ATV Minimum Till Drill

TRD-PT53



Operator's Manual

Rel. 10/26

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TO THE DEALER:

Assembly and proper installation of this product is the responsibility of the Tar River 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 Tar River 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 machine as specified. Observe all safety information in this manual and safety decals on the equipment. For service, your authorized Tar River dealer has trained mechanics, genuine Tar River service parts, and the necessary tools and equipment to handle all your needs. Use only genuine Tar River service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation.

Record your machine 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: _____

TO THE DEALER: Part 1 of 2

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



NOTE: The machine must by inspected thoroughly by the dealer prior to delivery of machine to owner. Place a check mark in the box beside each item checked. Contact Belco Recourses Equipment of any damages, issues or shortages to the machine.

Pre-Delivery Checklist - Dealer

- ☐ **Gearbox oil level**
- ☐ **Check all fluids, hydraulic, gear oil, etc.**
- ☐ **Grease fittings properly lubricated**
- ☐ **Guards, shields, attachments securely fastened**
- ☐ **All hardware tightened**
- ☐ **Condition and tension of V-belts (if applicable)**
- ☐ **Blades properly installed, blade hardware tightened to proper torque specifications**
- ☐ **PTO attached to the machine (if applicable)**
- ☐ **All decals are clean, legible and in proper location**
- ☐ **Operator's Manual on machine**

Model #: _____ **Serial #:** _____

Inspected by (Initials): _____ **Date:** _____

TO THE DEALER: Part 2 of 2

Dealer is to review the following items to the owner. Place a check mark in the box beside each item reviewed.

Checklist - Owner

- ☐ **Correct attachment of machine to tractor**
- ☐ **Safe operation of the machine**
- ☐ **Importance of regular lubrication, maintenance and inspection**
- ☐ **Troubleshooting**
- ☐ **Replacing broken or worn parts (importance of using only OEM parts)**
- ☐ **Servicing the machine**
- ☐ **Storage**
- ☐ **Warranty**
- ☐ **Encourage owner to read and understand the Operator's Manual before operating the machine**
- ☐ **Encourage owner to fill out the "Warranty Registration", online warranty@br-equipment.com**

Purchase Date: _____ **Delivery Date:** _____

Model #: _____ **Serial #:** _____

Dealer Signature _____ **Date:** _____

Customer Signature _____ **Date:** _____

TO THE OWNER:

Read this manual before operating your Belco Resources 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 machine as specified. Observe all safety information in this manual and safety decals on the equipment. For service, your authorized Belco Resources dealer has trained mechanics, genuine Belco Resources service parts, and the necessary tools and equipment to handle all your needs. Use only genuine Belco Resources service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation.

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Introduction

Thank you for purchasing your ATV Minimum Till Drill. The new TRD-PT55 ATV Minimum-Till Drill combines professional seeding performance with ATV convenience. Featuring seven double-disc openers on 7.5-inch spacing, it provides accurate seed placement with minimal soil disturbance. Weighing only 750 pounds, it is easily pulled by most ATVs while handling a wide range of seeding applications.

The split stainless-steel hopper includes front seed/fertilizer cups and rear adjustable variable-rate seed cups, allowing accurate planting of seeds ranging from soybeans to radish. A standard electric actuator makes attachment, transport, and operation quick and convenient.

Whether planting food plots, cover crops, or pasture grasses, the TRD-PT53 delivers dependable performance in a compact, versatile package.

Technical Specifications

Spring-Loaded Double Disc Opener with Cast Iron Hubs

Cast Iron Swept-back Disc carriers

Disc Scrapers

Divided Stainless Steel Hopper

Standard Seed/Fertilizer seed cups front hopper

Press Wheels Standard

Model	TRD-PT53
Working Width	53”
Working Depth	3/4”-2”
Front Cups/Rear Cups	7
Spacing	7.5
Double Disc Openers	7 Sets
CC Required	400 min.
Weight	750 lbs.

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 machine 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 machine 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 machine until you are sure that the area is clear, especially of children and animals.
- Don’t hurry the learning process or take the machine 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 machine until you are sure that the area is clear, especially of children and animals.

During Operation

- Children should not be allowed on the product.
- Clear the area of small children and bystanders before moving the machine.
- If using a towing unit, securely attach machine 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 machine 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 machine. 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.

WARNING: <u>Never</u> backup with the machine on the ground! This will cause damage to the machine. <u>*Always*</u> lift the machine high enough to clear the ground before backing up.



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 machine 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 machine, 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.



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 machine length when making turns,
- Operate the towing vehicle from the operator's seat only.
- Never stand alongside of machine with engine running or attempt to start engine and/or operate machine while
- standing alongside of machine.
- 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.

Set Up

Attaching the TRD-PT53 to ATV

Turn the jack stand hand clock wise to raise the machine hitch over the ATV ball. Back up the ATV to the machine, while lining up the ball to machine hitch.

Stop the engine, set the brake and remove the key from the ATV.

Attach the machine to the ATV by raising the hitch by turning the jack stand handle Clock-wise. The hitch should be high enough to clear the ATV's ball hitch. Once aligned, turn the jack stand handle Counter Clock-wise to lower machine and secure to the ATV's ball hitch.

Jack stand

Support the machine with the jack stand when not in use, Fig. "1". Attach the machine to the ATV by raising the hitch by turning the jack stand handle Clock-wise. The hitch should be high enough to clear the ATV's ball hitch. Once aligned, crank the jack stand handle Counter Clock-wise to lower machine and secure to the ATV's ball hitch.

Due to the machines close proximity to the ATV, prior to operating or transporting, the jack stand must be the secured to the top jack stand mount on hitch, Fig. "2". If the jack stand is left attached to the side mount when operating or transporting, it can come in to contact with the ATV and cause damage to machine and/or ATV.

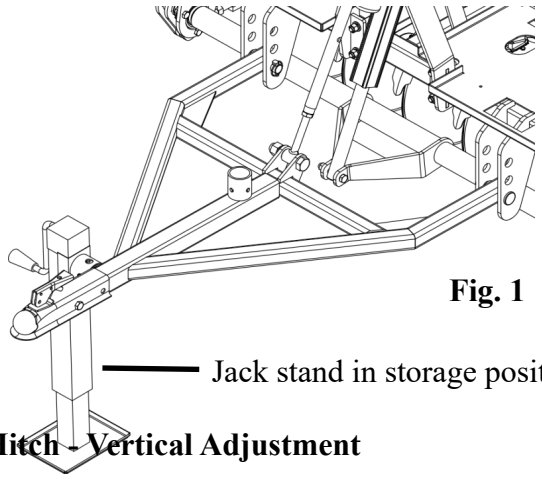


Fig. 1

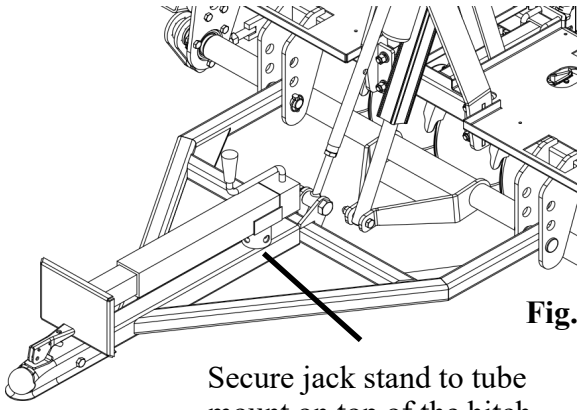


Fig. 2

Secure jack stand to tube mount on top of the hitch frame.

Hitch - Vertical Adjustment

The TRD-PT53 hitch should be as level with the ATV as possible. Remove the lynch pins from both hitch pins, remove pins and raise or lower the hitch to the most level position relative to your particular model of ATV, Fig. 3. Replace hitch pins and lynch pins.

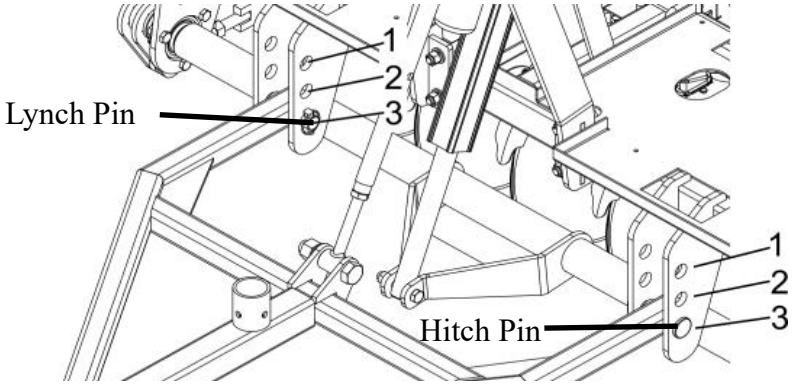


Fig. 3

Actuator Lifting Mechanism

The TRD-PT53 is equipped with an electrical actuator powered by the tractor electrical system to raise and lower the transport wheels. It consists of a controller and necessary wiring. Attach the Cable Clips to the ATV's battery. Connect the Positive (+) cable clamp (RED CLAMP) to Positive (+) battery post and Negative (-) cable clamp (BLACK CLAMP) to Negative (-) battery post.

Warning! An improper electrical connection can cause a fire hazard, explosion, and possible damage to electrical component of both the power unit and machine. Serious injury or death is possible! Wear proper PPE (personal protection equipment) when connecting or servicing electrical components.

Operating Controller

Press the Green button to raise the machine to full height, Fig. 4. **Caution:** Never attempt transporting the machine in the lowered position or back up the machine in the lowered position. The machine is likely to be damaged if reversed on the ground. Press the Red button to lower the machine to the ground for operating.

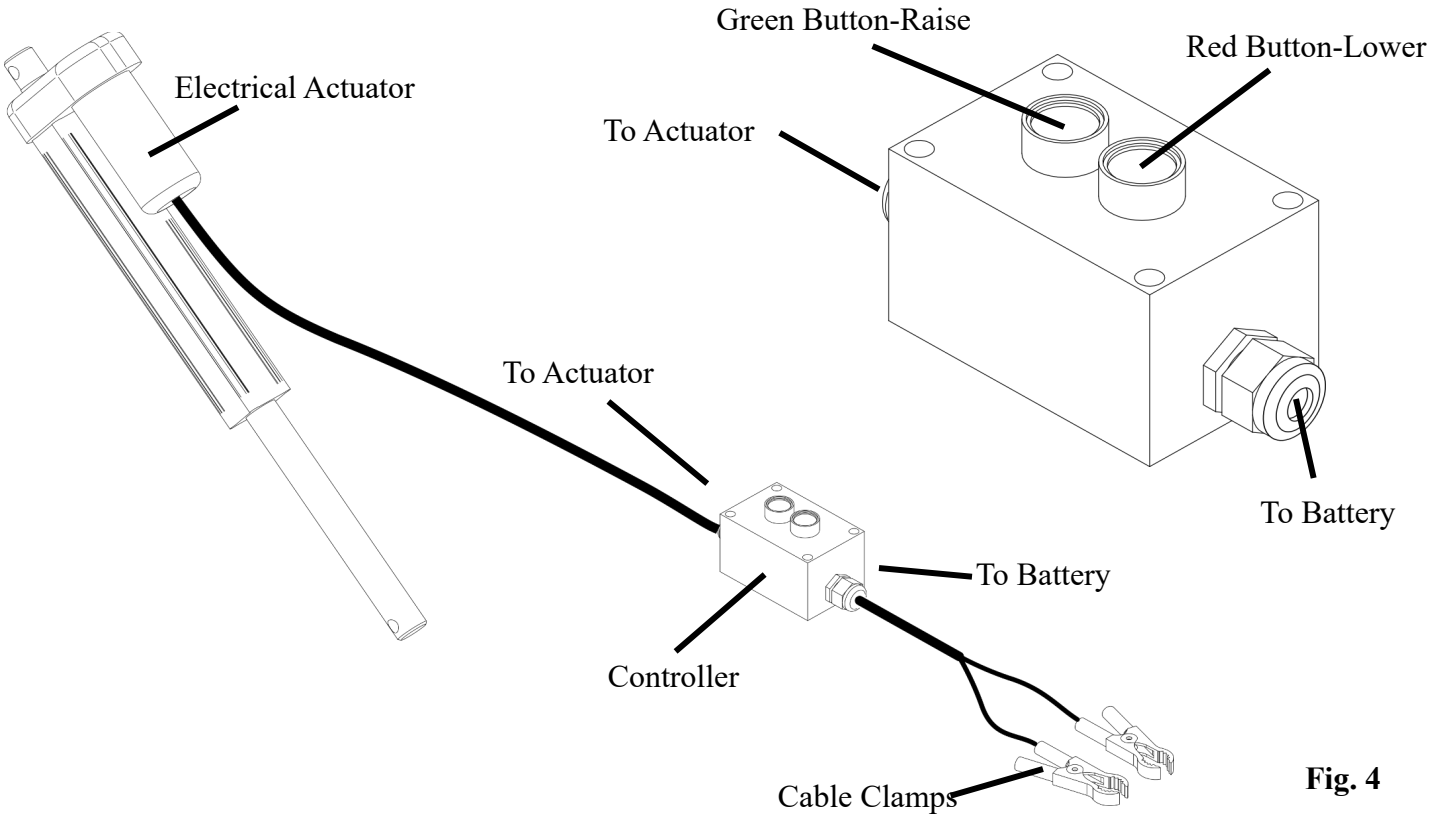


Fig. 4

Set Up

Seed depth - Wheel Arms Adjustment

Seed depth is controlled by the seed depth adjustment bolt located on the top side of each wheel arm, see Fig. 19. NOTE: When making adjustments, set both wheel arms at the same measurement.

Setting Depth: Raise the transport wheels allowing the machine's disc to rest on a hard surface such as concrete. Check the gap between the seed adjustment bolt head and pad on underside of frame, Fig. 5. Adjust the bolt until there is a 1.0" gap between the head of the adjustment bolt and the pad.

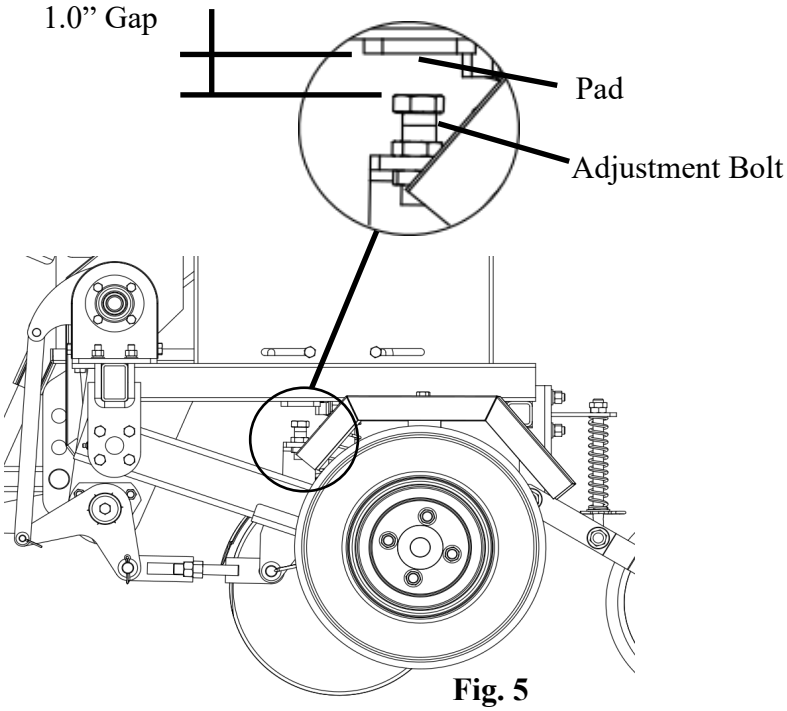
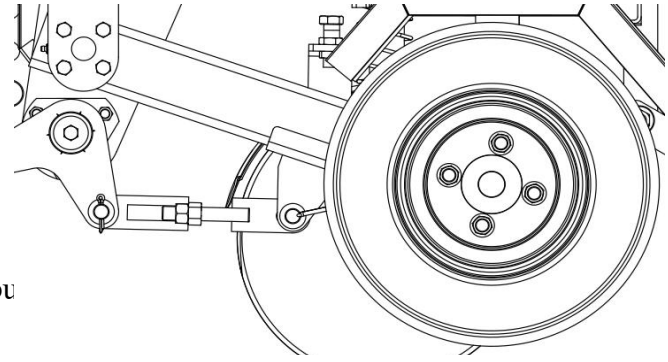


Fig. 5

Float - Wheel Arms

- Adjust float by first loosening the rear bolt on the turnbuckle, Fig. 6. Be sure to loosen both sides.
- Drive the ATV forward approximately 10 feet, stop and check the location of the rear bolt in the turnbuckle slot, Fig. 7. If not bolt is not centered, adjust the turnbuckle until it is. Repeat for the other side.
- Once centered, be sure to tighten the hardware.



