

SCHMEISER VINEYARD DRILL GENERATION – SERIES '98

ASSEMBLY & PARTS MANUAL



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VERSION 2.0

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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.

Should your Vineyard Drill require replacement parts, go to your Schmeiser dealer. Always order genuine Schmeiser replacement parts.

It is important that you complete and send in your Warranty Card because it is not valid unless it is on file at Schmeiser. If you need information not contained in this manual, contact your Schmeiser dealer.

Space has been provided below for you to record the model number and serial number of your drill. Be sure to bring this information with you to your dealer when ordering parts or attachments for your drill.

Thank you for buying a Schmeiser Vineyard Drill/Seeder.

SERIAL NUMBER _____

MODEL NUMBER _____

DATE PURCHASED _____

DEALER NAME _____

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TABLE OF CONTENTS

| | |
|---------------------------------------------------------|------|
| Introduction..... | 1.1 |
| Table of Contents..... | 2.1 |
| Safety Rules..... | 3.1 |
| Seed Rate Calibration..... | 4.1 |
| Seed Rate Chart..... | 4.2 |
| Seed Cup..... | 5.1 |
| Planting Depth Adjustments..... | 6.1 |
| Presswheel Adjustment..... | 6.2 |
| Sprocket and Chain Assemblies..... | 7.1 |
| Vineyard Drill Box Assembly..... | 8.1 |
| Feeder Cup and Drive Components..... | 9.1 |
| Feeder Cup Assembly..... | 10.1 |
| Main Frame, Wheel Leg, and Walkboard Assemblies..... | 11.1 |
| Jack Shaft, Sprocket, Idler and Bearing Assemblies..... | 12.1 |
| Double Disk Opener Assembly..... | 13.1 |
| Double Disk Opener Press Wheel Assembly..... | 14.1 |
| Warranty..... | 15.1 |

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SAFETY RULES

The safe operation of any machinery is a big concern to farmers and manufacturers. We have designed our Vineyard Drill with many built-in safety features. However, no one should operate this machine before carefully reading this Owner's Manual.

1. Never permit anyone to ride on or walk beside the Vineyard Drill when moving.
2. Never permit anyone to ride on tractor when Vineyard Drill is being moved.
3. Never allow anyone to be near the Vineyard Drill when performing operating functions with Drill or tractor.
4. Never load Vineyard Drill without being hooked-up to tractor.
5. Extra care should be taken when transporting with seed in the box.
6. Never back Vineyard Drill up when openers are in ground.
7. Reduce speed of tractor when transporting over uneven or rough terrain. Avoid all chuck holes and washboard areas in road.
8. Reduce speed of tractor when transporting over hills or steep slopes.
9. Always set Vineyard Drill in field position before lubrication.
10. Do **NOT** lubricate, adjust or repair the Vineyard Drill while it is in operation.
11. When in transport, use accessory lights and devices for adequate warning to operators of other vehicles, and use safety chains. Comply with all Federal, State and local laws when traveling on public roads.
12. Use "Slow Moving Vehicle" emblem for warning vehicles approaching from rear.
13. Do **NOT** permit smoking, sparks, or an open flame where combustible lubricants, or liquids are being used.
14. When using treated grain, avoid direct contact with the seed.
15. When using compressed air to clean Vineyard Drill, wear safety glasses.
16. When transporting, remember the Vineyard Drill may be wider than your tractor and extreme care must be taken to allow for safe clearance.

