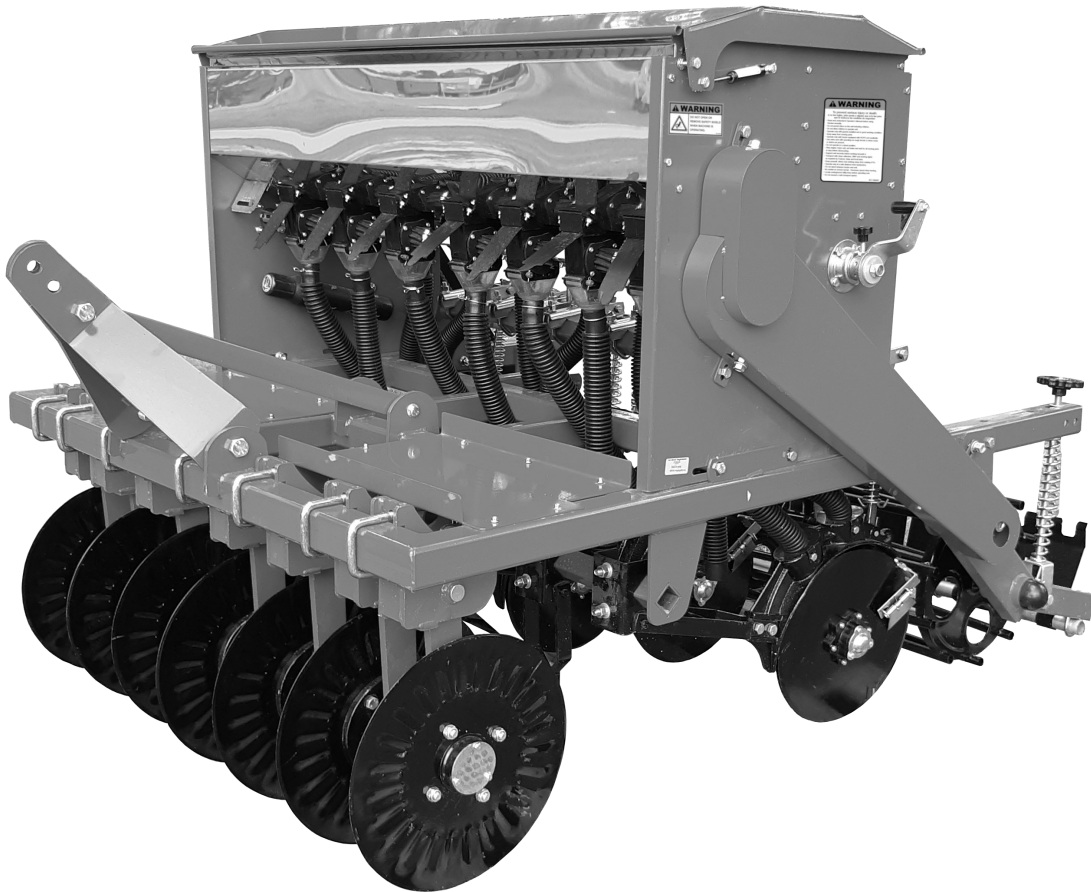




**No Till Drill**  
**NTGD-55 & NTGD-78**



**Operator's Manual**

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**TO THE DEALER:**

Assembly and proper installation of this product is the responsibility of the LMC dealer. Read manual instructions and safety rules. Make sure all items on the Dealer's Pre-Delivery and Delivery Check Lists in the Owner's/Operator's Manual are completed before releasing equipment to the owner.

**TO THE OWNER:**

Read this manual before operating your LMC equipment. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all the adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your selling dealer. The equipment you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the equipment. For service, your authorized LMC dealer has trained mechanics, genuine LMC service parts, and the necessary tools and equipment to handle all your needs. Use only genuine LMC service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation.

Record your implement model and serial number in the space provide below. Your dealer will need this information to give you prompt, efficient service.

**Model Number:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Date Purchased:** \_\_\_\_\_

# Table of Contents

Introduction .....	5
Technical Specifications .....	5
Safety .....	6
Safety Signal Words .....	6
General Safety Guidelines .....	7
Safety Decal Care .....	7
Before Operation .....	8
During Operation .....	9
Highway And Transport Operations .....	10
Assembly .....	12-13
Operating Instructions.....	14-17
Adjusting Disc Alignment.....	18-19
Lubrication and Maintenance.....	20
Setting Application Rates.....	21
Application Rates .....	22
Torque Specifications .....	23
Parts Breakdown .....	25-42
Warranty .....	43

# Introduction

Thank you for purchasing your LMC No-Till Drill. The LMC No-Till Drill is designed to be used in LIGHT DUTY no-till or prepared seeding conditions. It is important to properly maintain and keep in place all safety guards and shields that came with you machine.

These seeders can seed corn, beans, oats, wheat, etc. The two boxes are equipped with closeable slides for each row. The seeder is equipped with 2 separate boxes. Each is made with a stainless steel box and nylon/plastic seed rollers to disperse seeds effectively and accurately.

## Technical Specifications

- Suitable for drilling and fertilizing corn, beans, oats, etc. in level or gently rolling fields.
- Spring load coulters to increase seed/ground contact.
- The double disc coulters create an opening to fertilize and seed easily in tilled soil.
- The depth of seeding can be adjusted. Seeding quantity can be adjusted.
- The seeder can plant seeds, fertilize roll and drag all at the same time.

	<b>NTGD-55</b>	<b>NTGD-78</b>
Weight	1036 lbs.	1400 lbs.
Req. HP	Minimum 30 HP	Minimum 35 HP
Seeding Rows	7	10
Row Spacing	7 1/2"	7 1/2"
Seed/Fertilizer Rate	See Seed Rate Chart page 20	See Seed Rate Chart page 20
Sowing Depth	3/4" - 2"	3/4" - 2"
Working width	55"	78"
Cat. hitch	1 & 2	1 & 2
Double disc openers	7 sets	10 sets
Front cup/rear cups	7	10
Hopper Capacity - front	4.00	5.50
Hopper Capacity - rear	3.00	4.50

# Important Safety Information

## Safety

It is important that you read the entire manual and to become familiar with this product before you begin using it. This product is designed for certain applications only. The manufacturer cannot be responsible for issues arising from modification. We strongly recommend this product not be modified and /or used for any application other than that for which it is designed. If you have any questions relative to a particular application, DO NOT use the product until you have first contacted us to determine if it can or should be performed on the product.

Read and understand this manual and all safety signs before operating and maintaining . Review the safety instructions and precautions annually.

## Safety Signal Words

**TAKE NOTE! This safety alert symbol found though out this manual is used to call you attention to instructions involving you personal safety and the safety of others. Failure to follow these instructions can result in injury or death.**



**This symbol means:  
Attention!  
Become alert!  
Your safety is involved!**

Note the use of the signal words, DANGER, WARNING and CAUTION with the safety messages. The appropriate signal word for each has been selected using the following guidelines:



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



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



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

# Important Safety Information

## General Safety Guidelines

Safety of the operator is one of the main concerns in designing and developing a new piece of equipment. Designers and manufacturers build in as many safety features as possible. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or for you, follow them.

Replace any DANGER, WARNING, CAUTION or instruction safety decal that is not readable or is missing. Location of such decals are indicated in this manual. Do not attempt to operate this equipment under the influence of drugs or alcohol.

Review the safety instructions with all users annually.

This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with farm machinery and trained in this equipment's operations. **Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.**

To prevent injury of death, use a tractor equipped with a Roll Over Protection System (ROPS). Do not paint over, remove or deface any signs or warning decals on your equipment. Observe all safety signs and practice the instructions on them.

Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - **Don't try it!**



## Safety Decal Care

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or have become illegible.
- Replaced parts that displayed a safety sign should also display the current safety sign
- Safety signs are available from your Distributor or Dealer Parts Department or the factory.

# Important Safety Information

## How to install Safety Signs:

- Be sure that the installation area is clean and dry.
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of decal backing paper.



## Before Operation

- Carefully study and understand this manual.
- Do not wear loose-fitting clothing, which may catch in moving parts.
- Always wear protective clothing and substantial shoes.
- Assure that all tires are inflated evenly.
- Give the unit a visual inspection for any loose bolts, worn parts or cracked welds, and make necessary repairs. Follow the maintenance safety instructions included with this manual.
- Be sure that there are no tools lying on or in the equipment.
- Do not use the unit until you are sure that the area is clear, especially of children and animals.
- Don't hurry the learning process or take the unit for granted. Ease into it and become familiar with your new equipment.
- Practice operation of your equipment and its attachments. Completely familiarize yourself and other operators with its operation before using.
- Use a tractor equipped with a Roll Over Protection System (ROPS) and fasten your seat belt prior to starting engine.
- The manufacturer does not recommend usage of tractor with ROPS removed.
- Move tractor wheels to the widest recommended settings to increase stability.
- Securely attach to towing unit. Use a high strength, appropriately sized hitch pin with a mechanical retainer and attach safety chain.
- Do not allow anyone to stand between the tongue or hitch and the towing vehicle when backing up to the equipment.
- Do not use the unit until you are sure that the area is clear, especially of children and animals.



# Important Safety Information



## During Operation

- Children should not be allowed on the product.
- Clear the area of small children and bystanders before moving the feeder.
- If using a towing unit, securely attach feeder by using a hardened 3/4" pin, a metal retainer, and safety chains if required. Shift towing unit to a lower gear before going down steep downgrades, thus using the engine as a retarding force. Keep towing vehicle in gear at all times. Slow down for corners and rough terrain.
- Make sure you are in compliance with all local and state regulations regarding transporting equipment on public roads and highways. Lights and slow moving signs must be clean and visible by overtaking or oncoming traffic when feeder is transported.
- Beware of bystanders, **particularly children!** Always look around to make sure that it is safe to start the engine of the towing vehicle or move the unit. This is particularly important with higher noise levels and quiet cabs, as you may not hear people shouting.
- **NO PASSENGERS ALLOWED!** Do not carry passengers anywhere on, or in, the tractor or equipment, except as required for operation.
- Keep hands and clothing clear of moving parts.
- Do not clean, lubricate or adjust your equipment while it is moving.
- When halting operation, even periodically, set the tractor or towing vehicle brakes, disengage the PTO, shut off the engine and **remove the ignition key.**
- Be especially observant of the operating area and terrain. Watch for holes, rocks or hidden hazards. Always inspect the area prior to operation.
- **DO NOT** operate near the edge of drop-offs or banks.
- **DO NOT** operate on steep slopes as overturns may result.
- Operate up and down (not across) intermediate slopes. Avoid sudden starts and stops.

# Important Safety Information



## Highway and Transport Operations

- Adopt safe driving practices.
- Keep the brake pedals latched together at all times. **Never use independent braking with machine in tow as loss of control and/or upset of unit can result.**
- Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop to be safe and secure. Keep speed at a minimum.
- Reduce speed prior to turns to avoid the risk of overturning.
- Avoid sudden uphill turns on steep slopes.
- Always keep the tractor or towing vehicle in gear to provide engine braking when going downhill. Do not coast.
- Do not drink and drive!
- Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
- Use approved accessory lighting flags and necessary warning devices to protect operators of other vehicles on the highway during daylight and nighttime transport. Various safety lights and devices are available from your dealer.
- The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway and marking requirements.
- When driving the tractor and equipment on the road or highway under 40 kph (20 mph) at night or during the day, use the amber warning lights and a slow moving vehicle (SMV) identification emblem.
- Plan your route to avoid heavy traffic.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
- Be observant of bridge loading ratings. Do not cross bridges rated at lower than the gross weight at which you are operating.
- Watch for obstructions overhead and to the side while transporting.
- Always operate in a position to provide maximum visibility at all times. Make allowances for increased length and weight of the equipment when making turns, stopping the unit, etc.
- Pick the most level route when transporting across fields. Avoid the edges of ditches or gullies and steep hillsides.
- Be extra careful when working in inclines.

