

SCHMEISER VINEYARD DRILL

2nd GENERATION - SERIES '10



T. G. SCHMEISER Co., Inc. OPERATION AND PARTS MANUAL

Version 4.1
September 2021

Read and understand the manual. This manual provides information and procedures to safely operate and maintain the Vineyard Drill .





CONTENTS

INTRODUCTION.....	4		
Engineered for Long Life.....	4		
Serial Number Information.....	4		
Replacement Parts.....	4		
Warranty Information.....	4		
Serial Number Location.....	4		
Factory Contact Information.....	4		
Dealer Contact Information.....	4		
SPECIFICATIONS.....	5		
SAFETY.....	6		
Safety Alert Symbols.....	6		
Safety Icons Nomenclature.....	7		
Personal Protection/Important Information.....	7		
Prohibited Actions.....	7		
Hazard Avoidance.....	7		
General Safety.....	8		
Assembly Safety.....	8		
Operation Safety.....	9		
Tractor Requirements.....	9		
Tractor Safety Devices.....	9		
ROPS and Seat Belt.....	9		
Connecting to Tractor.....	10		
Maintenance Safety.....	10		
Tire Safety.....	10		
Bolt Torque Requirements.....	11		
Tire and Lug Torque Specifications.....	11		
Welding Repairs.....	11		
Storage Safety.....	11		
Disposal of Equipment at End of Useful Life.....	11		
ASSEMBLY AND OPERATION.....	12		
Initial Setup Checklist.....	12		
Implement Break-In.....	12		
Connecting to Tractor.....	12		
Detaching from Tractor.....	12		
Vineyard Drill Adjustments and Calibration.....	13		
VD Seed Rate Calibraion.....	13		
Seeding Rates for Schmeiser VD.....	14		
Seed Cup Adjustment.....	15		
Planting Depth Adjustment.....	15		
Presswheel - Opener Linkage Depth Adjustment.....	15		
		Disc Opener Spring Pressure Setting.....	16
		Drive Wheel Adjustment.....	16
		Standard VD Sprocket and Chain Assemblies.....	17
		MAINTENANCE.....	18
		Service Items.....	18
		Drive Wheel Bearings.....	18
		Tire.....	18
		Ground Engaging Components.....	18
		Double Disc Openers.....	18
		No-Till Coulter Blades.....	18
		STORAGE.....	19
		Storage Preparation.....	19
		Placing in storage.....	19
		Removing From Storage.....	19
		PARTS SECTION.....	20
		Ordering Parts.....	20
		Parts Drawings.....	20
		Vineyard Drill Box Assembly.....	20
		Feeder Cup and Drive Component Ass'y.....	22
		Feeder Cup Assembly.....	24
		Main Frame, Wheel Frame, and Walkboard Assemblies.....	26
		Main Frame, Wheel Frame, and Walkboard Assemblies 8 Ft. Orchard Drill.....	28
		Jack Shaft, Sprocket, Idler, and Bearing Assemblies.....	30
		Straight Arm Double Opener Assembly.....	32
		2" X 13" Smooth Crown Press Wheel Ass'y.....	34
		No-Till VD Attachment Assembly.....	36
		No-Till VD Coulter Clamp Kit.....	37
		No-Till VD Coulter Assembly.....	38
		No-Till Sprocket and Chain Assemblies.....	40
		LIMITED WARRANTY STATEMENT.....	41
		NOTES.....	42



Introduction

Your **Schmeiser Vineyard Drill** is designed to give you many years of dependable service.

This manual has been prepared to instruct you in the safe and efficient operation of this machine. Read and study it thoroughly. Follow all instructions carefully.

Engineered for Long Life

The **Schmeiser Vineyard Drill** is designed to provide many years of dependable service when used and maintained properly.

Serial Number Information

Record the serial number, model number, and date purchased in the space provided in the Serial Number Location section. Be sure to have this information whenever contacting the dealer to order parts or attachments for this implement.

Replacement Parts

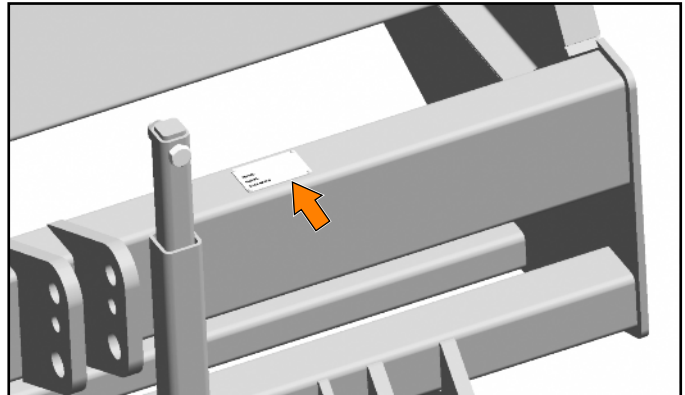
Should this implement require replacement parts, contact your local Schmeiser dealer. Always order genuine Schmeiser OEM replacement parts.

Warranty Information

It is important that the Warranty Card be completed and sent to Schmeiser. The warranty will not be valid until the information is on file at Schmeiser. If information not contained in this manual is needed, contact your Schmeiser dealer.

Thank you for buying a Schmeiser Vineyard Drill.

Serial Number Location



Serial No. _____

Model No. _____

Date Purchased. _____

Dealer Name. _____

Factory Contact Information

For questions not answered in this manual, if additional copies are required, or the manual is damaged, please contact your local dealer or:

T. G. Schmeiser Co., Inc.
P.O. Box 1392
Selma, CA 93662

Phone: (559) 268-8128
Fax: (559) 268-3279
E-mail: sales@tgschmeiser.com
Web: www.tgschmeiser.com

Additional copies of this manual can also be downloaded at www.tgschmeiser.com.

Dealer Contact Information

For replacement decals, questions, or to order parts, contact your dealer:

SPECIFICATIONS



MODEL NUMBER	DESCRIPTION	PLANTING WIDTH
VD-36PW	3 FT. VINEYARD DRILL STANDARD	29"
VD-48PW	4 FT. VINEYARD DRILL STANDARD	36"
VD-60PW	5 FT. VINEYARD DRILL STANDARD	51"
VD-72PW	6 FT. VINEYARD DRILL STANDARD	65"
VD-96PW	8 FT. ORCHARD DRILL STANDARD	92"



MODEL NUMBER	DESCRIPTION	PLANTING WIDTH
VDNT-36PW	3 FT. VINEYARD DRILL NO-TILL	29"
VDNT-48PW	4 FT. VINEYARD DRILL NO-TILL	36"
VDNT-60PW	5 FT VINEYARD DRILL NO-TILL	51"
VDNT-72PW	6 FT. VINEYARD DRILL NO-TILL	65"

SAFETY

Carefully read and follow all safety precautions before operation. There are obvious and hidden potential hazards involved in the operation of this implement. Serious injury or death may occur unless care is taken to ensure the safety of both the operator and any other persons in the area. Avoid potential danger by taking extra time for thought and a more careful approach to the use of this implement.

Most work related accidents are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. As you assemble, operate, or maintain the unit, you must be alert to potential hazards. You should also have the necessary training, skills, and tools to perform any assembly or maintenance procedures.

Improper operation and maintenance of this unit could result in a dangerous situation that could cause injury or death. T.G. Schmeiser cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this manual and on the product are, therefore, not all-inclusive. If a method of operation not specifically recommended by us is used, you must satisfy yourself that it is safe for you and for others. You should also ensure that the unit will not be damaged or be made unsafe by the methods that you choose.

The information, specifications, and illustrations in this manual are based on the information that was available at the time this material was written and are subject to change without notice.

SAFETY ALERT SYMBOLS



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

This manual contains DANGERS, SAFETY INSTRUCTIONS, CAUTIONS, IMPORTANT NOTICES, and NOTES which must be followed to prevent the possibility of improper service, damage to the equipment, personal injury, or death. The following key words call the readers attention to potential hazards.

Hazards are identified by the "Safety Alert Symbol" and followed by a signal word such as "DANGER", "WARNING", or "CAUTION".



Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations.



WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

Indicates that equipment or property damage can result if instructions are not followed.

SAFETY INSTRUCTIONS

Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.




Note: Contains additional information important to a procedure.

Safety Icons Nomenclature

This manual and the equipment has numerous safety icons.

These safety icons provide important operating instructions which alert you to potential personal injury hazards.

Personal Protection/Important Information

	READ THE MANUAL
	THINK SAFETY
	MAINTENANCE PROCEDURE
	WEIGHT RATING
	EYE PROTECTION
	HAND PROTECTION
	HEAD PROTECTION
	HEARING PROTECTION
	INSPECT EQUIPMENT
	OEM PARTS ONLY
	PLACE IN NEUTRAL
	PROTECTIVE SHOES
	REMOVE KEY
	DAMAGED HAZARD LABEL

	SLOW VEHICLE PLACARD
	SET PARKING BRAKE
	STOP ENGINE
	SUPPORT STAND USAGE
	USE PROPER TOOLS
	VISUALLY INSPECT
	USE ROPS
	USE CORRECT PARTS

Prohibited Actions

	DO NOT ALTER OR MODIFY
	DO NOT LEAVE OUT TOOLS
	DO NOT WELD
	NO ALCOHOL
	NO CHILDREN
	NO DRUGS
	NO PASSENGERS
	NO RIDERS
	NO BYSTANDERS

Hazard Avoidance

	BLOCK WHEELS
	CRUSHING HAZARD (body)
	CRUSHING HAZARD (foot)
	CRUSH HAZARD (rolling over)
	DEFECTIVE OR BROKEN PART
	FALLING HAZARD
	MAINTAIN SAFE DISTANCE
	OVERTURN HAZARD
	PINCH POINT HAZARD
	SAFETY ALERT SYMBOL
	SHARP OBJECT HAZARD
	ZERO PRESSURE
	COMPRESSED AIR HAZARD
	CRUSH HAZARD
	CRUSH HAZARD
	HIGH PRESSURE FLUID HAZARD
	HOT SURFACE HAZARD
	HEAVY OBJECT HAZARD

GENERAL SAFETY



WARNING



Read and Understand Manual

To prevent personal injury or even death, be sure you read and understand all of the instructions in this manual and other related OEM equipment manuals! 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 maintain this unit until they have read this manual and have developed a thorough understanding of the safety precautions and how it works.

This unit was designed for a specific application;

DO NOT modify or use this unit for any application other than that for which it was designed.

Units operated improperly or by untrained personnel can be dangerous!



Fall Hazard

Do not use this implement as a work platform.

Do not stand on top of the unit at any time. Do not ride on the tractor or the implement or allow others to ride.



Crush Hazard (Rolling Over)

To prevent serious injury or death, before disconnecting, leaving the operator's seat, servicing, adjusting, repairing, or performing other work on the implement, ALWAYS:

1. Stop the tractor or towing vehicle.
2. Shut off the engine and remove the ignition key.
3. Set the brakes.
4. Make sure wheel cylinder transport lock is attached.
5. Relieve hydraulic fluid pressure.



Injury Hazard

Do not permit children to play on or around the unit.



Impaired Operator Hazard

Do not attempt to operate this unit under the influence of drugs or alcohol. Review the safety instructions with all users annually.



To prevent injury, use a tractor equipped with a Roll Over Protective System (ROPS).



Pinch Point /Sharp Object Hazard

Do not place any body parts between moving and / or stationary parts. The weight of the implement will easily cause serious bodily injury.



Visually Inspect

Visually inspect the unit for any loose bolts, worn parts, or cracked welds, and make necessary repairs before using the unit.

Personal Protection Equipment

When working around or operating this unit, wear appropriate personal protective equipment. This list includes but is not limited to:



- A hard hat
- Protective shoes with slip resistant soles
- Protective goggles, glasses, or face shield
- Heavy gloves and protective clothing
- Ear muffs or plugs



Use Properly Rated Tools

To prevent serious injury:
Use sufficient tools, jacks, and hoists that have the capacity for the job.



NO PASSENGERS ALLOWED

Do not carry passengers anywhere on or in the tractor or implement.



Rolling Hazard

To prevent serious injury, lock the wheels when performing assembly, maintenance, repairs, or when preparing for storage.

ASSEMBLY SAFETY



WARNING



Crush Hazard

Use support blocks or safety stands rated to support the load when assembling the unit or performing maintenance. Never work under equipment supported by hydraulics. Hydraulics can drop equipment instantly if controls are actuated even when power to the hydraulics is shut off.

Highway and Transport Operations

SAFETY INSTRUCTIONS



When transporting the implement on public roads, use approved accessory lighting, flags, or other necessary warning devices to protect operators of other vehicles on the highway during daytime and nighttime transport. Various safety lights and devices are available from your dealer.



When towing the unit on public roads, use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem.

Make sure the SMV placard is clearly visible to vehicles approaching from the rear.

Some localities prohibit the use of flashing amber lights. Local laws should be checked for all highway lighting and marking requirements.

Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc. Plan your route to avoid heavy traffic.

Be observant of bridge load restrictions. Do not cross bridges rated lower than the gross weight at which you are operating.



Loss of Control

A minimum of 20% of the combined tractor and equipment weight should be on the front wheels to ensure adequate stability during transport and operation. To avoid serious injury or death from a loss of control accident, maintain 20% weight on the front wheels. Add front end weight if necessary.

OPERATION SAFETY



WARNING



Crush Hazard (Rolling Over)

Do not clean, lubricate, or make adjustments while the unit is moving.



Never allow inexperienced or untrained personnel to operate the implement or tractor without supervision.



Enter And Exit Tractor

To avoid being run over, do not enter or exit tractor when it is moving. Avoid serious injury or death, from contact with rotating tires, by entering or exiting tractor only when it is completely stopped.



Safe Distance

Keep all bystanders, especially children, away from the tractor and implement during operation.

SAFETY INSTRUCTIONS



Periodically clear the unit of brush, twigs, or other materials to prevent buildup of dry, combustible materials.



Visually check all fasteners for tightness or damage before and after operation. Repair immediately if required.

Tractor Requirements



WARNING



Tractor Owner/Operator Manual

Always refer to the tractor Operator's Manual to ensure compatibility and maximum safety.

Be familiar with the location, settings, and function of the tractor controls before using this equipment.

SAFETY INSTRUCTIONS

Do not use a tractor of more than the recommended HP to prevent damaging implement components.

Tractor Safety Devices

If transporting or operating the tractor and implement near a public roadway, the tractor must be equipped with proper warning lighting and a Slow Moving Vehicle (SMV) emblem, which are clearly visible from the rear of the unit. Lights and a SMV emblem must be attached directly to the implement if the visibility of the tractor warning signals is obscured.

Never operate the tractor PTO with the PTO master shield missing or in the raised position.

ROPS and Seat Belt

The tractor must be equipped with a Roll Over Protective Structure (ROPS) (tractor cab or roll-bar) and seat belt to protect the operator from falling off the tractor, especially during a roll-over where the driver could be crushed and killed.