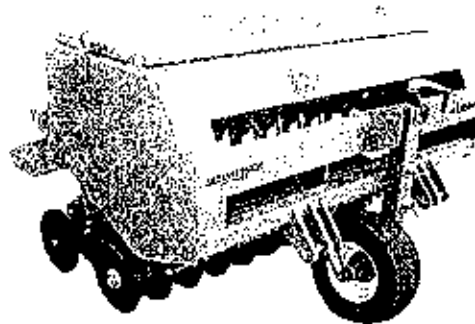
SCHMEISER VINEYARD DRILL SEED RATE CALIBRATION

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.
 - a. Place several pounds of seed over three feeder cups at the outboard end of the Vineyard Drill.
 - b. Pull the seed tubes out of these three drops.
 - c. Raise the drive wheel off the ground using a jack.
 - d. Rotate the tire to see that the drive system is working properly and that the feed cups are free from foreign matter.
 - e. Place a container under the three seed tubes to gather seed as it is metered.
 - f. 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.
 - g. 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 2ND GENERATION – SERIES '98



Rates in Pounds per Planted Acre

October 1998

Sprocket Combination:

12/33 x 12/33

| Seed | Seed Rate Indicator Setting Number | | | | | | | | | |
|----------------------------|------------------------------------|----|----|----|-----|-----|-----|-----|-----|-----|
| | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| | POUNDS PER ACRE | | | | | | | | | |
| Barley | 11 | 21 | 39 | 52 | 64 | 84 | 98 | 109 | 122 | 136 |
| Bio Max Cover Crop* | 13 | 26 | 52 | 69 | 86 | 118 | 138 | 159 | 179 | 199 |
| Clover - Perennial | 16 | 32 | 53 | 71 | 89 | 110 | 128 | 140 | 158 | 175 |
| Cover Crop Mix #1* | 15 | 29 | 59 | 79 | 98 | 128 | 150 | 168 | 189 | 210 |
| Cover Crop Mix #2* | 20 | 41 | 64 | 85 | 106 | 134 | 156 | 168 | 180 | 193 |
| Cover Crop Low Profile* | 17 | 34 | 59 | 78 | 98 | 117 | 136 | 158 | 178 | 197 |
| Cover Mate Mix* | 6 | 13 | 19 | 25 | 31 | 36 | 42 | 48 | 53 | 59 |
| Crimson/Berseem | 17 | 33 | 49 | 66 | 82 | 105 | 122 | 138 | 155 | 172 |
| Insectary Mix* | 15 | 30 | 51 | 68 | 84 | 99 | 116 | 131 | 147 | 163 |
| Pearl Millet | 18 | 36 | 60 | 79 | 99 | 137 | 160 | 201 | 227 | 252 |
| Rye Grass - Annual | 7 | 13 | 27 | 36 | 44 | 58 | 68 | 78 | 88 | 98 |
| Sorghum Sudan | 13 | 26 | 50 | 67 | 83 | 115 | 140 | 164 | 185 | 205 |
| Sudan Bravo Brand | 14 | 28 | 48 | 64 | 79 | 101 | 118 | 134 | 151 | 167 |
| Vetch - Common | 17 | 35 | 67 | 89 | 111 | 134 | 156 | 168 | 189 | 210 |
| Winter Forage #1* | 9 | 19 | 36 | 48 | 60 | 77 | 89 | 107 | 120 | 134 |