# Important Safety Information



## Highway and Transport Operations

- Maneuver the tractor or towing vehicle at safe speeds.
  - Avoid overhead wires or other obstacles. Contact with overhead lines could cause serious injury or death.
  - Avoid loose fill, rocks and holes, they can be dangerous for equipment operation or movement.
  - Allow for unit length when making turns,
  - Operate the towing vehicle from the operator's seat only.
  - Never stand alongside of unit with engine running or attempt to start engine and/or operate machine while standing alongside of unit.
  - Never leave running equipment attachments unattended.
  - As a precaution, always recheck the hardware on equipment following every 100 hours of operation.
- Correct all problems. Follow the maintenance safety procedures.

# Assembly

## Step 1:

Carefully uncrate and remove all parts. Ensure the double disc openers and coulters are inline and set at their proper 7 1/2" spacing.



## Step 2:

Mount hopper box with the lid opening facing the front of the implement. DO NOT TIGHTEN THE BOLTS AT THIS TIME!



## Step 3:

Install the short sprocket shaft, sprocket and chain. The 11 tooth sprocket goes on the left and 12 tooth sprocket on the right.



## Step 4:

Lightly push the seed box forward to tighten the chain. Use an allen wrench to tighten the drive sprocket after ensuring the chain is straight. Tighten bolts left loose in Step 2. Install chain shields.



# Assembly

## Step 5:

Install seed cup bottoms and hoses to cups (23" in back - 28" in front).



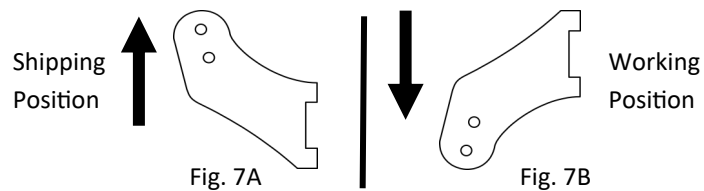
## Step 6:

Install A frame on inside of mounts.



## Step 7: Install lower hitch blocks.

**Note:** Hitch Blocks (Item 60) are in the up position for shipping only (Fig. 7A). Remove hardware, position Hitch Blocks with holes pointing downward (Fig. 7B). Torque hardware to proper specifications. See "Torque Specifications" page 21.



## Step 8:

The Seed Rate Handle is turned in for "Transport" purposes to prevent damage. Remove the nut, flip the handle to face away from the seeder and tighten before making adjustments to the seeder.



Handle in Transport Position

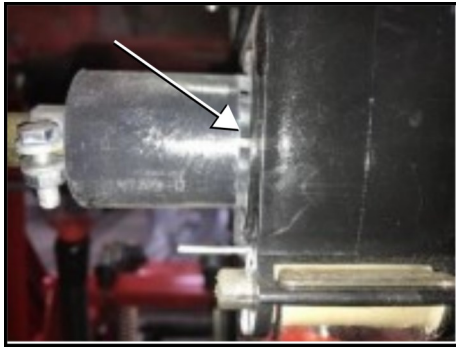


Handle in Work Position

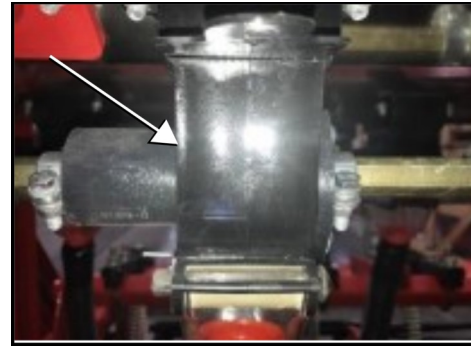
# Operating Instructions

## Before beginning work:

- Be sure all the seed cups completely close and open the same, so all cups are putting out the exact amount of seed. If they are not in sync, one cup will put out more than others.
- Ensure when completely closed, the seeding gears are not protruding from the outside the cup.
- Adjust the clamps to ensure all cups close and open completely and uniformly.



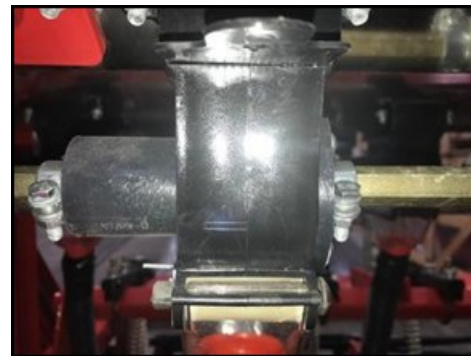
**NOT FLUSH—GEARS PROTRUDING**



**FLUSH—GEARS NOT PROTRUDING**

## To adjust seed output:

The seed cups may come with either of two different style of seed cups or a combination of both. Typically the front seed box section is equipped with a “LARGE SEED CUP and the rear section typically has the LEGUME SEED BOX.



The LARGE SEED front section is usually driven with an 11-26 Gear ratio, while the back LEGUME SEED section is being reduced to put out less with a 12-40 Gear Ratio.



**Large seed cup box - front**



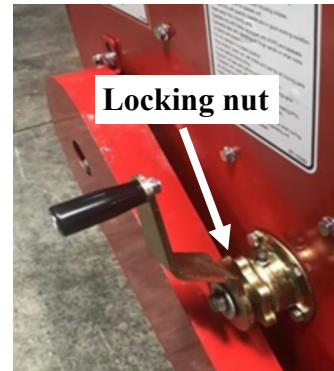
**Legume seed cup box - rear**



# Operating Instructions

## Seeding/Fertilizing rate adjustment handle:

To adjust the fertilizer rate, you will need to adjust hand wheels (on each side of hopper). The seed/fertilize rate depends on the seed/fertilizer you want to plant, please refer to your seed/ fertilizer supplier's chart to get



the proper seed/fertilize rate.

Before adjusting the seed rate, return the rate on the Scale to zero by rotating the hand wheel, then check and make sure all seeding/fertilizing wheels are fully closed on all seeding/ fertilizing boxes. (SEE BEFORE BEGINNING section) If not, you need to loosen the clips on both sides of the seeding/fertilizing wheel and push the wheel into the box. Tighten the clips. When the seeding/fertilizing box is closed and the meter indicates "0". Adjust fertilizing rate by rotating the hand wheel. The meter has 8 numbers from 0-8, from zero to Maximum.

Weight, size, relative humidity, and moisture content can affect seeding rates. Users can adjust the position of

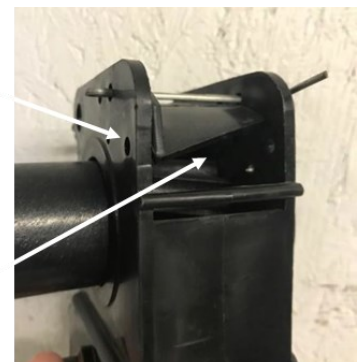


**Important: Tighten locking nut on handle assembly before operating.**

the seed/fertilizer "TONGUE" and lock in different positions by moving the cotter pin to meet the different seeding/fertilizing size. The smaller the seed, the higher up the TONGUE should be positioned. For larger seed, the "TONGUE" should be opened more.

Positioning holes

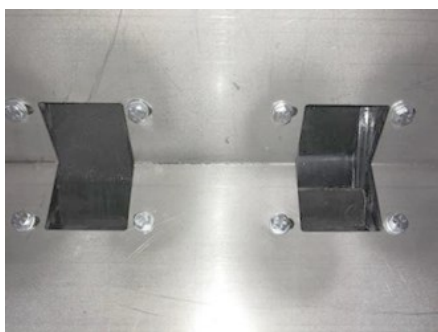
Tongue and positioning holes



# Operating Instructions

## Seed cup shutoff:

Depending on the crop being planted, it may be necessary to not disburse from all of the seed cups. This is easily done by simply sliding the “Seed shut off flap” in and out.



**Closed**

**Open**



**Closed**

**Open**

## Seed depth - Rear Roller

The depth in which the application is done is controlled by adjusting the basket located near of the machine. Adjusting the “Sowing depth control device “ as follows:

Turning knob counter-clockwise will make the basket drop which in turn will raise the disc openers and lessen the depth of the application. Turning the knob clockwise would raise the basket which would lower the disc openers and make the application deeper.



## Seed depth - Torsion Bar

Turning the Torsion Bar wheel will increase spring tension on the individual discs to apply additional pressure.





# Operating Instructions

## Seed depth - Disc Support Bar

The top link on the tractor hitch should be properly adjusted to carry the machine level in an operating position. During operation, the tractor lift must be fully lowered to allow the machine to follow the contour of the ground.

Additional pressure can be added by moving the curved clip into another hole on the Disc Support Bar.



The machine is totally ground driven so proceed with a speed that is most comfortable and safe for existing conditions. Be sure to stop forward motion before lifting the machine off the ground. This practice will stop rollers from “free spinning” and therefore eliminate the unwanted application when turning around. Never operate the machine in reverse.



**Important: The machine comes equipped with additional weight platforms to help penetrate harder soils. Do not overload!**

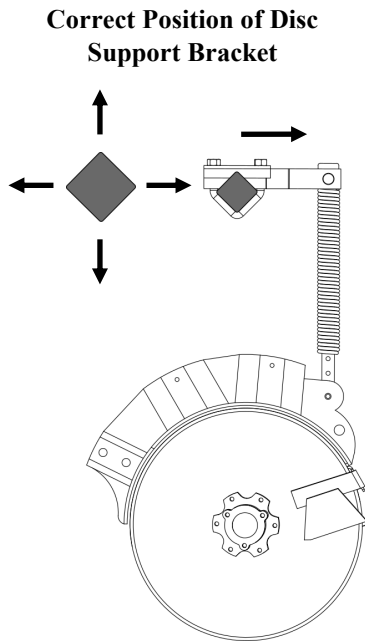
## Additional weight platform



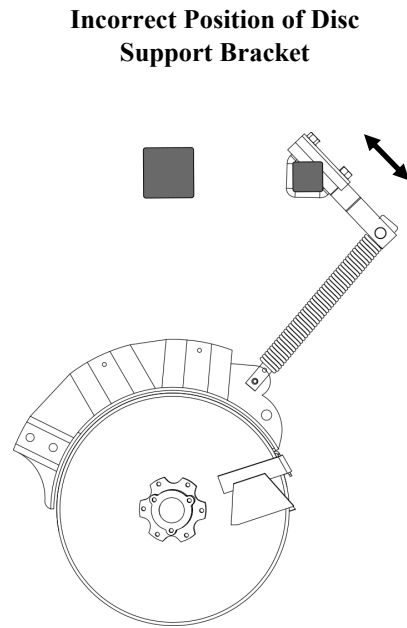
# Adjusting Disc Alignment

## Disc Alignment:

The Disc Support Bracket must be in the correct orientation prior to operating the implement. The corners of the Disc Support Bar must be in the 12 O'clock, 3 O'clock, 6 O'clock & 9 O'clock positions. The Disc Support Bracket will be parallel to the ground, **Fig. "A"**.

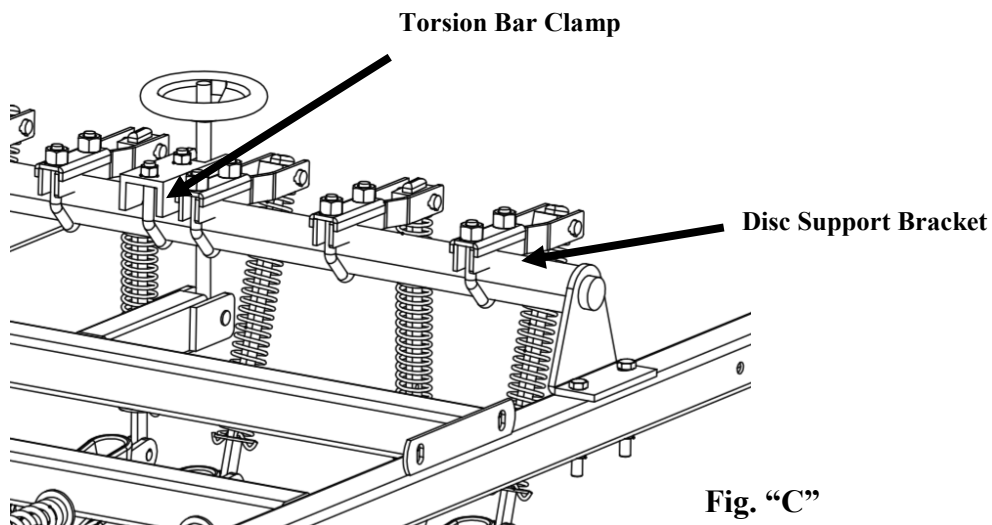


**Fig. "A"**



**Fig. "B"**

If the Disc Support Bracket is not parallel to the ground, as shown in **Fig "B"**, disconnect the Disc Support Brackets and Torsion Bar Clamp, **Fig "C"**.