Only operate the tractor with the ROPS in the raised position and seat belt fastened.

WARNING



Rollover Hazard

To avoid serious injury or death from falling off tractor, equipment runover, rollover, or crushing:

- 1) Use ROPS equipped tractor.
- 2) Keep ROPS locked in the UP position.
- 3) Only operate the equipment when seated in the tractor seat.
- 4) Always fasten seat belt when operating the tractor and Implement.

Connecting to Tractor

WARNING



Crush Hazard

Use care when attaching the unit to the tractor. Never place any part of your body under the tongue or hitch assembly. Do not allow anyone to stand between moving tractor and implement during hook-up operations.

MAINTENANCE SAFETY

WARNING



Use Properly Rated Tools

Use sufficient tools, jacks, and hoists that have the capacity for the job.



Crush Hazard

Use support blocks or safety stands rated to support the load when performing maintenance.

SAFETY INSTRUCTIONS

Follow all operating, maintenance, and safety instructions found in this manual.



Understand the service procedure before performing the work. Keep area clean and dry.



Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts.



Do not modify unit or safety devices. Do not weld on the unit. Unauthorized modifications may impair its function and safety.

If equipment has been altered in any way from the original design, the manufacturer does not accept any liability for injury or warranty.

SAFETY INSTRUCTIONS



Do not leave tools lying on the unit.



Never replace hex bolts with less than Grade 5 bolts unless otherwise specified. In locations where Grade 8 bolts are used, Grade 8 replacements are required.



Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore the unit to original specifications.

The manufacturer will not accept responsibility for damages as a result of the use of unapproved parts.

Tires Safety

WARNING



Explosive Separation Hazard

Do not attempt to mount a tire onto a wheel unless you have the proper equipment and experience to do the job. Failure to follow proper procedures when mounting a tire on a wheel can produce an explosive separation, which may result in serious injury or death.



Explosive Hazard

Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure, resulting in a tire explosion. Welding can structurally weaken or deform the wheel.



Flying Objects Hazard

Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires.

When inflating tires, use a clip-on chuck and extension hose. Always stand to the side of the tire when inflating, and NOT in front of or over the tire assembly. Make sure the tires are inflated evenly.

SAFETY INSTRUCTIONS



Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure.



Check tires for low pressure, cuts, bubbles, damaged rims, or missing lug bolts or nuts.



Keep wheel lug nuts or bolts tightened.



Always install replacement tires and wheels with appropriate capacity to meet or exceed the weight of the unit.

Bolt Torque Requirements

It is extremely important to apply and maintain proper torque on all bolts. Use a torque wrench to assure the proper amount of torque is being applied to the fastener.

Start all bolts or nuts by hand to prevent cross threading.

Torque figures indicated in the chart are used for non-greased or non-oiled threads unless otherwise specified. Therefore, do not grease or oil bolts or cap screws unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

The chart gives correct torque values for various bolts and cap screws. Tighten all bolts to the torques specified in the chart unless otherwise noted. Check tightness of bolts periodically, using the bolt torque chart as a guide. Always replace hardware with the same Grade bolt.



WARNING



Equipment Failure

The torque value for bolts and cap screws are identified by their head markings. Replacing higher "Grade" bolts (Grade 5) with lower Grade bolts will lead to equipment failure and can result in injury or death. Always use replacement bolts with the same Grade markings as the removed bolt.

Bolt Diameter	Bolt Torque Specifications			
	Grade 5		Grade 8	
	N·m	ft.lbs.	N·m	ft.lbs.
1/4"	12	9	17	12
5/16"	25	19	36	27
3/8"	45	33	63	45
7/16"	72	53	100	75
1/2"	110	80	155	115
9/16"	155	115	220	165
5/8"	215	158	305	220
3/4"	390	290	540	398
7/8"	570	420	880	650
1"	850	630	1320	970

Welding Repairs



Before performing any type of welding repair to the implement, contact T.G. Schmeiser Co., Inc. for approval. Repair welding must be done with care and with procedures that may be beyond the capabilities of the ordinary welder.



WARNING



Personal Injury Hazard

Repairs or modifications to the implement can result in serious injury or death should these repairs fail.

NOTICE

Anyone performing a welding repair should be certified in accordance to the American Welding Society (AWS) standards.

STORAGE SAFETY



WARNING



Hazard And Information Signs

Replace any missing or hard-to-read safety signs. Safety sign placement and part numbers can be found in the Nomenclature section of this manual.



Damaged Parts Hazard

Do not use this unit if it is in need of repair. If you believe the unit has a defect which could cause damage, injury, or death, you should immediately stop using the unit.

SAFETY INSTRUCTIONS



Store the implement in an area away from human activity.



Do not permit children to play on or around the stored unit at any time.



Block the wheels to prevent the implement from rolling.



When using compressed air to clean implement, wear safety glasses.

DISPOSAL OF EQUIPMENT AT END OF USEFUL LIFE

The T. G. Schmeiser implement has been designed for the specific purpose of conditioning the ground in agricultural applications. When this unit is no longer capable of doing its designed purpose, it should be dismantled and scrapped. Do not use any materials or components from this unit for any other purpose.

ASSEMBLY AND OPERATION



WARNING






Understand Safety Procedures!

Read and understand all safety procedures described in this manual before performing any work on or around the implement.

Initial Setup Checklist

Efficient and safe operation of the implement requires that every user read and understand the operational instructions and all related safety instructions outlined in this manual.

This checklist is provided for the user/owner. It is important for both, personal safety and to maintain the mechanical condition of the implement, that this checklist is followed.

Initial Setup Checklist (prior to using for the first time)		
	Location	Task
		Make sure the Implement is properly attached to the tractor. Refer to "Connecting to Tractor" on page 12.
		Make sure all hardware is properly installed and tightened. Refer to "Maintenance" on page 18.
		Check the condition of the double disc openers and no-till coulters for wear. Replace if necessary.

2. After 10 hours of operation:

- Go to the normal servicing and maintenance schedule, as defined in the Maintenance Section.

Connecting to Tractor

Make sure the unit is resting on the ground with safety stand securely installed before attaching the unit to the tractor.

- Remove the lynch pins and lift pins.
- Board the tractor and start the engine. Position the tractor with the 3-point lift arms positioned at the same height and aligned with the Vineyard Drill hitch pin holes.

Note: Set the 3-point lift control to "Position Control" so that the lift arms maintain a constant height when attaching the Vineyard Drill. See the tractor Operator's Manual for correct settings when attaching 3-point equipment.

- Turn off the tractor engine and dismount.
- Insert the hitch pin through the lift arm and lug holes and install the lynch pin.
- Walk around to the opposite side and repeat the procedure for the remaining lift arm and hitch pin.
- Extend or retract the 3-point top link to align its end hole with the hole of the Vineyard Drill top link. Insert the top link hitch pin and insert the lynch pin into the hitch pin.
- Return to the tractor and slowly raise the 3-point lift arms fully up and down to make sure the Vineyard Drill does not make contact with the tractor tire, draw bar, or any other equipment on the tractor.

NOTE: Move or remove the draw bar if it interferes with the implement.

Implement Break-In

Although there are no operational restrictions on the Implement when used for the first time, it is recommended that the following mechanical items be checked:

- After 1/2 hour of operation:
 - Check all fasteners and tighten if necessary.
 - Make sure that all ground engaging components are in good condition.



Detaching From Tractor

1. Park the tractor, place the transmission in park or neutral, and apply the parking brake. Shut down the engine, relieve all hydraulic pressure, and remove the key before exiting the tractor.
2. Lower the implement to the ground and make sure it makes full contact with the ground.
3. Extend or retract the tractor 3-point hitch top link to remove tension on the top link hitch pin. When the pin is loose and easy to rotate, remove the pin from the Vineyard Drill.
5. Disconnect the lift arms and drive the tractor away from the Vineyard Drill.

VINEYARD DRILL ADJUSTMENTS AND CALIBRATIONS

Vineyard Drill Seed Rate Calibration

NOTE: Seeding rates will vary greatly with variations in sizes of seeds. Although the seeding rates listed in this manual are based on an average seed size, we recommend that you test and adjust your Vineyard Drill using the procedures listed below.

1. There are many factors, which will affect seeding rates: Seed treatment, weight of seed, size of seed, surface condition of seed, tire configuration and pressure, and tire slippage. Minor adjustments will probably be needed to compensate for the above factors.
2. The rates listed in the seed charts are based in the gauge wheel drive having 20.5 x 8.0 x 10 tire with the recommended tire inflation.
3. The large difference in seed size and treatment can cause a wide variation in actual seeding rates. The rate charts are based on average size seed. This may differ from the seed you are using. Use the seed rate charts as a guide only. Set the pounds per planted acre desired at the indicator number and complete the following procedure to calibrate the rate for specific seed.
 - Place several pounds of seed over three feeder cups at the outboard end of the Vineyard Drill.
 - Pull the seed tubes out of these three drops.

- Raise the drive wheel off the ground.
- Rotate the tire to see that the drive system is working properly and that the feed cups are free from foreign matter.
- Place a container under the three seed tubes to gather seed as it is metered.
- Calibrate as follows:

On 3 ft. wide models rotate the tire 54 times to obtain 1,000 square feet.

On 4 ft. wide models rotate the tire 48 times to obtain 1,000 square feet.

On 5 ft. wide models rotate the tire 38 times to obtain 1,000 square feet.

On 6 ft. models rotate the tire 32 times to obtain 1,000 square feet.

Be sure to check the three feeder cups to make sure each cup has plenty of seed coming into it.
- Weigh the seed, which has been metered. Divide by three. This will give you the ounces/pounds metered by each feeder cup. Multiply by the number of cups on your Vineyard Drill to arrive at the total pounds per 1,000 square feet. Now multiply by 43.56 to arrive at the total pounds per planted acre. If this figure is different than desired, set your feed cup adjustment lever accordingly.
- 4. You may want to repeat the calibration procedure if the results of your calibration vary greatly from the suggested settings contained in this manual.

REMEMBER:

Tire size and field conditions will also affect seeding rates. Be certain that your Vineyard Drill tires are 20.5 x 8.0 x 10 and that they have the proper inflation. When seeding, check the amount of seed you are using by noting area seeded, amount of seed added to box, and level of seed in seeder box. If you suspect that you are seeding more or less seed than desired, and you have accurately calibrated the Vineyard Drill to your seed, you may need to adjust the seeding rate slightly to compensate for your field conditions.

Seeding Rates for Schmeiser Vineyard Drill

Rate in Pounds Per Planted Acre

SEED	SEED RATE INDICATOR SETTING									
	10	20	30	40	50	60	70	80	90	100
	Pounds Per Acre									
Barley	12	23	42	56	69	91	106	118	132	147
Bio Max Cover 216	14	28	56	75	93	128	149	172	194	216
Clover - Perennial 190	17	35	57	77	96	119	139	152	171	190
Cover Crop Mix 227	16	31	64	86	106	139	162	182	205	227
Cover Crop Mix 209	22	44	69	92	115	145	169	182	195	209
Cover Crop Low Profile *	18	37	64	85	106	127	147	171	193	213
Cover Mate Mix *	7	14	21	27	34	39	46	52	57	64
Crimson/Berseem	18	36	53	72	89	114	132	150	168	186
Insectary Mix *	16	33	55	74	91	107	126	152	159	177
Pearl Millet	20	39	65	86	107	148	173	218	246	273
Rye Grass - 95 106	8	14	29	39	48	63	74	85	95	106
Sorghum Sudan 222	14	28	54	73	90	125	152	178	200	222
Sudan Bravo Brand	15	30	52	69	86	109	128	145	164	181
Vetch - Common	18	38	73	96	120	145	169	182	205	228
Winter Forage #1 *	10	21	39	52	65	83	96	116	130	145

⚠ CAUTION: These rates are approximate only. Please verify output prior to field use.

* Germain's Seed

NOTE: THIS CHART APPLIES TO VINEYARD DRILLS MANUFACTURED AFTER JANUARY 2001

NOTE: ENSURE THAT SQUARE SEED CUP SHAFT IS WELL LUBRICATED WHERE SHAFT GOES THROUGH CUP DRIVE BEARING (SEE **Page 25**)

Seed Cup Adjustment

IMPORTANT: Be sure to adjust seed cup lever position prior to loading seed in hopper.



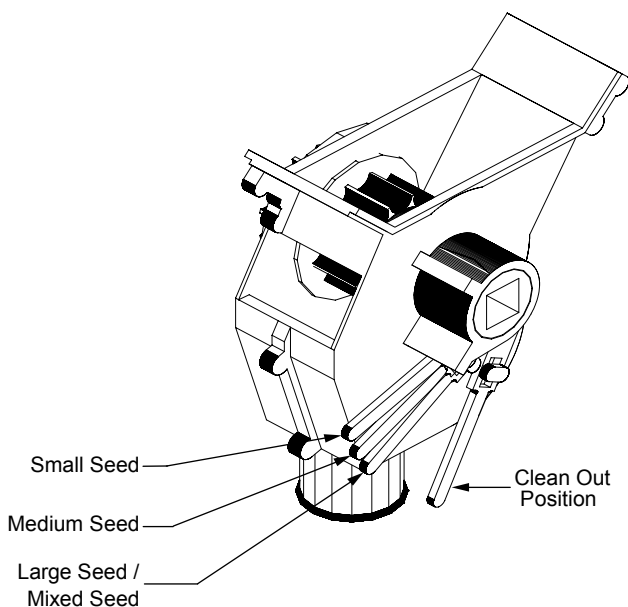
WARNING

Closing seed lever with seed in cup may damage or break lever.

It is important to select the correct lever position.

The incorrect position may cause:

- a) seed damage and/or
- b) cup damage.

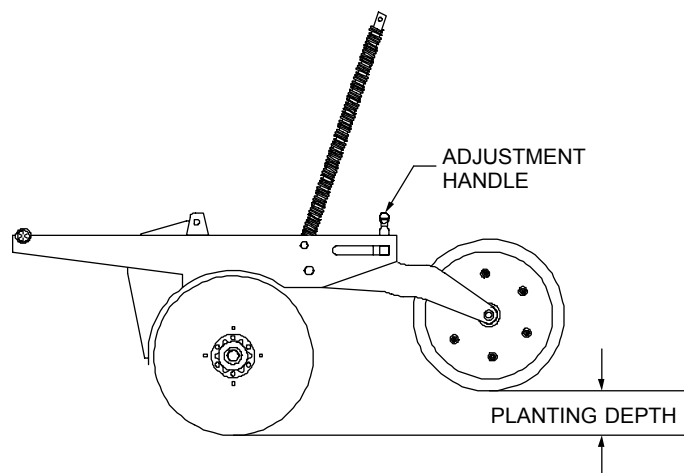


Planting Depth Adjustment

Your Schmeiser Vineyard Drill is designed to run level to the ground when in planting position. Minor adjustments may be required to achieve the desired seed placement. Before making any adjustments, ensure that unit is level with ground, and feed cups, seed tubes and drives are working properly and free from foreign material.

