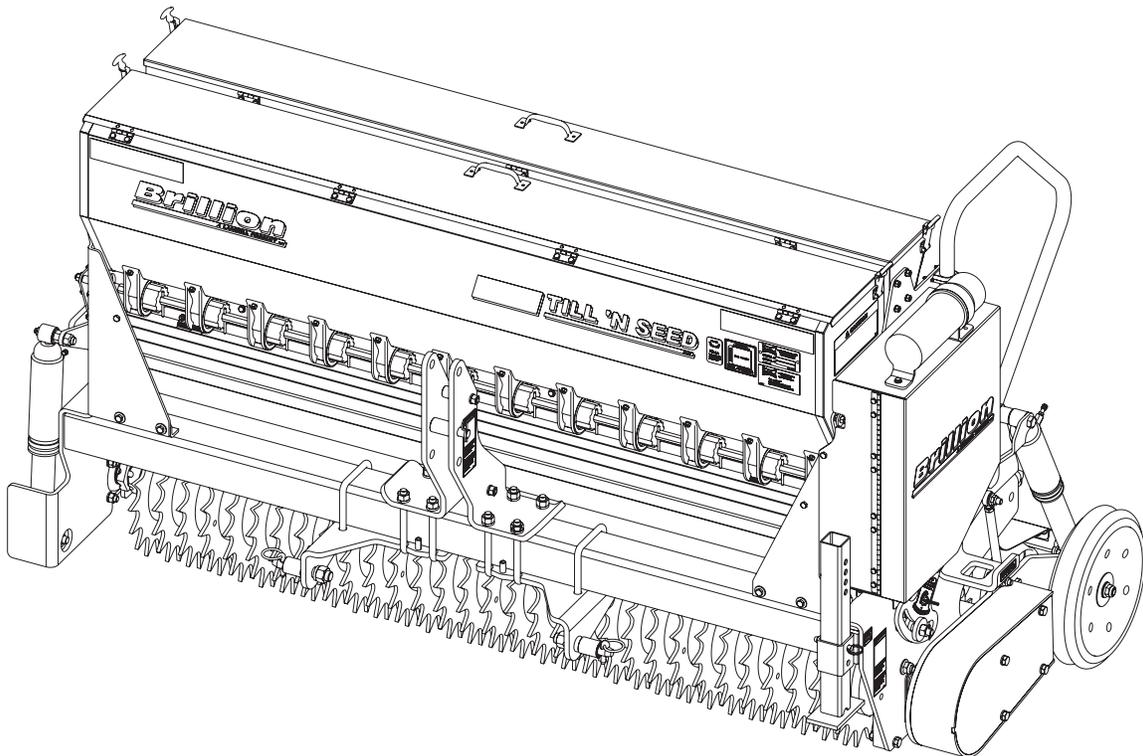




Till 'N Seed®
Models BPS6 and BPSB6
Operator's Manual



LANDOLL COMPANY, LLC

1900 North Street

Marysville, Kansas 66508

(785) 562-5381

800-428-5655 ~ 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

DATA PLATE

The Data Plate, which lists the model and serial number of the equipment, is located on the left side of the Till 'N Seed®.

SERIAL NUMBER NOMENCLATURE

The following information will help decode the Landoll serial number.

ASD2200100 = xxmysssss

xx	= model series (i.e. "AS" for all AG Seeders)
m	= month of manufacture (ex. "D" means April. The letter I is not used.)
yy	= last digits of the year manufactured (ex. "22" means 2022)
sssss	= Sequential number used to track warranty and service information.



Figure 1-1: Data Plate

Manuals for Till 'N Seed - 6FT

Manual Number	Manual Type
3P091	Operator's Manual
3P092	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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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, 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 machine. Failure to comply with this warning can result in personal injury or death, damage to the machine or its components and inferior operation.

Description of Unit

The Brillion Till 'N Seed® is a tractor mounted, ground driven, minimum till seeder designed to plant a variety of seed into previously untilled or lightly tilled soil which is relatively firm. It can also be used to lightly till soil without seeding, de-thatch lawns, and shred tall dead grass. The machine employs a drive rotor, followed by a tillage rotor and finally a firming roller. Seed is dropped onto the ground ahead of the drive rotor and is incorporated in the soil by the tillage rotor.

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 change to assure top performance.
- Location reference: Right and Left designations in this manual are determined by facing the direction the machine will travel during field operation, unless otherwise stated.

Owner Assistance

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

Warranty Registration

Brillion Farm Equipment, by Landoll, shall have no warranty obligation unless each product is registered, within 10 days of retail purchase, using the Landoll Company, LLC Ag Products on-line registration process. Please refer to the Ag Products Policy and Procedures Manual, accessible at www.landoll.com for step by step instructions regarding product registration.

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 _____

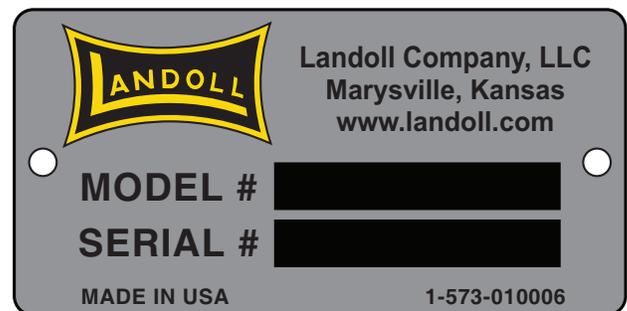


Figure 1-1: Data Plate

SAFETY INFORMATION

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 machine decals (signs) attached to the implement. This section explains their meaning.

NOTICE
Special notice - read and thoroughly understand.

 CAUTION
Proceed with caution. Failure to heed caution <u>may</u> cause injury to person or damage product.

 WARNING
Proceed with caution. Failure to heed warning <u>will</u> cause injury to person or damage product.

 DANGER
Proceed with extreme caution. Failure to heed notice will cause injury or death to person and/or damage product.

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. **See "Decals" on page 1-4.** Order replacement decals through your Brillion 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.

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

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 implements can create a hazard when driven on public roads. They are difficult to see, especially at night.
- Do not tow an implement 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 implement 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 a tractor heavier than the machine.
- 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 transport height and width of your machine. **See "Specifications" on page 5-1.**
- Install Rockshaft Lock Detent Pin and tighten Rockshaft Clamp prior to tying it down onto trailer. **See Figure 1-2.** Failure to do so may result in tie downs becoming loose and machine damage.

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, Storage

- Do not stand between the tractor and implement when attaching or detaching implement unless both are blocked from moving.
- After attaching implement to the tractor and prior to lifting the machine, loosed nut on Rockshaft Clamp enough to allow movement and remove the Rockshaft Lock Detent Pin. Insert Detent Pin in storage hole on Rockshaft Arm. Raise stand. **See Figure 1-2.**
- Block implement so it will not roll when unhitched from the tractor.
- Before detaching implement from the tractor, lower machine to the ground and adjust the tractor top link as necessary to align the Rockshaft Lock Slot with the Frame Tab Hole. Install Rockshaft Lock Detent Pin. **See Figure 1-2.** Tighten nut on the Rockshaft Clamp to prevent movement.

Air Shock Safety

- Wear protective gloves and safety glasses or goggles when working with the Air Shock.
- The pressurized Air Shock may violently extend if disconnected from the machine. Release air pressure prior to removing.

Protective Equipment

- Wear protective clothing & 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.

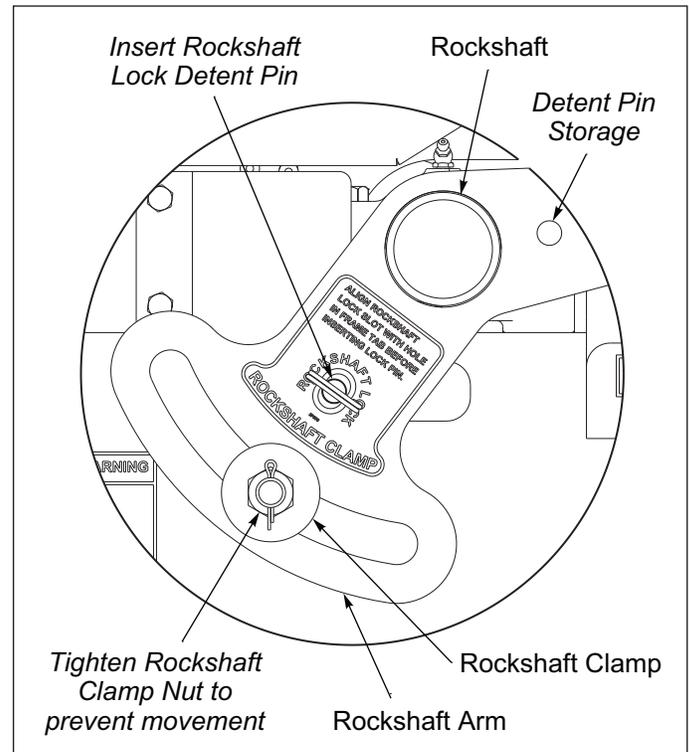


Figure 1-2: Rockshaft Lock

Maintenance Safety

- Block the machine so it will not roll when working on or under it to prevent injury.
- Do not make adjustments or lubricate machine while it is in motion.
- Make sure all moving parts have stopped.
- Keep all guards in place. Replace any that become damaged.
- Understand the procedure before doing the work. Use proper tools and equipment.

Chemical Safety

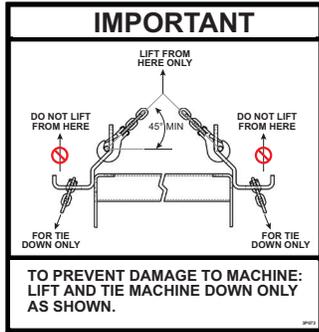
Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil & property.

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

Prepare for Emergencies

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

Decals



ITEM 1 - 3P073



ITEM 2
3P074



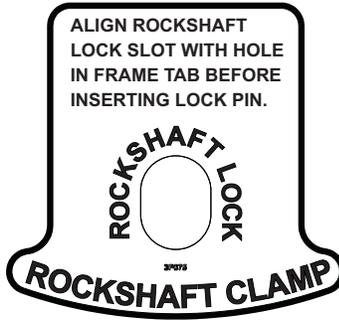
ITEM 3 - 3P077



ITEM 12 - 181166



ITEM 4 - 3P078



ITEM 5
3P075



ITEM 6 - 6K008



ITEM 7 - 2K123



ITEM 9 - 207610

RATES ARE INTENDED AS A GUIDE ONLY. VARIATIONS IN SIZE AND CLEANLINESS WILL AFFECT RATES.
CALIBRATE DESIRED SEED FOR BEST RESULTS. (1 ACRE = 43,560 SQ. FT. • 6 FT. WIDE X 1.338 MILE)

Seed	Notes	INDICATOR SETTINGS								Seed	Notes	INDICATOR SETTINGS																					
		1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8														
Alfalfa		12	17	21	25	29	34	39	44	140	175	210	245	280	315	350	385	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Barley		11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Bermuda Grass		8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.18
Bermuda Grass (Unhatched)		6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Brassica		10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Canola		10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Chicory, Forage, Cooled		10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Clover, Albino		10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Clover, Red		10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10

NOTES:
(1) Low germination may occur due to shallow seeding depth for this seed.

3P158 FOR TILL 'N SEED

ITEM 8 - 3P158



ITEM 13 - 8J310

Figure 1-3: Decals (1 of 2)



ITEM 10 - 193500



ITEM 11 - 3P157



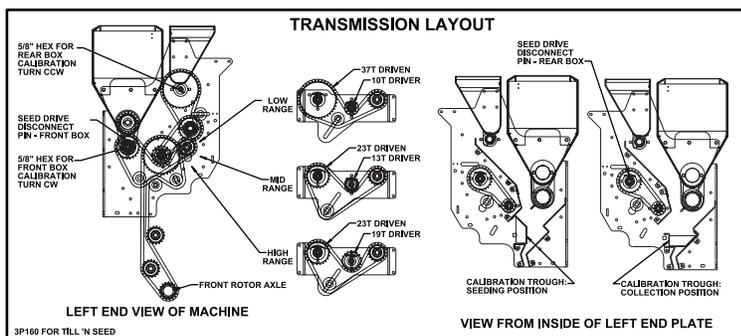
ITEM 14 - 528934



ITEM 15 - 528933



ITEM 16 - 528938



ITEM 17 - 3P160

SEED RATE CALIBRATION

PLACE CALIBRATION TROUGH IN COLLECTION POSITION OR PLACE TARP UNDER FRONT OF MACHINE. REFER TO SEED CHARTS ON THE SEED BOX COVERS TO DETERMINE INITIAL SEED METER SETTINGS. IF YOU NEED TO ADJUST SEED METERS FOR REDUCED OUTPUT WHILE THEY ARE FILLED WITH SEED, THE SEED METER SHAFT MUST BE TURNED WHILE MAKING THE ADJUSTMENT.

FRONT SEEDBOX

1. IDENTIFY LOWEST TRANSMISSION RANGE EXPECTED TO ACHIEVE SEED RATE
2. ADJUST SEED METER SETTING
3. REMOVE SEED DRIVE DISCONNECT PIN - FRONT BOX
4. PRIME METERS: TURN 5/8" HEX FOR FRONT BOX CALIBRATION CW UNTIL ALL METERS ARE DISCHARGING SEED. EMPTY CALIBRATION TROUGH OR TARP
5. COUNTING REVOLUTIONS, TURN THE 5/8" HEX CW TO METER OUT SEED
6. WEIGH THE SEED
7. CALCULATE SEED RATE:

LBS OF SEED x A	252 (LOW RANGE)
SEED RATE (LBS / ACRE) =	CALIBRATION REVS
	A= 528 (MID RANGE)
	771 (HIGH RANGE)
8. ADJUST METERS AND RE-CALIBRATE AS NECESSARY
9. ENSURE TRANSMISSION IS SET UP FOR PROPER SEEDING RANGE
10. RE-INSTALL SEED DRIVE DISCONNECT PIN - FRONT BOX
11. RE-INSTALL CALIBRATION TROUGH IN SEEDING POSITION

REAR SEEDBOX

1. ADJUST SEED METER SETTING
2. REMOVE SEED DRIVE DISCONNECT PIN - REAR BOX
3. PRIME METERS: TURN 5/8" HEX FOR REAR BOX CALIBRATION CCW UNTIL ALL METERS ARE DISCHARGING SEED. EMPTY CALIBRATION TROUGH OR TARP
4. COUNTING REVOLUTIONS, TURN THE 5/8" HEX CCW TO METER SEED
5. WEIGH THE SEED
6. CALCULATE SEED RATE:

LBS OF SEED x 143	
SEED RATE (LBS / ACRE) =	CALIBRATION REVS
7. ADJUST METERS AND RE-CALIBRATE AS NECESSARY
8. RE-INSTALL SEED DRIVE DISCONNECT PIN - REAR BOX
9. RE-INSTALL CALIBRATION TROUGH IN SEEDING POSITION

3P076 FOR TILL 'N SEED

ITEM 18
3P076

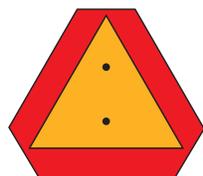
PLANTING RATES

RATES ARE INTENDED AS A GUIDE ONLY. VARIATIONS IN SIZE AND CLEANLINESS WILL AFFECT RATES. HAND CALIBRATE DESIRED SEED FOR BEST RESULTS. (1 ACRE = 43560 SQ.FT. = 6 FT WIDE X 1-3/8 MILE)

Seed	Notes	INDICATOR SETTINGS								INDICATOR SETTINGS							
		POUNDS PER ACRE								POUNDS PER 1000 SQ FT							
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Alfalfa		1	3	5	7	10	12	15	17	0.02	0.07	0.12	0.17	0.22	0.27	0.34	0.39
Birdsfoot Trefill		1	4	6	9	11	14	17	19	0.03	0.08	0.14	0.20	0.26	0.33	0.39	0.44
Brassica		1	3	5	8	10	12	15	17	0.03	0.07	0.12	0.18	0.23	0.28	0.34	0.39
Centipede		1	3	6	9	11	13	15	17	0.02	0.07	0.15	0.20	0.25	0.29	0.34	0.39
Chicory, Forage		1	1	2	4	5	6	7	8	0.01	0.03	0.06	0.08	0.11	0.13	0.15	0.18
Clover, Alsike		1	4	6	8	10	13	15	17	0.03	0.08	0.14	0.18	0.24	0.30	0.34	0.39
Clover, Red		2	4	6	9	12	14	17	19	0.04	0.10	0.15	0.21	0.27	0.33	0.39	0.44
Lettuce		1	2	4	5	6	7	8	10	0.02	0.06	0.08	0.12	0.14	0.16	0.19	0.22
Rape		1	3	5	8	10	12	15	17	0.03	0.07	0.12	0.18	0.23	0.28	0.34	0.39
Sorghum / Sudan Grass		2	4	7	10	12	14	17	20	0.04	0.10	0.16	0.22	0.28	0.33	0.40	0.46
Switchgrass		1	3	5	7	10	12	14	16	0.02	0.07	0.12	0.17	0.22	0.28	0.33	0.38
Tillage Radish		1	4	6	8	11	13	15	18	0.02	0.09	0.14	0.18	0.25	0.30	0.34	0.41
Turnips		1	3	5	7	9	11	13	15	0.02	0.07	0.12	0.16	0.21	0.26	0.30	0.35

3P159 FOR TILL 'N SEED

ITEM 21 - 3P159



ITEM 19
3P068



ITEM 20
232190



ITEM 23
1-573-010006



ITEM 22
1-573-010198

Figure 1-4: Decals (2 of 2)

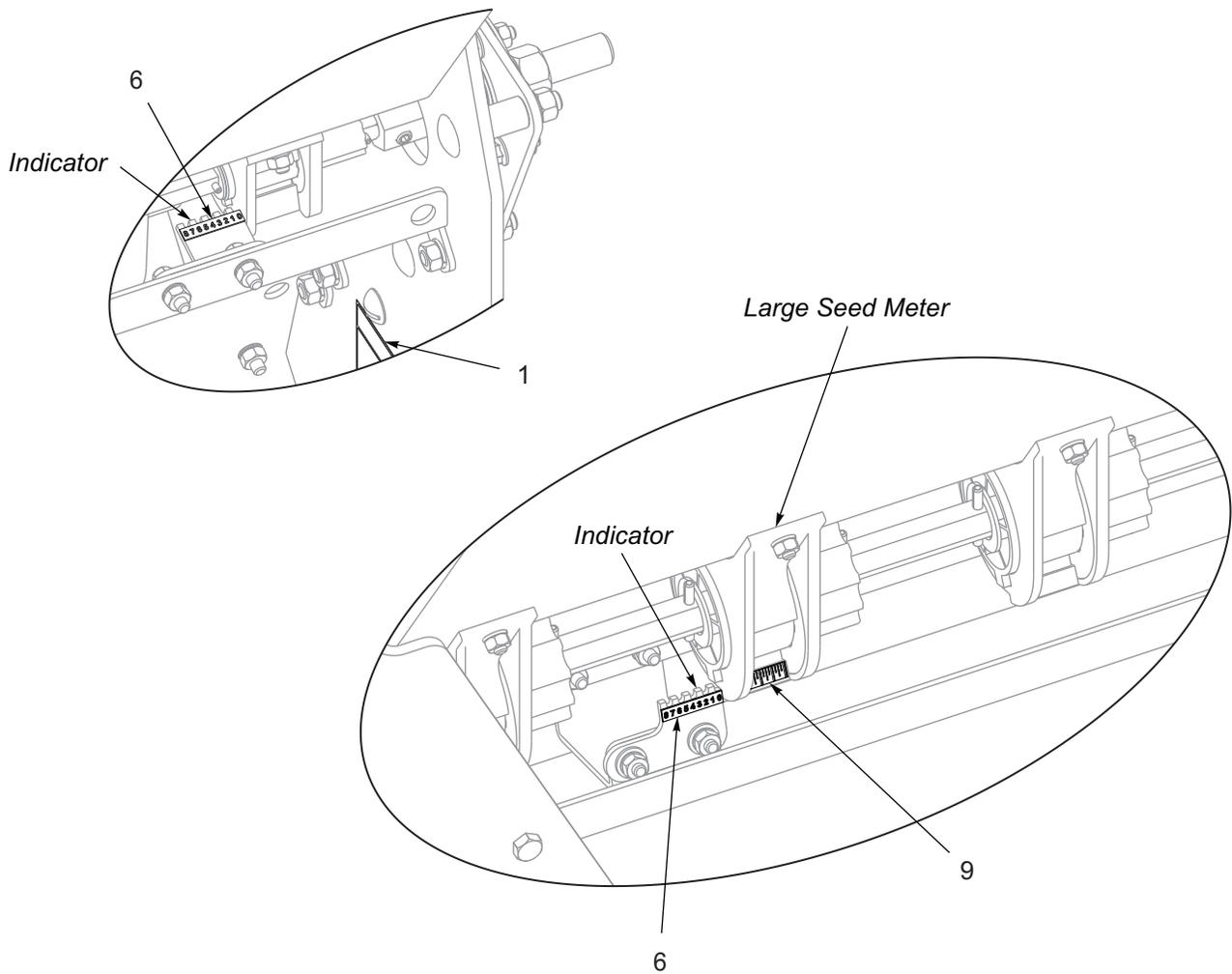


Figure 1-5: Meter System Decal Locations (1 of 2)

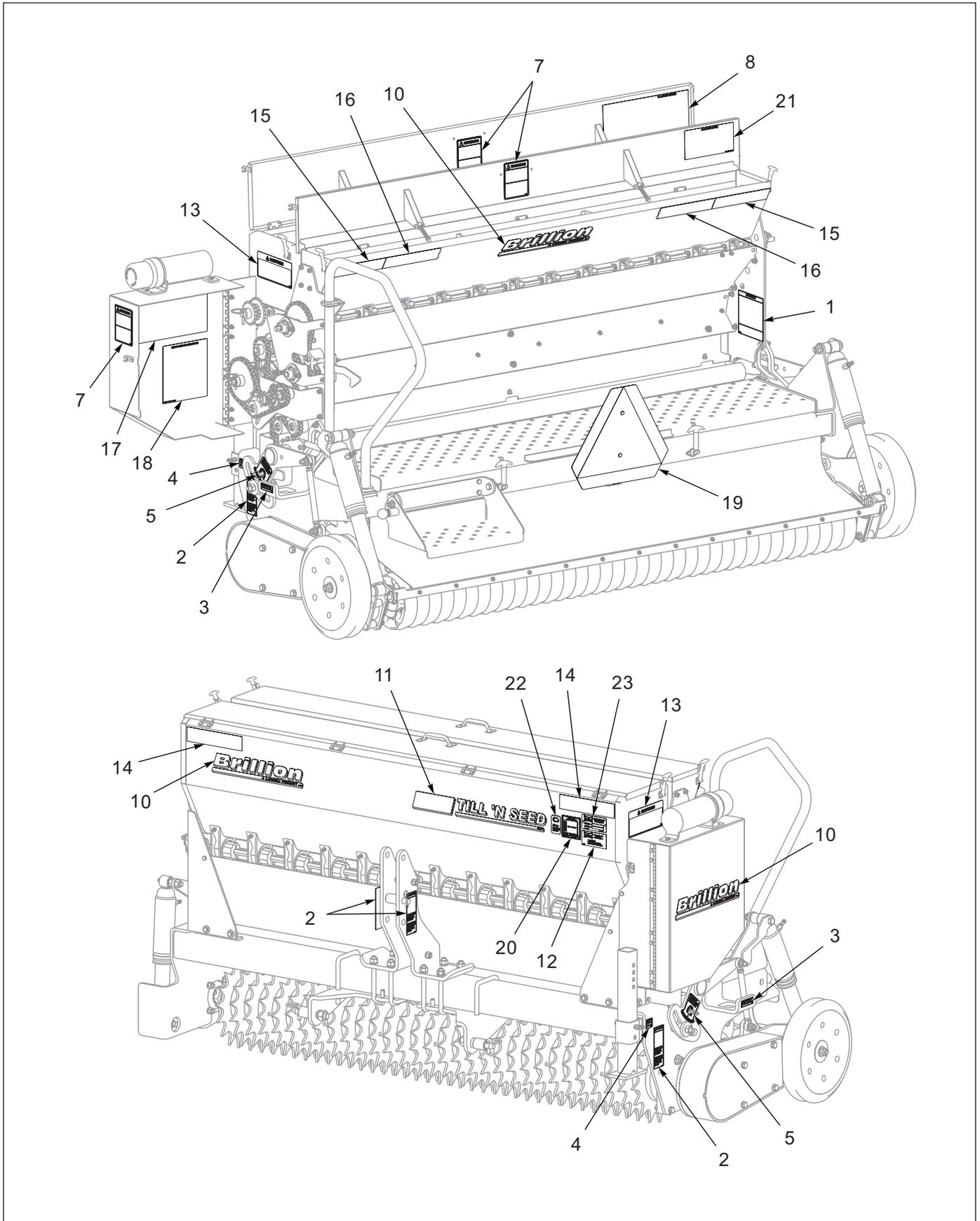


Figure 1-6: Decal Locations (2 of 2)

Assembly

The Till 'N Seed® is shipped completely assembled. See Figure 2-1.