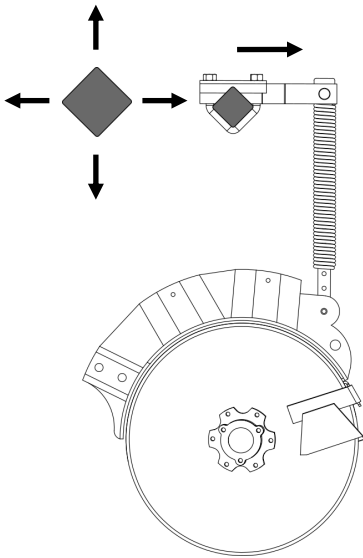
**Fig. "C"**

# Adjusting Disc Alignment

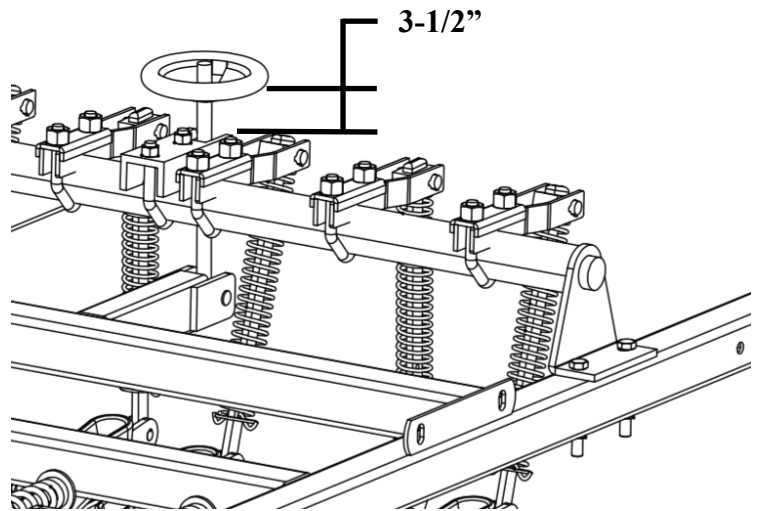
## Disc Alignment (cont.):

Position the Disc Support Bar as shown in **Fig. "D"**. Adjust the Torsion Adjustment Wheel so that the threads are about 3-1/2" from the threaded bracket to the adjustment wheel, **Fig. "E"**. Be sure to tighten all hardware before operating the implement.

Correct Position of Disc Support Bracket



**Fig. "D"**



**Fig. "E"**

# Lubrication and Maintenance

**Important:** It is important to thoroughly clean the seeder after use. Failure to do so can cause irreparable damage to the seed cups and drive system. Grease and turn the Seed adjustment handle to ensure grease lubricates the threads.

There are a few ways to clean out the hoppers:

- Each hopper is equipped with a cleanout spout in the front of each hopper.
- The rear hopper is equipped with a quick release lever located under the center of the hopper. By pulling down the lever, all the hopper tongues will open and cause the seed/fertilizer to drop out of each of the seed cups.
- Each seed cup can be emptied individually by pulling the cotter pin on the side of the cup and dropping down the hopper tongue.

**1 Hour** Check all fasteners and hardware including set screws in sprockets and bearing collars and re-tighten as necessary.

**8 Hours** Grease bearings on roller and apply grease to torsion bar wheel mechanism.

**As needed:** Remove any crop residue, grasses, weeds, or debris wrapped around shaft discs or rollers. This can cause bearings to overheat and lead to premature failure.

**Always:** Protect the machine from weather. NEVER leave fertilizer in hopper. Do not leave seed in hopper for more than 24 hours. Remove all fertilizer and seeds from hopper. Thoroughly clean hoppers and lubricate all drive chains before storage.

## Changing Discs

**Important:** When replacing the discs, it is extremely important to remember that one of the disc hubs has left hand threads and the other right hand threads. The threads can be stripped if removed improperly. Left side hub, turn Clockwise to loosen and turn counter-clockwise to tighten. Right side hub, turn counter-clockwise to loosen and clockwise to tighten.

Step 1: Remove the dust cap.

Step 2: Remove the external scraper dust cap.

Step 3: Remove hub nuts.

Step 4: Unscrew the hub from the disc support.

Step 5: Replace the discs and reassemble.



**Important:** When replacing the discs, it is extremely important to remember that the left disc hub has reverse (LH) threads. The right disc hub has normal (RH) threads. If turned incorrectly, they can strip.

## Setting Application Rates

The most accurate way to set application rates is to drive a predetermined distance and physically catch the seeds dispensed. To do this, remove at least one drop hose and tie a plastic bag onto bottom of seed cup. Travel a determined distance and then weigh the seeds in the bag. Multiply the amount collected by the number of cups on your machine. Refer to the following example to properly calibrate your machine.

To determine area covered calculate the following:

(Disc spacing x number of discs converted to ft.) x distance traveled and then divide by the square feet in an acre.

10 disc with a 7.25" spacing = 72.50" (6.04 ft.) x 500 ft. traveled = 3,020 sq. ft. covered.

43,560 sq. ft. in acre/3,020 = 14.42% of acre covered.

If you collect 16 oz. (1 lb.) of seed from a single seed cup on the #5 setting after driving 500 ft.

(14.42% of an acre), you are putting out 69.35 lbs. per acre.

1 lb. (amount collected) x 10 seed cups = 10 lbs. total output by machine.

Distance traveled = 500 ft. (14.42% of acre)

$1 \times 10 / .1442 = 69.35$  lbs. per acre

**NOTE:** The tables and rate charts are guidelines only! They are designed to be an aid as a starting point. You must do your own calibration as many factors cause rates to change. Variations in seed/granular size, density, moisture, seed treatment, and the amount of machine overlap will affect the final application rate.

See next page for "Rate Charts".

# Application Rate Charts







## Large Seed Cup 11-26 Gear Ratio

Cup setting	1	2	3	4	5	6	7	8
<b>Approximate Pounds per Acre</b>								
Rye	-	72	95	118	148	178	-	-
Fescue	-	44	79	114	138	162	-	-
Wheat	-	105	146	187	227	267	-	-
Corn	-	76	155	234	290	346	-	-
Gran. Fertilizer	55	133	183	233	268	304	-	-

## Small Seed Cup 12-40 Gear Ratio

Cup setting	1	2	3	4	5	6	7	8
<b>Approximate Pounds per Acre</b>								
Rye	-	25	38	51	64	75	-	-
Fescue	-	22	33	45	57	68	-	-
Wheat	-	-	-	-	-	-	-	-
Centipede	11	50	64	78	117	117	-	-
Gran. Fertilizer	-	-	-	-	-	-	-	-

# Torque Specifications

Torque Specifications for Common Bolt Sizes															
Inches		Bolt Head Identification						Metric		Bolt Head Identification					
															
Bolt size (inches)	Thread pitch	Grade 2		Grade 5		Grade 8		Bolt size (metric)	Thread pitch	Class 5.8		Class 8.8		Class 10.9	
		N.m	ft-lb	N.m	ft-lb	N.m	ft-lb			N.m	ft-lb	N.m	ft-lb	N.m	ft-lb
1/4"	20	7	5	11	8	16	12	M5	0.08	4	3	6	4	9	7
1/4"	28	8	6	13	10	19	14	M6	1	6	4	10	7	15	11
5/16"	18	15	11	24	17	33	25	M8	1.25	16	12	25	18	36	27
5/16"	24	17	13	26	19	37	27	M8	1	17	13	26	19	38	28
3/8"	16	27	20	42	31	59	44	M10	1.5	31	23	48	35	71	52
3/8"	24	31	23	47	35	67	49	M10	1.25	33	24	51	38	75	55
7/16"	14	43	32	67	49	95	70	M10	1	35	26	53	39	78	58
7/16"	20	48	36	75	55	106	78	M12	1.75	54	40	84	62	123	91
1/2"	13	66	48	102	75	144	106	M12	1.5	56	41	87	64	128	94
1/2"	20	75	55	115	85	163	120	M12	1.25	59	44	90	66	133	98
9/16"	12	95	70	147	109	208	154	M14	2	84	62	133	98	195	144
9/16"	18	106	79	164	121	232	171	M14	1.5	94	69	142	105	209	154
5/8"	11	132	97	203	150	287	212	M16	2	131	97	206	152	302	223
5/8"	18	149	110	230	170	325	240	M16	1.5	141	104	218	161	320	236
3/4"	10	233	172	361	266	509	376	M18	2.5	181	133	295	218	421	310
3/4"	16	261	192	403	297	569	420	M18	2	196	145	311	229	443	327
7/8"	9	226	167	582	430	822	606	M18	1.5	203	150	327	241	465	343
7/8"	14	249	184	642	473	906	668	M20	2.5	256	189	415	306	592	437
1"	8	339	250	873	644	1232	909	M20	1.5	288	212	454	335	646	476
1"	12	371	273	955	704	1348	995	M22	2.5	344	254	567	418	807	595
1-1/8"	7	480	354	1077	794	1746	1288	M22	1.5	381	281	613	452	873	644
1-1/8"	12	539	397	1208	891	1958	1445	M24	3	444	327	714	526	1017	750
1-1/4"	7	677	500	1519	1120	2463	1817	M24	2	488	360	769	567	1095	808
1-1/4"	12	750	553	1682	1241	2728	2012	M27	3	656	484	1050	774	1496	1103
1-3/8"	6	888	655	1992	1469	3230	2382	M27	2	719	530	1119	825	1594	1176
1-3/8"	12	1011	746	2268	1673	3677	2712	M30	3.5	906	668	1420	1047	2033	1499
1-1/2"	6	1179	869	2643	1949	4286	3161	M30	2	1000	738	1600	1180	2250	1659
1-1/2"	12	1326	978	2974	2194	4823	3557	M36	4	1534	1131	2482	1830	3535	2607

## Notes:

This chart is an approximate estimate of torque values.

Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

Fasteners must always be replaced with the same grade as specified in the manual.

Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for Metric hardware.

