



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



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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.

NOTE

The machine shown in the following illustrations may not agree with your unit. Your assembled machine, however, is similar for all models. Additional parts identification and location can be obtained by reviewing the parts catalog.

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. They have trained personnel, parts and service equipment specially designed for Brillion products. Your machine's parts should only be replaced with Brillion parts. Have the Serial Number and complete Model Number available when ordering parts from your Brillion dealer. See Figure 1-1.

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.

MODEL NUMBER

SERIAL NUMBER

DATE OF PURCHASE

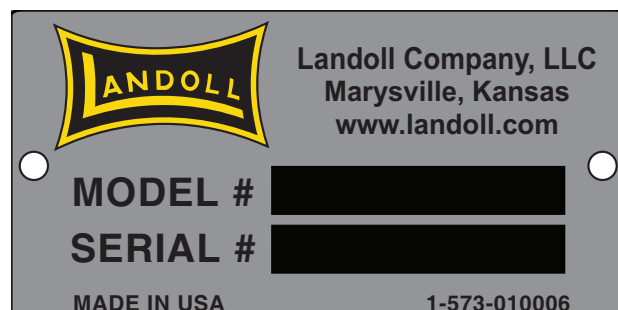


Figure 1-1: ID Plate

SAFETY INFORMATION

Federal law requires that you explain the safety and operating instructions furnished with this machine to all operators before they are allowed to operate the machine. These instructions must be repeated to the operators at the beginning of each season. Be sure to observe and follow the instructions for the safety of anyone operating or near the machine.

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 may cause injury to person or damage product.



WARNING

Proceed with caution. Failure to heed warning will 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 machine decals before you attempt to operate or maintain this equipment.

- Examine safety decals and be sure you have the correct safety decals for the machine. See Safety Sign and Locations in Safety Section for decal locations, See Figures 1-3, 1-4, 1-5 and 1-6. 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 machine. Wash with soap and water or a cleaning solution as required.
- Replace decals that become damaged or lost. Also, be sure that any new machine components installed during repair include decals which are assigned to them by the manufacturer.
- When applying decals to the machine, 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

- **Keep Riders Off of Machinery**

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.
- Install Rockshaft Lock Detent Pin and tighten Rockshaft Clamp prior to tying it down onto trailer. See Chapter 2 Operation. Failure to do so may result in tie downs becoming loose and machine damage.
- 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
- Before detaching implement from the tractor, lower machine to the ground and tighten nut on the Rockshaft Clamp to prevent movement. Install Rockshaft Lock Detent Pin if Rockshaft Lock Slot aligns with Frame Tab Hole. Lower stand. See Figure 1-2.

Attaching, Detaching, Storage

- Do not stand between the tractor and implement when attaching or detaching implement unless both are not moving.



Figure 1-2: Rockshaft Lock

Maintenance Safety

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

NOTE

On most tractors relieving hydraulic pressure can be accomplished by operating valves after the engine is stopped. Also, the machine should be lowered to ground so that the shanks are taking the load.

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

Prepare for Emergencies

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

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 and equipment.
- Wear clothing and equipment appropriate for the job. Avoid loose fitting clothing.
- Because prolonged exposure to loud noise can cause hearing impairment or hearing loss, wear suitable hearing protection, such as earmuffs or earplugs.

Chemical Safety

- Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil & property.
- Read chemical manufacture's instructions and store or dispose of unused chemicals as specified.
- Handle chemicals with care and avoid inhaling smoke from any type of chemical fire.
- Store or dispose of unused chemicals as specified by the chemical manufacturer.

Decals

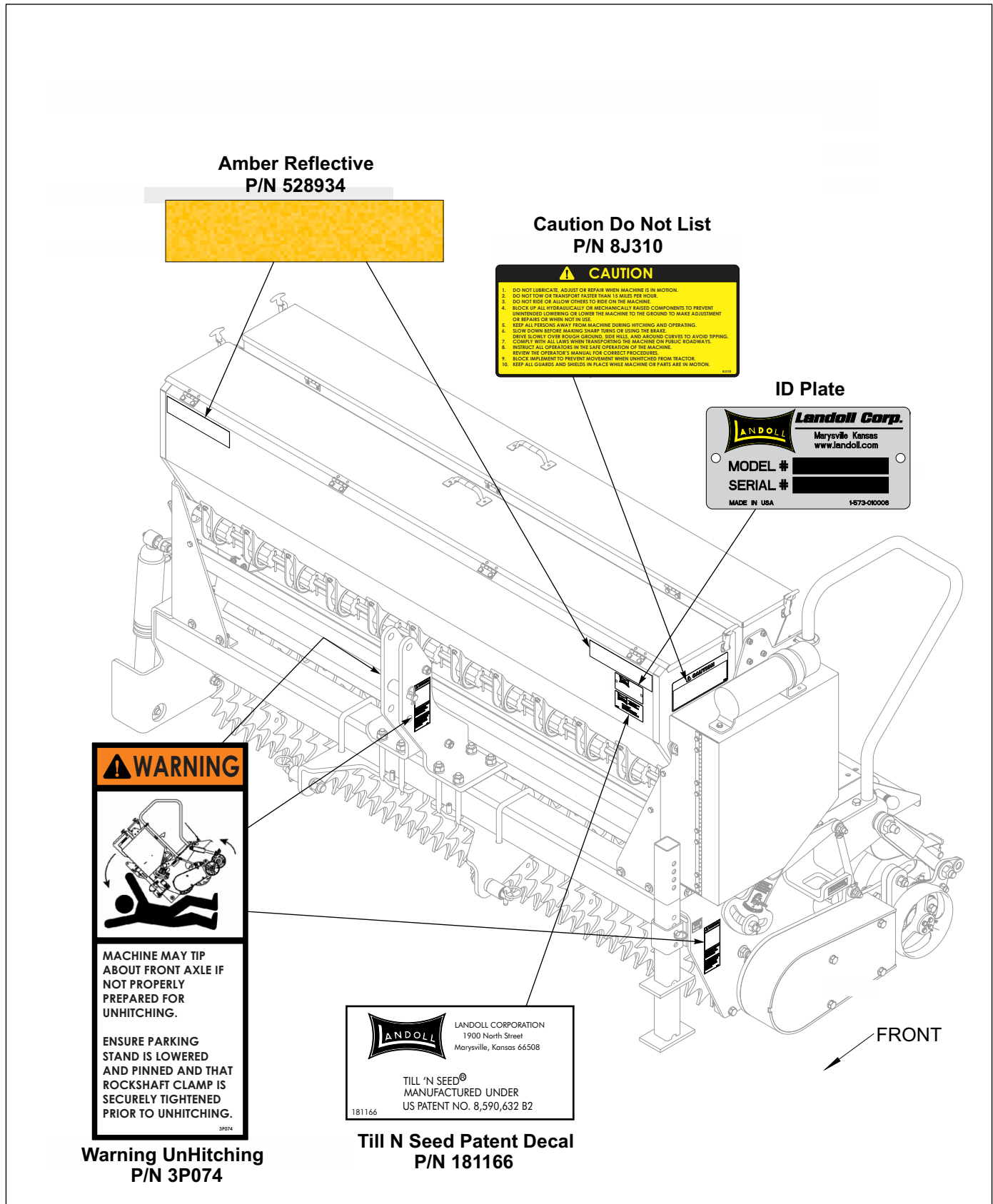


Figure 1-3: Decals (1 of 5)

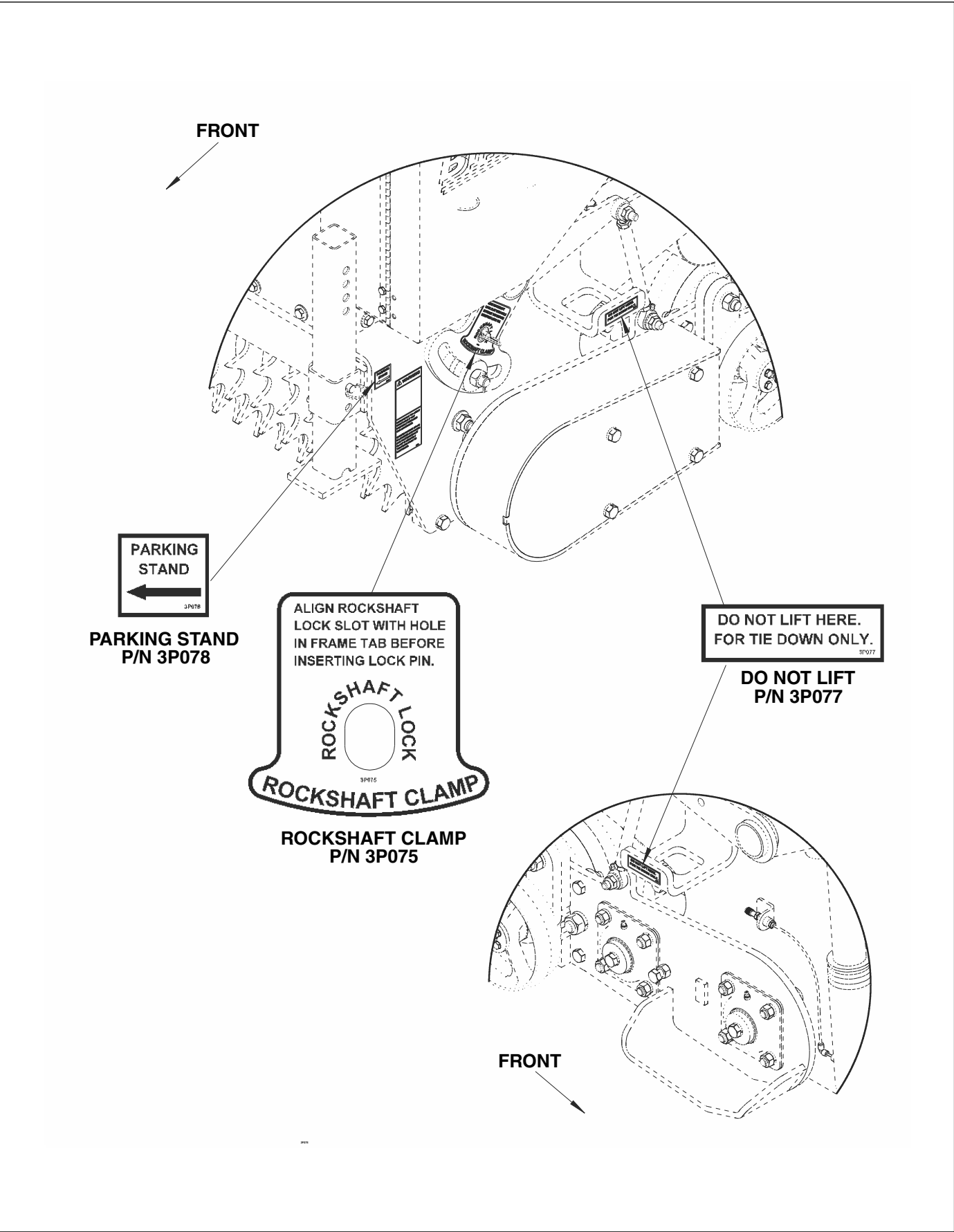


Figure 1-4: Decals (2 of 5)

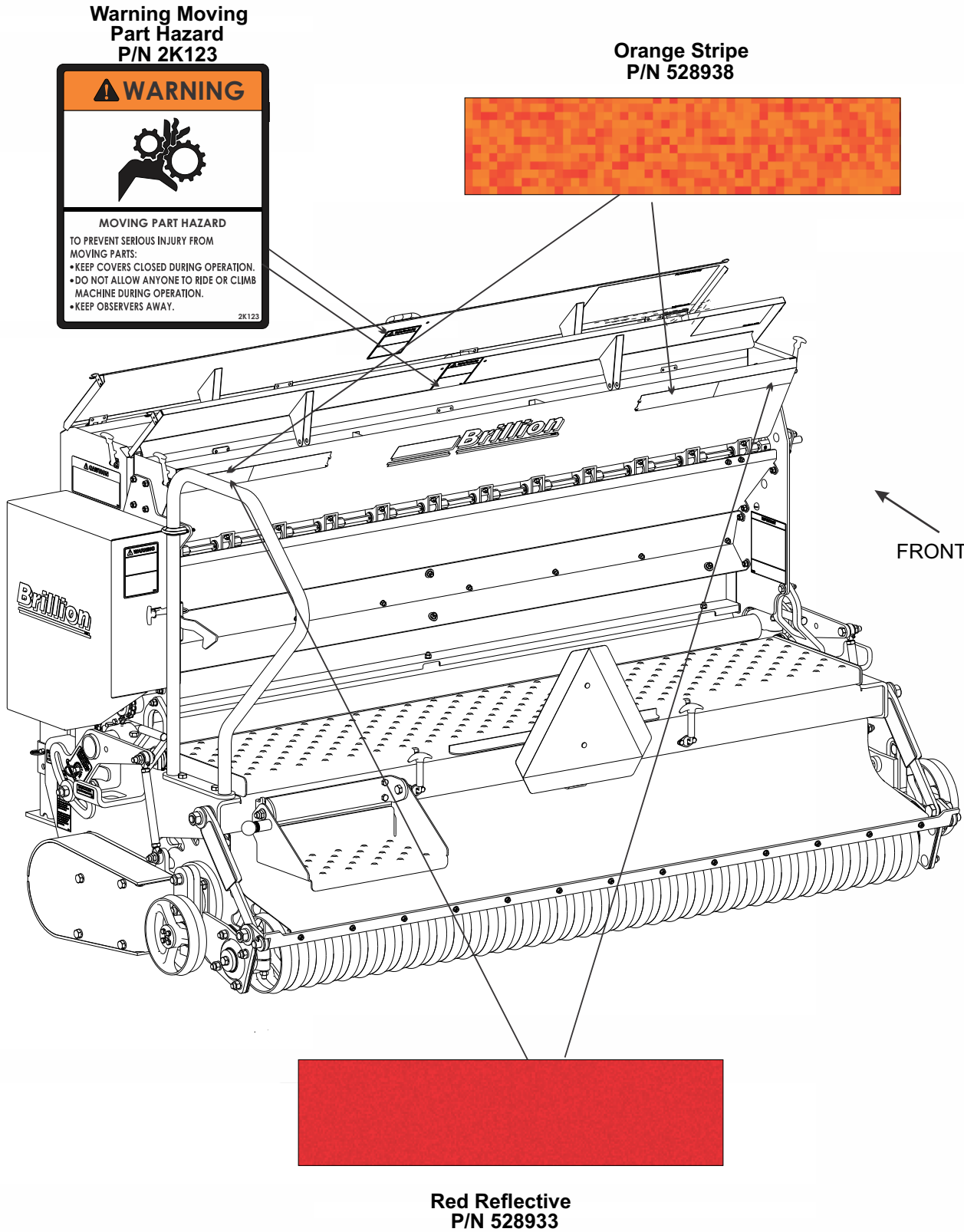


Figure 1-5: Decals (3 of 5)

FRONT BOX SEED CHART
P/N 3P158

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 1-3/8 MILE)

Frost Free - 50-141 Seed Months			INDICATOR SETTINGS									INDICATOR SETTINGS								
Seed	Notes	Range	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		Low	12	27	47	71	98	124	150	176	198	0.25	0.51	0.76	1.04	1.25	1.48	1.61	1.83	2.03
		Med	26	56	91	140	205	281	357	431		0.60	1.20	2.26	3.42	4.71	5.93	7.14	8.43	9.40
		High	39	81	144	210	300	379	454	527	604	0.87	1.67	3.31	5.01	6.80	8.67	10.43	12.19	13.86
Barley		Low	5	16	35	59	81	110	134	152	172	0.13	0.36	0.61	1.04	1.67	2.52	3.57	4.81	6.07
		Med	11	33	74	122	179	229	280	329	378	0.26	0.75	1.70	2.80	3.91	5.26	6.42	7.96	8.90
		High	17	40	100	170	240	315	401	481	540	0.39	1.10	2.40	4.09	5.71	7.00	8.29	11.05	12.43
Berseem		Low	6	22	42	64	85	110	135	160	180	0.13	0.51	0.86	1.40	1.96	2.52	3.10	3.67	4.12
		Med	12	46	87	125	170	220	281	334	376	0.26	1.06	2.01	3.09	4.09	5.06	6.49	7.67	8.63
		High	18	68	128	187	260	336	413	488	540	0.40	1.55	2.93	4.51	5.90	7.71	9.40	11.21	12.81
Bermuda Grass		Low	8	17	28	44	67	89	108	131	148	0.19	0.39	0.66	1.01	1.53	2.03	2.46	3.01	3.39
		Med	17	36	60	92	138	205	275	350		0.38	0.82	1.30	2.11	3.09	4.20	5.19	6.20	7.09
		High	24	52	88	134	204	271	336	401	450	0.56	1.20	2.02	3.08	4.67	6.21	7.57	9.21	10.37
Centipede Grass		Low	3	9	16	23	30	38	44	50		0.06	0.14	0.23	0.36	0.53	0.70	0.88	1.02	1.15
		Med	6	13	21	33	46	64	80	100		0.13	0.29	0.49	0.76	1.10	1.44	1.84	2.13	2.46
		High	8	19	31	46	71	93	117	136	153	0.19	0.43	0.71	1.10	1.63	2.15	2.68	3.12	3.51
Chickpea		Low	7	19	37	64	86	113	140	168	189	0.17	0.44	0.85	1.46	1.99	2.59	3.26	3.85	4.33
		Med	15	41	77	133	201	269	337	401		0.35	0.93	1.71	2.65	4.10	5.40	6.87	8.06	9.06
		High	22	59	113	184	264	345	427	517	577	0.51	1.36	2.59	4.46	6.07	7.90	10.04	11.70	13.25
Citrus		Low	4	10	19	36	48	63	79	96	107	0.10	0.22	0.43	0.62	1.11	1.44	1.73	1.97	2.22
		Med	9	20	39	74	101	131	167	198	220	0.21	0.46	0.86	1.71	2.32	3.01	3.61	4.33	4.84
		High	14	30	57	109	140	192	236	291	296	0.31	0.80	1.52	2.50	3.39	4.40	5.20	6.33	6.79
Deciduous		Low	4	21	41	58	81	100	121	140	158	0.09	0.40	0.93	1.33	1.85	2.30	2.77	3.23	3.63
		Med	8	44	85	131	189	252	324	391		0.19	1.01	1.94	2.77	3.67	4.80	5.79	6.75	7.60
		High	12	64	124	176	246	336	440	480	527	0.27	1.40	2.84	4.05	5.40	7.00	8.40	9.97	11.01
Endive		Low	7	19	34	64	101	127	152	175	193	0.17	0.40	0.78	1.46	2.31	2.82	3.61	4.02	4.52
		Med	15	37	71	133	211	266	321	366	427	0.35	0.84	1.62	3.05	4.03	6.11	7.54	8.40	9.46
		High	22	54	103	184	260	340	421	500	550	0.51	1.23	2.37	4.46	7.07	8.93	11.05	12.10	13.02
Flax		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
		Med	9	41	66	98	127	158	188	222	240	0.22	0.94	1.51	2.25	2.91	3.63	4.36	5.09	5.72
		High	14	40	97	162	233	293	344	394		0.32	1.20	2.23	2.99	4.26	5.37	7.44	8.37	
Grass		Low	10	23	39	59	83	110	144	172	193	0.12	0.32	0.56	1.04	1.51	2.25	3.31	3.95	4.44
		Med	20	40	79	122	174	230	302	368	405	0.46	1.09	1.81	2.79	4.00	5.29	6.53	8.26	9.29
		High	30	70	115	170	253	337	441	526	597	0.69	1.69	2.44	4.00	5.84	7.74	10.13	12.07	13.58
Grass, Red		Low	14	32	48	67	87	106	125	146	160	0.23	0.74	1.12	1.54	2.00	2.46	2.97	3.39	3.86
		Med	30	67	102	140	223	261	297	334		0.69	1.55	2.34	3.23	4.19	5.15	6.00	6.91	7.66
		High	44	99	140	205	267	325	382	434	480	1.01	2.26	4.42	6.71	9.13	11.47	13.77	15.96	17.20