**CAUTION**

Do not work on or under this machine unless securely blocked and supported by a hoist or tractor or by other sufficient means.

**WARNING**

Do not attempt to lift heavy parts manually. Use a hoist or a fork lift to move these parts into position.

NOTE

Refer to the repair parts manual 3P092 for identification of parts and for the approximate relationship of the parts in assembly.

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 values. Note the different torque requirements for Bolts with Locknuts. See Page 4-1.

“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.

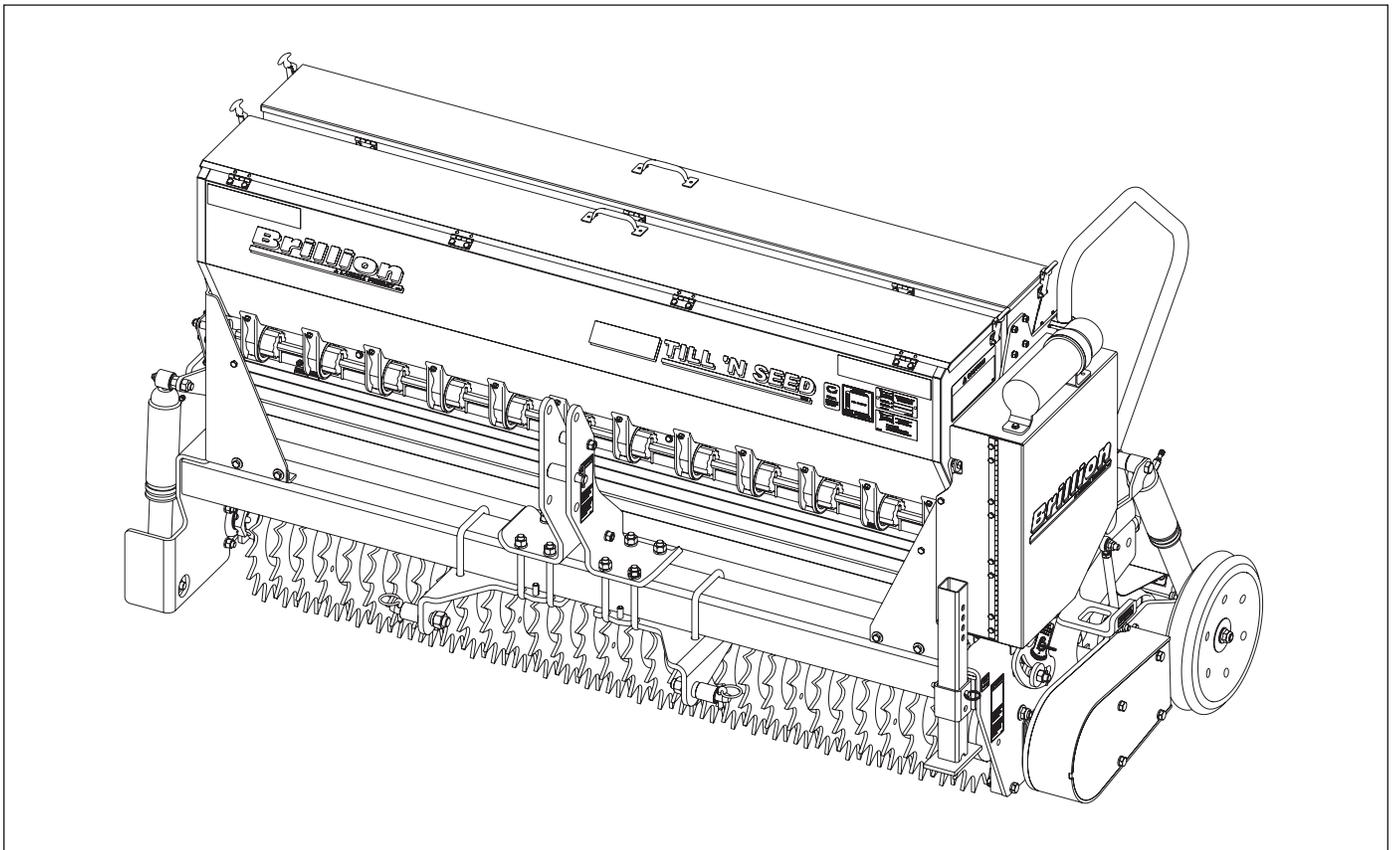


Figure 2-1: BSP6 Seeder

Acre Meter Installation - Optional

The Acre Meter Kit consists of three main parts; Acre Meter, the Pick-Up Switch, and the Magnet Wheel Assembly. The Acre Meter is mounted on the rear left side of the Seed Box.

! WARNING

Do not pressure clean with air or water.

1. Mount the Acre Meter Assembly to the rear left side of the Seed Box just below the bend. **See Figure 2-2.** Place the Acre Meter Assembly Bracket against the Seed Box as a guide for the two 13/32" diameter holes. Drill holes into the Seed Box.
2. Attach the Acre Meter Assembly Bracket to the Seed Box with 3/8-16 x 1" Bolts, Flat Washers, Lock Washers, and Nuts.
3. Attach the Acre Meter Angle at the rear of the Till 'N Seed to LH End Plate with 5/16-18 x 1" Bolts, Lock Washers, and Nuts. **See Figure 2-4.**
4. Attach the Pick-Up Switch to the Acre Meter Angle with #8-32 x 1-1/4 Screws, Flat Washers, Lock Washers, and Nuts. **Do not tighten at this time.**

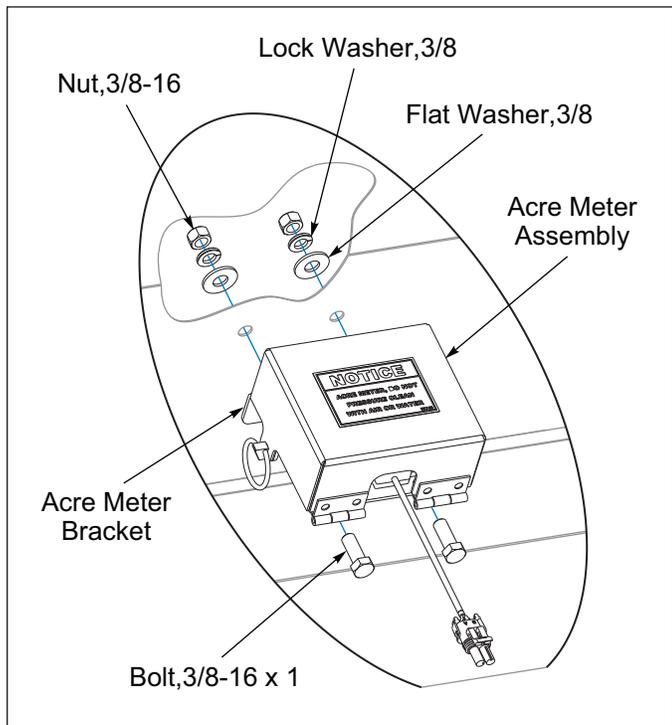


Figure 2-2: Mounting Acre Meter Asm

NOTE

Alignment of the Pick-Up Switch and Magnet Wheel Assembly is critical. Improper alignment will cause the Acre Meter to record acres erratically or not at all.

5. Press the Magnet Wheel Assembly onto Drive Shaft until it is vertically centered with the Pick-Up Switch. Secure Magnet Wheel Assembly to Drive Shaft with Set Screw.
6. Adjust the Pick-Up Switch on the Acre Meter Angle so the centerline of Magnet Wheel Assembly and Pick-Up Switch are horizontally and vertically aligned with a maximum 1/8" between the Magnet Wheel Assembly and the Pick-Up Switch. Tighten #8-32 Screws. **See Figure 2-3.**

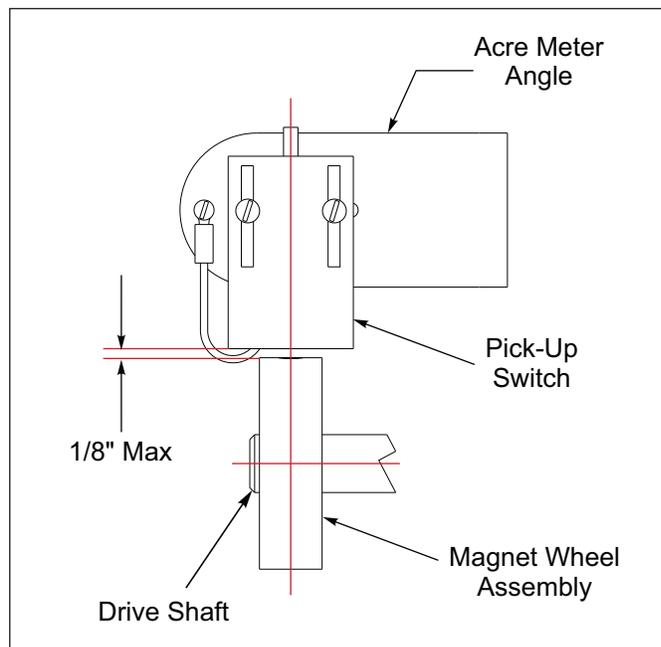


Figure 2-3: Pick-Up Switch Adjustment

7. Attach the Pick-Up Switch Short Ground Wire to the small hole in the Angle with #6-32 x 1/2 Screw and Nut. Remove paint under the wire connector to assure a good electrical ground connection.
8. Connect the Acre Meter and Pick-Up Switch Connectors. If unable to connect, install the Acre Meter Make-Up Harness between connectors.
9. Securely fasten the cords with tie wraps and Adhesive Mount Bases to the Seed Box and LH End Plate to prevent cords from becoming entangled or rubbing on moving parts.
10. Program Acre Meter. **“Settings for Loup Acre Meters (After 05/15/2012)” on Page 1-2.**

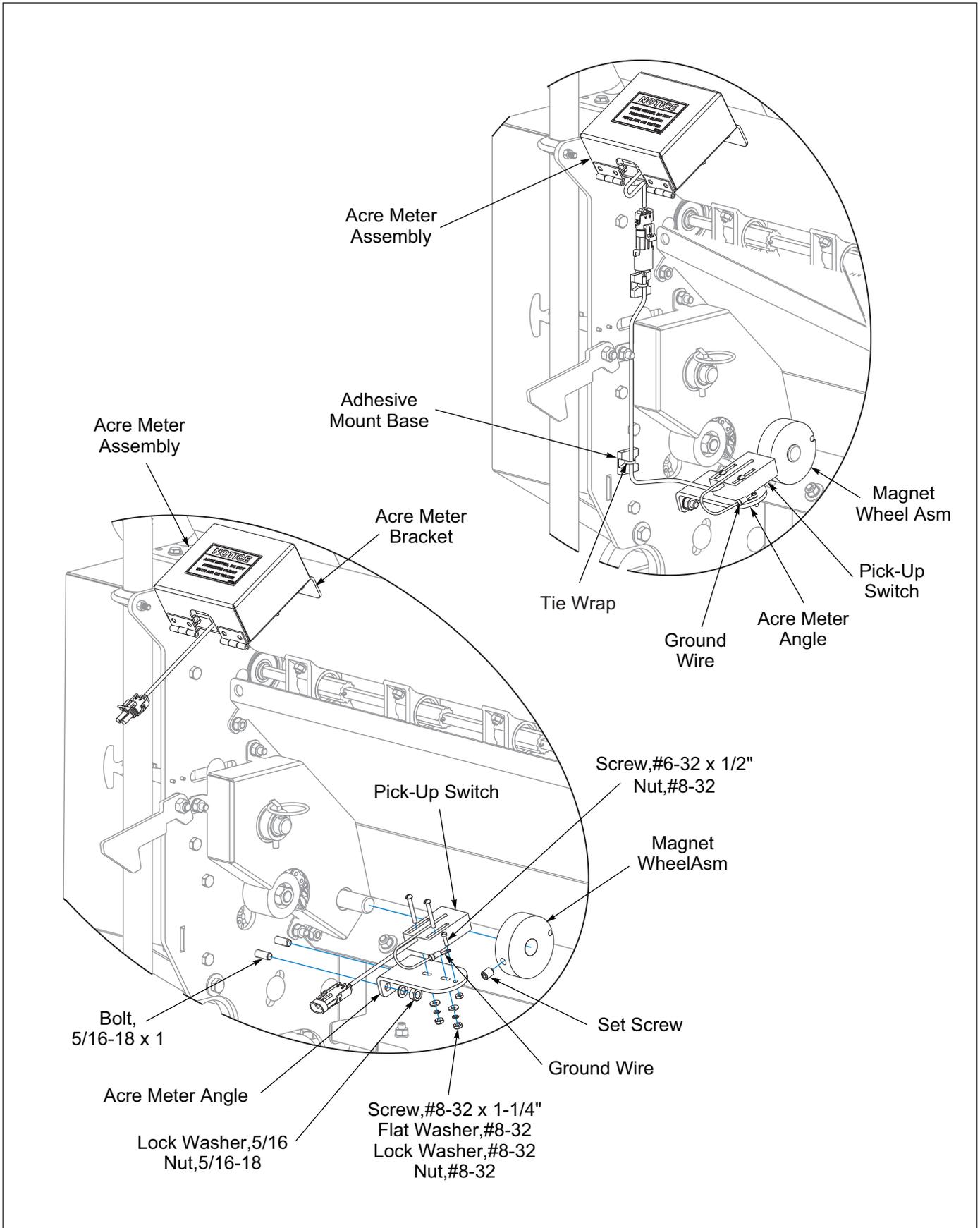


Figure 2-4: Acre Meter Installation

Rear Roller Scraper - Optional

1. With the Rear roller on level ground, remove the Rear Roller Bearings two rear 1/2-13 Nuts and Lock Washers and install the RH and LH Scraper Brackets. Secure by re-installing hardware. **See Figure 2-5.**
2. Attach Tube to Brackets with 3/8-16 U-Bolts and Flanged Locknuts.
3. Center each Scraper between a group of Roller Wheels and adjust the Scraper so that there is about a 3/16" gap between the Scraper and Roller Wheels. Attach the Scrapers to the tube with 3/8-16 U-Bolts and Flanged Locknuts.
4. Attach a Single Scrapers to each End Roller Wheel in the same manner. Double check the Scrapers to ensure that the 3/16" gap between and Scrapers and Roller Wheels is maintained.
5. This is just a starting point, adjust the scrapers as necessary.

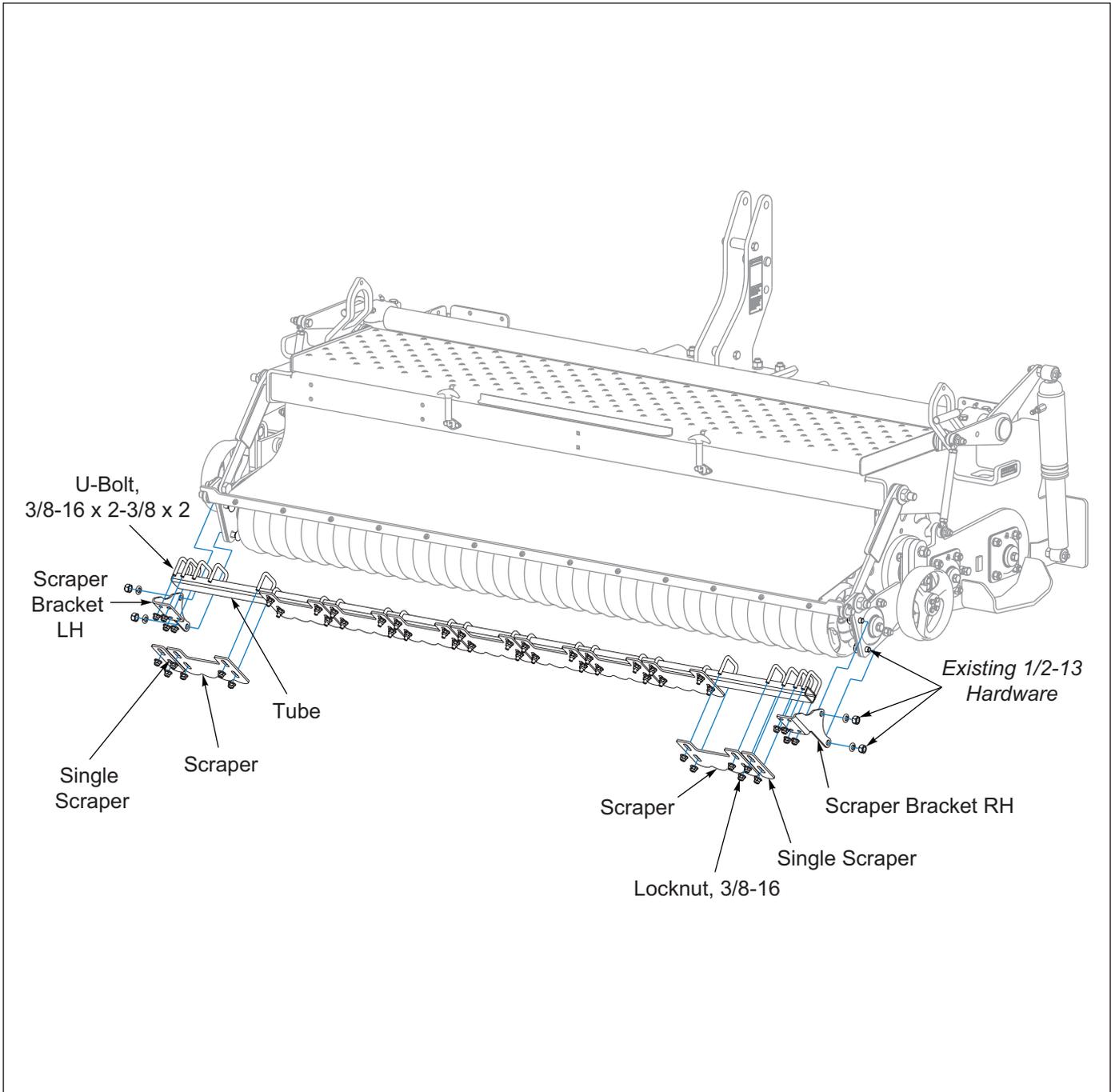


Figure 2-5: Rear Roller Scraper - Optional

! DANGER
 Never allow anyone to ride on the Till 'N Seed® at any time. Allowing a person to ride on the machine can inflict serious personal injury or death to that person.

! DANGER
 Always be sure the tractor hitch capacity is rated to carry the weight of the Till 'N Seed®. Refer to "Specifications" and Tractor Operator's Manual.

! 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.

! WARNING
 Keep all bystanders away from the machine when transporting.

! DANGER
 All 3-PT Hitch mounted equipment must be lowered to the ground, when servicing or when equipment is idle. Failure to take preventative measures against accidental lowering can result in serious personal injury.

! WARNING
 To prevent machine from tipping backward on the frame. Remove Rockshaft Lock Detent Pin and loosen Rockshaft Clamp Nut only when the Till 'N Seed® is attached to the Tractor.

! 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.

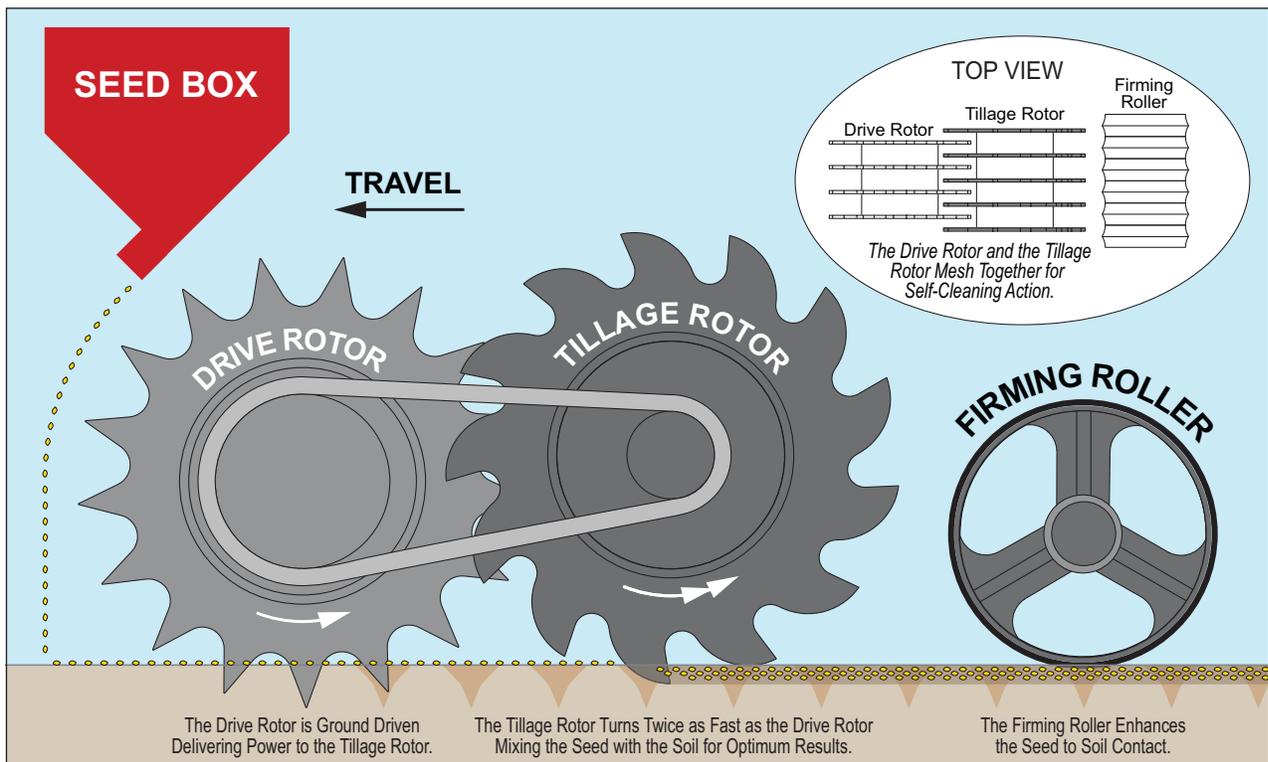


Figure 3-1: Till 'N Seed Concept

Tractor Preparation

The Till 'N Seed® is available as a 3-PT Hitch.