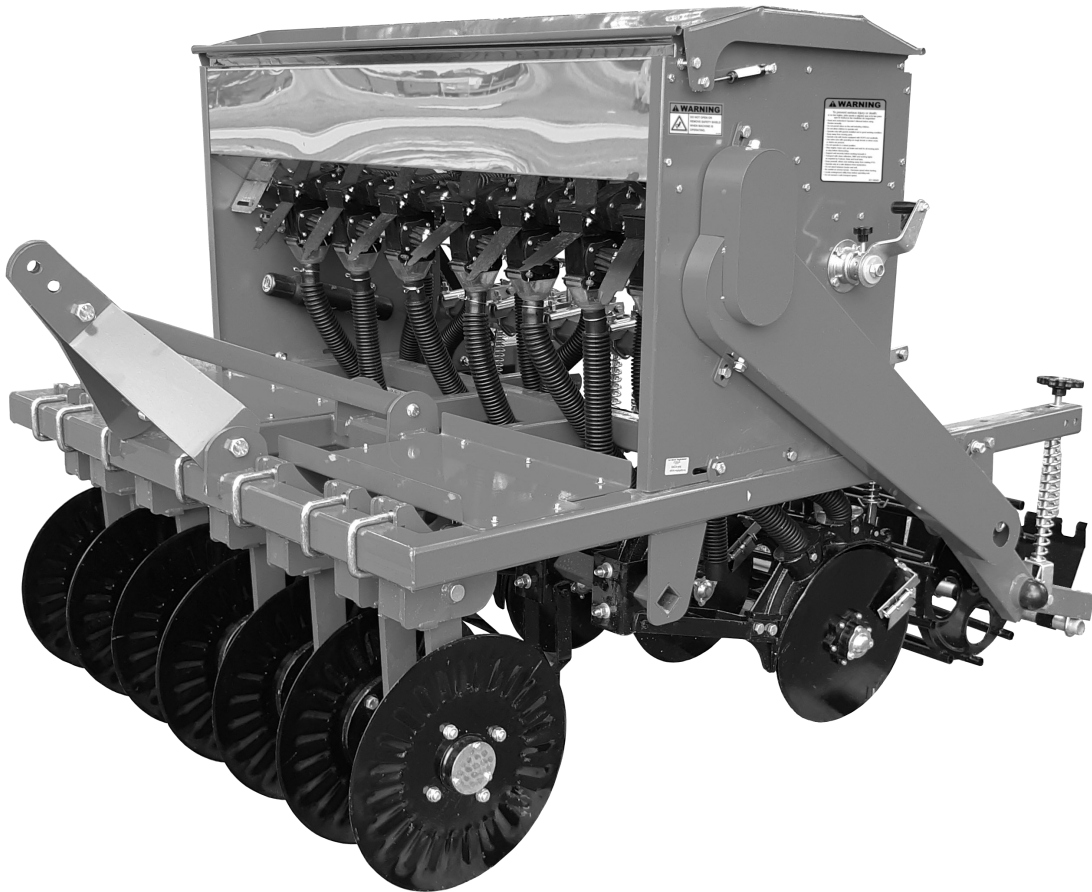
Make sure that fastener threads are clean and that you properly start thread engagement.

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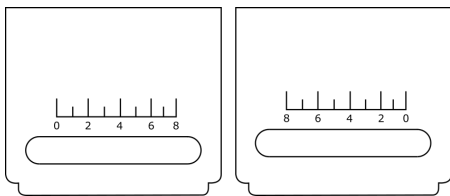
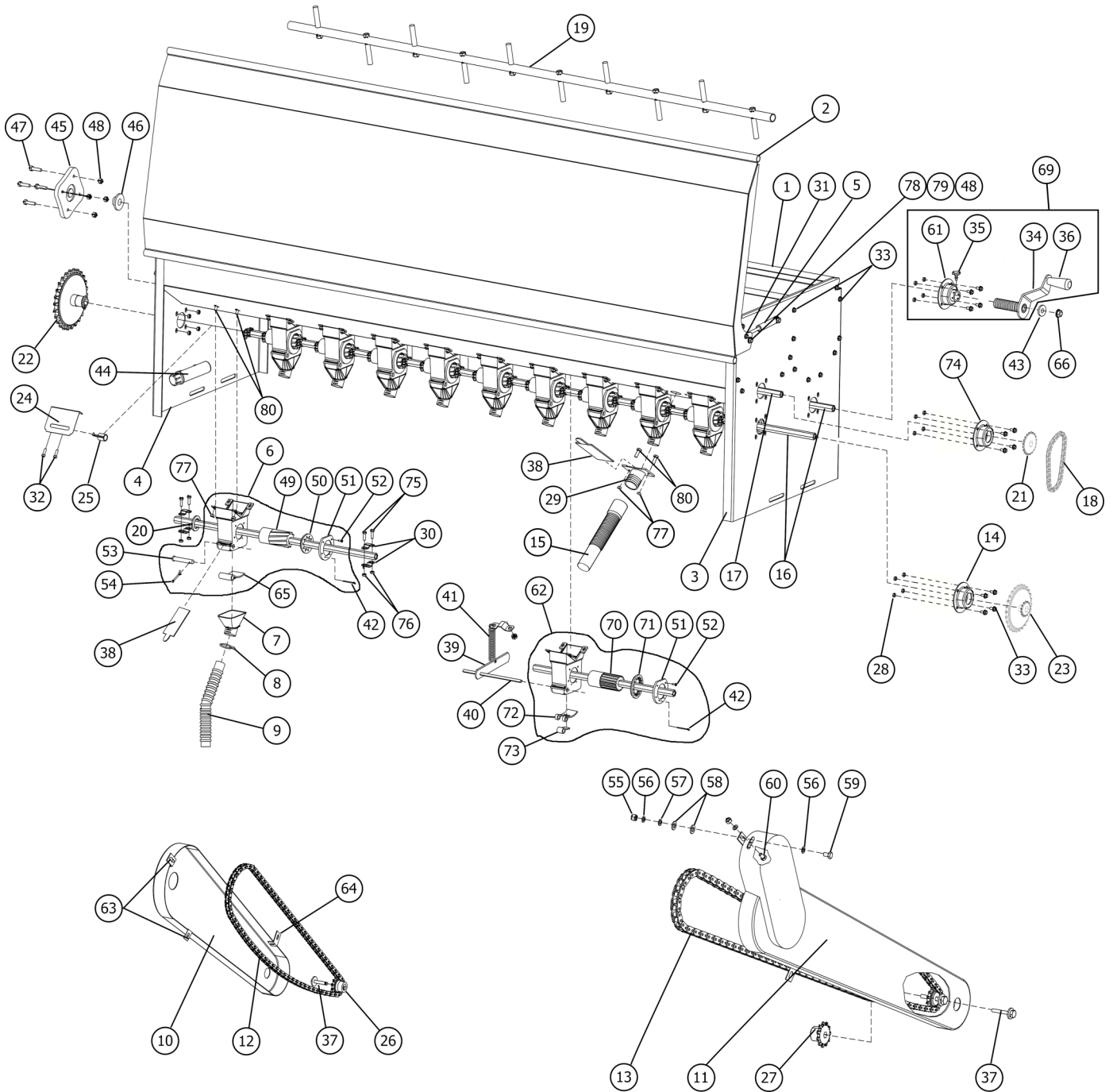


**No Till Drill**  
**NTGD-55 & NTGD-78**



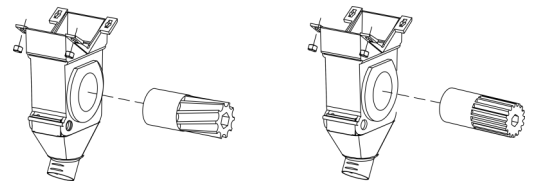
**Parts Manual**

# Hopper Assembly



LH (rear)

RH (front)



Front cup box

Rear cup box

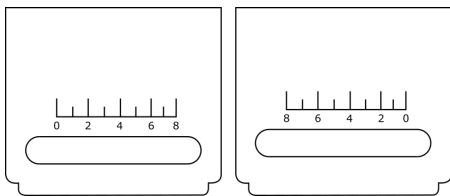
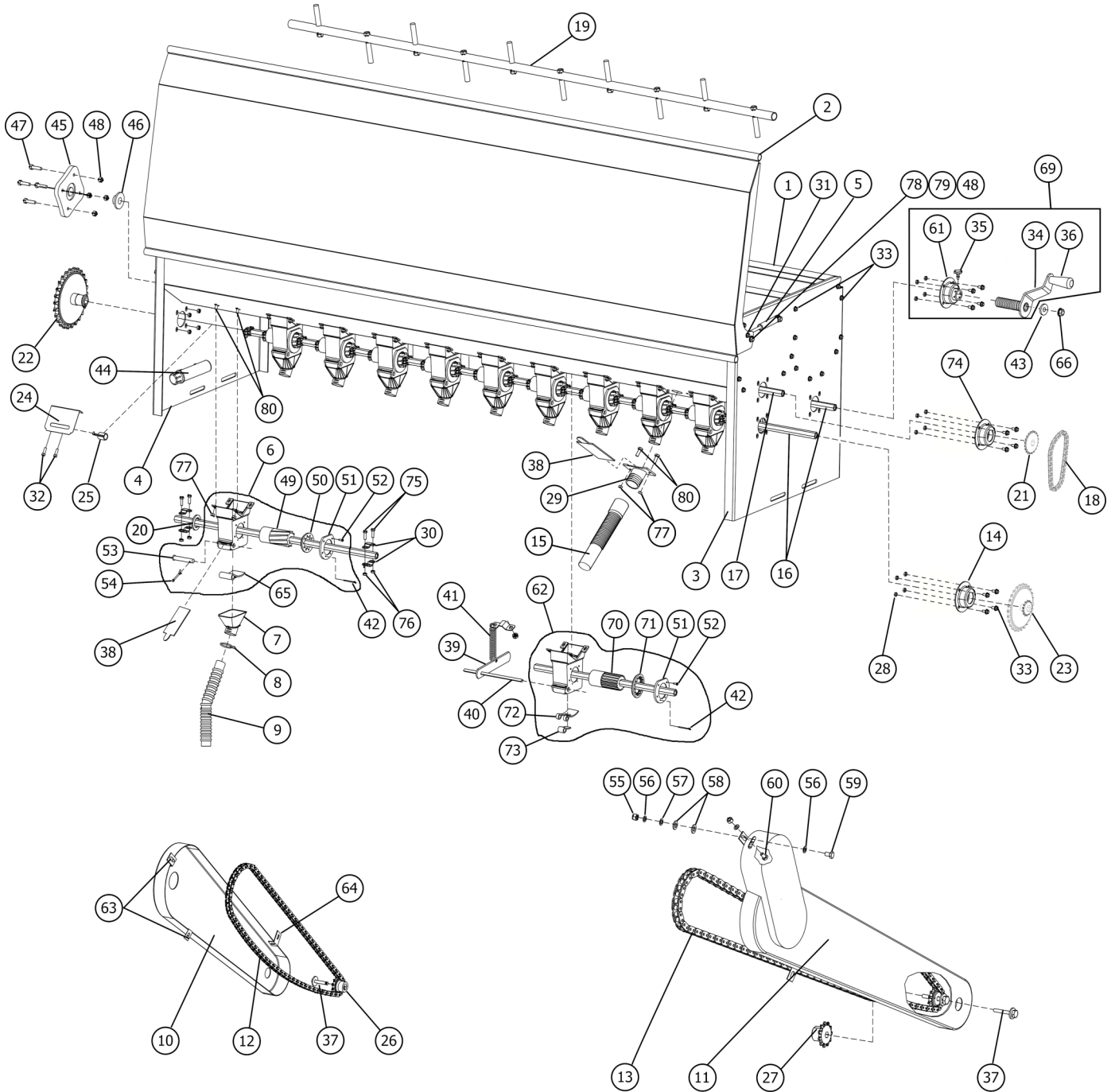
Note: The Rate adjustment plates are not the same. LH plate faces the rear of the machine. The RH plate faces the front of the machine.

Note: Front and rear seed cup boxes can be identified by examining the shafts. The front seed cup box has spiral splines while the rear has straight splines.

