660 [3325]   |

**METRIC TORQUE SPECIFICATIONS**  
 This chart provides torque specification for phosphate coated, Rockwell "C" 38-45 Metric Coarse Thread Class 10.9 Fasteners, Class 10.0 Nuts and Harden Flat Washers.

[ ] Indicates specifications for Prevailing Torque Nuts.

| MM Size | Newton - Meters | Foot-Pounds |
|---------|-----------------|-------------|
| 6       | 10 [14]         | 7 [10]      |
| 7       | 16 [22]         | 12 [16]     |
| 8       | 23 [32]         | 17 [24]     |
| 10      | 46 [60]         | 34 [47]     |
| 12      | 80 [101]        | 60 [75]     |
| 14      | 125 [155]       | 90 [115]    |
| 16      | 200 [240]       | 150 [180]   |
| 18      | 275 [330]       | 205 [245]   |
| 20      | 385 [450]       | 290 [335]   |
| 24      | 670 [775]       | 500 [625]   |
| 27      | 980 [1105]      | 730 [825]   |
| 30      | 1330 [1470]     | 990 [1090]  |
| 33      | 1790 [1950]     | 1730 [1870] |
| 36      | 2325 [2515]     | 1730 [1870] |
| 39      | 3010 [3210]     | 2240 [2380] |

See front side for SAE UNC and notes.

**Figure 2-1: General Torque Specifications**

# Hydraulic Fitting Torque Specifications

| <b>LANDOLL</b><br>HYDRAULIC FITTING TORQUE SPECIFICATIONS<br>(REV. 23/04)<br>AEROQUIP BRAND FITTINGS<br>37° JIC; ORS & ORB   |               |              |                   | <b>LANDOLL</b><br>HYDRAULIC FITTING TORQUE SPECIFICATIONS<br>(REV. 23/04)<br>GATES BRAND FITTINGS<br>37° JIC; ORS & ORB  |               |              |                   | <b>LANDOLL</b><br>HYDRAULIC FITTING TORQUE SPECIFICATIONS<br>(REV. 23/04)<br>PARKER BRAND FITTINGS<br>37° JIC; ORS & ORB   |               |              |                   |
|--|---------------|--------------|-------------------|--|---------------|--------------|-------------------|--|---------------|--------------|-------------------|
| This chart provides torque specifications for Plated Carbon Steel and Stainless Steel Fittings (as received condition) that are not called out on processes or drawings.<br><br>This <b>DOES NOT</b> apply if special lubrication such as graphite moly-disulfide or other extreme pressure lubricants are used.<br><br>Minus 65% from the listed torque specification for Brass Fittings. |               |              |                   | This chart provides torque specifications for Plated Carbon Steel and Stainless Steel Fittings (as received condition) that are not called out on processes or drawings.<br><br>This <b>DOES NOT</b> apply if special lubrication such as graphite moly-disulfide or other extreme pressure lubricants are used.<br><br>Minus 65% from the listed torque specification for Brass Fittings. |               |              |                   | This chart provides torque specifications for Plated Carbon Steel and Stainless Steel Fittings (as received condition) that are not called out on processes or drawings.<br><br>This <b>DOES NOT</b> apply if special lubrication such as graphite moly-disulfide or other extreme pressure lubricants are used.<br><br>Minus 65% from the listed torque specification for Brass Fittings. |               |              |                   |
| <b>TORQUE SPECIFICATIONS (FOOT-POUNDS)</b><br>[ ] Indicates specifications for Prevailing Torque Nuts.   |               |              |                   | <b>TORQUE SPECIFICATIONS (FOOT-POUNDS)</b><br>[ ] Indicates specifications for Prevailing Torque Nuts.   |               |              |                   | <b>TORQUE SPECIFICATIONS (FOOT-POUNDS)</b><br>[ ] Indicates specifications for Prevailing Torque Nuts.   |               |              |                   |
| DASH Size  | 37 Degree JIC | O-Ring (ORS) | O-Ring Boss (ORB) | DASH Size  | 37 Degree JIC | O-Ring (ORS) | O-Ring Boss (ORB) | DASH Size  | 37 Degree JIC | O-Ring (ORS) | O-Ring Boss (ORB) |
| -4   | 11-12         | 10-12        | 14-16             | -4   | 10-11         | 10-12        | 14-16             | -4   | 11-13         | 15-17        | 13-15             |
| -5   | 15-16         | -----        | 18-20             | -5   | 13-15         | -----        | -----             | -5   | 14-16         | -----        | 21-23             |
| -6   | 18-20         | 18-20        | 24-26             | -6   | 17-19         | 18-20        | 24-26             | -6   | 20-22         | 34-36        | 25-29             |
| -8   | 38-42         | 32-35        | 50-60             | -8   | 34-38         | 32-40        | 37-44             | -8   | 43-47         | 58-62        | 40-44             |
| -10  | 57-62         | 46-50        | 72-80             | -10  | 50-56         | 46-56        | 50-60             | -10  | 55-65         | 100-110      | 58-62             |
| -12  | 79-87         | 65-70        | 125-135           | -12  | 70-78         | 65-80        | 75-83             | -12  | 80-90         | 134-146      | 75-85             |
| -14  | -----         | -----        | 160-180           | -14  | -----         | 65-80        | -----             | -14  | -----         | -----        | -----             |
| -16  | 108-113       | 92-100       | 200-220           | -16  | 94-104        | 92-105       | 111-125           | -16  | 115-125       | 202-218      | 109-121           |
| -20  | 127-133       | 125-140      | 240-280           | -20  | 124-138       | 125-140      | 133-152           | -20  | 160-180       | 248-272      | 213-237           |
| -24  | 158-167       | 150-165      | 270-360           | -24  | 156-173       | 150-180      | 156-184           | -24  | 185-215       | 303-327      | 238-262           |
| -32  | 245-258       | -----        | -----             | -32  | 219-243       | -----        | -----             | -32  | 250-290       | -----        | 310-340           |
| FORM NO. F-263-2304 (1 of 3)   |               |              |                   | FORM NO. F-263-2304 (2 of 3)   |               |              |                   | FORM NO. F-263-2304 (3 of 3)   |               |              |                   |

**Figure 2-2: Hydraulic Fitting Torque Specifications**



## Assembly

**DANGER**

Disc blades are extremely sharp. Exercise extreme care when working on or near disc blades. Do not allow discs to roll over or fall onto any bodily part. Do not allow wrenches to slip when working near disc blades. Never push wrenches toward disc blades. Do not climb over machine above disc blades. Failure to stay clear of disc blade edges can cause serious personal injury or death.

**WARNING**

Do not attempt to lift heavy parts (such as the frame, disc gangs, rockshaft, and pull hitch) manually. Use a hoist or a fork lift to move these parts into position.

**DANGER**

To prevent accidental lowering, always lower equipment to the ground while servicing or when it is idle. Failure to take measures to prevent accidental lowering may result in serious personal injury or death.

**CAUTION**

Be sure to bleed the hydraulic system of all air in lines after installation. Failure to bleed the system of all air can result in improper machine operation.

**NOTE**

Refer to the repair Parts Manual F-1034 for identification of parts and for approximate relationship of the parts in assembly. Your exact Pulverizer Model may vary slightly from the illustrations.

To ensure alignment of assemblies, leave the nuts loose until completion of final assembly. Use lock washers or flat washers as specified. Spread all cotter pins.

After completion of final assembly, tighten all nuts evenly to prevent misalignment, distortion or binding. Tighten all screws and nuts to the recommended torques.

**IMPORTANT**

- If pre-assembled parts or fasteners are temporarily removed, remember where they go. It is best to keep parts separated.
- Check that all working parts move freely, bolts are tight and cotter pins spread.
- Refer to the Torque Table for proper torque valves. Note the different torque requirements for bolts with locknuts. *See Page 2-2.*

"Left" and "Right" refer to directions seen as if standing behind the machine and facing in the direction of forward travel.

**IMPORTANT**

All harnesses must be firmly attached to machine frame members, so they don't sag or become torn loose by field debris. Use the tie wraps provided.

Check to be sure the harnesses at the center of machine are slack enough so as not to be stretched or interfered with rotating frame from transport to field working positions and vice versa.

# Unloading the HSL and Final Assembly

In most cases the 7822 has come to you with the main wheels and tires shipped loose due to shipping width, restrictions.

1. Install the main wheels and tires to the hitch rockshaft hubs. *See Figure 3-2.*
2. Due to the being a towed implement the tire tread is typically installed opposite of that of a tread where power would be applied through it.

**NOTE**

*There is a protruding step on the hub pilot. The wheel center plate must fit over the hub pilot and then bottom out against the hub flange. Failure to get the wheel properly positioned against the hub face will cause the wheel to loosen and cause damage to the hub and/or wheel.*

3. With the tire and wheel assembly correctly positioned against the hub, begin to tighten the flange nuts sequentially as in *Figure 3-1.*
4. Re-check the positioning of the wheel relative to the hub and proceed by tightening the lug nut assemblies sequentially to 450 to 500 Ft-Lbs.

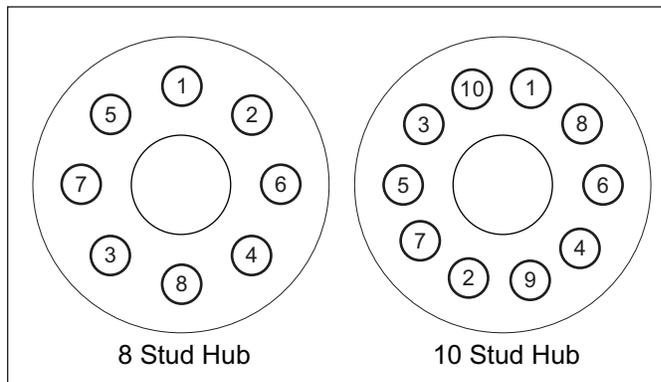


Figure 3-1: Tightening Sequence

## TORQUE SPECIFICATIONS FOR PILOT MOUNTED DISC WHEELS

⚠ DANGER

⚠ Read and Understand the installation, service and safety instructions manual before installing or servicing the hub. Failure to do so may result in personal injury or death, and may result in a compromise of your vehicle's safety through loss or failure of a wheel or compromise of the braking system.

⚠ Use a torque wrench to assure proper torque, failure to do so will compromise your products service, life and safety. Under torque and over torque can cause thread and/or nut damage, and may result in the loss of a wheel.

⚠ Recheck torque after the first 50 to 100 miles of service. Parts may seat naturally, causing the torque to drop. Proper torque is essential for the service, life and safety of this product.

**8 AND 10 STUD HUBS**  
Applies to M22 X 1.5 studs/two piece flange nut.

All threads are right hand metric.

First Tighten Flange Nuts to 50ft. lb. Using sequence shown.

Check Disc-Wheel for proper positioning on pads and proper seating against flange.

Then Tighten Flange Nuts to recommended torque using sequence shown.

RECOMMENDED TORQUE: 450-500FT. LBS.

3-573-010210

DECAL: 3-573-010210

Figure 3-2: Tire and Wheel Installation

## Unfolding the HSL

### WARNING

Always unfold the 7822 on a level surface and away from overhead power lines. Keep bystanders clear of the area.

1. Lift the 7822 with the two large transport tires by extending the Front Gauge Wheel Cylinders. *(Blue Circuit) Failure to do so may cause the wing frames to interfere with the transport tires.*
2. Tip the top of the center section reward far enough to lift the wing frames several inches above the wing rest saddles located on the hitch. The center section is tilted backward by extending the large Tilt Cylinder located over the hitch. *(Circuit with Red Hose Wrap)*

### CAUTION

Do not lift the wing assemblies more than a few inches above the wing rest saddles when the wing assemblies are folded forward.

3. With the wing frames above the wing rest saddles, open the wing assemblies up until they are flat across and aligned with each other. The wing assemblies are opened (unfolded) by extending the wing fold cylinders. *(Yellow Circuit).*

4. When the wing assemblies are aligned with each other and flat across, extend the Tilt Cylinder located above the hitch, until the center and wing assemblies are at rest on the ground.

## Final Assembly

The 7822 HSL has been almost completely assembled at the factory. The one exception is that the rear gauge assemblies will most likely need to be attached to the in the field, due to transport height.

### NOTE

Consult the Parts Manual section on “Rear Gauges” to avoid assembling them incorrectly. Some of the Rear Gauge Rockshafts are the same apparent width, but may be different in other ways relative to the final assembly.