1. The Till 'N Seed is designed to be used with Category 1 or 2 Free Link, Category 1 or 2 Quick Hitch. **See Figures 3-2 and 3-3.** Be sure Tractor's Hitch Capacity is not exceeded by the Laden Mass of the Seeder. **Refer to Tractor Operator's Manual.**
If an offset is required for wider tractors, move the 3-PT Hitch towards the transmission side of the machine.
2. Be sure Tractor is properly ballasted. A minimum 25% of Tractor and Equipment Laden Mass must be on Tractor Front Wheels in transport position to maintain stability. Calculate the Loaded Seeder Mass. **See "Specifications" on page 5-1.** (Seeder weight plus the seed box capacity with desired seed.) **Refer to Tractor Operator's Manual.**
3. Check the Tractor tire inflation levels to ensure that they are properly inflated for the additional Laden Seeder Mass. **Refer to the Tractor Operator's Manual.** Be sure not to over ballast and exceed Tractor Tire Capacity.
4. Set Tractor 3-PT Lower Links to allow lateral (torsional) float. **Refer to Tractor Operator's Manual.** If left rigid, the Till 'N Seed may not follow ground contours resulting in poor germination.
5. Set Lift Rod length long enough to ensure Seeder can float downward in the case of a furrow or waterway. Lower Links should be the same height, leveling your Brillion Seeder side to side. Fine adjustments may need to be made after hookup is completed. **Refer to the Tractor Operator's Manual.**

Attaching Tractor to Till 'N Seed



WARNING

To prevent machine from tipping backward on the frame. Remove Rockshaft Lock Detent Pin and loosen Rockshaft Clamp Nut only when the Till 'N Seed is attached to the Tractor.

1. Attach the Till 'N Seed to the Tractor's 3-PT Free Link or Quick Hitch using the appropriate size pins and bushings. Be sure to use the hardware provided and is in good working order. **See Figures 3-2 and 3-3.**
2. **Refer to the Tractor Operator's Manual** for Quick Hitch Operation.
3. Loosen nut on Rockshaft Clamp enough to allow movement and remove the Rockshaft Lock Detent Pin. Insert Detent Pin in storage hole on the Rockshaft Arm. **See Figure 3-4.**
4. Raise Stand.
5. Raise Till 'N Seed.
6. Adjust or lock tractor sway stabilizers if equipped, centering the Till 'N Seed with the Tractor. **Refer to the Tractor Operator's Manual.**
7. Lower Seeder. If necessary level Till 'N Seed side to side (laterally) by adjusting Lift Rod length. Level Till 'N Seed front to back by adjusting the Tractor Upper Link length as necessary. **Refer to the Tractor Operator's Manual.**

Detaching Tractor from Till 'N Seed

1. Lower the Till 'N Seed on a flat or even surface.
2. Adjust the tractor top link as necessary to align the Rockshaft Lock Slot with the Frame Tab Hole.
3. Remove Rockshaft Detent Pin from storage on the Rockshaft Arm and install the Rockshaft Lock Detent Pin in the aligned Rockshaft Lock Slot and Frame Tab Hole. **See Figure 3-4.**
4. Tighten Nut on the Rockshaft Clamp to prevent movement.
5. Lower Stand.
6. Chock or Block Front Rotor and Firming Roller.
7. Disconnect the tractor from the Till 'N Seed.

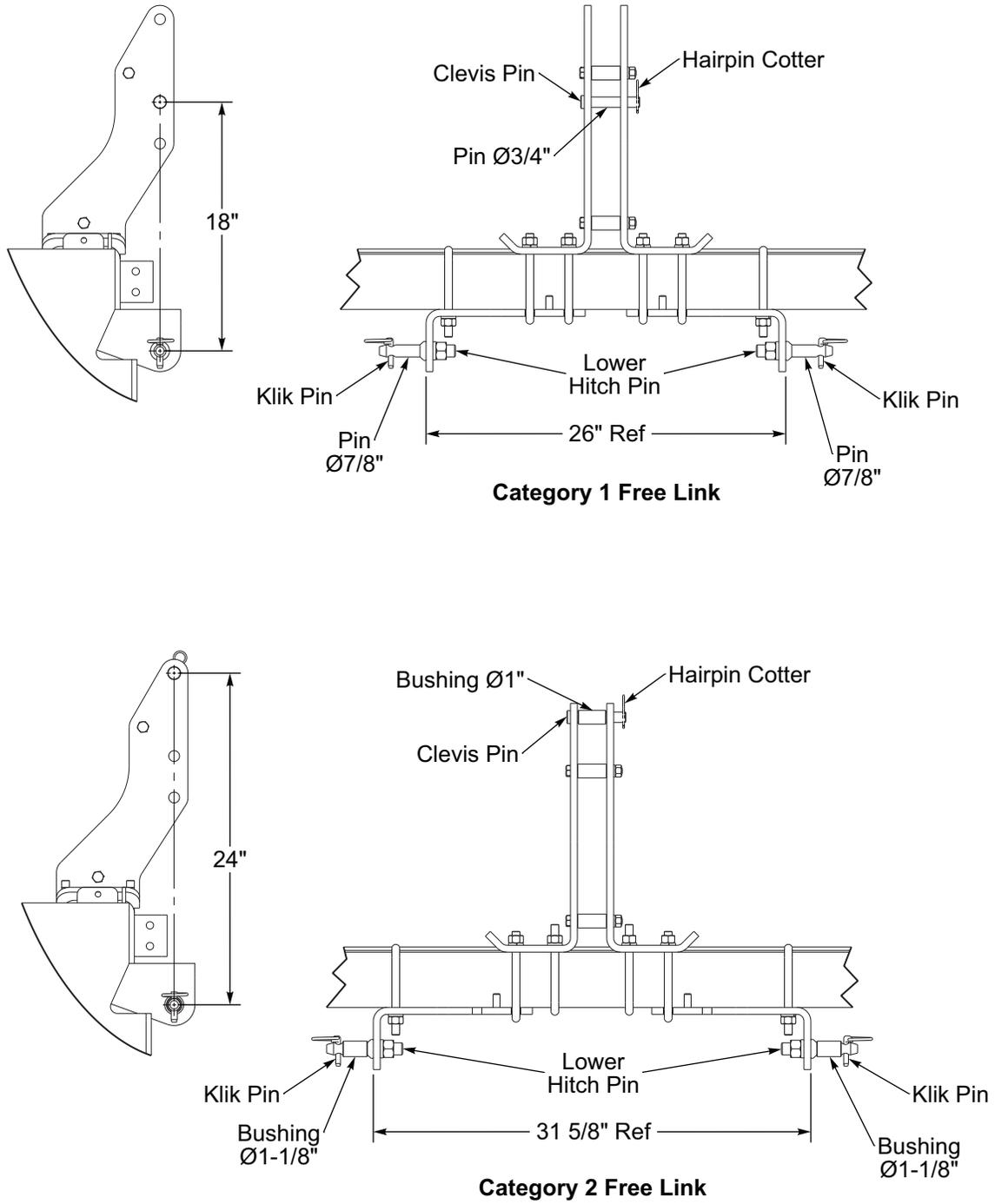


Figure 3-2: 3-PT Hitch - Category Pin Positions - Free Link

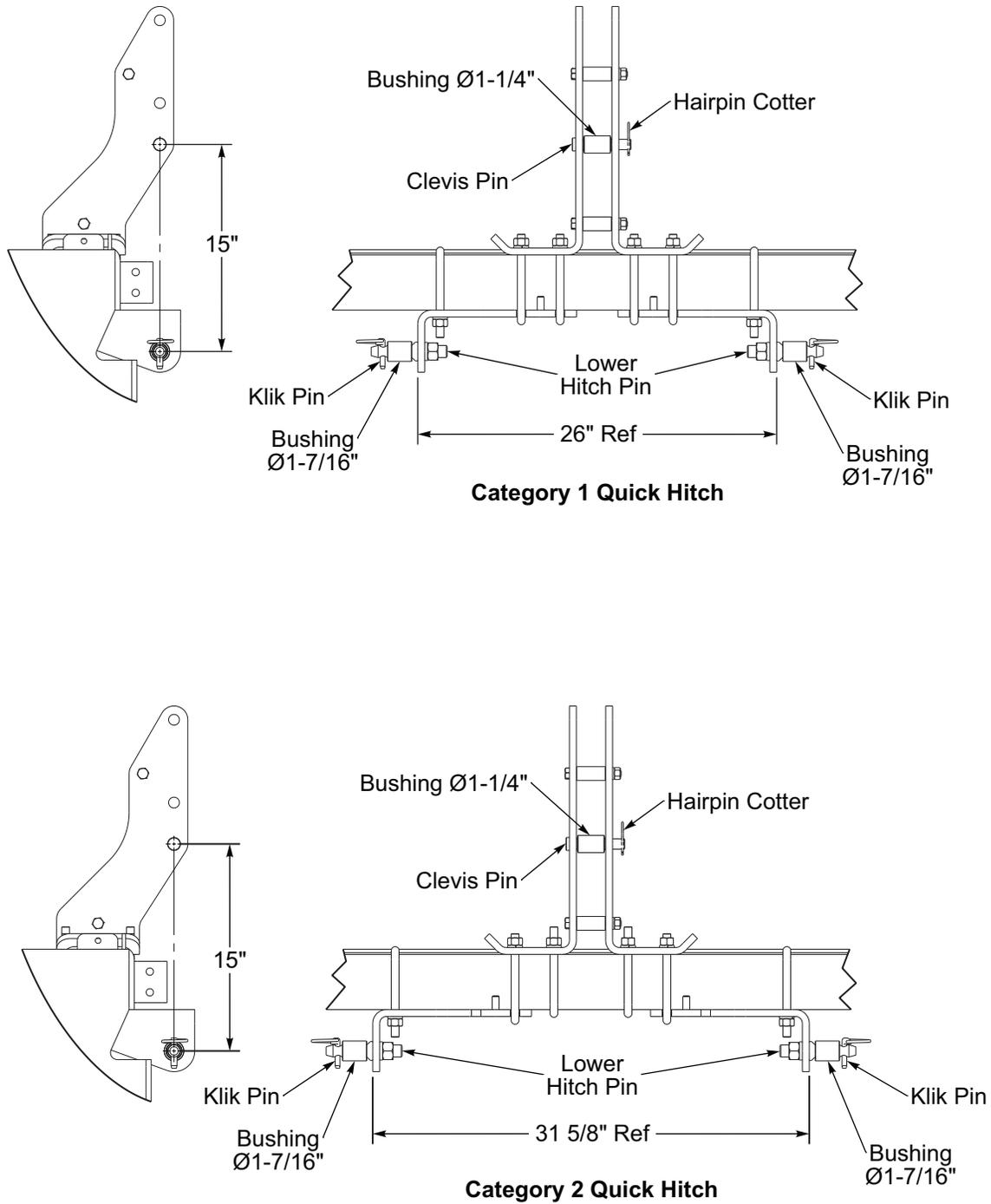


Figure 3-3: 3-PT Hitch - Category Pin Positions - Quick Hitch

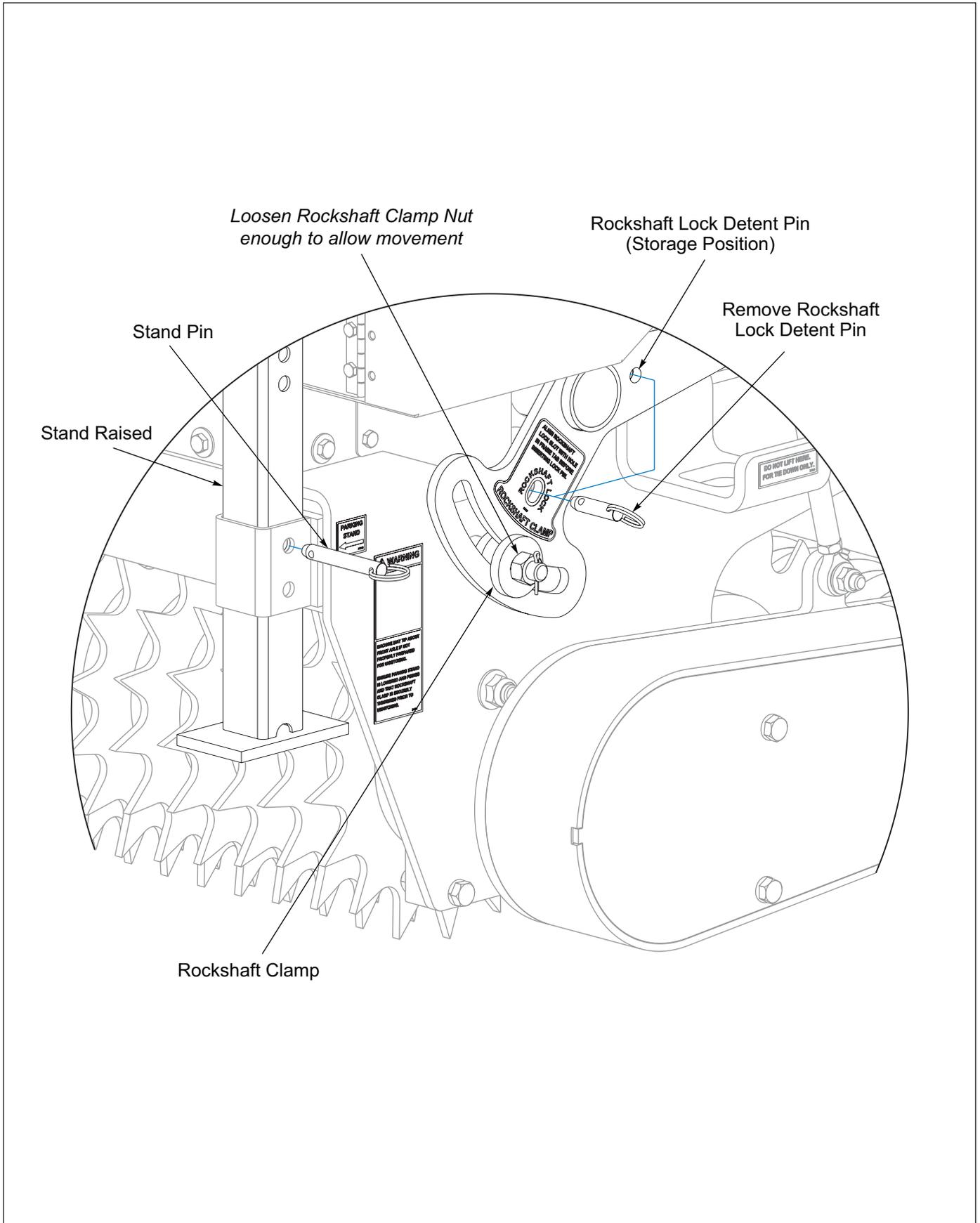


Figure 3-4: Rockshaft Lock

Air Shock



DANGER

- Wear Protective Gloves And Safety Glasses Or Goggles When Working With Air Shock.
- Pressurized Air Shock May Violently Extend If Disconnected From Machine Without Releasing Its Air Pressure Prior To Removing.

IMPORTANT

Check air pressure while machine is resting on the ground.

The Till 'N Seed has an Air Shock that provides down force on the Tillage Rotor and a pair of Air Shocks that provides down force to the Rear Firming Roller.

Decrease air pressure on soft ground and increase air pressure on hard ground.

Decrease Air Shock pressure when the Firming Roller is pushing dirt or mud is sticking to the Firming Roller.

Increasing Tillage Rotor Air Shock pressure, transfers machine weight from the Drive Rotor to the Tillage Rotor, resulting in a more aggressive tillage action.

- Air pressure can be increased or decreased through the Schrader Valve on each Air Shock. See **Figure 3-5**.
- Check and adjust air pressure when machine is lowered to the ground.
- Recommended starting Air Shock pressure is 50 psi. Optimal air pressure will vary depending on soil conditions.
- Air pressure range for the Air Shock is 20-100 psi, but do not exceed 120psi

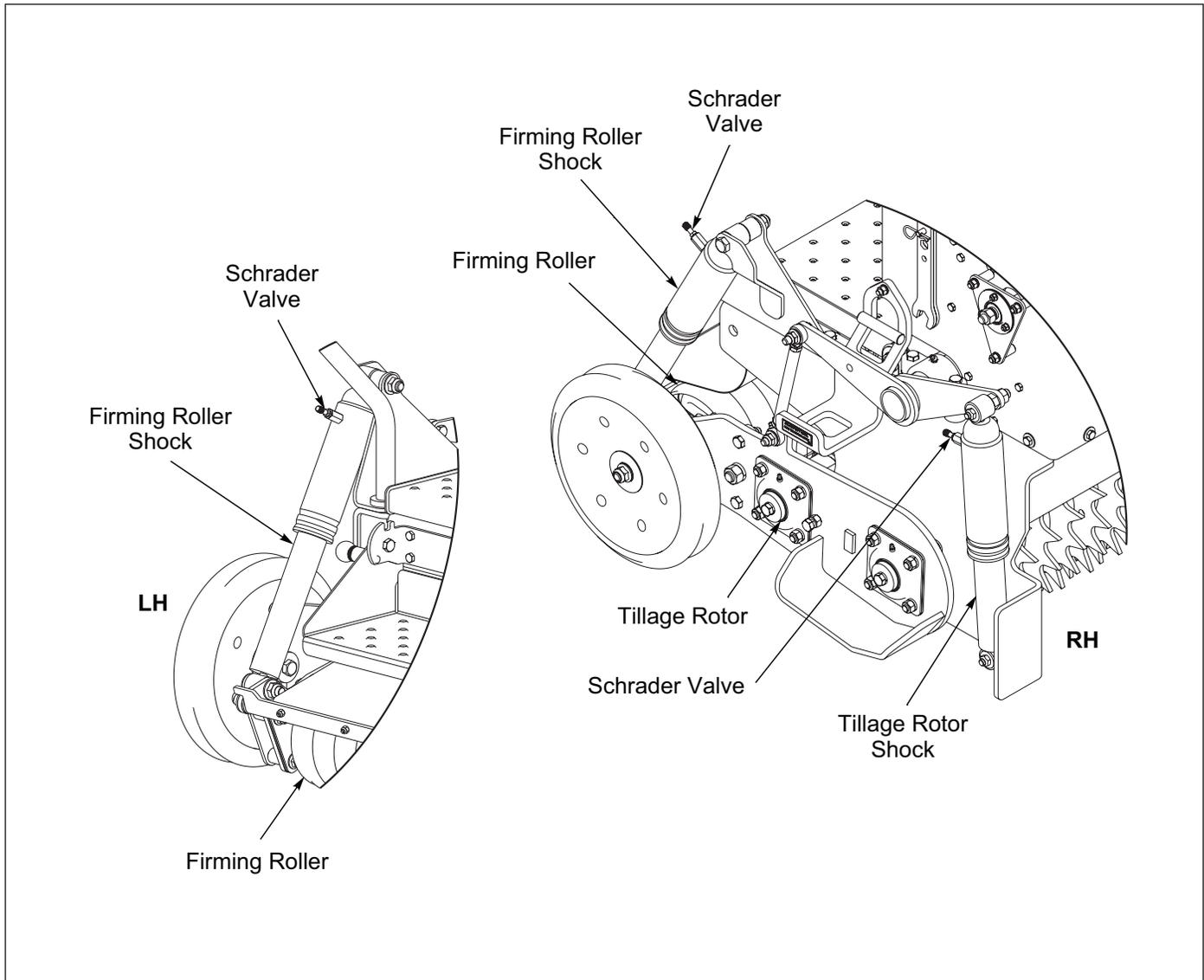


Figure 3-5: Air Shock

Gauge Wheels

Gauge Wheels control the depth of the Tillage Rotor.

Engaging the Gauge Wheels with the ground will also help reduce Tillage Rotor bounce.

1. Adjust Gauge Wheel by loosening the 5/8-11 Flange Nut on the Gauge Wheel Hub. Raise or lower the Gauge Wheel in the Rotor Arm Gauge Wheel Mounting Slot as necessary. **See Figure 3-6.**
2. Re-tighten 5/8-11 Flange Nut.

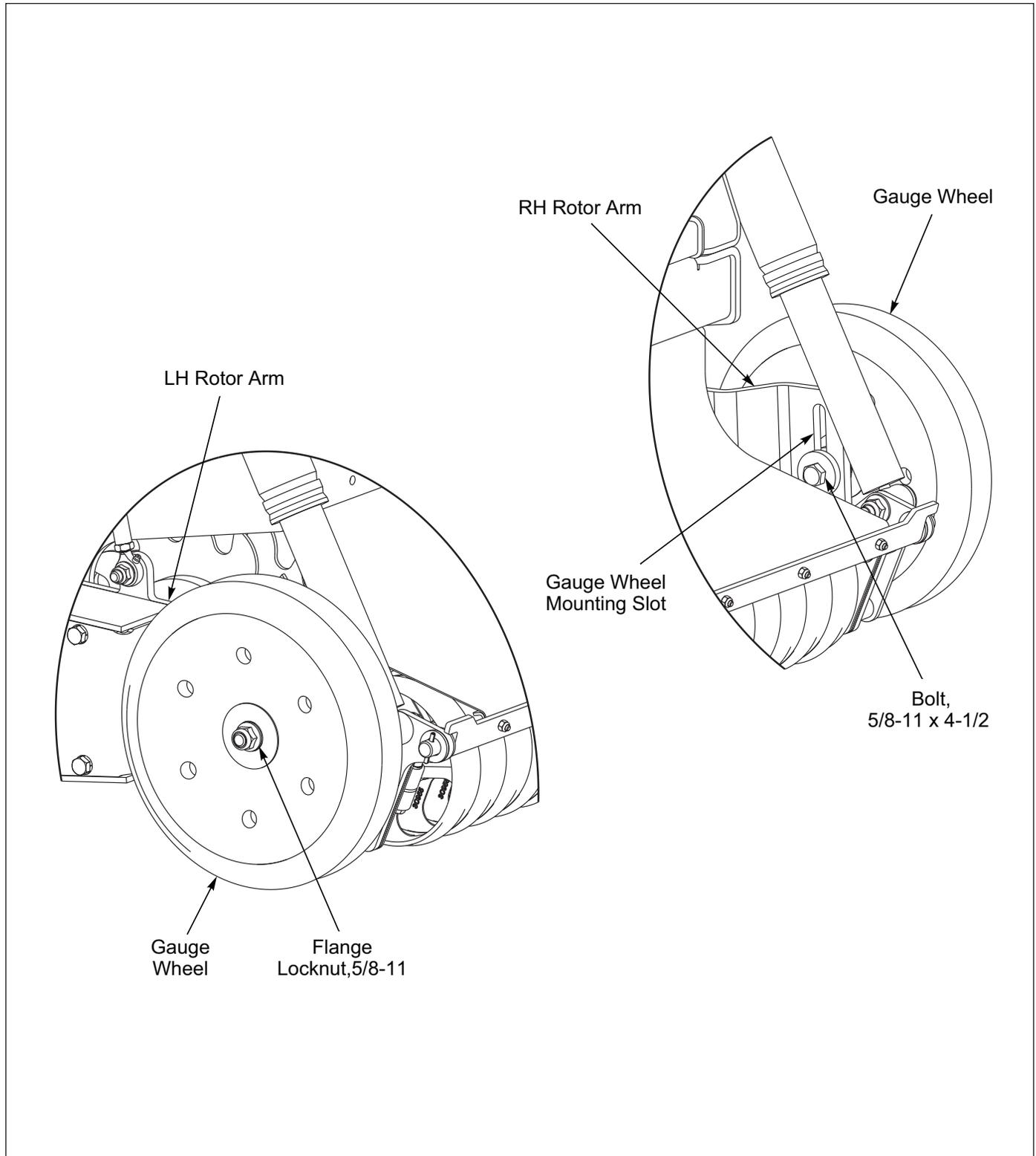


Figure 3-6: Gauge Wheels

Rotor Thrust Guide

Thrust Guide on each side of the machine, should have 1/32" maximum clearance between Guide and Lower Frame Side Plates. **See Figure 3-7.**

1. Adjust by loosening Jam Nut and turning Adjusting Bolt. Both sides are adjusted in the same manner.
2. Re-tighten Jam Nut.