CAUTION: THESE RATES ARE APPROXIMATE ONLY. PLEASE VERIFY OUTPUT PRIOR TO FIELD USE

* Germain's Seed

THIS CHART APPLIES TO VINEYARD DRILLS MANUFACTURED AFTER JANUARY 1998

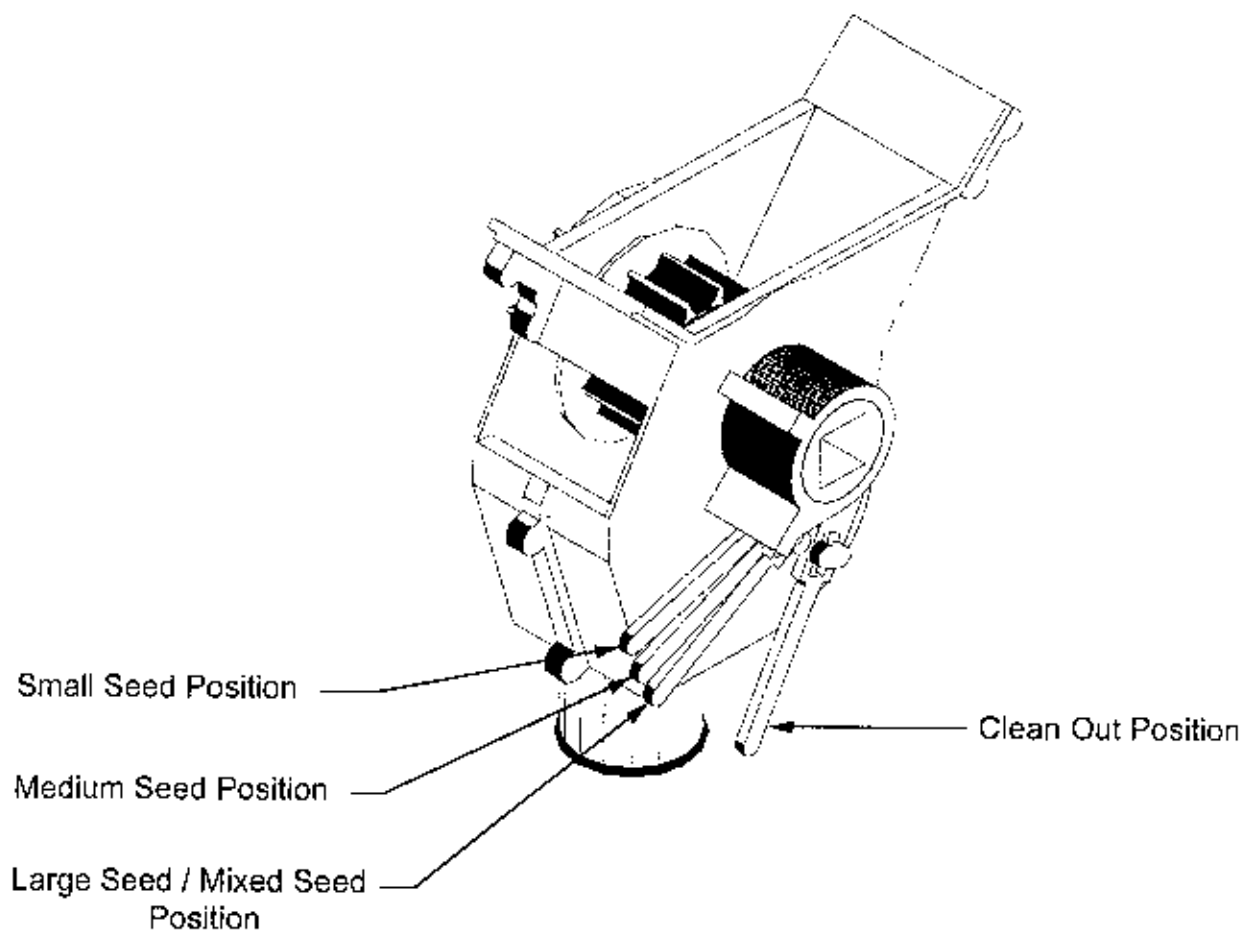
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SEED CUP

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 b) excessive wear on fluted nylon sprocket or c) cup damage.