1. Once the Rear Gauge Rockshafts are in place, secure the Rockshaft Bearings with the 3/4-10 x 12 Hex Screws provided. *See Figure 3-3.* Torque the Nuts to approximately 200 Ft-Lbs.
2. Once the Rear Gauge Rockshafts are in place secure them to the Rear Gauge Cylinders with the pins provided.
3. The Rockshaft to the left of center of the machine has a special step pin that connects the Rockshaft Spring assembly to the Cylinder at that same location. Please consult the parts manual for the correct assembly sequence.

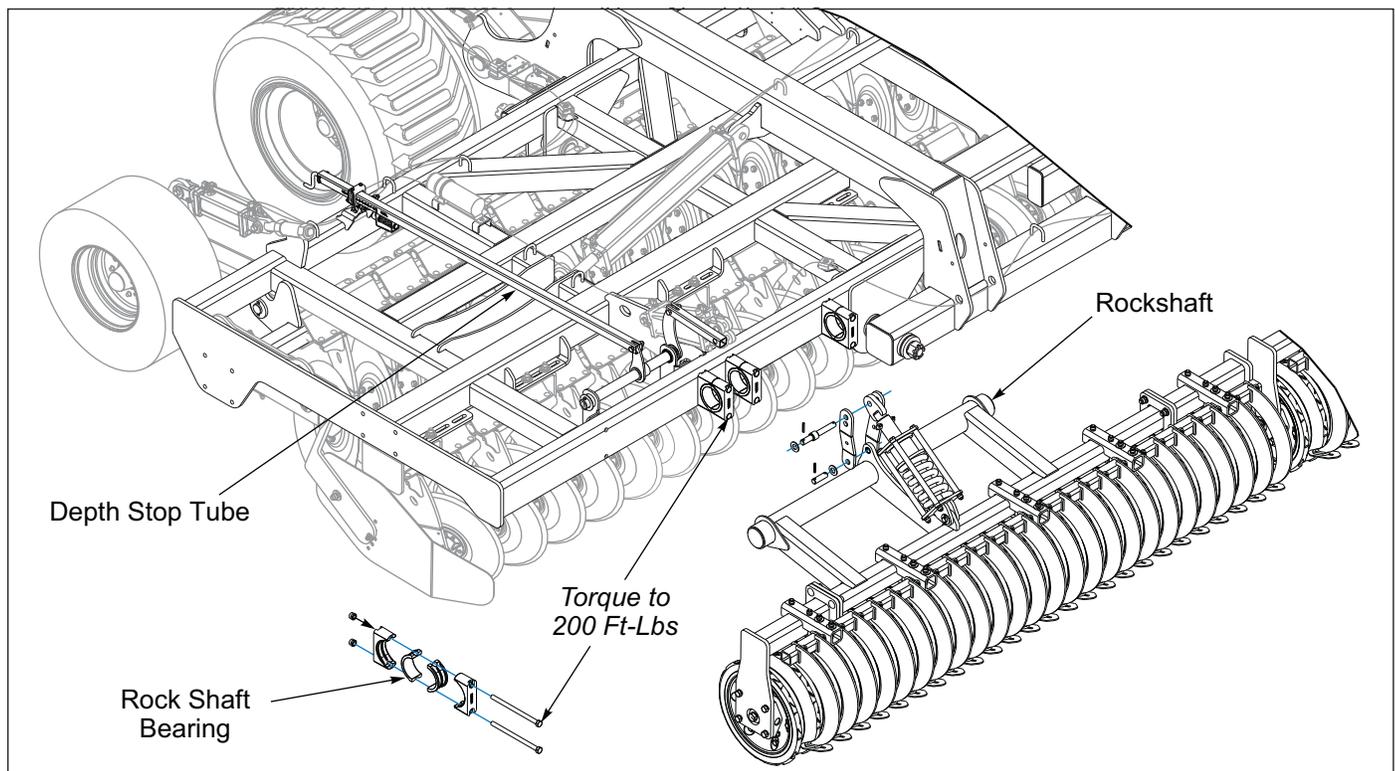


Figure 3-3: Rear Gauge Assembly



# Operation & Maintenance



## DANGER

Never allow anyone to ride on the 7822 High Speed Landoll (HSL) at any time. Allowing a person to ride on the machine can inflict serious personal injury or death to that person.



## DANGER

- Disc blades are extremely sharp.
- Exercise extreme care when working on or near disc blades.
- Do not allow discs to roll over or fall onto any bodily part.
- Do not allow wrenches to slip when working near disc blades.
- Never push wrenches toward disc blades.
- Do not climb over machine above disc blades.
- Failure to stay clear of disc blade edges can cause serious personal injury or death.



## DANGER

Always lock the tractor drawbar in the center position when transporting the unit. Failure to do so can result in serious injury or death and cause damage to the equipment.



## CAUTION

- When transporting farm implements on public roads, it is the responsibility of the operator to abide by state and local laws concerning wide loads, speed, safety emblems and safety lighting equipment.
- Drive at safe speeds. Particularly when rounding corners, crossing rough ground or driving on hillsides, to prevent tipping the tractor.



## DANGER

### NEVER WORK UNDERNEATH THE HSL DISC BODY WHEN IT IS ELEVATED.

The HSL is a unique machine in that the Disc Body is elevated above the ground by *retracting* the Tilt Cylinder. Therefore, there is NO lockout system provided with the HSL machine.

Should it become necessary to work underneath the Disc Body, the HSL Disc Body must be secured in an acceptable manner to eliminate the possibility of the Disc Body falling.

- The HSL Hitch must be attached to a tractor drawbar when working on the HSL.
- To prevent the Disc Body from falling, employ Heavy Duty Stands with the combined total capacity in excess of twenty tons minimum. The Stands should rest on boards or a solid surface, to keep them out of the soil. Rest the rear of the disc on the stands so that the Disc physically contacts the Stands.

## Product Description and Operation

The High Speed Landoll (HSL) is a non-tradition tillage tool. It is extremely versatile and can be used in lieu of traditional primary tillage tools or may be used in final seeding and planting preparations.

- The HSL can be employed at depths as shallow as 1-1/2 to 2 inches or as deep as 4-1/2. It is most efficiently used from 2 inches to 3-1/2 inches deep. It can be adjusted to eradicate virtually all weeds.
- The HSL is capable of incorporating high amounts of plant residue. It leaves a firm, reconsolidated soil profile for conservation of not only the soil itself, but the moisture in the soil profile.

The HSL is comprised of two rows of disc blades; each individually mounted on a spring torsion type mount. The row units rotate per field conditions and in response to the work being done and upon encountering obstacles in the soil.

- As the individual units rotates, the resistance to rotation increases as the degree of rotation increases.
- The front row fractures soil to the left side of each of the front blades, while the rear row fractures soil to the right side of each of the rear blades.

**OPERATION & MAINTENANCE**

- As a result, each blade, in each row is moving soil in the same direction as the others in that row. Because of this, the HSL creates and maintains a level field.

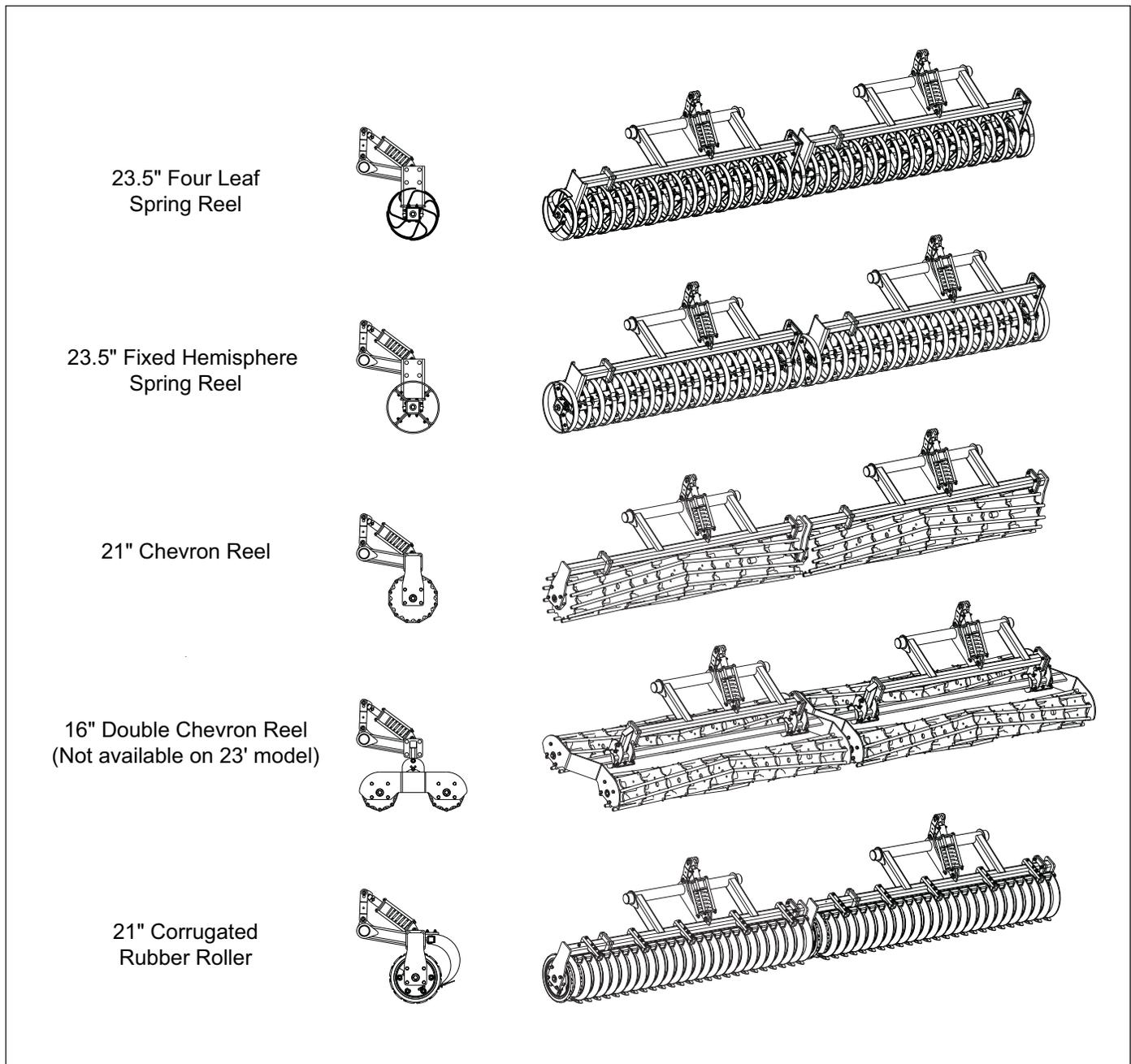
The primary depth control of the HSL is directly in front of the machine. The main wheels and tires on the hitch, and the wing gauge wheels and tires on the wing frames provide primary depth gauge.

The HSL is equipped with a reel/roller system that stabilizes the machine, reconstitutes the worked soil and provides a finished characteristic to the reel/roll purchased.

The depth of the depth gauges is controlled from a single point control just to the left of the tilt cylinder on the hitch. The depth control utilizes a master and slave hydraulic cylinder system.

The down pressure of the reel/roller system is controlled from a single point control on the left had wing. The setting of the reel/roller system utilizes a master and slave hydraulic cylinder system.