Presswheel - Opener Linkage Depth Adjustment

The depth of each opener is controlled by the height of the press wheel. To change the seeding depth of the opener, pull and move the handle located directly above each press wheel until the seeding depth is correct. A self-locking spring clip holds the knob at your setting to maintain the proper depth. For shallower seeding, slide adjustment handles toward drill. For deeper seeding, slide adjustment handles away from drill.

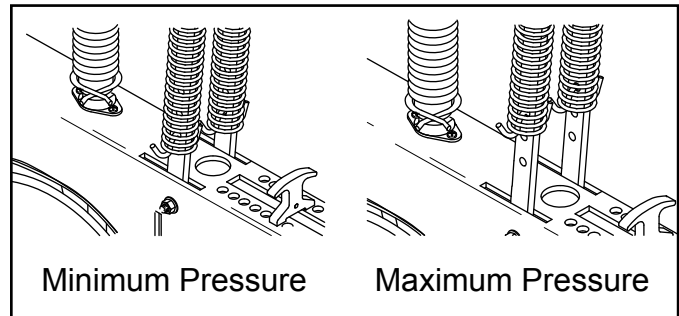


Check the top of the spring rods to see that they are extended approximately 2" above their spring rod casting. This is a general dimension and may vary with the spring rod down-pressure that you require for different soil conditions and planting depths. If you require more downward float on your openers, you may want to increase this dimension. Keep in mind that when this dimension is increased your upward motion is decreased, limiting the vertical travel of the openers for running over rocks and other foreign objects.

IMPORTANT: If your opener's vertical travel is decreased, considerable damage may occur to your openers.

Disc Opener Spring Pressure Setting

Each opener spring can be adjusted for down pressure. This is useful when penetrating hard soil and for planting in tractor tire tracks. The springs allow the openers to follow uneven profile terrain. To adjust the pressure, remove the "W" clip at the bottom of the spring and place it in a higher hole in the spring rod for more pressure, and in a lower hole for less pressure (see below). If too much penetration is achieved at the lowest pressure setting, the "W" clips may be completely removed.

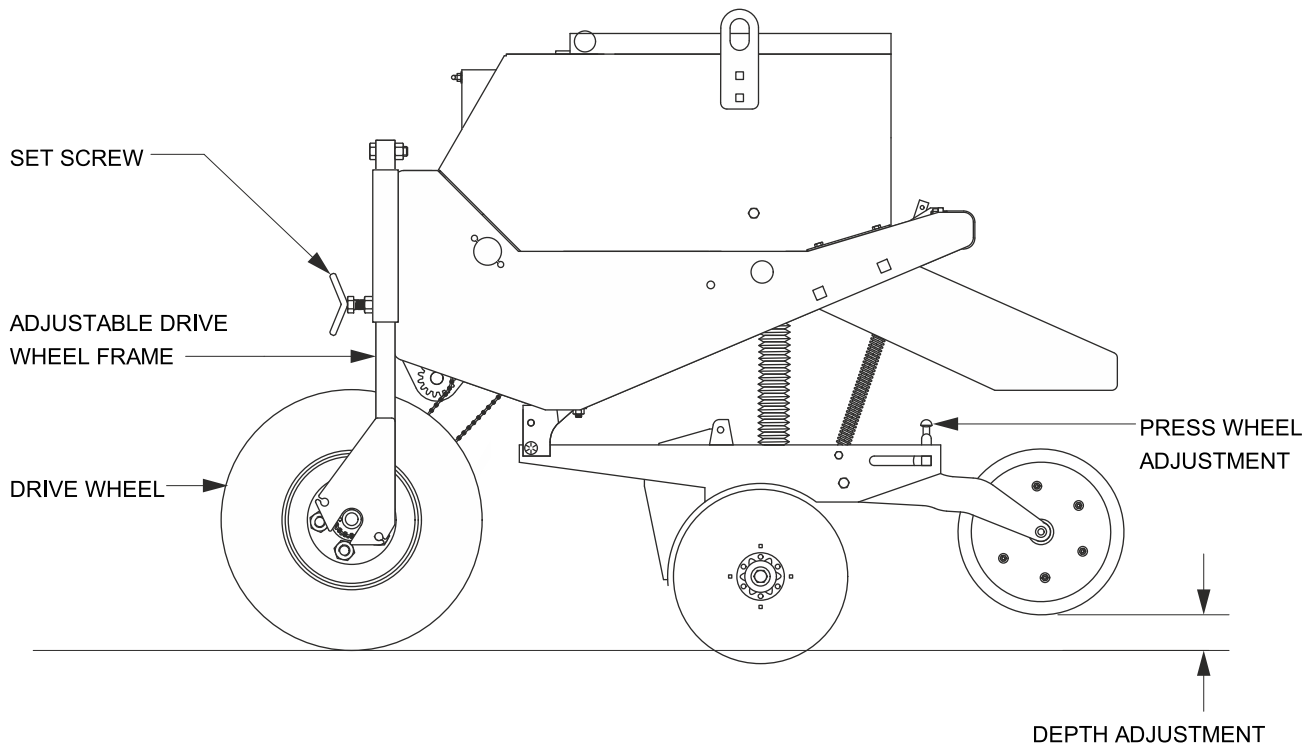


After planting depth is adjusted and opener spring pressure is set, lower drive wheel, insuring good ground contact for proper seed flow.

Drive Wheel Adjustment

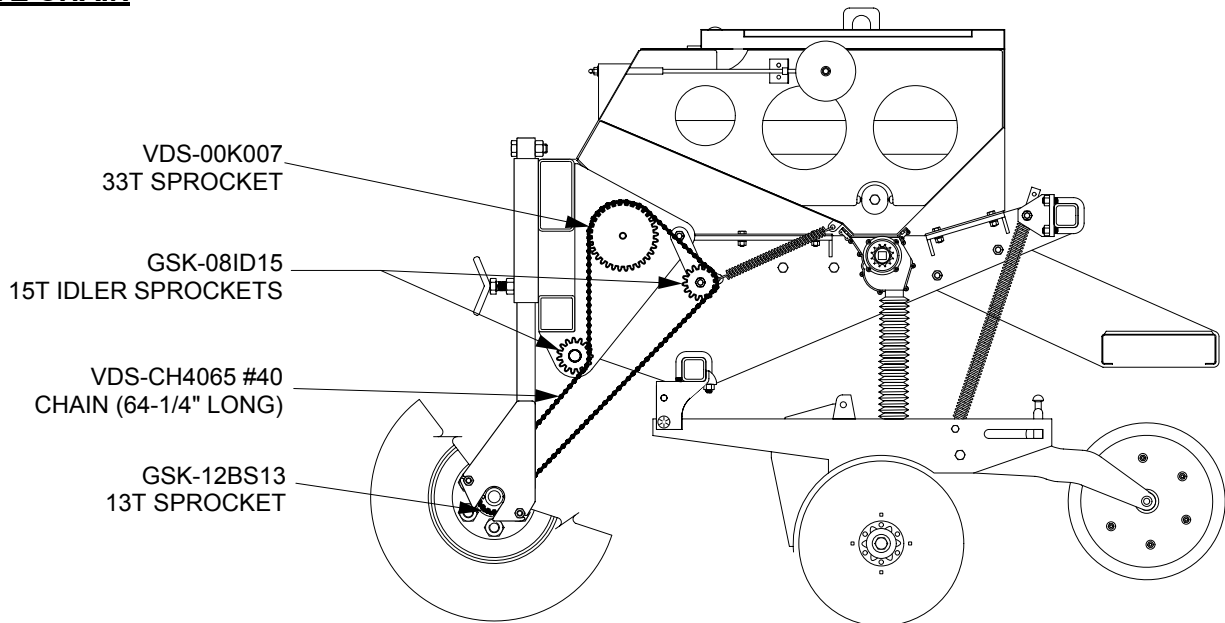
In order to adjust the height of your drive wheel, loosen the two set screws located on the front of the main frame. Move the drive wheel either up or down to desired height. Be certain to tighten both set screws after adjusting.

NOTE: Adjust the drive wheel height only after ensuring that unit is level and the planting depth has been calibrated.

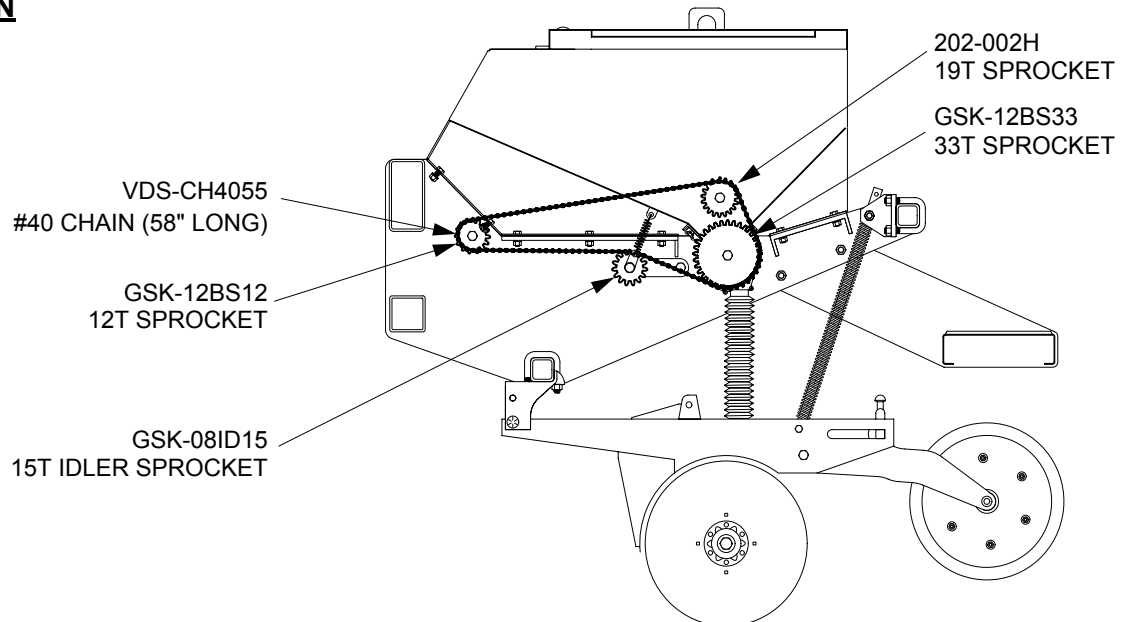


Standard Vineyard Drill Sprocket and Chain Assemblies

DRIVE CHAIN



END CHAIN



MAINTENANCE



WARNING



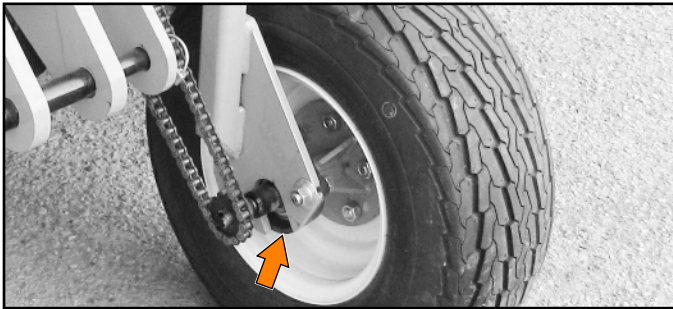
Understand Safety Procedures!

Read and understand all safety procedures described in this manual before performing any work on or around the implement.

Service Items

Drive Tire Bearings

Visually inspect and replace when overly worn or broken.



Tires

Check tire pressure and set to tire manufacturer's recommended specifications. Inspect the tire for wear and/or damage. Make sure the wheel lugs are tightened to the proper torque.



Ground Engaging Components

Double Disc Openers

Ground engaging components are subject to abrasion and wear. Excessively worn components will require replacement.

Replace opener components when worn out.



No-Till Drill Coulter Blades

Visually inspect and replace if necessary.



STORAGE

Storage Preparation

After Vineyard Drill field work is completed for a season, perform the following maintenance procedures before storing the implement.

1. Check all bolted connections. Ensure that the fasteners are tight, and all retaining pins are secured in place with appropriate retaining clips.
2. Check the tire pressure and set to the tire manufacturer's recommended specification. Inspect the tire for wear and/or damage. Make sure the wheel lugs are properly tightened. Refer to "Tire and Lug Torque Specifications" on page 11.
3. Inspect the frame for structure fractures and wear or damage.
4. Check all the bearings for signs of seal damage or excessive wear.
5. Check double disc openers and no-till coulter blades for wear and damage. If any components are excessively worn or damaged, they must be replaced.
6. Make sure all the warning decals are in place and legible. Replace any worn decals as needed.
7. Remove debris and clean the entire implement with compressed air or low pressure water.

NOTICE

To help prevent damage, avoid spraying air, water, steam, or cleaning solvents directly at the bearings and seals.

8. Apply a thin layer of grease or rust preventative to all chains and shafts.
9. To help prevent corrosion, remove rust and apply a coat of paint to frame surfaces where paint has been worn off or damaged.

Placing in storage

1. Raise the implement, place the side wings in the transport mode, and install the transport lock.
2. Move the Vineyard Drill to a storage area with a firm and level base to prevent it from tipping or sinking into the ground. For best results, always store the Vineyard Drill in a dry, protected location. Leaving this implement unprotected will shorten the service life.
3. Unhitch the implement from the tractor. Refer to "Detaching From Tractor" on page 13.

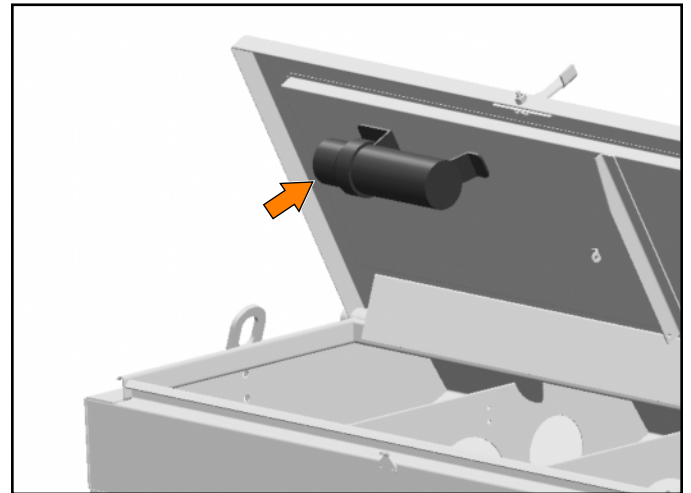
4. Do not leave the tractor attached to the implement while in storage.

Removing From Storage

Each season, perform the following inspection and maintenance before using the unit.