PLANTING RATES

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																	
Canola (Blue)	(F)	Low	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Med	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		High	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		High	5	10	21	36	57	70	86	104	117	0.12	0.23	0.40	0.63	1.01	1.30	1.60	1.97	2.30
Fescue, Tall	(F)	Low	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Med	11	21	40	76	120	146	180	210	245	0.26	0.49	1.03	1.74	2.75	3.35	4.12	5.01	5.63
		High	17	35	65	111	175	213	262	319	359	0.38	0.71	1.50	2.55	4.00	4.80	6.02	7.32	8.23
		High	11	21	40	76	120	146	180	210	245	0.26	0.49	1.03	1.74	2.75	3.35	4.12	5.01	5.63
Millet	(F)	Low	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Med	11	23	44	82	122	164	207	244	284	0.26	0.52	1.00	1.60	2.60	3.82	4.75	5.59	6.52
		High	17	33	60	100	143	182	226	266	315	0.38	0.76	1.40	2.40	4.00	5.50	6.94	8.17	9.53
		High	11	23	44	82	122	164	207	244	284	0.26	0.52	1.00	1.60	2.60	3.82	4.75	5.59	6.52
Oats	(F)	Low	0	0	0	0	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Med	8	33	69	105	142	173	205	239	271	0.00	0.76	1.50	2.43	3.22	3.96	4.71	5.54	6.40
		High	8	40	100	155	207	252	300	370	426	0.00	1.11	2.30	3.55	4.75	5.79	6.80	8.00	9.77
		High	8	33	69	105	142	173	205	239	271	0.00	0.76	1.50	2.43	3.22	3.96	4.71	5.54	6.40
Pyrgegrass	(F)	Low	4	11	25	39	53	67	80	92	103	0.00	0.25	0.57	0.89	1.22	1.54	1.83	2.11	2.37
		Med	8	23	52	81	111	140	166	192	216	0.17	0.52	1.00	1.80	2.55	3.32	3.82	4.46	4.96
		High	11	33	76	110	163	205	243	281	316	0.25	0.76	1.74	2.72	3.73	4.75	5.59	6.46	7.26
		High	8	23	52	81	111	140	166	192	216	0.17	0.52	1.00	1.80	2.55	3.32	3.82	4.46	4.96
Sorghum Sudan	(F)	Low	5	14	27	42	57	71	86	99	111	0.15	0.56	1.03	1.63	2.27	2.84	3.37	3.83	4.31
		Med	14	51	94	140	207	266	327	380	433	0.30	1.06	2.05	3.41	4.75	6.10	7.40	8.60	9.82
		High	20	74	137	217	302	379	449	511	574	0.46	1.70	3.14	4.98	6.94	8.67	10.30	11.72	13.19
		High	14	51	94	140	207	266	327	380	433	0.30	1.06	2.05	3.41	4.75	6.10	7.40	8.60	9.82
Sorghum	(F)	Low	8	21	51	79	101	126	151	173	194	0.00	0.40	1.17	1.79	2.31	2.80	3.46	3.96	4.40
		Med	8	44	107	163	212	263	315	361	409	0.00	1.01	2.46	3.74	4.87	6.03	7.23	8.29	9.32
		High	8	64	156	238	309	384	460	527	593	0.00	1.47	3.59	5.47	7.12	8.62	10.32	11.51	13.02
		High	8	44	107	163	212	263	315	361	409	0.00	1.01	2.46	3.74	4.87	6.03	7.23	8.29	9.32
Tropic, Purple Top	(F)	Low	10	25	40	67	91	110	130	155	174	0.22	0.57	1.03	1.54	2.09	2.52	2.90	3.36	3.80
		Med	20	50	94	140	191	230	273	324	364	0.47	1.10	2.15	3.22	4.30	5.26	6.26	7.48	8.37
		High	30	75	127	205	279	358	427	503	569	0.69	1.73	3.44	4.70	6.39	7.72	9.14	10.67	12.23
		High	20	50	94	140	191	230	273	324	364	0.47	1.10	2.15	3.22	4.30	5.26	6.26	7.48	8.37
Wheat, White	(F)	Low	16	32	55	79	99	122	141	159	179	0.36	0.73	1.26	1.79	2.27	2.80	3.24	3.65	4.10
		Med	33	67	114	163	207	255	302	374		0.76	1.54	2.63	3.73	4.95	6.05	7.30	8.63	9.59
		High	46	90	167	230	302	372	452	485	540	1.11	2.24	3.84	6.05	6.94	8.55	9.91	11.14	12.54
		High	33	67	114	163	207	255	302	374		0.76	1.54	2.63	3.73	4.95	6.05	7.30	8.63	9.59

NOTES:

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

3P158 FOR TILL 'N

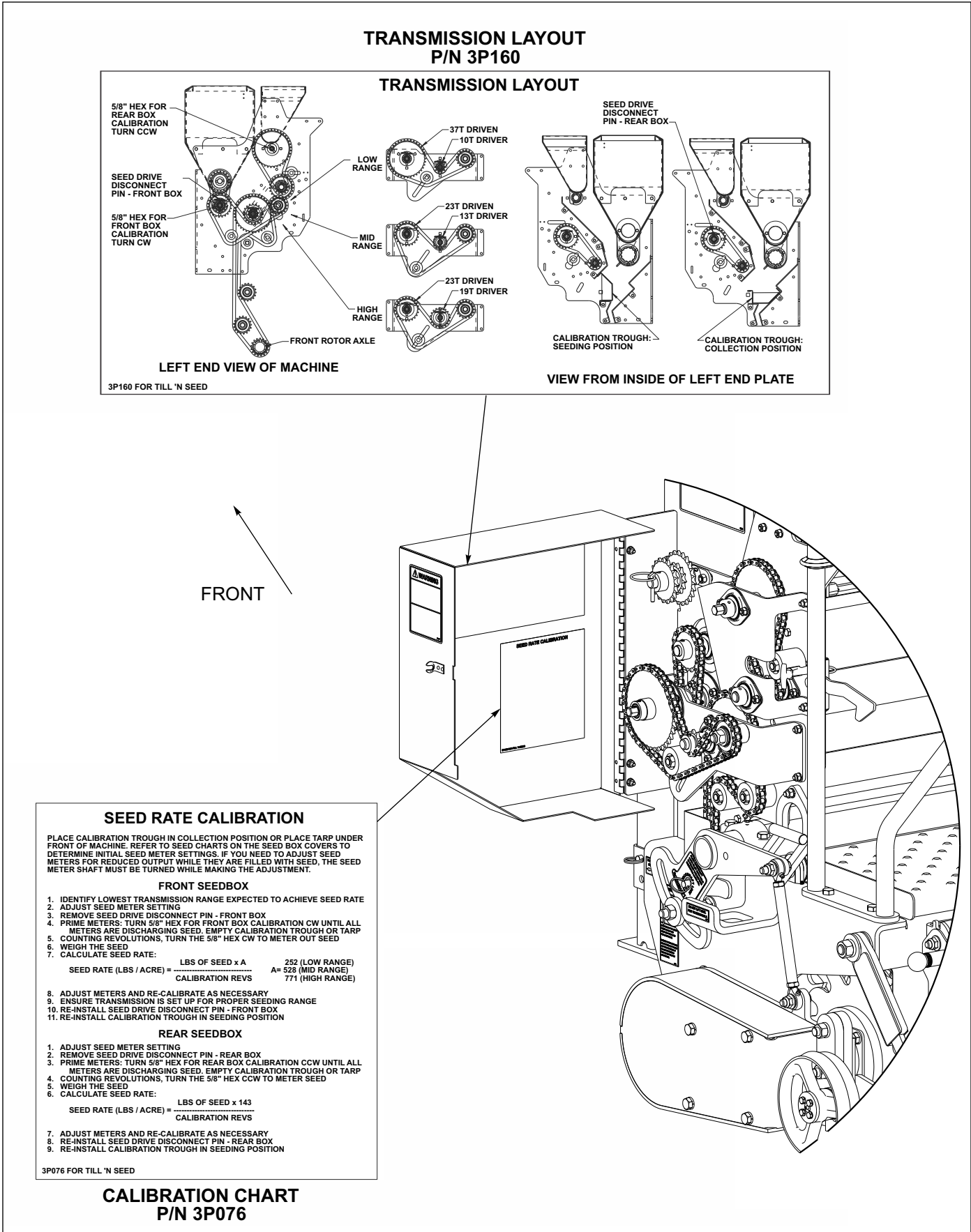


Figure 1-7: Decals (5 of 5)

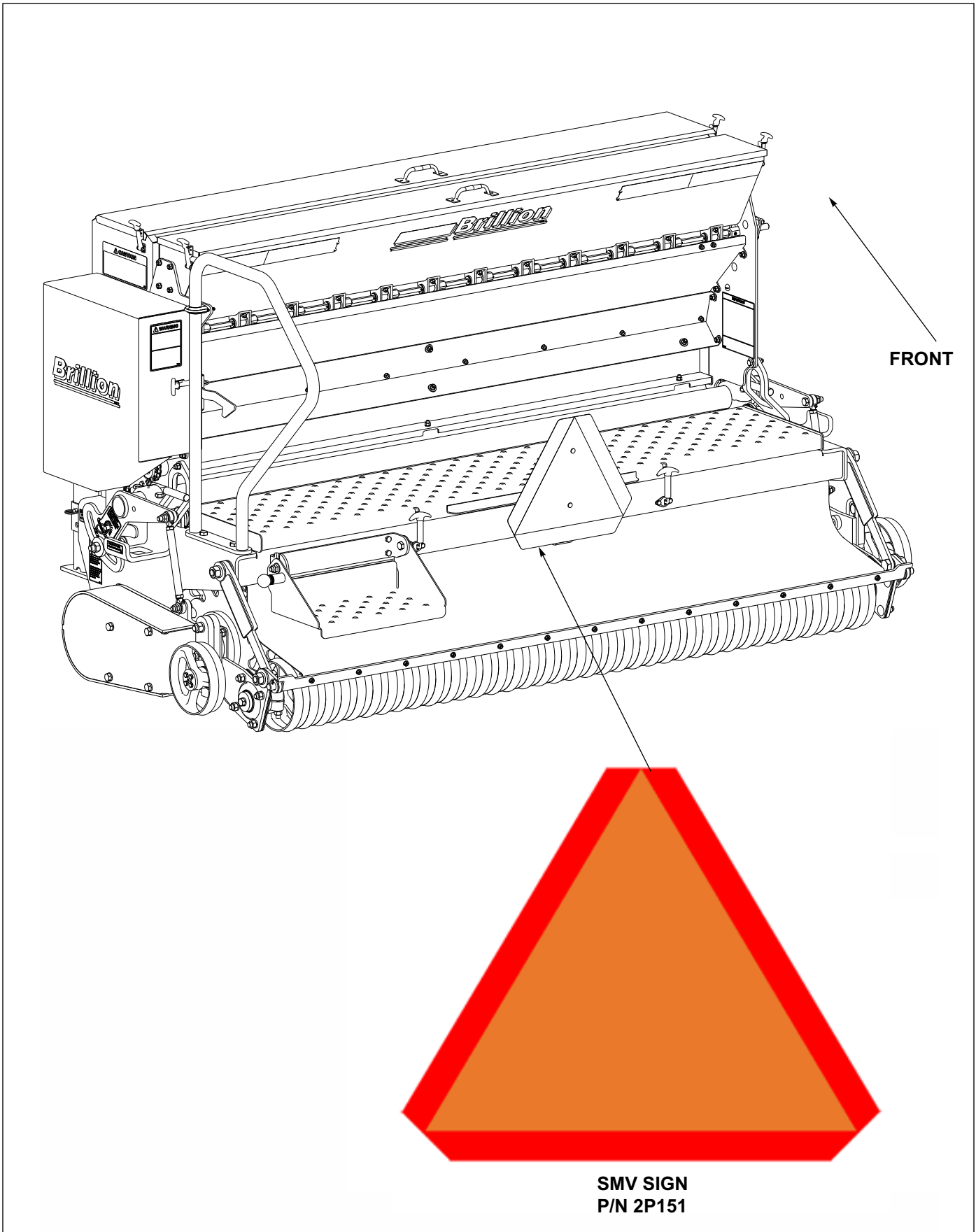


Figure 1-8: Slow Moving Vehicle Sign

Chapter 2

Operation

Operation of Till 'N Seed

Your BRILLION TILL 'N SEED is fully assembled from the factory. This section refers to how to successfully operate your machine. Refer to the Parts Manual 3P092 for complete part breakdowns. Be sure to read and understand the Safety Procedures and Cautions starting on page 1-2.

"Left" and "Right" designation is determined by facing the direction the machine will travel during field operation, unless otherwise stated.

- 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 are spread.
- Refer to the Torque Chart in Chapter 4 for proper bolt torque values.

Note the different torque requirement for bolts with lock nuts. Refer to Torque Chart in Chapter 4.



DANGER

Always be sure the front of the tractor has enough weight to maintain control when the machine is raised.



WARNING

When transporting on roadways, obey all applicable laws and regulations.

Do not transport at speeds over 20 mph under good conditions. never travel at a speed which does not allow adequate control of steering or stopping.

Avoid sudden stops or turns because the weight of the machine may cause the operator to lose control of the tractor.

Make sure your slow moving vehicle sign is clean and visible.

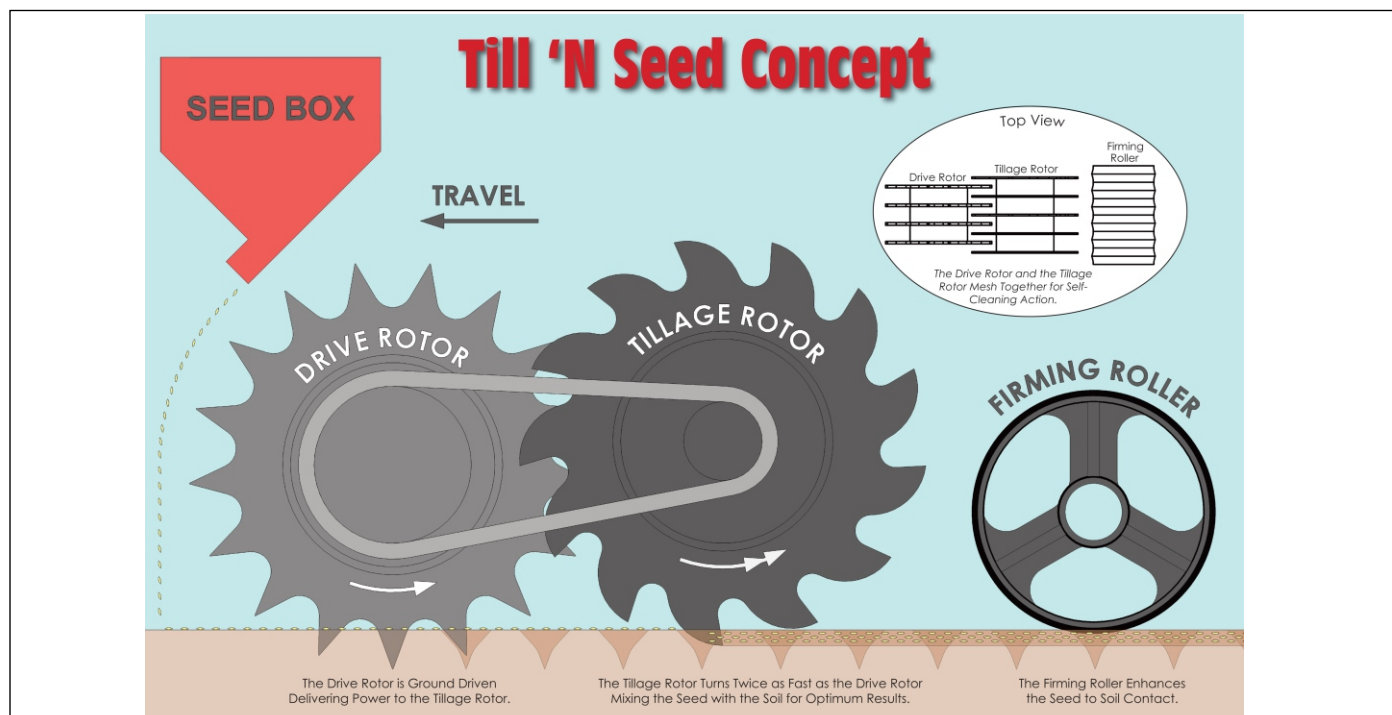


Figure 2-1: Till 'N Seed Concept

Attaching to a Tractor

- Your implement requires a tractor with a lift capacity of 2,150 lbs, 24 inches behind the lift pins. Compatible with Three Point Hitch Category I or II, Quick Attach Category I or II, and iMatch™.
- If an offset is required for wider tractors, move the Three Point Hitch towards the transmission side of the machine. See Figure 2-2.