The rear depth reel/roller system the HSL is not intended to be a depth control. It is intended to stabilize the 7822 and re-consolidate the worked soil. The rear reel/roller system is available in five different offerings. *See Figure 4-1.*



**Figure 4-1: Rear Gauge Reel & Rollers**

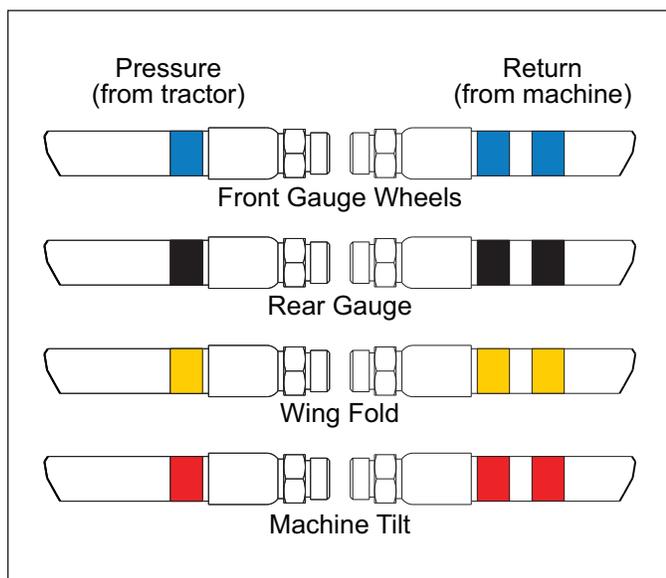
## Attaching the HSL to the Tractor

1. Line the tractor up with the and back up close enough to attach the hydraulic couplers, but not too close to interfere with the hitch.
2. Connect the hydraulic jack couplers (the 1/4" hose lines) to the tractor so the hitch height can be adjusted.
  - This circuit will be the lowest priority circuit of all.
3. With the hitch height adjusted, continue to back the tractor up and drop the hitch pin in.
  - For “wheeled” tractors, it is standard for the hitch pin to be 1 inch behind the rear extremity of the rear tractor tires.
  - “Track” tractors can vary from this standard and it may be desirable to have your hitch extended.

### **IMPORTANT**

**Please consult your dealer if the hitch point is forward of the rear extremity of your tracks.**

4. Finish connecting the hydraulic couplers:
  - Highest priority, and most accessible control, “Red” circuit, machine tilt circuit.
  - Second priority, “Blue” circuit, front gauge wheels and depth control.
  - Third priority, “Black” circuit, rear reel control.
  - Fourth priority, “Yellow” circuit, wing fold circuit.
5. Connect the safety warning lights.
6. Raise the hydraulic jack.
7. Unhook the HSL by reversing the procedure called out above.



**Figure 4-2: Hose Identification**

## Unfolding/Folding the HSL



### WARNING

Always unfold/fold the 7822 on a level surface and away from overhead power lines. Keep bystanders clear of the area.



### DANGER

The HSL Hitch experiences times of very high negative tongue weight when folding and unfolding.

## Unfolding the 7822 HSL

1. Lift the 7822 with the two large transport tires by extending the Front Gauge Wheel Cylinders. *See Figure 4-3.* Failure to do so may cause the wing frames to interfere with the Transport Tires. *(Blue Circuit)*
2. Tip the top of the center section rearward far enough to lift the wing frames several inches above the Wing Rest Saddles located on the Hitch. The center section is tilted backward by extending the large Tilt Cylinder located over the Hitch. *(Red Circuit)*



### CAUTION

Do not lift the wing assemblies more than a few inches above the wing rest saddles when the wing assemblies are folded forward.

3. With the wing frames above the Wing Rest Saddles, open the wing assemblies up until they are flat across and aligned with each other. The wing assemblies are opened (unfolded) by extending the Wing Fold Cylinders. *(Yellow Circuit)*
4. When the wing assemblies are aligned with each other and flat across, extend the Tilt Cylinder located above the hitch, until the center and wing assemblies are at rest on the ground.

The 7822 is equipped with a Urethane Draft Cushion. This creates a semi rigid hitch and allows the machine to adjust to undulations as the 7822 is pulled across the field.

## Folding the 7822 HSL

1. Lift the 7822 with the two large Transport Tires by extending the Front Gauge Wheel Cylinders. *(Blue Circuit)* *See Figure 4-3.* Failure to do so may cause the Wing Frames to interfere with the Transport Tires.
2. Tilt the center section and wing assemblies up by raising the rear of the HSL upward until it is near completely upright.
  - The center section is tilted upright by retracting the Tilt Cylinder located over the Hitch. *(Red Circuit)*
3. Fold the wing assemblies forward by retracting the Wing Fold Cylinders. *(Yellow Circuit)*
4. Tip the center section top rearward far enough to lift the wing frames several inches above the Wing Rest Saddles located on the Hitch. The center section is tilted backward by extending the Tilt Cylinder. *(Red Circuit)*
5. With the wing assemblies just above the Wing Rest Saddles, further retract the Wing Fold Cylinders to position the wing assemblies over the Wing Rest Saddles. *(Yellow Circuit)*
6. With the wing assemblies over the Wing Rest Saddles, lower the wing assemblies into the Wing Rest Saddles by further retracting the Tilt Cylinder over the hitch. Retract the Tilt Cylinder until the wings are at rest in the Wing Rest Saddles. *(Red Circuit)*

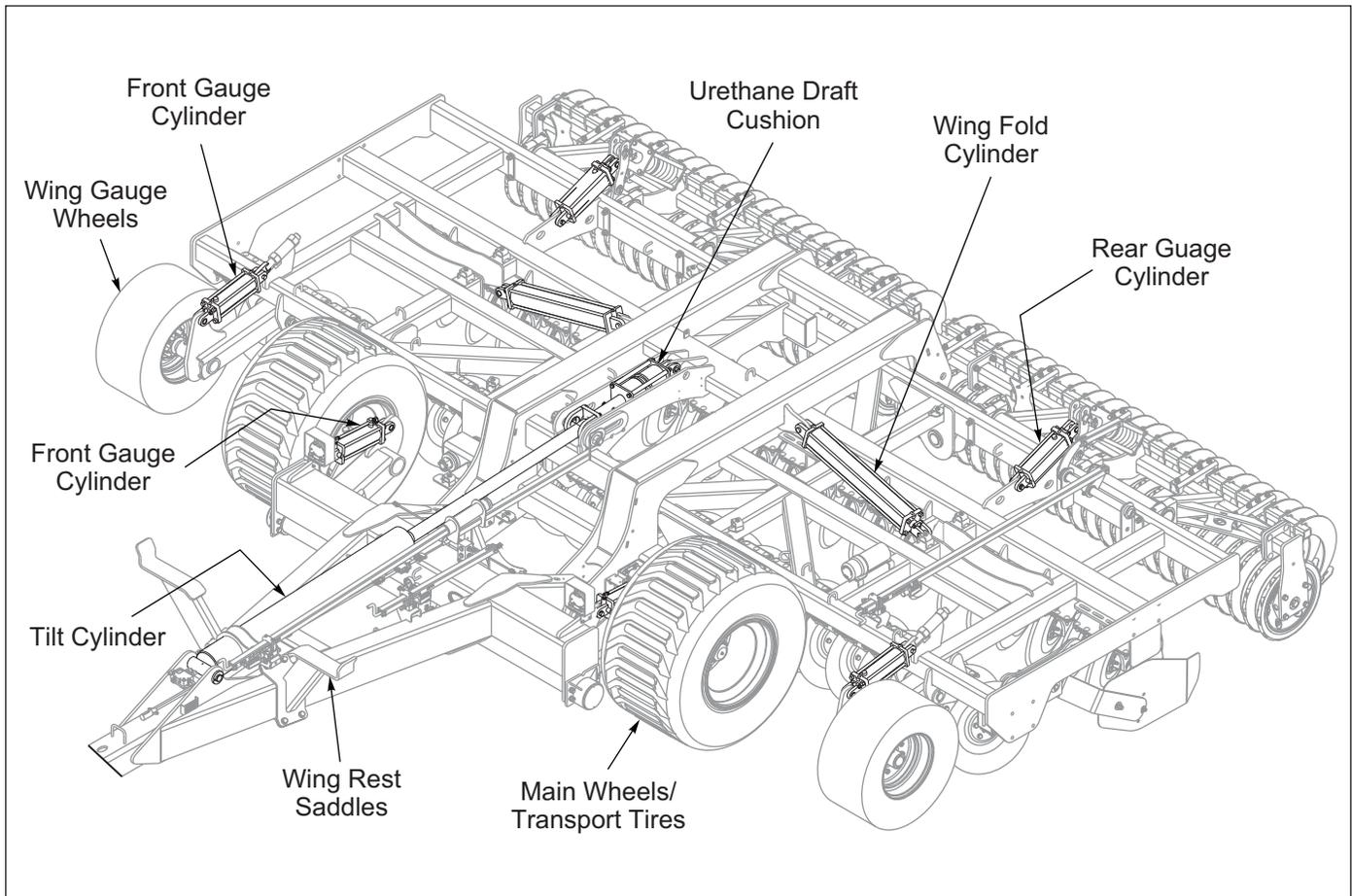


Figure 4-3: Hydraulic Cylinder Location

## Synchronizing and Leveling Front Gauge Points

The Front Gauge is comprised of the main wheels and tires on the hitch frame and the gauge wheels and tires on the wing frames.

### NOTE

The 7822-15 wings unfold into a rigid configuration from side to side.

The 7822-15 does not have gauge wheels and tires on the wing assemblies.

### IMPORTANT

**Make sure the Front Gauges are synchronized and leveled to enable the HSL to work the soil to uniform depth of cut, across the entire machine.**

The HSL has been adjusted prior to being shipped, but it is appropriate to re-check it. Please consult the following instructions and diagrams to check, or to re-set the levelness of the Front Gauges should that become necessary. *See Figure 4-4.*

### NOTE

You will need the Open End 2-5/8" Wrench stored inside the left wing frame, should adjustment be necessary.

Follow the steps below when setting the Front Gauges.

1. Unfold the 7822 HSL on a relatively flat surface.
2. Retract the four Front Gauge Cylinders completely. There are two Cylinders on the main hitch. There is one additional Cylinder on each of the two Wing Frames.
  - Check that all of the polished chrome of the cylinder rods is retracted into the cylinder body.
  - This procedure will require that the front gauge depth control (on the hitch frame) be adjusted to it's most extreme depth setting.
  - If the Cylinder Rods are for some reason not completely retracted, then fully extend the Front Gauge Cylinders until they are fully extended and continue extending them for an additional 5 to 10 seconds after they appear to be fully extended. This procedure will re-synchronize all of the Gauge Cylinders. It is a good practice to re-synchronize the Front Gauge Cylinders once

or twice daily by extending them completely and holding the circuit control in the extend position for an additional 5 to 10 seconds.

3. The wheels and tires of the Main Frame Hitch are not adjustable. Leveling the front of the HSL from side to side is accomplished by adjusting the Wing Front Gauge Wheels. With the four Front Gauge Point Cylinders completely retracted, place a long straight edge across the top of the Center Section Frame. Measure from the top of the Wing Frame to top of the Hitch Spindle Sleeve. Confirm the distance to be approximately 3-1/4 inches.
4. The Wing Gauge Wheels and Tires on the 7822-17, 7822-20 and 7822-23 are BKT 410/50R16.5. Adjust the Wing Gauge Wheel Cylinder Base End Mount so that the distance from the top of the Wing Gauge Spindle Sleeve to the top of the Wing Frame is 10-1/8".
5. Repeat this procedure for the other side wing of the HSL.
6. The final adjustment can be affected by several factors, including tire inflation, machine width, and the wing down pressure setting.
  - Expect the hitch tires to squat slightly more than wing front gauge tires.
  - The final setting should be determined from field observations. One of the simplest ways to observe if the HSL is operating at a uniform working depth across the entire machine, is to stop abruptly when making a pass through a flat

area and look along the front or rear edge of the wing frames and check for alignment and straightness.

- Checking the working depth across the width of the machine is also recommended.