## Hopper Assembly

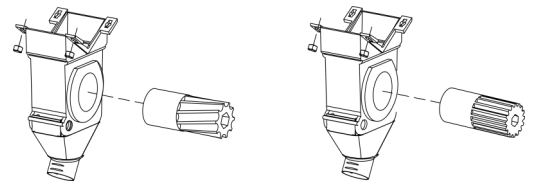
Item	Part #	Description	Qty.
1	SA1003-55	Hopper; NTGD-55	1
	SA1003-78	Hopper; NTGD-78	1
2	SA1001-55	Hopper lid; NTGD-55	1
	SA1001-78	Hopper lid; NTGD-78	1
3	SA1004	Hopper end plate, LH	1
4	SA1005	Hopper end plate, RH	1
5	DL5003	Lid piston	2
6	DL7001-L	Seed cup distribution box complete large seed	-
7	DL7006	Seed cup funnel	-
8	SA9005	Tube wire clamps	-
9	SA3002	Fertilizer/seed tube	-
10	SA10005	Right chain cover	1
11	SA10004	Left chain cover	1
12	SA3004B	Chain (#40) rear hopper, 127 links	1
13	SA3004A	Chain (#50) front hopper, 126 links	1
14	DL1005	Flange assembly w/bearing	2
15	DL7008	Waste tube	-
16	SA10001-55	Hex seed box shaft; NTGD-55	2
	SA10001-78	Hex seed box shaft; NTGD-78	2
17	SA9010-55	Agitator rod, NTGD-55	1
	SA9010-78	Agitator rod, NTGD-78	1
18	SA3003	Chain, agitator	1
19	SA9010-78	Agitator rod	1
	SA9011	Fingers & nuts, agitator	-
20	FW18	Washer flat M18	20
21	SA9012	Drive sprocket, agitator 20T	1
22	DL2003	Drive sprocket Z40	1
23	SA4032	Double sprocket 14T/26T	1
24	DL7004A	Rate adjustment face plate (front)	1
	DL7004B	Rate adjustment face plate (rear)	1
25	DL7005	Counter pointer	2
26	DL3005A	Drive sprocket Z12	1
27	DL5005B	Drive sprocket Z11	1
28	LN0610	Lock nut M06x1.0	252
29	DL1006	Cleanout spout	2
30	DL7002	Distribution box clamp	-
31	BM061016	Bolt HH M06-1.0x16	2
32	BM0812535	Bolt HH M08-1.25x35	4
33	BM061012	Bolt HH M06-1.0x12	131

# Hopper Assembly



LH (rear)

RH (front)



Front cup box

Rear cup box

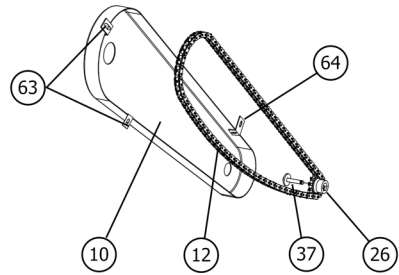
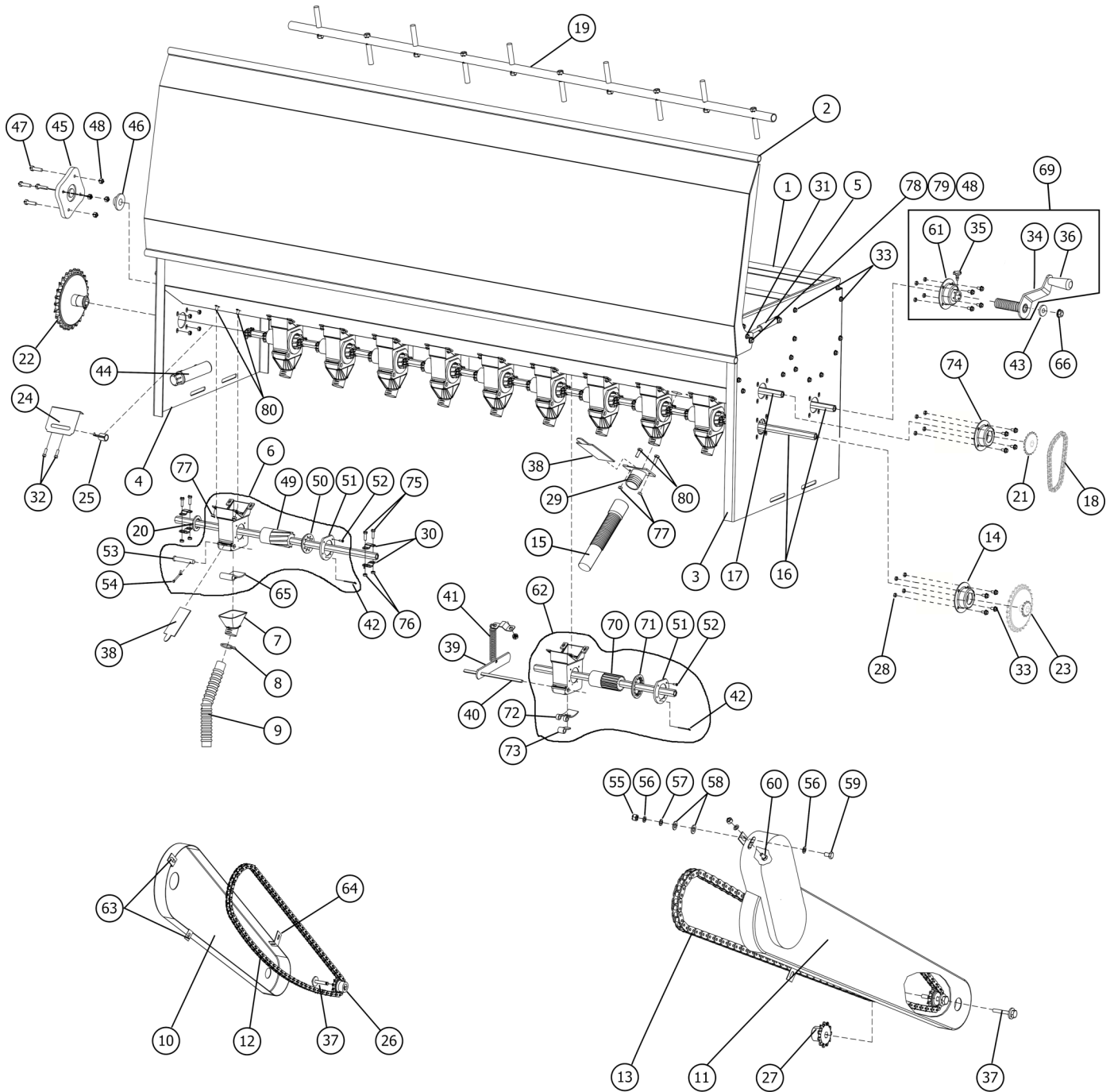
Note: The Rate adjustment plates are not the same. LH plate faces the rear of the machine. The RH plate faces the front of the machine.

Note: Front and rear seed cup boxes can be identified by examining the shafts. The front seed cup box has spiral splines while the rear has straight splines.

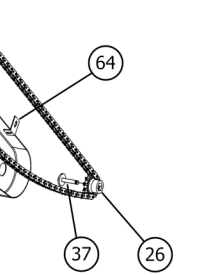
## Hopper Assembly

Item	Part #	Description	Qty.
34	SA2005	Handle assembly	2
35	SA2005K	Locking knob	2
36	SA5005K	Spinning adjustment handle with hardware	1
37	BM0812540	Bolt M08-1.25x40	2
38	DL7007	Waste/Seed/Fertilizer shut off flap	-
39	DL5006	Handle, clean out	1
40	DL4006	Rod, clean out	1
41	DL5007	Spring, clean out	1
42	CP3x70	Cotter pin M3x70	-
43	SA8009	Plastic washer, agitator handle	2
44	MH20000	Manual holder	1
45	SA9009	Mount, agitator	1
46	SA9007	Bushing, agitator	1
47	BM0812530	Bolt HH M08-1.25x30	4
48	NM08125	Nut HH M08-1.25	4
49	SA4012	Seed box shaft, spiral spline (front seed box)	10
50	SA4014	Shaft guide, seed cup - spiral spline	-
51	SA4015	Shaft guide retainer, seed cup	-
52	SA4021	Sheet metal screw	-
53	SA4019	Clevis, composite M10x60	-
54	CP2.5x20	Cotter pin M2x20	-
55	LNM1015	Nut self-locking M10x1.50	6
56	LW10	Washer lock M10	4
57	FW10	Washer flat M10	8
58	SA4018	Washer rubber 2mm x 10 mm x 25 mm	8
59	BM101525	Bolt HH M10-1.50x20	4
60	BM101515	Bolt HH M10-1.50x15	6
61	SA4020	Handle flange	2
62	DL7001-S	Seed cup distribution box, small seed	-
63	SA4016	Chain guard bracket, short (attach chain guard to hopper)	4
64	SA4017	Chain guard bracket, long (attach chain guard to rear frame)	2
65	SA4022	Flap, seed cup	-
66	LNM1420	Self-locking nut M14-2.0	2
67			
68			
69	DL2005	Handle complete	2
70	SA4013	Seed box shaft, straight spline (rear seed box)	-
71	SA4029	Shaft guide, seed cup - straight spline	-

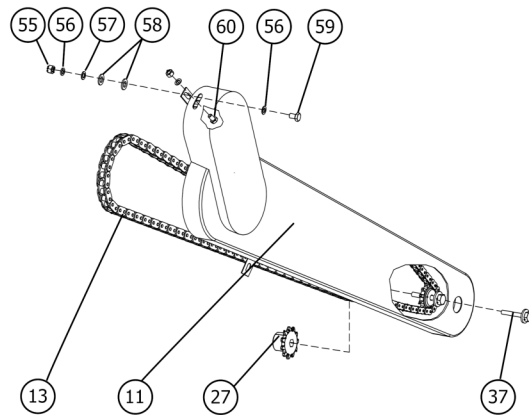
# Hopper Assembly



LH (rear)



RH (front)



Front cup box

Rear cup box

Note: The Rate adjustment plates are not the same. LH plate faces the rear of the machine. The RH plate faces the front of the machine.

Note: Front and rear seed cup boxes can be identified by examining the shafts. The front seed cup box has spiral splines while the rear has straight splines.

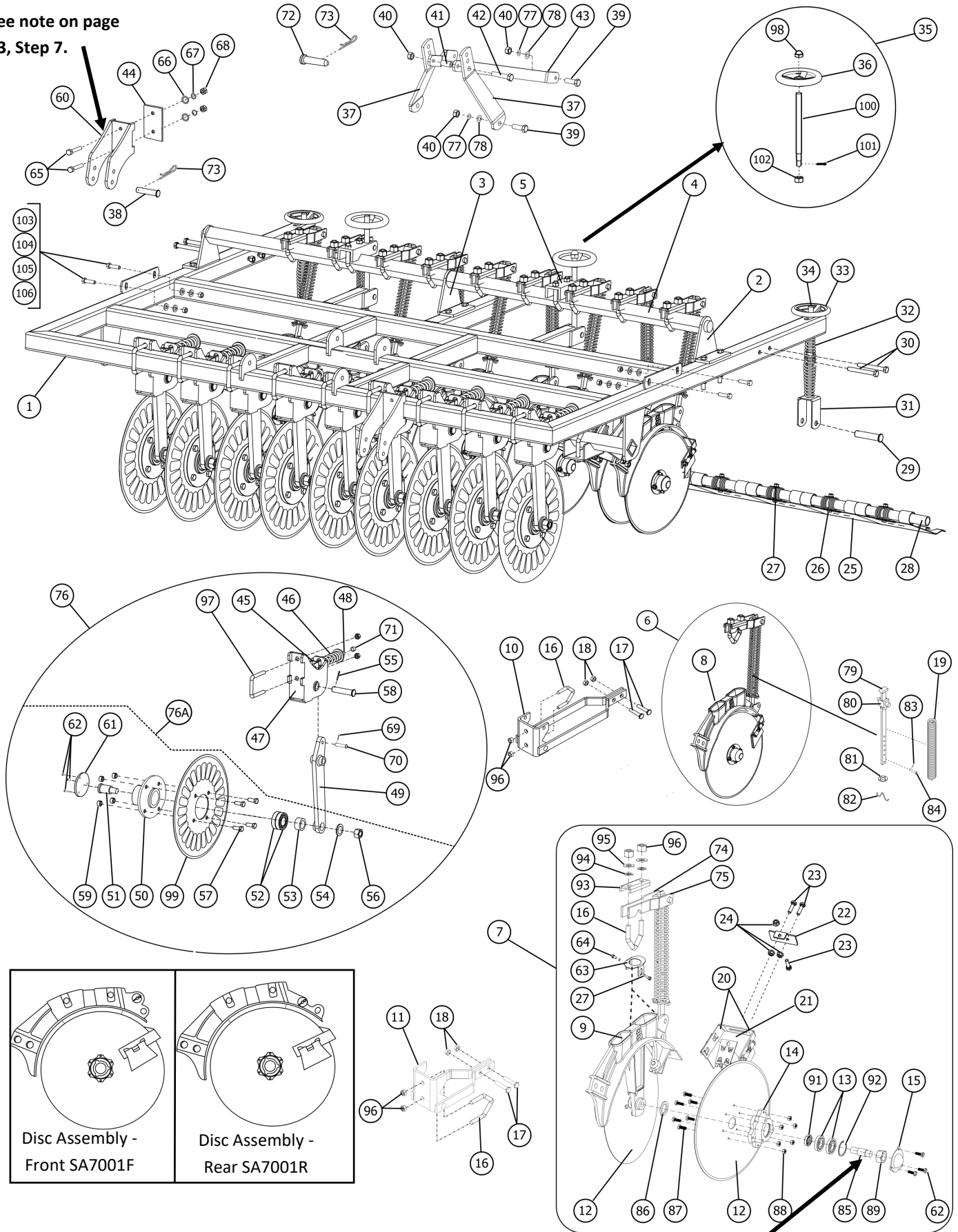
## Hopper Assembly

<b>Item</b>	<b>Part #</b>	<b>Description</b>	<b>Qty.</b>
72	SA4030	Flap outer	10
73	SA4031	Flap inner	10
74	SA4033	Agitator flange assembly w/bearing	1
75	BM061020	Bolt HH M06-1.0x20	-
76	NM0610	Nut HH M06-1.0	-
77	FNM0610	Flange nut HH M06-1.0	-
78	BM0812540	Bolt HH M08-1.25x40	2
79	FNM08125	Flange nut HH M08-1.25	2
80	FBM061016	Flange bolt HH M06-1.0x16	-



# Frame Assembly

See note on page 13, Step 7.