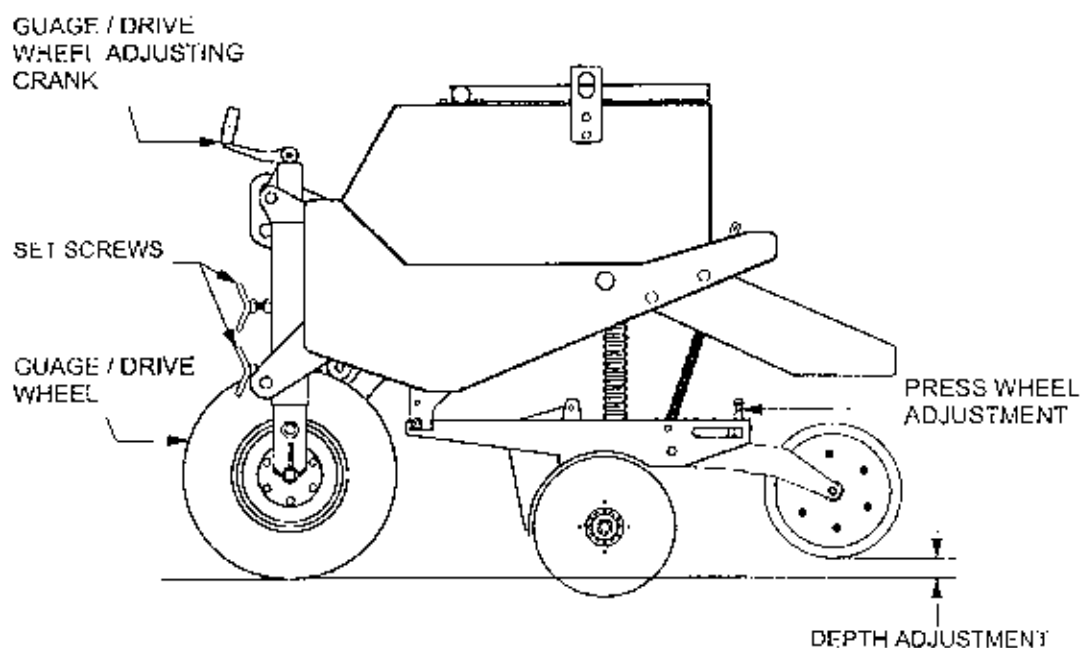


PLANTING DEPTH ADJUSTMENTS

Your Schneise 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.

GAUGE WHEEL/DRIVE WHEEL ADJUSTMENTS

Gauge wheel/drive wheel adjustments are made in order to allow your openers to travel both up and down and follow the contour of the ground. In order to adjust your gauge wheel/drive wheel loosen the two set screws located on the adjusting crank housing. After adjusting the gauge wheel/drive wheel, be certain to tighten up both set screws. By lengthening the adjusting crank, the gauge wheel/drive wheel is lowered causing less opener spring rod extension through the spring rod casting. This in turn causes less downward float on the openers. By shortening the adjusting crank, the gauge wheel is raised causing more spring rod to protrude through the opener spring rod casting, which in turn causes more downward float on the openers. Remove or insert drive chain links if required.

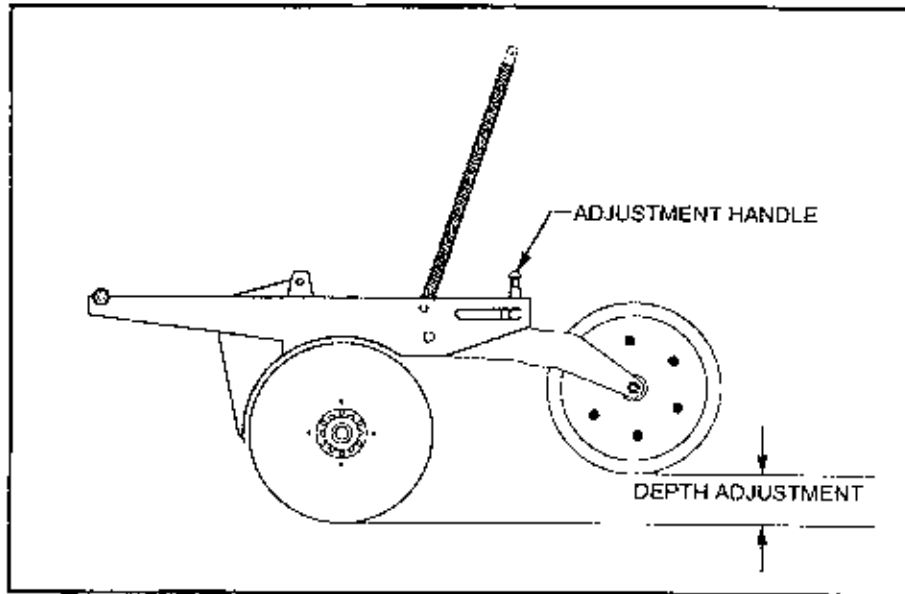


Check the spring rod cross bolts at the top of the spring rods to see that they are extended about 2" above their spring rod casting. This is a general dimension and may vary with the spring rod down-pressure that you require for different soil conditions and planting depths. If you require more downward 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 will occur to your openers.