Turnbu

Fig. 6

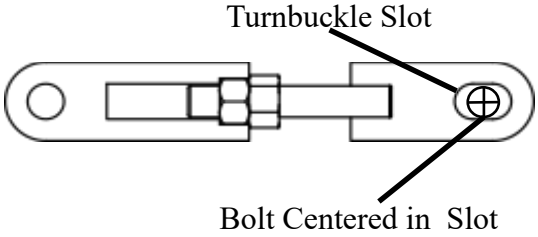


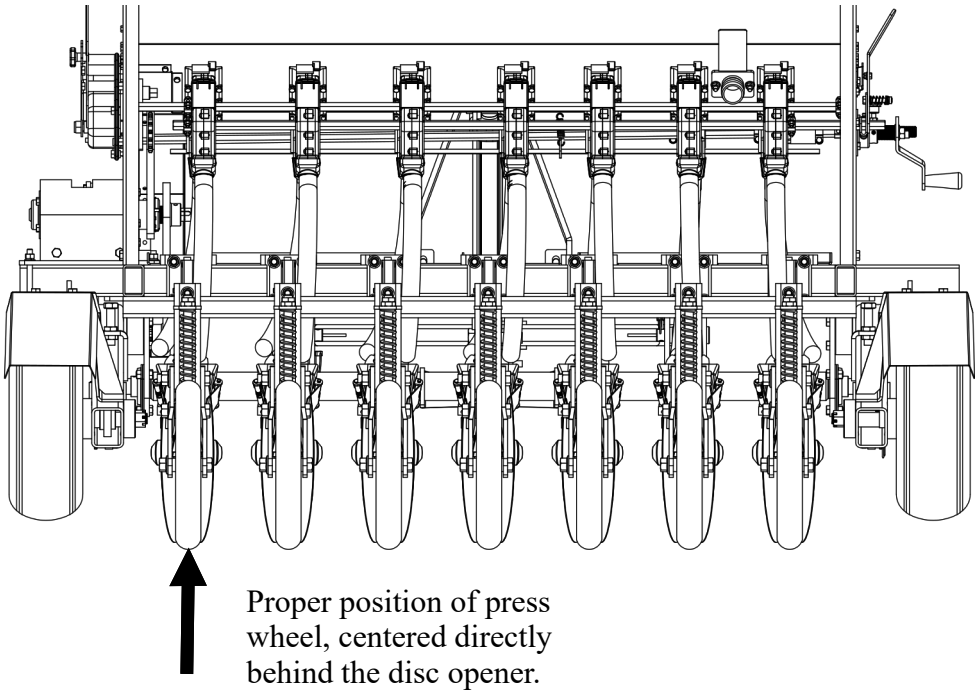
Fig. 7

Press Wheel Adjustment:

Press Wheel Alignment

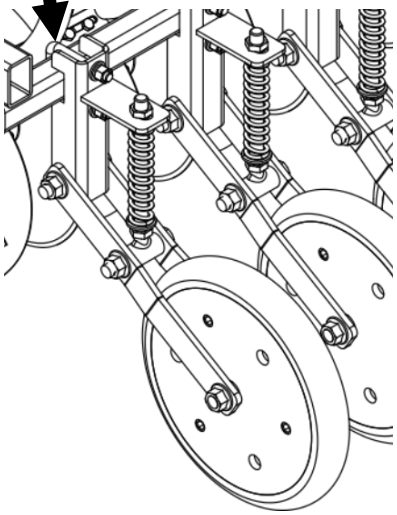
Press Wheels control seeding depth and soil firming. Align each press wheel with disc openers for proper operation.

- Raise the machine if necessary and loosen the “U” bolts securing press wheel assembly to rail.
- Slide the press wheel assembly so that that it is in direct alignment the disc opener in front of it and re-tighten hardware.
- Repeat for each press wheel assembly if necessary.



Proper position of press wheel, centered directly behind the disc opener.

“U”-bolt

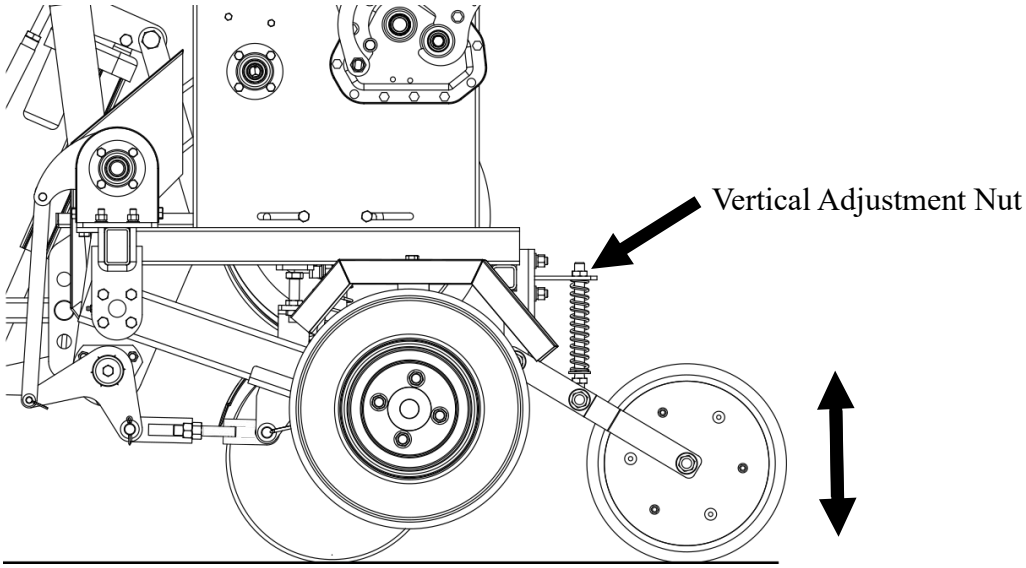


Press wheels close the seed trench to gently press soil over seed. Adjust the press wheel vertically to provide consistent soil firming. See next page.

Vertical Adjustment of Press Wheel

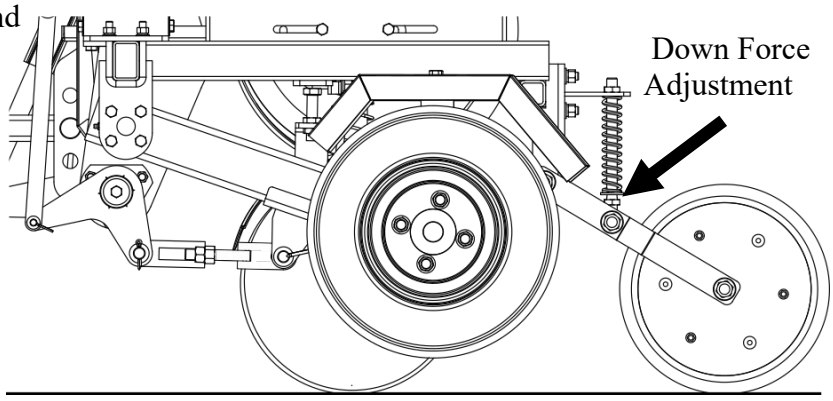
Set the machine on a hard, level surface such as concrete for this adjustment.

- Loosen or tighten the vertical adjustment nut to raise or lower the press wheel assembly.
- Rotate vertical adjustment Clock wise to raise the press wheel assembly. Rotate vertical adjustment Counter Clockwise to lower the press wheel assembly.
- The press wheel assembly should rest firmly on the same hard, level surface with the disc opener.
- Once the vertical height is set, move on to the next step.



Down force Pressure Adjustment of Press Wheel

- Set the down force for the press wheel located at bottom of the spring.
- The press wheel assembly should be firmly pressing on the ground.
- Adjust the down force pressure as necessary. There should be sufficient down force pressure to press seed into the ground and cover the seed trench.
- Adjust down pressure according to types of soil and soil conditions.
- Adjust all press wheels the same.
- NOTE: The press wheel are free to move up and down, providing constant soil firming.



Step 2: Adjusting Seed Rate

To adjust the seed/fertilizer rate, loosen the Jam nut first, then the Locking Knob before attempting to adjust the feed rate, Fig.10.

- The proper position for the Locking Knob is in the groove on the Adjustment Handle. Loosen the Locking Knob to the point that it clears the threads of the Adjustment Handle.
- Never tighten the Locking Knob on threads of the Adjustment Handle. If the threads are damaged, the Adjustment handle can move during operation and affect seed rate settings.

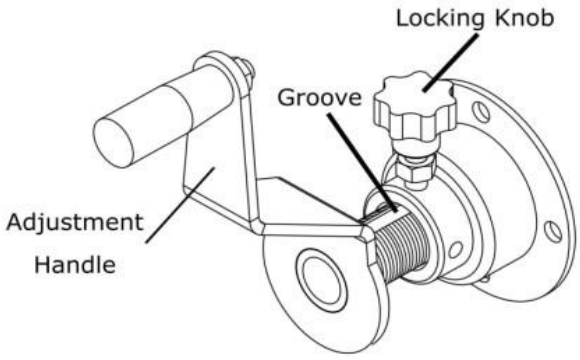


Fig. 10

Important: Tighten Locking Knob on Adjustment Handle before operating machine.

Step 3: Before adjusting the seed rate, return the Indicator on the Scale to "0" by turning the Adjustment Handle, Fig 11. The scale is located on the RH front of machine on the angled section of the hopper near the first RH seed cup.

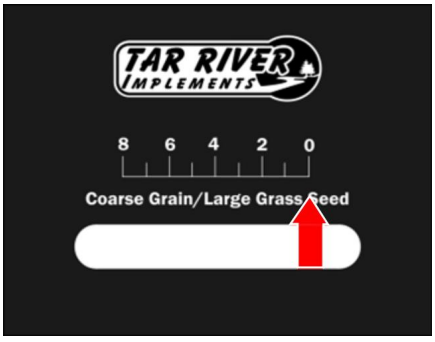


Fig. 11

Calibration Starting Position - Gauge set to "0"

Seed Calibration - Front Hopper Seed Cups

Step 4: Examine the position of each front seed cup shafts, Fig. 12.
With the indicator set at "0", there should be no shaft spines visible on the LH side of the front hopper seed cup, Fig. 13. NOTE: It is normal for the shaft splines to be visible on the RH side on the front hopper seed cup when set to "0". The shaft splines inside the seed cups are the only ones that pick up seed. The ones protruding on the outside pick up no seed.

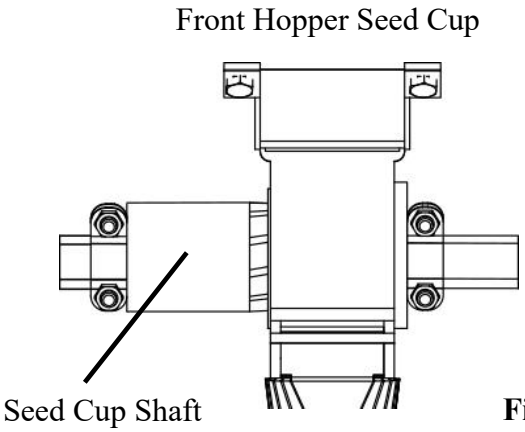


Fig. 12

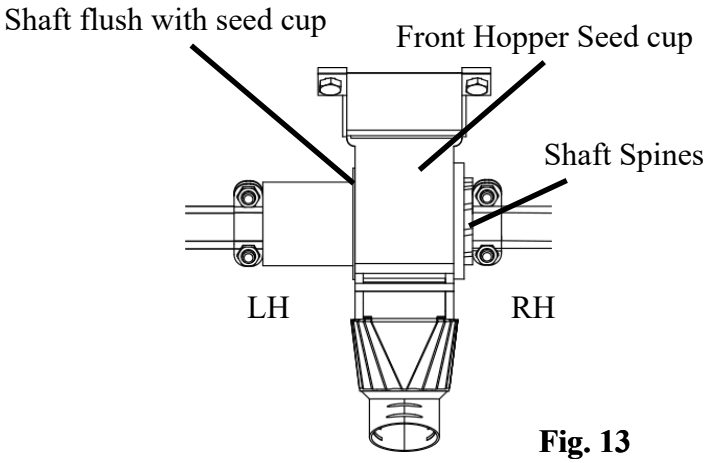


Fig. 13

Correct Starting Position of Seed Cup Shaft

- If the seed cup shaft splines are not flush, the seed cup shaft must be positioned It is not necessary to remove clamps, only loosen enough to slide the seed cup shaft along hex shaft, Fig. 14. The correct position for the seed cup shafts is shown in Fig. 15.
- Continue adjusting front hopper seed cups until all are in the starting position.

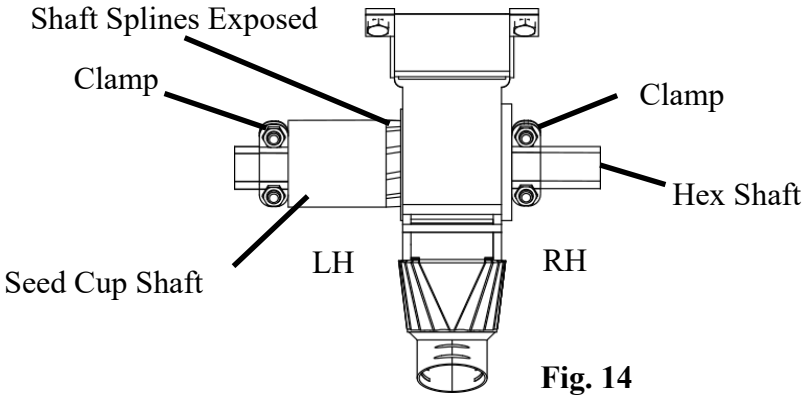


Fig. 14

Seed Cup Shaft in wrong position

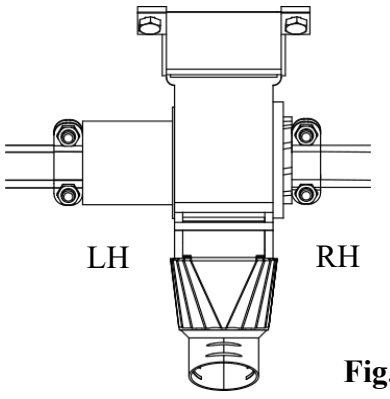


Fig. 15

Seed Cup Shaft Relocated To Correct Starting Position

Seed Calibration - Front Hopper Seed Cups

Step 5: Seed Cup Shutoff

- Depending on the crop planted, it may be necessary to not dispense from all of the seed cups. This is easily done by simply sliding the "Seed shut off flap" in or out, Fig. 16.
- There are two settings for the front hopper seed cup flap. The "In" position is completely closed, no seed is dispensed. The "out" position is completely open, all seed is dispensed.

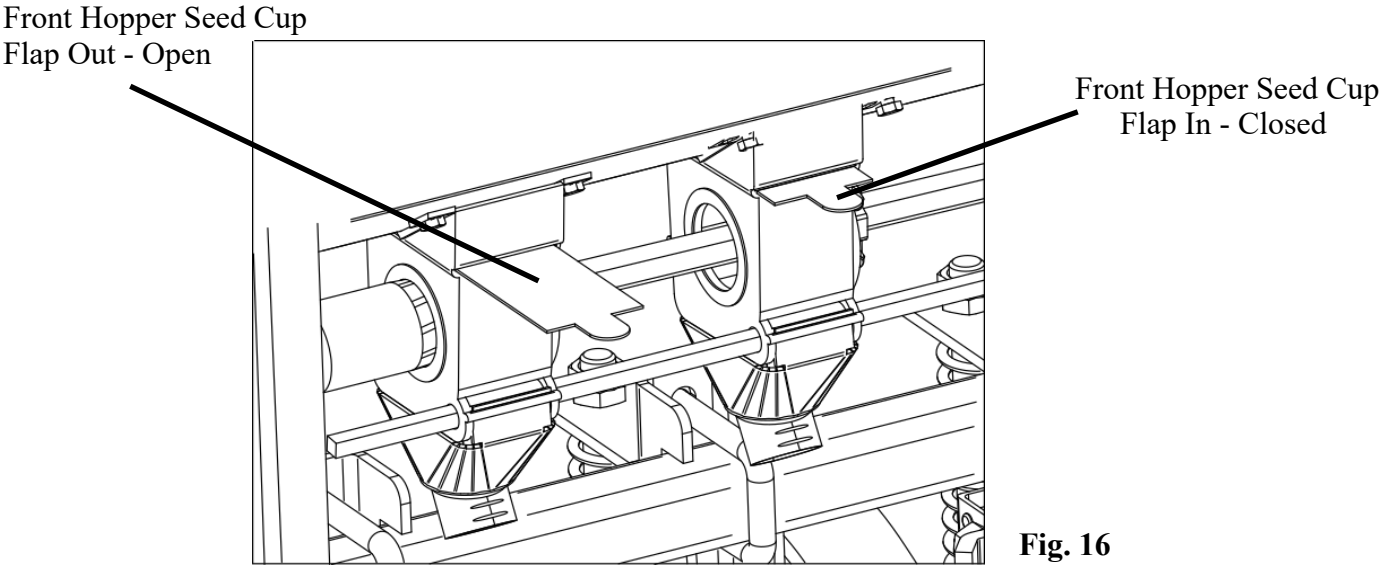


Fig. 16

Step 6: Seed Rate

Set the Front Hopper Seed Cup rate (Fig.17) to the desired seed type by turning the Seed Rate Adjustment Handle (refer to Step 2). Refer to Seed Calibration Charts for proper setting for the desired seed type.
Make sure the Seed Rate Adjustment Handle is locked in place before operating.