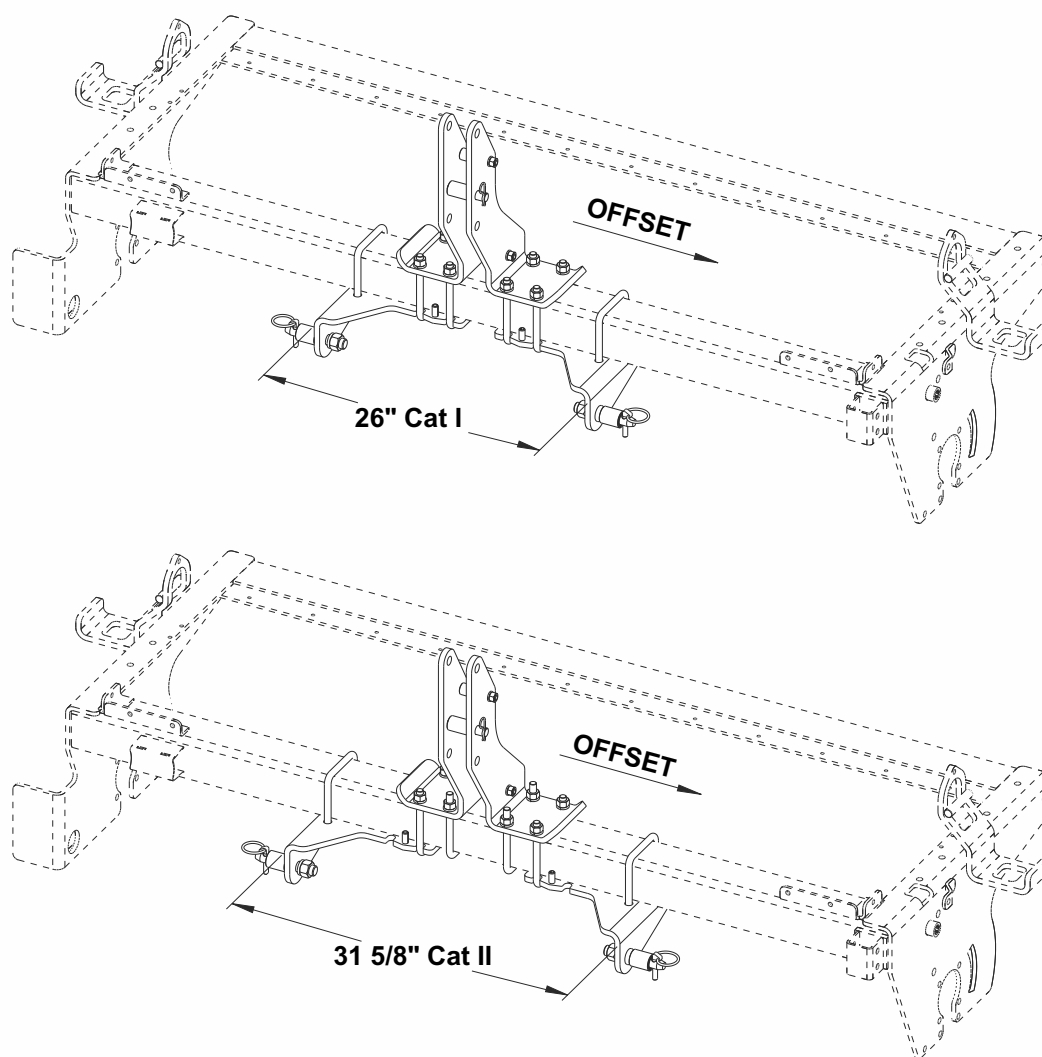


Figure 2-2: 3 Point Hitch

- After attaching the implement to the tractor and prior to lifting the machine, loosen the nut on Rockshaft Clamp enough to allow movement and remove the Rockshaft Lock Detent Pin. Insert Detent Pin in the storage hole on Rockshaft Arm. Raise the Stand. See Figure 2-3.

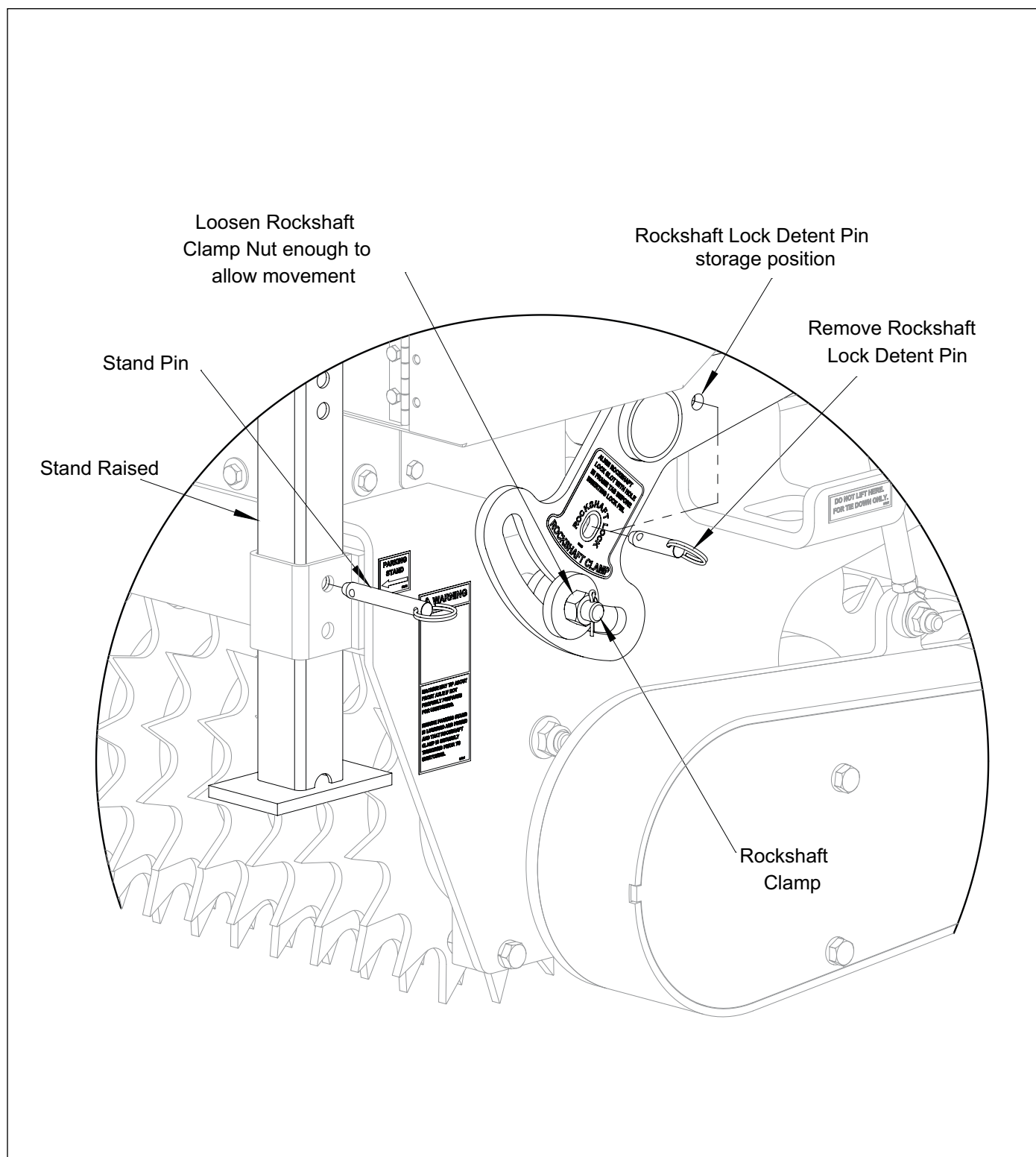


Figure 2-3: Rockshaft Lock

Front Seedbox 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 2-4 and 2-5.

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 2-4: Front Seedbox Seed Chart (1 of 2)

			INDICATOR SETTINGS										INDICATOR SETTINGS									
			1	2	3	4	5	6	7	8	Max	1	2	3	4	5	6	7	8	Max		
Seed	Notes	Range	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		
Fescue, 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		
Soy beans	(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 2-5: Front Seedbox Seed Chart (2 of 2)

Rear Seedbox Seed Chart

Rear Box 4C589 Seed Meters. Standard on the BPSB-6.

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 2-6: Rear Seedbox Seed Chart

Seed Rate

Refer to Seed Chart on the Front Seedbox Cover to determine range for Seeding Rate. It should be used as a general guide only, because of seed size variation and cleanliness. A more accurate Seed Rate can be determined by Calibrating the Seeder, see Seed Rate Calibration in this section.

- To install sprockets for the required range, remove the Klik Pin and change the Driver and Driven Sprockets accordingly. Also, refer to decal on the inside of the Transmission Cover.

Disengage or Engage Seeding:

- To disengage seeding, remove Klik Pin and store it in the hole provided in the end of the shaft.
- To engage seeding, re-install the Klik Pin into the sprocket and shaft.

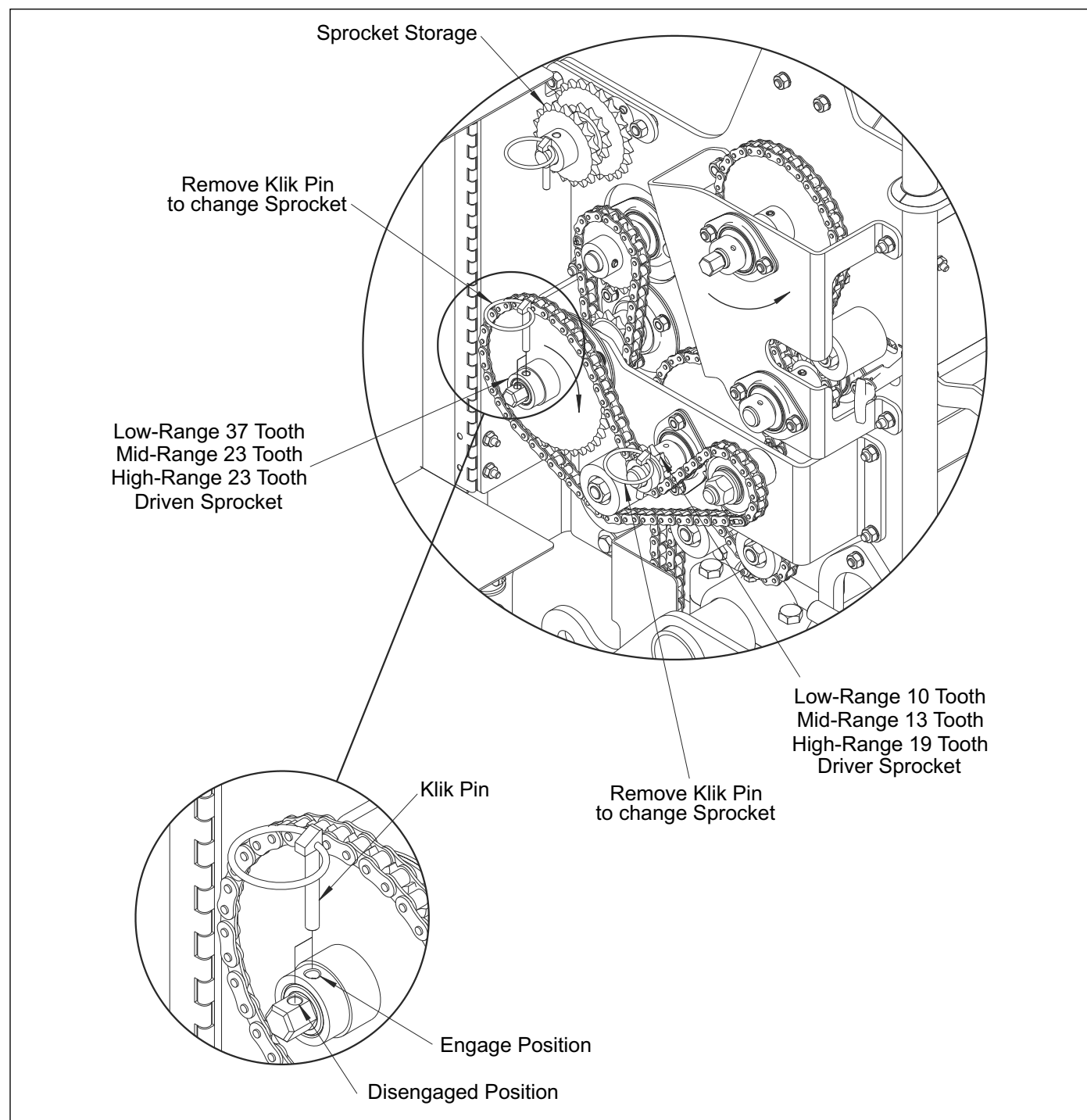


Figure 2-7: Seed Rate



CAUTION

To prevent damage to seed meters, do not apply excessive force to adjusting nuts. This is especially important when closing meters as seed in flutes can be pinched between seed cup cutoff and washer.

Do not close meters more than 1/8" when there is seed in the meters without rotating the seed shaft to prevent damage to the rotating washers and retainer rings in the seed meters.

Do not attempt to open meters more than 1". (feed rolls could become disengaged from the seed cup washer.)

NOTE

Front Seedbox Seed Cups discharge to the front of the machine.

- All cups must be set the same to seed uniformly. Check by using the wrenches provided and loosening the Inner Adjusting Nut and turning the Outer Seed Rate Adjusting Nut so that the Seed Cups close.
- All cups should be completely closed. If not, individual cups can be adjusted by loosening their mounting bolts, moving the cups, and then re-tightening.
- With Seed Cups completely closed, 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.
- The second Seed Cup from each end has a decal scale applied to assist in determining how far open the meter is.
- Use Seed Chart located inside Seedbox Cover as a guide, increase or decrease the Seed Rate by using the wrenches provided and loosening the Inner Adjusting Nut and turning the Outer Seed Rate Adjusting Nut to the desired number setting on Indicator. Re-tighten the Inner Nut.

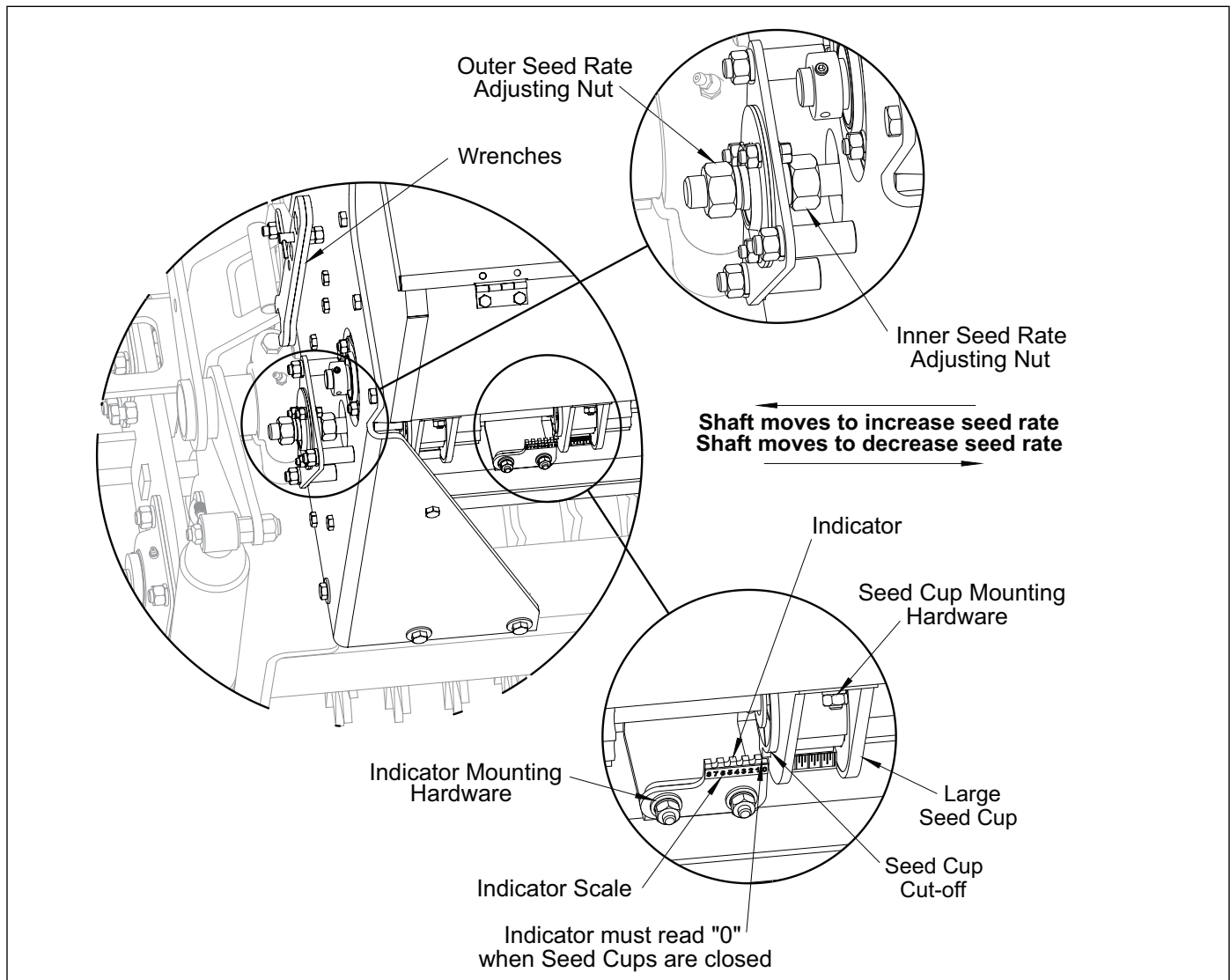


Figure 2-8: Front Seedbox Cups

Rear Seedbox

- Rear Seedbox cups are adjusted just like the Front Seedbox.

NOTES

Rear Seedbox Seed Cups discharge to the rear of the machine.

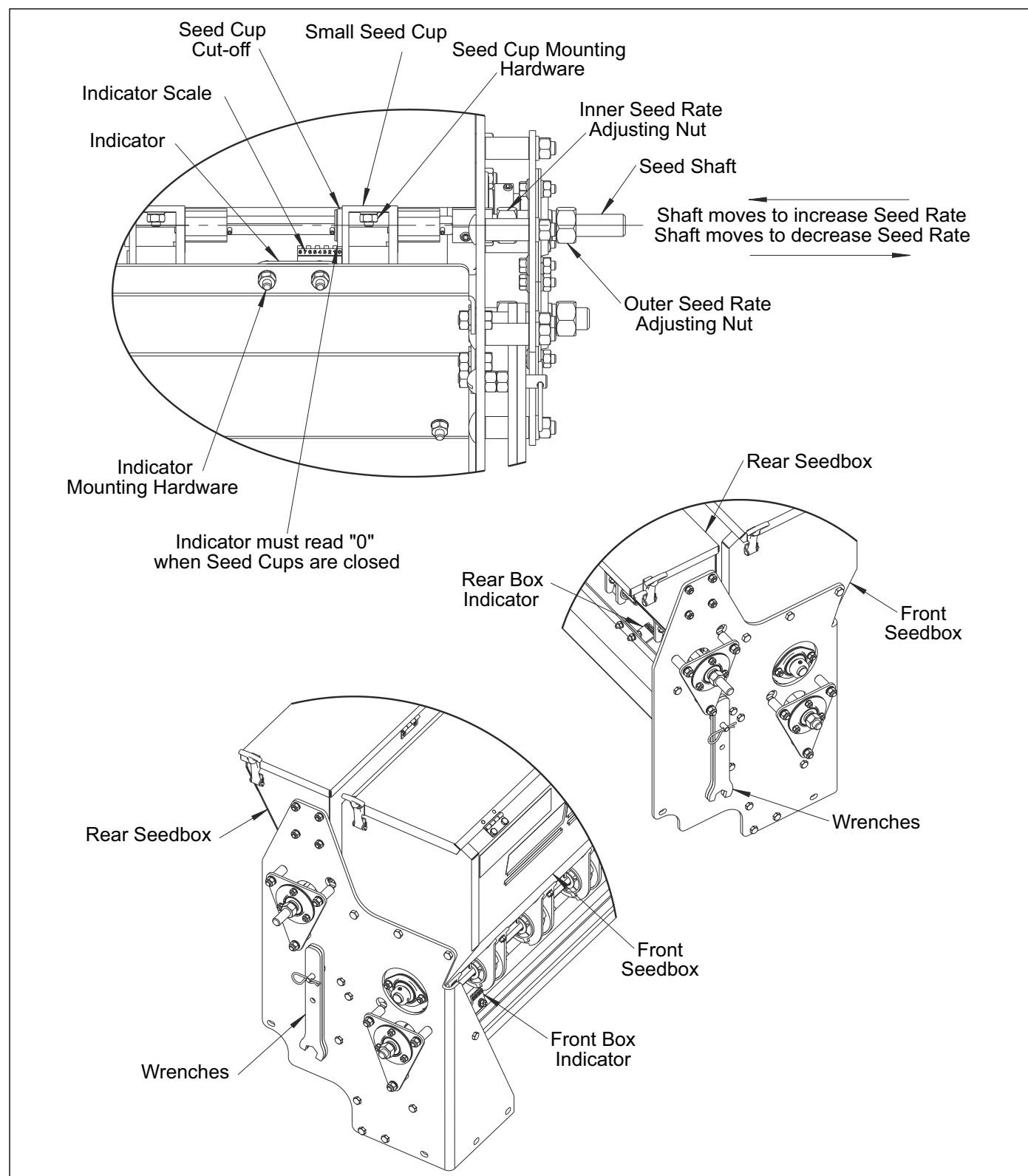


Figure 2-9: Rear Seedbox Cups

Seed Rate Calibration

Place Calibration Trough in Collection Position by removing (6) six Carriage Bolts. See Figure 2-11. Place tarp under front of machine. Refer to Seed Charts on the Seedbox Covers to determine initial Seed Meter Settings. If you need to close Seed Meters more than 1/8" for reduced output when there is seed 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. The wrench provided with the machine can be used for calibration purposes.