## Synchronizing Rear Gauge/Finishing Feature Cylinders

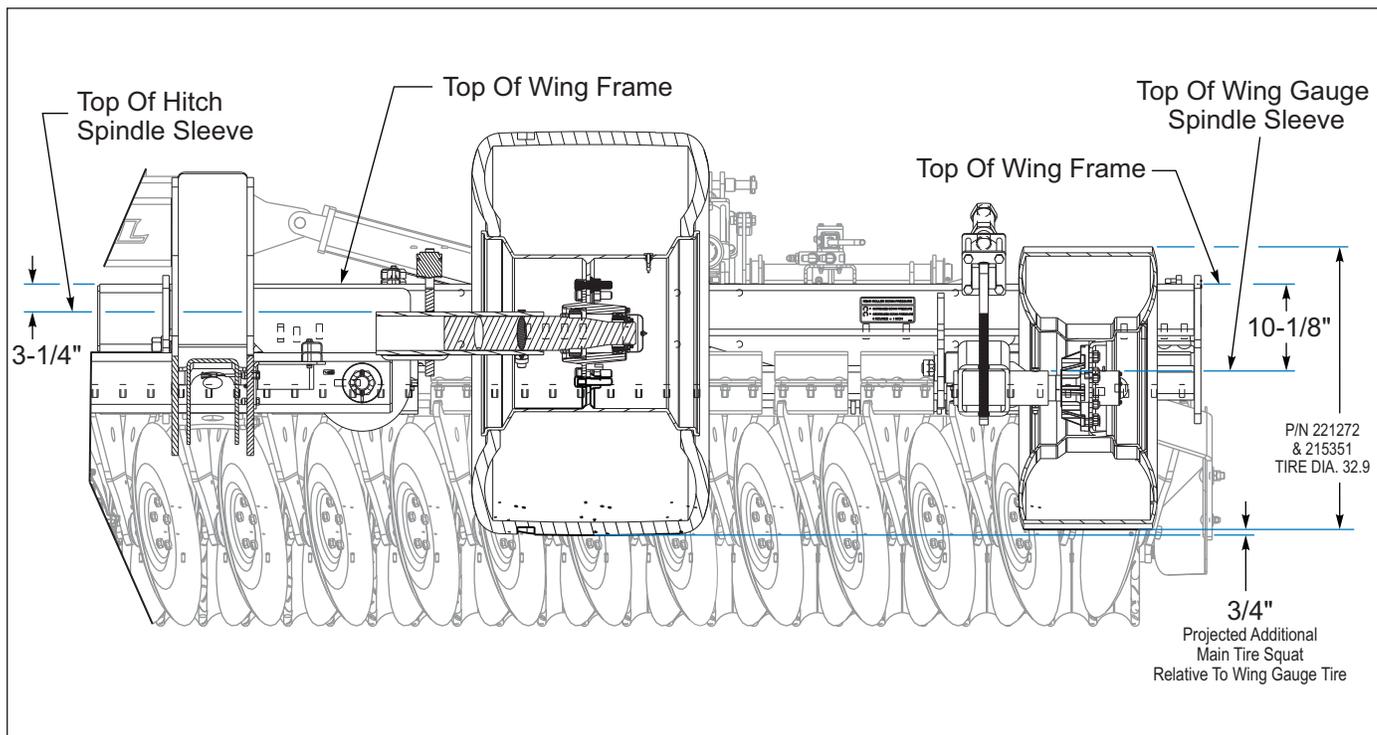
The Rear Gauge/Finishing feature is operated with a master and slave cylinder system.

The Rear Reels/Rollers can limit the depth of the rear of the 7822 if they are set too low. The Rear Reels/Rollers need to be set on the ground firmly enough to stabilize the HSL and reconstitute the worked soil but not to the point where the rear of the machine is held out of the ground.

1. Synchronize the master and slave cylinders by fully extending the cylinders of this circuit. (*Black Circuit*)
2. Maintain the hydraulic controls in the extend mode for an additional 5 to 10 seconds.

### IMPORTANT

**It is highly recommended that the operator re-set the hydraulic cylinders that control both the front depth gauges as well as the rear finishing feature once or twice daily while operating the HSL.**



**Figure 4-4: Synchronizing and Leveling Front Gauge Points**

## Front to Rear Adjustment with the Tilt Controlled HSL

### NOTE

The 7822 HSL is most effective at speeds of eight miles per hour or greater. If field conditions permit, a speed of nine or ten miles per hour is very desirable.

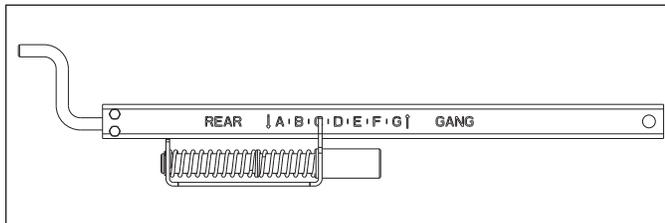
### NOTE

If plugging occurs, reduce the working depth until the issue has been remedied. The HSL can produce a “blacker” field in just a few inches of working depth, than a convectional machine at approximately twice the depth.

The Tilt Controlled 7822 HSL has only one adjustment for the front to rear adjustment (Tilt Control).

The Tilt Control is an adjustable mechanical control that stops the extension of the Tilt Cylinder (the large cylinder on the hitch) at the discretion of the operator.

The adjustment for the Tilt Control is on the left hand side of the hitch assembly. The markings on the adjustment tube call out the “Rear Gang” and has arrows indicating which direction the rear gang will go relative to the front gang. “A” is the deepest setting while “G” is the shallowest setting. *See Figure 4-5.* Typically start out in the mid-range and then adjust the control from that point until the HSL tracks straight behind the tractor.



**Figure 4-5: Tilt Control Adjustment**

The front row disc units would cause the HSL to track to the tractor's right hand side if they were dominant. In the same way the rear disc units would cause the HSL to track to the tractor's left hand side if they were dominant.

- If the HSL is tracking to the **left side** of the tractor the operator will need to raise the rear gang relative to the front gang because the rear gang is dominating, and the system is not in equilibrium. The rear gang is raised by rotating the Tilt Control hand crank counterclockwise. The Tilt Cylinder will need to be retracted a bit to make this adjustment.
- If the HSL is tracking to the **right side** of the tractor the operator will need to lower the rear gang relative to the front gang because the front gang is dominating, and the system is not in equilibrium. The rear gang is lowered by rotating the Tilt Control hand crank clockwise.

The Tilt Control has very high resolution. Each turn of the adjustment crank will move the rear gang about 3/32 inch (.092) more than it moves the front gang in a given direction. Eleven rounds will move the back gang 1 inch more in a given direction than it will the front gang.

- Changing the depth of operation **will not** typically require any adjustment of the Tilt Control.
- Changing the amount of down pressure on the rear reels may require adjusting the Tilt Control to regain true tracking.

It is always desirable to start the HSL at a shallow depth and then subsequently adjust it from that point. The amount of plant residue buried is a function of machine depth and speed. Operating the HSL at greater depths will naturally bury more plant residue. However, increasing the speed of the HSL will also bury more plant residue. Therefore, if operating at greater depths comes at the sacrifice of speed. Running deeper may not be the most desirable choice.

### NOTE

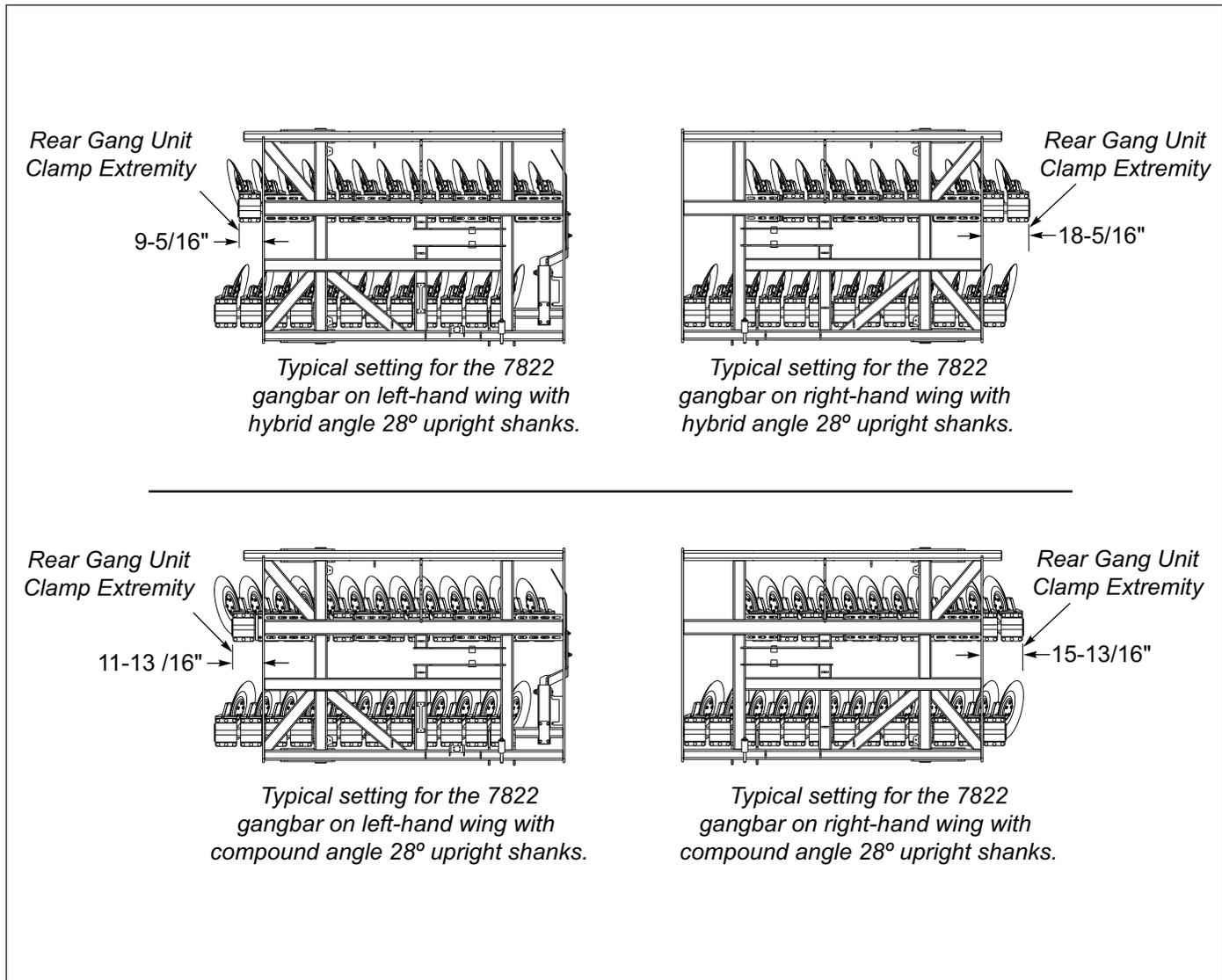
*It is paramount that the 7822 track straight behind the tractor. It is unimportant whether the machine run level or not; typically the 7822 will run down hill to the front when tracking straight.*

# Lateral Adjustment of Rear Gang Assemblies

The front row of disc blades are fixed in position laterally. They are designed to only rotate in place around their torsion mounts.

- The rear row of blades are mounted on gangbar weldments which can be adjusted laterally. The gangbars are secured with 3/4-10 carriage bolts extending through slotted brackets.
- The gang assemblies can be adjusted to the right or left several inches. The gang bar adjustment brackets, (P/N 187631 and 195279) are designed to simplify adjusting the gangs laterally.
- The HSL is set at the factory for an optimum floor cut. As the disc blades wear down you will find it beneficial to adjust the rear gangs to the machines right side.

- When adjusting the rear disc gangs laterally, it is best to first set the gang in the direction of the desired movement so that the gangs do not hit each other.
- While the typical row unit spacing is 10", the spacing between the row units at the fold break is approximately 10-3/8". Once the center section rear gang assembly is adjusted and secured in place, the wing rear gang assemblies should be set relative to the center section rear gang assembly.
- The wing rear gang assemblies should be adjusted so the first row unit adjacent to the nearest center section rear row unit is 10-3/8" on center from it. **See Figure 4-7.**