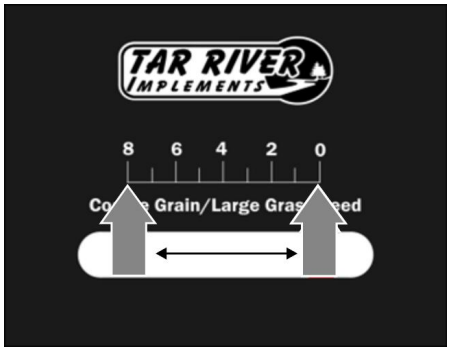


Fig. 17

Proceed to Rear Seed Cup Calibration.

Seed Calibration - Rear Hopper Seed Cups

Calibrating Rear Hopper Seed Cups:

Step 1: Seed Rate Adjustment Handle

The Seed Selector Lever is located on the RH, upper side of the machine, Fig.18. There are four common settings for seed, (See Index below). Use best judgment in setting the seed rates.

Variations in seed/granular size, density, moisture, seed treatment, and the amount of machine overlap will affect the final application rate.

- Set the lever to type of seed dispensed. The Seed Selector range is LH (small seed) to the RH (large seed).
- Settings are changed by pulling back on lever so lever pin clears slot, continue pulling back on the lever, move lever to the desired seed setting and gently release. Be sure that the lever pin is secure in the slot before proceeding. Refer to Seed Calibration Charts for proper settings.

Index:
CO = Clean Out
C = Corn
W = Wheat
A = Alfalfa

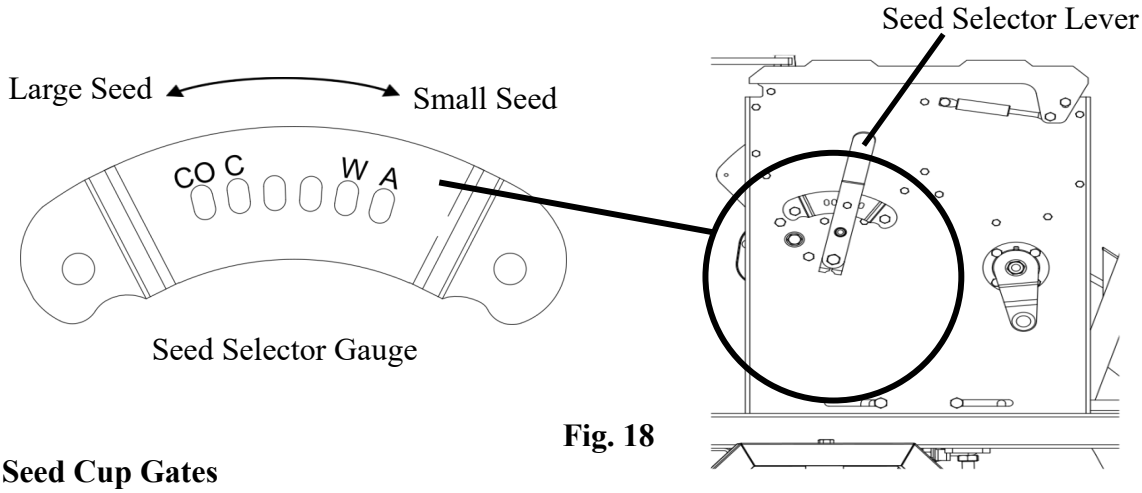


Fig. 18

Step 2: Rear Hopper Seed Cup Gates

Set each Rear Hopper Seed Cup, Fig. 19 to the working position according to the Seed Calibration Chart, prior to operating machine. All rear seed cup gates should be set in the same position for normal operation. However, if some cups are not needed for a particular operation, they can be shut off. Begin with both the large gate and small gate slid all the way in. **Note: No material will flow if the gates are closed!**

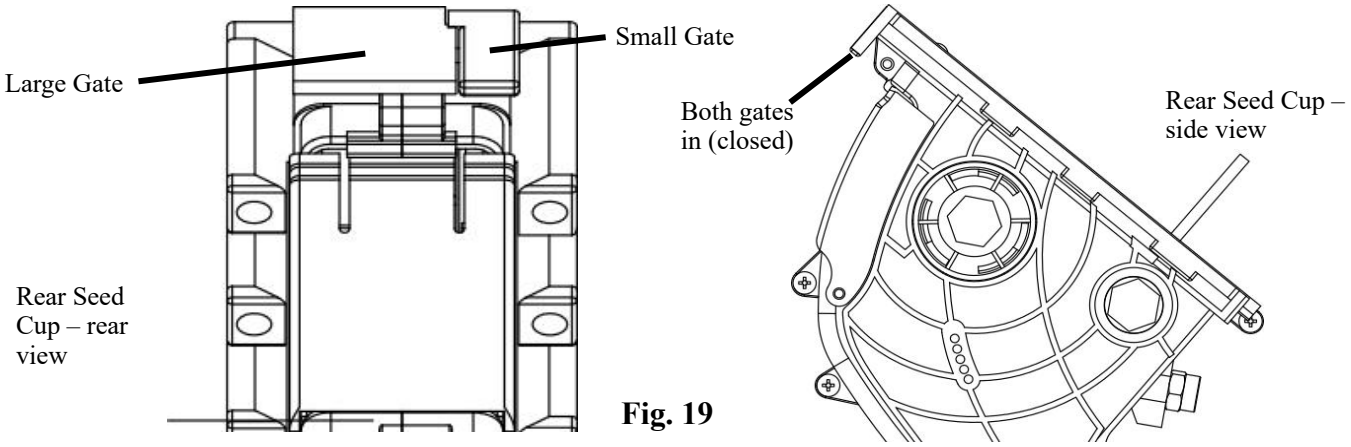


Fig. 19

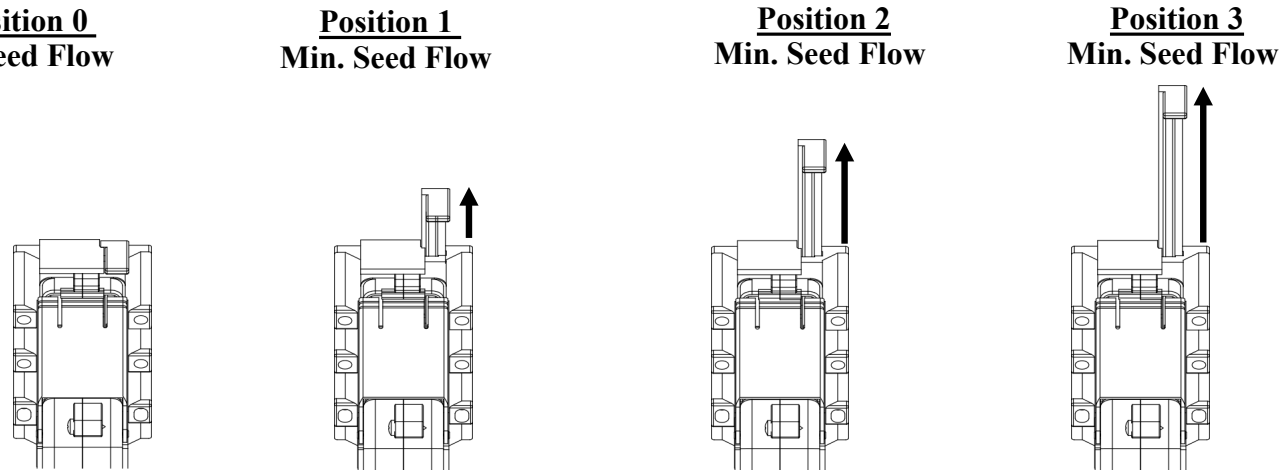
Seed Calibration - Rear Hopper Seed Cups

Step 2: Rear Hopper Seed Cup Gates, continued

The rear hopper seed cups have two gates that regulate the amount of seed distributed. The Small Seed Gate is for small seed such as alfalfa or equivalent type or size.

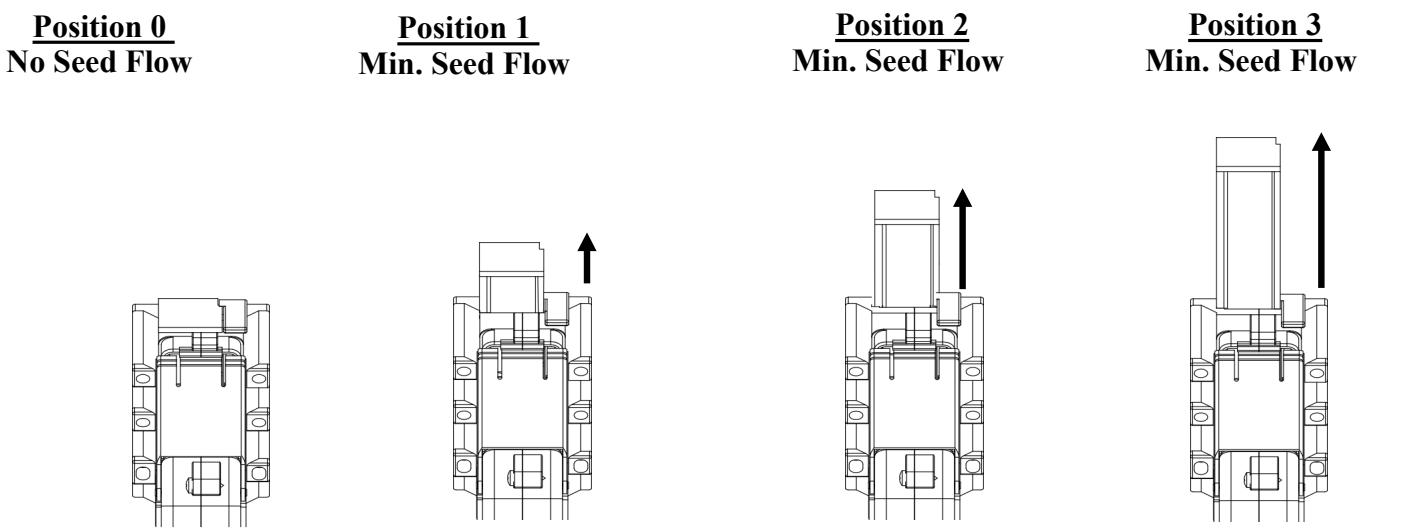
The Large Seed Gate is for larger seed such as corn or equivalent type or size. The rear hopper seed gates have (4) positions, Small Seed Gates, Fig. 20, Large Seed Gates, Fig. 21. In the Position 0 (large and small) the gates are completely closed. No material will be flow thru the seed cup. Position 1 is minimum material flow, where as Position 3 the gate is completely open and material flows with no restriction.

Adjust the seed cup gates by pulling the tab towards the operator. As you pull the gates, you will feel it catch in a notch. See Seed Calibration Charts for proper settings.



Small Seed Gates

Fig. 20



Large Seed Gates

Fig. 21

Step 3: Gearbox Settings

The TRD-PT53 Gearbox Fig. 22 is located on the LH side of the machine. The Gearbox controls the Rear Seed Cup output rate. Set the Gearbox to the proper setting according to type of seed planting. See Seed Calibration Charts.

- Loosen the Adjustment knob by twisting Counter Clock-wise .
- Set the gearbox according to the type of seed being applied.
- Twist Adjustment Knob Clockwise to tighten.
- Check Adjustment Knob for tightness prior to operating the machine.

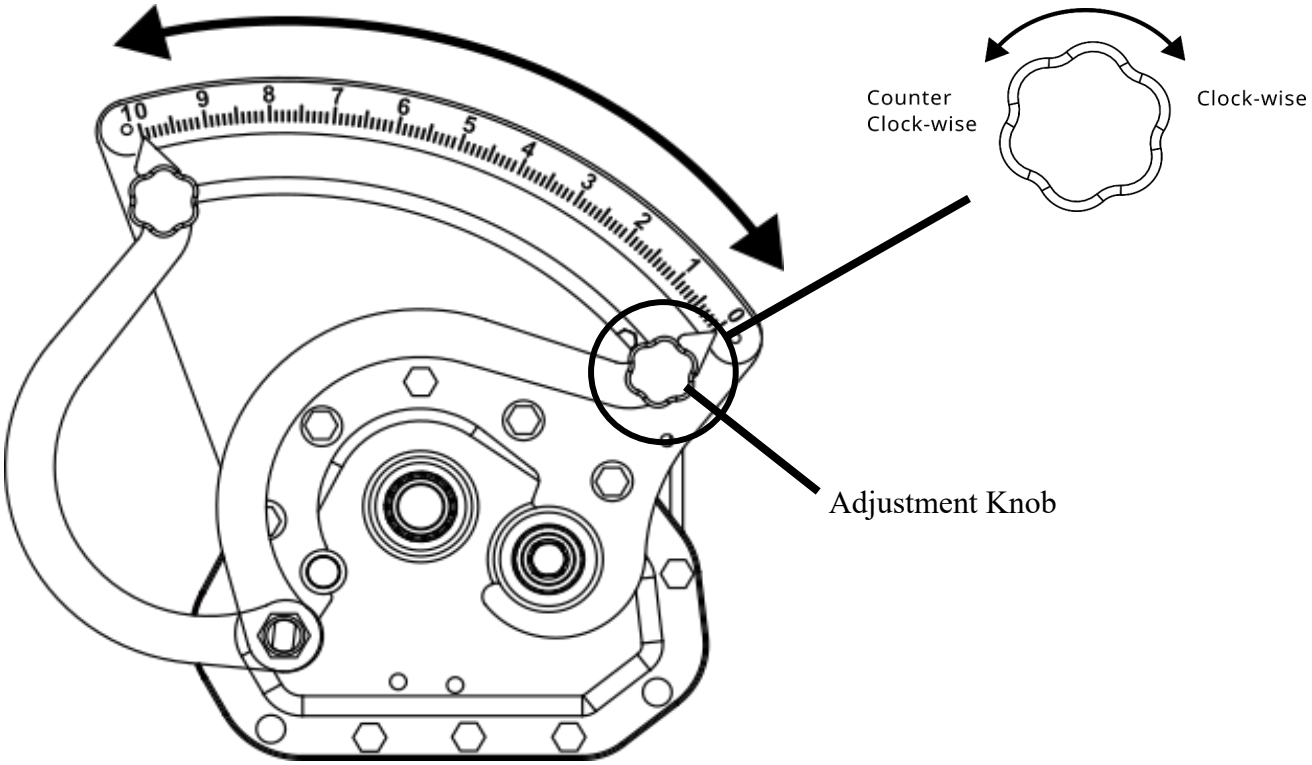


Fig. 22

Seed Calibration Trial Run

Calibration Trial Run

Once the machine is calibrated for your particular seed, a trial run is advised to determine if adjustments are required. Variations in seed/granular size, density, moisture, seed treatment, and the amount of machine overlap will affect the final application rate.

Method 1:

- Section off the front and rear section of one side of the hopper by creating two barriers (front and rear hoppers are not the same size) use cardboard or similar material that is stiff but easily cut, Fig. 23.
- Locate barriers approximately half way between the first seed outlets and the second set, Fig. 24. Attach Hopper Barriers with masking tape, duct tape or similar adhesive. Use something easily removed later. These are temporary for trial run only.