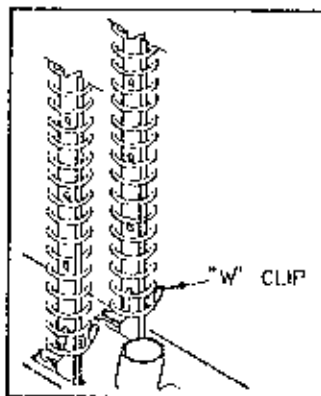
PRESSWHEEL - OPENER LINKAGE DEPTH ADJUSTMENT

The depth of each opener is controlled by the height of the press wheel. For varying the height of the press wheel which automatically changes the seeding depth of the opener, simply 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.

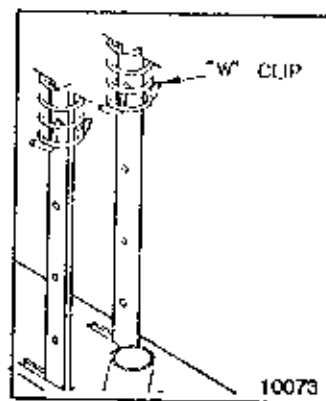


DISK OPENER SPRING PRESSURE SETTING

Each opener spring can be adjusted for down pressure. This is useful when penetrating hard soil and for planting in tractor tire tracks. 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.