**Figure 4-6: Lateral Adjustment of Gang Assemblies (1 of 2)**

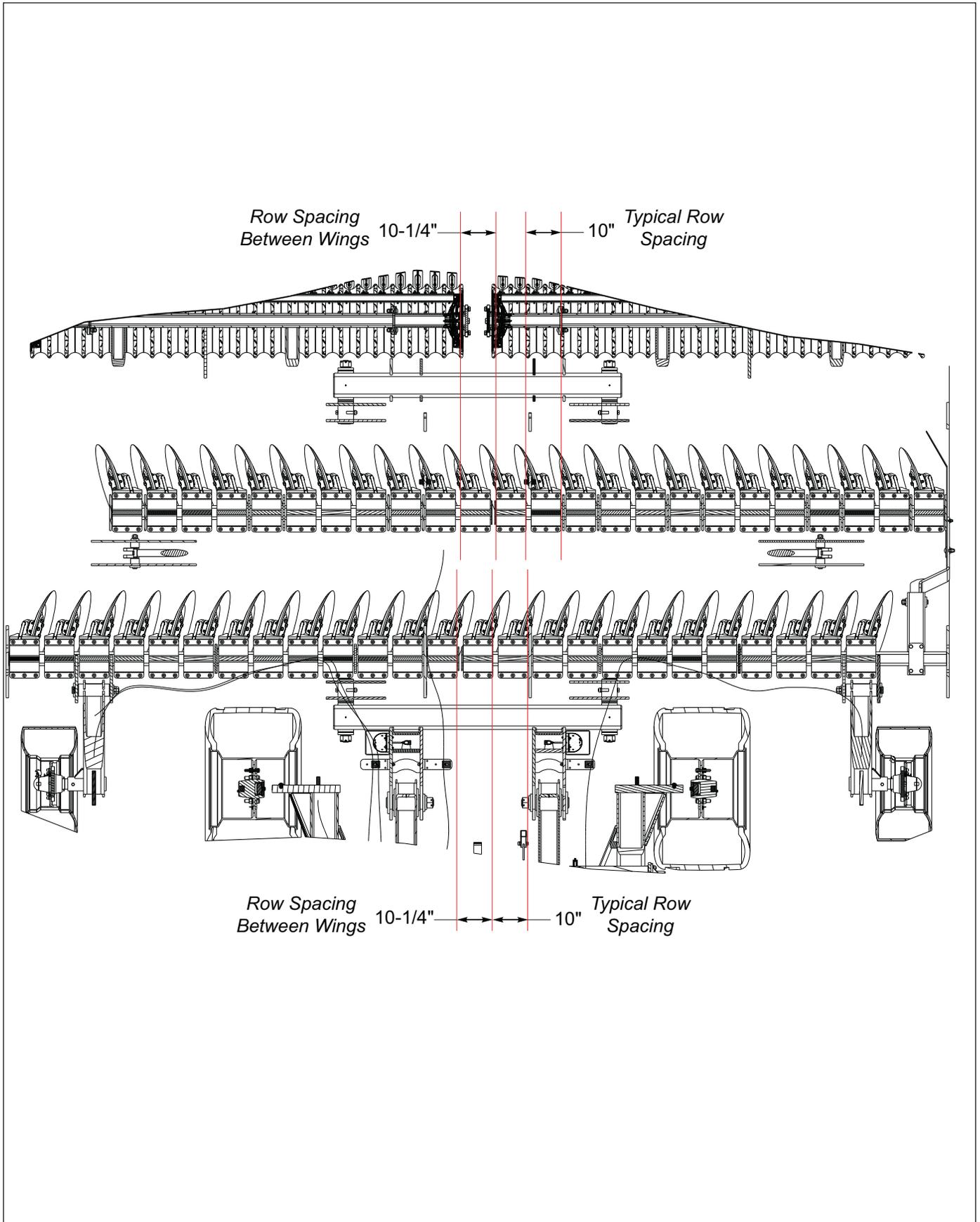


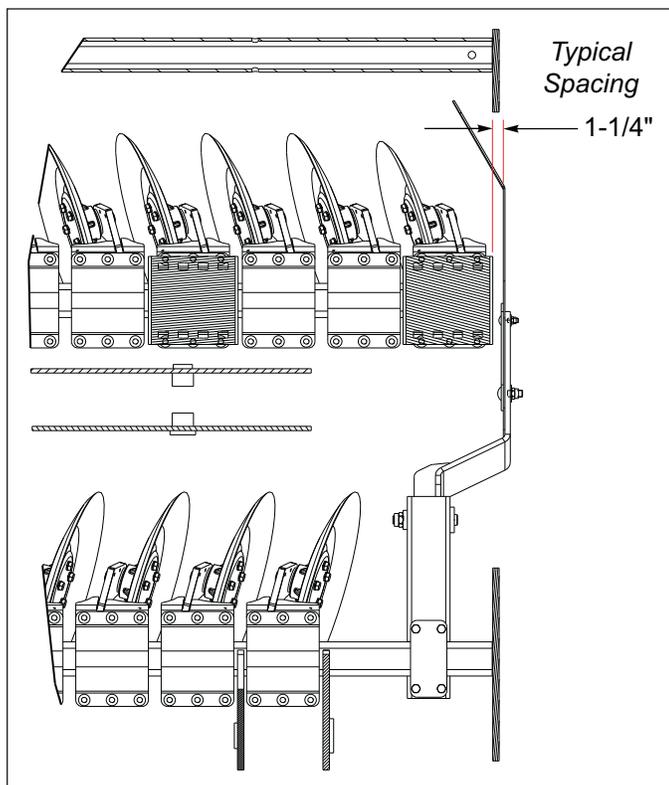
Figure 4-7: Lateral Adjustment of Gang Assemblies (2 of 2)

## Blade Leveler Adjustment

Without the Blade Leveler, it is inherent that the left rear corner blade of the machine would leave a small divot because there is not any dirt flow to fill the void left by the left rear blade. The “Blade Leveler” re-directs soil from a single 24” cover disc blade into the area mentioned above. The Blade Leveler is adjustable in height, in angle, as well as laterally.

The performance of the Blade Leveler is a function of both speed and field conditions (loose dirt present.)

- It is best to initially adjust the Blade Leveler to ride at ground level, with the bottom edge parallel to the ground. If it is set to high the loose dirt will escape underneath the blade and not be delivered to where it is needed.
- If the ground speed will be 10 mph or more, gap the blade leveler laterally a bit further left of the left end cap of the left rear gang for most working conditions. For most working conditions, it is most effective when positioned approximately 1" to 1-1/2" to the left of the left rear gangbars left side end cap. *See Figure 4-8.*



**Figure 4-8: Adjusting the Blade Leveler**

## Operating Speed

The operating speed is very significant to the performance of the HSL. It requires some speed to make it work correctly and efficiently.

- The minimum operating speed should be approximately 7-1/2 to 8 mph unless the goal is to minimize the percent of crop residue being buried.
- Maximum operating speed recommended is approximately 12 mph.

The amount of crop residue that is buried is a function of the operating speed.

- The higher the speed of operation, the greater the percent of crop residue that will be buried.
- The slower the speed of operation, the greater the percentage of crop residue left on the surface.

When operating the HSL, higher speed can be a substitute for operating deeper. On the other hand, in some cases, it is desirable to reduce the percentage of crop residue buried. In such cases the operator will need to reduce the speed of operation. Typically the 8 to 10 mph window of operating speed will yield the most desirable results.

## Wing Hydraulic Down Pressure

| Model   | Hydraulic Wing Down Pressure Settings |
|---------|---------------------------------------|
| 7822-17 | 200 - 300 psi                         |
| 7822-20 | 300 - 500 psi                         |
| 7822-23 | 500 - 700 psi                         |

The 7822 HSL comes equipped with hydraulic wing down pressure incorporated in the wing fold system, except the 7822-15 which unfolds into a rigid configuration.

The hydraulic wing down pressure transfers weight from the heavier center section out into the outward to the wing tips. The wing down pressure system assures that the active down force on each disc unit is equal. The hydraulic wing down pressure manifold is located on the left side of the hitch, just inside the frame.

The hydraulic wing down pressure system needs to be run continuously when the 7822 is working in the field.

- It is recommended that the wing fold circuit (*Yellow Circuit*) be connected to a tractor circuit in which the flow has been reduced to approximately percent 20% of its full capacity.
- Turning the flow volume down will supply an adequate flow to the down pressure system and simultaneously prevent excessive buildup of heat or loss of power.

- The down side to turning the flow down is that the fold and unfold functions will be slowed down.

The wing down pressure is a function of geometry and a “set it and forget it” setting. The design intent of the hydraulic wing down pressure is to evenly distribute the weight of the heavier center section evenly across the entire machine. For that reason adjusting the down pressure is not recommended. It has been correctly set at the factory. The pressure setting is adjustable; however, the maximum pressure should never exceed 700 psi. If adjustment becomes necessary, loosen the lock nut on the “PRV” cartridge and adjust it clockwise for higher pressure and counter clockwise for lower pressure.

The wing based gauge wheels and tires may need to be adjusted so that the 7822 HSL operates level from side to side. The wing gauge wheels and tires are connected to the main hitch wheels and tires through a master/slave hydraulic system. The front gauge wheels are controlled through a single point control.

The wing based wheels and tires along with the down pressure settings are responsible for making the 7822 run level from side to side.

## Operating Depths

The optimum working depth is considered to be 1-1/2 to 3-1/2 inches. The HSL can work on either side of this range with good performance and results; but typically the 1-1/2 to 3-1/2 inch depth range is the most efficient work depth.

Working depth adjustments should always be made in conjunction with considerations of operating speed. The HSL can bury as much plant debris in a relatively shallow working depth as conventional machines can at considerable deeper operating depths because of the

mixing action inherent to the HSL if adequate operating speed is maintained.

The 7822 HSL has a Single Point Depth Control. It is located just to the left of center on the hitch. *See Figure 4-9.*

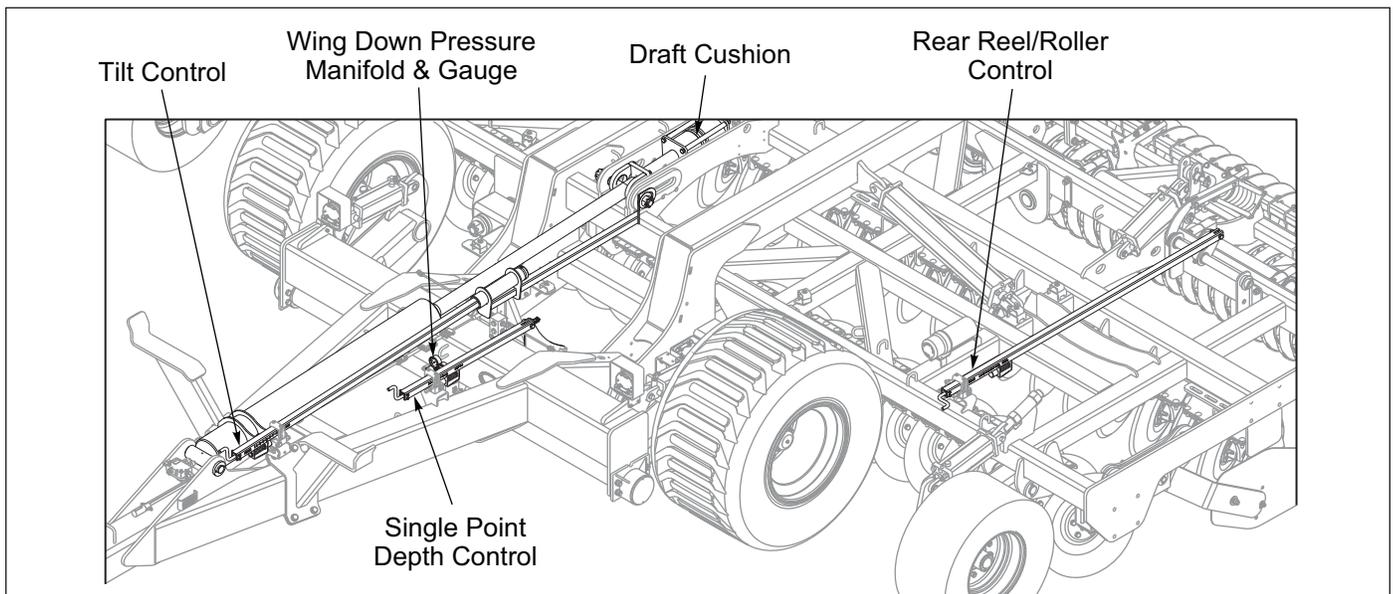
- Every rotation of the control crank adjusts the working depth by a 1/4 inch, four turns to an inch of operating depth.

## Tilt Control

The Tilt Cylinder combined with the Tilt Control System, control the operating depth of the rear row of disc units relative to the front row of disc units. *See "Front to Rear Adjustment with the Tilt Controlled HSL" on page 4-7.* The 7822 Tilt Control is a single point control.

While the depth control is a Single Point Depth Control, the Rear Reels play a major role in the final performance of the HSL. If the down pressure on the reels becomes extensive it will have an adverse effect on the overall system.

- If too much down pressure is applied to the rear reels they will hold the rear row of disc units out of the ground. This will cause the HSL to track to the left hand side. Typically, when this is the case, the operator will observe that the rear urethane spring in the draft cushion assembly will be ballooned.
- Too much down pressure on the rear reels can also lead to bouncing. On the other hand, too little down pressure will cause the machine to have decreased stability in the field. Too little down pressure also tends to leave a less desirable field finish and does not reconstitute the soil profile to an optimum level.



**Figure 4-9: Operating Depths and Adjustments**

## GPS Operation

Operating the HSL with the assistance of GPS can be beneficial in several ways and is recommended.