See Note 2, page 35

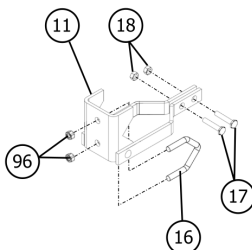
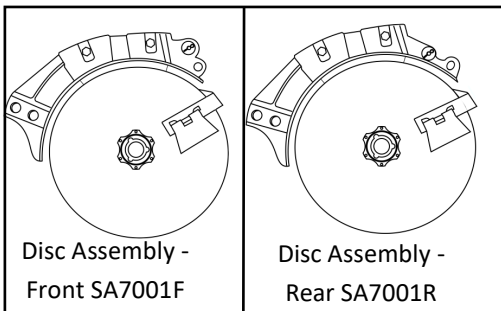
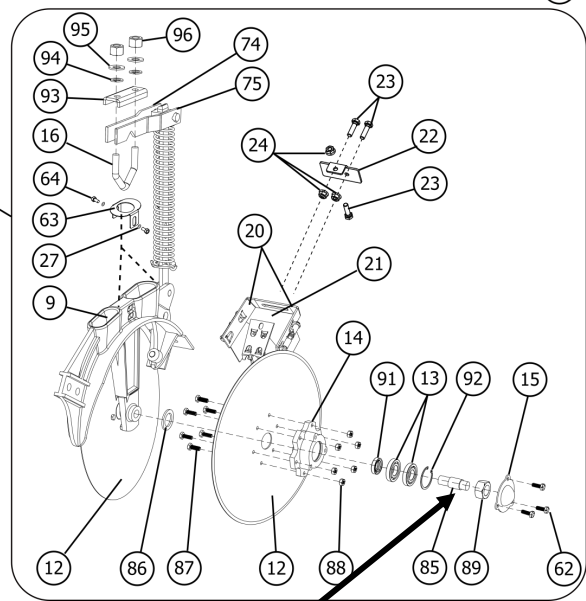
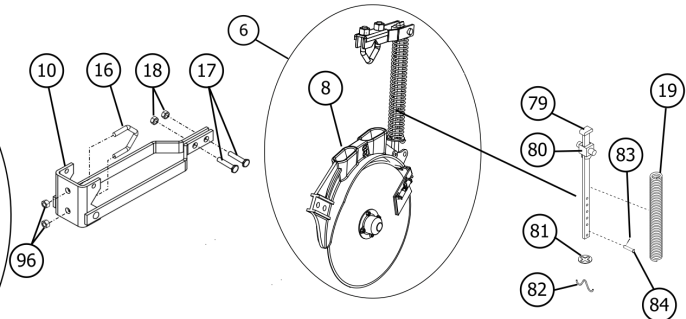
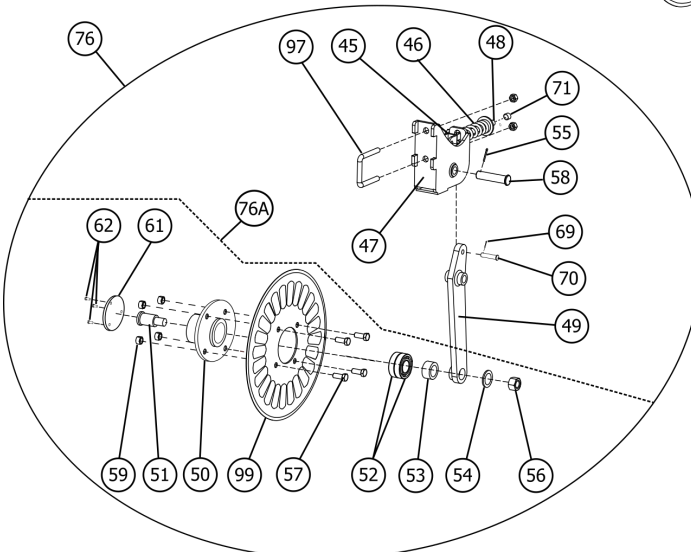
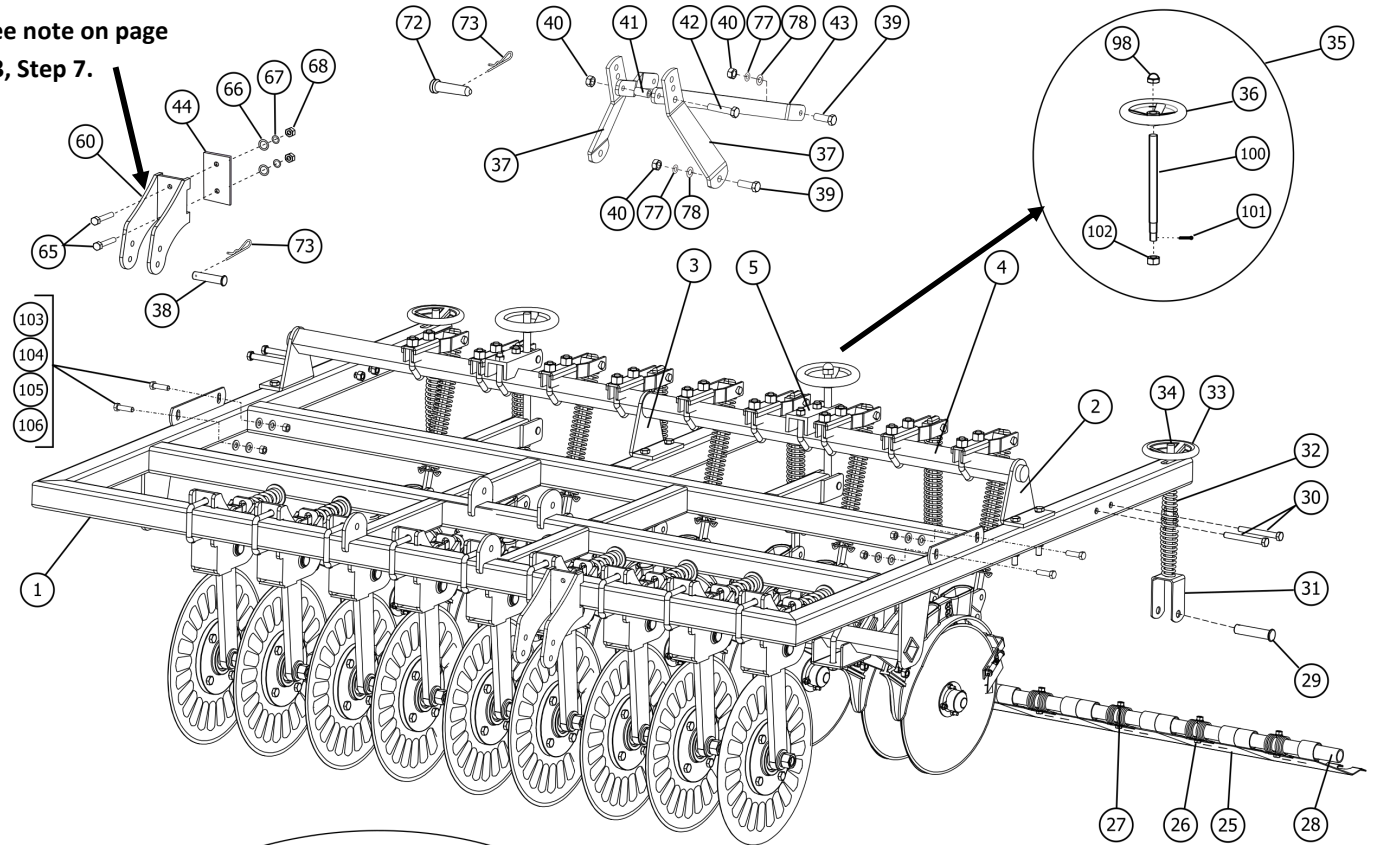


## Frame Assembly

Item	Part #	Description	Qty.
1	SA4001-55	Frame; NTGD-55	1
	SA4001-78	Frame; NTGD-78	1
2	SA5001	Torsion lateral bracket	2
3	SA5002	Torsion bar center support	1
4	SA5000-55	Torsion bar; NTGD-55	1
	SA5000-78	Torsion bar; NTGD-78	1
5	SA5003	Torsion bar clamp bracket	2
6	SA7001R	Disc assembly complete, rear	5
7	SA7001F	Disc assembly complete, front	5
8	SA7007	Seed drill casting, rear	5
9	SA7006	Seed drill casting, front	5
10	SA6001	Disc support bracket long (rear)	5
11	SA6002	Disc support bracket short (front)	5
12	SA6004	Disc, single	20
13	B60042RS	Bearing 6004 2RS (2 per side)	40
14	SA6005	Disc support bearing (bearing only)	20
15	SA6009	Bearing grease cap	20
16	SA7003	V-bolt M12x1.75	22
17	BM1212550	Bolt HH M12-1.25x50	20
18	NM12125	Nut HH M12-1.25	74
19	SA7002	Disc spring for support assembly	10
20	DL6007	External scraper	10
21	DL6006	Internal scraper	10
22	SA6011	Scraper mount bracket	10
23	BM0812520	Bolt HH M08-1.25x20	-
24	FNM08125	Flanged nut M08-1.25	-
25	DL11012	Flap 7.25" (NTGD-55; 1 pc / NTGD-78; 3 pcs)	-
	DL11012A	Flap 8.25" (NTGD-55; 5 pcs / NTGD-78; 6 pcs)	-
-	DL11009	Spring, flap (NTGD-55; 6 pcs / NTGD-78; 9 pcs)	-
26	BM0812550	Bolt HH M08-1.25x50	9
27	FW08	Flat washer M08	-
28	SA9006-55	Scraper board rod; NTGD-55	1
	SA9006-78	Scraper board rod; NTGD-78	1
29	DL8009	Adjustment rod shoulder pin M16x70	2
	CP3x25	Cotter pin M3x25	2
30	BM2025110	Bolt top hitch M20-2.5x110	4
31	DL8002	Pressure adjustment rod (for roller)	2
32	DL8004	Spring	2
33	DL8001	Roller downforce adjustment wheel	2
34	LN1620	Self-Locking Nut M16 X 2.0 GALV	2

# Frame Assembly

See note on page  
13, Step 7.