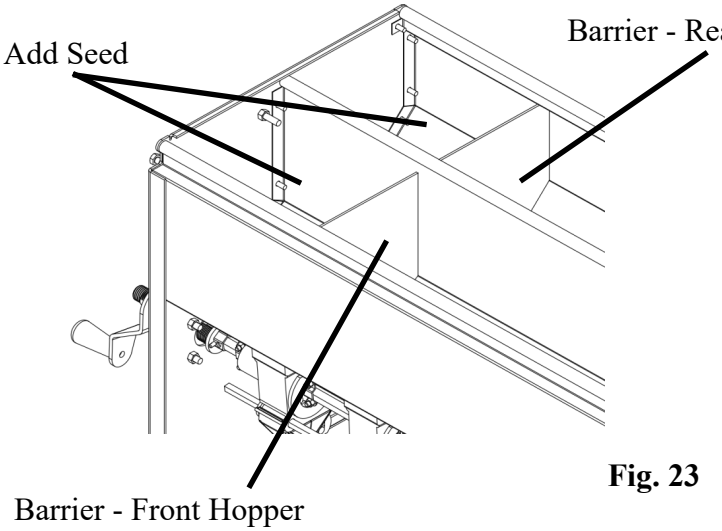


Fig. 23

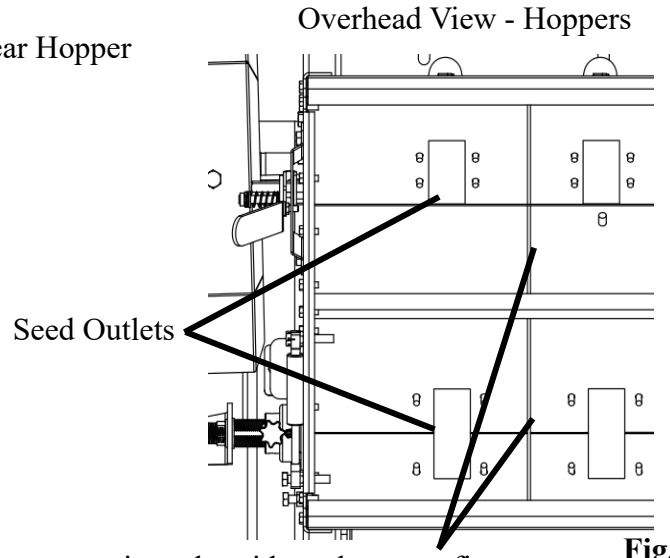
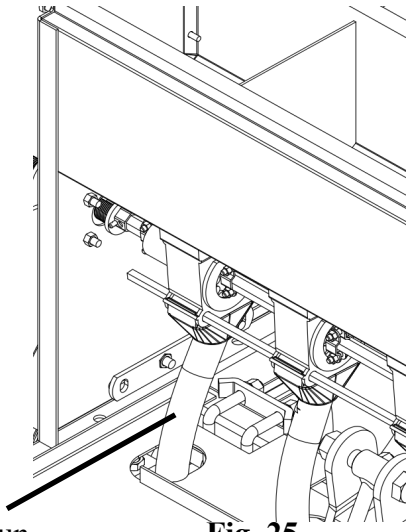


Fig. 24

Place Barriers approximately midway between first and seed outlets.

- Remove only the tubes under the front and rear hopper you are blocking off for test run, Fig. 25.
- Attach a gallon size or larger, clear zip lock type storage bag to the seed cup outlet. Secure the storage bag to the seed cup outlet with a cable tie or tape. This method prevents loss of seed and seed is reused.
- Add seed to sections blocked, front and rear.
- With the ATV pull the machine 100 feet and check the amount of seed in each bag. If settings are correct, this should correspond with the Seed Calibration Charts.
- Adjust the machine if more or less seed is desired. If any settings are modified, another test run is recommended until desired results are achieved.
- When test run is complete, remove the bags, replace hoses and secure hoses with provided clamps.



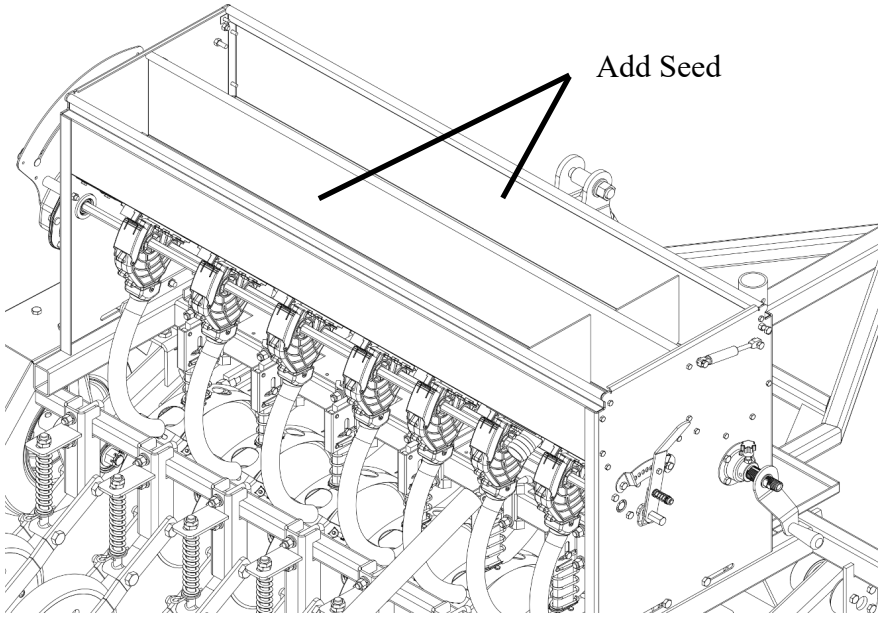
Remove only hoses (front and rear) used in test run.

Fig. 25

Calibration Trial Run

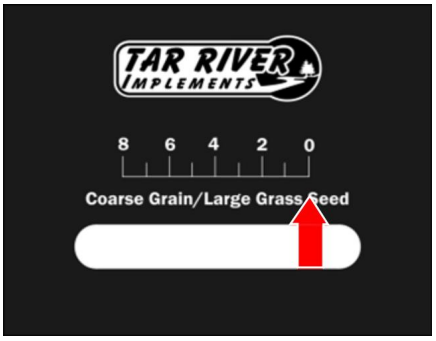
Method 2:

- Fill the front and rear hoppers with no barriers with desired seed.
- Remove only the tubes under the front and rear hopper you are blocking off for test run, Fig. 25.
- Attach a gallon size or larger, clear zip lock type storage bag to the seed cup outlet. Secure the storage bag to the seed cup outlet with a cable tie or tape. This method prevents loss of seed and seed is reused.
- With the ATV pull the machine 100 feet and check the amount of seed in each bag. If settings are correct, this should correspond with the Seed Calibration Charts.
- Adjust the machine if more or less seed is desired. If any settings are modified, another test run is recommended until desired results are achieved.
- When test run is complete, remove the bags, replace hoses and secure hoses with provided clamps.



Seed Rate Charts

TRD-PT53	Seed Calibration Chart - Front Hopper			
	Indicator Setting			
	1	2	4	8
Legume Seed	Lbs. Per Acre			
Oats	35	74	152	-
Winter Peas	90	-	-	-
Rye	72	83	289	-
Fescue	48	-	-	-
NOTE: The tables and rate charts are guidelines only! Refer to the Operator's Manual for calculations.				
D1354				



Indicator – Front Seed Cups

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 (7 or 10), (convert to ft.) x distance traveled / by the sq. ft. in an acre. Ex. 10 discs with a 7.5" spacing = 75" (6.25 ft.) x 100 ft. traveled = 625 sq. ft. covered. 625 / 43,560 sq. ft. in acre = .0143 (1.43% of acre covered.)

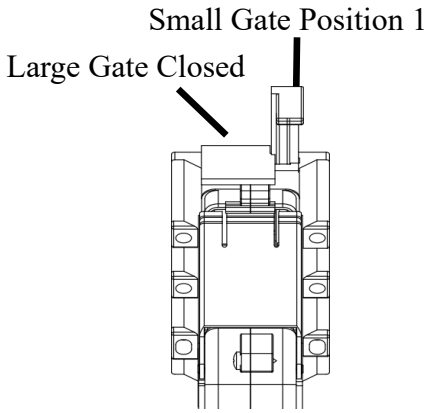
If you collect 1 oz. of seed from a single seed cup on the #3 setting after driving 100 ft. (1.43% of an acre), you are putting out 43.70 lbs. per acre.

1 oz. (amount collected) x number of seed cups (7 or 10) Ex. 10 seed cups = 10 oz. total output by machine. Distance traveled = 100 ft. (1.43% of acre) 1 oz / 16 oz (16 oz in 1 lb.) = .0625 / .0143 = 4.37 x 10 disc = 43.70 lbs. per acre.

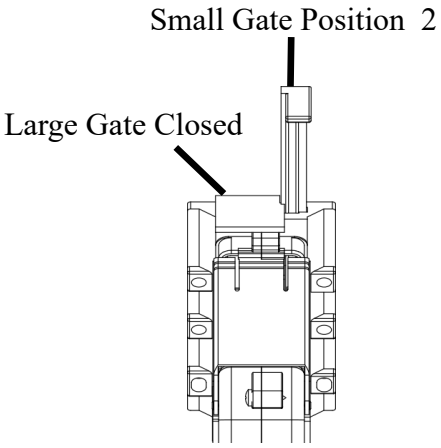
NOTE: The tables and rate charts are guidelines only! They are designed to be an aid as a starting point. You must do your own calibration as many factors cause rates to change. Variations in seed/granular size, density, moisture, seed treatment, and the amount of machine overlap will affect the final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

Seed Rate Charts – Rear Hopper

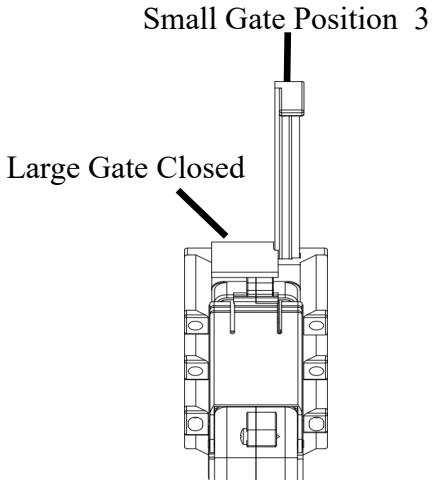
TRD-PT53	Seed Calibration Chart - Rear Hopper		
Small Gate Position 1	Gearbox Setting		
	2	5	10
Legume Seed Wheel	Lbs. Per Acre		
Winter Rape Seed	2	3	8
Switchgrass	5	10	25
Radish Seed	2	7	10
Red Clover	1	1	1



Small Gate Position 2	Gearbox Setting		
	2	5	10
Legume Seed Wheel	Lbs. Per Acre		
Winter Rape Seed	6	17	33
Switch Grass	5	15	29
Radish Seed	6	18	33
Red Clover	6	19	41



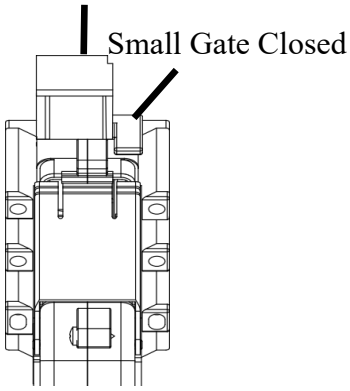
Small Gate Position 3	Gearbox Setting		
	2	5	10
Legume Seed Wheel	Lbs. Per Acre		
Winter Rape Seed	7	17	35
Switch Grass	6	15	30
Radish Seed	7	21	43
Red Clover	6	20	42



Seed Rate Charts – Rear Hopper

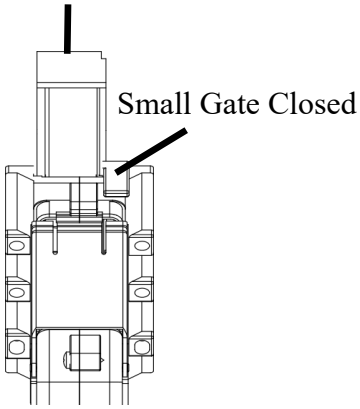
TRD-PT53	Seed Calibration Chart - Rear Hopper		
Large Gate Position 1	Gearbox Setting		
	2	5	10
Grain Seed Wheel	Lbs. Per Acre		
Oats	-	-	-
Winter Peas	18	50	63
Rye	35	106	198
Corn	5	31	108
Fescue	-	7	13
Sunflower	-	-	-

Large Gate Position 1



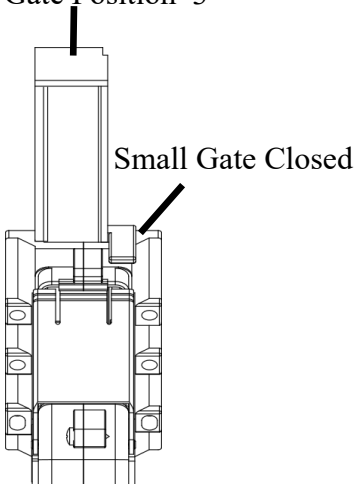
Large Gate Position 2	Gearbox Setting		
	2	5	10
Grain Seed Wheel	Lbs. Per Acre		
Oats	32	97	332
Winter Peas	63	180	175
Rye	41	121	233
Corn	80	137	209
Fescue	28	83	78
Sunflower	25	49	104

Large Gate Position 2



Large Gate Position 3	Gearbox Setting		
	2	5	10
Grain Seed Wheel			
Oats	33	93	375
Winter Peas	71	211	177
Rye	45	132	255
Corn	77	240	357
Fescue	31	96	109
Sunflower	28	84	104

Large Gate Position 3



Lubrication and Maintenance

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.

Cleaning Machine

Periodically or Before long term storage (end of season).

- Wash machine with water hose or pressure washer. If a pressure washer is used, follow the manufacture's recommendations.
  When spraying machine be careful near decals that are scratched or lifting off machine. Water pressure remove decals off machine.
  Be careful spraying near peeling or chipped paint. Water pressure can lift the paint.
- Remove large amounts of debris, clumps of dirt, grass, residue from crops, etc.
- Inspect the machine for damaged parts. If parts require replacing, use only OEM specified parts.
- Inspect the machine for scratches or missing paint. If not cared for, this damage will result in corrosion and shorten life of machine. Prepare the surface to paint by cleaning, removing rust, sand, prime and repaint.
- Replace any damaged or unreadable safety decals.
- Check all hardware for tightness.

After each use of machine

- Remove large amounts of debris, clumps of dirt, grass, residue from crops, etc.
- Inspect the machine for damaged parts. If parts require replacing, use only OEM specified parts.
- Inspect the machine for scratches or missing paint. If not cared for, this damage will result in corrosion and shorten life of machine. Prepare the surface to paint by cleaning, removing rust, sand, prime and re-paint.
- Replace any damaged or unreadable safety decals.
- Check all hardware for tightness.

Lubrication and Maintenance

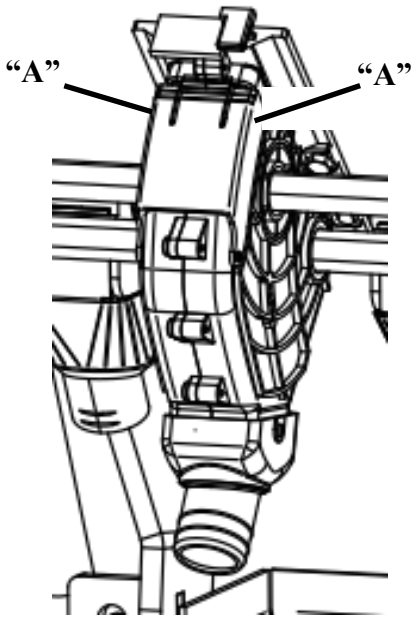
Clean Out - Rear Seed Cup

If seed is not passing through the Seed Cup into Tubes, there could be an obstruction. At time debris or seed can obstruct the Seed Cup and requires cleaning.

Opening the Rear Seed Cup Clean Out Lid:

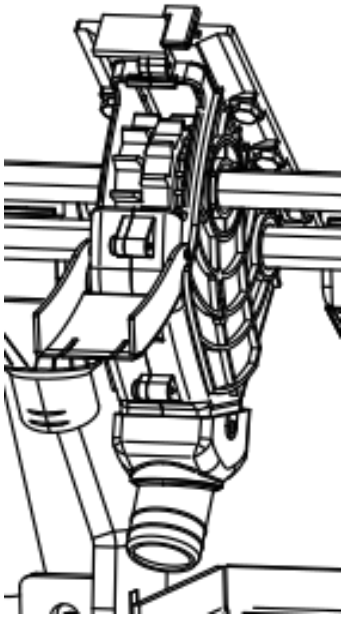
- Do not force the lid open! Press the Clean Out Lid in at “A” on both sides, near the top of the lid, at the same time pulling lid towards the operator to open, Fig. 26.
- Fig. 27 Shows the lid open, gears exposed.
- Close the Clean Out Lid by swinging the lid up at the same time pressing the top center of the lid at “B” to snap in place, Fig. 28 .
- Prior to operating the machine, make sure all Clean Out Lids are securely closed. Pull on the Lid to make sure it is secure. If not clean out lid is not secure, seed can be lost.