The 7822 is designed to be symmetrical. It will work the same distance both to the left and the right of center when it is tracking straight.

- When operating the HSL with the assistance of GPS guidance, set the swath width per the table.

| GPS Guidance |               |                                |                               |
|--------------|---------------|--------------------------------|-------------------------------|
| Model        | Working Width | GPS Swath (When Turning Right) | GPS Swath (When Turning Left) |
| 7822-15      | 180" (15')    | 178 inches                     | 178 inches                    |
| 7822-17      | 200" (16'8")  | 198 inches                     | 198 inches                    |
| 7822-20      | 240" (20')    | 238 inches                     | 238 inches                    |
| 7822-23      | 280" (23'4")  | 278 inches                     | 278 inches                    |

- When the GPS is set up to correctly to reflect the distance worked either side of center it becomes very easy to see if the HSL is tracking straight by the distance overlapped.
- When the GPS guidance is set correctly and the Landoll HSL is tracking straight, there will be minimal overlap on either side, and no skips.
- GPS guidance also helps out when turning narrower units on the headland. It may become more efficient when turning at higher speeds to not have to turn back in, for what would be the next adjacent pass; but instead work a rotation where one or two passes are skipped to be completed later.

## Turning On the Headland

The recommended turning procedure for the 7822 HSL on the headland is to tilt the rear of the machine upward (*Red Circuit*), so that the weight of the entire machine is riding on the front gauge wheels and tires.

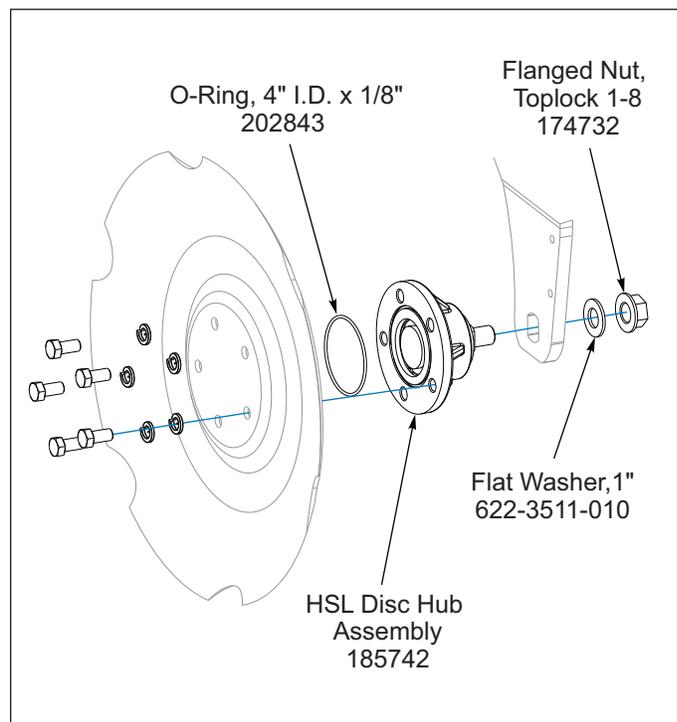
1. Tilt the rear up only far enough that all of the blades disengage the dirt. Tilting the HSL much over 10 to 15 degrees while turning on the headland exposes the wing fold cylinders and the machine at large, to possible damage as well as lengthens the time it takes to turn around.
2. Tilt the HSL rear up only enough to get the blades out of the dirt. Setting the tilt up on a timer can be beneficial. Once the turn is completed lower the HSL back into the field by reversing the Tilt Cylinder (*Red Circuit*) until its extension is terminated by the tilt control valve.

## Disc Hub Bearing Replacement

1. The replacement hub and bearing assembly is available as a pre-assembled assembly (P/N 210880). Should you choose, the wear parts are also available in a kit to re-build the disc hub. Landoll Kit 219945 includes the essential wear parts to rebuild a disc hub in the field.
  - When rebuilding disc hubs in the field it is highly recommended that you obtain a die, Landoll P/N 218733, to assist in the proper assembly of the components in the hub assembly. Landoll Company, LLC. will not accept responsibility for, or warranty hub assemblies re-built in the field.
2. When installing the hub assembly on the shank, torque the flange top lock nut to approximately 200-250 Ft-Lbs of torque immediately after applying Loctite 271.
3. When replacing the disc blade on the disc hub, clean the O-Ring groove and the surfaces between the hub face and the correlating disc surface. Failure to clean the surfaces mentioned above, can cause the disc blade to loosen and cause water to infiltrate the bearing area.

### NOTE

*Inadequate torquing of the disc hub (<120 Ft-Lbs.) flanged top lock nut will cause premature bearing failure. Over torquing can also lead to premature bearing failure.*



**Figure 4-10: Disc Hub Bearing**

# Lubrication Maintenance

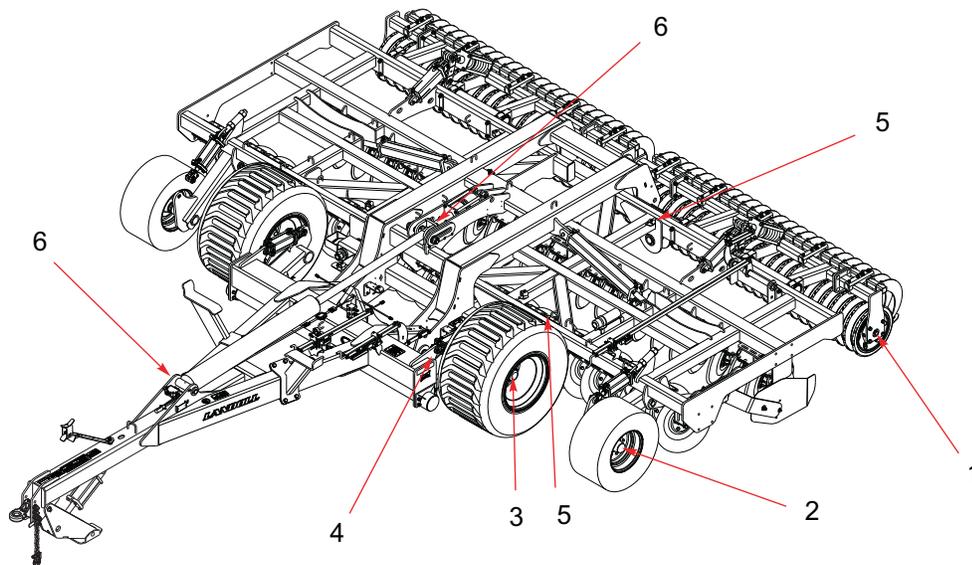
When lubricating the HSL, SAE multi-purpose EP grease, or EP grease with 3-5% molybdenum sulfide is recommended. Wipe soil from fittings before greasing. Replace any lost or broken fittings immediately.

The Lubrication Table specifies the number and the period of lubrication points on the 7822 HSL. **See Table 4-1.** Proper maintenance of your machine will, under normal operating conditions, help to keep it operating at its peak performance. Proper maintenance is also a condition to keep your warranty in good status.

1. The 7822 HSL features a maintenance free double tapered roller bearing in each disc hub (P/N 174526). The maintenance free double tapered bearing is protected by a life time lubricated five lip seal (P/N 185757) on the hub's spindle side. **See Figure 4-10.** The joint between the disc blade and the hub face is sealed with an O-Ring that is compressed in a groove in the hub and seals against the disk. Should it

become necessary for a disc hub bearing to be replaced there are two options available.

- A complete hub assembly (P/N 210880), ready to install.
  - A rebuild kit (P/N 219945) with all required components, including instruction sheet (P/N 219946).
  - Installation of the HSL hub rebuild kit requires a die (P/N 218733) to set the bearing and seals.
2. The Wing Gauge Wheel Hubs and the Reel Bearings are equipped with seals that will let grease purge without harming the seal. Regular lubrication will maintain a full grease cavity and help purge any contaminants. Grease the bearings before long periods of storage to prevent moisture buildup within the bearing cavity.
  3. When the machine is not used for some time, exposed portions of the Hydraulic Cylinder Rods must be cleaned and covered with a thick coat of grease to prevent corrosion, which will damage the seal.



**Lubrication Maintenance Schedule**

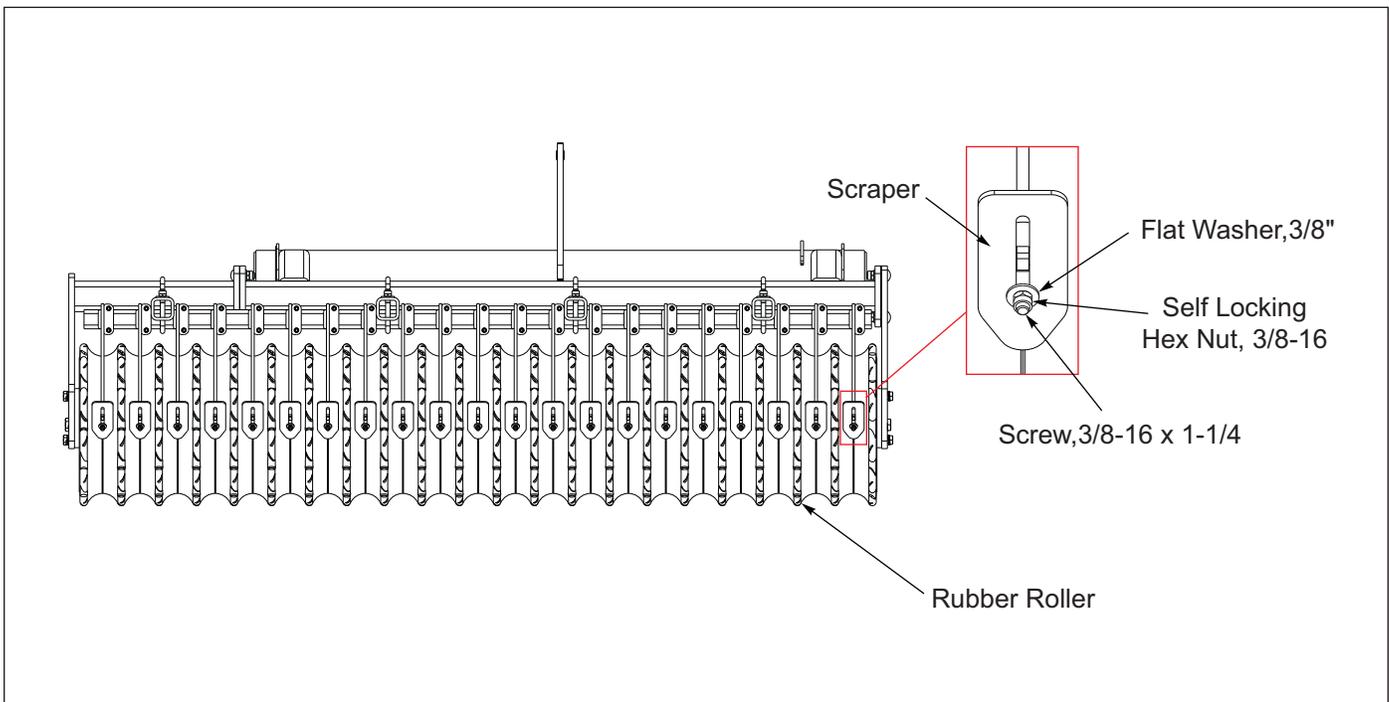
| ITEM | DESCRIPTION                            | NO. OF LUBE POINTS    | INTERVAL<br>(Hours Unless Stated) |
|------|--|-----------------------|-----------------------------------|
| 1    | Reel Bearings                          | 2 per Reel Section    | 10                                |
| 2    | Wing Wheel Hubs                        | 1 each                | 50                                |
| 3    | Center Section Wheel Hubs              | (2) Check and Re-pack | 250-500                           |
| 4    | Center Section/Hitch Pivot             | 2 each                | 10                                |
| 5    | Center Section/Wing Frame Fold (FRONT) | 2 each                | 10                                |
|      | Center Section/Wing Frame Fold (REAR)  | 2 each                | 10                                |
| 6    | Main Tilt Cylinder                     | 2 each                | 50                                |

**Table 4-1: Lubrication Maintenance Schedule**

## Rubber Roller Scraper Adjustment

The Roller Scrapers should be adjusted so that they have an adequate clearance from the rubber roller grooves but not excessive. If the clearance exceeds a 1/4 inch, plugging may occur, 5/32 to 3/16" clearance is optimum.