1. Read the operator's manual to review all safety, operational, and maintenance procedures.

Note: *Store the operator's manual in the document storage canister located under the lid inside seed box.*



2. Perform any recommended maintenance that was not completed when the implement was put into storage.
3. Visually inspect the implement for wear or damage.
4. Check the tire pressure and set to the tire manufacturer's recommended specification. Inspect the tires for wear and/or damage.
6. Make sure all the warning decals are in place and legible. Replace any damaged or missing decals.
7. Hitch the implement to a tractor. Refer to "Connecting to Tractor" on page 12.



Ordering Parts

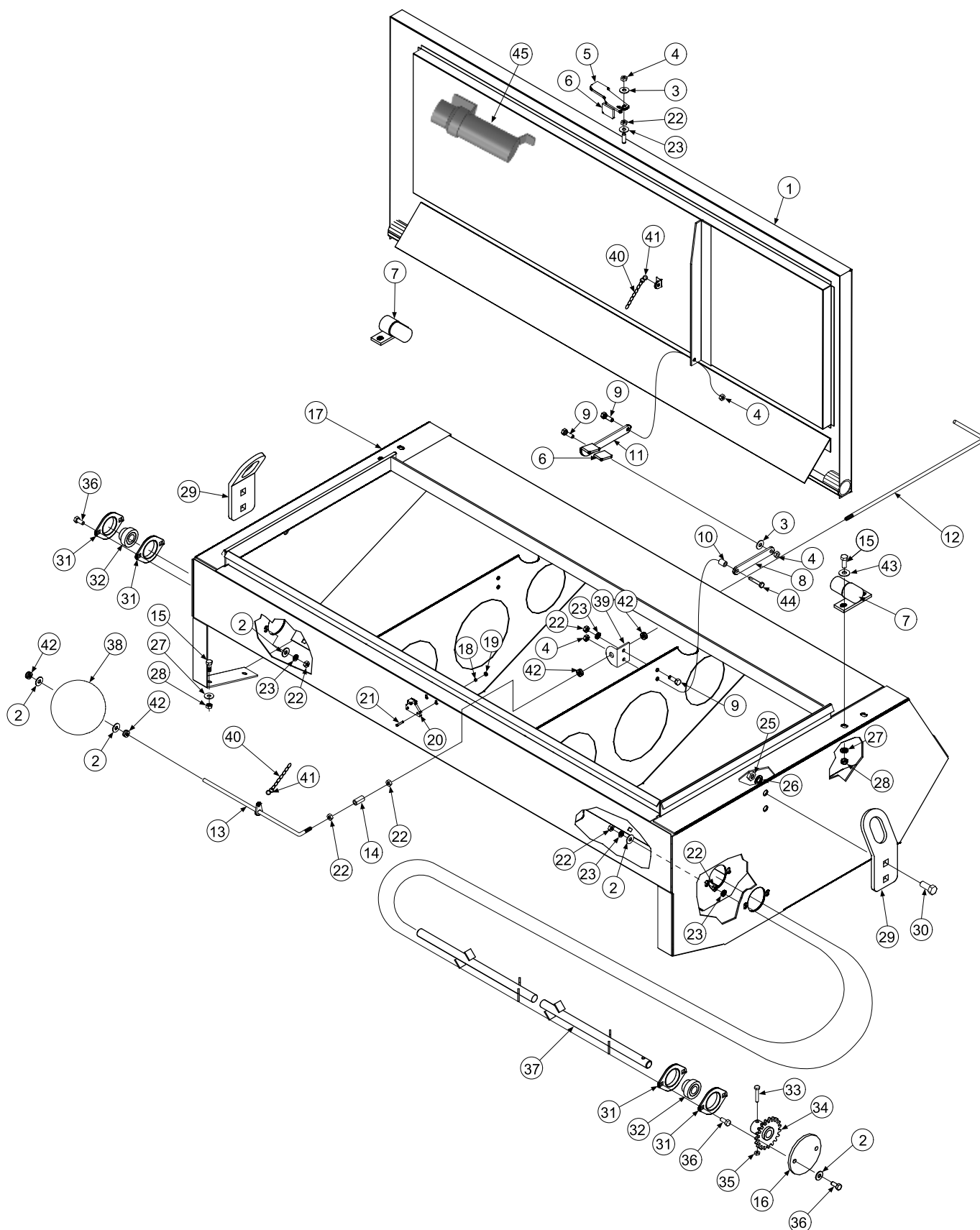
We manufacture a quality product that requires very little maintenance or repair. However, should a part break or become damaged, our knowledgeable staff can make sure you receive the part(s) to put your unit back into operation.

Parts Drawings

Vineyard Drill Box Assembly

Ref. No.	Part No.	Description
1	VDS-48C000	4' Vineyard Drill Lid Weldment
	VDS-60C000	5' Vineyard Drill Lid Weldment
	VDS-72C000	6' Vineyard Drill Lid Weldment
	VDS-96C000	8' Orchard Drill Lid Weldment
2	FWASHER-05	Washer, Flat 5/16"
3	LWASHER-05W	Washer, Wave Spring 5/16"
4	NYNUT-05NC	Nut, Hex Nylock 5/16" - 18
5	VDS-00C007	Lid Latch-Handle
6	817-033D	Lid Latch Grip
7	VDS-00M000	Lid Hinge Weldment
8	VDS-00C008	Lid Latch - Lower Arm
9	CSNC505016	Bolt, Hex Head 5/16" - 18 x 1" Gr.5
10	VDS-00C012	Lid Latch - Lower Latch Bushing
11	VDS-00C009	Lid Latch - Upper Arm
13	VDS-00L000	Float Indicator Assembly
14	VDS-00L004	Float Indicator - Coupling
15	CSNC506016	Bolt, Hex Head 3/8" - 16 x 1" Gr.5
16	VDS-00B010	Sprocket Cover Plate
17	VDS-48B000	4' Seedbox
	VDS-60B000	5' Seedbox
	VDS-72B000	6' Seedbox
	VDS-96B000	8' Seedbox
18	LWASHER#10S	Washer, Internal Star #10 Plated
19	HXNUT#10NC	Nut, Hex #10-24 Plated
20	VDS-00C010	Rear Lid Latch Hook
21	CSNC#10012R	Screw, Round Head #10-24 x 3/4"
22	HXNUT-05NC	Nut, Hex 5/16" - 18 Gr. 2 Plated

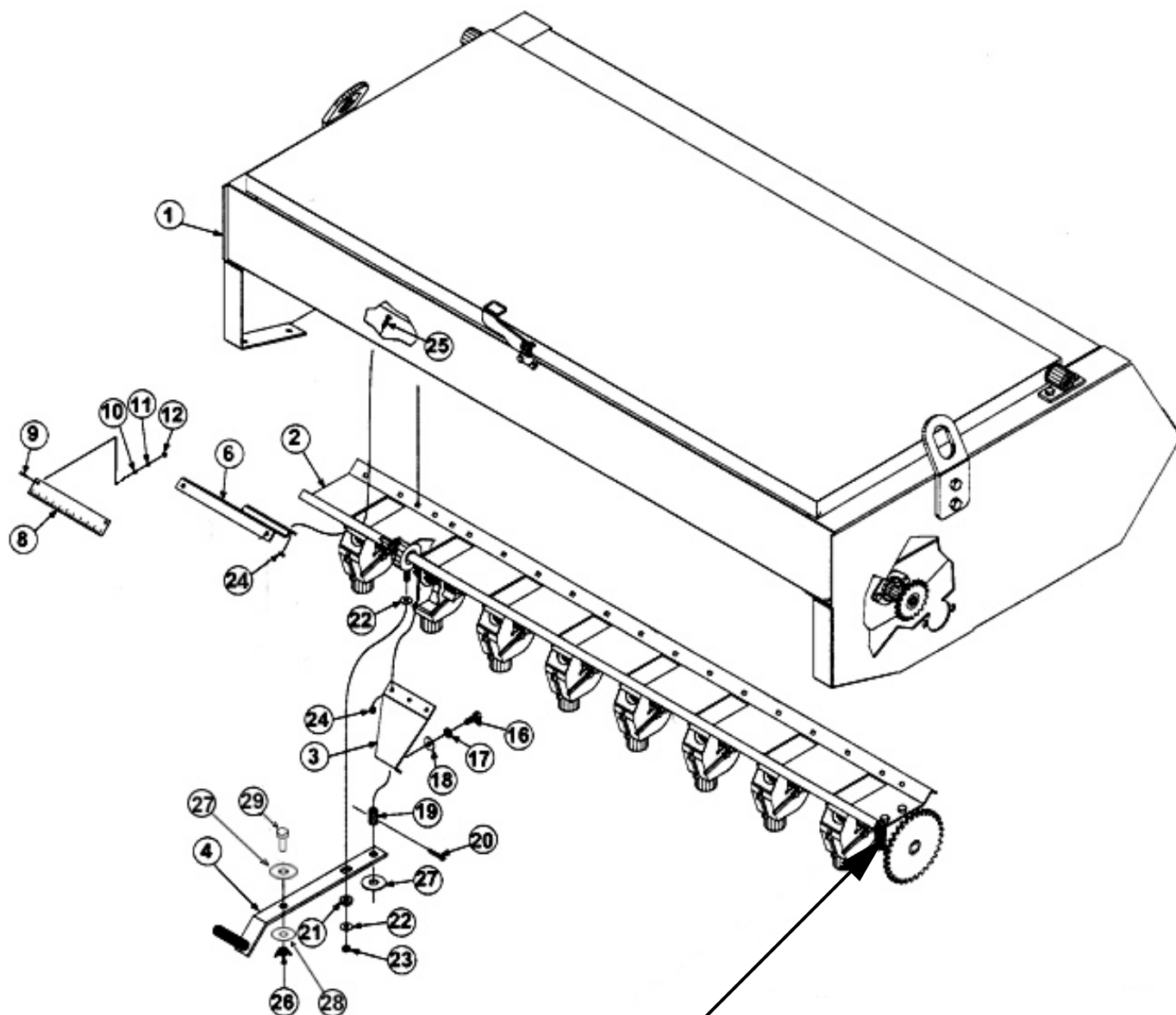
Ref. No.	Part No.	Description
23	LWASHER-05	Washer, Lock Spring 5/16" Plated
26	LWASHER-08	Washer, Lock Spring 1/2" Plated
27	LWASHER-06	Washer, Lock Spring 3/8" Plated
28	HXNUT-06NC	Nut, Hex 3/8" - 16" Gr. 5
29	VDS-00B009	Vineyard Drill Lift Hooks
30	CBNC508020	Carriage Bolt, 1/2" x 1-1/4" Gr.5
31	GBR-12FP03	3/4" Flangette Plates
32	GBR-12BI02	Bearing 3/4" Bore with Collar
33	CSNC504024	Bolt, Hex Head 1/4" - 20 x 1-1/2" Gr.5
34	202-002H	Sprocket, Speed Change 19T
35	NYNUT-04NC	Nylon Hex Lock Nut, 1/4" - 20 Plated
36	CBNC505012	Bolt, Carriage 5/16" x 3/4" Gr.5
37	VDS-48G200	4' Agitator Weldment
	VDS-60G200	5' Agitator Weldment
	VDS-72G200	6' Agitator Weldment
	VDS-96G200	8' Agitator Weldment
38	BALL-64OD	Float Indicator - Float
39	VDS-00L100	Float Indicator - Shaft Bracket
40	GMB-CHFLIN	Float Indicator - Chain 10 3/4" Long
41	SHOOK-16	S - Hook, 1"
42	LCOLLAR-05	Lock Collar, 5/16"
43	FWASHER-06	3/8" Flat Washer
44	CSNC505024	Bolt, Hex Head 5/16" x 1 1/2"
45	OMC1	Owner Manual Canister





Feeder Cup and Drive Components Assembly

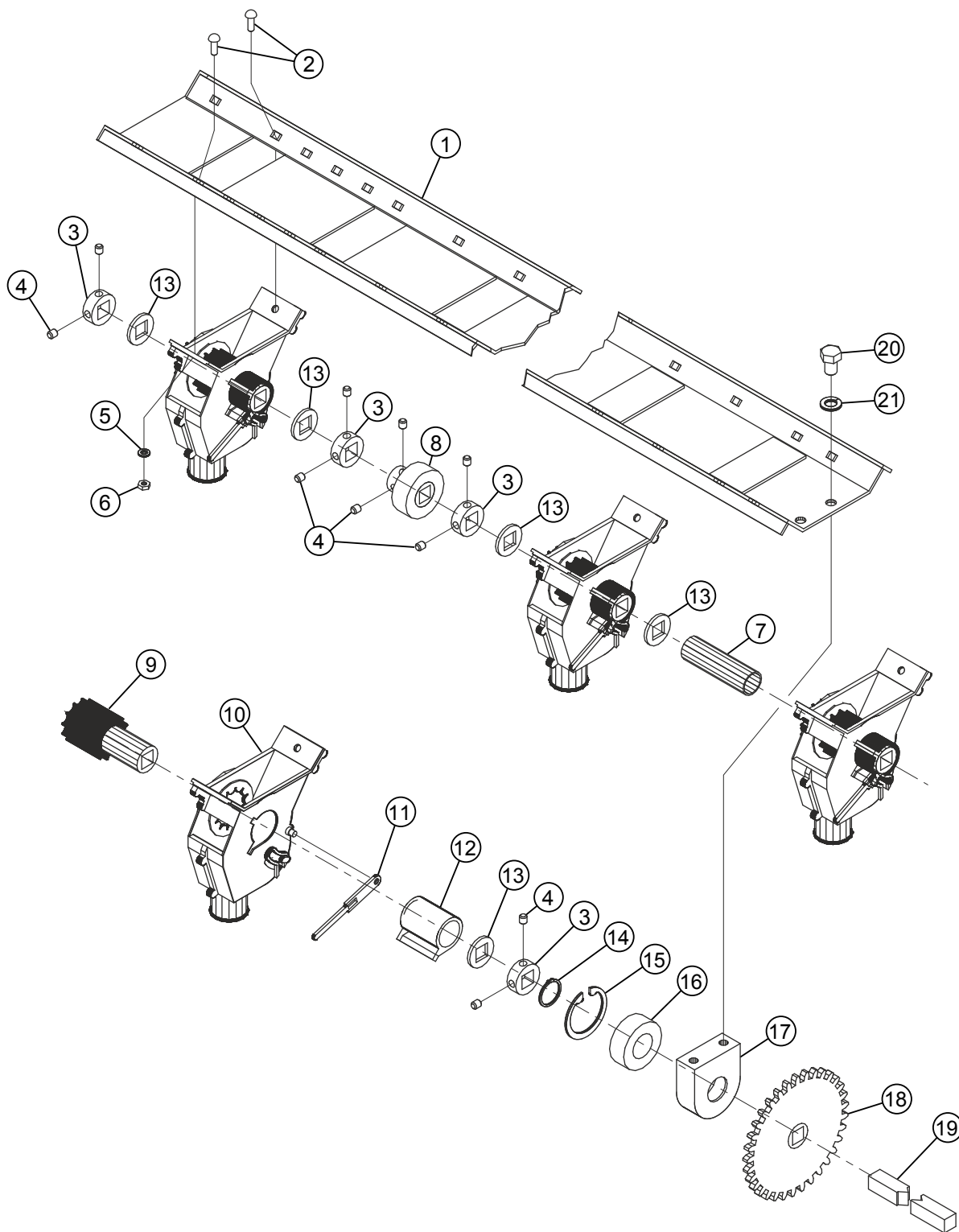
Ref. No.	New Part No.	Old Part No.	Description
1	VDS-48B000	VD-B	4' Box Weldment
	VDS-60B000		5' Box Weldment
	VDS-72B000		6' Box Weldment
	VDS-96B000		8' Box Weldment
2	VDS-48K001	VD-K-01	4' Cup Tray
	VDS-60K001		5' Cup Tray
	VDS-72K001		6' Cup Tray
	VDS-96K001		8' Cup Tray
3	VDS-00K003	VD-K-03	Pivot Handle Adjustment Mount
4	VDS-00K100	VD-K-02	Seed Rate Adjustment Handle
5	109-025H	109-025H	Adjustment Lock Plate
6	VDS-00K004	VD-K-04	Gauge Mounting Plate
8	VDS-SRINDP	VD-K-07	Seed Rate Indicator Plate
9	CSNC#10008R		Screw, Round Head #10 x 1/2"
11	LWASHER#10S		Washer, Internal Star #10
12	HXNUT#10NC		Nut, Hex #10
16	CSNC506016		Bolt, Hex Head 3/8" - 16 x 3/4" Long
17	LWASHER-06		Washer, Lock 3/8" Plated
18	FWASHER-06		Washer, Flat 3/8" Plated
19	109-069D	109-069D	Adjustment Handle Pivot Bushing
20	GPN-03X32C		Pin, Cotter 3/16" x 1-1/4" Long Plated
21	308-015D	308-015D	Seed Adjustment Bearing Ring Pivot
22	FWASHER-05		Washer, Flat 5/16" USS Plated
23	NYNUT-05NC		Nut, Nylon Self Locking Hex 5/16" - 18
24	HXNUT-04NC		Nut, Hex 1/4" - 20
25	CBNC504012		Bolt, Hex Carriage 1/4" - 20 x 3/4" Long
26	WGNUT-08NC		Nut, Wing 1/2" - 13 Plated
27	FWASHER-10		Washer, Flat 5/8" Plated
28	FWASHER-08		Washer, Flat 1/2"
29	CBNC508020		Bolt, Hex Carriage 1/2" x 1-1/4"