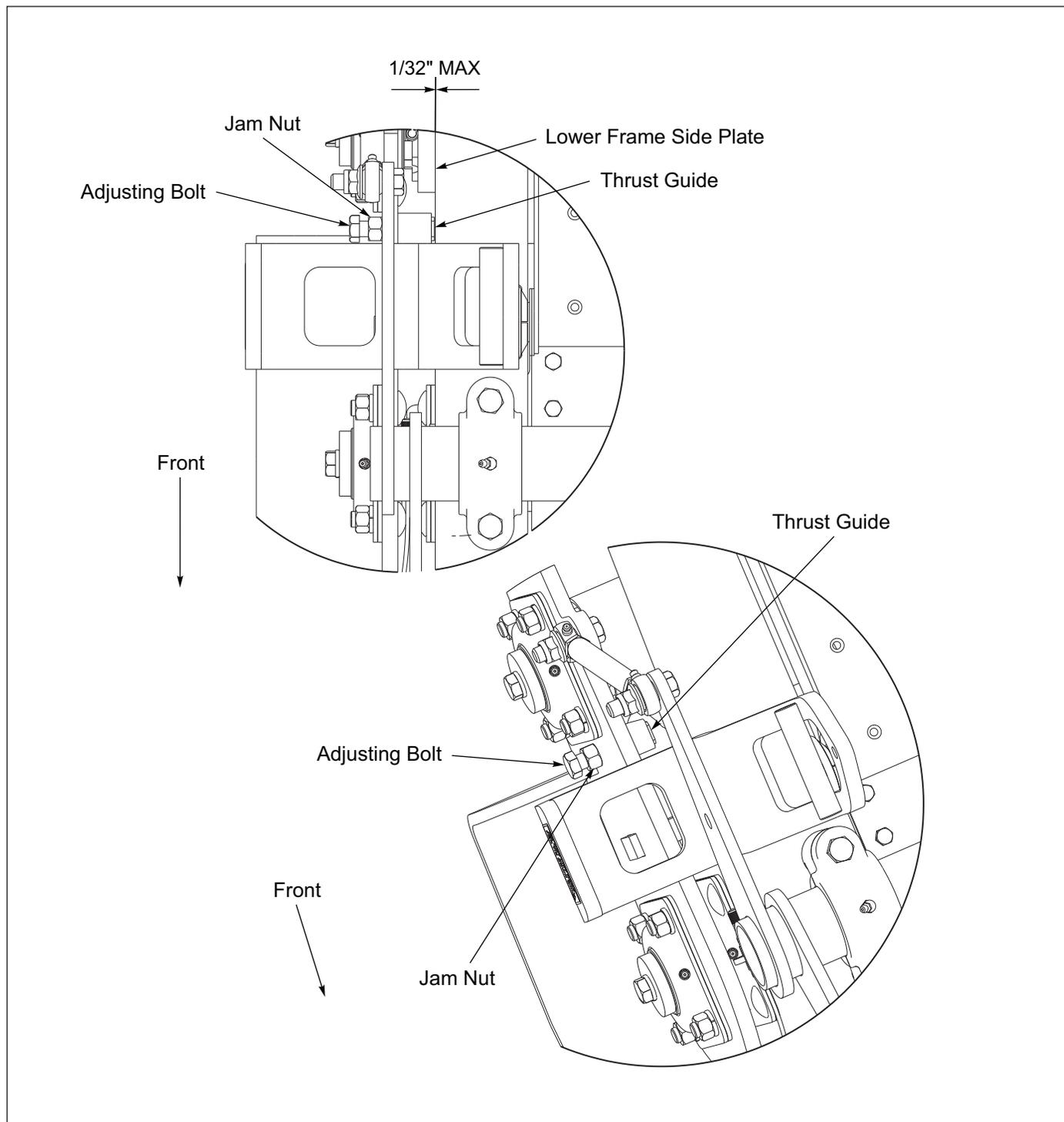


Figure 3-7: Rotor Thrust Guide

General Operation

1. The minimum horsepower requirement is 35 HP. This will vary widely due to speed, moisture, and types of soils. Local dealers can help in making recommendations for your areas.
2. 3-PT Hitch capacity is based on the Till 'N Seed weight plus the Front and Rear Seed Box capacity with desired seed. **See "Specifications" on page 5-1.** Tractor must be sized accordingly. **Refer to Tractor's Manual.**
3. Operating speed is between 4 to 8 mph. Speed needs to be fast enough to create enough tillage action to mix the seed into the soil without disturbing vegetation already in place while self-cleaning the rotors. Reduce speed in rocky conditions to prevent Rotor Blade breakage.
4. The Front and Rear Seed metering system drives can be disengaged by removing the Klik Pin from the Sprocket Hub and placing it in the hole on the end of the shaft for storage.
5. Always raise the Till 'N Seed out of the ground for sharp turns.
6. When not in use, lower Till 'N Seed on a flat or even surface. Install Rockshaft Lock Detent Pin and tighten Rockshaft Clamp to prevent movement. **See "Detaching Tractor from Till 'N Seed" on page 3-2.**

- When planting very small seeds that need to be planted very shallow or on the surface, adjust the Gauge Wheels to raise the Tillage Rotor partially or entirely out of the ground. **See "Gauge Wheels" on page 3-7.**
- Always raise the Till 'N Seed out of the ground for sharp turns.

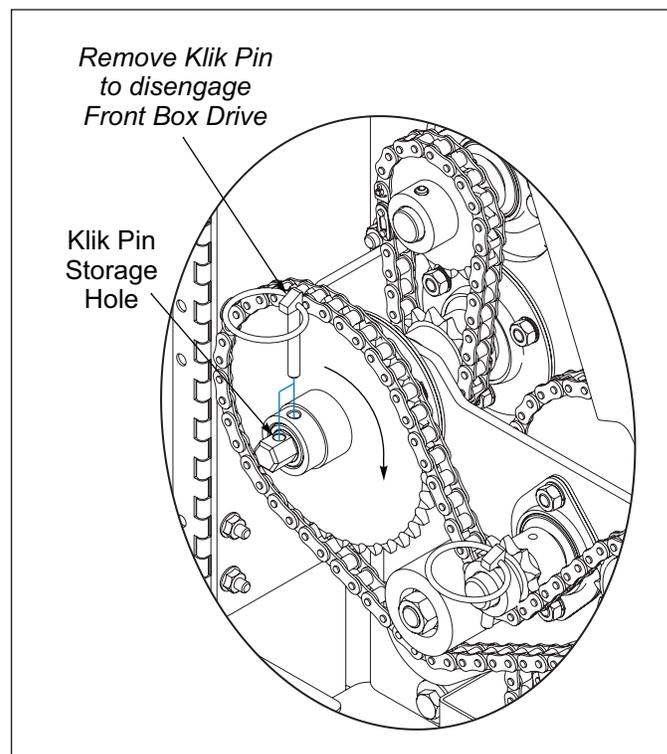


Figure 3-8: Front Seed Box Disengaged

Tillage/Seeding Techniques

NOTE

Make sure to cut the seeding rate in half when planting in two passes.

IMPORTANT

The Front and Rear Seed Metering System Drives must be engaged to seed the seedbed. Check that the Front and Rear Klik Pins are installed into the Sprocket Hubs and Shafts.

- Disengage Till 'N Seed Front and Rear Box Seed Metering System when two or more tillage passes are needed. Disengage the Front and Rear Seed Boxes Seed Metering System by removing the Klik Pin from the Front and Rear Box Shaft and storing the Klik Pin in the hole at the end of the Shaft. **See Figures 3-8 and 3-9.**
Re-install the Klik Pins into the Front and Rear Box Sprocket Hubs and Shafts to engage the Seed Metering System for seeding.
- Planting in two passes at 90 degrees to each other is an effective method for an even stand but make sure to cut the seeding rates in half.

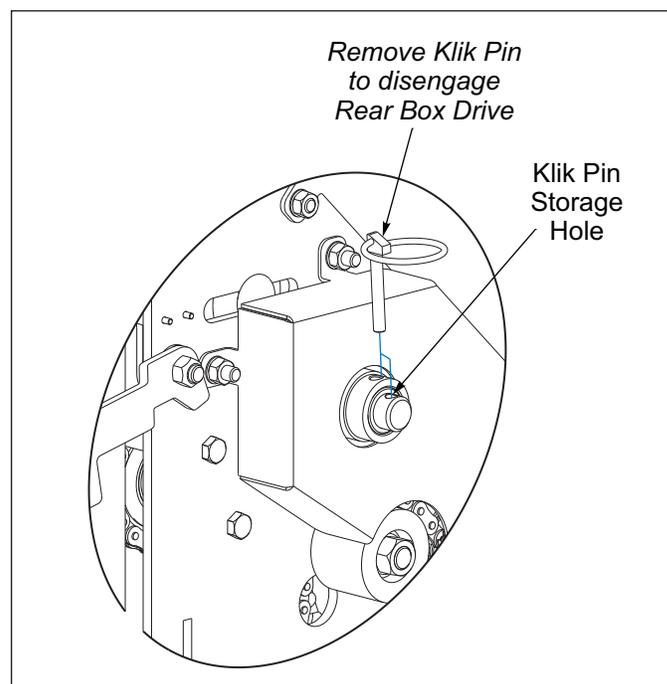


Figure 3-9: Rear Seed Box Disengaged

Adjusting Front Box Seed Range

Front Box drive ratio can be changed to get different Rate Ranges.

1. Refer to the Transmission Range Layout Decal inside the Transmission Shield to choose a range. **See Figure 3-10.**

2. Remove the Sprockets needed from the stored Sprockets. **See Figure 3-11.**
3. Remove Klik Pin from the Front Box Driven Sprocket and the Transmission Driver Sprocket. Change the Sprockets accordingly and re-insert Klik Pin into the Sprocket Hubs and shafts.

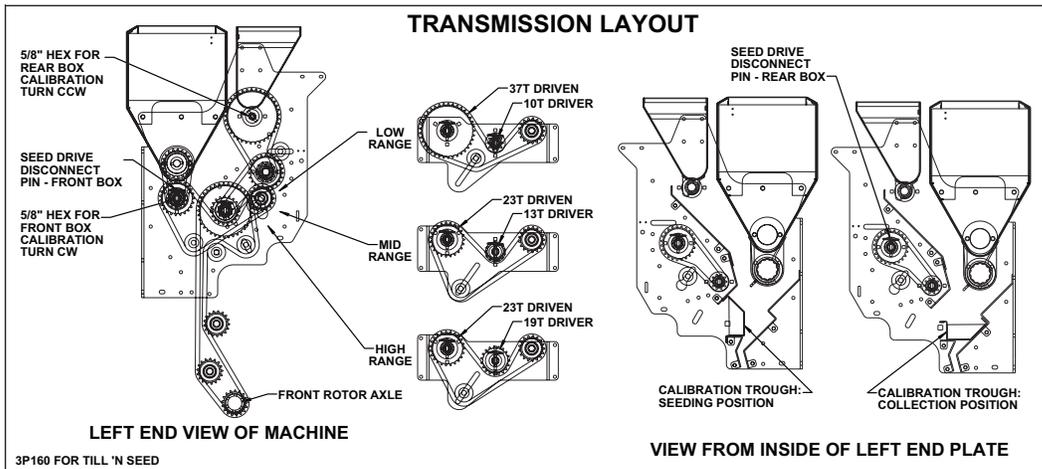


Figure 3-10: BPS6 Transmission Decal

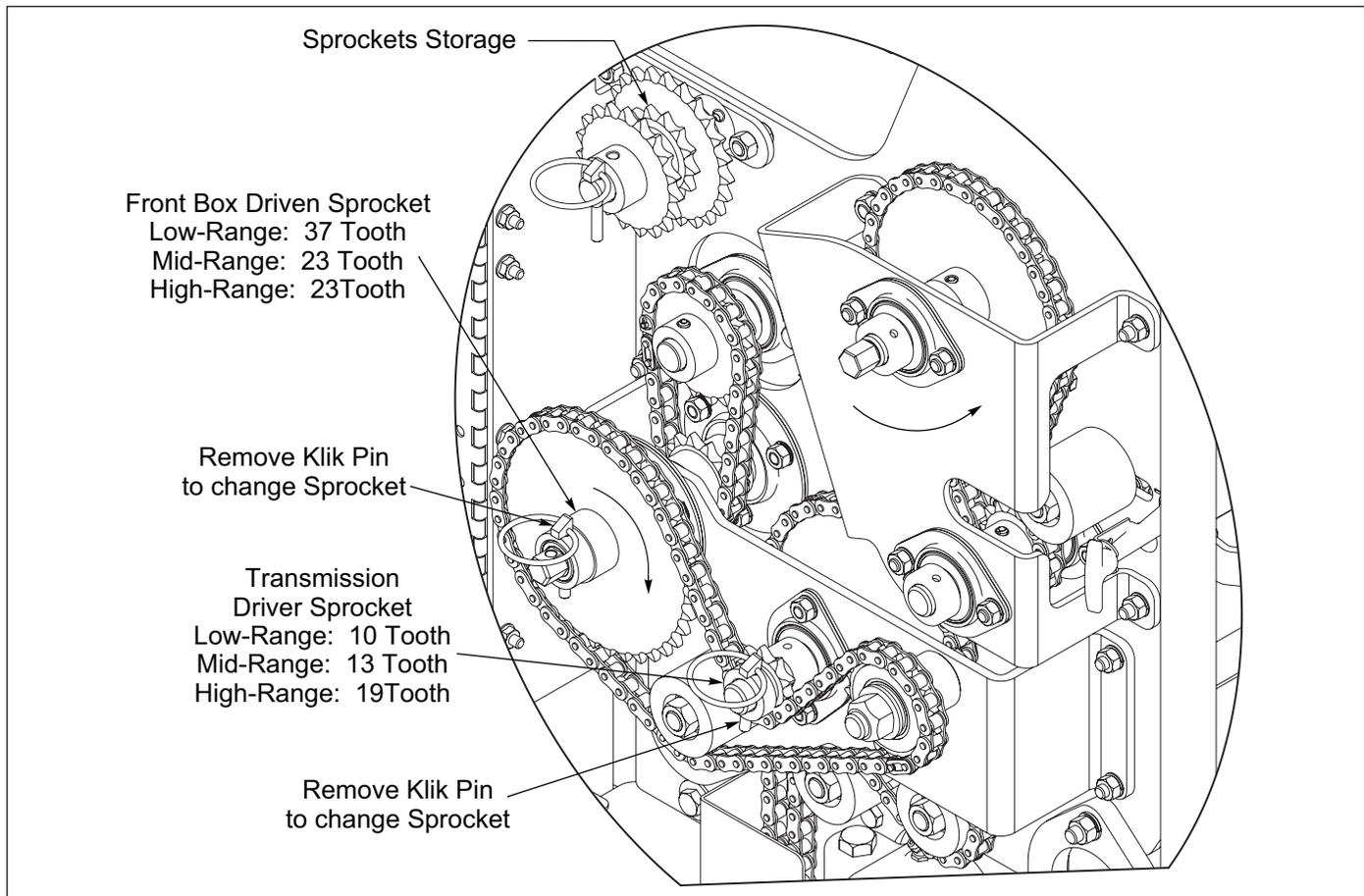


Figure 3-11: Front Box Range

Seed Rate Adjustment

WARNING

- To prevent damage to the seed meters, do not apply excessive force to adjusting nuts. Failure to do so may result in seed being pinched between the cut-off and washer inside the seed cup.
- Do not close the meters more than 1/8" when there is seed in the meters without rotating the seed shaft. This prevents damage to the rotating washers and retainer rings in the seed meters.
- Do not attempt to open the meters more than 1". (Feed rolls could become disengaged from the washer in the seed cup.)

NOTE

To avoid Seed Meter damage, if there is seed in the Meters, decrease rate in small increments. Decrease rate no more than one nut revolution and rotate Seed Shaft to purge seed from Meters. Continue adjustment as needed.

NOTE

Before filling with seed be sure Seed Shaft turns freely and Seed Meters are free of any foreign matter.

Wrenches for adjustment are stored on a Pin on the Seeder RH End Plate.

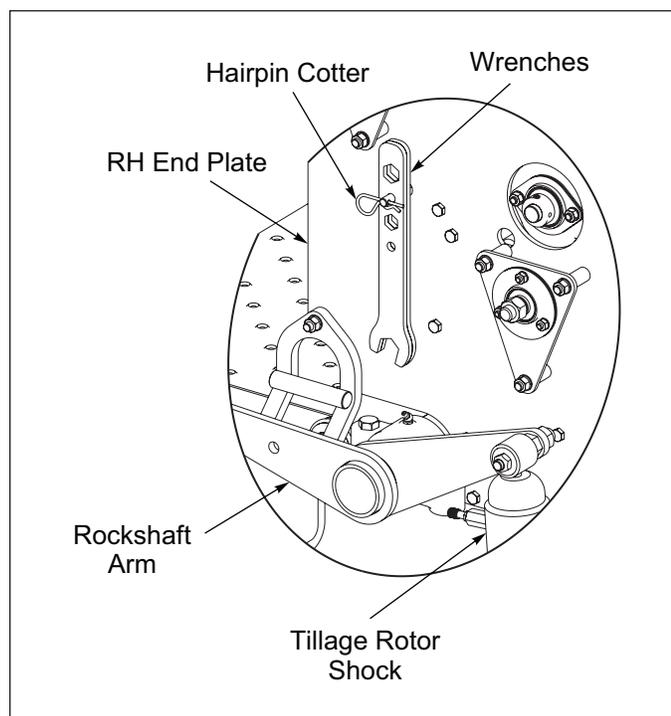


Figure 3-12: Adjustment Wrenches

Seed Rate Charts are located inside the Seed Box Cover and in this manual. See Pages 3-14, 3-15, and 3-16. It should be used as a reference only. Because of seed variation, a more accurate rate can be determined by performing **Calibration for Unlisted Seeds** to calibrate the seed.

On the right side Seed Shaft, the Seed Rate for the Seed Meters can be set by adjusting the inner or outer 5/8-11 Adjusting Hex Nut on each side of the bearing. See Figures 3-13 and 3-14.

Front Large Meter Seed Rate Adjustment

1. To **increase** the rate of seeding, loosen the inner 5/8-11 Adjusting Hex Nut with supplied wrenches. Back the inner 5/8-11 Adjusting Hex Nut away from the Spacer. Turn the outer 5/8-11 Adjusting Hex Nut until the Feed Shutoff is aligned with the notch in the Indicator for the desired Seed Rate. Tighten the inner 5/8-11 Adjusting Hex Nut against the Spacer.
2. To **decrease** the rate of seeding, loosen the outer 5/8-11 Adjusting Hex Nut with supplied wrenches. Back the outer 5/8-11 Adjusting Hex Nut away from the Bearing. Turn the inner 5/8-11 Adjusting Hex Nut until the Feed Shutoff is aligned with the notch in the Indicator for the desired Seed Rate. Tighten the outer 5/8-11 Adjusting Hex Nut against the Bearing inner race.

Seed Meters discharge to the front of the machine to aid the operator in determining proper operation.

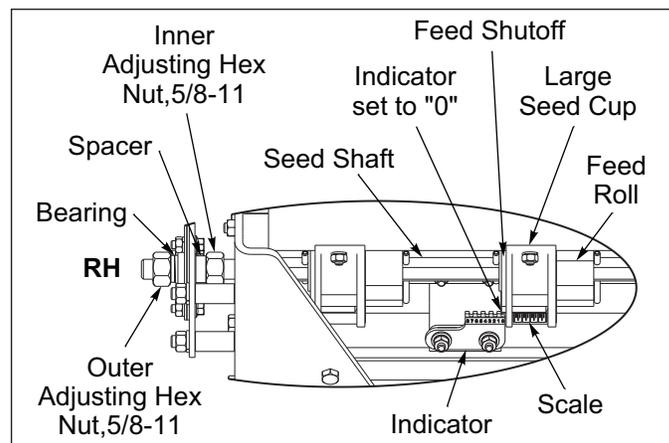


Figure 3-13: Front Large Meter Seed Rate Adjustment

Rear Micro-Meter Seed Rate Adjustment

1. To **increase** the rate of seeding, loosen the outer 5/8-11 Adjusting Hex Nut with supplied wrenches. Back the outer 5/8-11 Adjusting Hex Nut away from the Bearing. Turn the inner 5/8-11 Adjusting Hex Nut until the Feed Shutoff is aligned with the notch in the Indicator for the desired Seed Rate. Tighten the outer 5/8-11 Adjusting Hex Nut against the Bearing inner race.

OPERATION

- To **decrease** the rate of seeding, loosen the inner 5/8-11 Adjusting Hex Nut with supplied wrenches. Back the inner 5/8-11 Adjusting Hex Nut away from the Spacer. Turn the outer 5/8-11 Adjusting Hex Nut until the Feed Shutoff is aligned with the notch in the Indicator for the desired Seed Rate. Tighten the inner 5/8-11 Adjusting Hex Nut against the Spacer.

Seed Meters discharge to the rear of the machine to aid the operator in determining proper operation.

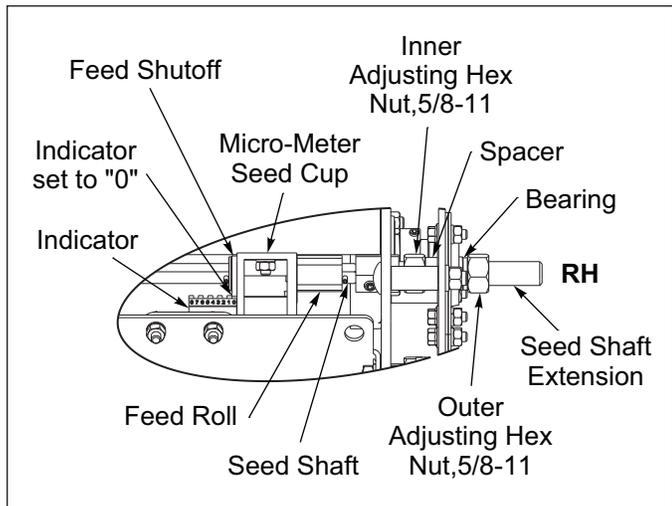


Figure 3-14: Rear Micro-Meter Seed Rate Adjustment

close Seed Meters more than 1/8" for reduced output when seed is in the Meters, you must turn the Seed Shaft while making the adjustment to prevent damage to the rotating washers and retainer rings in the Seed Meters. **See "Seed Meter Adjustment" on page 4-10.**

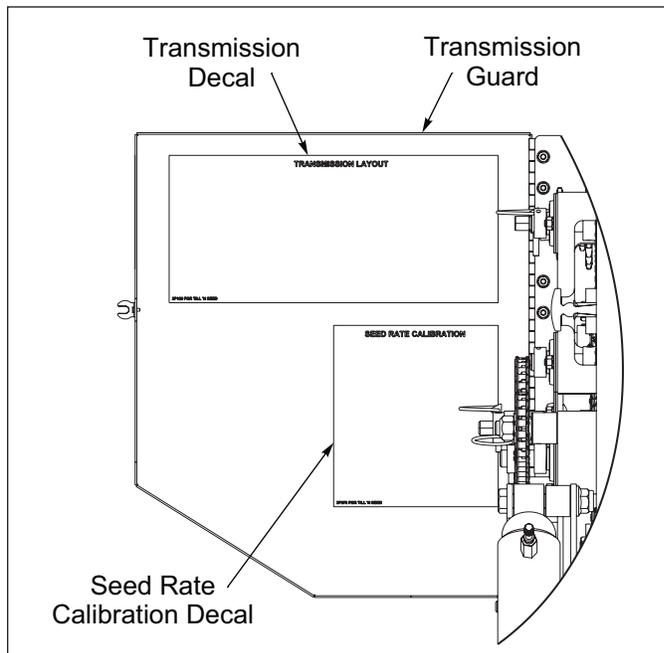


Figure 3-15: Transmission and Calibration Decal Location

Calibration for Unlisted Seeds

NOTE

The information listed in the Seed Charts is subject to change without notice.