Minimum Pressure

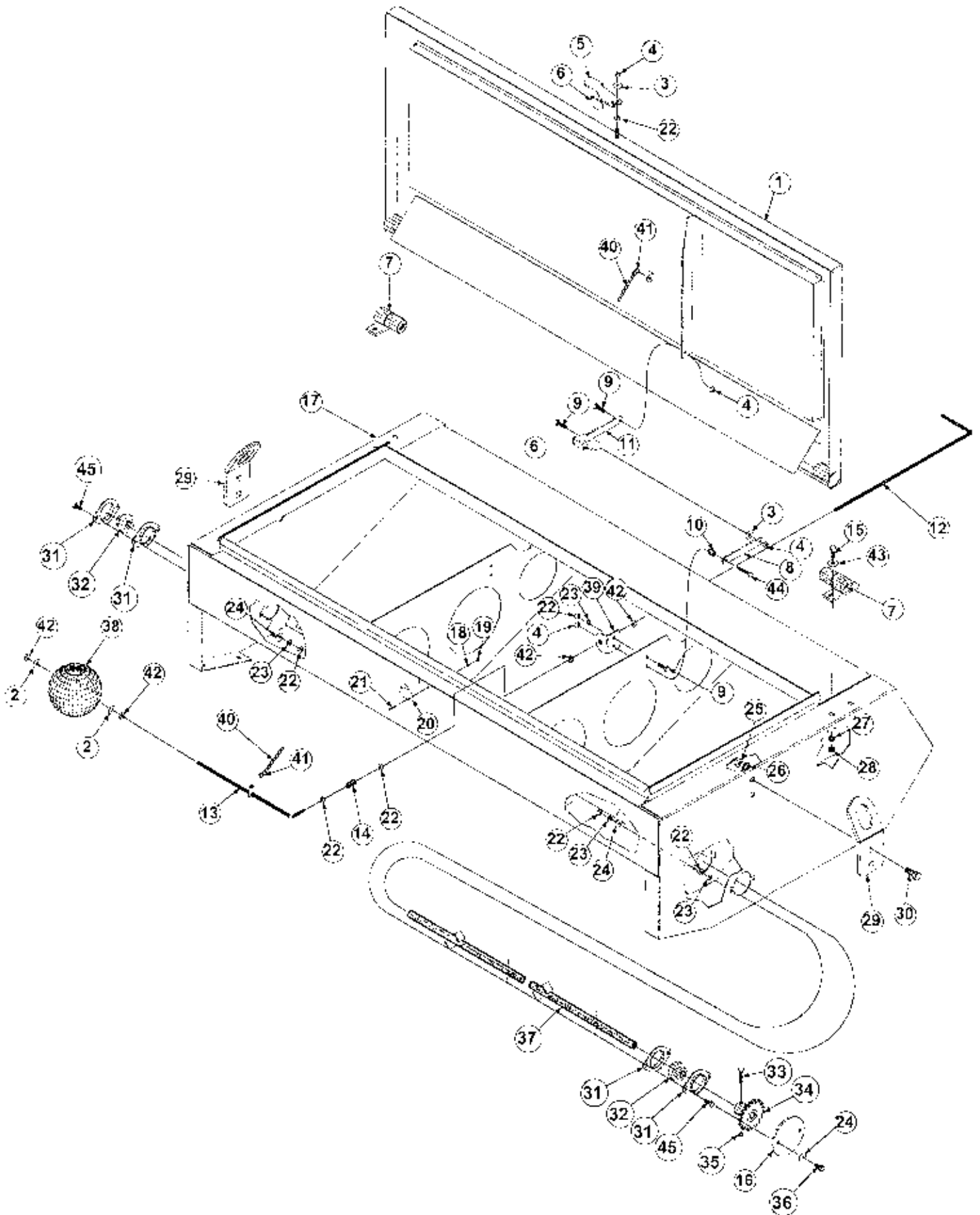


Maximum Pressure

VINEYARD DRILL BOX ASSEMBLY

| <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u> |
|-----------------|----------------------------------|----------------------------------------------------------------------------------------------------|
| 1. | VD4-C VD5-C VD6-C | 4' Vineyard Drill Lid Weldment 5' Vineyard Drill Lid Weldment 6' Vineyard Drill Lid Weldment |
| 2. | ----- | Washer, Flat 5/16" SAE |
| 3. | ----- | Washer, Wave Spring 5/16" |
| 4. | ----- | Nut, Hex Nylock 5/16" - 18 |
| 5. | VD-C-07 | Lid Latch-Handle |
| 6. | 817-033D | Lid Latch Grip |
| 7. | VD-M | Lid Hinge Weldment |
| 8. | VD-C-08 | Lid Latch - Lower Arm |
| 9. | ----- | Bolt, Hex Head 5/16" - 18 x 1" Long Gr 5 Plated |
| 10. | VD-C-12 | Lid Latch - Lower Latch Bushing |
| 11. | VD-C-09 | Lid Latch - Upper Arm |
| 12. | VD-L-02 | Float Indicator - Shaft |
| 13. | VD-L-01 | Float Indicator Arm |
| 14. | VD-L-04 | Float Indicator - Coupling |
| 15. | ----- | Bolt, Hex Head 3/8" - 16 x 1" Long Gr 5 Plated |
| 16. | VD-B-10 | Sprocket Cover Plate |
| 17. | VD4-B VD5-B VD6-B | 4' Seedbox 5' Seedbox 6' Seedbox |
| 18. | ----- | Washer, Internal Star #10 Plated |
| 19. | ----- | Nut, Hex #10-24 Plated |
| 20. | VD-C-10 | Rear Lid Latch Hook |