Warning! Never attempt to clean out the seed cups while machine is in operation! Shut off ATV and block wheels before attempting maintenance.



Clean Out Lid Closed

Fig. 26



Clean Out Lid Open

Fig. 27

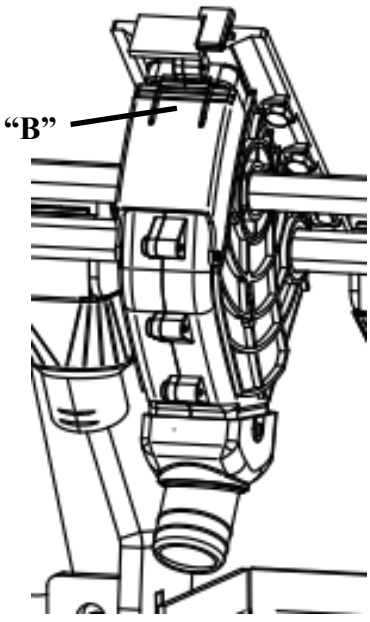


Fig. 28

Clean Out - Front and Rear Hoppers

- At the end of each operation or end of season, clean the front and rear hoppers, Fig. 29.
- Close all the front seed cup flaps and rear seed cup gates.
- Attach the clean out tube to the clean out port located on the RH side of the front or rear hopper.
- Attach a bag or hang hose in a bucket to catch seed.
- Open the clean out port flap by pulling towards operator.
- Use a brush or rag to sweep left over seed into the clean out port. Be careful of sharp edges inside machine.
- When finished, remove clean out tube and close the clean out flap. Repeat above steps for the remaining hopper.

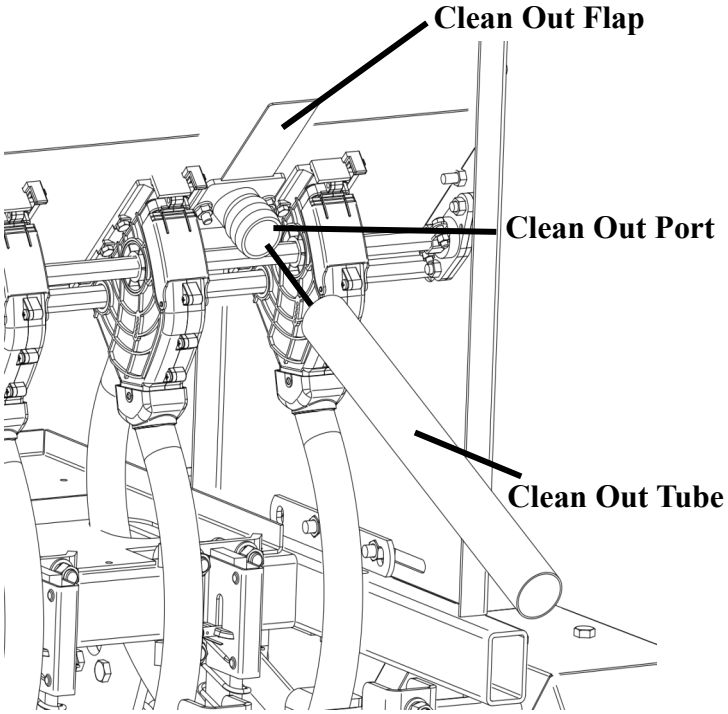


Fig. 29

Rear Seed Cups Only

Seed or debris can become lodged in the gears, Fig. 30. Open the rear lid and remove seed or foreign material. If material can not be removed, start the ATV, pull a short distance (10 ft.) with the gates completely open. Refer to page 29 for instructions on opening/closing rear hopper seed cup lid.

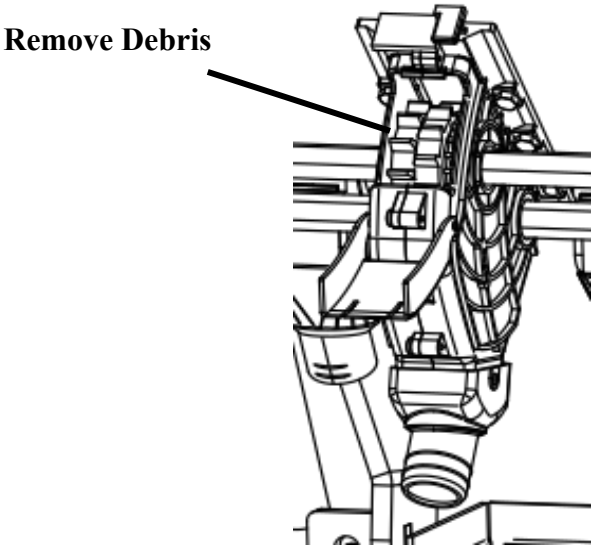


Fig. 30

Clean Out - Front and Rear Hoppers

Front Seed Cups Only Front Seed Cups Only

Check the front seed cups for debris or seed. Remove the material using the clean out lever, Fig. 30. Push down on the lever from the rear of the machine. This will open the seed cup to release the material. Re-check seed cups and repeat if necessary.

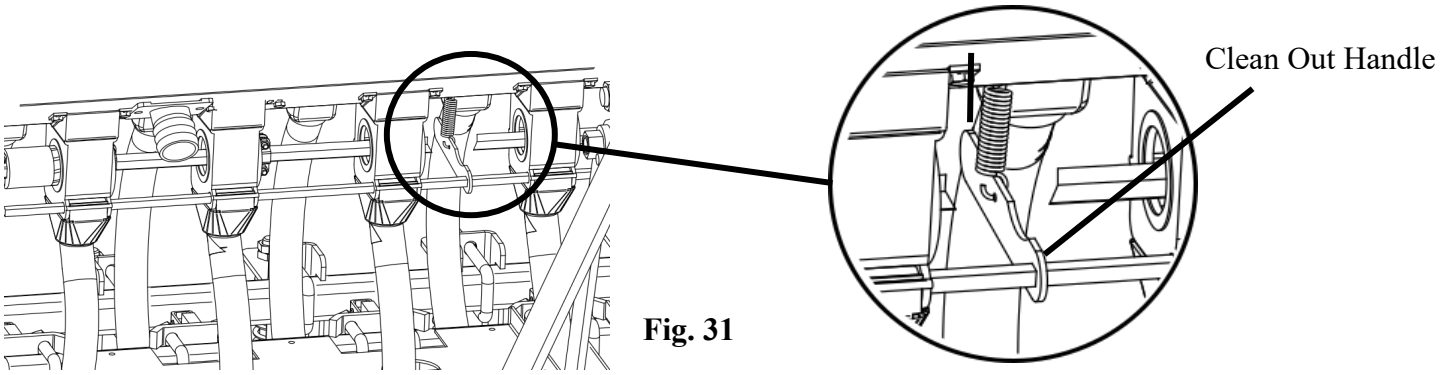
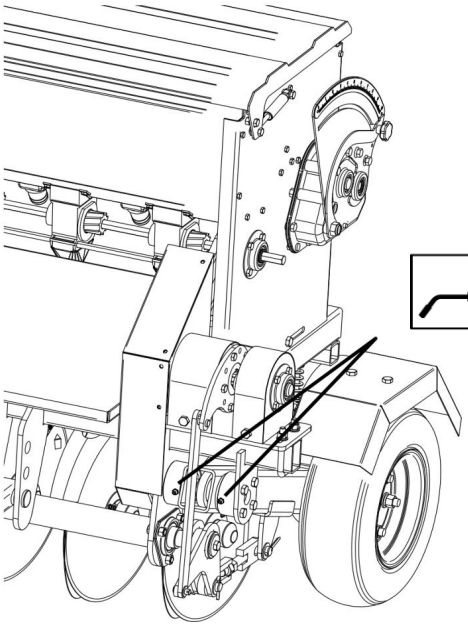


Fig. 31

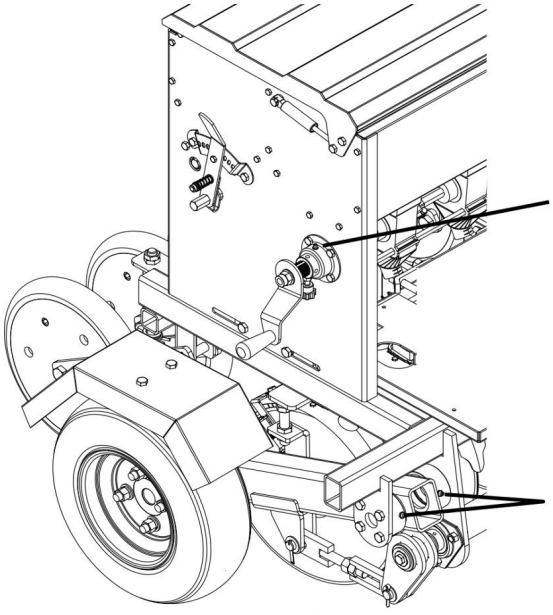
Grease Points

The reason bearings fail is most often due to either not greasing or not greasing often enough. To ensure optimal performance of the machine, thoroughly and properly lubricate each grease point. See diagrams below for locations. All points indicated in the figures below are equipped with ball type grease fittings. Fill with a multi-purpose grease using a manual or powered grease gun. Grease every 25 hours or as needed.



	25 Hours

LH View



	25 Hours

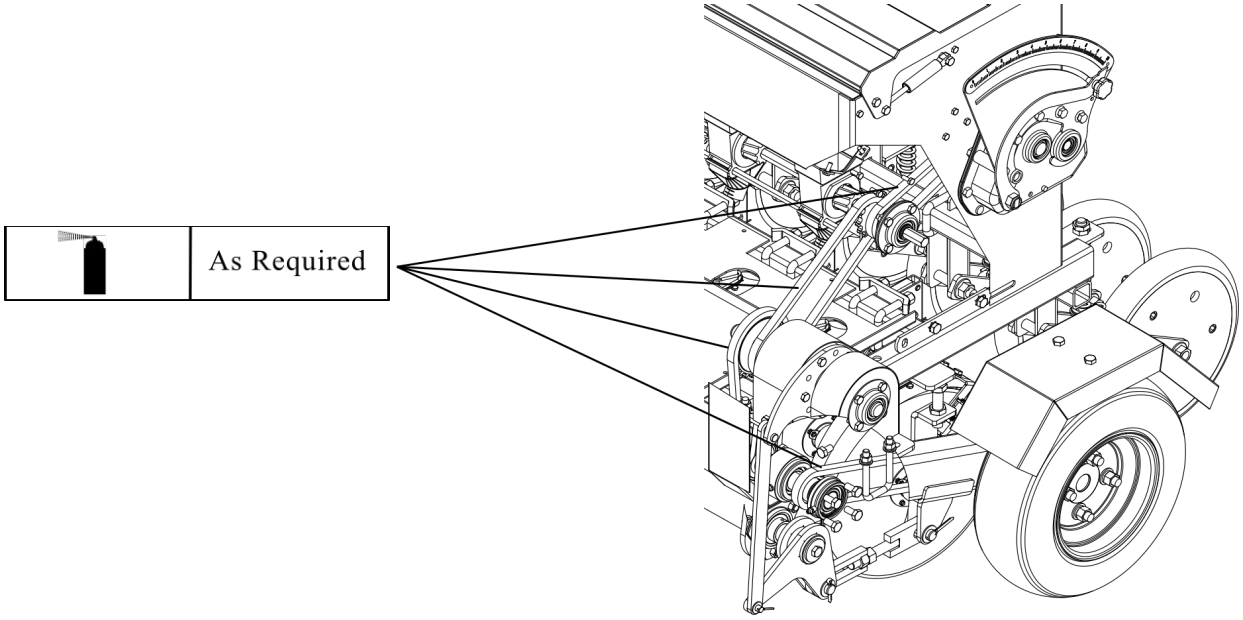
RH View

Chain Lubrication

Chains should be free of debris, dirt and corrosion. Remove any debris in chain and wipe it clean with kerosene or a nonflammable solvent before lubricating. The chain can lubricated with a chain spray lubricant as required. Check chains prior to each use and periodically during operation. Replace worn or damaged chains to prevent unnecessary down time.

Lubricate chains when storing the machine long term to prevent corrosion.

A chain lubricant should have low enough viscosity to penetrate into critical internal surfaces and high enough viscosity, or necessary additives, to maintain an effective film on the chain.

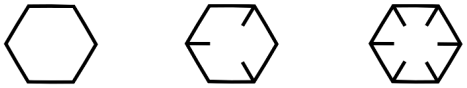


Torque Specifications

Torque Specifications for Common Bolt Sizes

Inches

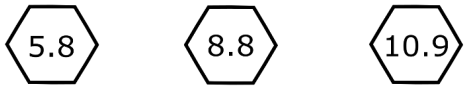
Bolt Head Identification



Bolt size (inches)	Thread pitch	Grade 2 N.m	Grade 2 ft-lb	Grade 5 N.m	Grade 5 ft-lb	Grade 8 N.m	Grade 8 ft-lb
1/4"	20	7	5	11	8	16	12
1/4"	28	8	6	13	10	19	14
5/16"	18	15	11	24	17	33	25
5/16"	24	17	13	26	19	37	27
3/8"	16	27	20	42	31	59	44
3/8"	24	31	23	47	35	67	49
7/16"	14	43	32	67	49	95	70
7/16"	20	48	36	75	55	106	78
1/2"	13	66	48	102	75	144	106
1/2"	20	75	55	115	85	163	120
9/16"	12	95	70	147	109	208	154
9/16"	18	106	79	164	121	232	171
5/8"	11	132	97	203	150	287	212
5/8"	18	149	110	230	170	325	240
3/4"	10	233	172	361	266	509	376
3/4"	16	261	192	403	297	569	420
7/8"	9	226	167	582	430	822	606
7/8"	14	249	184	642	473	906	668
1"	8	339	250	873	644	1232	909
1"	12	371	273	955	704	1348	995
1-1/8"	7	480	354	1077	794	1746	1288
1-1/8"	12	539	397	1208	891	1958	1445
1-1/4"	7	677	500	1519	1120	2463	1817
1-1/4"	12	750	553	1682	1241	2728	2012
1-3/8"	6	888	655	1992	1469	3230	2382
1-3/8"	12	1011	746	2268	1673	3677	2712
1-1/2"	6	1179	869	2643	1949	4286	3161
1-1/2"	12	1326	978	2974	2194	4823	3557

Metric

Bolt Head Identification



Bolt size (metric)	Thread pitch	Class 5.8 N.m	Class 5.8 ft-lb	Class 8.8 N.m	Class 8.8 ft-lb	Class 10.9 N.m	Class 10.9 ft-lb
M5	0.08	4	3	6	4	9	7
M6	1	6	4	10	7	15	11
M8	1.25	16	12	25	18	36	27
M8	1	17	13	26	19	38	28
M10	1.5	31	23	48	35	71	52
M10	1.25	33	24	51	38	75	55
M10	1	35	26	53	39	78	58
M12	1.75	54	40	84	62	123	91
M12	1.5	56	41	87	64	128	94
M12	1.25	59	44	90	66	133	98
M14	2	84	62	133	98	195	144
M14	1.5	94	69	142	105	209	154
M16	2	131	97	206	152	302	223
M16	1.5	141	104	218	161	320	236
M18	2.5	181	133	295	218	421	310
M18	2	196	145	311	229	443	327
M18	1.5	203	150	327	241	465	343
M20	2.5	256	189	415	306	592	437
M20	1.5	288	212	454	335	646	476
M22	2.5	344	254	567	418	807	595
M22	1.5	381	281	613	452	873	644
M24	3	444	327	714	526	1017	750
M24	2	488	360	769	567	1095	808
M27	3	656	484	1050	774	1496	1103
M27	2	719	530	1119	825	1594	1176
M30	3.5	906	668	1420	1047	2033	1499
M30	2	1000	738	1600	1180	2250	1659
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.