IMPORTANT

Planting rates are in pounds per acre.

Brillion assumes no liability pertaining to Seeding Rates achieved with this Seeder. Rates listed are general in nature and should be used as starting points only. Seed varieties and blends listed represent those calibrated through in-house test meters.

Variations in actual rates may be realized due to differences in seed lots. For accurate rates with seeds being used, follow the Seed Rate Calibration instructions listed on the inside of the Transmission Shield or refer to this Manual. **See Figure 3-15.**

- Place the Calibration Trough in the collection position. **See Figure 3-16.** If using a Tarp, raise the Till 'N Seed and place a tarp under the front of the machine
- Refer to Seed Chart on the Seed Box Cover to determine initial Seed Meter Settings. If you need to

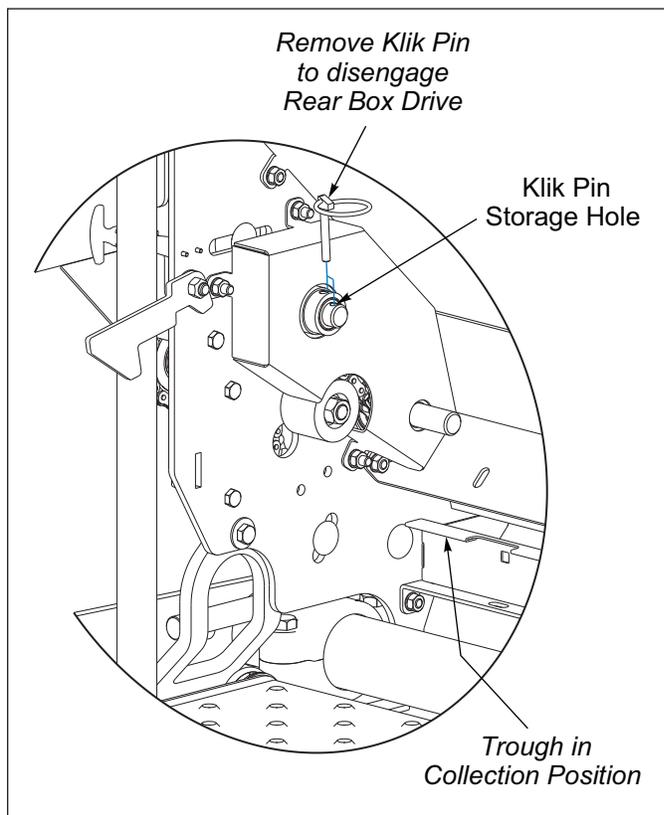


Figure 3-16: Trough in Collection Position

Front Large Meter Box - Calibrate unlisted seeds as follows:

1. Refer to the Seed Rate Chart on the Seed Box Cover to identify the lowest Transmission Range to achieve the expected Seed Rate. If the expected Seed Rate appears in two ranges, consider choosing the higher range to allow for Seed Rate to be increased or lower range to allow for Seed Rate to be decreased as needed.
2. Adjust Seed Meter Setting.
3. Remove Front Box Drive Disconnect Klik Pin from the Front Box 5/8 Calibration Hex. **See Figure 3-17.**
4. **Prime Meters:** Turn Front Box 5/8" Calibration Hex Clockwise (CW) until all Meters are discharging seed. Empty Calibration Trough or Tarp.
5. Turn the Front Box 5/8" Calibration Hex Clockwise (CW).

Low-Range: Use 42 turns if you follow Step 6. *Reference, the Seed Shaft rotates 252 Revolutions per Acre Seeded in Low-Range.*

Mid-Range: Use 88 turns if you follow Step 6. *Reference, the Seed Shaft rotates 528 Revolutions per Acre Seeded in Mid-Range.*

High-Range: Use 129 turns if you follow Step 6. *Reference, the Seed Shaft rotates 771 Revolutions per Acre Seeded in High-Range.*

6. Weigh the seed in Lbs. Multiply weight by 6 for approximate Planting Rate in Lbs/Acre.
7. Adjust Meters and Re-Calibrate, as necessary.
8. Ensure Transmission is set-up for proper Seeding Range.
9. Re-Install Front Box Drive Disconnect Klik Pin.
10. Re-Install Calibration Trough in Seeding Position. **See Figure 3-18.**

Rear Micro-Meter Box - Calibrate unlisted seeds as follows:

1. Adjust Seed Meter Setting.
2. Remove Rear Box Drive Disconnect Klik Pin from the Front Box 5/8 Calibration Hex. **See Figure 3-16.**
3. **Prime Meters:** Turn Rear Box 5/8" Calibration Hex Counterclockwise (CCW) until all Meters are discharging seed. Empty Calibration Trough or Tarp. **See Figure 3-17.**
4. Turn the Rear Box 5/8" Calibration Hex Counterclockwise (CCW) 24 turns if you follow Step 5. *Reference, the Seed Shaft rotates 143 Revolutions per Acre Seeded.*
5. Weigh the seed in Lbs. Multiply weight by 6 for approximate Planting Rate in Lbs/Acre.
6. Adjust Meters and Re-Calibrate, as necessary.
7. Re-Install Rear Box Drive Disconnect Klik Pin.

8. Re-Install Calibration Trough in Seeding Position. **See Figure 3-18.**

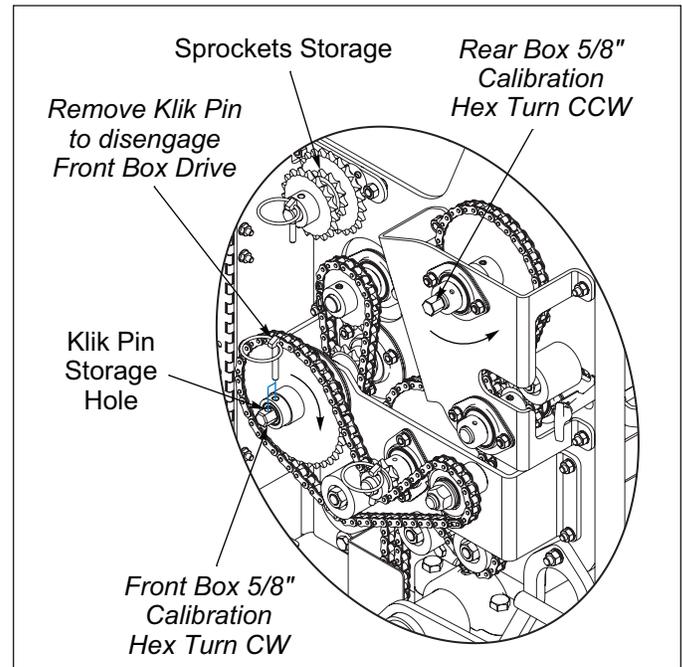


Figure 3-17: Front Box Drive Klik Pin

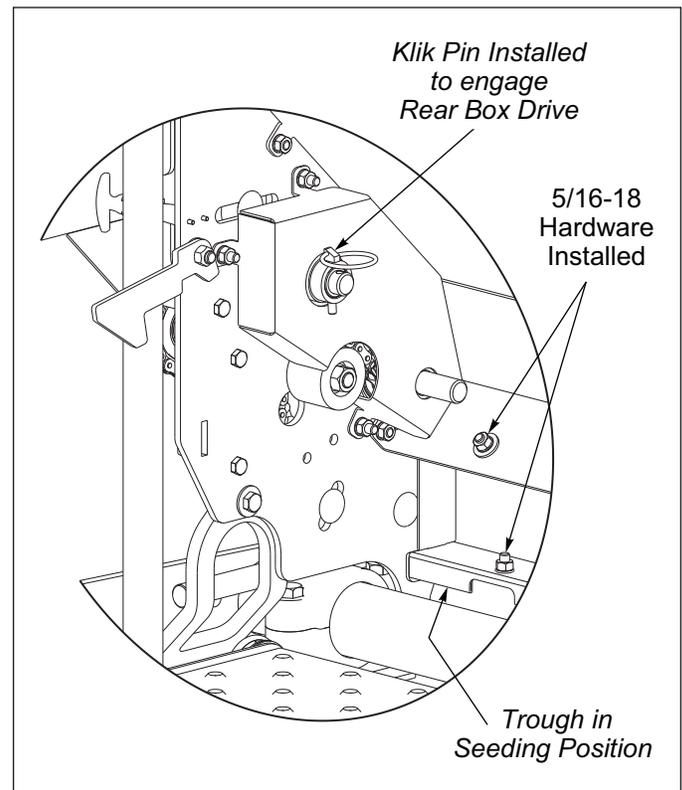


Figure 3-18: Trough in the Seeding Position

Large Meter Box Seed Chart

Rates are intended as a guide only. Variations in size and cleanliness will affect rates. Calibrate desired seed for best results. **Front Box 5K141 Seed Meters.** (1 ACRE = 43,560 SQ. FT. = 6 FT wide x 1-3/8 mile.) **See Figures 3-19 and 3-20.**

Seed	Notes	Range	INDICATOR SETTINGS									INDICATOR SETTINGS								
			1	2	3	4	5	6	7	8	Max	1	2	3	4	5	6	7	8	Max
			POUNDS PER ACRE									POUNDS PER 1000 SQ FT								
Alfalfa		Low	12	27	47	71	98	124	149	176	198	0.29	0.61	1.08	1.64	2.25	2.84	3.41	4.03	4.53
		Mid	26	56	99	149	205	258	311	367	413	0.60	1.28	2.26	3.42	4.71	5.93	7.14	8.43	9.48
		High	38	81	144	218	300	378	454	537	604	0.87	1.87	3.31	5.01	6.88	8.67	10.43	12.32	13.86
Bahia		Low	5	16	35	58	81	110	134	157	177	0.13	0.36	0.81	1.34	1.87	2.52	3.07	3.61	4.07
		Mid	11	33	74	122	170	229	280	329	370	0.26	0.75	1.70	2.80	3.91	5.26	6.42	7.56	8.50
		High	17	48	108	178	249	335	409	481	541	0.39	1.10	2.48	4.09	5.71	7.69	9.39	11.05	12.43
Barley	(1)	Low	6	22	42	64	85	110	135	160	180	0.13	0.51	0.96	1.48	1.95	2.52	3.10	3.67	4.12
		Mid	12	46	87	135	178	230	283	334	376	0.28	1.06	2.01	3.09	4.09	5.28	6.49	7.67	8.63
		High	18	68	128	197	260	336	413	488	549	0.41	1.55	2.93	4.51	5.98	7.71	9.48	11.21	12.61
Bermuda Grass		Low	8	17	29	44	67	89	108	131	148	0.18	0.39	0.66	1.01	1.53	2.03	2.48	3.01	3.39
		Mid	17	36	60	92	139	185	226	275	309	0.38	0.82	1.38	2.11	3.20	4.25	5.18	6.30	7.09
		High	24	52	88	134	204	271	330	401	452	0.56	1.20	2.02	3.08	4.67	6.21	7.57	9.21	10.37
Bermuda Grass (Unhulled)		Low	3	6	10	16	23	30	38	44	50	0.06	0.14	0.23	0.36	0.53	0.70	0.88	1.02	1.15
		Mid	6	13	21	33	49	64	80	93	105	0.13	0.29	0.49	0.76	1.12	1.46	1.84	2.13	2.40
		High	8	19	31	48	71	93	117	136	153	0.19	0.43	0.71	1.10	1.63	2.13	2.69	3.12	3.51
Birdsfood Trefoil		Low	7	19	37	64	86	113	143	168	189	0.17	0.44	0.85	1.46	1.99	2.59	3.28	3.85	4.33
		Mid	15	41	77	133	181	236	299	351	395	0.35	0.93	1.77	3.05	4.15	5.42	6.87	8.06	9.06
		High	22	59	113	194	264	345	437	513	577	0.51	1.36	2.59	4.46	6.07	7.92	10.04	11.78	13.25
Bluegrass, Kentucky		Low	4	10	19	36	48	63	75	86	97	0.10	0.22	0.43	0.82	1.11	1.44	1.73	1.97	2.22
		Mid	9	20	39	74	101	131	157	180	202	0.21	0.46	0.90	1.71	2.32	3.01	3.61	4.13	4.64
		High	14	30	57	109	148	192	230	263	296	0.31	0.68	1.32	2.50	3.39	4.40	5.28	6.03	6.79
Buckwheat	(1)	Low	4	21	41	58	81	100	121	141	158	0.09	0.48	0.93	1.33	1.85	2.30	2.77	3.23	3.63
		Mid	8	44	85	121	169	209	252	294	331	0.18	1.01	1.94	2.77	3.87	4.80	5.79	6.75	7.60
		High	12	64	124	176	246	306	368	430	484	0.27	1.48	2.84	4.05	5.66	7.02	8.46	9.87	11.10
Centipede Grass		Low	7	18	34	64	101	127	157	175	197	0.17	0.40	0.78	1.46	2.31	2.92	3.61	4.02	4.52
		Mid	15	37	71	133	211	266	329	366	412	0.35	0.84	1.62	3.05	4.83	6.11	7.56	8.40	9.45
		High	22	54	103	194	308	389	481	535	602	0.51	1.23	2.37	4.46	7.07	8.93	11.05	12.28	13.82
Chicory Forage, Coated		Low	5	20	32	47	61	76	91	106	119	0.10	0.45	0.73	1.08	1.39	1.74	2.09	2.43	2.74
		Mid	9	41	66	98	127	158	190	222	249	0.22	0.94	1.53	2.25	2.91	3.63	4.36	5.09	5.72
		High	14	60	97	143	185	231	278	324	364	0.32	1.38	2.23	3.29	4.25	5.31	6.37	7.44	8.37
Clover, Alsike		Low	10	23	38	58	83	110	144	172	193	0.22	0.52	0.86	1.34	1.91	2.53	3.31	3.95	4.44
		Mid	20	48	79	122	174	230	302	360	405	0.46	1.09	1.81	2.79	4.00	5.29	6.93	8.26	9.29
		High	30	70	115	178	255	337	441	526	591	0.68	1.60	2.64	4.08	5.84	7.73	10.13	12.07	13.58
Clover, Red		Low	14	32	49	67	87	106	125	142	160	0.33	0.74	1.12	1.54	2.00	2.44	2.87	3.26	3.66
		Mid	30	67	102	140	183	223	261	297	334	0.69	1.55	2.34	3.23	4.19	5.11	6.00	6.81	7.66
		High	44	99	149	205	267	325	382	434	488	1.01	2.26	3.42	4.71	6.13	7.47	8.77	9.96	11.20

Figure 3-19: Large Meter Box Seed Chart (1 of 2)

NOTE

Brillion assumes no liability pertaining to seeding rates achieved on this seeder. Rates listed are general in nature and should be used as starting points only. Seed varieties and blends listed represent those calibrated through in-house test meters. Variations in actual rates may be realized due to differences in seed lots. For accurate rates with seeds being used, follow the calibration instructions listed on the seed chart inside the box cover or refer to the Operator's Manual. This information listed in the above seed charts is subject to change without notice.

Seed	Notes	Range	INDICATOR SETTINGS									INDICATOR SETTINGS								
			1	2	3	4	5	6	7	8	Max	1	2	3	4	5	6	7	8	Max
			POUNDS PER ACRE									POUNDS PER 1000 SQ FT								
Corn, (Bin Run)	(1)	Low	0	0	37	71	96	121	140	171	192	0.00	0.00	0.85	1.63	2.21	2.79	3.21	3.92	4.41
		Mid	0	0	78	148	201	254	292	357	402	0.00	0.00	1.78	3.41	4.62	5.83	6.70	8.20	9.23
		High	0	0	113	217	294	371	427	522	588	0.00	0.00	2.60	4.98	6.75	8.52	9.80	11.99	13.49
Frescue, Tall		Low	5	10	21	36	57	70	86	104	117	0.12	0.23	0.49	0.83	1.31	1.60	1.97	2.39	2.69
		Mid	11	21	45	76	120	146	180	218	245	0.26	0.49	1.03	1.74	2.75	3.35	4.12	5.01	5.63
		High	17	31	65	111	175	213	262	319	359	0.38	0.71	1.50	2.55	4.02	4.90	6.02	7.32	8.23
Millet		Low	5	11	35	58	80	99	116	136	153	0.12	0.25	0.81	1.34	1.83	2.27	2.67	3.12	3.51
		Mid	11	23	74	122	166	207	244	284	320	0.26	0.52	1.70	2.80	3.82	4.75	5.59	6.52	7.34
		High	17	33	108	178	243	302	356	415	467	0.38	0.76	2.48	4.09	5.58	6.94	8.17	9.53	10.72
Oats	(1)	Low	0	16	33	51	68	82	98	124	139	0.00	0.36	0.75	1.16	1.55	1.89	2.25	2.84	3.20
		Mid	0	33	69	106	142	173	205	259	291	0.00	0.76	1.58	2.43	3.25	3.96	4.71	5.94	6.68
		High	0	48	100	155	207	252	300	378	426	0.00	1.11	2.30	3.55	4.75	5.79	6.88	8.68	9.77
Ryegrass		Low	4	11	25	39	53	67	80	92	103	0.08	0.25	0.57	0.89	1.22	1.54	1.83	2.11	2.37
		Mid	8	23	52	81	111	140	166	192	216	0.17	0.52	1.19	1.86	2.55	3.22	3.82	4.41	4.96
		High	11	33	76	118	163	205	243	281	316	0.25	0.76	1.74	2.72	3.73	4.71	5.58	6.45	7.26
Sorghum Sudan		Low	7	24	45	71	99	124	147	167	188	0.15	0.56	1.03	1.63	2.27	2.84	3.37	3.83	4.31
		Mid	14	51	94	148	207	258	307	349	393	0.32	1.16	2.15	3.41	4.75	5.93	7.05	8.02	9.02
		High	20	74	137	217	302	378	449	511	574	0.46	1.70	3.14	4.98	6.94	8.67	10.30	11.72	13.19
Soybeans	(1)	Low	0	21	51	78	101	126	151	173	194	0.00	0.48	1.17	1.79	2.33	2.88	3.46	3.96	4.46
		Mid	0	44	107	163	212	263	315	361	406	0.00	1.01	2.45	3.74	4.87	6.03	7.23	8.29	9.32
		High	0	64	156	238	310	384	460	527	593	0.00	1.47	3.59	5.47	7.12	8.82	10.57	12.11	13.62
Turnips, Purple Top		Low	10	25	45	67	91	110	130	155	174	0.22	0.57	1.03	1.54	2.09	2.52	2.99	3.56	4.00
		Mid	20	52	94	140	191	230	273	324	364	0.47	1.18	2.15	3.22	4.38	5.28	6.26	7.44	8.37
		High	30	75	137	205	279	336	398	473	533	0.69	1.73	3.14	4.70	6.39	7.72	9.14	10.87	12.23
Wheat, Winter		Low	16	32	55	78	99	122	141	159	179	0.36	0.73	1.26	1.78	2.27	2.80	3.24	3.65	4.10
		Mid	33	67	114	163	207	255	295	332	374	0.76	1.54	2.63	3.73	4.75	5.85	6.78	7.63	8.58
		High	48	98	167	238	302	372	432	485	546	1.11	2.24	3.84	5.45	6.94	8.55	9.91	11.14	12.54

NOTES:

(1) Low germination may occur due to shallow seeding depth for this seed

Figure 3-20: Large Meter Box Seed Chart (2 of 2)

NOTE

Brillion assumes no liability pertaining to seeding rates achieved on this seeder. Rates listed are general in nature and should be used as starting points only. Seed varieties and blends listed represent those calibrated through in-house test meters. Variations in actual rates may be realized due to differences in seed lots. For accurate rates with seeds being used, follow the calibration instructions listed on the seed chart inside the box cover or refer to the Operator's Manual. This information listed in the above seed charts is subject to change without notice.

Micro-Meter Box Seed Chart

INDICATOR SETTINGS	POUNDS PER ACRE									POUNDS PER 1000 SQ FT								
	1	2	3	4	5	6	7	8	Max	1	2	3	4	5	6	7	8	Max
Alfalfa	1	3	5	7	10	12	15	17	19	0.02	0.07	0.12	0.17	0.22	0.27	0.34	0.39	0.44
Birdsfoot Trefoil	1	4	6	9	11	14	17	19	22	0.03	0.08	0.14	0.20	0.26	0.33	0.39	0.44	0.50
Brassica	1	3	5	8	10	12	15	17	19	0.03	0.07	0.12	0.18	0.23	0.28	0.34	0.39	0.44
Centipede	1	3	6	9	11	13	15	17	19	0.02	0.07	0.15	0.20	0.25	0.29	0.34	0.39	0.44
Chicory, Forage	1	1	2	4	5	6	8	8	9	0.01	0.03	0.06	0.08	0.11	0.13	0.15	0.18	0.20
Clover, Alsike	1	4	6	8	10	13	15	17	19	0.03	0.08	0.14	0.18	0.24	0.30	0.34	0.39	0.43
Clover, Red	2	4	6	9	12	14	17	19	22	0.04	0.10	0.15	0.21	0.27	0.33	0.39	0.44	0.50
Lettuce	1	2	4	5	6	7	8	10	11	0.02	0.06	0.08	0.12	0.14	0.16	0.19	0.22	0.25
Rape	1	3	5	8	10	12	15	17	19	0.03	0.07	0.12	0.18	0.23	0.28	0.34	0.39	0.44
Sorghum / Sudan Grass	2	4	7	10	12	14	17	20	22	0.04	0.10	0.16	0.22	0.28	0.33	0.40	0.46	0.51
Switchgrass	1	3	5	7	10	12	14	16	19	0.02	0.07	0.12	0.17	0.22	0.28	0.33	0.38	0.43
Turnips	1	2	5	7	9	11	13	15	17	0.02	0.07	0.12	0.16	0.21	0.26	0.30	0.35	0.39

Figure 3-21: Micro-Meter Box Seed Chart

NOTE

Brillion assumes no liability pertaining to seeding rates achieved on this seeder. Rates listed are general in nature and should be used as starting points only. Seed varieties and blends listed represent those calibrated through in-house test meters. Variations in actual rates may be realized due to differences in seed lots. For accurate rates with seeds being used, follow the calibration instructions listed on the seed chart inside the box cover or refer to the Operator's Manual. This information listed in the above seed charts is subject to change without notice.

Rear Firming Roller Scraper Adjustment - Optional

1. Lower machine on level surface.
2. Adjust Scrapers to 3/16" gap between the Scraper and Firming Roller Wheels. **See Figure 3-22.** The 3/16" gap is just a starting point, adjust the Scrapers as necessary.