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 (Clockwise) until all Meters are discharging seed. Empty Calibration Trough or Tarp.
5. Turn the 5/8" Hex CW 252 (low range), 528 (mid range) or 771 (high range) revolutions to meter out seed.
6. Weigh the seed = Lbs / Acre.
7. Adjust Meters and Re-Calibrate as necessary.
8. Ensure Transmission is set-up for proper Seeding Range.
9. Re-Install Seed Drive Disconnect Pin - Front Box.
10. Re-Install Calibration Trough in Seeding Position.

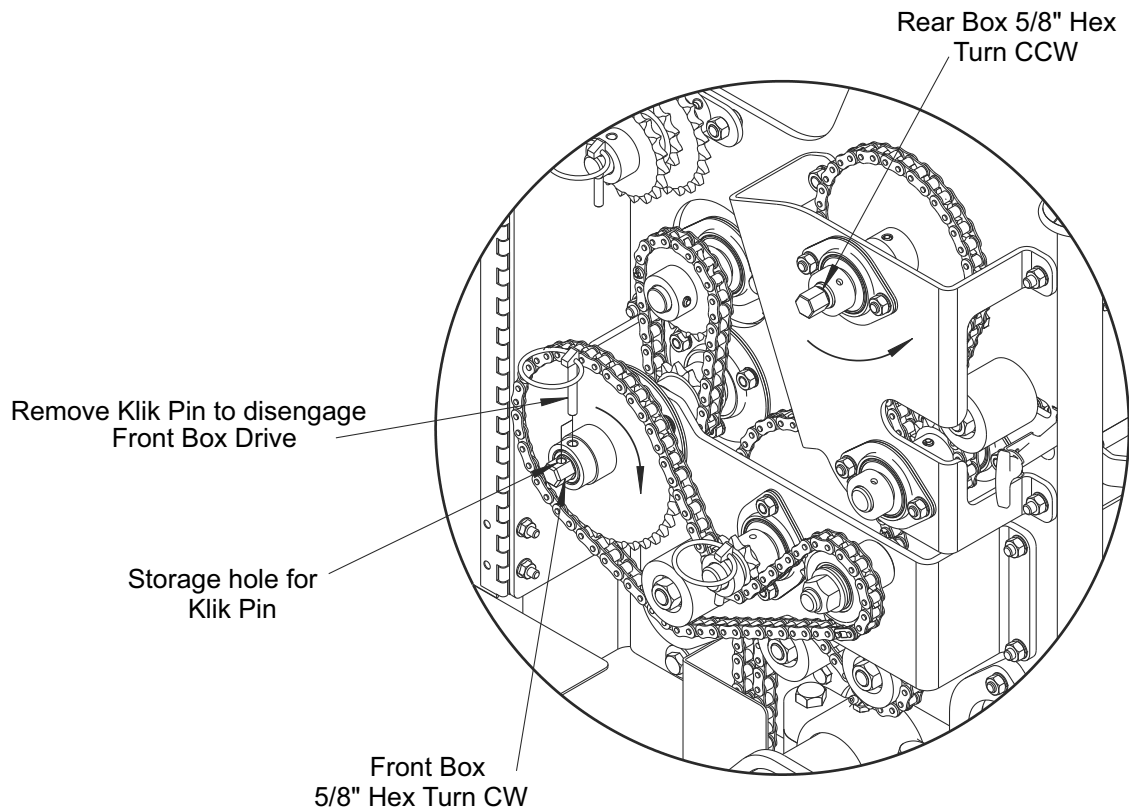


Figure 2-10: Front Seedbox Calibration

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 (Counter Clockwise) until all Meters are discharging seed. Empty Calibration Trough or Tarp.
4. Turn the 5/8" Hex CCW 143 revolutions to meter out seed.
5. Weigh the seed = Lbs / Acre.
6. Adjust Meters and Re-Calibrate as necessary.
7. Re-Install Seed Drive Disconnect Pin - Rear Box.
8. Re-Install Calibration Trough in Seeding Position.

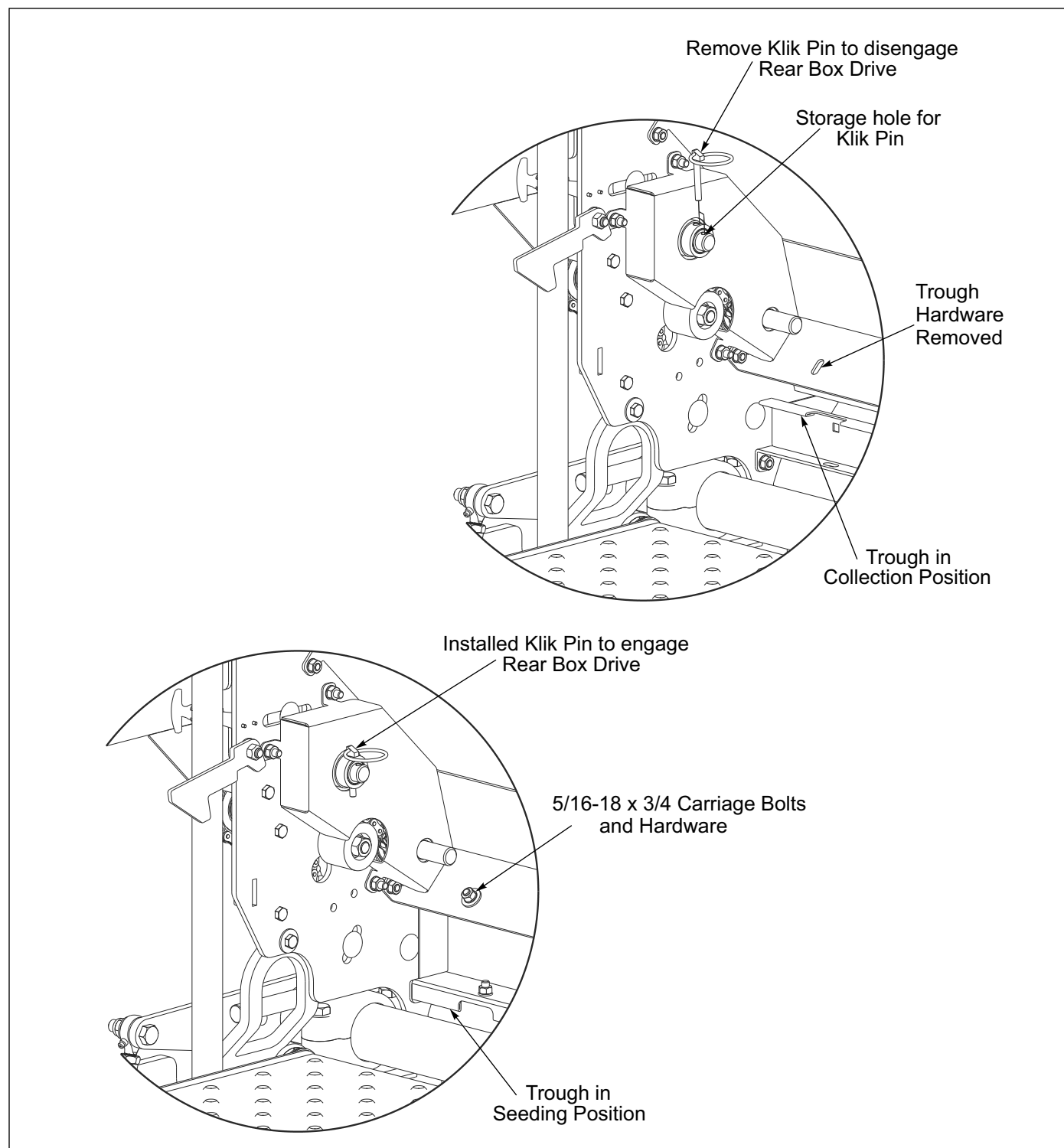


Figure 2-11: Rear Seedbox Calibration



DANGER

Keep riders off of machinery

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.

Seeding

- Planting speeds of 4-8 mph typically works best. Adjust speed to conditions.
- Planting in two passes at 90 degrees to each other is also, a effective method for an even stand.

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

- In most conditions, a single pass will be sufficient. If conditions dictate, two or more tillage passes may be done. Disengage Seed Meters by removing the seed drive disconnect Klik Pin from the transmission and storing it in the hole provided in the end of the shaft. Once the soil is tilled sufficiently, engage seeding by re-installing the seed drive disconnect Klik Pin into sprocket and shaft to seed on the next pass.
- If very small seeds are being planted that need to be very shallow or on the surface, use the gage wheels to raise the tillage rotor partially or entirely out of the ground for the final pass.
- Always raise the seeder out of the ground for sharp turns.

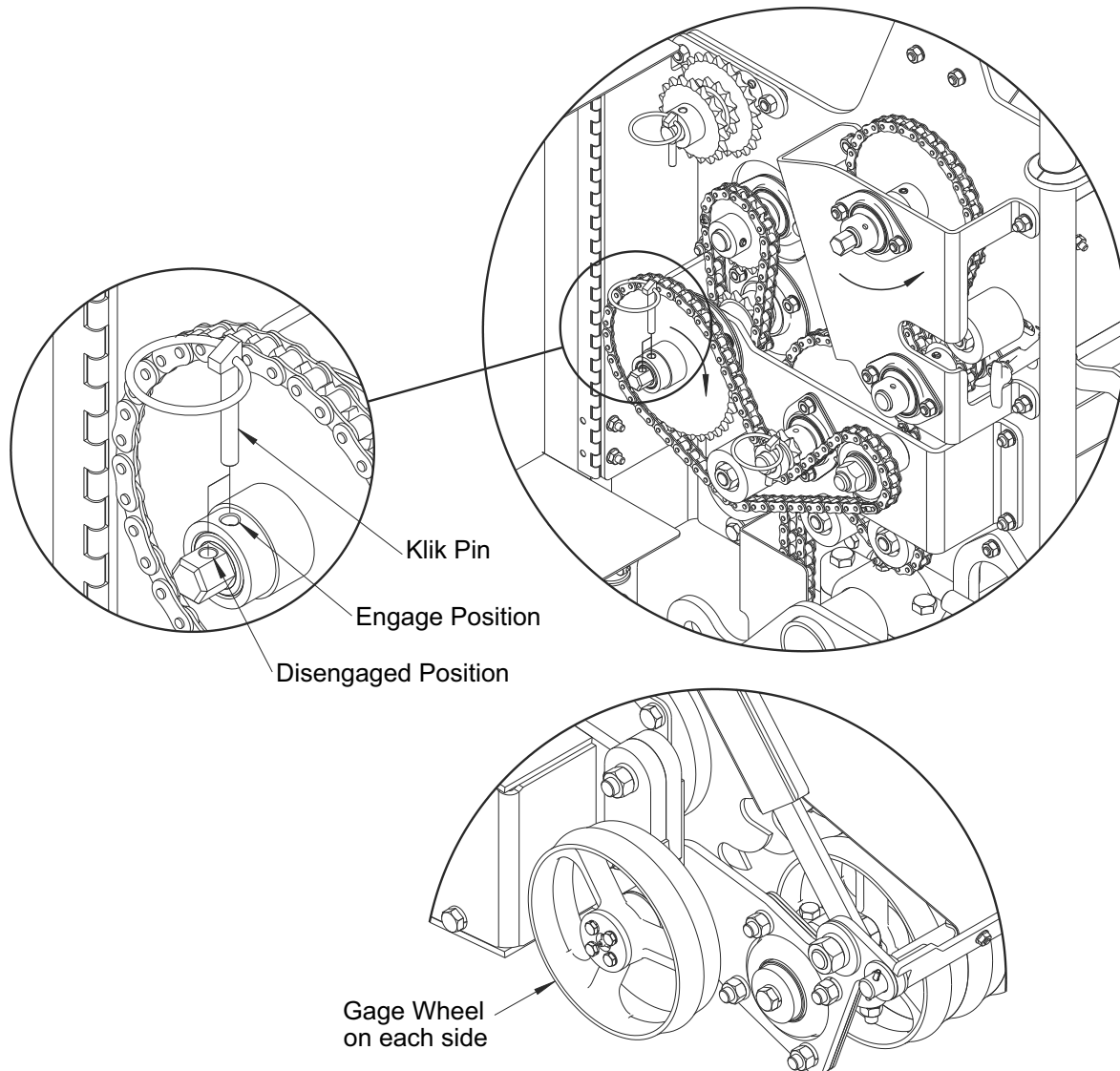


Figure 2-12: Seeding

**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.

- Typical air pressure range for this Implement is 20-100 psi. In some instances more air pressure maybe necessary, but do not exceed 120psi. Optimal air pressure will vary depending soil conditions.
- Lower air pressure on soft ground and higher air pressure on hard ground works best.
- Increasing air pressure transfers machine weight from the Drive Rotor to the Tillage Rotor, resulting in more aggressive tillage action. However, excessive air pressure will cause the Drive Rotor to lose traction, resulting in poor tillage performance by the Tillage Rotor.

Air Shock

- Check and adjust air pressure while machine is resting on the ground.

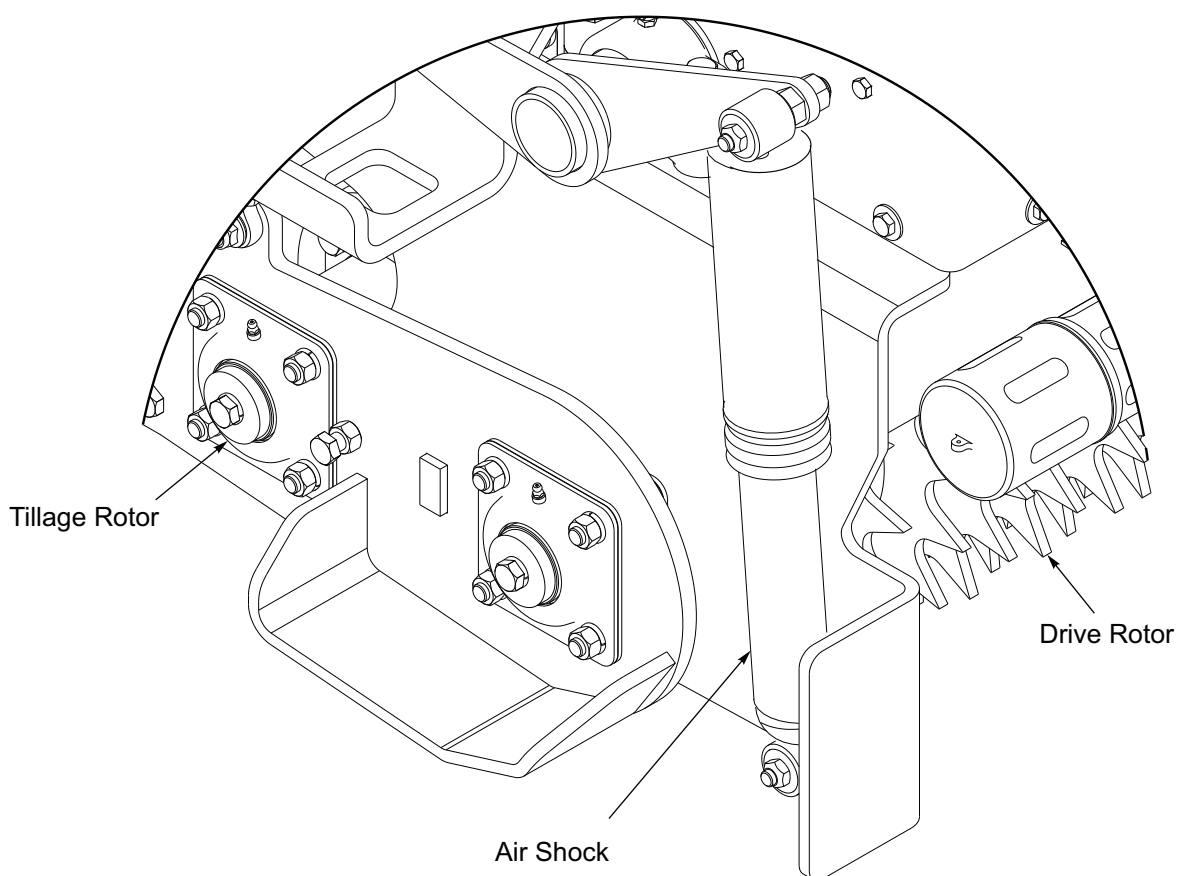


Figure 2-13: Air Shock

Gage Wheels

- Gage Wheels control the depth of the Tillage Rotor.
- Engaging the Gage Wheels with the ground will also help reduce Tillage Rotor bounce.