ATV Minimum Till Drill

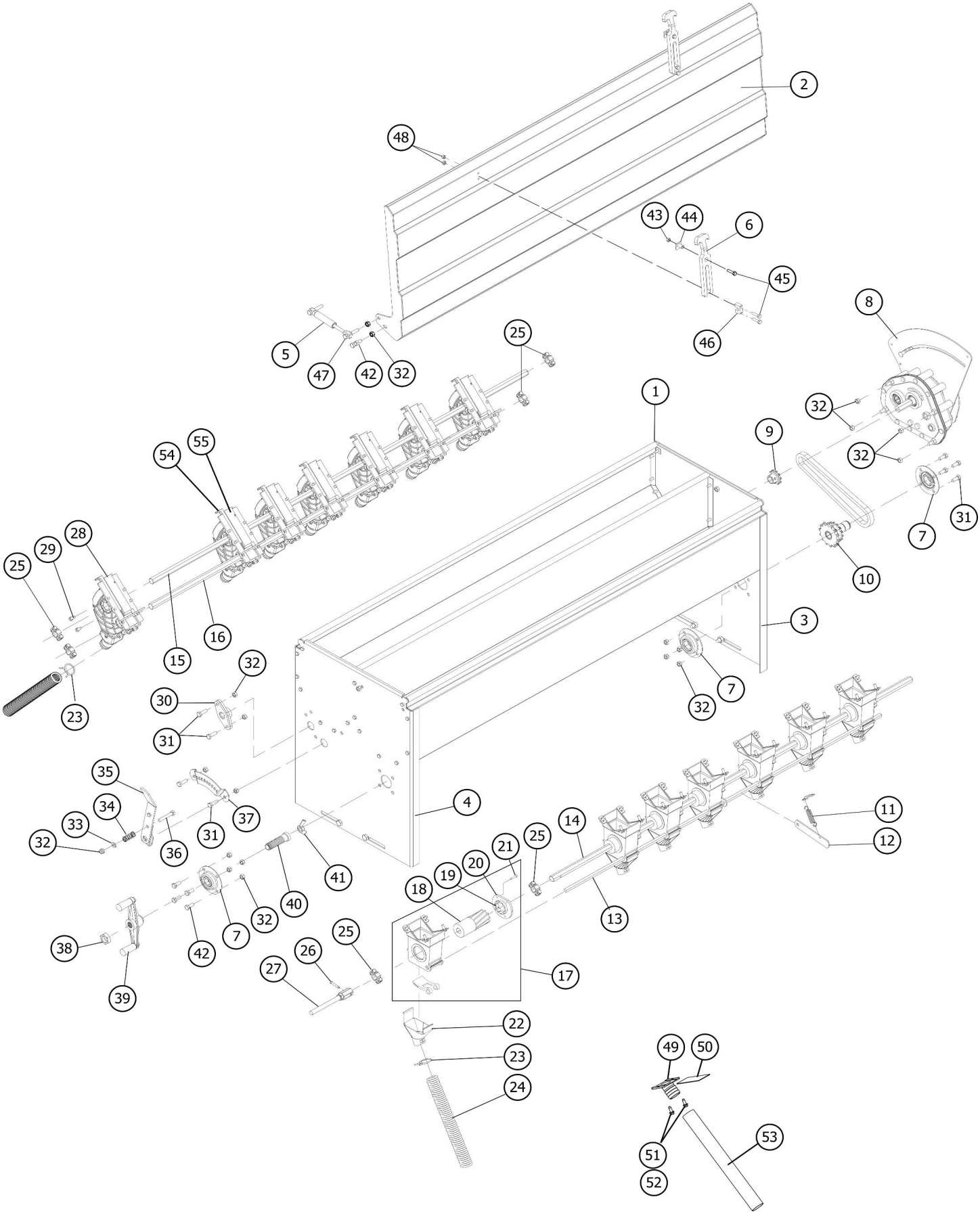
TRD-PT53



Parts Manual

Rel. 10/26

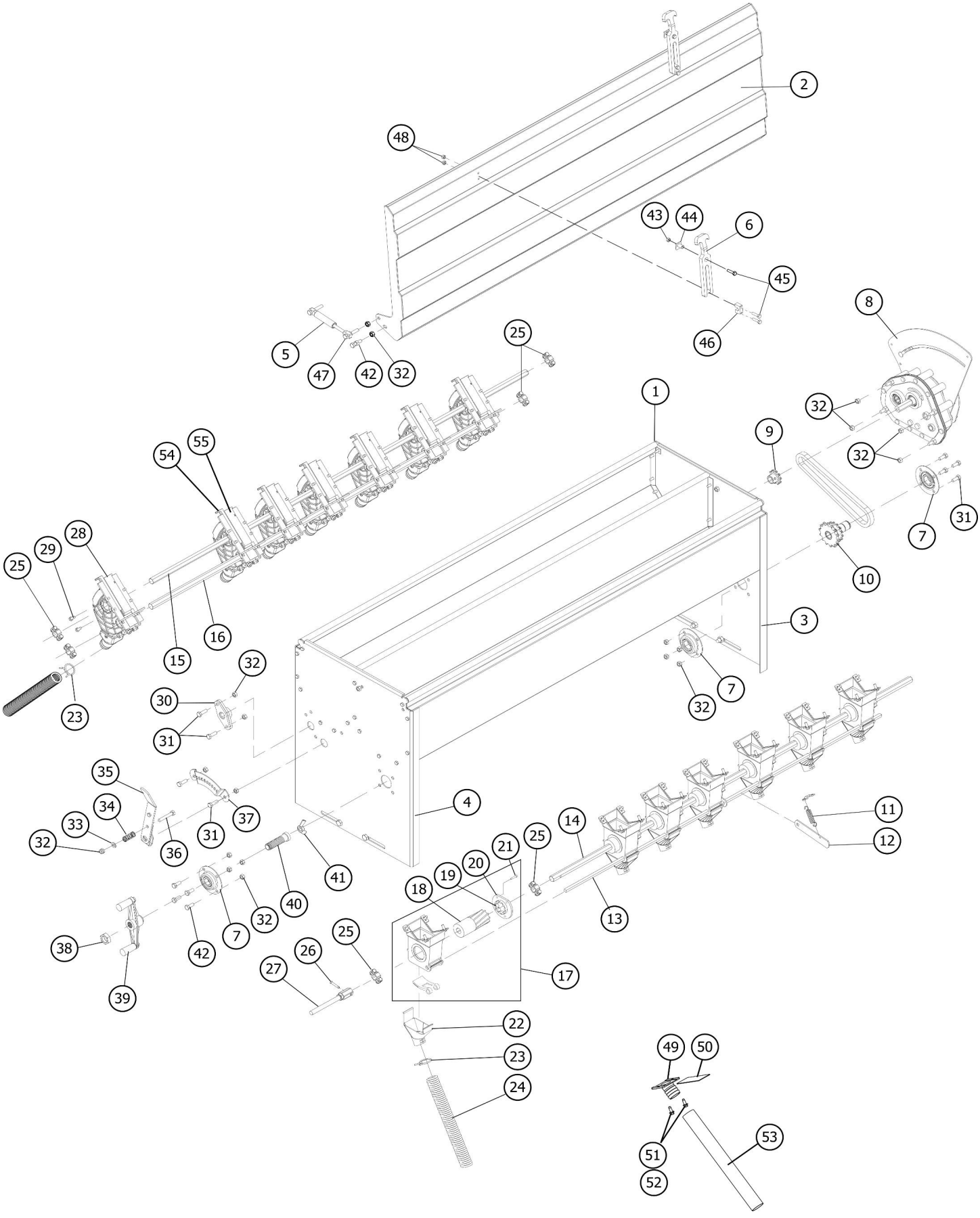
Hopper


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Decals

Item	Part #	Description	Qty.
1	SA4254	Hopper TRD-PT53	1
2	SA4255	Hopper lid TRD-PT53	1
3	SA4256	Hopper end plate, LH TRD-PT53	1
4	SA4257	Hopper end plate, RH TRD-PT53	1
5	DL5003	Lid piston	2
6	SA4063	Hopper lid strap	2
7	SA4258	Flange	2
8	SA4259	Gearbox TRD-PT53	1
9	SA4260	Small gear, gearbox TRD-PT53	1
10	SA4261	Large gear, gearbox TDR-PT53	1
11	DL5007	Spring clean out	1
12	DL5006	Handle clean out	1
13	SA4262	Square clean out shaft .31 x 48.43	1
14	SA4263	Hex seed cup shaft, front seed cup .63 x 55	1
15	SA4264	Hex seed cup shaft, rear seed cup .63 x 53	1
16	SA4265	Hex seed cup shaft, rear seed cup .63 x 57.5	1
17	DL7001-L	Seed cup distribution box - large seed, front hopper	7
18	SA4012	Seed box shaft, spiral spline	7
19	SA4014	Shaft guide, seed cup - spiral spline	1
20	SA4015	Shaft guide retainer - seed cup	1
21	SA4021	Sheet metal screw M4 x 10	21
22	DL7006	Seed cup funnel	7
23	SA9005	Tube wire clamp	7
24	SA3002	Fertilizer/seed tube - front seed cup	7
25	DL7006	Distribution box clamp complete (Note: both halves and hardware)	28
	BM061020	Bolt HH M06-1.0x20	112
	NM0610	Nut HH M06-1.0	112
26	SA4266	Clevis pin M5 x 30	1
27	SA4267	Short shaft, front seed cup	1
28	SA4268	Seed cup, rear TRD-PT53	7
29	BM061016	Bolt HH M06-1.0x16	28
30	SA4269	Shaft flange	1
31	BM0812525	Bolt HH M08-1.25x25	8
32	NM08125	Nut HH M08-1.25	16
33	LW08	Washer flat M08	1
34	SA4270	Spring, lever	1
35	SA4271	Lever	1

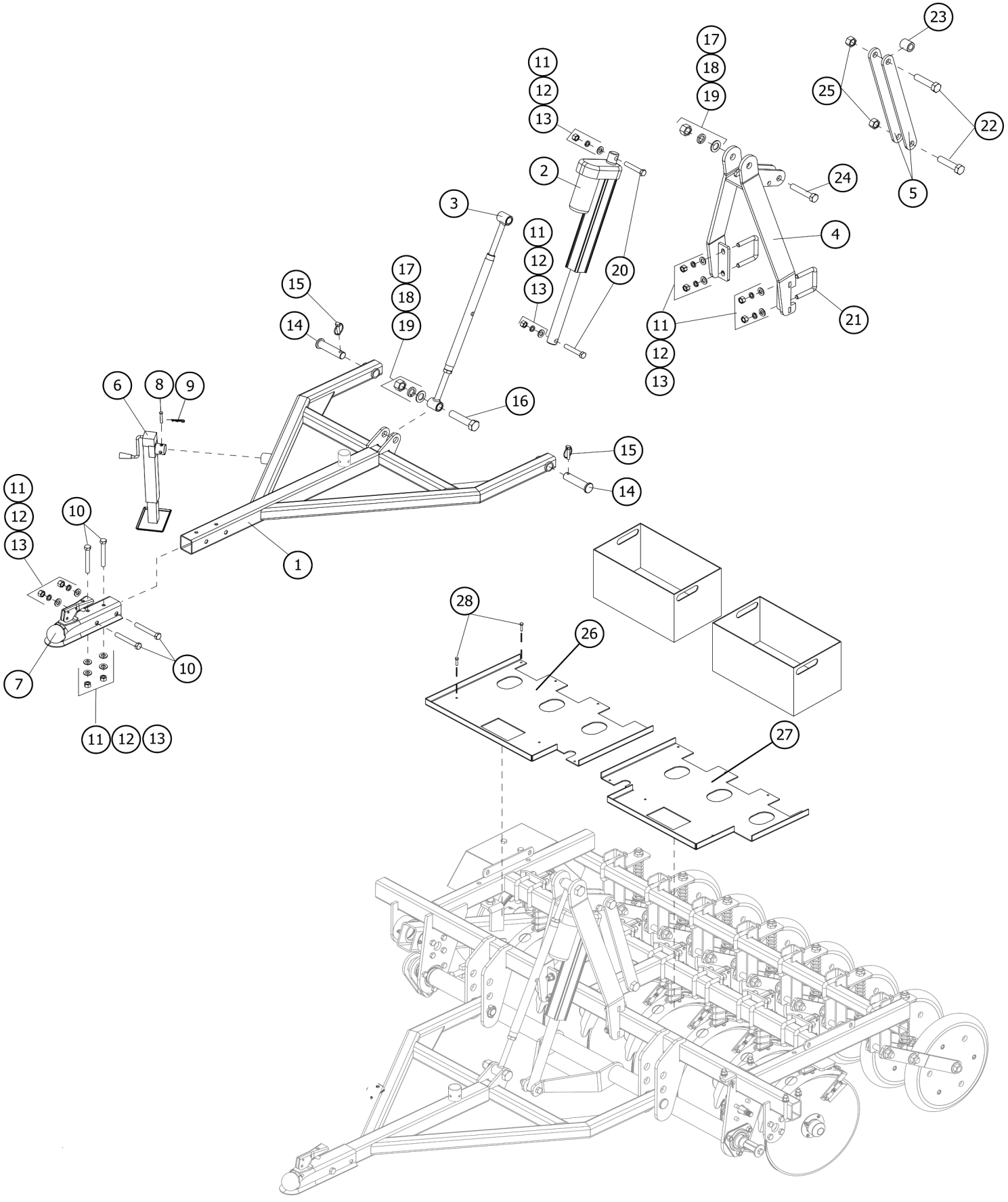
Hopper


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Hopper

Item	Part #	Description	Qty.
36	BM0812550	Bolt HH M08-1.25x50	1
37	SA4272	Selector	1
38	NM20250	Nut HH M20-2.50	1
39	SA4273	Adjustment handle	1
40	SA4274	Adjustment handle shaft	1
41	SA4275	Wing nut M12-1.50	1
42	BM0812520	Bolt HH M08-1.2.5x20	4
43	FNM0407	Nut flange M04-0.7	2
44	SA4065	Hopper lid strap latch	2
45	BM040725	Bolt HH M04-0.7x25	3
46	SA4064	Hopper lid strap retainer	2
47	BM0812545	Bolt HH M08-1.25x45	2
48	FNM0407	Flange nut M04-0.7	4
49	DL1006	Clean out spout	2
50	DL7007	Waste/seed/fertilizer shut off flap	2
51	FBM0812516	Flange bolt HH M08-1.25x16	4
52	FNM08125	Flange bolt HH M08-1.25	4
53	DL7008	Waste tube	2
-	MH20000	Manual holder (not shown)	1