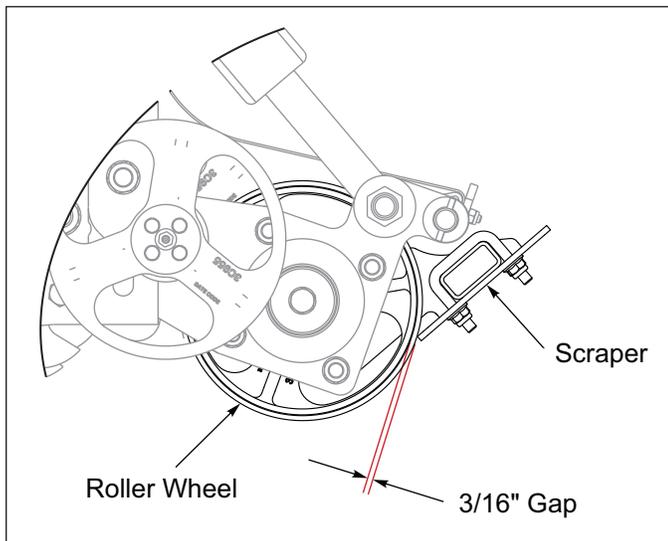


Figure 3-22: Rear Firming Roller Scraper Adjustment

OPERATION

Loup Acre Meter Kit - Optional (After 05/15/2012)

IMPORTANT

Acre Meter is dust and splash resistant, under no circumstances should this unit be submerged in any conductive, corrosive, or flammable liquid. At no time use high pressure water or air to clean it, as this can damage the unit.

Settings for Loup Acre Meters

The battery operated Acre Meter operates in one of two modes.

1. In sleep mode, the display is blank and the counter is accumulating acres. Sleep mode will be entered if a button is not pressed for 20 seconds.
2. In entry mode, the display is on, and the operator can enter values. To get into entry mode, press the ***/FUNC** button. If you continue to press the ***/FUNC** button, the acre counter will cycle through the functions that it can perform. The LEDs above the display indicate which function is selected.

The available functions are: Field Acres, Total Acres, Pulses per 400 feet, Width, Password and Low Battery. See Figure 3-23.

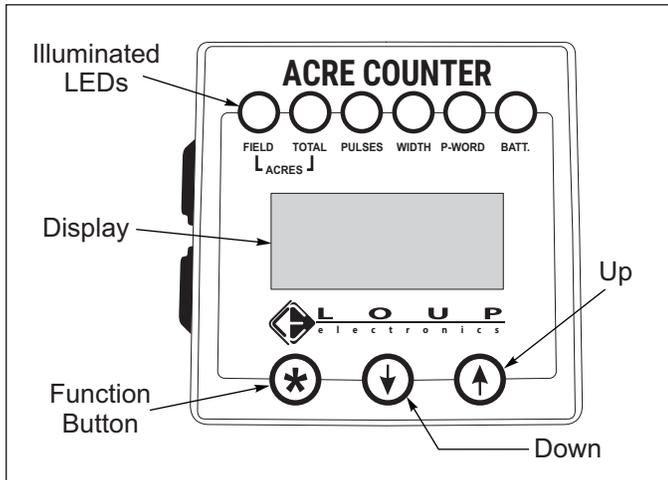


Figure 3-23: Acre Meter

Field Acres

Press the ***/FUNC** button until the “**FIELD**” LED is lit. The digits indicate the acres covered since the field acre counter was cleared.

To clear the field acre count, press the **UP** and **DOWN** buttons simultaneously for two seconds. If a password has been entered, you will not be able to clear the total acre count. Field acres will count in tenths of an acre up to 9999.9 acres.

Total Acres

Press the ***/FUNC** button until the “**TOTAL**” LED is lit. The digits indicate the acres covered since the total acre counter was cleared.

To clear the total acre count, press and hold the **UP** and **DOWN** buttons for two seconds. If a password has been entered, you will not be able to clear the total acre count. Total acres will count from .1 to 99999 acres.

Pulses Per 400 Feet

Press the ***/FUNC** button until the “**PULSES**” LED is lit. The number in the display indicates how many pulses are generated for every 400 feet driven. There are two methods to enter the pulses per 400 feet:

1. If you know the number, select it using the **UP** and **DOWN** buttons. When you press the ***/FUNC** button, the Acre Counter will accept the number in the display as the new pulses per 400 feet. See Table 3-1.
2. If you do not know the pulses per 400 feet, press and hold the **UP** and **DOWN** buttons until the “0” appears in the display. The “**PULSES**” LED will blink. The acre counter is now counting shaft rotations. Enter the cab, lower seeder, engage clutch if equipped, and drive 400 feet. Press the ***/FUNC** button to wake up the acre counter. The “**PULSES**” LED will light. The number displayed is the pulses per 400 feet. Press the ***/FUNC** button to accept the setting.

If a password is set, you will not be able to adjust the pulses.

Width

Press the ***/FUNC** button until the “**WIDTH**” LED is lit. The number displayed is the length of your machine in feet.

To adjust the width, press the **UP** and **DOWN** buttons. If a password has been entered, you will not be able to adjust the width.

The width can be adjusted from .1 to 99.9 feet, in tenths of a foot.

Password

The password function allows you to protect the total acre count, pulses per 400 feet, and width settings with a password. This stops anyone from accidentally changing those settings. When the acre counter is shipped, the password is disabled. You can modify the pulses per 400 feet and machine width at any time.

Press the ***/FUNC** button until the “**PASS**” LED is lit. The digits will display the word “**Ent**” or “**dis**”.

If the display shows “dis”. The password is disabled. The total acre count, pulses/400 feet, width, and password settings can be adjusted using the **UP** and **DOWN** buttons. The password can also be changed using the **UP** and **DOWN** buttons.

If the display shows “Ent”: You must enter your password using the **UP** and **DOWN** buttons. When your password is displayed, press the ***/FUNC** button to test the password. If the password is correct, you will be able to change the acre counter settings. The password will be viewable until the acre counter enters sleep mode. When the acre counter is in entry mode again, you will have to re-enter the password to change settings.

If the password is not correct, you will not be able to change the acre counter settings. When the “**PASS**” function is selected again, “**Ent**” will appear in the display.

Changing the Password

Select a new password using the **UP** and **DOWN** buttons. Press the ***/FUNC** button until the word “**SET**” appears in the display. Release the ***/FUNC** button. The number in the display is your new pass code. Make sure you record this number. Press and hold the ***/FUNC** button until the word “**dis**” appears in the display.

If the password is forgotten, it can be disabled by removing the batteries. The password is intended for rental units. It is recommended that a seal be affixed to the rear plate of the acre counter to determine if the settings have been tampered with.

Battery Replacement

The battery operated acre counter uses 3 AA batteries. The “**BATT**” LED will light when the batteries require replacement. Remove the acre counter from the machine and undo the 4 screws on the back of the case. See **Figure 3-24**. This will separate the housing from the rear plate. Replace the batteries with 3 high quality AA alkaline batteries.

See “**Acre Meter Troubleshooting**” on Page 4-12.

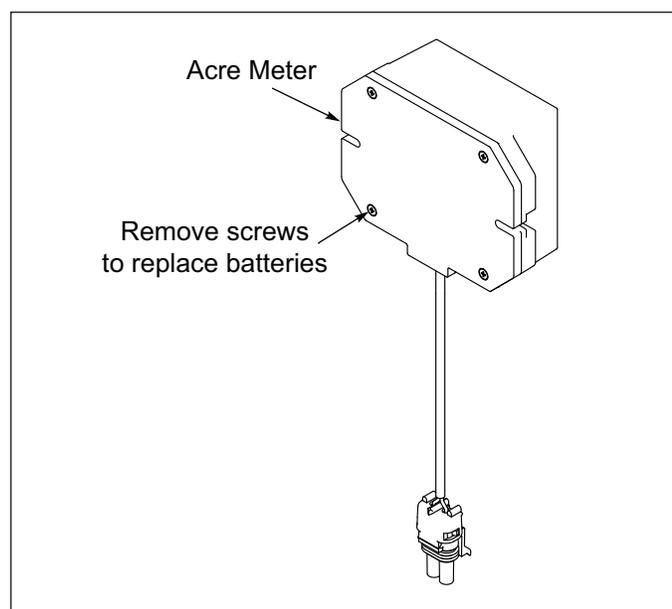


Figure 3-24: Battery Replacement

Loup Acre Meter Kit - Optional (Before 05/15/2012)

Settings

- When the meter is set to “count” mode in pulses screen, meter will register only magnetic wheel revolutions.
- The meter must be in sleep mode (blank screen) to calculate acres or to count pulses.
- The count screen must have a value other than zero (0000) to scroll to other modes or screens.
- To reset the FIELD ACRES screen to zero (0000), press the **UP** and **DOWN** buttons simultaneously.

To Program Meter

1. Press the **Function (FUNC)** button to scroll to pulses screen.
2. Enter the number of pulses using the **UP** or **DOWN** buttons for the model listed in the chart. See **Table 3-2**.
3. Press the **FUNC** to set the pulses. (If screen goes blank before you press **FUNC**, repeat steps 1 and 2).
4. Press the **FUNC** to scroll to the width screen.
5. Enter the width of seeder using the **UP** or **DOWN** buttons for the model listed in the chart. See **Table 3-2**.
6. Press the **FUNC** to set the width. (If screen goes blank before you press the **FUNC**, repeat steps 4 and 5).
7. Press the **FUNC** to scroll through the screens to check that the correct pulses and width have been entered.

To Enter Password

1. Press the **FUNC** to scroll to password screen.
2. Pick a numeric password and enter it by using the **UP** or **DOWN** buttons, until your password is displayed.
3. Press the **FUNC** to set password; screen will show “(set)”. Record number - it is required if you decide to disable password.
4. Let screen go blank - password is now entered.
5. Press the **FUNC** to scroll to the password screen it will show “Ent”. If the screen does not show “Ent”, repeat steps 2, 3 and 4.

To Disable Password

1. Press the **FUNC** to scroll to the password screen it will show “Ent”.
2. Use **UP** or **DOWN** button to enter password (number).
3. Press the **FUNC** to scroll around to pass screen again. Number entered in step 2 will appear.
4. Press **UP** or **DOWN** button to enter 0.
5. Press the **FUNC**; (dis) will appear. Password is now disabled.

Acre Meter Settings

MODEL				Pulses per 400 FT	Width (Feet)
SSPT604				22	5.0
SSP4	SSB4	SS4		44	4.0
SSP5	SSB5	SS5		44	5.0
SSP6	SSB6	SS6		44	6.0
SSP8	SSBP8	SS8	SSB8	58	8.0
SSP10	SSBP10	SS10	SSB10	58	10.0
SSP12	SSBP12	SS12	SSB12	58	12.0
SSP16	SS16	4610-16		45	16.0
SSP108	SS108			58	8.0
SSP110	SS110			58	10.0
SSP112	SS112			58	12.0
SSP208/2081	SS208/2081			58	8.0
SSP210/2101	SS210/2101			58	10.0
SSP212/2121	SS212/2121			58	12.0
SSP308/3081	SS308/3081			29	8.0
SSP310/3101	SS310/3101			29	10.0
SSP312/3121	SS312/3121			29	12.0
SLP8	SL8			314	8.0
SLP10	SL10			314	10.0
SLP12	SL12			314	12.0
SLP204/2041	SLPB204/2041			128	4.0
SLP206/2061	SLPB206/2061			128	6.0
SLP304/3041	SLPB304/3041			64	4.0
SLP306/3061	SLPB306/3061			64	6.0
LSP5	LS5			128	5.0
LSP6	LS6			128	6.0
LSS6				128	6.0
SLP208/2081	SLPB208/2081	SL208/2081	SLB208/2081	116	8.0
SLP210/2101	SLPB210/2101	SL210/2101	SLB210/2101	116	10.0
SLP212/2121	SLPB212/2121	SL212/2121	SLB212/2121	116	12.0
SLP308/3081	SLPB308/3081	SL308/3081	SLB308/3081	58	8.0
SLP310/3101	SLPB310/3101	SL310/3101	SLB310/3101	58	10.0
SLP312/3121	SLPB312/3121	SL312/3121	SLB312/3121	58	12.0
BOS4F1	BOS4S1	BOSB4F1	BOSB4S1	45	4.0
BOS6F1	BOS6S1	BOSB6F1	BOSB6S1	45	6.0
BPS6	BPSB6			51	6.0
BPS8				50	8.0
GLP643	SSLP643			69	5.0
4620-24				45	24.0
4630-36				per Seeder	36.0
X20-26	XL28-36	XXL38-46		90	per Model
WFP23-37	WFP38-52			90	per Model
FPSB-6	FPS6			89	6.0

Table 3-1: Acre Meter Settings (After 05/15/2012)

MODEL				Pulses	Width (Feet)
SSPT604				293	5
SSP4		SS4		578	4
SSP5		SS5		578	5
SSP6		SS6		578	6
SSP8		SS8		764	8
SSP10		SS10		764	10
SSP12		SS12		764	12
SSP108		SS108		760	8
SSP110		SS110		760	10
SSP112		SS112		760	12
SSP208	SSP2081	SS208	SS2081	764	8
SSP210	SSP2101	SS210	SS2101	764	10
SSP212	SSP2121	SS212	SS2121	764	12
SSP308		SS308		382	8
SSP310		SS310		382	10
SSP312		SS312		382	12
SLP8		SL8		4147	8
SLP10		SL10		4147	10
SLP12		SL12		4147	12
SLP204	SLP2041			1690	4
SLP206	SLP2061			1690	6
SLP304	SLP3041			845	4
SLP306	SLP3061			845	6
LSP5				1690	5
LSP6				1690	6
LSS6				1690	6
SLP208	SLP2081	SL208	SL2081	1528	8
SLP210	SLP2101	SL210	SL2101	1528	10
SLP212	SLP2121	SL212	SL2121	1528	12
SLP308	SLP3081	SL308	SL3081	764	8
SLP310	SLP3101	SL310	SL3101	764	10
SLP312	SLP3121	SL312	SL3121	764	12
BOS4F1	BOS4S1	BOSB4F1	BOSB4S1	600	4
BOS6F1	BOS6S1	BOSB6F1	BOSB6S1	600	6
BPS6	BPSB6			679	6
GLP643	SSLP643			917	5

Table 3-2: Acre Meter Settings (Before 05/15/2012)

Transporting on a Trailer

1. Lower the Till 'N Seed on a flat or even surface.
2. Adjust the tractor top link as necessary to align the Rockshaft Slot with the Frame Tab Hole.
3. Remove Rockshaft Detent Pin from storage and install. **See Figure 3-26.**
4. Tighten Clamp Nut on Rockshaft Clamp to prevent movement.
5. Open Rear Seed Box Cover to prevent possible damage during lifting. Tie machine down on the trailer as shown on decal. **See Figure 3-25.** Close Rear Seed Box Cover.

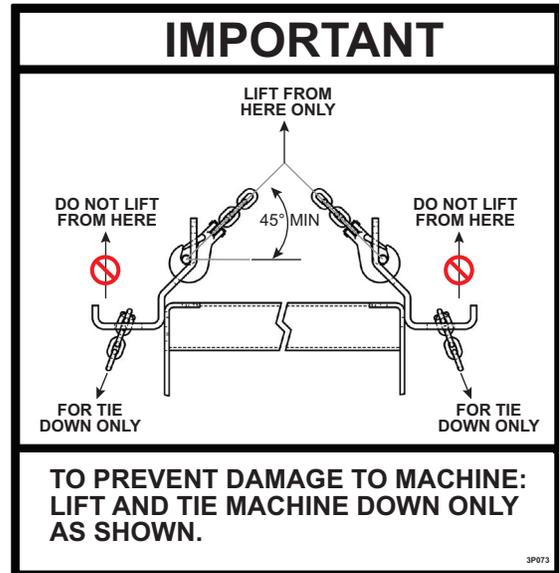


Figure 3-25: Lifting and Tie-Down Decal

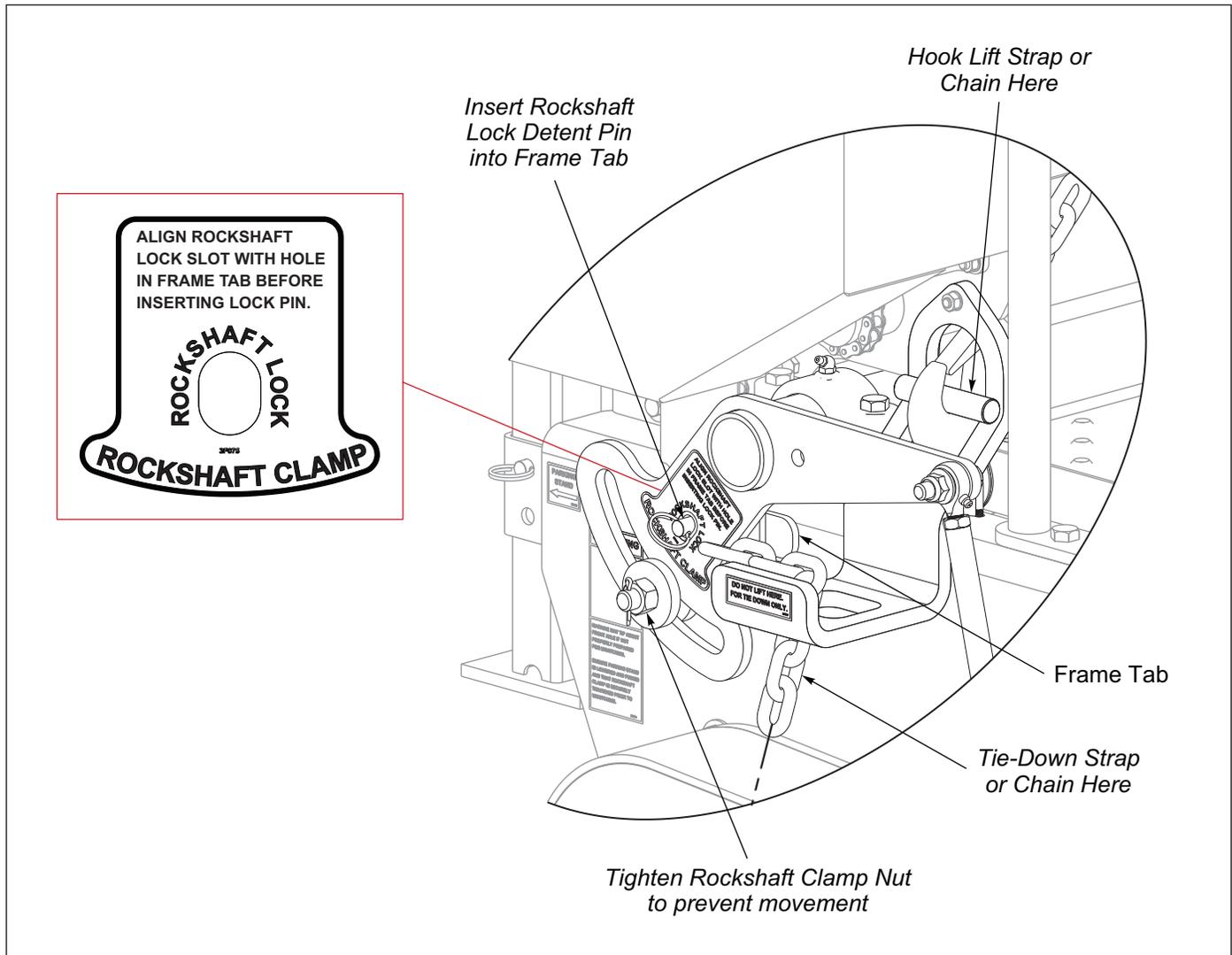


Figure 3-26: Lift and Tie-Down

Transporting

1. Check and follow all federal, state, and local requirements before transporting the Till 'N Seed.
2. The Till 'N Seed 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 Seeder is 20 mph.



CAUTION

Excessive speed may result in loss of control of the tractor and implement, reduced braking ability, or failure of the implement tire or structure. Do not exceed the implement maximum specified ground speed regardless of the capability of the maximum tractor speed.

3. 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.
4. Know the transport height and width of the implement being transported. Use caution when transporting near bridges and power lines.



DANGER

Stay away from power lines when transporting, extending implement. Electrocutation can occur without direct contact.

5. Check to see that the tractor hitch capacity is rated to carry the weight of the Till 'N Seed. **Refer to Tractor Operator's Manual.**
6. Use pins and bushings that properly fit the Tractor Lift Arms or Quick Hitch.
7. Raise the Till 'N Seed to full transport height.

8. Verify that SMV sign, reflectors, and Safety Decals are clearly visible and tractor lamps are functioning properly.
9. Transport during daylight hours whenever possible. Always use tractor 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 3-27.**

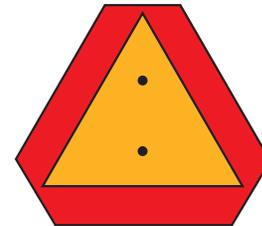


Figure 3-27: SMV Sign

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 4-1: General Torque Specifications

MAINTENANCE

Fasteners

Before operating your Brillion machine, check all hardware for tightness. Use the Tightening Torque Table as a guide. **See Page 4-1.**

After a few hours of use, check entire machine and tighten any loose nuts or bolts. Daily or periodic checks should be made thereafter.

When replacing bolts, be sure to use fasteners of equal grade.

Lubricate with quality grease per recommended lubrication frequency intervals indicated or if machine is not used for an extended period. **See Figure 4-3.**

- Till 'N Seed has greaseable Bearings on the ends of the Rotors and Firming Rollers and should be greased every 20 hours.
- Rockshaft Link Turnbuckle Rod End Ball Joints and Rockshaft Bearing should be greased every 8 hours.
- Guards must be closed and re-installed after lubricating the Till 'N Seed before operating.
- Lubricate Roller Chains periodically with quality chain oil. *It's a good practice to lubricate chain immediately after use while the chain is still warm for best penetration.* **See Figure 4-2.**

Lubrication



WARNING

Do Not lubricated machine while machine is in motion. If any guards are removed for lubricating, they must be replaced before operating.