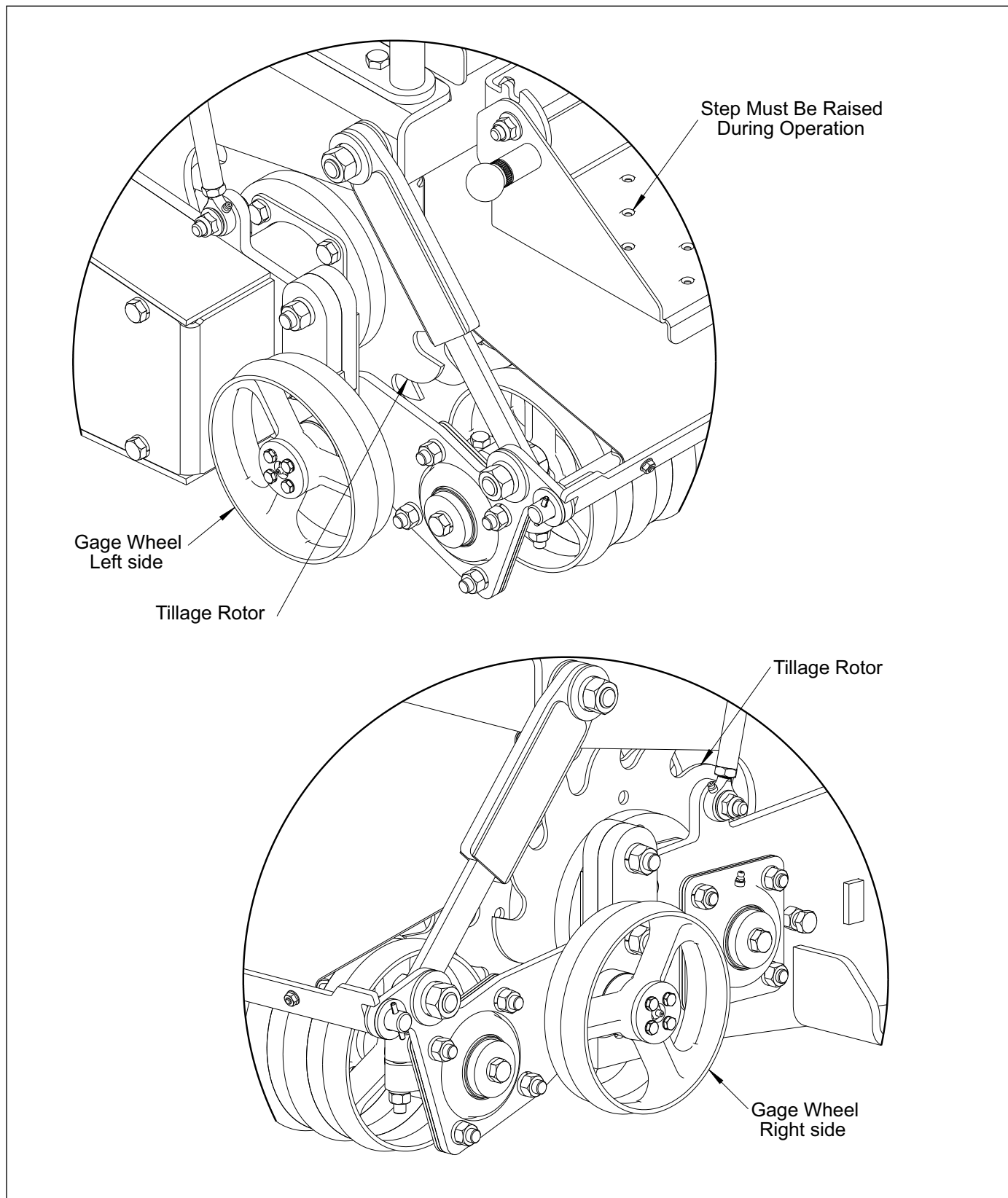


Figure 2-14: Gage Wheels

Rotor Thrust Guide

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

- If adjustment is needed loosen Jam Nut and turn Adjusting Bolt, Re-tighten Jam Nut.

Right side of the machine shown.

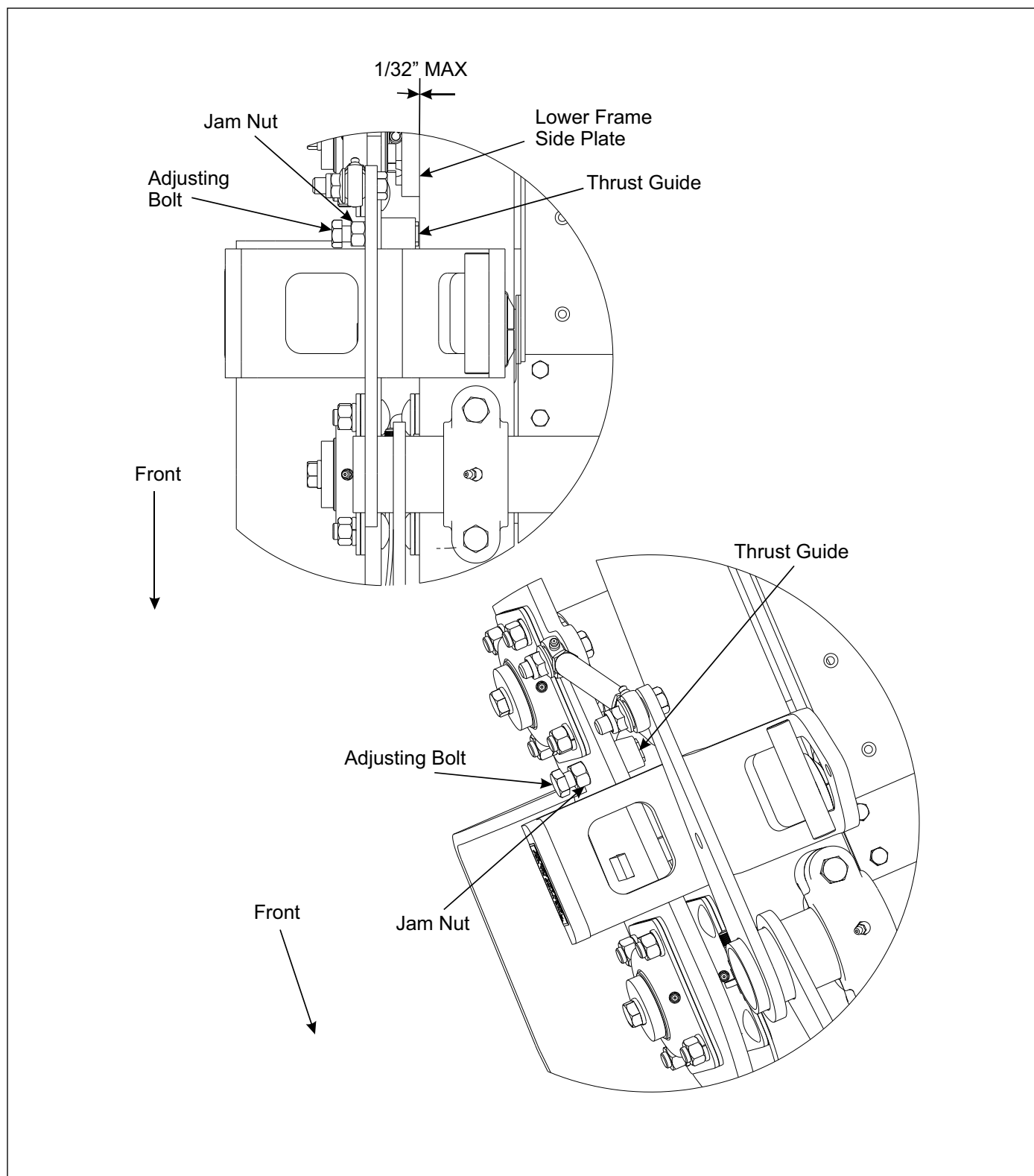


Figure 2-15: Rotor Thrust Guide

Rear Roller Scraper Adjustment - Optional

To adjust Scrapers; lower machine on level surface. Adjust Scrapers to 3/16" gap between the Scraper and Roller Wheel. **See Figure 2-16.** The 3/16" gap is just a starting point, adjust the scrapers as necessary.

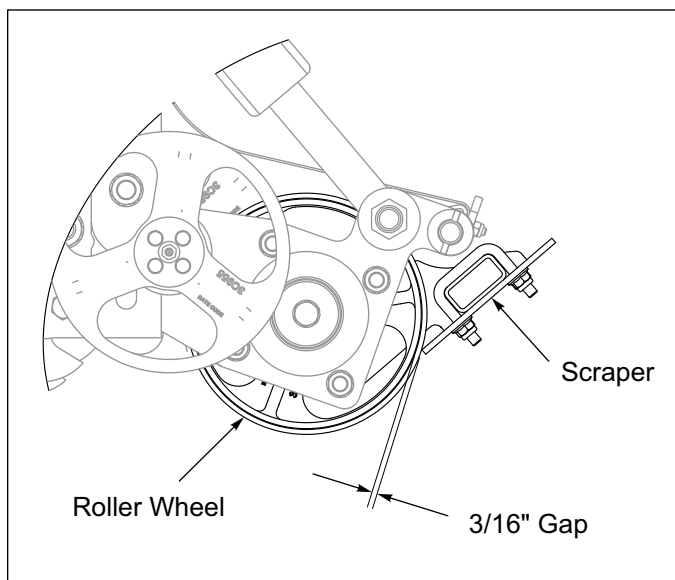


Figure 2-16: Rear Roller Scraper Adjustment

Lift and Tie-Down

- Before loading Implement onto a trailer and detaching from tractor, lower machine to the ground and install Rockshaft Lock Detent Pin when Rockshaft Lock Slot aligns with Frame Tab Hole.
- Tighten nut on Rockshaft Clamp to prevent movement.
- Before lifting Implement Open Rear Seedbox Cover to prevent possible damage during lifting. Tie machine down on the trailer and close Rear Seedbox Cover. Refer to decals.

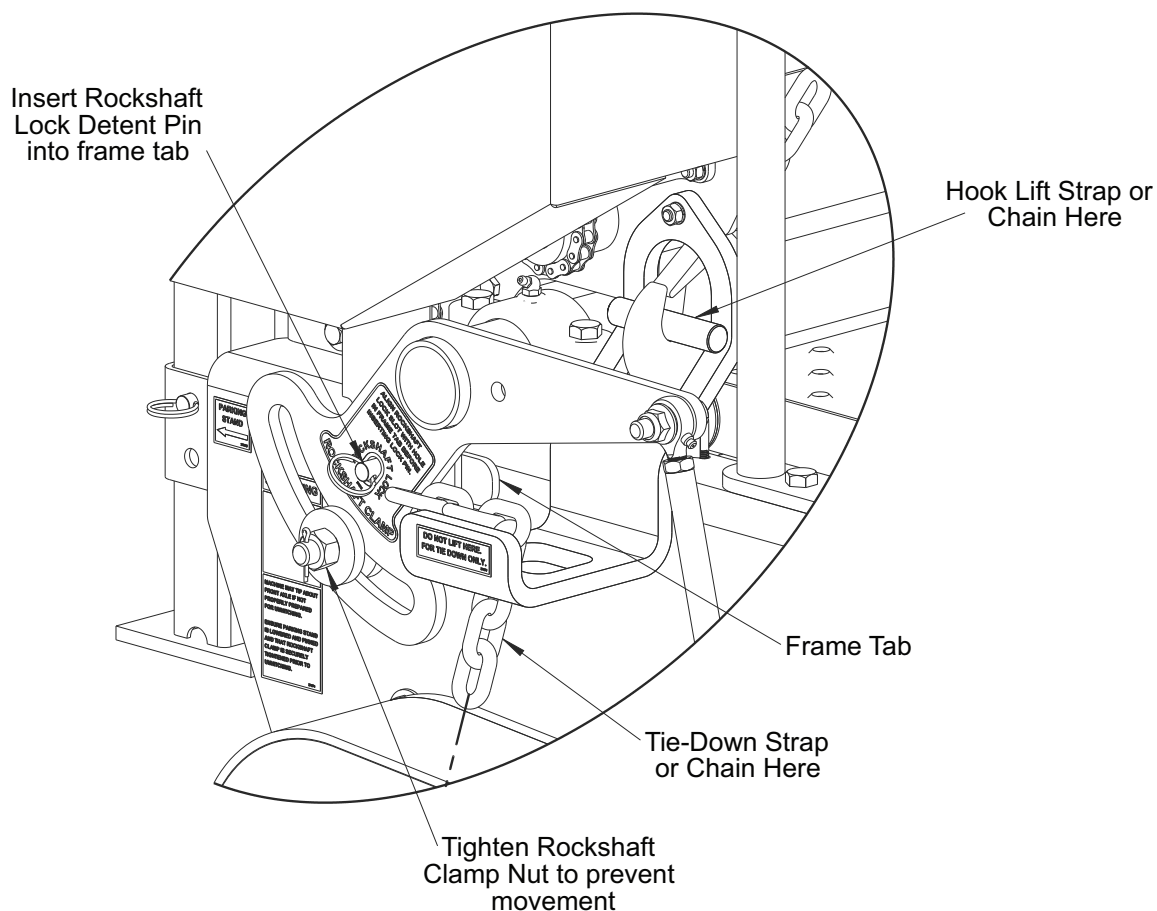
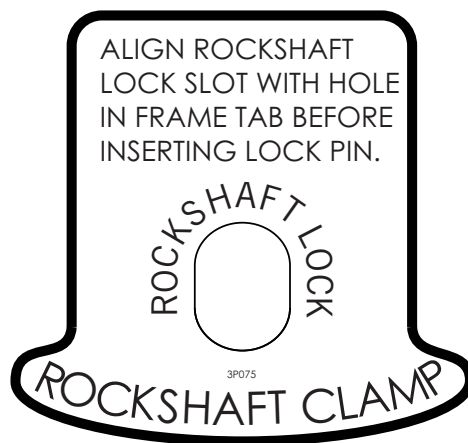
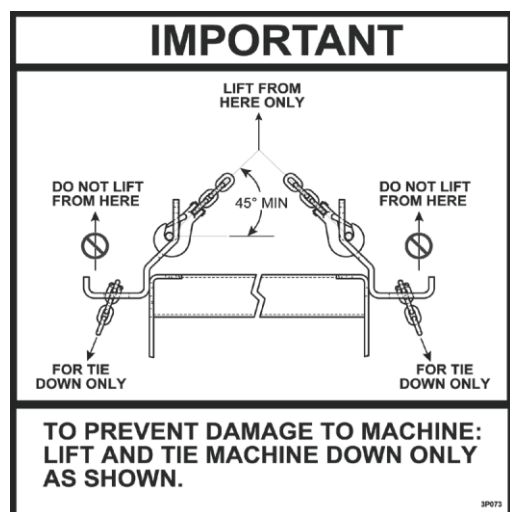


Figure 2-17: Lift and Tie-Down

Storage

- At the end of the season, empty Seedboxes and Seed Meters before cleaning your machine for storage.
- Avoid spraying high pressure washer directly at bearing seals.
- Grease machine after washing to displace any residual water.
- Repaint areas where paint has worn off.
- Repair or replace any broken or damaged parts.
- Store in a dry, protected place.
- Before detaching implement from tractor, lower machine to the ground and tighten nut on Rockshaft Clamp to prevent movement.
- Install Rockshaft Lock Detent Pin if Rockshaft Lock Slot aligns with Frame Tab Hole. Lower stand.



Figure 2-18: Storage

Optional Equipment Instructions

Acre Meter Kit 3P099 Installation

The Acre Meter Kit consists of four main parts; Acre Meter Assembly, Pick-up Switch Bracket, Pick-up Switch, and Magnet Wheel.

1. Remove 3/8-16 Hardware from Acre Meter Assembly. Use the Acre Meter Bracket as a guide and drill two 13/32" holes into the seedbox. Insert hardware and Tighten. Attach Pick-up Switch Bracket to the Lower Frame with 5/16-18 Hardware.
2. Attach Pick-up Switch to Bracket with #8-32 Hardware. Do not tighten at this time.
3. Attach ground wire with #6-32 Hardware, removing paint under the wire connector to assure a good electrical ground connection.

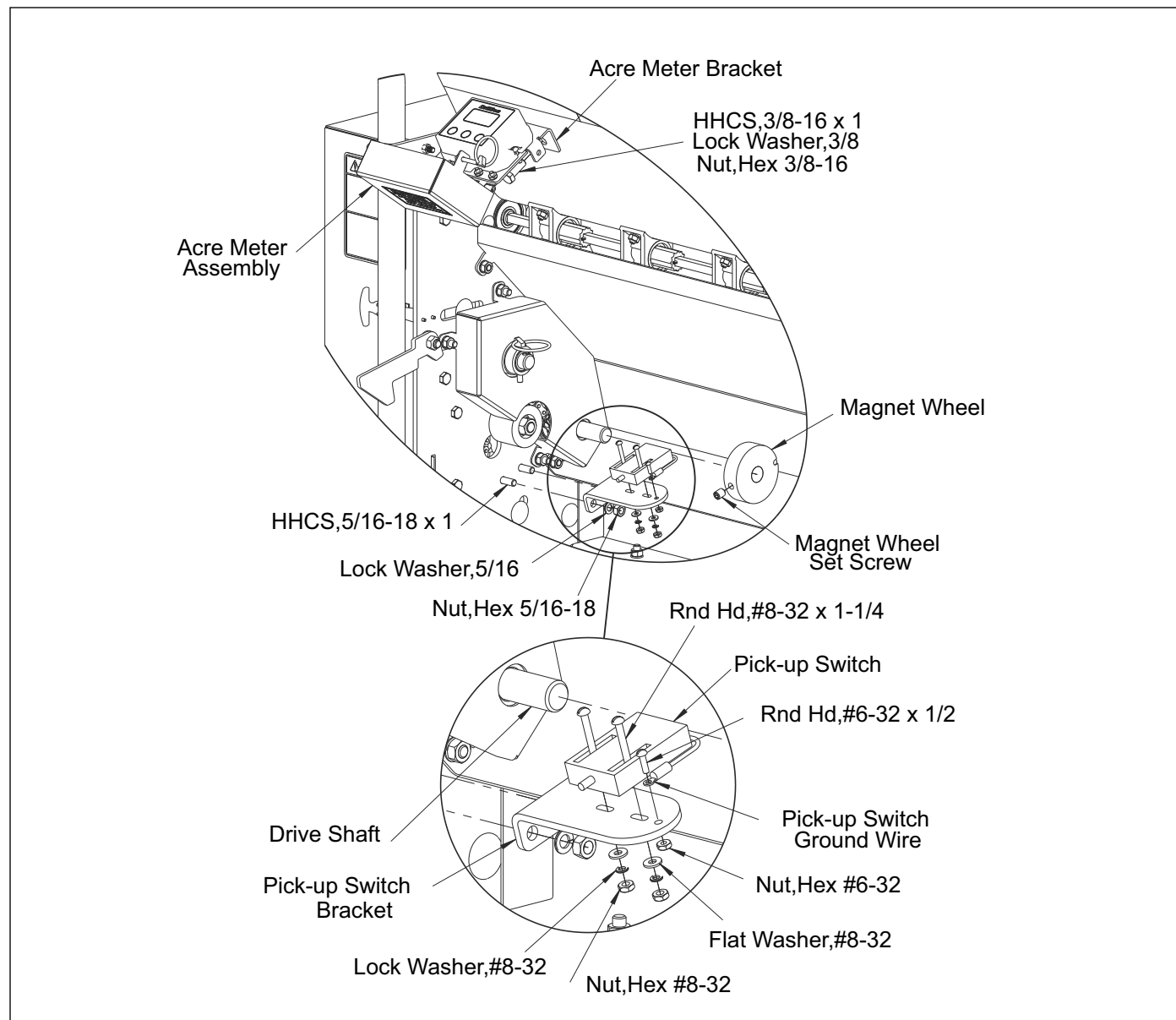


Figure 3-1: Acre Meter (1 of 2)



WARNING

Do Not Pressure Clean With Air Or Water.

4. Press or slide Magnet Wheel onto Drive Shaft until it is vertically centered with the Pick-up Switch.
5. Adjust the Pick-up Switch so the centerline of Magnet Wheel and Pick-up Switch are horizontally and vertically aligned with a maximum 1/8" gap between them. Firmly tighten Switch to bracket and tighten set screw (if present) in Wheel.

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

6. Route Pick-up Switch Cable up to the Acre Meter Cable and connect mating plugs.
7. Securely fasten cable to frame using the adhesive Cable Tie Mounting Base and Cable Ties to prevent cable from becoming entangled or rubbing on moving parts.
8. Program Acre Meter per the following instructions on the next page.