**INSURE THAT SQUARE SEED CUP
SHAFT IS LUBRICATED WHERE SHAFT
GOES THROUGH CUP DRIVE BEARING.**

Feeder Cup Assembly

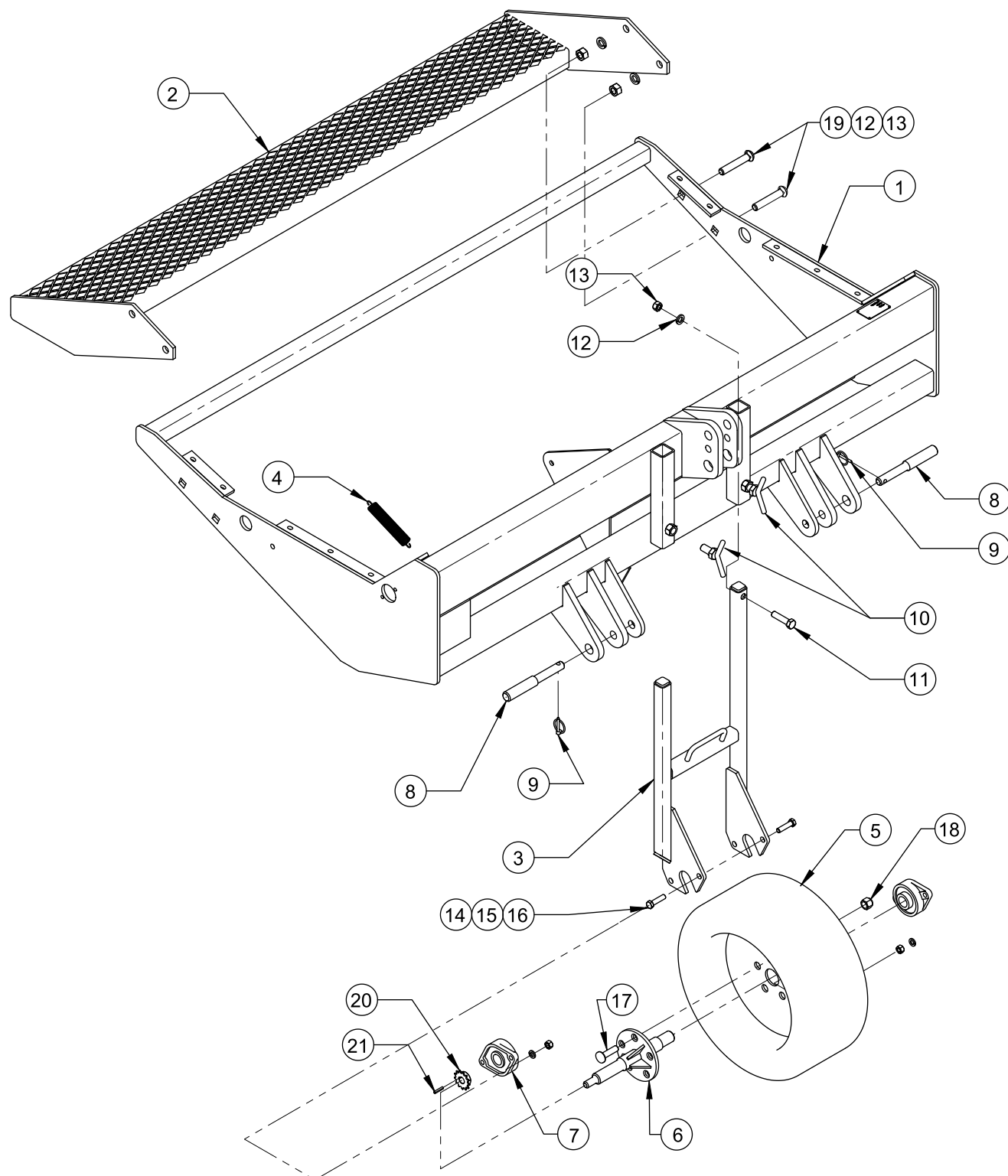
Ref. No.	New Part No.	Old Part No.	Description
1	VDS-48K001	VD4-K-01	4' Seed Cup Tray
	VDS-60K001	VD5-K-01	5' Seed Cup Tray
	VDS-72K001	VD6-K-01	6' Seed Cup Tray
	VDS-96K001		8' Seed Cup Tray
2	CBNC504012		Bolt, Carriage 1/4" - 20 x 3/4" Long
3	890-350C	182-022D	Feeder Cup Shaft Locking Collar
4	801-035C	801-035C	Screw, Set Knurled Point 5/16" - 18 x 3/8" Long
5	LWASHER-04		Washer, Lock 1/4"
6	HXNUT-04NC	803-006C	Nut, Hex 1/4" - 20 Gr.5 Plated
7	118-438D	118-438D	Spacer Tube 3-9/16" Long
8	308-004S	308-004S	Sprocket Shaft Adjustment Bearing Assembly
9	890-190C	890-190C	Powder Metal Sprocket
10	817-075C	817-075C	Seed Cup Assembly
11	817-071C	817-071C	Seed Cup Adjustment Handle
12	817-074C	817-074C	Cup Sleeve
13	804-031C	804-031C	Washer, Retaining
14	800-004C	800-004C	Ring, Snap External 1-3/16"
15	800-107C	800-107C	Ring, Snap Internal 2.165
16	822-103C	822-103C	Bearing, 30mm B x 55mm OD
17	118-336D	118-336D	Cup Drive Bearing Housing
18	VDS-00K007	VD-K-07	Cup Drive Sprocket Weldment
19	VDS-48K005	VD4-K-05	4' Seed Cup Shaft
	VDS-60K005	VD5-K-05	5' Seed Cup Shaft
	VDS-72K005	VD6-K-05	6' Seed Cup Shaft
	VDS-96K005		8' Seed Cup Shaft
20	CSNC506012		Bolt, Hex Head 3/8" - 13 x 3/4" Gr.5
21	LWASHER-08		Washer, Lock Spring 1/2" Plated
176-031V			Cup Drive Housing Assembly (Includes 1 each of Items 15 through 17)





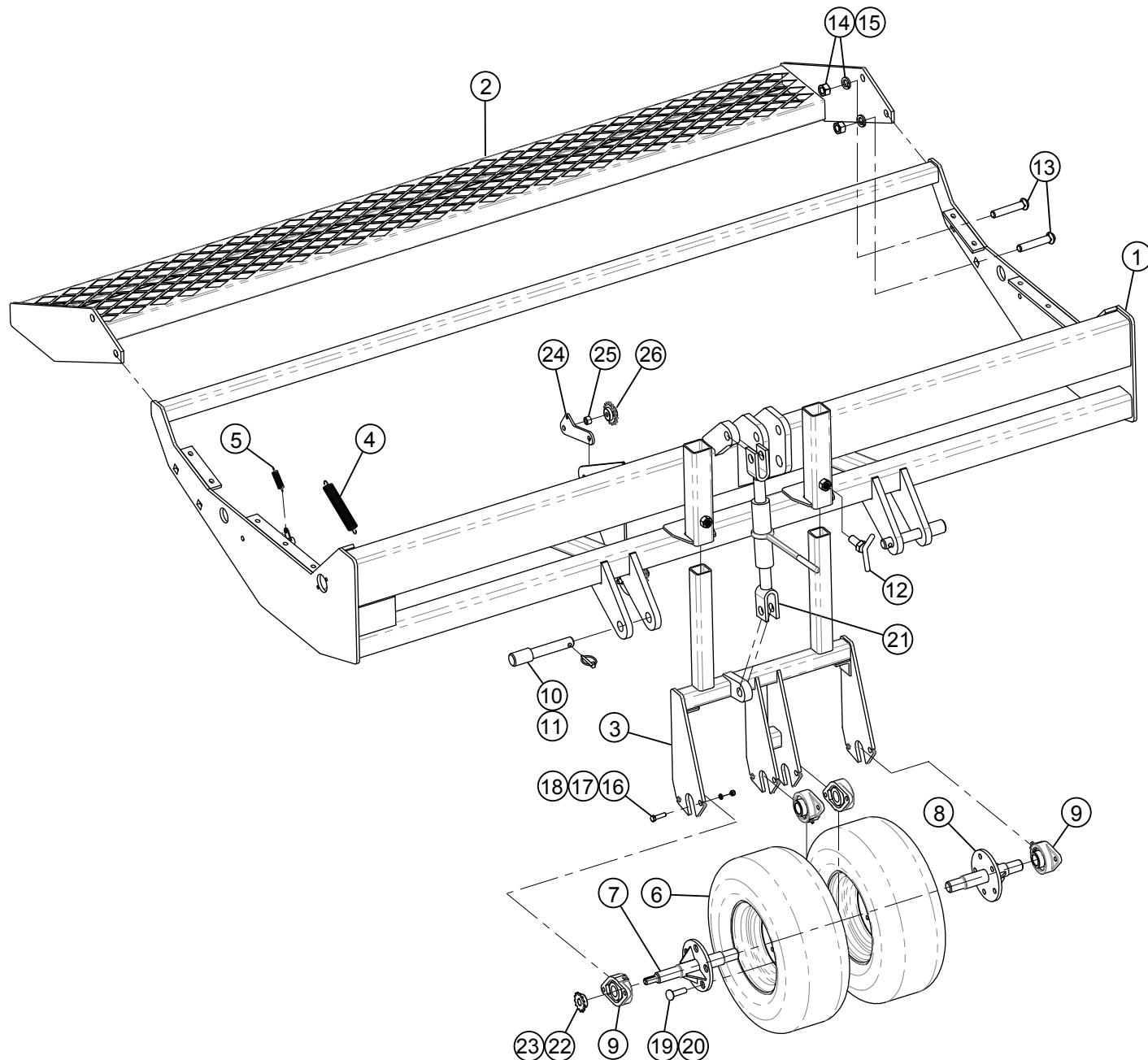
Main Frame, Wheel Frame, and Walkboard Assemblies

Ref No.	Part No.	Description	Qty.
1	VDS-36A000	3' Main Frame	1
	VDS-48A000	4' Main Frame	
	VDS-60A000	5' Main Frame	
	VDS-72A000	6' Main Frame	
2	VDS-36H000	3' Walk Board	1
	VDS-48H000	4' Walk Board	
	VDS-60H000	5' Walk Board	
	VDS-72H000	6' Walk Board	
3	VDS-00E100	Drive Wheel H-Frame	1
4	GSR-17112T	7" Tension Spring	1
5	GWT-801004	20" X 8" X 10" Tire with Wheel, 5 on 5	1
6	VDS-00D100	Wheel Shaft	1
7	GBR-20FL01	1-1/4" Flange Bearing	2
8	GPN-18CA12	Clevis Pin Cat. I & II	2
9	GPN-070LYN	7/16" Lynch Pin	2
10	VDS-00J100	Set Screws 3/4" X 1-1/2" (Standard Drills)	2
	VDS-00J200	Set Screws 3/4" X 2-1/2" (No-Till Drills)	2
11	CSNC512040	3/4" X 2-1/2" NC Gr.5 Cap Screw	1
12	LWASHER-12	3/4" Lock Washer	5
13	HXNUT-12NC	3/4" NC Hex Nut	5
14	CSNC508028	1/2" X 1-3/4" NC Gr.5 Cap Screw	4
15	LWASHER-08	1/2" Lock Washer	4
16	HXNUT-08NC	1/2" NC Hex Nut	4
17	CSNF508020	1/2" X 1-1/4" NF Cap Screw	5
18	WHN-08NFWN	Lug Nuts	5
19	CBNC512032	3/4" x 2" Carriage Gr 5 z/p Bolts	4
20	GSK-12BS13	13 Tooth Sprocket	1
21	VDS-00G010	Sprocket Key	1