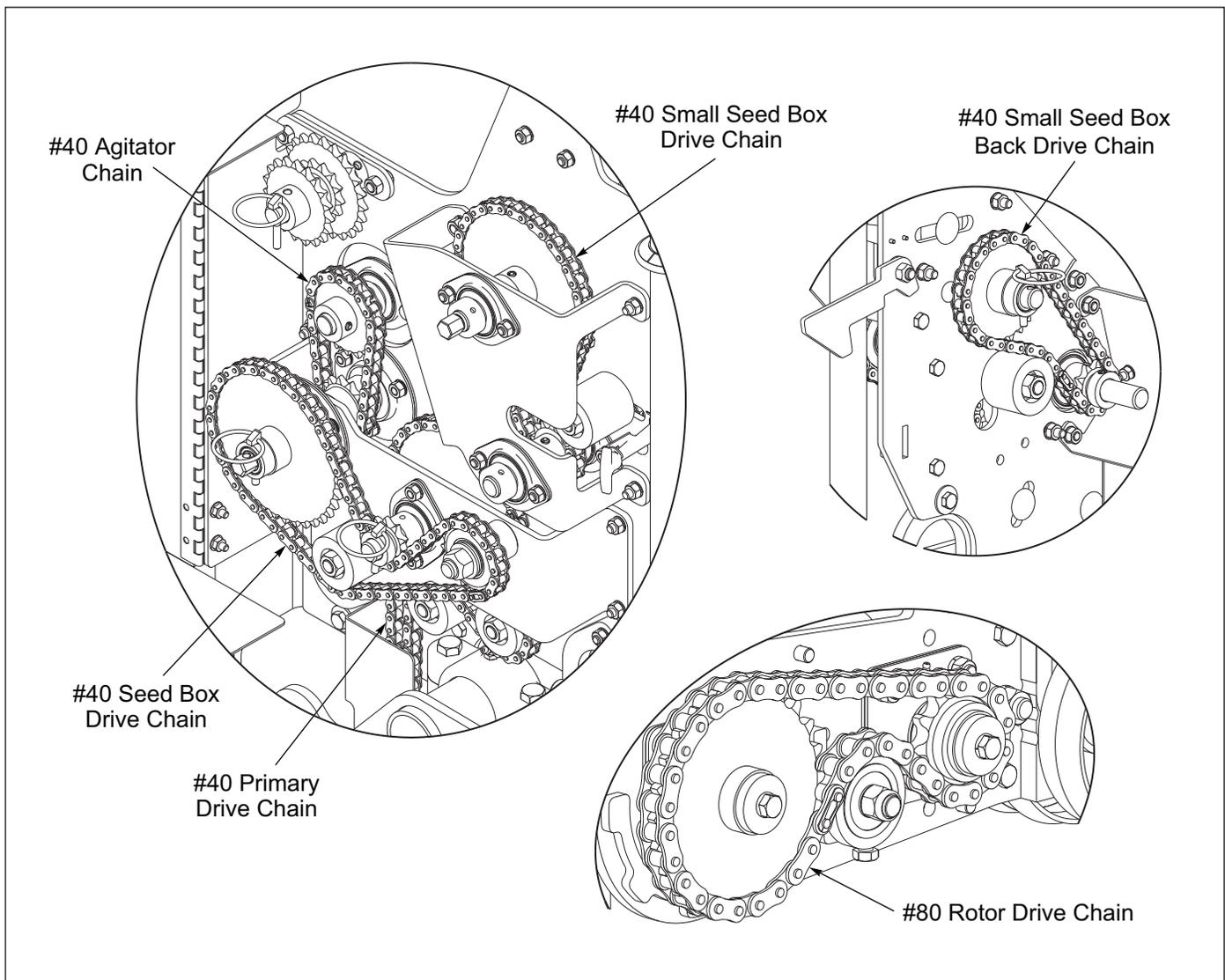


Figure 4-2: Chain Lubrication

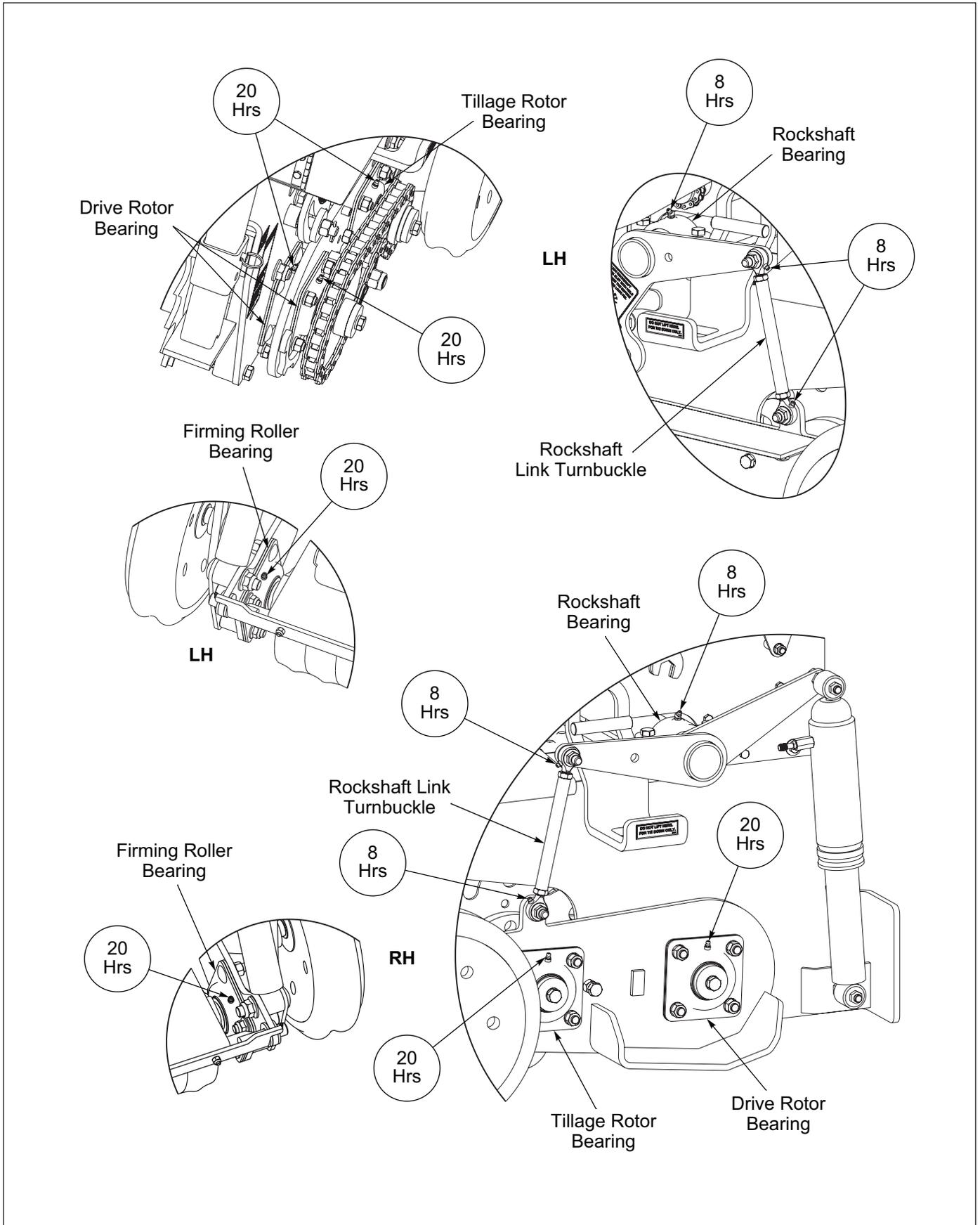


Figure 4-3: Lubrication Intervals

Firming Roller Adjustment

After an initial run of 5-10 hours, check the Firming Roller Assembly to ensure that the wheels are tight to one another and that the Axle Clamps are tight. **See Figure 4-4.** If not, slide the roller wheels tight together and adjust the Firming Roller Axle Clamps against the end Wheel hubs per **Roller Adjustment Procedure.** Thereafter, check Firming Roller Assembly every 50-100 hours or annually.

Roller Adjustment Procedure

1. Adjust the Firming Roller Wheels. Loosen the Axle Clamps. Slide roller wheels together and center them over the length of the Tillage Rotor.
2. Slide the Axle Clamp against the end Wheel Hub on each side of the Firming Roller and tighten the 7/16-14 Hardware per torque chart. **See “General Torque Specifications” on page 4-1.**

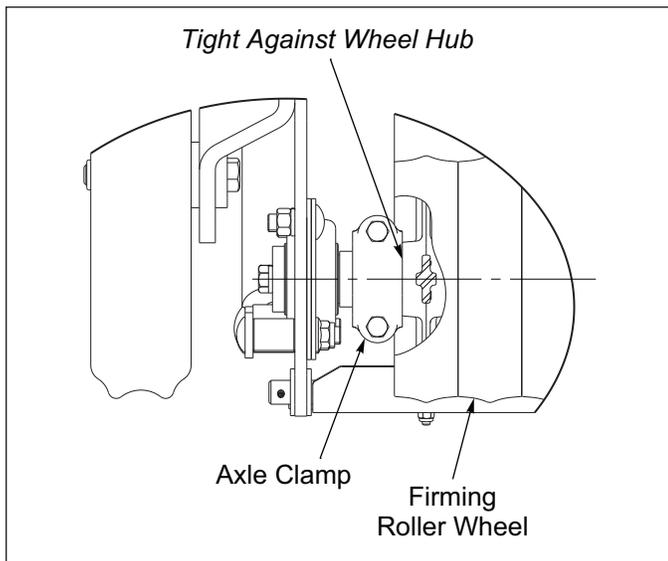


Figure 4-4: Firming Roller Adjustment

Drive and Tillage Rotors Adjustment

IMPORTANT

Always replace worn, broken, or bent Rotor Blades.

After an initial run of 5-10 hours, check the Drive and Tillage Rotor Assemblies to ensure that the Rotor Blades and Spacers are tight together. If not, refer to the **Rotor Adjustment Procedure.** Thereafter, check Drive and Tillage Rotors every 50-100 hours or annually.

Always clean undesired foreign material that may have wrapped around the Rotors.

When replacing Rotor Blades, look at the Drive Rotor Blades to see how they center between the Tillage Rotor Blades. Adjust the Drive Rotor, as necessary.

Adjustment Procedure

The Tillage Rotor has a Shield on each end of the Rotor to prevent material from wrapping around the shaft. The Shield will need to be removed to gain access to the Roll Pin and Slotted Hex Nut.

1. Adjust the Tillage Rotor first. Remove the RH Tillage Rotor Bearing.
2. Remove Tillage Rotor Shield and push the Shield Tube through the Rotor Arm Bearing opening to gain access to Slotted Hex Nut and Roll Pin.
3. Remove Slotted Hex Nut Roll Pin. **See Figure 4-5.**
4. Tighten Slotted Hex Nut against the Washer. Torque the Slotted Nut to 400 Ft-Lbs. Re-insert the Slotted Hex Nut Roll Pin.
5. Re-attach the Tillage Rotor Shield.
6. Re-install Tillage Rotor Bearing into the RH Rotor Arm.
7. Look at the Drive Rotor Blades to see how they center between the Tillage Rotor Blades to determine if both ends need to be adjusted.
8. Remove Slotted Hex Nut Roll Pin.
9. Tighten Slotted Hex Nut against Washers. Torque the Slotted Nut to 400 Ft-Lbs. Re-insert the Slotted Hex Nut Roll Pin.

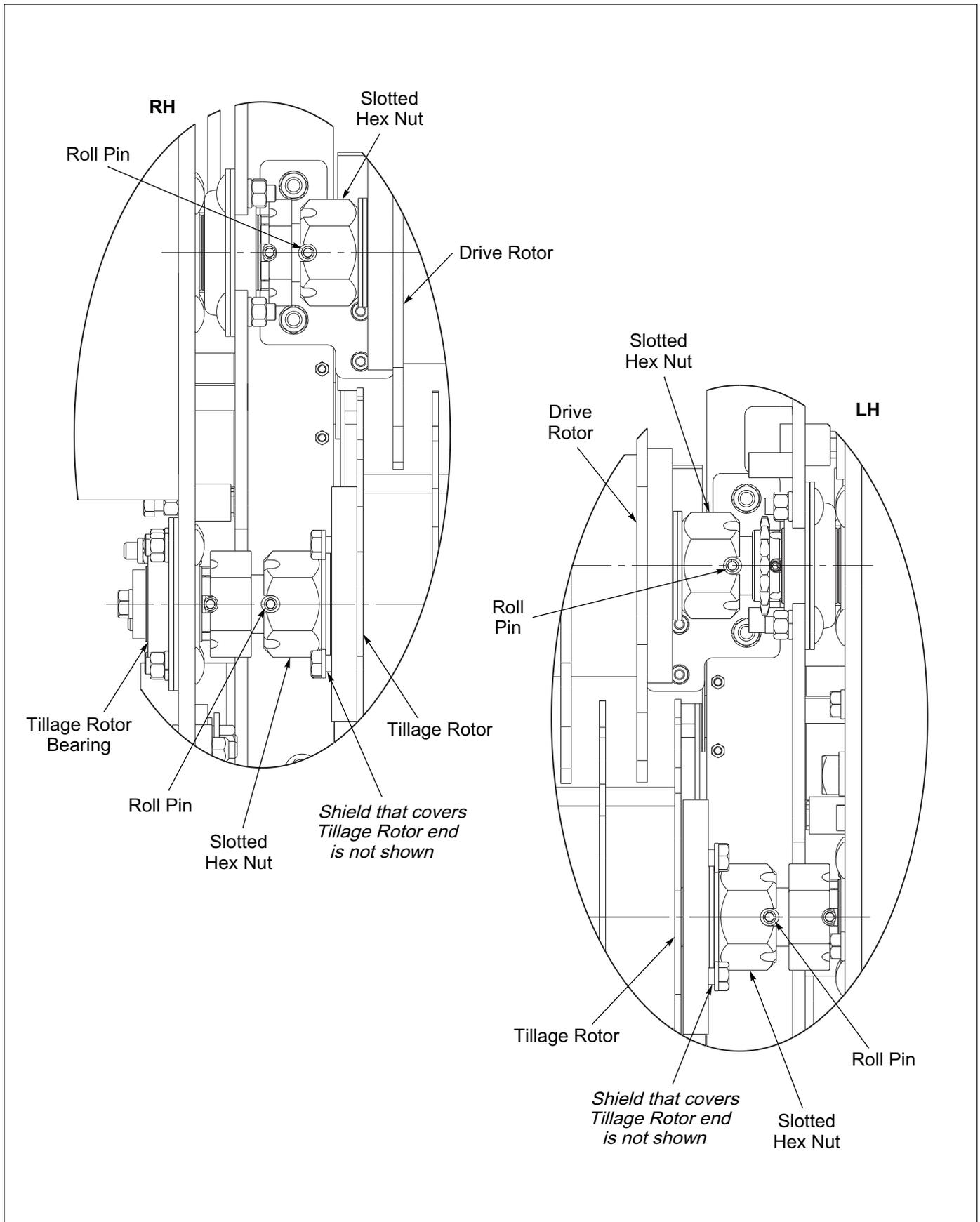


Figure 4-5: Rotor Adjustment

Rotor Thrust Guide



WARNING

Support machine with blocks or stands when working on or under it to prevent injury in case of hydraulic failure or inadvertent lowering by another person. Make sure all moving parts have stopped before doing any rotor maintenance.

On each side of the machine, check the 1/32" maximum clearance between the Thrust Guide and Lower Frame Side Plate.

1. Adjust both sides of the machine by loosening the Jam Nut and turning the Adjusting Bolt.
2. Retighten Jam Nut. **See Figure 4-6.**

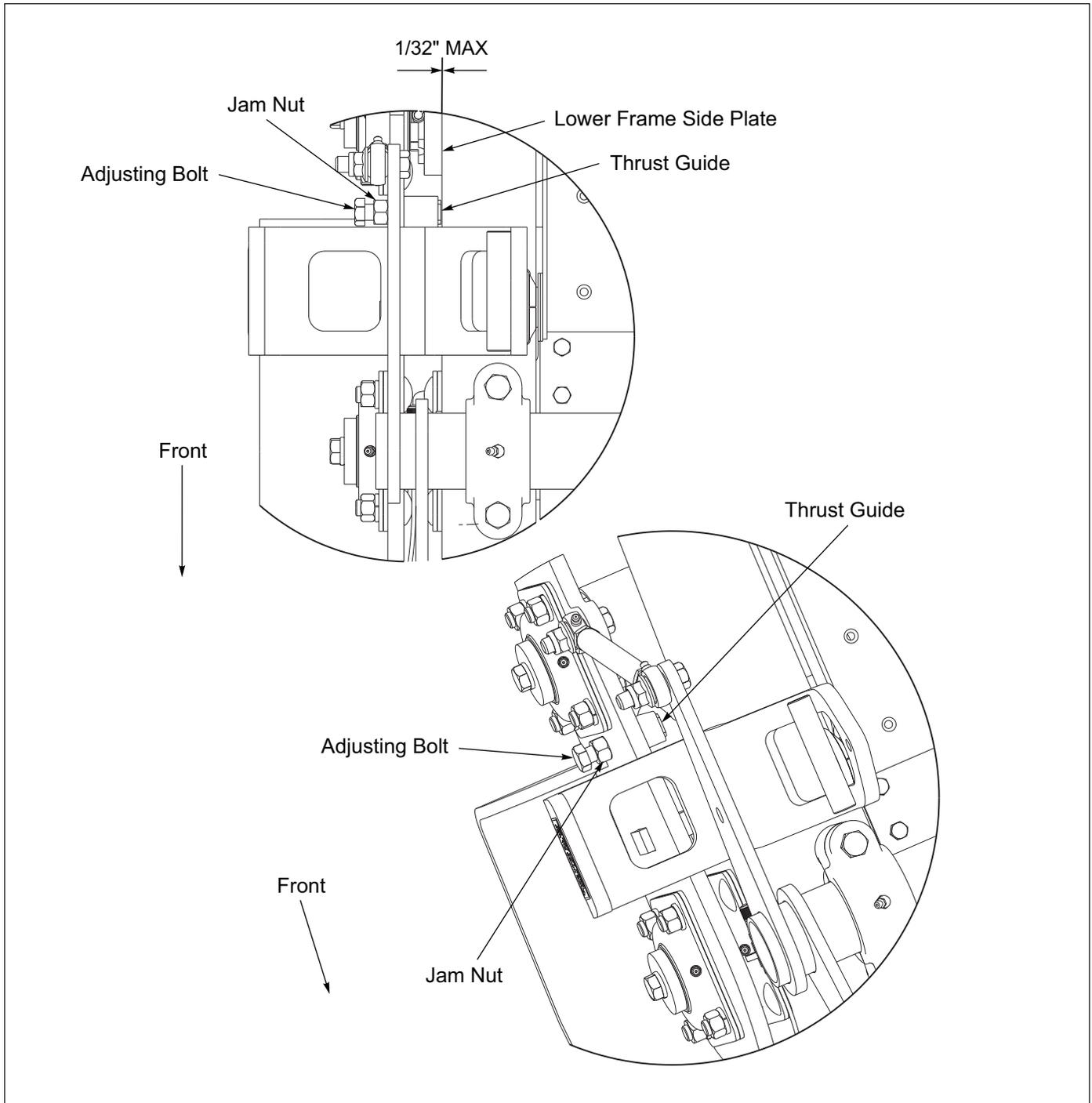


Figure 4-6: Rotor Thrust Guide

Chain Tension

Rotor Drive Chain

The #80 Rotor Drive Chain is properly adjusted when it has a 1/4" - 5/16" deflection across the top of the sprockets, while the bottom is tight. **See Figure 4-7.**

The Idler is specially designed so that if the Idler is unable to achieve the 1/4"-5/16" chain deflection, the chain needs to be replaced.

1. Adjust by loosening the Hex Nut and turning the Adjustment Bolt until the proper deflection is achieved.
2. Retighten Hex Nut.

Primary Drive Chain

The #40 Primary Drive Chain is properly adjusted when it has 5/16" – 3/8" deflection across the sprockets. **See Figure 4-8.**

1. Adjust by loosening the Hex Nut on the Tension Idler and slide the Tension Idler until the proper deflection is achieved.
2. Retighten Hex Nut.

Seed Box Drive Chain

The Till 'N Seed has three #40 Drive Chains that drive the Front and Rear Seed Box metering system. The #40 Seed Box Drive Chains are properly adjusted when they have 1/8" - 3/16" deflection across the sprockets. **See Figure 4-8.**

1. Adjust by loosening the Hex Nut on the Tension Idler and slide the Tension Idler until the proper deflection is achieved.
2. Retighten Hex Nut.

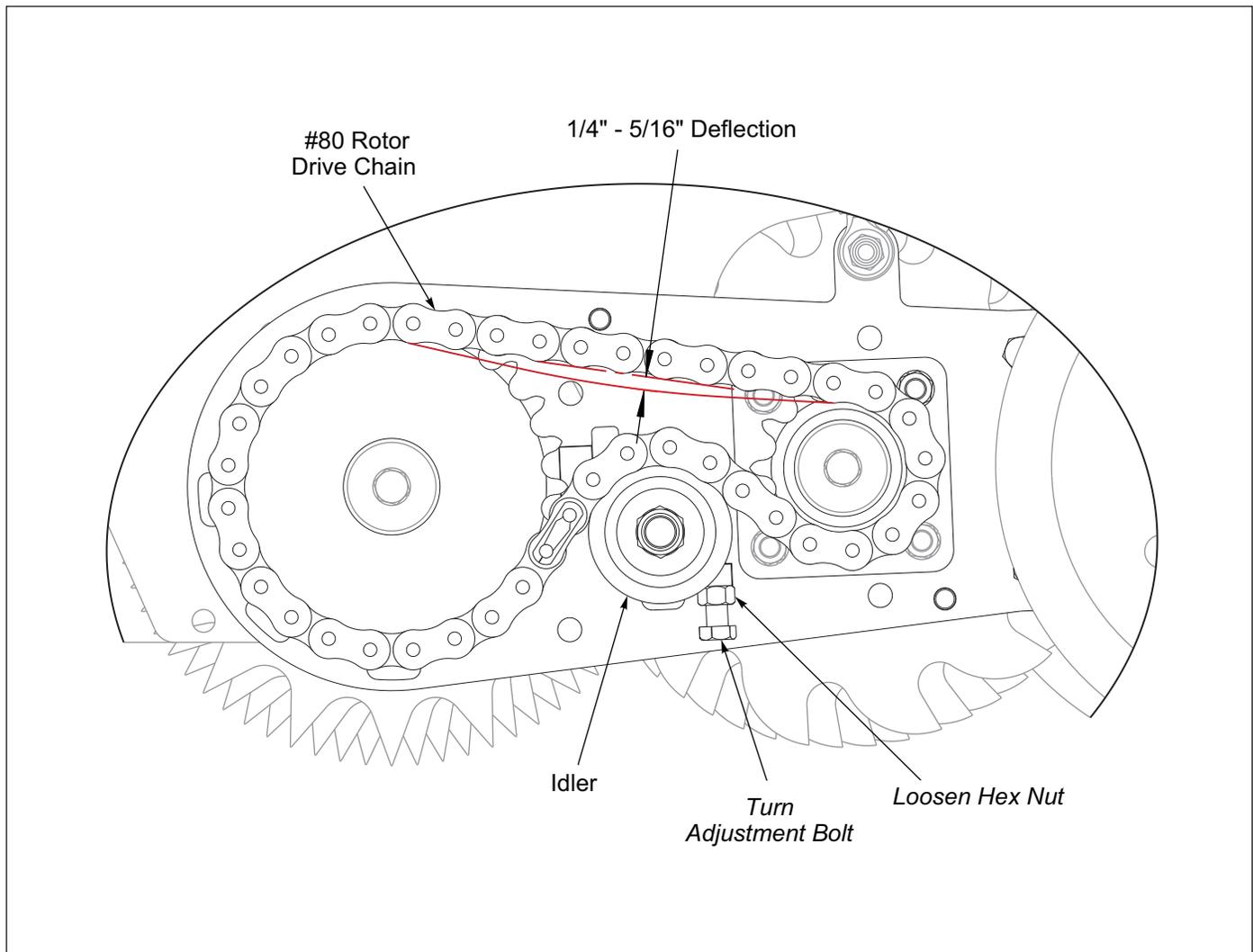


Figure 4-7: Chain Tension (#80)

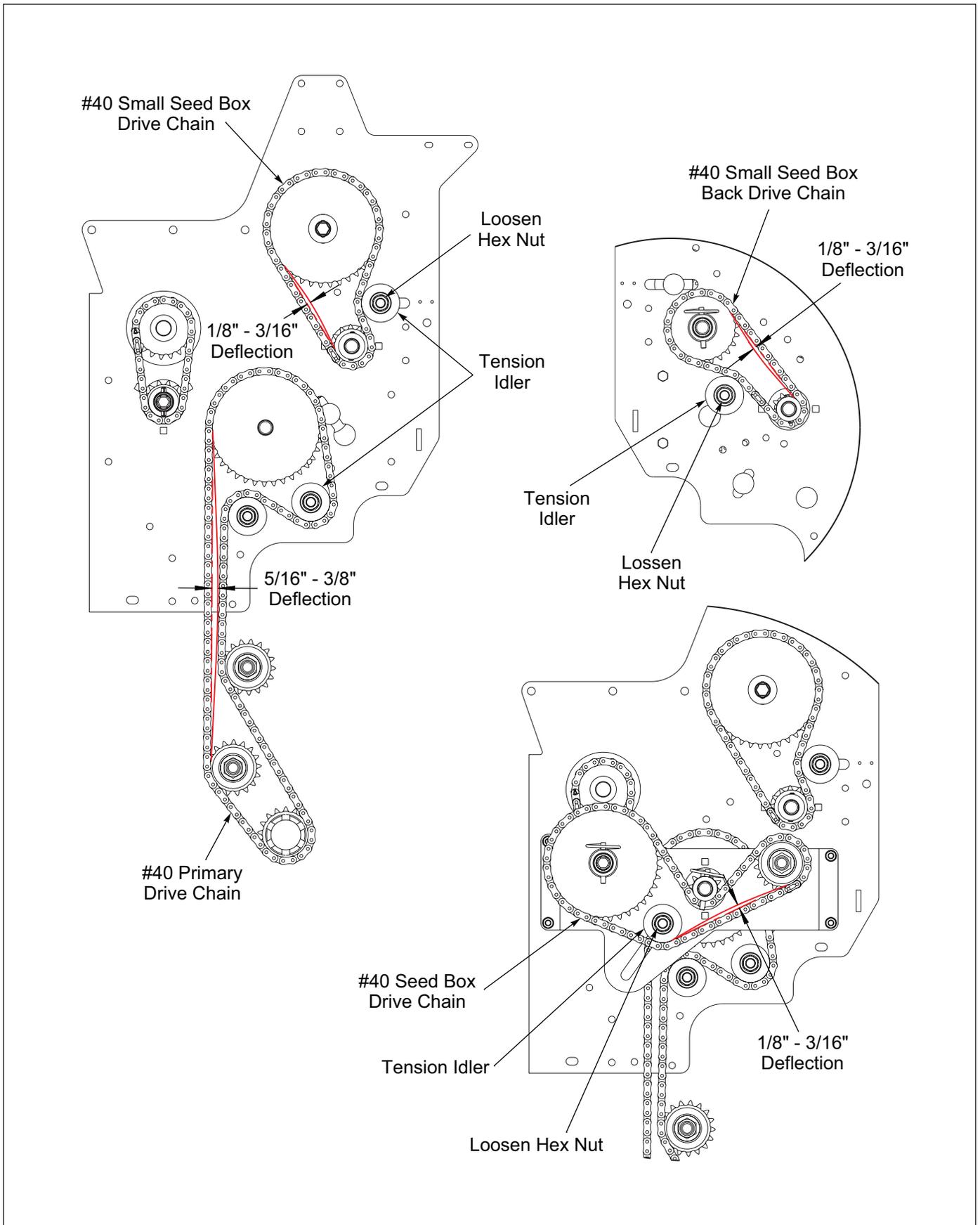


Figure 4-8: Chain Tension (#40)

Seed Meter Adjustment

IMPORTANT

Removed all seed out of the Front and Rear Seed Boxes including the Seed Meters before adjusting the Seed Meters.