| 21. | ----- | Screw, Round Head #10-24 x 3/4" Long Plated |
| 22. | ----- | Nut, Hex 5/16" - 18 Gr 2 Plated |
| 23. | ----- | Washer, Lock Spring 5/16" Plated |
| 24. | ----- | Washer, Flat 5/16" USS Plated |
| 25. | ----- | Nut, Hex 1/2" - 13 Gr 2 Plated |
| 26. | ----- | Washer, Lock Spring 1/2" Plated |
| 27. | ----- | Washer, Lock Spring 3/8" Plated |
| 28. | ----- | Nut, Hex 3/8" - 16" Gr 2 Plated |
| 29. | VD-B-09 | Vineyard Drill Lift Hooks |
| 30. | ----- | Bolt, Hex Head 1/2" - 13 x 1" Long Gr 5 |
| 31. | ----- | Flange 47 MST |
| 32. | ----- | Bearing 3/4" Bore Fafnir #RA12RRB |
| 33. | ----- | Bolt, Hex Head 1/4" - 20 x 1-1/2" Long Gr 5 |
| 34. | 202-002H | Sprocket, Speed Change 19T |
| 35. | ----- | Nut, Lock Dimpled 1/4" - 20 Plated |
| 36. | ----- | Bolt, Hex 5/16" - 18 x 3/4" Long Gr 5 |
| 37. | VD4-G-09 VD5-G-09 VD6-G-09 | 4' Agitator Weldment 5' Agitator Weldment 6' Agitator Weldment |
| 38. | ----- | Float Indicator - Float |
| 39. | VD-L-03 | Float Indicator - Shaft Bracket - Weldment |
| 40. | ----- | Float Indicator - Chain 10 3/4" Long |
| 41. | ----- | S - Hook, 1" |
| 42. | ----- | Lock Collar, 5/16" |
| 43. | ----- | 3/8" Flat Washer |
| 44. | ----- | Bolt, Hex Head 5/16" x 1 1/2" |
| 45. | ----- | Bolt, Cairaage 5/16" x 3/4" Long Gr 5 |