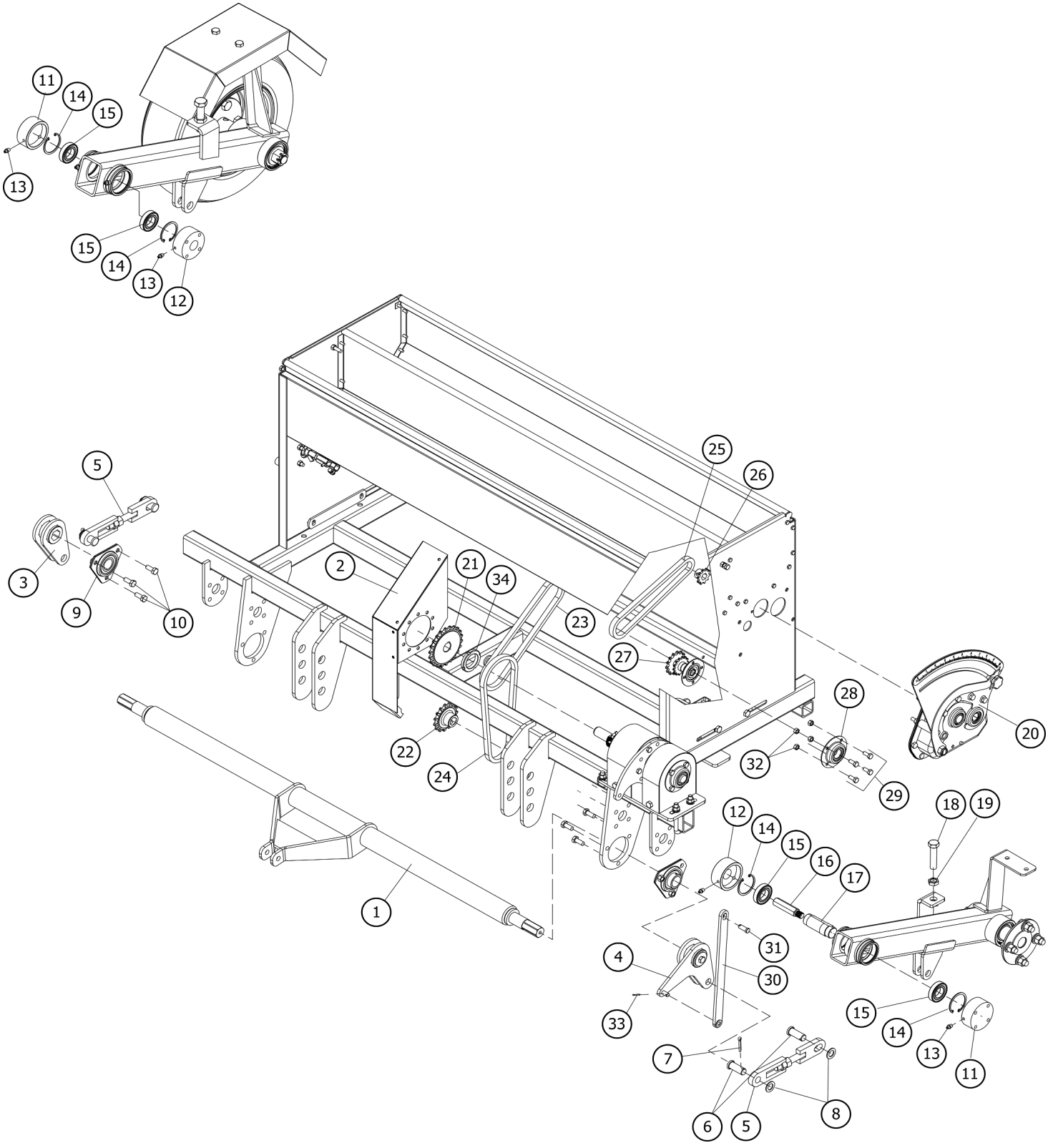
Frame & Hitch



Frame & Hitch

Item	Part #	Description	Qty.
1	SA4276	Frame weldment TRD-PT53	1
2	SA4122	Actuator	1
3	SA4123	Turnbuckle	1
4	SA4277	Frame actuator	1
5	SA4278	Straps actuator	2
6	SA4125	Jack stand	1
7	SA4127	Ball hitch attachment	1
8	SA4131	Clevis pin M10x65	1
9	RC4	R-Clip M4	1
10	BM121590	Bolt HH M12-1.5x90	4
11	FW12	Washer flat M12	10
12	LW12	Washer lock M12	10
13	NM1215	Nut HH M12-1.5	10
14	SA4278	Pin Ø22.5x95	2
15	LYNPN08	Lynch pin M08	2
16	BM201590	Bolt HH M20-2.5x90	1
17	FW20	Washer flat M20	2
18	LW20	Washer lock M20	2
19	NM2025	Nut HH M20-2.5	2
20	BM121595	Bolt HH M12-1.5x95	2
21	SA4279	U-bolt M12x61x68	2
22	BM182580	Bolt HH M18-2.5x80	2
23	SA4280	Bushing Ø18.5 x 30.0 ID x 32.0 L	1
24	BM2025110	Bolt HH M20-2.5x110	1
25	NM1825	Nut HH M18-2.5	2
26	SA4365	Floorboard, LH - TRD-PT53	1
27	SA4366	Floorboard, RH - TRD-PT53	1
28	BMST481900	Self-drilling screw M4.8x19	16
29	SA4364	Weight box TRD-PT53 (optional) 2	

Drive Train

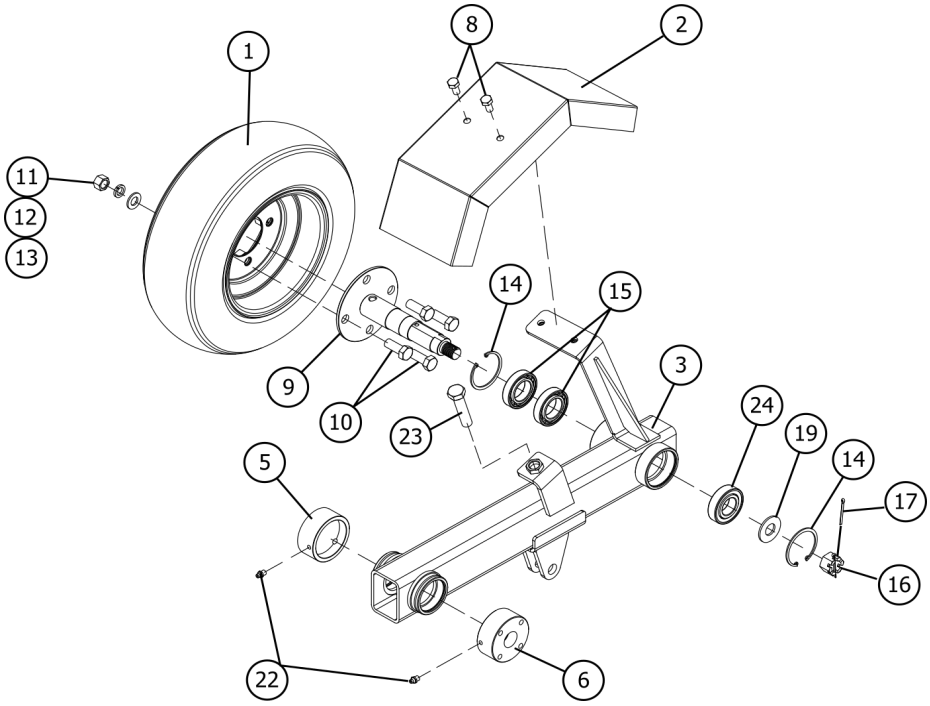

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Drive Train

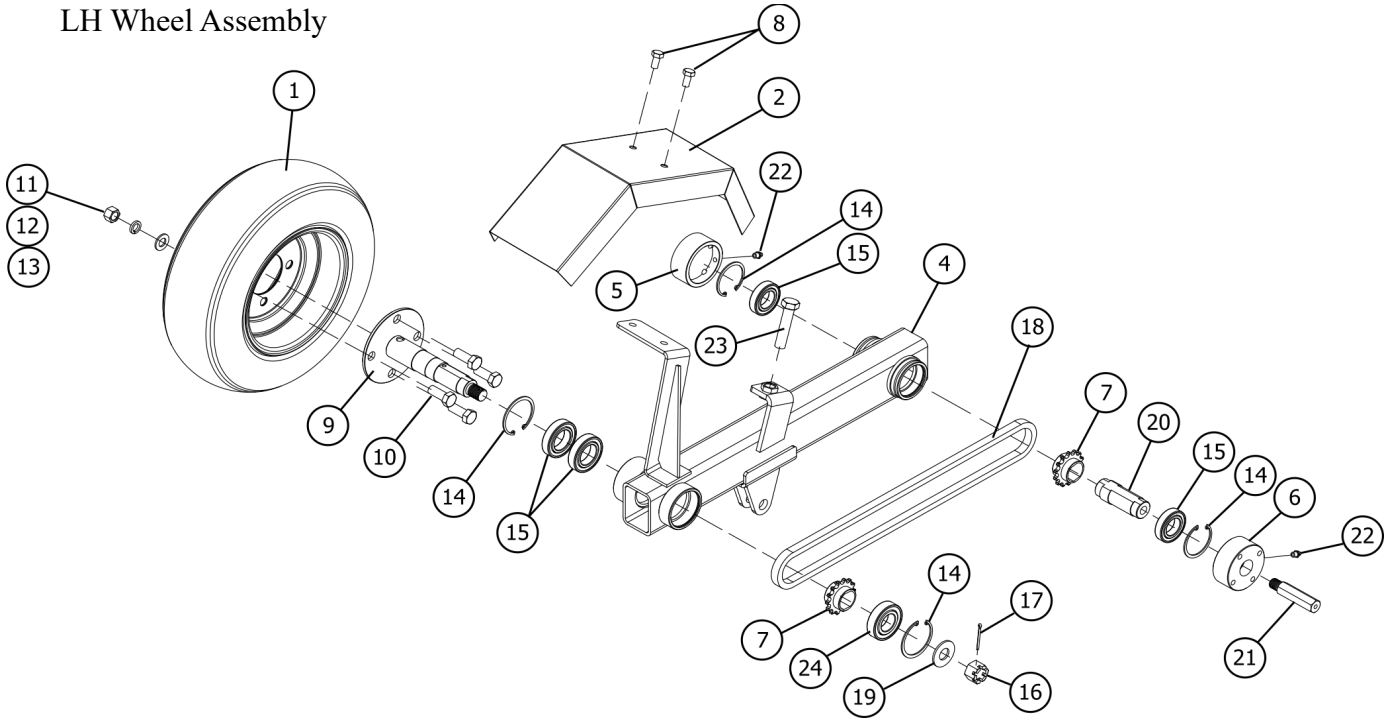
Item	Part #	Description	Qty.
1	SA4331	Actuator arm, TRD-PT53	1
2	SA4332	Clutch shield	1
3	SA4333	Pivot arm RH	1
4	SA4334	Pivot arm LH	1
5	SA4136	Wheel arm turnbuckle, TRD-PT53	2
6	SA4335	Pin, clevis M18x25	4
7	SA4336	Cotter pin, M5x32	4
8	LFW18	Large flat washer M18	4
9	SA4337	Actuator arm bearing	2
10	BM101525	Bolt HH M10-15x25	6
11	SA4338	Actuator end cap	2
12	SA4339	Actuator arm guide	2
13	GN081S	Grease fitting M08-1.0	4
14	SRI55	Snap ring internal	4
15	B6006 2RS	Bearing 6006 2RS	4
16	SA4339	Hex shaft	2
17	SA4340	Round shaft	2
18	BM161570	Bolt HH M16-1.5x70	2
19	NM1615	Nut HH M16-1.5	2
20	SA4341	Gearbox, TRD-PT53	1
21	SA4207	Sprocket, 22T	1
22	SA4206	Sprocket, 15T	1
23	SA4341	Chain, front seed cups	1
24	SA4342	Chain, drive	1
25	SA4343	Chain, rear seed cups	1
26	SA4344	Sprocket, 10T	1
27	SA4261	Large gear, gearbox TDR-PT53	1
28	SA4258	Flange	1
29	BM0812525	Bolt HH M08-1.25x25	4
30	SA4345	Actuator arm	1
31	SA4346	Clevis pin, Ø10 x 26	1
32	NM08125	Nut HH M08-1.25	4
33	CP5x32	Cotter pin M5x32	1

Wheel Assemblies

RH Wheel Assembly



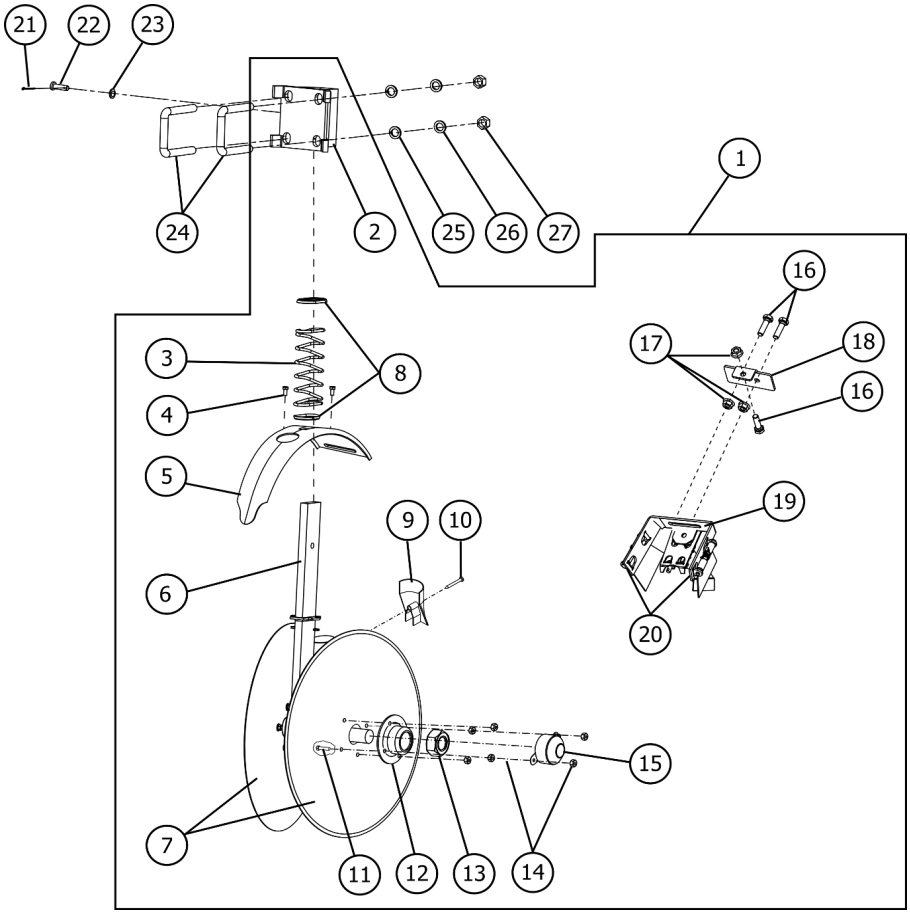
LH Wheel Assembly



Wheel Assemblies

Item	Part #	Description	Qty.
1	SA4356	Tire & wheel complete TRD-PT53	2
2	SA4357	Fender TRD-PT53	2
3	SA4358	Wheel arm RH TRD-PT53	1
4	SA4359	Wheel arm LH TRD-PT53	1
5	SA4360	Shaft fixing sleeve outer	2
6	SA4361	Shaft fixing sleeve inner	2
7	SA4209	Sprocket, wheel arm 14T	2
8	BM101520	Bolt HH M10-1.5x20	4
	FW10	Washer flat M10	4
	LW10	Washer lock M10	4
	NM1015	Nut HH M10-1.5	4
9	SA4362	Axle w/hub TRD-PT53	2
10	BM141535	Bolt HH M14-1.5x35	8
11	NM1415	Nut HH M14-1.5	8
12	LW14	Washer lock M14	8
13	FW14	Washer flat M14	8
14	SRI-62	Snap ring internal M62	4
15	B60072RS	Bearing 6007-2RS	4
16	CNM2015	Nut castle M20-1.5	2
17	CP4x40	Cotter pin M4x40	2
18	SA4363	Chain wheel arm TRD-PT53	1
19	LFW20	Large flat washer M20	2
20	SA4339	Hex shaft	1
21	SA4340	Round shaft	1
22	GN081S	Grease fitting M08-1.0	2
23	BM181560	Bolt HH M18-1.5x60	2
24	B6006 2RS	Bearing 6006-2RS	2

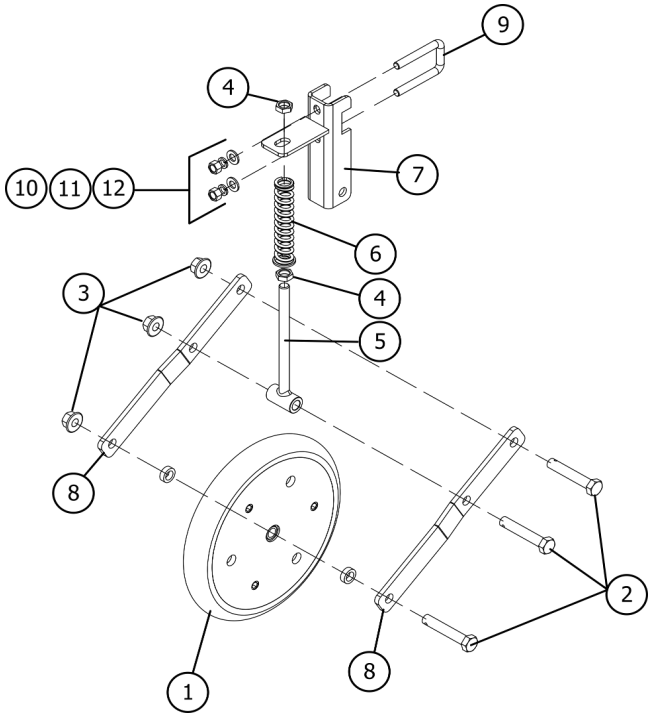
Coulter Wheel



Coulter Wheel

Item	Part #	Description	Qty.
1	DL6001	Coulter complete (includes items 2-20)	7
2	DL6010	Cloture mounting bracket	7
3	DL6017	Cloture spring	7
4	BM0812516	Bolt HH M8-1.25x16	14
5	DL6016	Cloture fender	7
6	SA4047	Disc support arm	7
7	DL6004	Disc (single)	14
8	SA4045	Spring retainer	14
9	SA4043	Deflector	7
10	SA4044	Sheet metal screw M4x40	7
11	BM061020	Bolt HH M6-1.0x20	-
12	SA4046	Bearing Flange w/bearings	14
13	NM1620L	Nut M16-2.0 LH threads (LH stud only)	7
	NM1620	Nut M16-2.0 (RH stud only)	7
14	FNM0610	Flanged nut M6-1.0	36
15	DL6003	Cap	7
16	BM0812520	Bolt M8-1.25x20	21
17	FNM08125	Flanged nut M8-1.25	21
18	SA6011	Scraper mount bracket	7
19	DL6007	External scraper	7
20	DL6006	Internal scraper	7
21	CP2.5x20	Cotter pin M2.5 x 20	7
22	DL6011	Shoulder pin M8 x 35	7
23	LFW08	Large flat washer M08	7
24	DL6002	U-bolt (note: includes items 25, 26, 27)	14
25	FW12	Flat washer M12	14
26	LW12	Lock washer M12	14
27	NM12175	Nut M12 x 1.75	14