- The Rubber Rollers are subject to some irregularity in diameter, especially during initial use or when returning to duty after have set for a period.
- It is always a good idea to rotate the Rubber Rollers after making adjustments to assure an adequate clearance between the Roller and the Scrapers.
- The Scrapers will require adjustment periodically as they wear to maintain the proper clearance.



**Figure 4-11: Rubber Roller Scraper Adjustment**

# Transport

1. Check and follow all federal, state, and local requirements before transporting the 7822 HSL.
2. The HSL should be transported only by tractor required for field operation. The machine weight should not exceed more than 1.5 times the tractor weight. Maximum transport speed for the HSL is 20 mph.

|  |
|--|
|  <b>CAUTION</b>   |
| <p><b>Excessive speed may result in loss of control of the tractor and machine, reduced braking ability, or failure of the machine tire or structure. Do not exceed the machines maximum specified ground speed regardless of the capability of the maximum tractor speed.</b></p> |

3. When towing equipment in combination, the maximum equipment ground speed shall be limited to the lowest specified ground speed of any of the towed machines.

Maximum transport speed shall be the lesser of travel speed specified in the operator's manual, speed identification symbol, information sign of towed equipment, or limit of road conditions.

4. Slow down when driving on rough roads. Reduce speed when turning, or on curves and slopes to avoid tipping. Equipment altered other than the place of manufacture may reduce the maximum transport speed. Additional weight, added tanks, harrowing attachments, etc. may reduce machine load carrying capabilities.
5. A Safety Chain is provided with the implement to ensure safe transport. **See "Safety Chain" on page 1-4.**
  - The Safety Chain should have a tensile strength equal to or greater than the gross weight of the implement. The chain is attached to the lower Hitch Clevis hole with two Flat Washers between the Clamp Plates to assure a tight connection. Always use a 1" diameter Grade 8 bolt for this connection.
  - Attach the Safety Chain to the tractor drawbar. Provide only enough slack in the chain for turning. Do not use an intermediate chain support as the attaching point for the chain on the tractor. Do not pull the implement by the Safety Chain
  - When unhitching from the tractor attach the hook end of the chain to a free link close to the hitch clevis for storage. This will keep the hook off the ground, reducing corrosion, and keep the hook functioning properly.

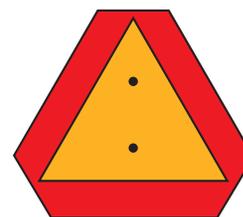
- Regularly inspect the Safety Chain for worn, stretched, or broken links and ends. Replace the Safety Chain if it is damaged or deformed in any way.

1. Before transporting:

- Know the height and width of the implement being towed. Markers, tanks, attachments, etc. can increase the height and width of the implement.

|  |
|--|
|  <b>DANGER</b>                                  |
| <p><b>Stay away from power lines when transporting, extending implement. Electrocutation can occur without direct contact.</b></p> |

- Check to see that the tractor hitch capacity is rated to carry the weight of the HSL. Refer to Tractor Operator's Manual.
- Clean all Hydraulic Couplings and attach to tractor remotes.
- Connect the Safety Warning Lights 7-Pin Plug into tractor 7-Pin outlet, routing cord by avoiding pinch points.
- Completely fold the HSL.
- Check all tires for proper inflation, and that wheel bolts or lug nuts are properly torque. **See "Tires" on page 4-3.**
- Verify that all warnings lights, SMV sign, reflectors, and safety decals are clearly visible and functioning properly.
- Transport during daylight hours whenever possible. Always use flashing warning lights, except where such use is prohibited by law. Make sure lights, reflectors and SMV emblem are clearly visible and operating. Remove any obstructions such as dirt, mud, stalks or residue that restricts view before transporting. **See Figure 4-12.**



**Figure 4-12: SMV Sign**

## **Storage**

1. The service life of the HSL will be extended by proper off-season storage practices. Prior to storing the unit, complete the following procedures:
  - Completely clean the unit.
  - Inspect the machine for worn or defective parts. Replace as needed.
  - Repaint all areas where the original paint is worn off.
  - Apply a light coating of oil or grease to exposed Cylinder Rods to prevent them from rusting.
  - Lubricate each point of the machine as stated in ***"Lubrication Maintenance" on page 4-13.***
2. Store the unit in a shed or under a tarpaulin to protect it from the weather. The Main Wheels/Tires and Hydraulic Jack should rest on boards, or some other object, to keep them out of the soil.
3. Completely fold HSL for storage.
4. Block Transport Wheels before unhitching from Tractor.

# Troubleshooting

The Troubleshooting Guide, shown below, is included to help you quickly locate problems that can occur when using your 7822 High Speed Landoll (HSL). Follow all the safety precautions stated in the previous sections when making any adjustments to your machine.

| PROBLEM   | PROBABLE CAUSE   | SOLUTION   |
|---|--|--|
| <b>Disc plugs or pushes.</b>                      | Operating too deep.  | Shallow up the depth gauges.   |
|   | Operating speed too slow.  | <ul style="list-style-type: none"> <li>Reduce tillage depth.</li> <li>Increase ground speed.</li> </ul>  |
|   | Excessive amount of dirt collected on the discs.                       | Field conditions too damp.   |
|   | Foreign object caught between the blade and shank, or blade and frame. | Remove the object. If this happens repeatedly, consider installing scrapers.   |
|   | Disc hub bearing frozen.   | Replace the bearing and hub assembly.  |
|   | Depth gauge cylinders (front and/or rear) out of synchronization.      | Synchronize cylinders by holding hydraulic circuit in extended position for 5 to 10 seconds after full extension.  |
|   | Front wing gauge wheels not level with center section.                 | <i>See "Synchronizing and Leveling Front Gauge Points" on page 4-5.</i>  |
|   | Rear depth gauge reel/roller bearing frozen.                           | Replace the bearing assembly.  |
| <b>Disc tracking to the left behind tractor.</b>  | Rear gangs too deep relative to the front.                             | Adjust tilt control counter-clockwise.   |
| <b>Disc tracking to the right behind tractor.</b> | Front gangs too deep relative to the rear.                             | Adjust tilt control clockwise.   |
| <b>Leaving a valley on the left rear corner.</b>  | Leveling board too high; dirt flowing beneath it.                      | <ul style="list-style-type: none"> <li>Lower leveling board.</li> <li>Make lower extremity of the leveling board parallel with the ground.</li> </ul>  |
|   | Cover disc not generating enough loose dirt.                           | <ul style="list-style-type: none"> <li>Move cover disc towards leveling board.</li> <li>Replace front left 22" blade with 24" blade.</li> <li>Use compound angle disc shank in place of a vertical shank.</li> </ul> |
| <b>Floor cut has grooves or ridges.</b>           | HSL is not tracking straight behind tractor.                           | See previous guides on "tracking to the left or right".  |
| <b>Floor cut has ridges.</b>                      | Rear gangs out of adjustment relative to the front disc unit.          | Adjust rear gang to the left slightly less than the average width of the ridge top.  |
| <b>Floor cut has grooves.</b>                     | Rear gangs out of adjustment relative to the front disc unit.          | Adjust rear gang to the right slightly less than the average width of the groove bottoms.  |

## TABLE OF CONTENTS

### TROUBLESHOOTING

| PROBLEM  | PROBABLE CAUSE  | SOLUTION  |
|--|---|---|
| <b>Machine bounces in the field.</b>                   | Field conditions too rough for operating speed.                           | Reduce operating speed. Work twice if necessary.  |
|  | Floor cut irregular.  | Adjust rear gangs laterally.  |
|  | Wing down pressure is not operating.                                      | Confirm wing down pressure.   |
|  | Air is trapped in the gauge cylinders.                                    | Remove air from the cylinders by holding hydraulic circuit in extend position for 5 to 10 seconds after full extension.                                     |
|  | Excessive down pressure on rear reels/rollers.                            | <ul style="list-style-type: none"> <li>• Decrease rear reel down pressure on left-hand wing.</li> <li>• Turn adjustment crank counter-clockwise.</li> </ul> |
| <b>Uneven operating depth.</b>                         | Wing frame(s) not operating at uniform depths.                            | <b>See "Synchronizing and Leveling Front Gauge Points" on page 4-5.</b>   |
|  | Rear gauge points out of synchronization.                                 | Synchronize cylinders by holding hydraulic circuit in extended position for 5 to 10 seconds after full extension.   |
|  | Hydraulic wing down pressure is not operating (correctly).                | Make certain that the indicator gauge is showing the recommended pressure and the flow is not excessive.  |
|  | Hydraulic wing down pressure is too high and center section is too light. | Reduce wing down pressure.  |
|  | Hydraulic wing down pressure is too low and the wing tips are too light.  | Increase wing down pressure.  |
| <b>Rear gauge points not uniform.</b>                  | Rear gauge points out of synchronization.                                 | Synchronize cylinders by holding hydraulic circuit in extended position for 5 to 10 seconds after full extension.   |
|  | Cylinder leaking internally.  | Repair/replace cylinder.  |
| <b>Machine does not hold consistent working depth.</b> | Rear finishing feature single point limit valve leaking.                  | Replace rear limit valve (on left-hand wing frame).   |
|  | Front gauge point limit valve leaking.                                    | Replace front limit valve (on hitch).   |
|  | Front and/or rear gauge points out of synchronization.                    | Synchronize cylinders by holding hydraulic circuit in extended position for 5 to 10 seconds after full extension.   |
| <b>Wings fold too slowly.</b>                          | Restrictors are not properly installed.                                   | Smart restrictor fittings should be installed in wing cylinder base end points.   |
| <b>Wings fold too fast.</b>                            | Restrictors not properly installed.                                       | Black restrictor fittings should be installed in the rod ends of wing cylinders.  |
| <b>Wing tip operating shallow.</b>                     | Hydraulic wing down pressure is too low or not operating.                 | Increase/turn on wing down pressure.  |
|  | Wing fold down cylinders leaking internally.                              | Repair or replace wing fold cylinder.   |
|  | Front wing gauge wheels set too low.                                      | Adjust front wing gauge wheels.   |

| <b>PROBLEM</b>  | <b>PROBABLE CAUSE</b>   | <b>SOLUTION</b>  |
|---|---|--|
| <b>Gauge point cylinders not fully extending.</b>                                   | Gauge point cylinders not synchronized.                         | Synchronize cylinders by holding hydraulic circuit in extended position for 5 to 10 seconds after full extension.  |
|   | Gauge point cylinders not installed in proper series.           | Install cylinders in decreasing diameters as distance from center increases.   |
|   | Hoses not properly connected.                                   | Check hose routing against schematics (found in parts manual).   |
| <b>Machine will not unfold (raise wing frames out of transport saddles).</b>        | Tractor valve not working.                                      | Try a different tractor circuit known to work.   |
|   | Limit valve on hitch safety circuit not closing b-pass circuit. | <ul style="list-style-type: none"> <li>• Confirm spring plunger to be depressing limit valve plunger when folded forward.</li> <li>• Hitch safety circuit limit valve leaking and needs replaced.</li> </ul> |
| <b>Machine will not tilt (rear upward) or fold.</b>                                 | Tractor valve not working.                                      | Try a different tractor circuit known to work.   |
|   | Check valve on hitch safety circuit not closing; leaking.       | <ul style="list-style-type: none"> <li>• Clean check valve.</li> <li>• Replace check valve.</li> </ul>   |
| <b>Machine will not fold or unfold (both wing frames out of transport saddles).</b> | Tractor valve not working.                                      | Try a different tractor circuit known to work.   |
|   | Hoses not properly connected.                                   | Check hose routing against schematics (found in parts manual).   |
|   | High pressure manifold filter dirty.                            | Replace filter.  |
| <b>Hydraulic depth control limit valve not working.</b>                             | Hoses not properly connected.                                   | Check hose routing against schematics (found in parts manual).   |
|   | Depth stop contracts limit valve does not close off flow.       | <ul style="list-style-type: none"> <li>• Clean check valve.</li> <li>• Replace check valve.</li> </ul>   |
|   | Machine will raise by not lower.                                | Check limit valve and manifold for correct plumbing.   |
| <b>Wheel bearing failure.</b>   | Seals not properly installed.                                   | Triple lip seal should be installed with lips points outward away from the hub.  |



## Warranty Registration

To be eligible for Warranty, registration must be on file at Landoll Company, LLC. It is the responsibility of the dealer to register the machine within 10 days of purchase or lease on the Dealer Portal. Check with the dealer to verify the machine has been registered.