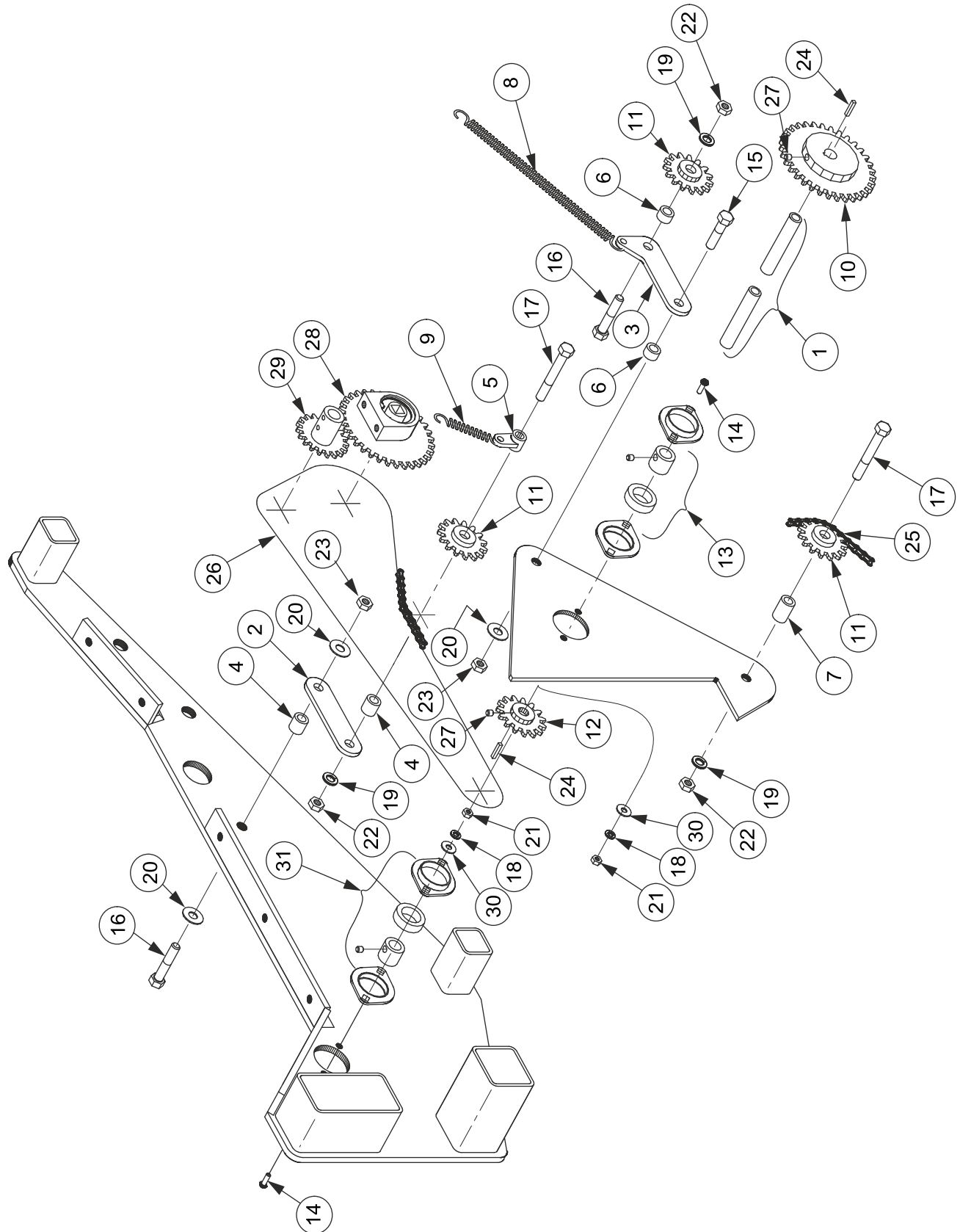
Main Frame, Wheel Frame, and Walkboard Assembly for 8 Ft. Drill

Ref No.	Part No.	Description	Qty.
1	VDS-96A000	8' Main Frame	1
2	VDS-96H000	8' Walk Board	1
3	VDS-00E200	Double Drive Wheel H-Frame	1
4	GSR-17112T	7" Tension Spring	1
5	GSR-10040T	2-1/2" Tension Spring	1
6	GWT-801004	20" X 8" X 10" Tire with Wheel, 5 on 5	2
7	VDS-96D100	Wheel Shaft Driving	1
8	VDS-96D200	Wheel Shaft No Drive	1
9	GBR-20FL01	1-1/4" Flange Bearing	2
10	GPN-24CA02	Clevis Pin Cat. II	2
11	GPN-070LYN	7/16" Lynch Pin	2
12	VDS-00J100	Set Screws 3/4" X 1-1/2" (Standard Drills)	2
	VDS-00J200	Set Screws 3/4" X 2-1/2" (No-Till Drills)	
13	CBNC512032	3/4" x 2" Carriage Gr 5 z/p Bolts	4
14	LWASHER-12	3/4" Lock Washer	4
15	HXNUT-12NC	3/4" NC Hex Nut	4
16	CSNC508028	1/2" X 1-3/4" NC Gr.5 Cap Screw	4
17	LWASHER-08	1/2" Lock Washer	4
18	HXNUT-08NC	1/2" NC Hex Nut	4
19	CSNF508020	1/2" X 1-1/4" NF Cap Screw	5
20	WHN-08NFWN	Lug Nuts	5
21	VDS-00R000	Double Wheel Frame Ratchet	1
22	GSK-12BS13	13 Tooth Sprocket	1
23	VDS-00G010	Sprocket Key	1
24	VDS-00G001	Center Tens. Arm and Spring Anchor 8' Drill	1
25	VDS-00G004	Bushing, 1/2" Long	2
26	GSK-08ID15	15-Tooth Idler	3



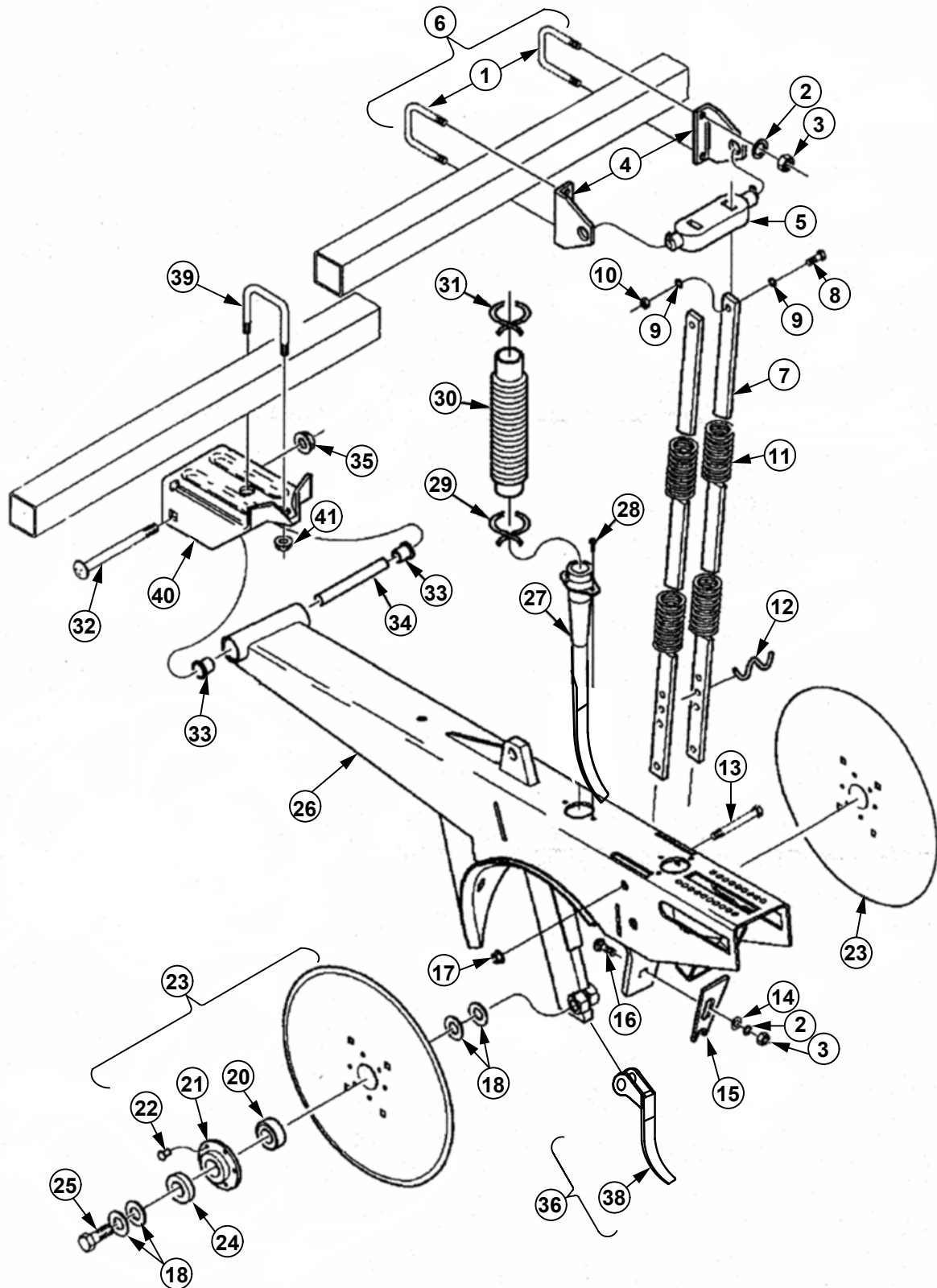
Jack Shaft, Sprocket, Idler, and Bearing Assemblies

Ref No.	New Part No.	Old Part No.	Description	Qty.
1	VDS-36G006		3' Jack Shaft	1
	VDS-48G006		4' Jack Shaft	
	VDS-60G006		5' Jack Shaft	
	VDS-72G006		6' Jack Shaft	
	VDS-96G006		8' Jack Shaft	
2	VDS-00G002	VD-G-02	End Plate Tensioner Arm	1
3	VDS-00G001N	VD-G-01	Center Tensioner Arm and Spring Anchor	1
	VDS-00G001		Center Tens. Arm and Spring Anchor 8' Drill	
4	VDS-00G102	VD-G-03b	Bushing, 13/16" Long	2
5	VDS-00G100	VD-G-03	Spring Anchor	1
6	VDS-00G004	VD-G-04	Bushing, 1/2" Long	2
7	VDS-00G005	VD-G-05	Bushing, 1-1/4" Long	1
8	GSR-17112T	VDB-01	7" Tension Spring	1
9	GSR-10040T	VDS-02	2-1/2" Tension Spring	1
10	GSK-12BS33	VDB-33TS	33 Tooth Sprocket	1
11	GSK-08ID15	VDB-151	15 Tooth Idler	3
12	GSK-12BS12	VDB-12TS	12 Tooth Sprocket	1
13	GBR-12BI02	VDB-03	Bearing Insert with Collar, 3/4"	2
14	CBNC505016		5/16" X 1" Carriage Square Neck Bolt	4
15	CSNC508032		1/2" X 2" Gr.5 NC Cap Screw	1
16	CSNC508040		1/2" X 2-1/2" Gr.5 NC Cap Screw	2
17	CSNC508056		1/2" X 3-1/2" Gr.5 NC Cap Screw	2
18	LWASHER-05		5/16" Lock Washer	4
19	LWASHER-08		1/2" Lock Washer	3
20	FWASHER-08		1/2" Flat Washer	3
21	HXNUT-05NC		5/16" NC Hex Nut	4
22	HXNUT-08NC		1/2" NC Hex Nut	3
23	NYNUT-08NC		1/2" NC Nylon Lock Hex Nut	2
24	VDS-00G010	VD-G-10	Sprocket Key	2
25	VDS-CH4065		Drive Chain Kit 64-1/4" Long	1
26	VDS-CH4055		End Chain Kit 58" Long	1
27	-----		3/16" Set Screw	2
28	118-226S	118-226S	Feeder Cup Bearing Assembly	1
29	202-002H		19 Tooth Speed Change Sprocket	1
30	FWASHER-05		5/16" Flat Washer	4
31	GBR-12FP03		3/4" Stamped Flangette Plates (Pair)	2