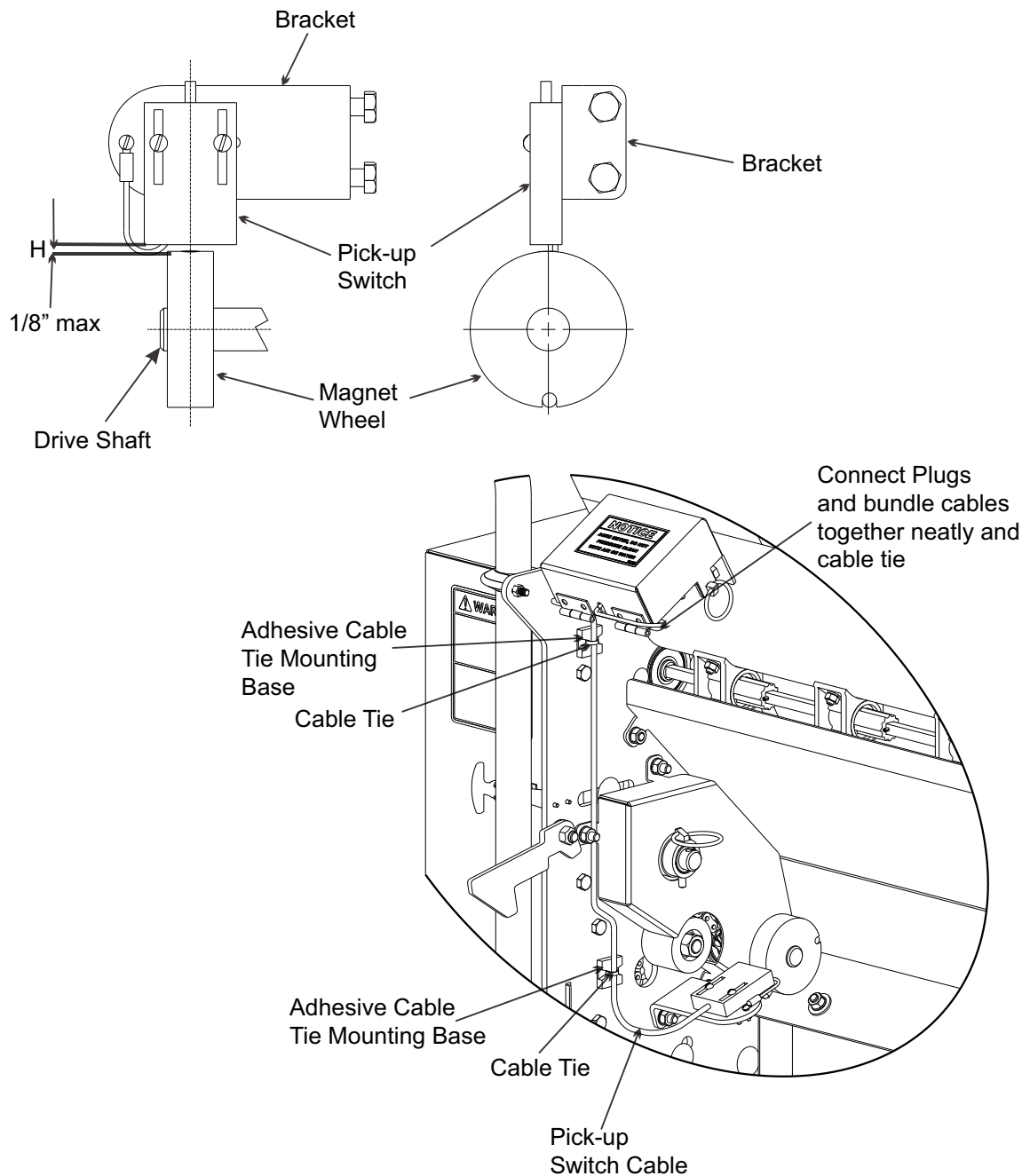


Figure 3-2: Acre Meter (2 of 2)

Acre Meter Operations

Settings for Loup Acre Meters After 05/15/2012

The battery operated acre counter operates in one of two modes. 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. 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 ft, Width, Password and Low Battery

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 **"FIELD"** and **"TOTAL"** LEDs are 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:

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.

If you do not know the pulses per mile, press and hold the **UP** and **DOWN** buttons until the "0000" appears in the display. The **"PULSES"** LED will blink. The acre counter is now counting shaft rotations. Enter the cab and drive 400 feet. Press the ***/FUNC** button to wake up the acre counter. The **"PULSES"** LED will again blink. The number displayed is the pulses per 400 feet. Press the ***/FUNC** button to accept the setting. The **"PULSES"** LED will stop blinking and remain on.

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

Width

Press the ***/FUNC** button until the **"WIDTH"** LED is lit. The number displayed is the length of your implement 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 length 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 implement 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 ft, 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 powers down. When the acre counter is powered up 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.

Quick-start Settings for Loup Acre Meters Prior to 05/15/2012

- 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 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. Press the function button to set the pulses. (If screen goes blank before you press the function button, repeat steps 1 and 2).
4. Press the function button 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 .
6. Press the function button to set the width. (If screen goes blank before you press the function button, repeat steps 4 and 5).
7. Press the function to scroll through the screens to check that the correct pulses and width have been entered.

To Enter Password

1. Press the function button 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 function button 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 function button 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 function button to scroll to the password screen it will show (ent).
2. Use up or down button to enter password (number).
3. Press the function button 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 function button; (dis) will appear. Password is now disabled.

Battery Replacement

The battery operated acre counter uses 3 AA batteries. The batteries should last between 5 and 10 years. The acre counter will last much longer than that. Eventually, you will have to replace the batteries. The “**BATT**” LED will light when the batteries require replacement. Remove the acre counter from the implement and undo the 4 screws on the back of the case. This will separate the housing from the rear plate. Replace the batteries with 3 high quality AA alkaline batteries.

This unit is dust and splash resistant, under no circumstances should this unit be submerged in any conductive, corrosive, or flammable liquid.

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

MODEL				PULSES	WIDTH
SSP T604				22	5.0
SSP4	SS4			44	4.0
SSP5	SS5			44	5.0
SSP6	SS6			58	6.0
SSP8	SS8			58	8.0
SSP10	SS10			58	10.0
SSP12	SS12			58	12.0
SSP108	SS108			58	8.0
SSP110	SS110			58	10.0
SSP112	SS112			58	12.0
SSP208	SSP2081	SS208	SS2081	58	8.0
SSP210	SSP2101	SS210	SS2101	58	10.0
SSP212	SSP2121	SS212	SS2121	58	12.0
SSP308		SS308		29	8.0
SSP310		SS310		29	10.0
SSP312		SS312		29	12.0
SLP8		SL8		314	8.0
SLP10		SL10		314	10.0
SLP12		SL12		314	12.0
SLP204		SLP2041		128	4.0
SLP206		SLP2061		128	6.0
SLP304		SLP3041		64	4.0
SLP306		SLP3061		64	6.0
LSP5				128	5.0
LSP6				128	6.0
LSS6				128	6.0
SLP208	SLP2081	SL208	SL2081	116	8.0
SLP210	SLP2101	SL210	SL2101	116	10.0
SLP212	SLP2121	SL212	SL2121	116	12.0
SLP308	SLP3081	SL308	SL3081	58	8.0
SLP310	SLP3101	SL310	SL3101	58	10.0
SLP312	SLP3121	SL312	SL3121	58	12.0
BOS4F1	BOS4S1	BOS6F1	BOS6S1	45	4.0
BOSB4F1	BOSB4S12	BOSB6F1	BOSB6S1	45	6.0
BPS6	BPSB6			51	6.0
GLP643		SSLP643		69	5.3

OPTIONAL EQUIPMENT INSTRUCTIONS

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

MODEL				Pulses	Width
SSP T604				293	5
SSP4		SS4		578	4
SSP5				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	BOS6F1	BOS6S1	600	4
BOSB4F1	BOSB4S1	BOSB6F1	BOSB6S1	600	6
BPS6	BPSB6			679	6
GLP643		SSLP643		917	5

Small Seedbox Kit 3P100

- Install Small Seedbox onto Machine per the following illustrations. Start with the Deflector.

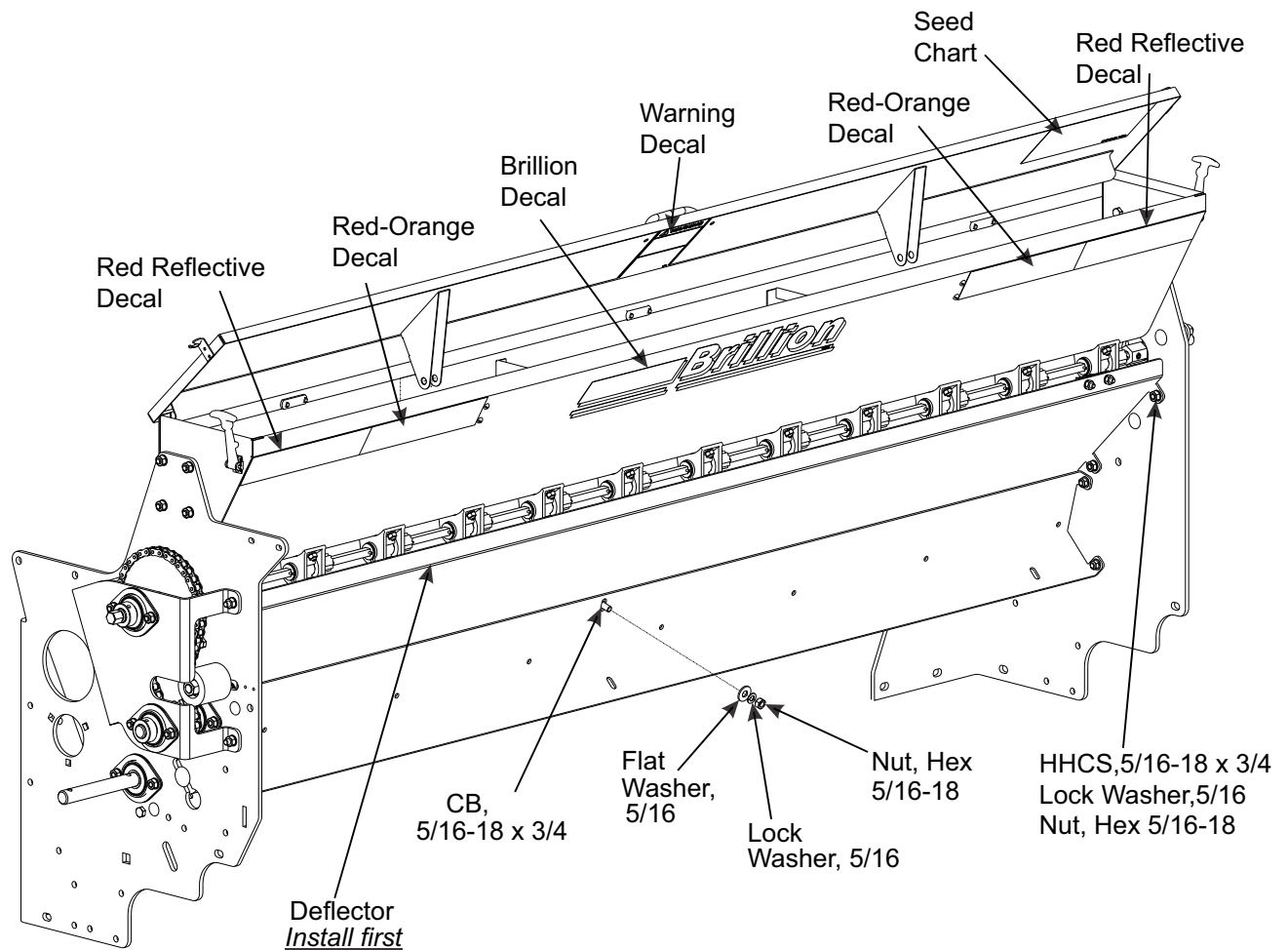


Figure 3-3: Small Seedbox Kit (1 of 3)

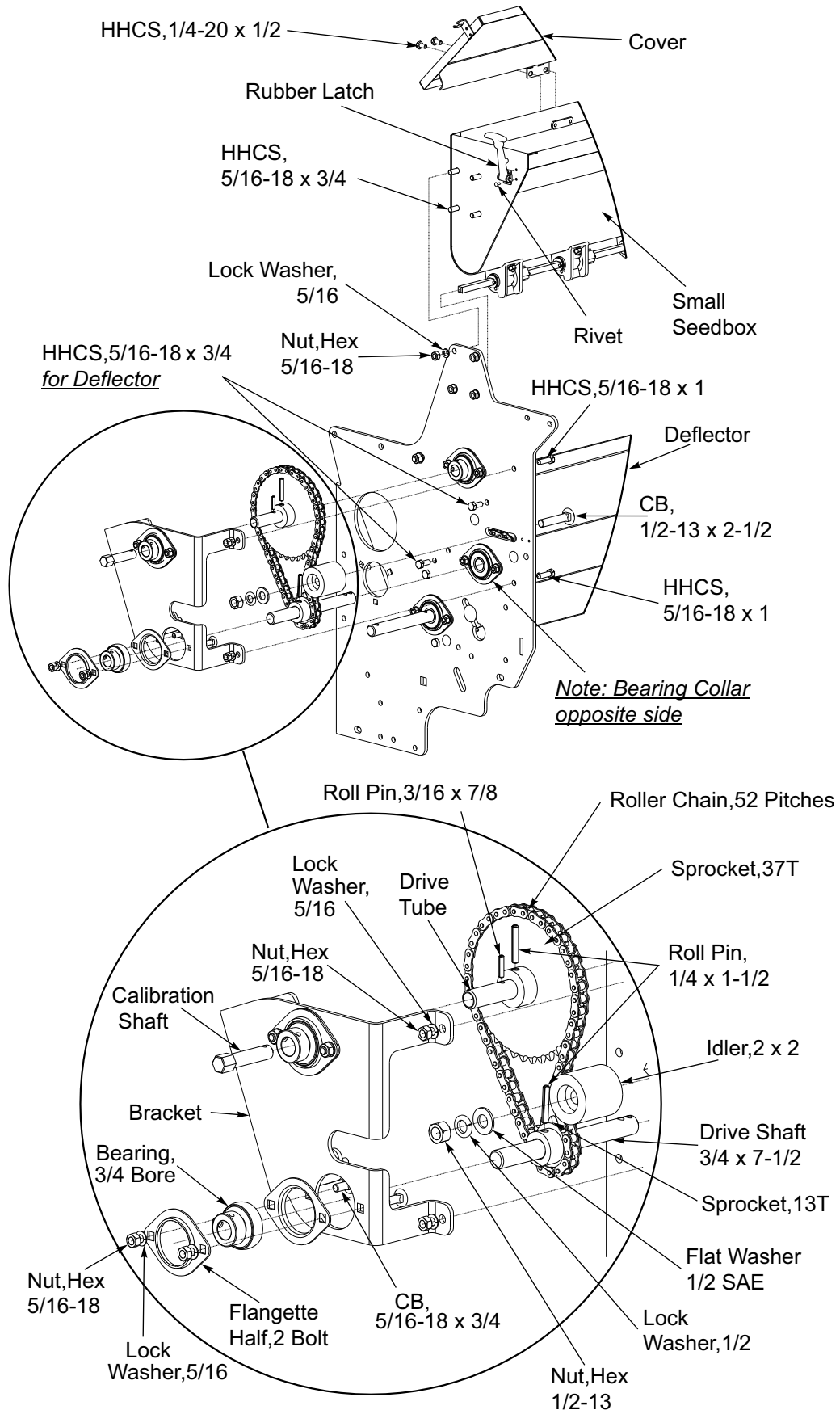


Figure 3-4: Small Seedbox Kit (2 of 3)

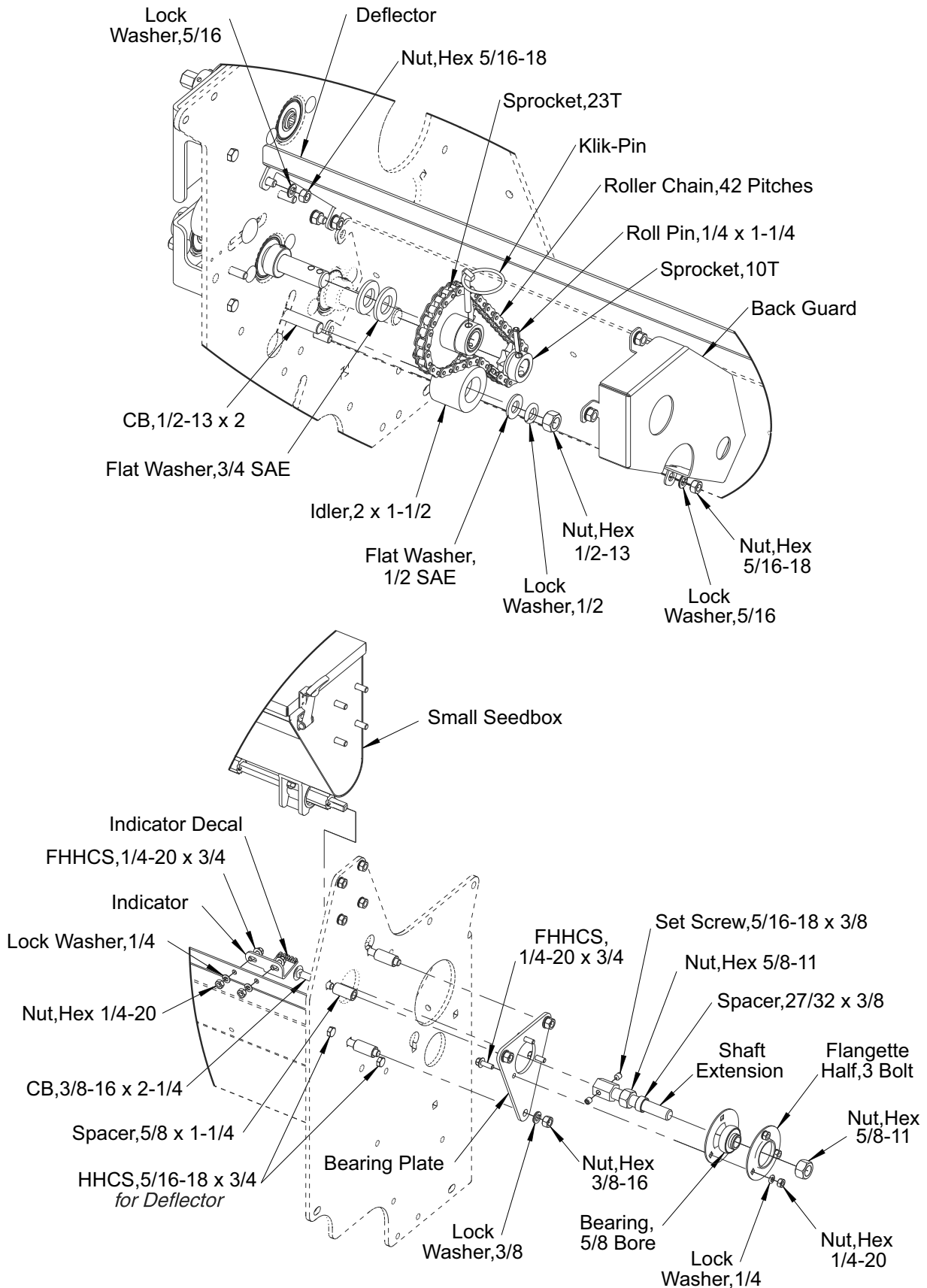


Figure 3-5: Small Seedbox Kit (3 of 3)

Rear Roller Scraper - Optional

1. With the Rear roller on level ground, remove the Rear Roller Bearings two rear 1/2-13 Nuts and Lockwashers and install the RH and LH Scraper Brackets. Secure by re-installing hardware. **See Figure 3-6.**
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 a starting point, adjust the scrapers as necessary.