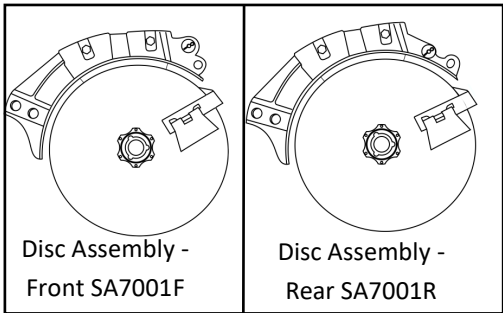
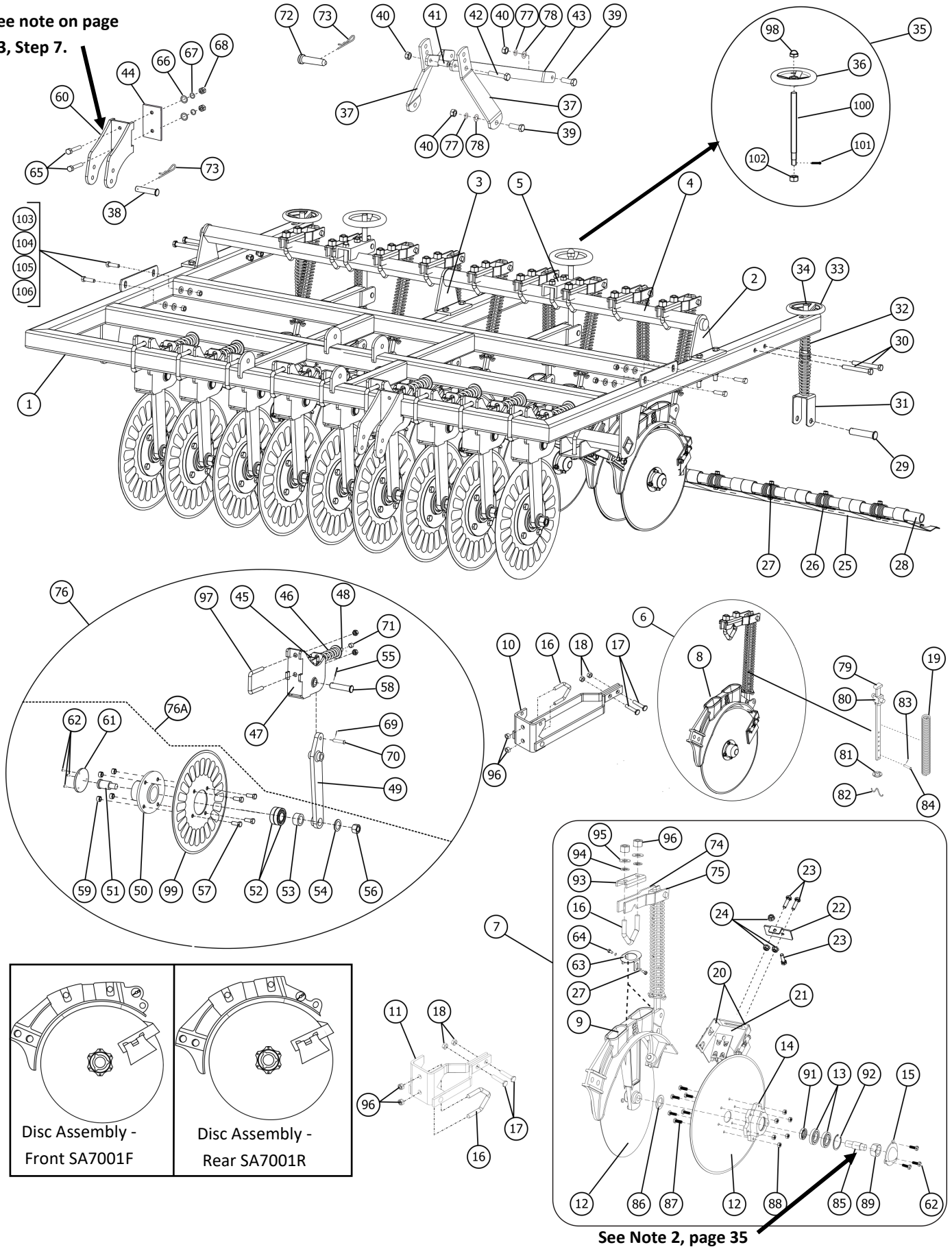
See Note 2, page 35

## Frame Assembly

Item	Part #	Description	Qty.
35	SA9003	Adjustment shaft complete	2
36	SA9002	Adjustment shaft wheel	2
37	SA4009	A-frame vertical	2
38	SA4004	Pin M22x110	2
39	BM182540	Bolt bottom M18-2.5x40	4
40	NM1825	Nut M18-2.5	4
41	SA4006	A-frame spacer	1
42	BM1825110	Bolt bottom M18-2.5x110	2
43	SA4003	A-frame horizontal	2
44	SA4007	Backing plate, hitch block	2
45	SA8005	Coulter spring arm	10
46	SA8004	Coulter spring	10
47	SA8001	Coulter support bracket	10
48	LNM1620	Self locking nut M16-2.0	10
49	SA8000	Coulter support arm	10
50	SA8003	Coulter bearing housing	10
51	SA8011	Special bolt	10
52	B62062RS	Bearing	20
53	SA9008	Spacer M30x42x9	7-10
54	FW20	Flat washer M20	7-10
55	CP5x40	Cotter pin M5x40	7-10
56	LNM2025	Nut lock M20-2.5	7-10
57	BM1217535	Bolt HH M12-1.75x35	40
58	SA8010	Lower hitch pin 20x90	40
59	LNM12175	Nut lock M12-1.75	40
60	SA1006	Hitch block	2
61	SA9013	Cover	10
62	BM061012	Bolt HH M06-1.0x12	-
63	SA3001	Seed tube retainer	20
64	BM0812510	Bolt HH M08-1.25x10	40
65	BM1825110	Bolt HH M18-2.50x110	4
66	FW18	Flat washer M18	4
67	LW18	Lock washer M18	4
68	NM1825	Nut HH M18-2.50	4
69	CP3x35	Cotter pin M3x35	10
70	SA4010	Clevis pin M10x35	10
71	SA4008	Cap	10
72	SA4005	Pin	1
73	SA4011	R-clip M4	3
74	SA7004	Top coulter support bracket, left	1
75	SA7004R	Top coulter support bracket, right	1
76	SA8008	Coulter kit	10

# Frame Assembly

See note on page 13, Step 7.



See Note 2, page 35

## Frame Assembly

Item	Part #	Description	Qty.
76A	SA7001	Coulter disc complete	-
77	LW18	Washer lock M18	4
78	FW18	Washer flat M18	4
79	SA4023	Damper rod	-
80	SA4024	Damper guide	-
81	SA4025	Star washer	-
82	SA4026	Retainer clip	-
83	CP2.5x20	Cotter pin M2.5x20	-
84	SA6010	Pin, clevis M6x40	-
85	SA4027	Stud, disc assembly <b>*Warning! See note 2 below.</b>	20
	SA4028	Stud, disc assembly <b>*Warning! See note 2 below.</b>	20
86	FW16	Washer flat M16	40
87	BM061025	Bolt HH M06-1.0x25	240
88	NM0610	Nut HH M06-1.0	240
89	NM1620L	Nut HH M16-2.0 LH threads (for SA4027 LH stud only)	20
	NM1620	Nut HH M16-2.0 (for SA4028 RH stud only)	20
91	OS203207	Oil seal - M20x32x7	40
92	SRI-45	Snap ring - internal - M45	40
93	SA6003	Disc support	-
94	LW12	Lock washer M12	-
95	FW12	Flat washer M12	-
96	NM12175	Nut HH M12-1.75	-
97	SA8006	U-bolt	-
98	DNM2025	Dome (Cap) Nut - M20 x 2.5 GALV	2
99	SA8002	Coulter disc	-
100	SA4036	Adjustment shaft	2
101	CP2.5x20	Cotter pin	2
102	NM1420	Nut HH M14-2.0	2
103	BM101525	Bolt HH M1-1.5x25 (attach hopper to frame)	4
104	FW10	Washer flat M10 (attach hopper to frame)	4
105	LW10	Washer lock M10 (attach hopper to frame)	4
106	NM1015	Nut HH M10-1.5 (attach hopper to frame)	4

**Note: Warning! When removing/replacing Disc Assembly Studs note that the LH & RH studs have different thread patterns! Using the wrong stud will cause damage to the stud and or the seed drill casting!**

*SA4027 Stud, disc assembly LH* has LH threads on both ends of the stud. *SA4028 Stud, disc assembly RH* has RH threads on both ends of the stud. These parts are not interchangeable! The LH stud must be used on the LH side of the Seed drill casting. The RH stud must be used on the RH side of the Seed drill casting.

### Removing Disc Assembly studs:

LH - Facing the LH side of the Disc Assembly, turn the nut on the stud in a clockwise rotation.

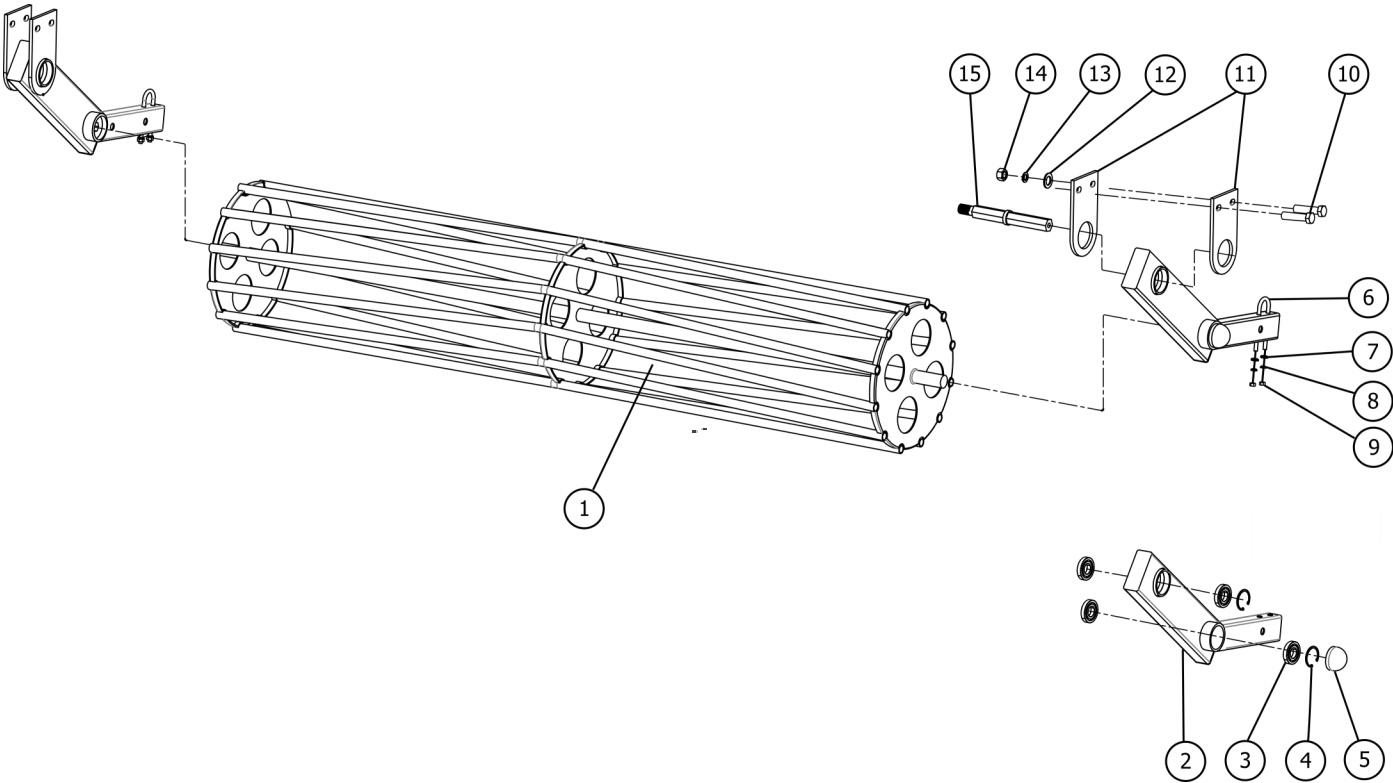
RH - Facing the RH side of the Disc Assembly, turn the nut on the stud in a counter-clockwise rotation.