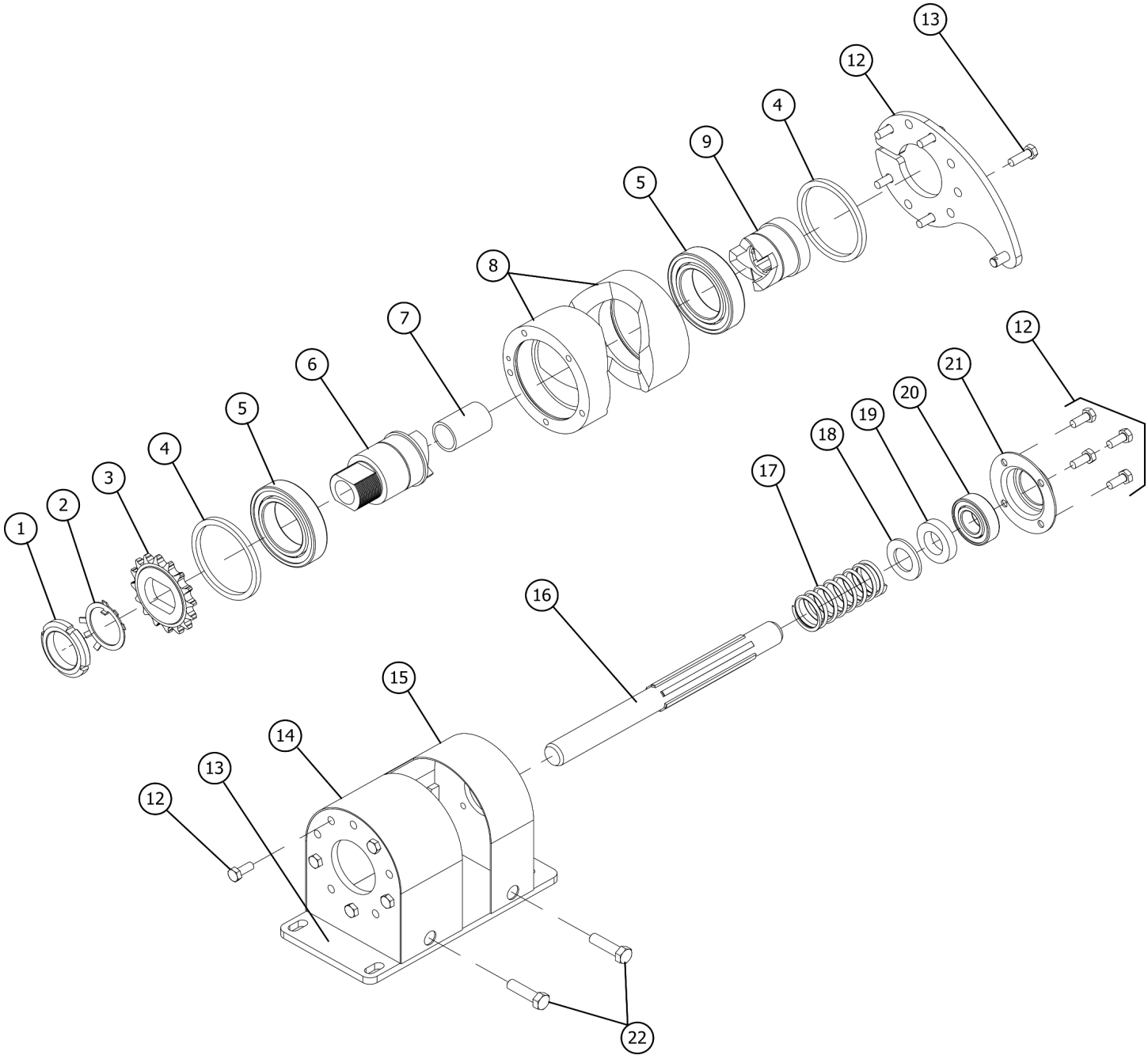
Press Wheel



Press Wheel

Item	Part #	Description	Qty.
1	SA4159	Press wheel	7
2	BM162090	Bolt HH M16-2.0x90	21
3	NM1620	Nut M16-2.0	21
4	NM1620T	Nut thin M16-2.0	14
5	SA4351	Press wheel rod TRD-PT55	7
6	SA4352	Press wheel spring TRD-PT55	7
7	SA4353	Press wheel mount TRD-PT55	7
8	SA4354	Press wheel arm TRD-PT55	14
9	SA4355	“U” bolt, press wheel TRD-PT55	14
10	FW12	Washer flat M12	14
11	LW12	Washer lock M12	14
12	NM1215	Nut HH M12-1.5	14

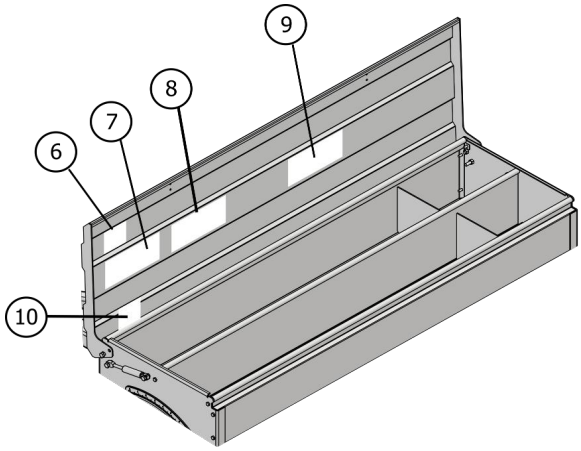
Clutch

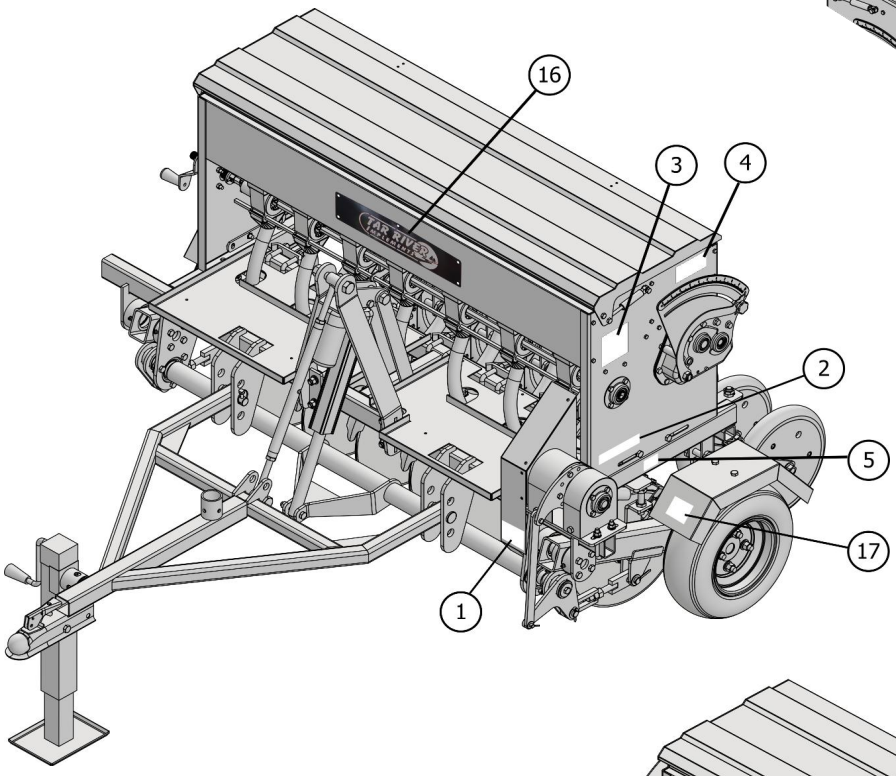


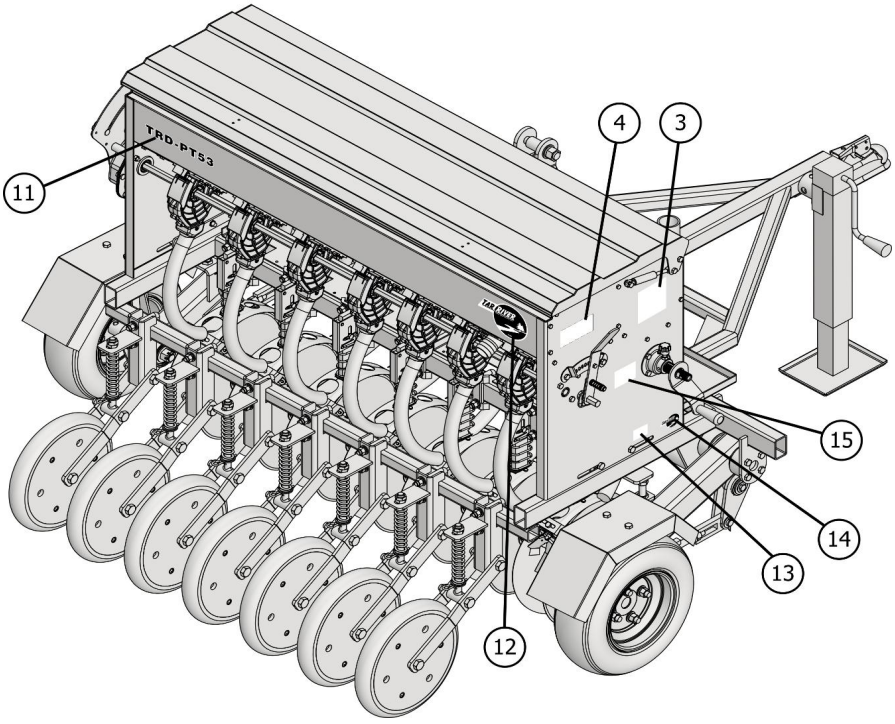
Clutch

Item	Part #	Description	Qty.
1	SLNM4215	Spanner nut Ø42mm-1.5	1
2	SA4210	Retaining lock Ø42mm	1
3	SA4208	Sprocket clutch 16T	1
4	SA4165	Clutch ring	2
5	B6011	Bearing 6011-2RZ	2
6	SA4167	Threaded coupling	1
7	SA4166	Clutch spacer	1
8	SA4168	Slip clutch	2
9	SA4169	Coupling	1
10	SA4170	Clutch engagement plate	1
11	BM0812525	Bolt HH M08-1.25x25	5
12	BM0812520	Bolt HH M08-1.25x20	5
13	SA4347	Base, clutch	1
14	SA4348	Shield, clutch	1
15	SA4172	Clutch shaft	1
16	SA4171	Clutch spring	1
17	SA4349	Spacer Ø26x45x3	1
18	SA4350	Spacer Ø26x45x10	1
19	B62052RS	Bearing 6205-2RS	1
20	SA4351	Bearing flange	1
21	BM101516	Bolt HH M10-1.5x16	1

Decals







Decals

Item	Part #	Description	Qty.
1	RT1005	Decal Warning, “To prevent serious injury or death”	1
2	5SBD1005	Decal Warning, “Falling off tractor”	1
3	RT1004E	Decal Warning, “Do not open”	2
4	R1004D	Decal Warning, “To prevent serious injury or death”	2
5	-	Decal Serial Tag	1
6	D1329	Decal QR Code Seed Calibration *	1
7	D1355	Decal Seed Chart – TRD-PT53 Rear Hopper Small Gate *	1
8	D1356	Decal Seed Chart – TRD-PT53 Rear Hopper Large Gate *	1
9	5SBD1005	Decal Warning, “Chemicals” *	1
10	D1354	Decal Seed Chart – TRD-PT53 Front Hopper	1
11	NA	Decal Model #, “TRD-PT53”	1
12	RT-1016	Decal Logo, “Tar River Implements”	1
13	D1309	Decal “Assembled in the USA”	1
14	D1013	Decal Logo, “Tar River Mfg”	1
15	D1316	Decal Adjustment Handle	1
16	D1340S	Small metal laser cut “Tar River Implements 5.50” x 23.50”	1
	- BM061012	Bolt HH06-1.0x12 (hardware to attach D1340S)	5
	- FNM0610	Flange nut HH M06-1.0 (hardware attach D1340)	5
17	D1357	Decal Warning “NOT A STEP!”	2

NOTE:** ***Decals are inside of hopper lid.

Decals



1 - RT-1005



2 - 5SB1005



3- RT1004E



4 - RT1004D



5 - Serial Tag



6 - D1329

TRD-PT53	Seed Calibration Chart - Rear Hopper											
Small Gate Position 1	Gearbox Setting			Small Gate Position 2	Gearbox Setting			Small Gate Position 3	Gearbox Setting		
	2	5	10		2	5	10		2	5	10
Legume Seed Wheel	Lbs. Per Acre			Legume Seed Wheel	Lbs. Per Acre			Legume Seed Wheel	Lbs. Per Acre		
Winter Rape Seed	2	3	8	Winter Rape Seed	6	17	33	Winter Rape Seed	7	17	3
Switchgrass	5	10	25	Switch Grass	5	15	29	Switch Grass	6	15	30
Radish Seed	2	7	10	Radish Seed	6	18	33	Radish Seed	7	2	3
Red Clover	1	1	1	Red Clover	6	19	41	Red Clover	6	20	42

NOTE: The tables and rate charts are guidelines only! Refer to the Operator's Manual for calculations.

D1355

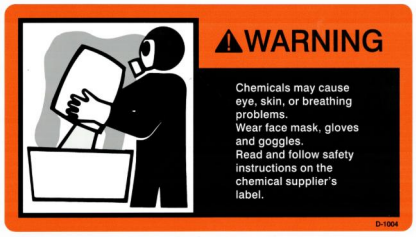
7 - D1355

TRD-PT53	Seed Calibration Chart - Rear Hopper											
Large Gate Position 1	Gearbox Setting			Large Gate Position 2	Gearbox Setting			Large Gate Position 3	Gearbox Setting		
	2	5	10		2	5	10		2	5	10
Grain Seed Wheel	Lbs Acre			Grain Seed Wheel	Lbs. Per Acre			Grain Seed Wheel	Lbs. Per Acre		
Oats	-	-	-	Oats	32	97	332	Oats	33	93	375
Winter Peas	18	50	63	Winter Peas	63	180	175	Winter Peas	71	211	177
Rye	35	106	198	Rye	41	121	233	Rye	45	132	255
Corn	5	31	108	Corn	80	137	209	Corn	77	240	357
Fescue	-	7	13	Fescue	28	83	78	Fescue	31	96	109
Sunflower	-	-	-	Sunflower	25	49	104	Sunflower	28	84	104

NOTE: The tables and rate charts are guidelines only! Refer to the Operator's Manual for calculations.

D1356

8 - D1356



9 - 5SBD1005

TRD-PT53	Seed Calibration Chart - Front Hopper			
	Indicator Setting			
	1	2	4	8
Legume Seed	Lbs. Per Acre			
Oats	35	74	152	-
Winter Peas	90	-	-	-
Rye	72	83	289	-
Fescue	48	-	-	-

NOTE: The tables and rate charts are guidelines only! Refer to the Operator's Manual for calculations.

D1354

10 - D1354

Decals

TRD-PT53

11 – Model #



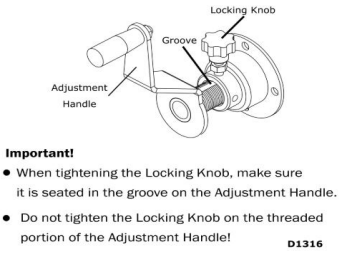
12 – D1016



13 - D1309



14 – D1013



15 - D1316



16 - D1340S



17 - D1357

Warranty

LIMITED WARRANTY

Belco Resources Equipment warrants to the original purchaser of any new piece of machinery from Belco Resources Equipment, purchased from an authorized Belco Resources Equipment 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 Belco Resources Equipment 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 Belco Resources Equipment dealer during regular working hours. Belco Resources Equipment 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 Belco Resources Equipment 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

Belco Resources Equipment 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 Belco Resources Equipment; 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.

REGISTRATION

The online Warranty Registration must be completed in order to qualify for coverage on this Limited Warranty. Visit br-equipment.com, click on "Warranty Registration" and completely fill out the form to register the new piece of equipment.

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