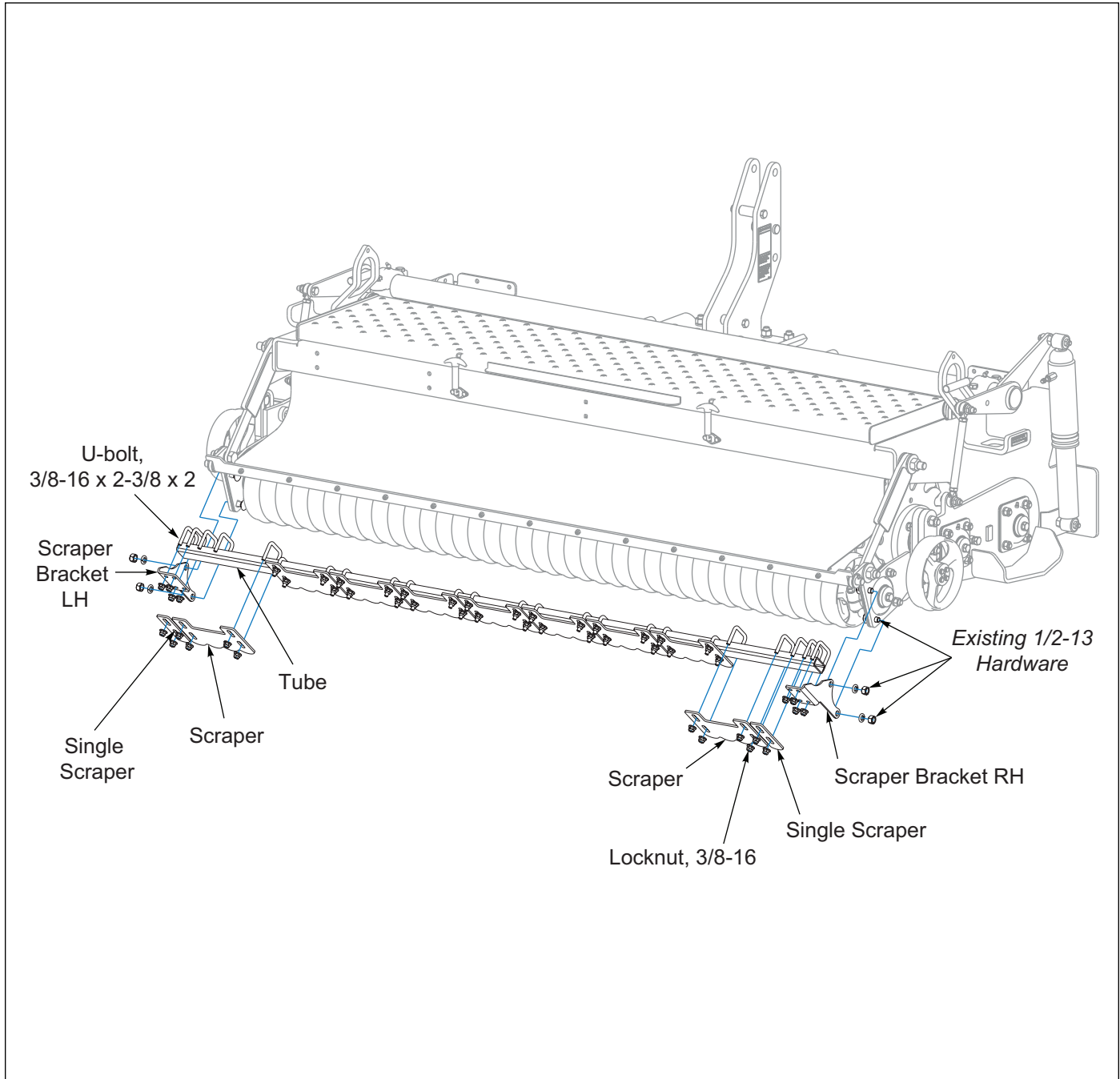


Figure 3-6: Rear Roller Scraper - Optional

Maintenance

General Torque Specifications

This chart provides tightening torques for general purpose applications when special torques are not specified on process or drawing. Assembly torques apply to plated nuts and capscrews assembled without supplemental lubrication (as received condition). They do not apply if special graphite moly-disulfide or other extreme pressure lubricants are used. When fasteners are dry (solvent cleaned) add 33% to as received condition torque. Bolt head identification marks indicate grade and may vary from manufacturer to manufacturer. Thick nuts must be used on grade 8 capscrews. Use value in [] if using prevailing torque nuts

TORQUE SPECIFIED IN FOOT POUNDS

UNC SIZE	SAE Grade 2	SAE Grade 5	SAE Grade 8	UNF SIZE	SAE Grade 2	SAE Grade 5	SAE Grade 8
1/4-20	4 [5]	6 [7]	9 [11]	1/4-28	5 [6]	7 [9]	10 [12]
5/16-18	8 [10]	13 [13]	18 [22]	5/16-24	9 [11]	14 [17]	20 [25]
3/8-16	15 [19]	23 [29]	35 [42]	3/8-24	17 [21]	25 [31]	35 [44]
7/16-14	24 [30]	35 [43]	55 [62]	7/16-20	27 [34]	40 [50]	60 [75]
1/2-13	35 [43]	55 [62]	80 [100]	1/2-20	40 [50]	65 [81]	90 [112]
9/16-12	55 [62]	80 [100]	110 [137]	9/16-18	60 [75]	90 [112]	130 [162]
5/8-11	75 [94]	110 [137]	170 [212]	5/8-18	85 [106]	130 [162]	180 [225]
3/4-10	130 [162]	200 [250]	280 [350]	3/4-16	150 [188]	220 [275]	320 [400]
7/8-9	125 [156]	320 [400]	460 [575]	7/8-14	140 [175]	360 [450]	500 [625]
1-8	190 [237]	408 [506]	680 [850]	1-14	210 [263]	540 [675]	760 [950]
1-1/8-7	270 [337]	600 [750]	960 [1200]	1-1/8-12	300 [375]	660 [825]	1080 [1350]
1-1/4-7	380 [475]	840 [1050]	1426 [1782]	1-1/4-12	420 [525]	920 [1150]	1500 [1875]
1-3/8-6	490 [612]	1010 [1375]	1780 [2225]	1-3/8-12	560 [700]	1260 [1575]	2010 [2512]
1-1/2-6	650 [812]	1460 [1825]	2360 [2950]	1-1/2-12	730 [912]	1640 [2050]	2660 [3325]

METRIC:

Coarse thread metric class 10.9 fasteners and class 10.0 nuts and through hardened flat washers, phosphate coated, Rockwell "C" 38-45. Use value in [] if using prevailing torque nuts

Nominal thread diameter (mm)	Newton Meters (Standard Torque)	Foot Pounds (Standard Torque)	Nominal Thread Diameter (mm)	Newton Meters (Standard Torque)	Foot Pounds (Standard Torque)
6	10 [14]	7 [10]	20	385 [450]	290 [335]
7	16 [22]	12 [16]	24	670 [775]	500 [625]
8	23 [32]	17 [24]	27	980 [1105]	730 [825]
10	46 [60]	34 [47]	30	1330 [1470]	990 [1090]
12	80 [125]	60 [75]	33	1790 [1950]	1340 [1450]
14	125 [155]	90 [115]	36	2325 [2515]	1730 [1870]
16	200 [240]	150 [180]	39	3010 [3210]	2240 [2380]
18	275 [330]	205 [245]			

Hydraulic Fitting Torque Specifications

37 degree JIC, ORS, &ORB (REV. 10/97)

This chart provides tightening torques for general purpose applications when special torques are not specified on process or drawing. Assembly torques apply to plated nuts and capscrews assembled without supplemental lubrication (as received condition). They do not apply if special graphite moly-disulfide or other extreme pressure lubricants are used. When fasteners are dry (solvent cleaned) add 33% to as received condition torque. Bolt head identification marks indicate grade and may vary from manufacturer to manufacturer. Thick nuts must be used on grade 8 capscrews. Use value in [] if using prevailing torque nuts

TORQUE SPECIFIED IN FOOT POUNDS

PARKER® BRAND FITTINGS

Dash Size	37 Deg. JIC	O-ring (ORS)	O-ring boss
-4	11-13	15-17	13-15
-5	14-16	-----	21-23
-6	20-22	34-36	25-29
-8	43-47	58-62	40-44
-10	55-65	100-110	58-62
-12	80-90	134-146	75-85
-16	115-125	202-218	109-121
-20	160-180	248-272	213-237
-24	185-215	303-327	238-262
-32	250-290	-----	310-340

GATES® BRAND FITTINGS

Dash Size	37 Deg. JIC	O-ring (ORS)	O-ring boss
-4	10-11	10-12	14-16
-5	13-15	-----	-----
-6	17-19	18-20	24-26
-8	34-38	32-40	37-44
-10	50-56	46-56	50-60
-12	70-78	65-80	75-83
-14	-----	65-80	-----
-16	94-104	92-105	111-125
-20	124-138	125-140	133-152
-24	156-173	150-180	156-184
-32	219-243	-----	-----

AEROQUIP® BRAND FITTINGS

Dash Size	37 Deg. JIC	O-ring (ORS)	O-ring boss
-4	11-12	10-12	14-16
-5	15-16	-----	16-20
-6	18-20	18-20	24-26
-8	38-42	32-35	50-60
-10	57-62	46-50	75-80
-12	79-87	65-70	125-135
-14	-----	-----	160-180
-16	108-113	92-100	200-220
-20	127-133	125-140	210-280
-24	158-167	150-165	270-360



WARNING

Do Not Lubricate Machine While Machine Is In Motion. If Any Guards Are Removed For Lubricating, They Must Be Replaced Before Operating.

- Lubricate Roller Chains periodically with quality chain oil.

For best penetration, lubricate chain immediately after use while chain is still warm.

NOTE

It is good machine maintenance practice to check all bolts for tightness during regular lubrications. Tighten any fasteners that may have loosened during operation.

Lubrication

- Grease per recommended lubrication frequency intervals indicated or if machine is not to be used for some time. Greaseable components are the same on each side, right side shown.

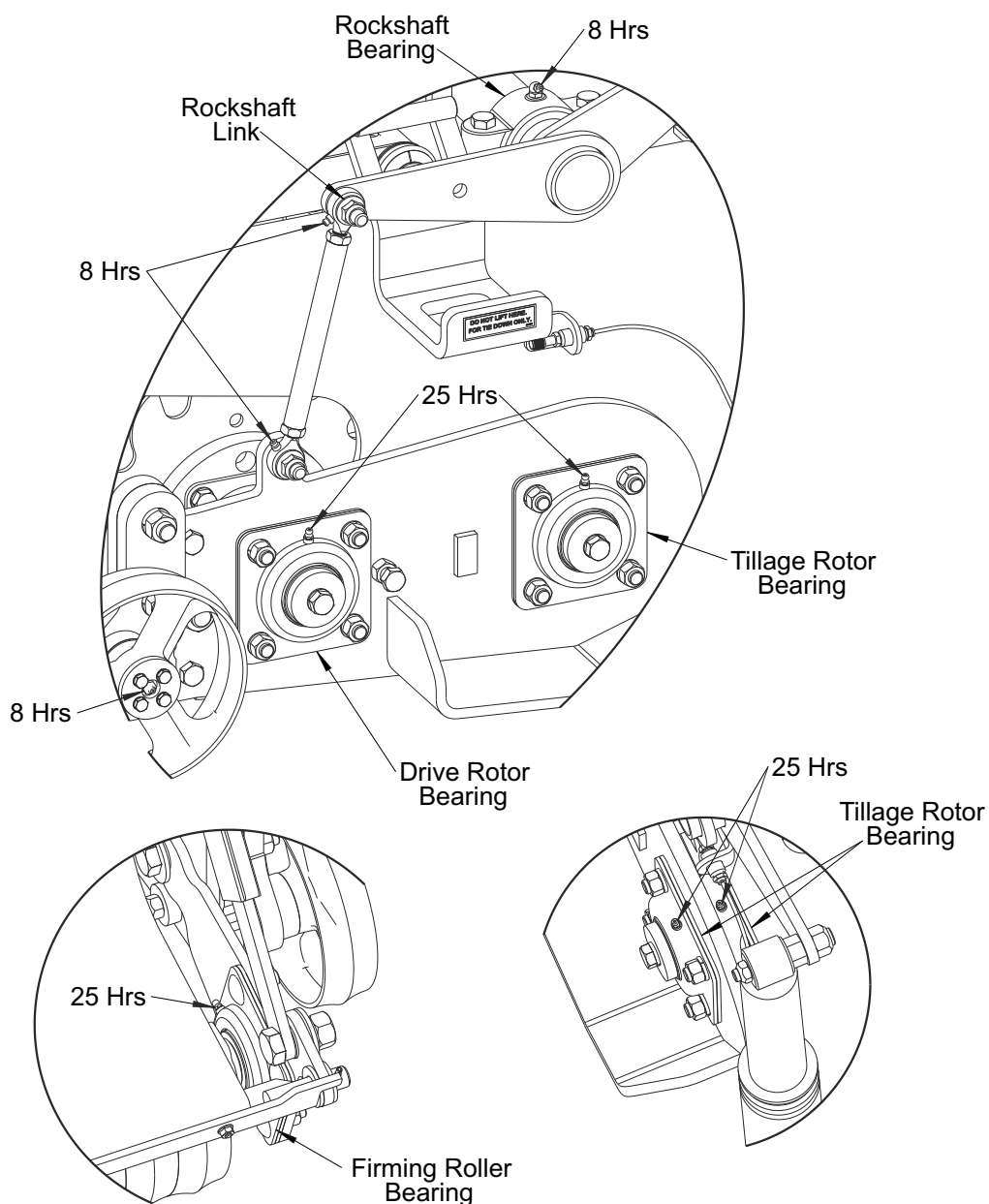


Figure 4-1: Lubrication (1 of 2)

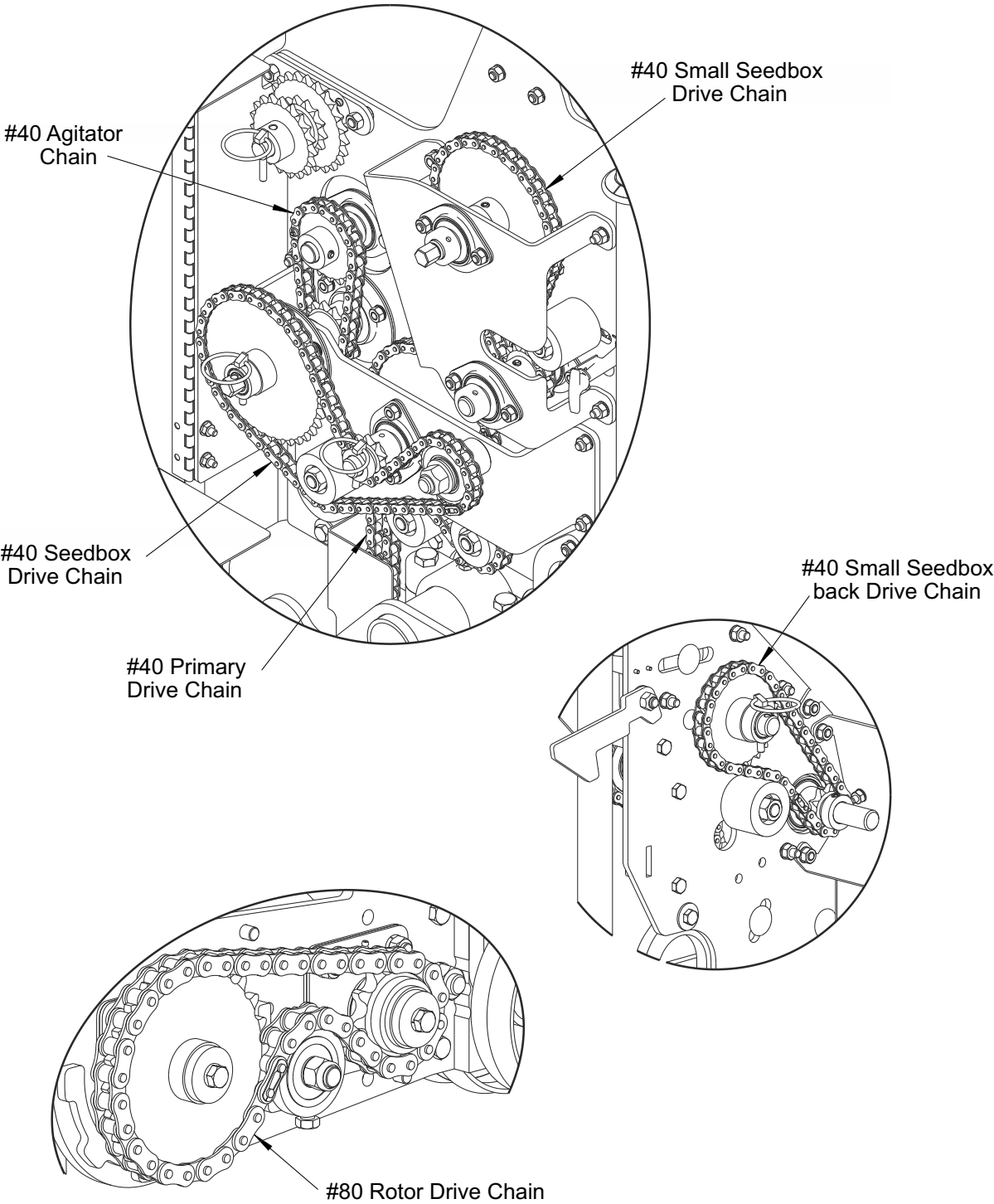


Figure 4-2: Lubrication (2 of 2)

Chain Tension

- The 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. If adjustment is needed loosen the Hex Nut and turn the Adjustment Bolt until the proper deflection is achieved.
- The Idler is specially designed so that if the Idler is unable to achieve the 1/4"-5/16" chain deflection, the chain is worn out and needs to be replaced.
- The Small Seedbox back Drive Chain is properly adjusted when it has 1/8" - 3/16" deflection across the sprockets.
- If adjustment is needed loosen the Hex Nut on the Idler and slide the Idler until the proper deflection is achieved.