### Re-attaching Disc Assembly studs:

LH - Facing the LH side of the Disc Assembly, turn the nut on the stud in a counter-clockwise rotation.

RH - Facing the RH side of the Disc Assembly, turn the nut on the stud in a clockwise rotation.

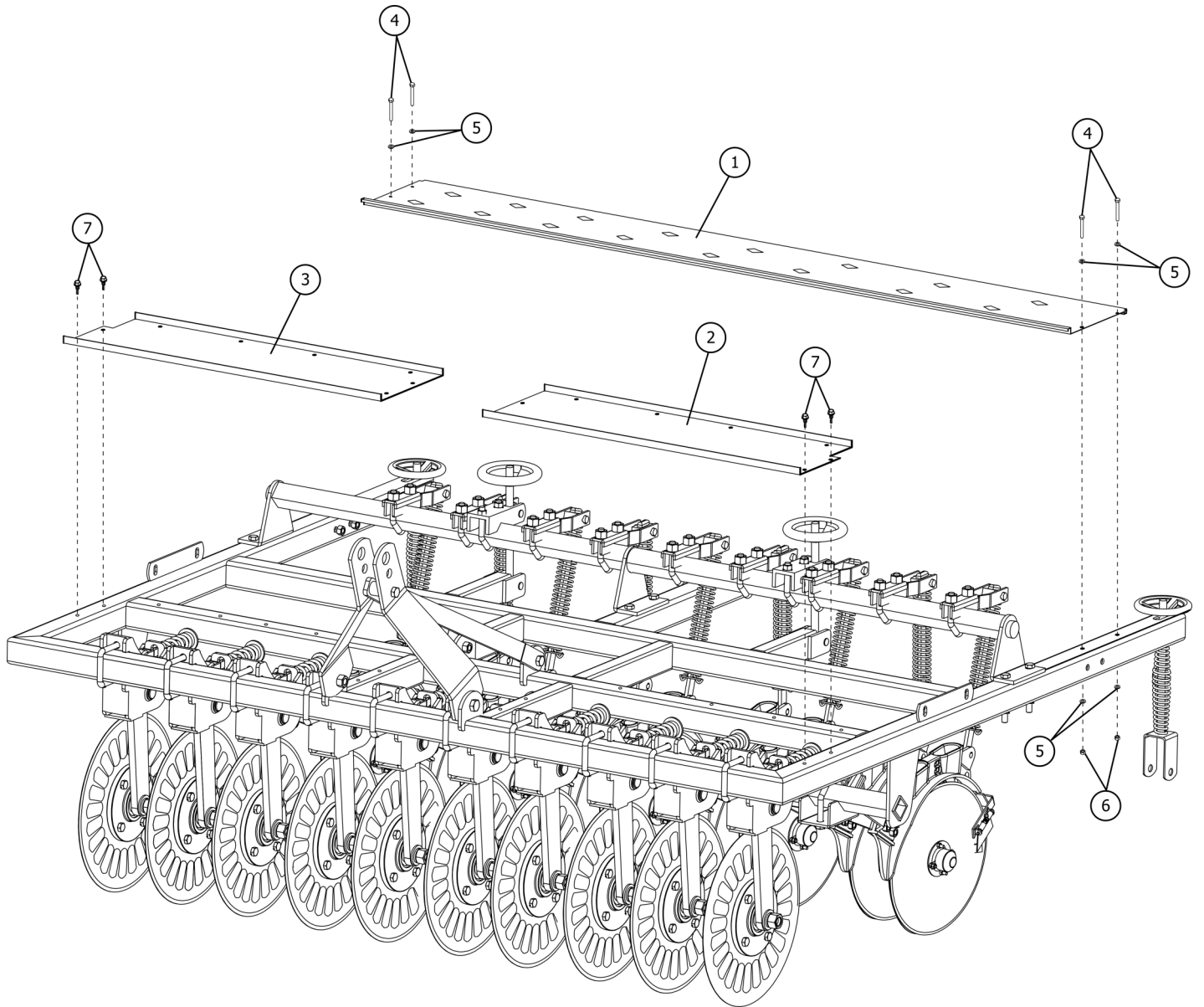
# Roller Assembly



## Roller Assembly

Item	Part #	Description	Qty.
1	SA9001-55	Drive roller; NTGD-55	1
	SA9001-78	Drive roller; NTGD-78	1
2	DL8008	Roller arm	2
3	B60062RS	Bearing 6006 2RS	8
4	SRI-55	Snap ring, internal M55	4
5	DL10012	Roller dust cap	2
6	DL11013	U-bolt M10 - 1.5 x 140	2
7	FW10	Flat washer M10	4
8	LW10	Lock washer M10	4
9	NM1015	Nut HH M10-1.5	4
10	BM12175110	Bolt HH M12-1.75 x 110	4
11	DL8003	Bracket roller arm	4
12	FW12	Flat washer M12	4
13	LW12	Lock washer M12	4
14	NM12175	Nut HH M12-1.75	4
15	DL8005	Short shaft (w/FW16, LW16, NM1620, CP3x40)	2

# Floorboard Assembly

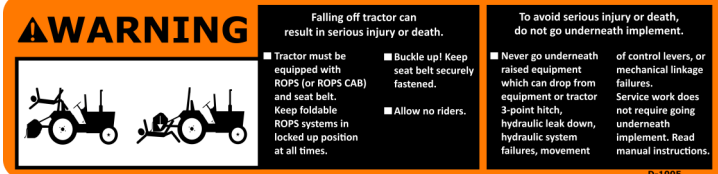




## Floorboard Assembly

<b>Item</b>	<b>Part #</b>	<b>Description</b>	<b>Qty.</b>
1	SA4039	Step board, rear - NTGD-55	1
	SA4042	Step board, rear - NTGD-78	1
2	SA4037	Step board, LH front - NTGD-55	1
	SA4040	Step board, LH front - NTGD-78	1
3	SA4038	Step board, RH front - NTGD-55	1
	SA4041	Step board, RH front - NTGD-78	1
4	BM101580	Bolt HH M10-1.5x80	4
5	FW10	Flat washer M10	8
6	NM1015	Nut HH M10-1.5	4
7	BMST481900	Self-drilling screw M4.8x19	16

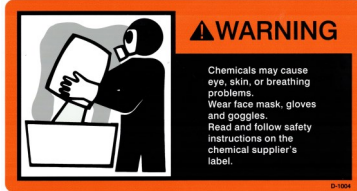
# Decals



1 - 5SBD1005 - Qty. 1



2 - RT-1005 - Qty.



3 - 5SBD1004 - Qty. 1

The most accurate way to set application rates is to drive a predetermined distance and actually catch the seeds dispensed. To do this, remove at least one drop hose and tie a plastic bag onto bottom of seed cup. Travel a determined distance and then weigh the seeds in the bag. Multiply the amount collected by the number of cups on your machine. Refer to the following example to properly calibrate your machine.

To determine area covered calculate the following:

(Disc spacing X # of discs Converted to Ft.) X Distance traveled and then divide by the square feet in an acre.

10 Discs with a 7.25" spacing = 72.50" ( 6.04 ft.) X 500 Ft. traveled = 3,020 Sq Ft. covered. 43,560 sq. ft in acre / 3,020 = 14.42% of Acre Covered.

If you collect 16 oz (1 lb.) of seed from a single seedcup on # 5 setting after driving a 500 ft (14.42% of an acre), you are putting out 69.35 lbs per acre.

1 lb (Amount collect) X 10 # Seed Cups = 10 lbs Total output by machine.  
Distance Traveled = 500 ft. (14.42% of Acre)  
1 x 10 / .1442 = 69.35 lbs per acre

## Large seed cup

### 11- 26 Gear Ratio

Cup Setting	1	2	3	4	5	6	7	8
Rye	—	72	95	118	148	178	—	—
Fescue	—	44	79	114	138	162	—	—
Wheat	—	105	146	187	227	267	—	—
Corn	—	76	155	234	290	346	—	—
Gran. Fertilizer	55	133	183	233	268	304	—	—

### 12- 40 Gear Ratio

Cup Setting	1	2	3	4	5	6	7	8
Rye	—	25	38	51	64	75	—	—
Fescue	—	22	33	45	57	68	—	—
Wheat	—	—	—	—	—	—	—	—
Centpede	11	50	64	78	98	117	—	—
Gran. Fertilizer	—	—	—	—	—	—	—	—

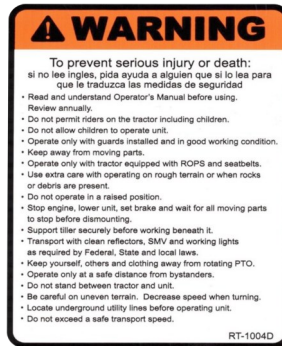
Note: The tables and rate charts for guidelines only. They are designed to be an aid as a starting point. You must do your own calibration as many factors cause rates to change. Variations in seed/granular size, density, moisture, seed treatment, and the amount of machine overlap will affect the final application rate.

D-1224

4 - D1224 - Qty. 1



5 - RT1004E - Qty. 2



6 - RT1004D - Qty. 2

12-40 Gear Ratio

7 - Qty. 1

11-26 Gear Ratio

8 - Qty. 1



9 - D-1309 Qty. 1

## ATTENTION

SCRAPERBOARD ASSEMBLY  
MUST BE TURNED DOWN  
BEFORE USE TO PREVENT DAMAGE

D-1305

10 - D1305 - Qty. 1

## Decals

Item	Part #	Description	Qty.
1	5SBD1005	Decal Warning, "Falling off tractor"	1
2	RT-1005	Decal Warning, "To prevent serious injury or death"	1
3	D1005	Decal Warning, "Chemicals" ( <i>Note: see LH inside of hopper cover</i> )	1
4	D1224	Decal "Spreading Chart" ( <i>Note: see RH inside of hopper cover</i> )	1
5	RT1004E	Decal Warning, "Do not open"	2
6	RT1004D	Decal Warning, "To prevent serious injury or death"	2
7	-	Decal Gear Ratio "12-40"	1
8	-	Decal Gear Ratio "11-26"	1
9	D1309	Decal "Assembled in the USA"	1
10	D1305	Decal Attention, "Scraperboard assembly"	1

# Warranty

## **LIMITED WARRANTY**

LMC warrants to the original purchaser of any new piece of machinery from LMC, purchased from an authorized LMC dealer, that the equipment be free from defects in material and workmanship for a period of one (1) year for non-commercial, state, and municipalities' use, ninety (90) days for commercial use from date of retail sale. Warranty for rental purposes is thirty (30) days. The obligation of LMC to the purchaser under this warranty is limited to the repair or replacement of defective parts.

Replacement or repair parts installed in the equipment covered by this limited warranty are warranted for ninety (90) days from the date of purchase of such part or to the expiration of the applicable new equipment warranty period, whichever occurs later. Warranted parts shall be provided at no cost to the user at an authorized LMC dealer during regular working hours. LMC reserves the right to inspect any equipment or parts, which are claimed to have been defective in material or workmanship.

This limited warranty does not apply to and excludes wear items such as shear pins, tires, tubes knives, blades or other wear items. Oil or grease is not covered by this warranty.

All obligations of LMC under this limited warranty shall be terminated if:

- Proper service is not performed on the machine.

- The machine is modified or altered in any way.

- The machine is being used or has been used for purposes other than those for which the machine was intended.

## **DISCLAIMER OF IMPLIED WARRANTIES & CONSEQUENTIAL DAMAGES**

LMC obligation under this limited warranty, to the extent allowed by law, is in lieu of all warranties, implied or expressed, including implied warranties of merchantability and fitness for a particular purpose and any liability for incidental and consequential damages with respect to the sale or use of the items warranted. Such incidental and consequential damages shall include but not be limited to: transportation charges other than normal freight charges; cost of installation other than cost approved by LMC; duty; taxes; charges for normal service or adjustment; loss of crops or any other loss of income; rental of substitute equipment, expenses due to loss, damage, detention or delay in the delivery.

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