IMPORTANT

All the Seed Meters **MUST BE CLOSED!** It may be necessary to individually adjust Seed Meter Cups.

All Seed Meters must be set the same to ensure uniform seeding. Use the wrenches located on the RH End Plate. To check, adjust the inner and outer 5/8-11 Adjusting Hex Nuts on the end of the Seed Shaft or Seed Shaft Extension until all the Seed Metering Cups are closed. Seed Meters are closed when the Seed Meter Feed Shutoff is against the Seed Meter Cup Star Washer in the Seed Meter Cup. **See Figures 4-9 and 4-10.** Tighten the 5/8-11 Adjusting Nuts against the Bearing and Spacer. If the Individual Seed Meters are not closed completely, adjust them as needed based on the Seed Meter size.

IMPORTANT

Ensure that the Seed Shaft can turn freely without any binding when the Seed Meters are open or closed after servicing. Seed Box with Large Seed Meters you may need to adjust the Seed Meter Support Hardware at each Seed Meter Cup.

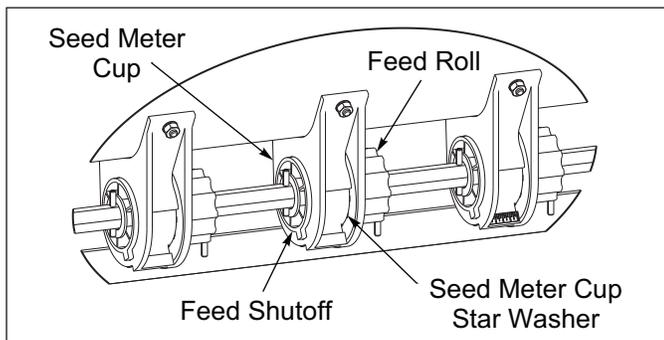


Figure 4-9: Large Seed Meter Feed Shutoff

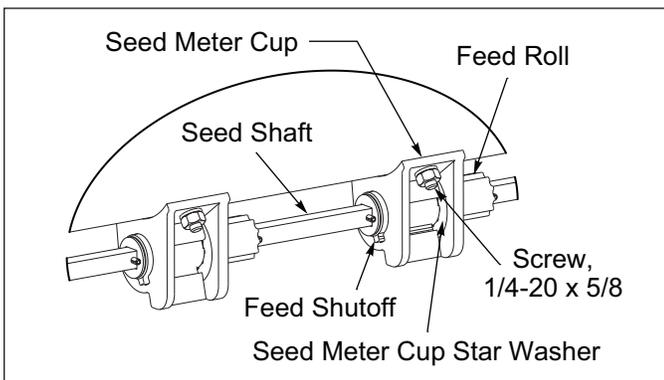


Figure 4-10: Micro-Meter Feed Shutoff

Adjusting Front Large Meter:

Individual Large Seed Meter Cups can be adjusted as required. Adjustments can be made by loosening the 1/4-20 x 5/8 Machine Screws that mount the Seed Meter Cup to the Seed Box and the 1/4-20 Nut that attaches the Seed Meter Support to the Seed Meter Cup. **See Figure 4-11.** Adjust the affected Seed Meter Cup so the Feed Shutoff is against the Seed Meter Cup Star Washer in the Seed Meter Cup (closed). Be sure the Feed Roll stays engaged in the Seed Meter Cup Star Washer. **See Figure 4-12.** Re-tighten 1/4-20 Hardware. Check for binding by turning Seed Shaft. After adjustments have been made, seal around the Large Meter Cups where they make contact to the Seed Box with clear Silicone.

With the Large Seed Meter Cups completely closed, the Indicator edge marked "0" should align with Seed Cup Cut-off end. If it does not, loosen Indicator mounting hardware and adjust it until it does. Re-tighten. **See Figure 4-13.**

The second Large Meter Seed Cup from each end has a Decal Scale applied to assist in determining how far open the meter is.

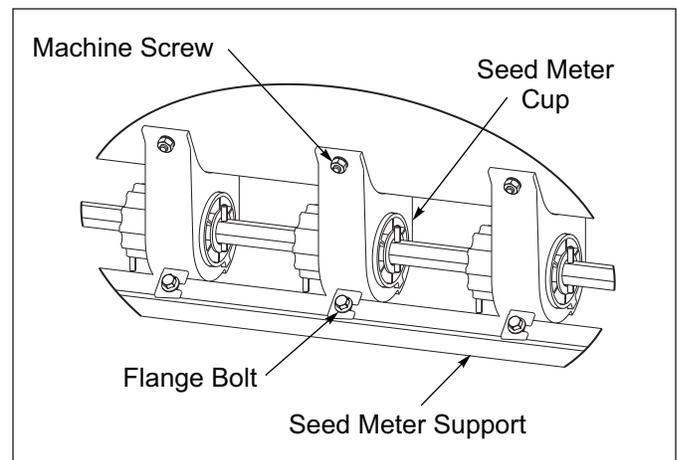


Figure 4-11: Large Seed Meter Support

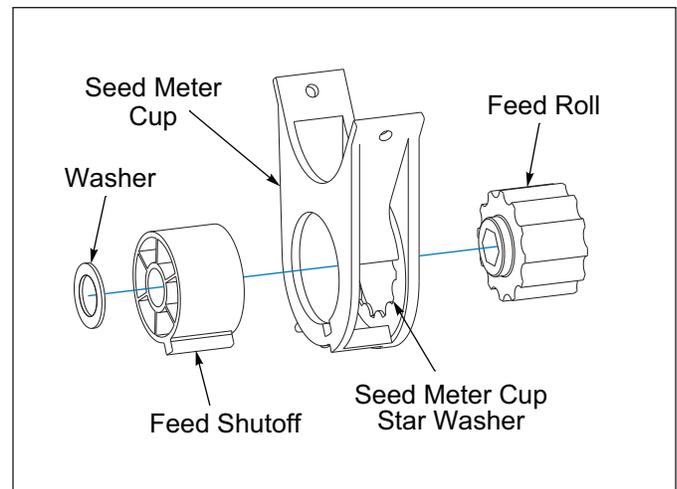


Figure 4-12: Large Seed Meter

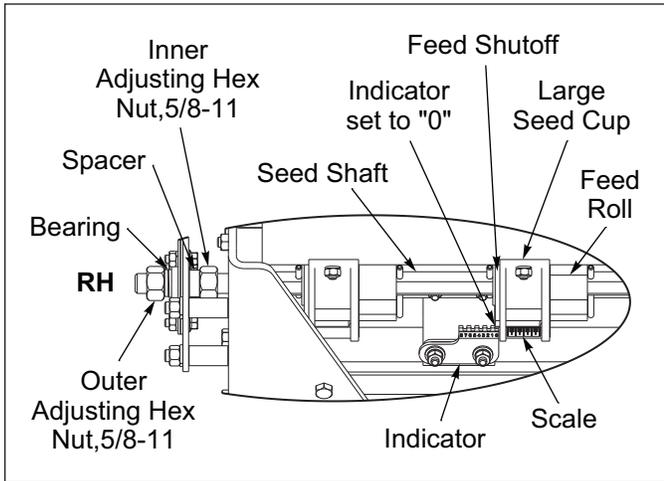


Figure 4-13: Front Large Meter Seed Rate Adjustment

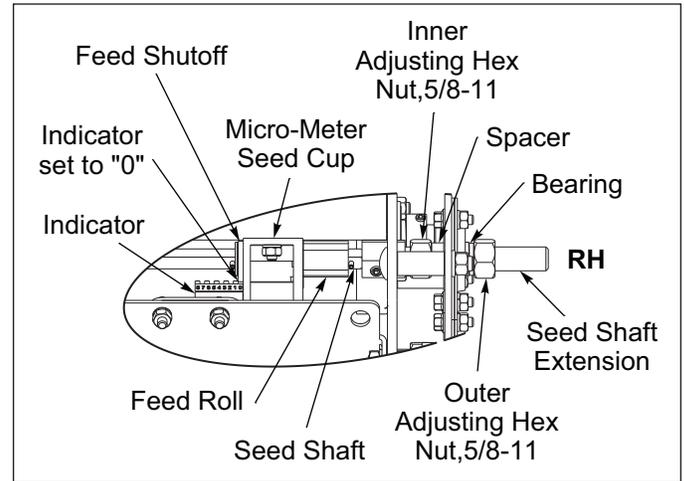


Figure 4-15: Rear Micro-Meter Seed Rate Adjustment

Adjusting Rear Micro-Meter:

Individual Seed Micro-Meter Cups can be adjusted as required. Adjustments can be made by loosening the 1/4-20 x 5/8 Machine Screws that mount the Seed Meter Cup to the Seed Box. Adjust the affected Seed Meter Cup so the Feed Shutoff is against the Seed Meter Cup Star Washer (closed). Be sure the Feed Roll stays engaged in the Seed Meter Cup Star Washer. **See Figure 4-14.** Re-tighten 1/4-20 Hardware. Check for binding by turning Seed Shaft.

With the Seed Micro-Meter Cups completely closed, the Indicator edge marked "0" should align with Seed Cup Cut-off end. If it does not, loosen Indicator mounting hardware and adjust it until it does. Re-tighten. **See Figure 4-15.**

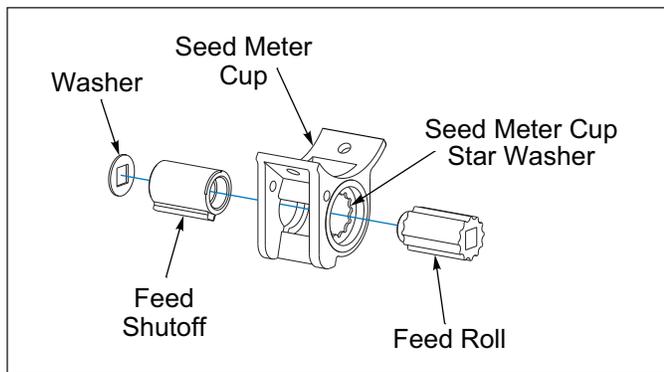


Figure 4-14: Micro-Meter

Servicing Metered Seed Shafts

After you have serviced a Seed Shaft, Seed Meters, or related components you will need to Zero out the Seed Meters to ensure that you are seeding uniformly. **See "Seed Meter Adjustment" on page 4-10.** The following is a list of things to be conscience of when re-assembling the Seed Shafts.

- Ensure that the Washers are adjacent to Seed Meter Feed Shutoffs. **See Figures 4-12 and 4-14.**
- Ensure that the Seed Shaft can turn freely without any binding when the Seed Meters are open or closed after servicing. You may need to adjust the Seed Meter Support Hardware at each Large Seed Meter.

Acre Meter Troubleshooting

IMPORTANT

Acre Meter is dust and splash resistant, under no circumstances should this unit be submerged in any conductive, corrosive, or flammable liquid. At no time use high pressure water or air to clean it, as this can damage the unit.



Figure 4-16: Acre Meter

NOTE

The ground wire is for static discharge protection and has no effect on the ability of the sensor to function properly under normal conditions.

The battery operated Acre Meter uses 3 AA batteries. The Acre Meter will display “LObat” when the batteries require replacement. Remove the Acre Meter from the implement and then the 4 Screws on the back of the case. See Figure 4-17. Separate the housing from the rear plate. Replace with 3 quality AA batteries.

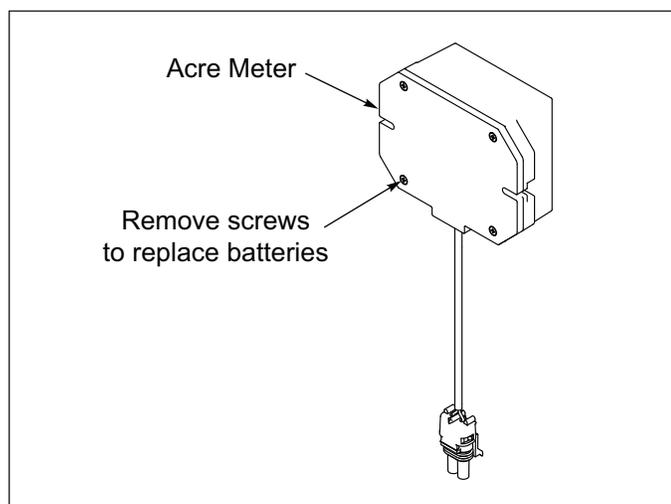


Figure 4-17: Battery Replacement

Acre Meter does not count pulses during calibration or does not count acres during operation.

1. Check the position of the Magnet Wheel Assembly and Pick-Up Switch against the set-up instructions in this manual. See "Acre Meter Installation - Optional" on page 2-6.
2. Verify that the magnet in the Magnet Wheel Assembly has not come out.

3. Place the Acre Meter display in “Calibrate” mode by pressing the *(FUNC) key until the “P-WORD” indicator is lit and then press the up/down arrow keys until the display shows 0 and the LED is blinking. Break the connection between the display and the Pick-Up Switch and short between pins A and B on the display harness connector. You should see the display increment +1 with each contact of the connector terminals.
4. If Step 3 works then wave a magnet in front of the Pick-Up Switch face with it re-connected to the display and see if the display increments up. If not, put an ohm meter or continuity tester on the contacts of the Pick-Up Switch harness and place a magnet in front of the Pick-Up Switch face. The Pick-Up Switch should show continuity or near 0 ohms resistance.

Acre Meter can not change the width or pulse count settings or clear the field and total acres.

1. Check to see if a password needs to be entered by pressing the *(FUNC) key until the “P-WORD” indicator LED is lit. If “dis” is displayed (password disabled) no password is set.
2. If “Ent” is displayed a password must be entered to change the settings or the password must be disabled as instructed in the setup section of this manual.

Storage

1. The service life of the Seeder will be extended by proper off-season storage practices. Prior to storing the unit, complete the following procedures:
 - Remove all seed out of the Front and Rear Seed Boxes including the Seed Meters.
 - 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.
 - Lubricate the machine as stated in "Lubrication" on page 4-2.
2. Store the unit in a shed or under a tarpaulin to protect it from the weather. The ground engaging components should rest on boards, or some other object, to keep them off the ground.
3. Lower Till 'N Seed on a flat or even surface.
4. Install Rockshaft Detent Pin and tighten Rockshaft Clamp Nut. See "Detaching Tractor from Till 'N Seed" on page 3-2.
5. Lower Stand.
6. Chock or block Front Rotor and Rear Firming Roller before unhitching from Tractor.

Maintenance Chart

(Subject to change without notice)

	Initial Run-In	8 Hours	20 Hours	Annually	Storage
Fasteners	X			X	
Grease Rockshaft Bearings		X		X	
Grease Rockshaft Link		X		X	
Grease Rotor and Roller Bearings			X	X	
Lubricate Roller Chains	X		X		X
Adjust Roller Chain Tension	X		X		
Adjust Rotor Thrust Guide	X		X		
Tighten Rotor Blades and Roller Wheels	X		X		
**Clean Machine					X
Grease After Cleaning					X
Touch-Up Paint					X

***Avoid spraying high pressure water directly at bearing seals and electrical components.*

Troubleshooting

Problem	Solution
Machine is shaking or Tillage Rotor is bouncing	Engage Gauge Wheel with ground
	Reduce operating depth of Tillage Rotor
	Increase air pressure in Air Shock
Machine is shaking and Drive Rotor is not Turning	Check if rotors are plugged
	Check Rotor Drive Chain
Drive Rotor is skidding	Check for items that maybe plugging rotors
	Too much air pressure in Air Shock on Tillage Rotor. Reduce air pressure.
	Rockshaft Lock Pin was left in. Remove Pin, put in storage position.
	Rockshaft Lock Clamp was not loosened. Loosen Lock Clamp.
	Check Rotor Drive Chain. Tension or repair as required.
Tillage Rotor Teeth plugging up with soil and vegetation	Soil is too wet for Seeder operation
Tillage Rotor plugging with long grass	Grass too wet or green for Seeder operation
Uneven seed distribution or uneven stand	Check plugged Seed Cups
	Check to see if Agitator is working properly
	Check if Drive Rotor is losing traction. <i>If so, reduce pressure in Air Shock on Tillage Rotor</i>
Seed is not coming out	Check if Transmission Klik Pin is in place on Seed Box Drive.
	Check if seed is in Seed Box
	Check if Transmission Chains are properly adjusted

Specifications

Product Attributes	BPSB-6
Approximate Weight (Empty)	2,120 lbs. (962 kg)
Three-Point Hitch Type	Cat. I, II, Quick-Attach, iMatch Compatible
Tractor Horsepower Range	35 to 60 HP (26 to 45 kw)
Tractor Lift Capacity Requirement	2,150 lbs. (977 kg) 24 in. (610 mm) Behind Lift Arms
Overall Width	90 in. (2.29 m)
Working Width	72 in. (1.83 m)
Base Unit Length	46 in. (1.17 m)
Unit Height	50 in. (1.27 m)
Recommended Speed	4 to 8 MPH (6.4 to 12.9 km/h) (Dependent on Conditions)
Acres/Hour	2.9 at 4 MPH, 5.8 at 8 MPH
Rotor Axles	1.75 in. (44.45 mm) Square Shaft
Rotor & Roller Bearings	1.5 in. (38.1 mm) Greaseable Bearings
Drive Rotor (Front)	414 lbs. (193 kg)
Number of Blades	31
Blade Material	Abrasion Resistant Steel
Blade Spacing	2.25 in. (57.15 mm)
Blade Thickness	0.313 in. (7.95 mm)
Blade Diameter	13 in. (330.2 mm) OD
Drive Type	Ground
Tillage Rotor (Middle)	351 lbs. (166 kg)
Number of Blades	32
Blade Material	Abrasion Resistant Steel
Blade Spacing	2.25 in. (57.15 mm)
Blade Thickness	0.188 in. (4.78 mm)
Blade Diameter	13 in. (330.2 mm) OD
Drive Ratio	2:01
Independent Flotation	Standard
Down Force Adjustability	Standard
Drive Type	Number 80 Roller Chain
Firming Roller (Rear)	231 lbs. (105 kg)
Number of Cast Wheels	37
Rear Firming Roller Scraper Kit	Optional
Independent Flotation	Standard
Air Shock	Standard
Air Pressure Range	20 to 120 psi (138 to 827 KPa)
Frame Construction	All Welded Structural Steel
Seed Box	Standard - Front & Rear
Seed Box Capacity	4.5 Bushels (158.5 l) + 1.4 Bushels (49.3 l)
Seed Metering	High Capacity Micro-Meter/Standard Micro-Meter
Seed Metering Drive	Positive Ground Driven
Drive Type	Roller Chain
Electronic Acre Meter	Optional
Powder Coat Paint, Red	Standard

Specifications subject to change with or without notice.

Figure 5-1: Model Specifications

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

DATA PLATE

The Data Plate, which lists the model and serial number of the equipment, is located on the left side of the Till 'N Seed[®].

SERIAL NUMBER NOMENCLATURE

The following information will help decode the Landoll serial number.

ASD2200100 = xxmysssss

xx	= model series (i.e. "AS" for all AG Seeders)
m	= month of manufacture (ex. "D" means April. The letter I is not used.)
yy	= last digits of the year manufactured (ex. "22" means 2022)
sssss	= Sequential number used to track warranty and service information.

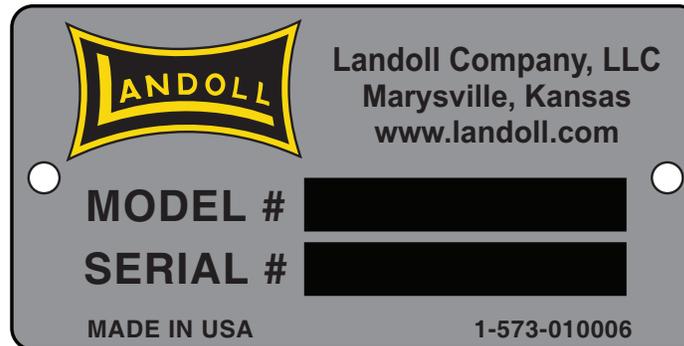


Figure 4-1: Data Plate

Manuals for Till 'N Seed - 6FT

Manual Number	Manual Type
3P091	Operator's Manual
3P092	Parts Manual

Document Control Revision Log:

Date	Form #	Improvement(s): Description and Comments
03/2011	3P091-311rev0511	New Release
09/2011	3P091-311rev0911	Updated, Incorporated Landoll Format
03/2013	3P091-311rev0313	Added New Acre Meter Data
01/2014	3P091-311rev0114	Added Patent Decal. Manufactured under Patent #8,590,632
08/2020	3P091-0820	Added Rear Roller Scraper Option Updated ISO logos to ISO 9001:2015 (Revised 04/2024)
09/2024	3P091-2409	ECN 49821 - Add Decals: QR Code, FEMA ECN 50051 - Final Assembly Revised Template and Updated Drawings



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

Till 'N Seed®
Models BPS6 and BPSB6
Operator's Manual
Re-Order Part Number 3P091

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