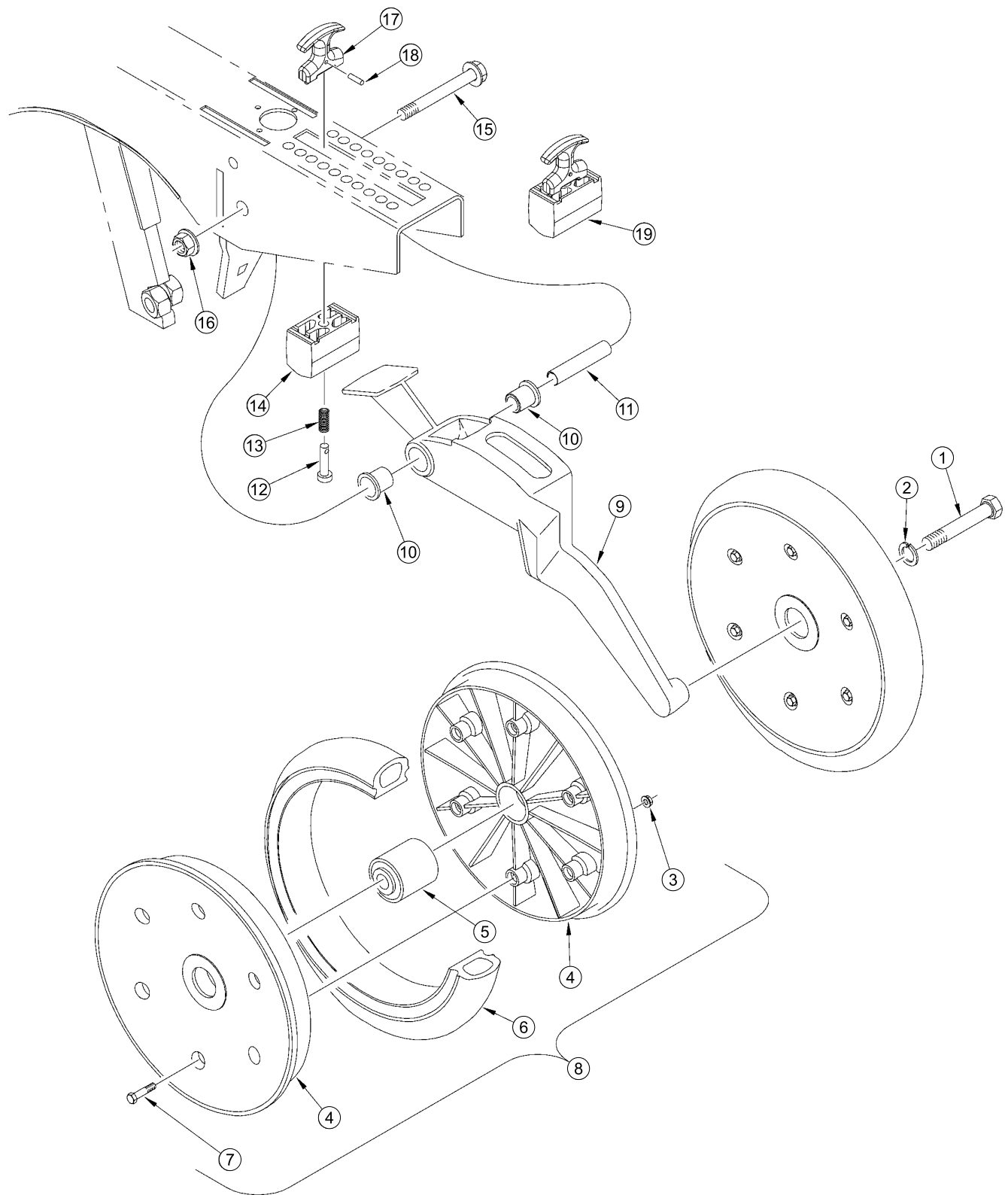
Straight Arm Double Opener Assembly

Ref No.	New Part No.	Old Part No.	Description
1	806-004C	806-004C	U-Bolt, 3/8" X 2" X 2-3/4"
2	LWASHER-06	804-013C	3/8" Lock Washer
3	HXNUT-06NC	803-014C	3/8" NC Hex Nut
4	121-025D	121-025D	Spring Rod Casting Clip
5	812-012C	812-012C	Casting Double Spring Rod
6	121-011A	121-011A	Spring Casting Mtg. Assembly
7	121-133D	121-133D	Straight Arm Opener Spring Rod
8	CSNC504012	802-004C	1/4" X 3/4" Gr.5 NC Cap Screw
9	LWASHER-04	804-006C	1/4" Lock Washer
10	HXNUT-04NC	803-006C	1/4" NC Hex Nut
11	807-118C	807-118C	Compression Spring, 13/16" ID X .156"W X 19.5"
12	107-027D	107-027D	Disc Spring Bar Wire Clip
13	802-427C	802-427C	3/8" X 3-5/8" NC Gr.5 Cap Screw
14	804-012C	804-012C	3/8" Flat Washer SAE Plated
15	107-113D	107-113D	D.D. Slotted Scraper
16	CSNC506016	802-015C	3/8" X 1" Gr.5 NC Cap Screw
17	803-209C	803-209C	3/8" Flange Lock Nut
18	804-040C	804-040C	1.19" X .63" X 18 Ga Washer
20	188-001V	188-001V	Bearing AA205DD
21	890-466C	107-112D	Bearing Flange 1/4" Dia. Holes
22	800-213C	800-212C	Rivet, Button Head, 1/4" X 9/16"
23	107-135S	107-133S	DD W / 205 Bearing Assembly - Plt Flng
24	107-111D	107-111D	DD Bearing Flange Dust Cover
25	CSNC510028	802-228C	5/8" X 1-1/2" Gr.5 NC Cap Screw
26	121-703H	121-703H	Opener Weldment Short
27	817-314C	817-314C	Opener Seed Tube, Plastic
28	CSNC#10008	801-002C	#10 X 1/2" NC Cap Screw
29	800-008C	800-008C	Clamp Hose, 1-1/2" No.24
30	816-114C	816-114C	Seed Hose, 30 Ribs, 7-1/2" Long
31	800-009C	800-009C	Clamp Hose, 1-5/8" No.26
32	CBNC508088	802-121C	1/2" X 5-1/2" NC Carriage Bolt Gr.5
33	817-084C	817-084C	Parallel Arm Pivot Bushing
34	142-198D	142-198D	Straight Arm Opener Pivot Pipe
35	NYNUT-08NC	803-169C	1/2" NC Nylon Lock Hex Nut
36	122-242S	122-242S	Seed Flap and Hex Clip, Seedlok
38	816-302C	816-302C	Seed Flap Rubber, Seedlok
39	UBNC08X33S	806-109C	1/2" X 2-1/16" X 3D NC Square U-Bolt
40	107-116D	142-194D	Straight Arm Opener Mount w/ 2" Drop
41	HXNUT-08NC	803-037	1/2" NC Hex Nut

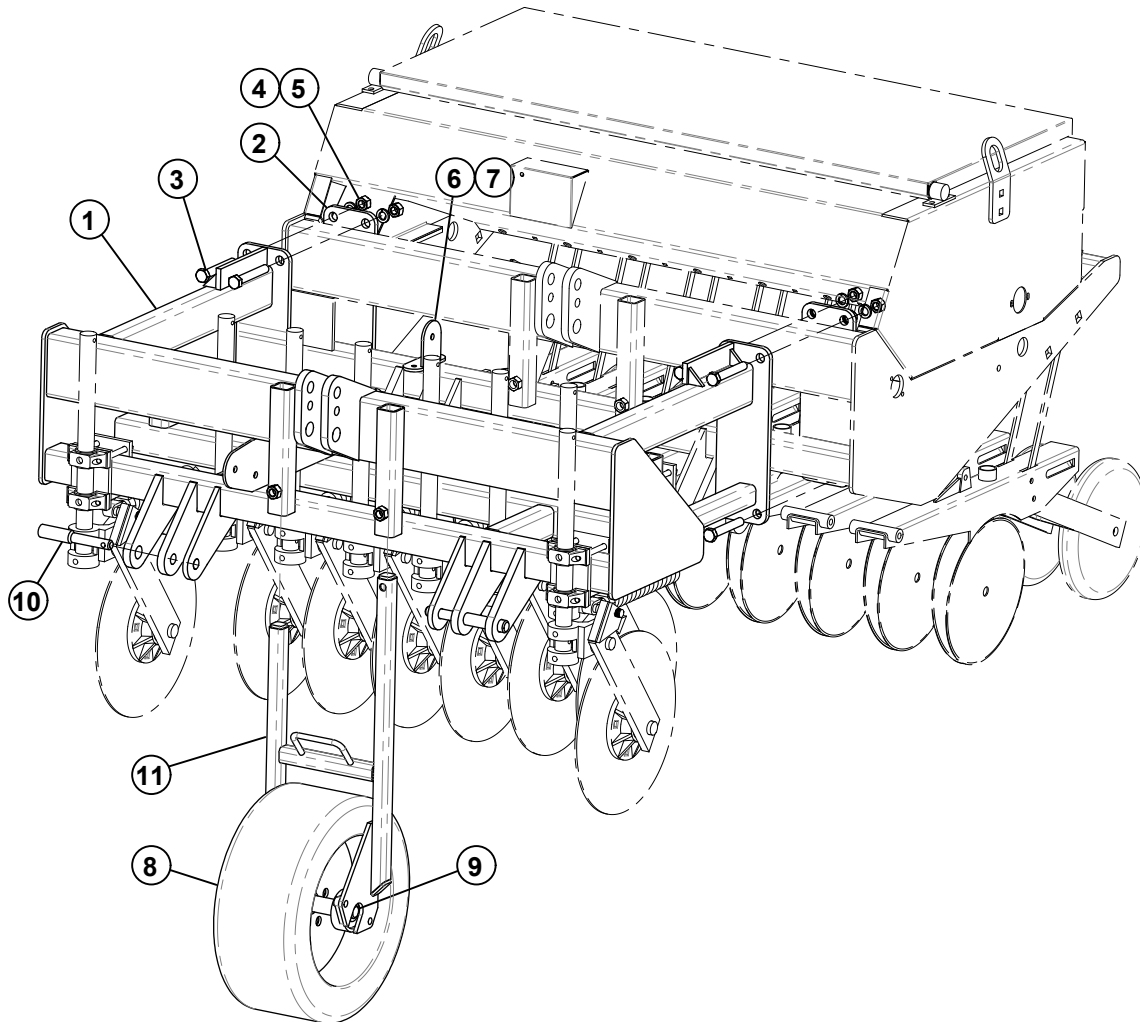


**2" x 13" Smooth Crown Press Wheel Assembly**

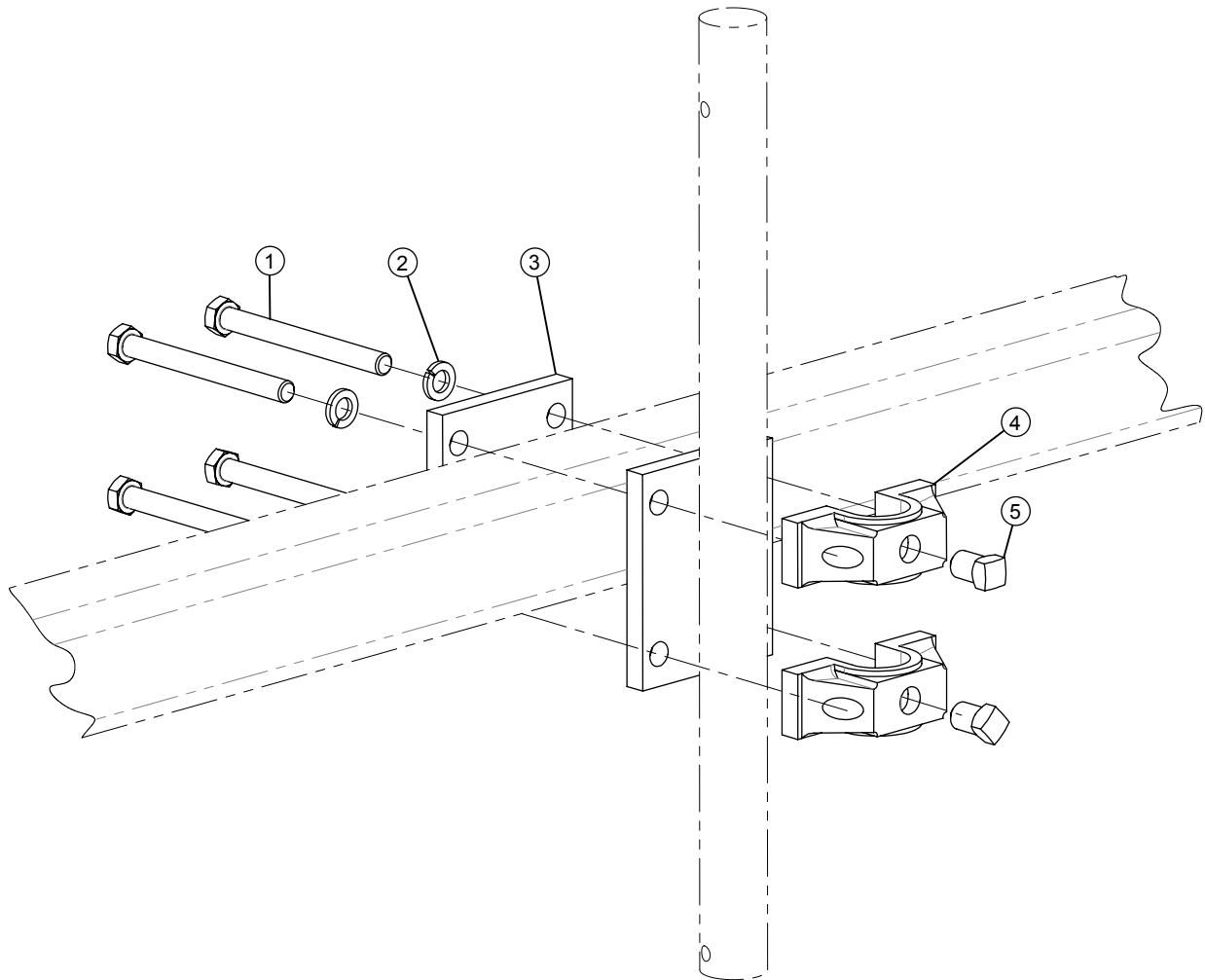
Ref. No.	New Part No.	Old Part No.	Description
1	CSNC510040	802-058C	5/8" X 2-1/2" Gr.5 NC Cap Screw
2	LWASHER-10	804-022C	5/8" Lock Washer
3	NYNUT-04NC	803-088C	1/4" NC Nylon Lock Hex Nut
4	817-296C	817-296C	2" X 13" Press Wheel Rim Half
5	822-170C	822-170C	Bearing Press Wheel Assembly
6	814-159C	814-159C	2" X 13" Press Wheel Tire
7	CBNC504024	802-617C	1/4" X 1-1/2" Gr.5 NC Carriage Bolt
8	814-157C	814-157C	2" X 13" Press Wheel Assembly
9	199-042D	199-042D	Universal Press Wheel Arm
10	817-084C	817-084C	Parallel Arm Pivot Bushing
11	198-137D	198-137D	Press Wheel Pivot Tube
12	805-154C	805-154C	3/8" X 2-1/8" Usable Clevis Pin
13	807-106C	807-106C	Spring 0.54" OD X 1-1/4" X 0.054"W
14	817-347C	817-347C	Opener Trunnion
15	CBNC508064	802-421C	1/2" X 3-3/4" NC Carriage Bolt
16	NYNUT-08NC	803-169C	1/2" NC Nylon Lock Hex Nut
17	817-328C	817-328C	T-Handle Assembly
18	805-186C	805-186C	5/32" X 5/8" Roll Pin
19	122-202S	122-202S	PW Adjustment Trunnion Assembly