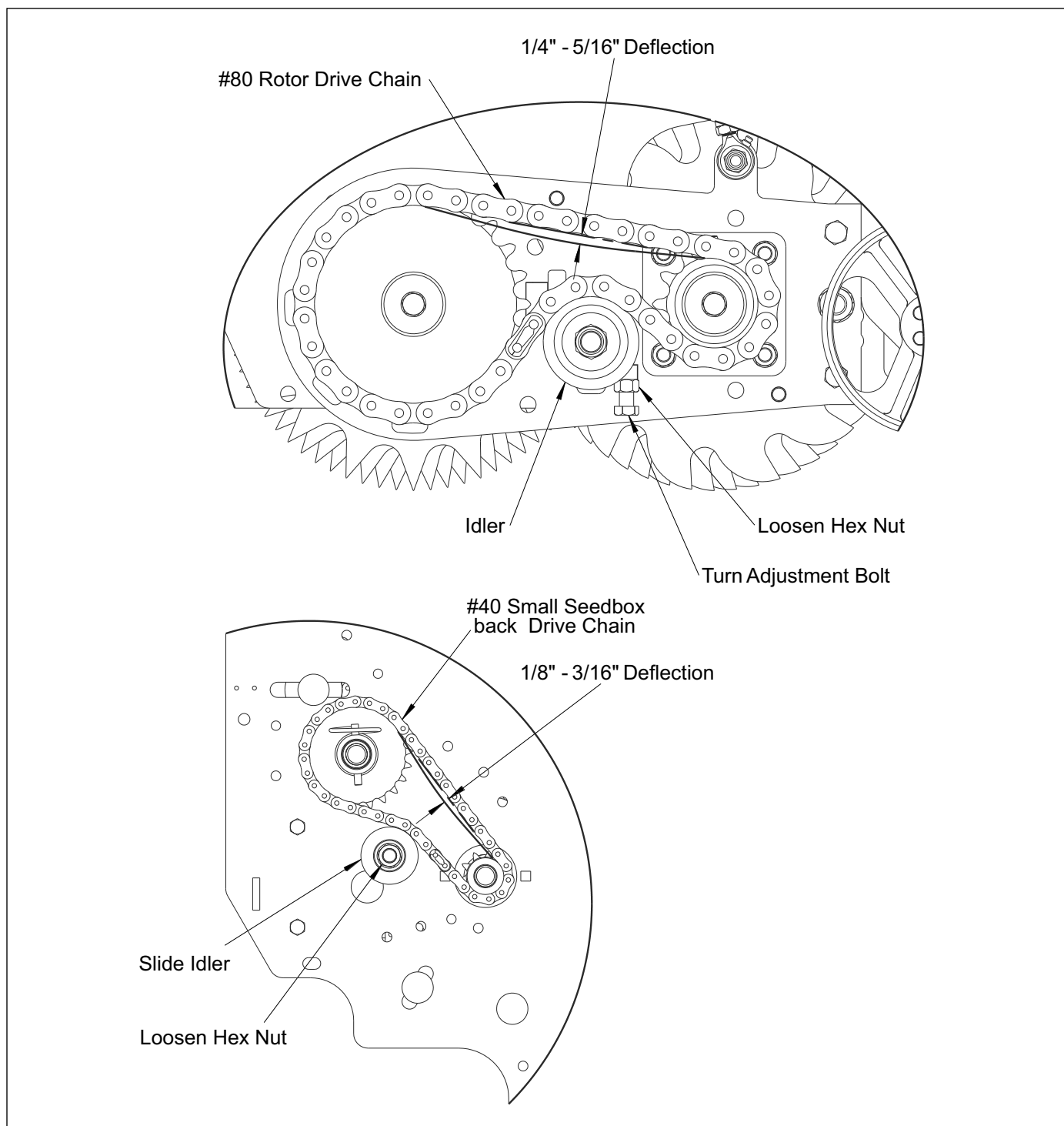


Figure 4-3: Chain Tension (1 of 2)

- The Small Seedbox Drive Chain and Seedbox Drive Chain is properly adjusted when it has 1/8" - 3/16" deflection across the sprockets.
- The Primary Drive Chain is properly adjusted at 5/16" - 3/8" deflection across the sprockets.
- If adjustment is needed loosen the Hex Nut on the Idler and slide the Idler until the proper sag is achieved.

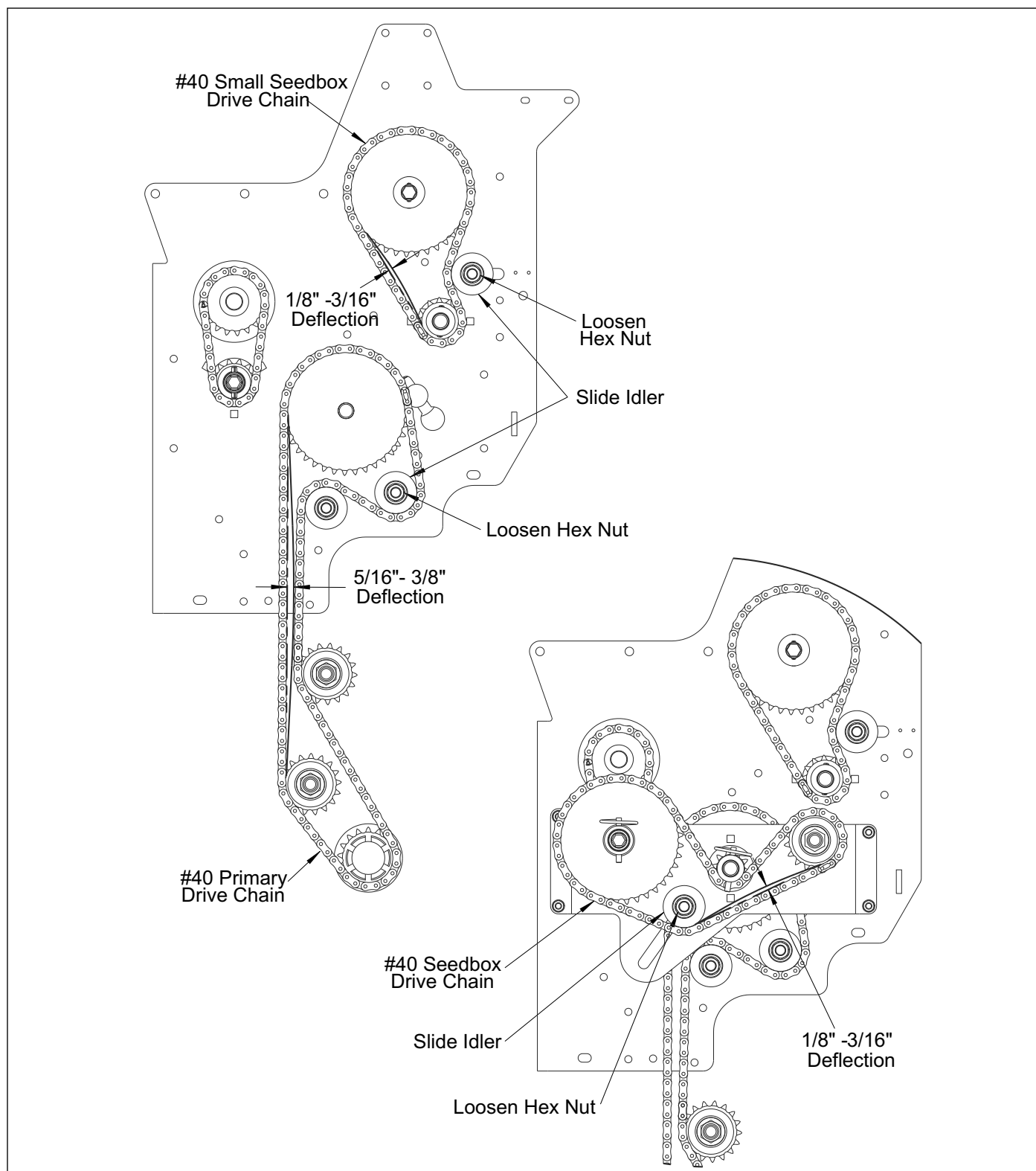


Figure 4-4: Chain Tension (2 of 2)

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.
- If adjustment is needed loosen Jam Nut and turn Adjusting Bolt. Retighten Jam Nut.

Right side of the machine is shown.

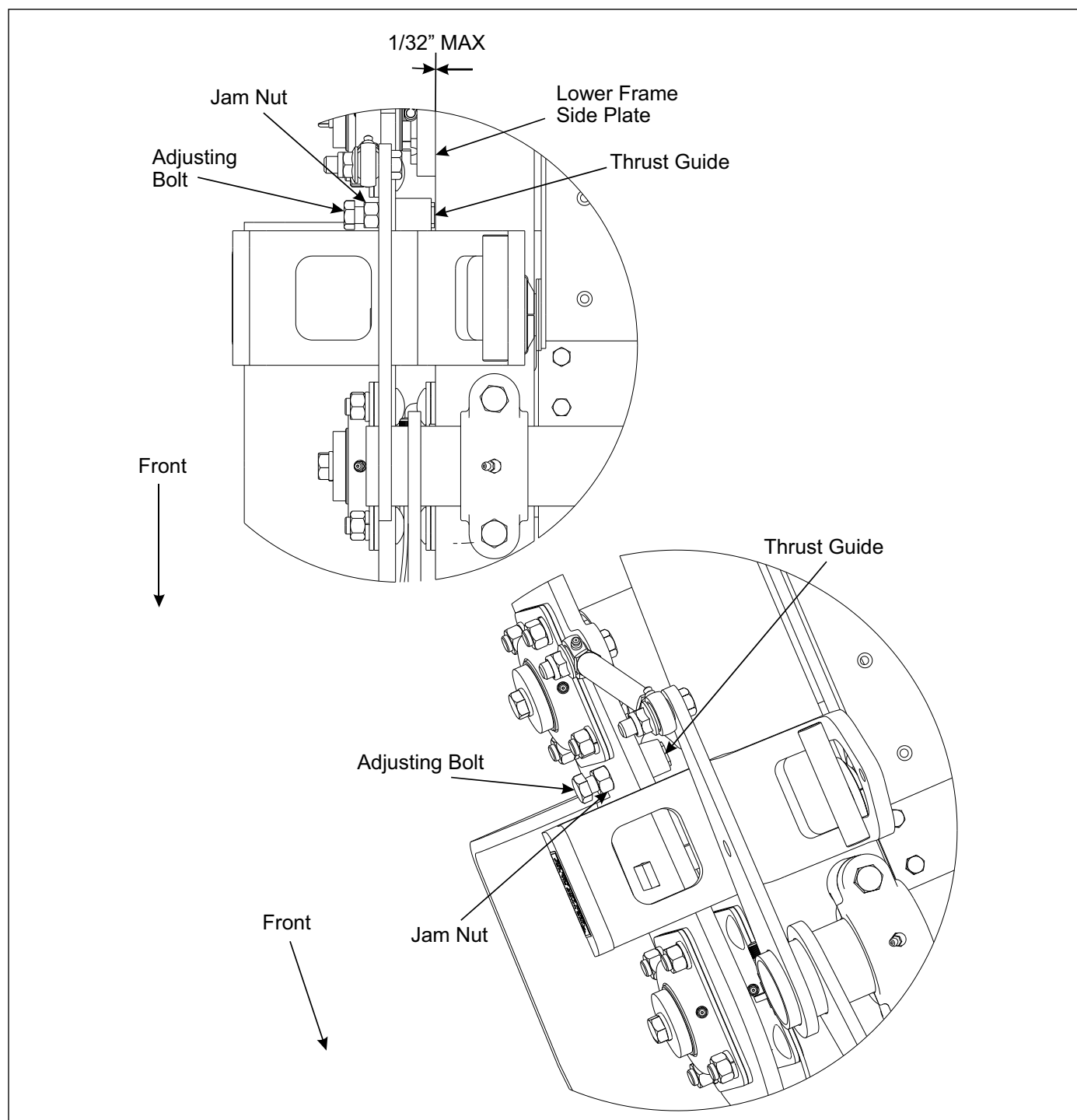


Figure 4-5: Rotor Thrust Guide

Rotor Blade

- Check and replace bent or damaged Rotor Blades.
- Regularly check Rotor Blade tightness, if adjustment is needed remove Roll Pin and torque the Slotted Hex Nut to 400 Ft-Lbs. Re-insert the Roll Pin.

Right side of the machine is shown.

Firming Roller

- Check the Firming Roller regularly for tightness between wheels, if adjustment is needed loosen the Hex Nuts and Slide the clamp over. Re-tighten Hex Nuts.

Right side of the machine is shown.

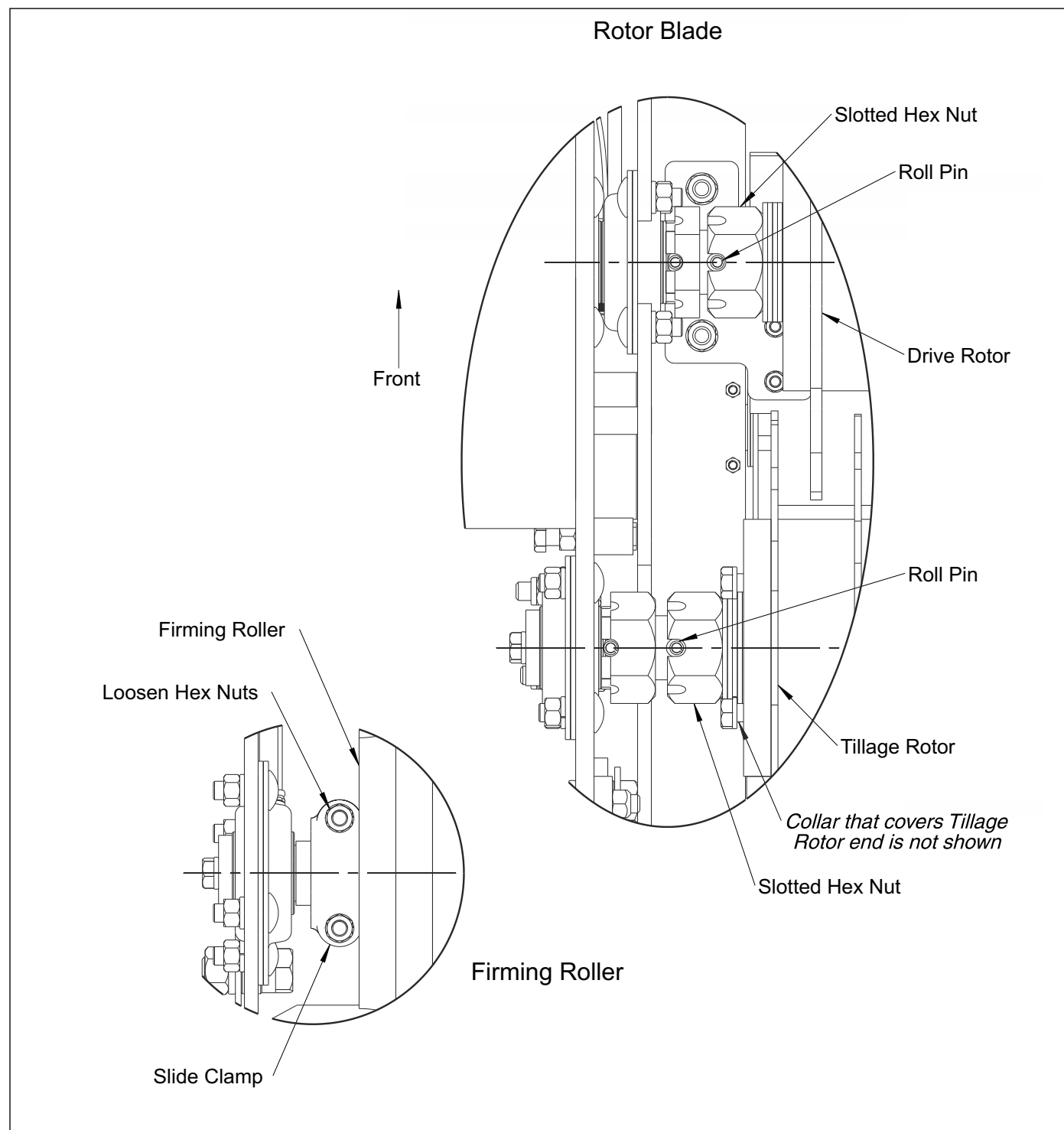


Figure 4-6: Rotor Blade and Firming Roller

Maintenance Chart

(Subject to change without notice)

	Initial Run - In	8 Hours	25 Hours	Annually	Storage
Fasteners	X			X	
Grease Rockshaft bearings		X		X	
Grease Rockshaft Link		X		X	
Grease Guide Wheel Hub		X		X	
Grease Rotor and Roller Bearings			X	X	
Lubricate Roller Chains	X		X		X
Adjust Roller Chain tension	X		X	X	
Adjust Rotor Thrust Guide	X		X	X	
Tighten Rotor Blades and Roller Wheels	X		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 Gage Wheels 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
	Rockshaft Lock Pin was left in
	Rockshaft Lock Clamp was not loosened
	Check rotor drive chain
Tillage Rotor Teeth plugging up with soil and vegetation	Soil is too wet for seeder operation
Tillage Rotor plugging with long grass	Grass is too wet or green for seeder operation
Uneven seed distribution or uneven stand	Check for 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</i>
Seed is not coming out	Check if Transmission Klik Pin is in place
	Check if seed is in Seedbox
	Check if Transmission chains are properly adjusted
Nick marks on rotor assembly from opposite side	Large rotor Castle Nuts are not tight enough <i>Tighten nuts which clamp the blade stack to 400 ft-lbs</i>

MAINTENANCE

Table provided for your general use with this manual.

[illegible]

Reference Tables and Specifications

Model Designation	BPS6	BPSB6
Weight (Empty)	2004 lbs	2111 lbs
Tractor Lift Capacity	2050 lbs (24" behind Lift Arms)	2150 lbs (Behind Lift Arms)
Seed Box	Front Box Only	Front and Rear Box
Seedbox capacity	4.5 Bushels	4.5 Bushels and 1.4 Bushels
Seed Metering	Large Micro-Meter	Large and Small Micro-Meter

Common Features	
Tractor Horsepower Range	35 to 60 HP
Three Point Hitch Type	Category I, II, Quick-Attach, iMatch™
Overall Width	90"
Working Width	72"
Base Unit Length	46"
Unit Height	50"
Recommended Speed	4 to 8 mph (6.4 to 12.9 km/h) (Dependent on Conditions)
Acres per hour	2.9 @ 4 mph, 5.8 @ 8 mph
Rotor Axles	1.75" Square Shaft
Rotor & Roller Bearings	1.5" Heavy Duty Greaseable Bearing
Drive Rotor (Front)	414 lbs
Number of Blades	31
Blade Material	Abrasion Resistant Steel
Blade Spacing	2.25"
Blade Thickness	0.313"
Blade Outside Diameter	13"
Drive Type	Ground
Tillage Rotor (Middle)	351 lbs
Number of Blades	32
Blade Material	Abrasion Resistant Steel
Blade Spacing	2.25"
Blade Thickness	0.188"
Blade Outside Diameter	13"
Drive Ratio	2:01
Rotor Speed	197 RPM @ 4 MPH, 394 RPM @ 8 MPH
Drive Type	#80 Roller Chain
Firming Roller (Rear)	231 lbs
Number of Cast Wheels	37
Seed Metering Drive	Positive Ground Driven
Seedbox Drive Type	#40 Roller Chain

REFERENCE TABLES AND SPECIFICATIONS

Table provided for your general use with this manual.

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Document Control Revision Log:

Date	Revision	Improvement(s) Description and Comments
03/2011	311rev0511	Initial Release
09/2011	311rev0911	Updated, Incorporated Landoll Format
03/2013	311rev0313	Added New Acre Meter Data
01/2014	311rev0114	Added Patent Decal. Manufactured under Patent #8,590,632
08/2020	0820	Added Rear Roller Scraper Option



Intertek

Equipment from Landoll Company, LLC is built to
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Till 'N Seed®

Models BPS6 and BPSB6

Operator's Manual

Re-Order Part Number 3P091-rev0820

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