**NOTE: IMPROPER ASSEMBLY, MODIFICATION, OR MAINTENANCE OF YOUR LANDOLL MACHINE CAN VOID YOUR WARRANTY.**

Landoll reserves the right to make changes and/or add improvements to it's products at any time without obligation to previously manufactured equipment.

Please take time to complete the following information for your personal reference, should you need to contact your Dealer with questions or parts needs.

**MODEL** \_\_\_\_\_

**SERIAL #** \_\_\_\_\_

**DATE OF PURCHASE** \_\_\_\_\_

**DEALER NAME** \_\_\_\_\_

Landoll Company, LLC. would like to thank you for purchasing our product. Our team has spent considerable time and effort to research, design, test and develop this machine and are confident it will serve you in the use for which it was designed.



**LANDOLL TILLAGE PRODUCT THREE YEAR LIMITED WARRANTY**

Landoll Company, LLC warrants each new serial numbered Whole Good Tillage product, when properly assembled, adjusted, serviced, and normally operated, to be free from defects in materials and workmanship for a period of three (3) years, unless otherwise noted, from the date of delivery. Date of delivery shall be the date the Dealer places the product in the possession of the original retail purchaser, and must be confirmed by the Dealer submitting a properly completed Landoll Company, LLC Warranty Registration Form to the Landoll Company, LLC Warranty Department. Warranty starts the day the product is rented or leased. This limited warranty shall be transferable until the expiration date.

Landoll Company, LLC shall repair, or at its option, replace any part(s) of the product determined, by Landoll Company, LLC, to be defective. Landoll Company, LLC may request the return of part(s), freight prepaid via a carrier approved by the Landoll Warranty Staff, to Landoll Company, LLC for further evaluation. If the part is determined to be defective, Landoll Company, LLC will refund the freight charges incurred in returning the defective part(s).

This limited warranty requires pre-authorization by the Landoll Company, LLC Warranty Staff of any warranty related utilization of components or labor, and is subject to specific exclusions and does not apply to any product which has been: 1) subjected to or operated in a manner which, at any time, have exceeded the product design limits; 2) repaired or altered outside our factory in any way so as, in the judgment of Landoll Company, LLC, to affect its stability or reliability; 3) subject to misuse, negligence, accident, or has been operated in a manner expressly prohibited in the instructions; or not operated in accordance with practices approved by Landoll Company, LLC. Operating the product in soils containing rocks, stumps or obstructions may void the warranty in its entirety. Excessive acres, consistent with non-seasonal very large farming operations, and, non-agricultural activities, may further limit the terms of this warranty. The sole obligation of Landoll Company, LLC under this warranty shall be limited to repairing or replacing, at its option, part(s) which shall be identified to Landoll Company, LLC by way of a pre-authorized Landoll Company, LLC Warranty Claim Form. Warranty, expressed or implied, will be denied on any product not properly registered with the Landoll Company, LLC Warranty Department within ten (10) days of the first retail sale. As stated above, Landoll Company, LLC Warranty Staff will identify components listed on a Warranty Claim required to be returned for further analysis. All parts returned to Landoll Company, LLC must be shipped with a Return Materials Authorization (RMA) provided by the Landoll Company, LLC Warranty Staff. Defective components must be returned by the purchaser to Landoll Company, LLC with transportation and freight charges prepaid within thirty (30) days after receipt of the RMA. The examination conducted by Landoll Company, LLC of returned parts shall disclose to its satisfaction the extent the component may be defective.

All parts and labor warranty MUST be pre-authorized by Landoll Company, LLC Warranty Staff. Failure to do so may result in no warranty payment of any kind. Labor will be reimbursed in accordance with published shop rates pre-approved by the Landoll Company, LLC Warranty Staff. Time authorized for specific work will be limited, where appropriate, to the hours listed in the Landoll Company, LLC authorized Labor Rate Guide.

...continued on following page.

**Figure 6-1: Landoll Tillage Product Warranty (1 of 2)**

## LANDOLL TILLAGE PRODUCT THREE YEAR LIMITED WARRANTY

...continued from previous page.

### USER'S OBLIGATION:

1. Read the Operator's Manual.
2. Understand the safe and correct operating procedures pertaining to the operation of the product.
3. Lubricate and maintain the product according to the maintenance schedule in the Operator's Manual.
4. Inspect machine and have parts repaired or replaced when continued use of the product would cause damage or excessive wear to other parts.
5. Contact the Landoll Company, LLC Dealer for repair or replacement of defective parts. Mileage incurred by the Landoll Company, LLC Dealer is the customer's responsibility.

**This 3-Year Limited Warranty SHALL NOT APPLY TO: (See Warranty Procedure Manual for details.)**

1. Ground Engaging Tools.
2. Vendor Warranty Only Parts.

### WARRANTY LABOR:

1. Considered during the first year of warranty only.
2. During the second and third year:
  - Warranty labor is not covered. Customer is responsible for removing, replacing and returning the defective part(s) to the Landoll Dealer

THIS WARRANTY IS EXPRESSIVELY IN LIEU OF ALL OTHER WARRANTIES OF MATERIAL, WORKMANSHIP DESIGN, APPLICATION OR OTHERWISE WITH RESPECT TO ANY EQUIPMENT, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND LANDOLL COMPANY, LLC SHALL NOT BE LIABLE FOR SPECIAL OR CONSEQUENTIAL DAMAGES OF ANY KIND ON ACCOUNT OF ANY LANDOLL PRODUCT. NO EMPLOYEE OR REPRESENTATIVE IS AUTHORIZED TO CHANGE THIS WARRANTY, VERBALLY OR IN WRITING, OR GRANT ANY OTHER WARRANTY. LANDOLL COMPANY, LLC, WHOSE POLICY IS ONE OF CONTINUOUS IMPROVEMENT, RESERVES THE RIGHT TO MAKE CHANGES WITHOUT OBLIGATION TO MODIFY PREVIOUSLY PRODUCED EQUIPMENT.

This warranty does not expand, enlarge upon or alter in any way, the warranties provided by the original manufacturers and suppliers of component parts and accessories. This warranty excludes such parts or accessories which are not defective, but may wear out and have to be replaced during the warranty period, including, but not limited to, light bulbs, paint, and the like. (Tire Warranties are expressly excluded from Landoll Company, LLC warranty herein.) Purchaser is expected to pay all repairs or replacement costs, in Dconnection with this Agreement, including sales and other taxes immediately upon completion of work performed.

LIMITATION OF LIABILITY: Landoll Company, LLC shall not be liable to purchaser for any incidental or consequential damages suffered by the purchaser, including, but not limited to, any commercially reasonable charges, expenses or commissions incurred in connection with effecting cover or any other reasonable expense incident to the delay or other breach of warranty by Landoll Company, LLC, loss of anticipated profits, transportation expenses due to repairs, non-operation or increased expense of operation costs of purchased or replaced equipment, claim of customers, cost of money, any loss of use of capital or revenue, equipment rental, service trips, or for any special damage or loss of any nature arising at any time or from any cause whatsoever.

LIMITATION OF REMEDY: In the event of Landoll Company, LLC failure to repair the product subject to the warranty contained herein, the purchaser's sole and exclusive remedy against Landoll Company, LLC shall be for the repair or replacement of any defective part or parts of the product subject to work or repair within the time period and manner set forth herein. This exclusive remedy shall not be deemed to have failed of its essential purpose so long as Landoll Company, LLC is willing and able to repair or replace defective parts in the prescribed manner.

Figure 6-2: Landoll Tillage Product Warranty (2 of 2)

# Instructions for Ordering Parts

**\*\* Repair parts must be ordered through an Authorized Dealer \*\***

## DEALER INSTRUCTIONS FOR ORDERING PARTS FROM LANDOLL PARTS DISTRIBUTION CENTER

Phone #: 800-423-4320 or 785-562-5381

Fax #: 888-527-3909

Order online: [dealer.landoll.com](http://dealer.landoll.com)

### DATA PLATE

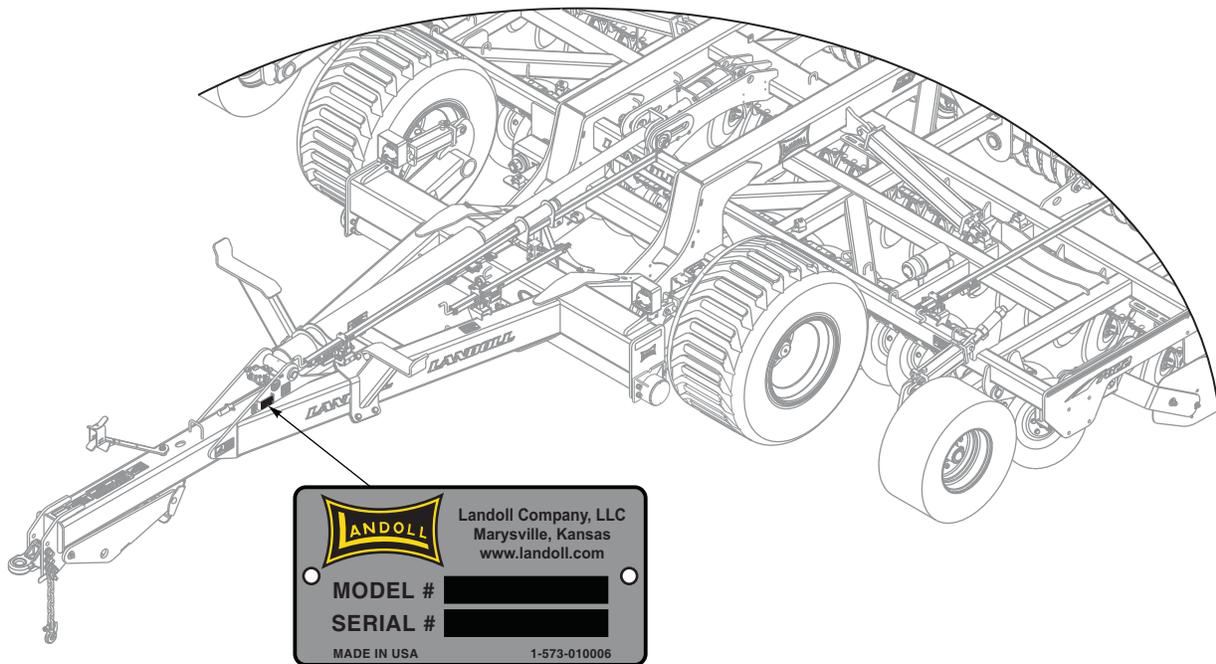
The Data Plate, which lists the model number and serial number, is located on the front of the frame.

### SERIAL NUMBER

The following information will help decode the Landoll serial number.

**78D2400100 = xxmysssss**

|              |  |
|--------------|--|
| <b>xx</b>    | = model series<br>(i.e. "78" for all 7822 HSL)                             |
| <b>m</b>     | = month of manufacture<br>(ex. "D" means April. The letter I is not used.) |
| <b>yy</b>    | = last digits of the year manufactured<br>(ex. "24" means 2024)            |
| <b>sssss</b> | = Sequential number used to track warranty and service information.        |



**Figure: Data Plate and Location**

## Manuals for 7822 High Speed Landoll (HSL)

| Manual Number | Manual Type       |
|---------------|-------------------|
| F-1045        | Operator's Manual |
| F-1034        | Parts Manual      |

# Document Control Revision Log:

| Date       | Form #      | Improvement(s): Description and Comments                       |
|------------|-------------|--|
| 08/27/2019 | F-1045-0819 | Initial Release  |
| 08/2021    | F-1045-0721 | ECN 47137 - Wing Gauge Cylinder Mount Measurements             |
| 10/2022    | F-1045-1022 | Update to "Synchronizing and Leveling Front Gauge Points"      |
| 12/2024    | F-1045-2412 | Hydraulic Cylinder Replacements<br>Revised Format (Year/Month) |
|            |             |  |
|            |             |  |



**intertek**

Equipment from Landoll Company, LLC is built to exacting standards ensured by ISO 9001:2015 registration at all Landoll manufacturing facilities.

# **7822 HSL High Speed Landoll Operator's Manual**

## **Re-order Part Number F-1045**

**LANDOLL COMPANY, LLC**

1900 North Street

Marysville, Kansas 66508

(785) 562-5381

**800-428-5655 ~ WWW.LANDOLL.COM**



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