No-Till Vineyard Drill Attachment Assembly



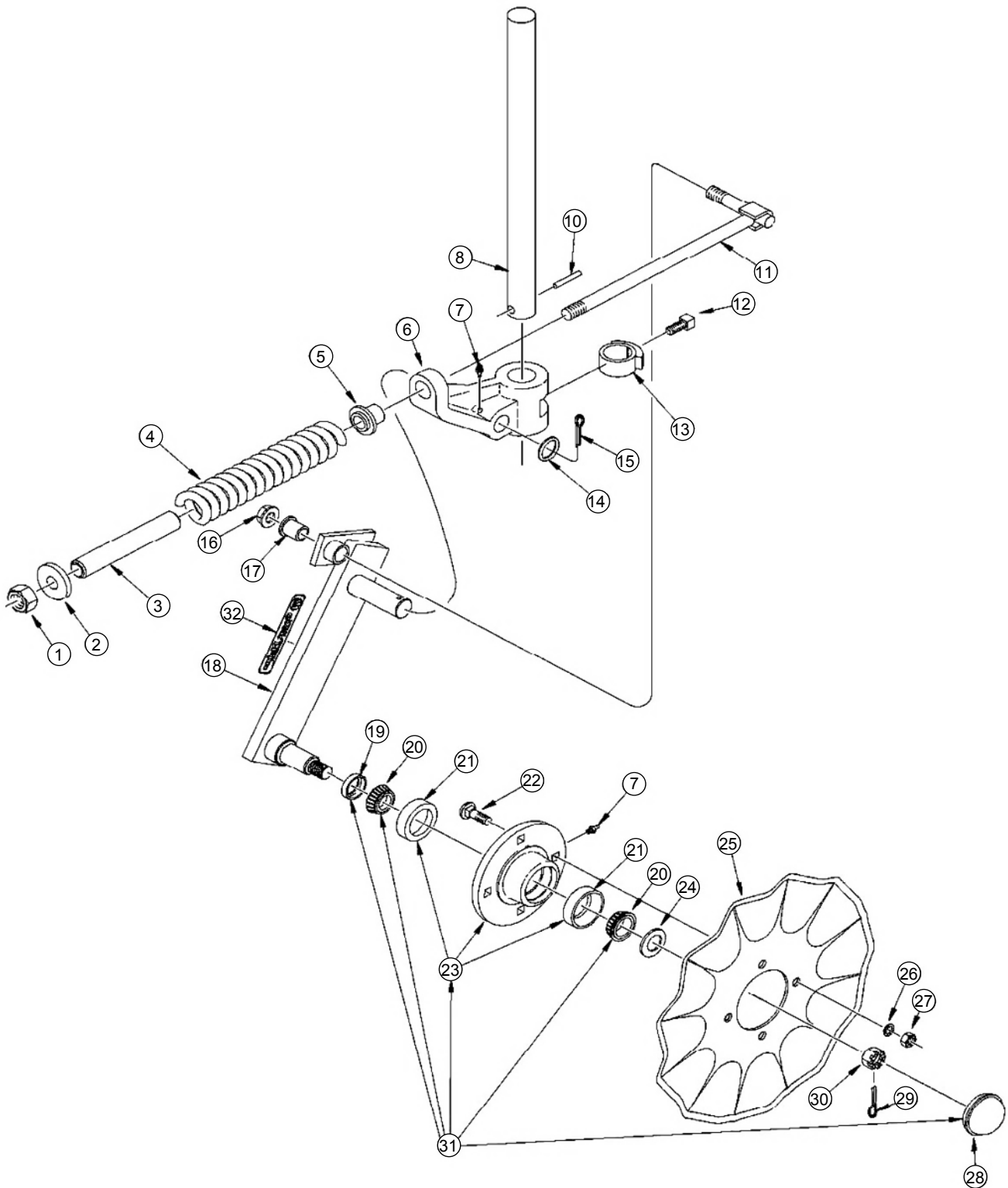
Ref. No.	New Part No.	Description	Q'ty
1	-----	No-Till Attachment Frame (specify size)	1
2	NTA-36A005	No-Till Attachment Mount Plate 3' Units	2
	NTA-48A005	No-Till Attachment Mount Plate 4' Units	
	NTA-00A005	No-Till Attachment Mount Plate 5' and 6' Units	
3	CSNC512080	3/4" X 5" Gr.5 NC Cap Screw	8 or 10
4	LWASHER-12	3/4" Lock Washer	8 or 10
5	HXNUT-12NC	3/4" NC Hex Nut	8 or 10
6	NTA-00B000	No-Till Attachment Idler Bracket	1
7	NTA-00B002	No-Till Attachment Idler Bracket Mount Plate	1
8	GWT-801004	8 X 10 4 Ply Tire w/ Wheel Assembly	1
9	GBR-20FL01	1-1/4" Triple Sealed Flange Bearing	2
10	GPN-18CA12	CA 1-2 3-Pt. Pull Pin (comes with Vineyard Drill)	2
11	VDS-00E100	Front Wheel H-Frame (comes with Vineyard Drill)	1
12	CSNC506072	3/8" X 4-1/2" Gr.5 NC Cap Screw	2
13	LWASHER-06	3/8" Lock Washer	2
14	HXNUT-06NC	3/8" NC Hex Nut	2

No-Till Vineyard Drill Coulter Clamp Kit

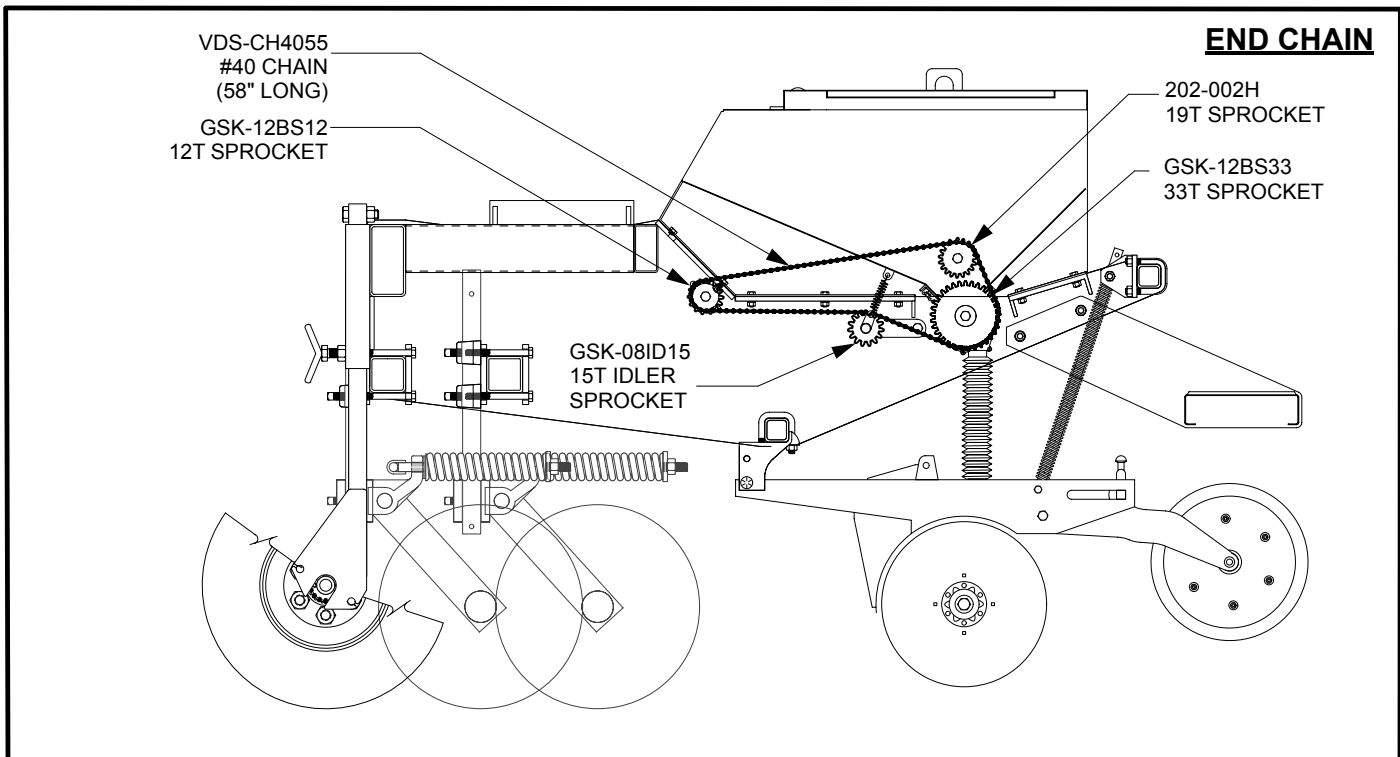
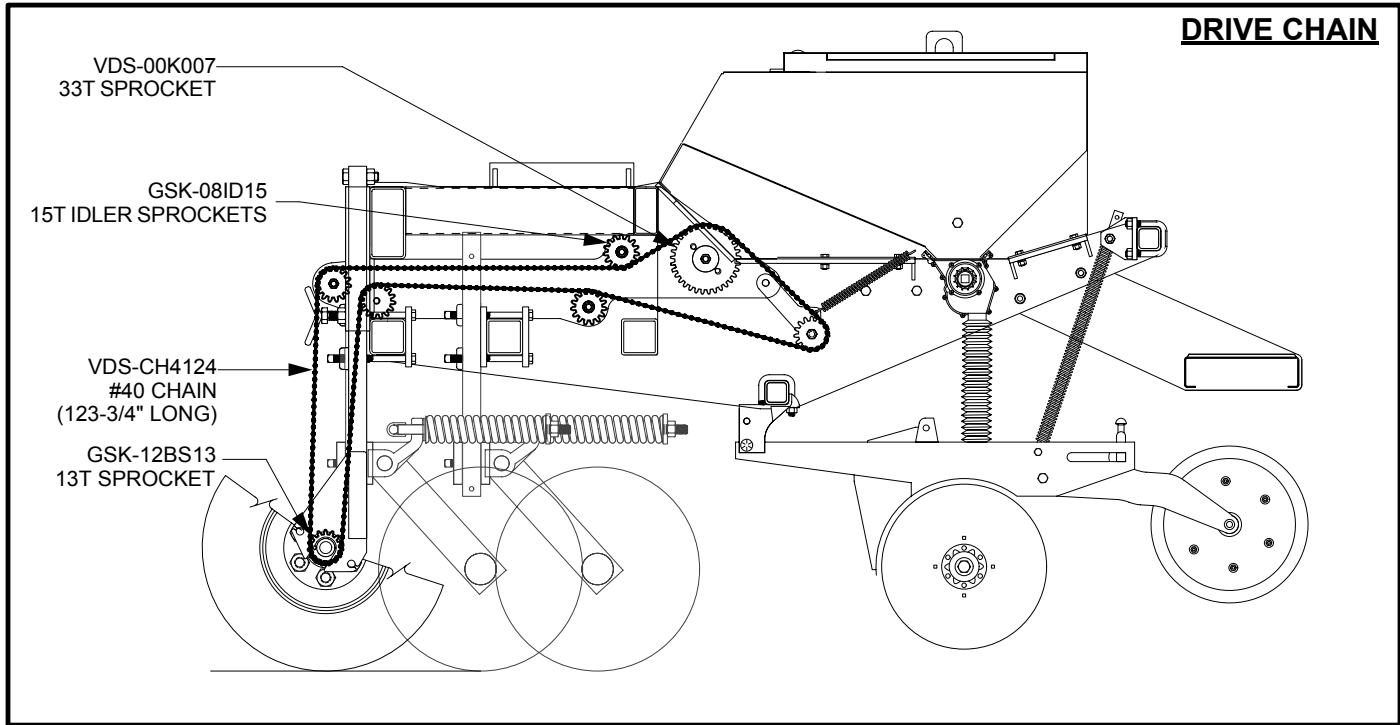
Ref. No.	Part No.	Description
1	CSNC508080	1/2" X 5" Gr.5 NC Cap Screw
2	LWASHER-08	1/2" Lock Washer
3	204-083D	Clamp Plate 3" Square Bar
4	204-072D	Clamp Shank 1-1/2" Dia.
5	801-040C	5/8" X 1" Square Head Cap Screw
	204-064K	Clamp Kit - includes items: 1, 2, 3, 4, and 5

No-Till Vineyard Drill Coulter Assembly

Ref No.	Part No.	Description
1	NYNUT-12NC	3/4" NC Nylon Lock Hex Nut
2	812-031C	Casting Coulter Spring Washer
3	204-107D	Spring Rod Sleeve 1-1/8"OD
4	807-074C	Spring 2.25" X 0.5" Coil
5	817-029C	Bushing Coulter Casting
6	149-963S	Coulter Mount. Casting Assembly
7	800-001C	Grease Zerk Straight 1/4" -28
8	204-026D	Shank 1-1/2" Dia. X 22" Fert. Coulter
10	805-043C	Pin Spiral 3/8" X 2-1/2" Plain
11	204-075H	Coulter Spring Rod Weldment
12	801-040C	Square Head Screw 5/8"-11 X 1" Cup PT
13	149-162H	Coulter Stop Weldment
14	804-039C	1-1/4" Flat Washer SAE Plain
15	GPN-04X40C	1/4" Cotter Pin Plain
16	803-181C	3/4" Flange Lock Hex Nut
17	817-051C	Swing Arm Bushing
18	149-181E	Coulter Swing Arm Weldment
19	816-009C	Oil Seal Double Lip
20	822-021C	Bearing Cone LM-67048
21	822-020C	Bearing Cup LM-67010
22	CBNC508024	1/2" X 1-1/2" NC Carriage Bolt
23	200-039V	Coulter Hub and Cup Assembly
24	804-055C	7/8" Spindle Washer
25	820-116C	Coulter Blade
26	804-015C	Spring Lock Washer 1/2"
27	HXNUT-08NC	1/2" NC Hex Nut
28	200-001D	Hub Grease Cap
29	805-017C	Cotter Pin 3/16" X 1-3/4"
30	803-029C	7/8"-14 Hex Slotted Nut
31	200-002S	Coulter Hub Package



No-Till Drill Sprocket and Chain Assemblies





T.G. SCHMEISER CO., INC.®

Limited Warranty Statement

T. G. Schmeiser Co., Inc. warrants each new Schmeiser® product to be free from defects in material and workmanship. This warranty is applicable only for the normal service life expectancy of the product or components, not to exceed twelve (12) consecutive months from the date of delivery of the new Schmeiser product to the original purchaser.

Genuine T. G. Schmeiser Co., Inc. replacement parts and components will be warranted for 90 days from date of purchase, or the remainder of the original equipment warranty period, whichever is longer.

Under no circumstances will it cover any merchandise or components thereof, which, in the opinion of the company, has been subjected to misuse, unauthorized modifications, alteration, an accident or if repairs have been made with parts other than those obtainable through T. G. Schmeiser Co., Inc.

The Company in no way warrants engines, batteries, cylinders, tires or other trade accessories since these items are warranted separately by their respective manufacturer. Expendable components such as points, shanks, blades, rings, bearings, teeth, and the like are excluded from this warranty.

Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that, in our judgment, shall show evidence of such defect, provided further that such part shall be returned within thirty (30) days from date of failure to T. G. Schmeiser Co., Inc., routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid.

This warranty shall not be interpreted to render T. G. Schmeiser Co., Inc. liable for injury or damages of any kind or nature to person or property. This warranty does not extend to the loss of crops, loss because of delay in harvesting, or any expense or loss incurred for labor, substitute machinery, rental or for any other reason.

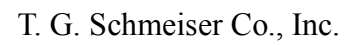
Except as set forth above, **T. G. Schmeiser Co., Inc. shall have no obligation or liability of any kind on account of any of its equipment and shall not be liable for special or consequential damages. T. G. Schmeiser Co., Inc. makes no other warranty, expressed or implied, and, specifically, T. G. Schmeiser Co., Inc. disclaims any implied warranty or merchantability or fitness for a particular purpose. Some states or provinces do not permit limitations or exclusions of implied warranties or incidental or consequential damages, so the limitations or exclusion in this warranty may not apply.**

This warranty is subject to any existing conditions of supply, which may directly affect our ability to obtain materials or manufacture replacement parts.

T. G. Schmeiser Co., Inc. reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligation to owners of units previously sold.

No one is authorized to alter, modify or enlarge this warranty nor the exclusion, limitations and reservations.

**WARRANTY VOID IF NOT REGISTERED
WITHIN 30 DAYS OF PURCHASE DATE**

[illegible]

[illegible]



**P.O. Box 1392
Selma, CA 93662
(559) 268-8128
WEB: www.TGSchmeiser.com**