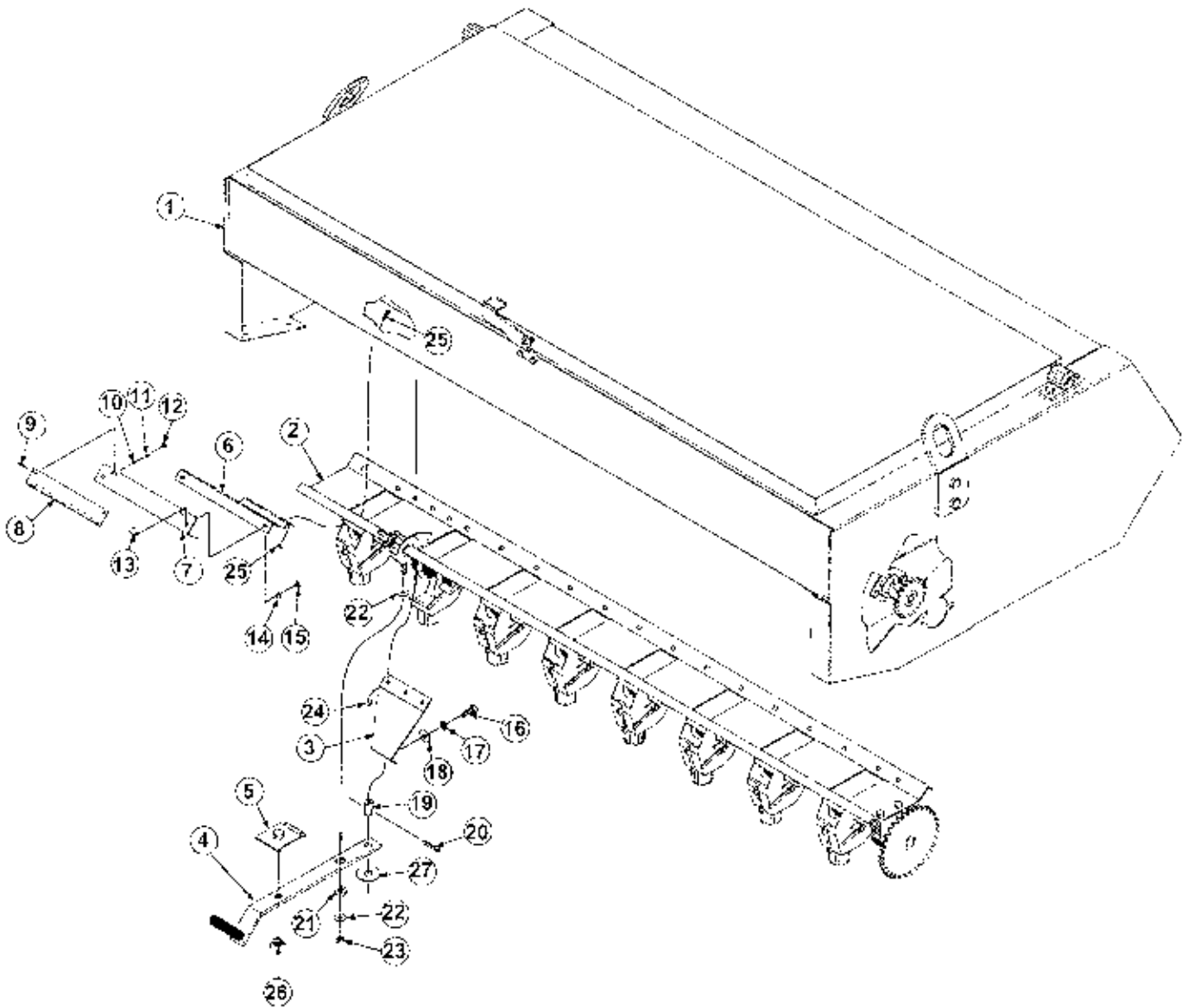
VINEYARD DRILL BOX ASSEMBLY



FEEDER CUP AND DRIVE COMPONENTS

| <u>Ref.No.</u> | <u>Part No.</u> | <u>DESCRIPTION</u> |
|----------------|--------------------|------------------------------------------|
| 1. | VD-B | Box Weldment |
| 2. | VD-K-01 | Cup Tray |
| 3. | VD-K-03 | Pivot Handle Adjustment Mount |
| 4. | VD-K-02 | Seed Rate Adjustment Handle |
| 5. | 109-025H | Adjustment Lock Plate |
| 6. | VD-K-04 | Gauge Mounting Plate |
| 7. | VD-K-06 | Seed Gauge Mount Plate |
| 8. | VD-K-07 | Seed Rate Indicator Plate |
| 9. | ----- | Screw, Round Head #10 x 1/2" |
| 10. | ----- | Washer, Flat #10 |
| 11. | ----- | Washer, Internal Star #10 |
| 12. | ----- | Nut, Hex #10 |
| 13. | ----- | Bolt, Hex Flange 1/4" - 20 x 5/8" Long |
| 14. | ----- | Washer, Lock Spring 1/4" Plated |
| 15. | ----- | Nut, Hex 1/4" - 20 Gr 2 Plated |
| 16. | ----- | Bolt, Hex Head 3/8" - 16 x 1" Long |
| 17. | ----- | Washer, Lock Spring 3/8" Plated |
| 18. | ----- | Washer, Flat 3/8" SAE Plated |
| 19. | 109-069D | Adjustment Handle Pivot Bushing |
| 20. | ----- | Pin, Cotter 3/16" x 1-1/4" Long Plated |
| 21. | 308-015D | Seed Adjustment Bearing Ring Pivot |
| 22. | ----- | Washer, Flat 5/16" USS Plated |
| 23. | ----- | Nut, Nylon Self Locking Hex 5/16" - 18 |
| 24. | ----- | Nut, Hex 1/4" - 20 |
| 25. | ----- | Bolt, Hex Carriage 1/4" - 20 x 3/4" Long |
| 26. | ----- | Nut, Wing 1/2" - 13 Plated |
| 27. | ----- | Washer, Flat 5/8" USS Plated |

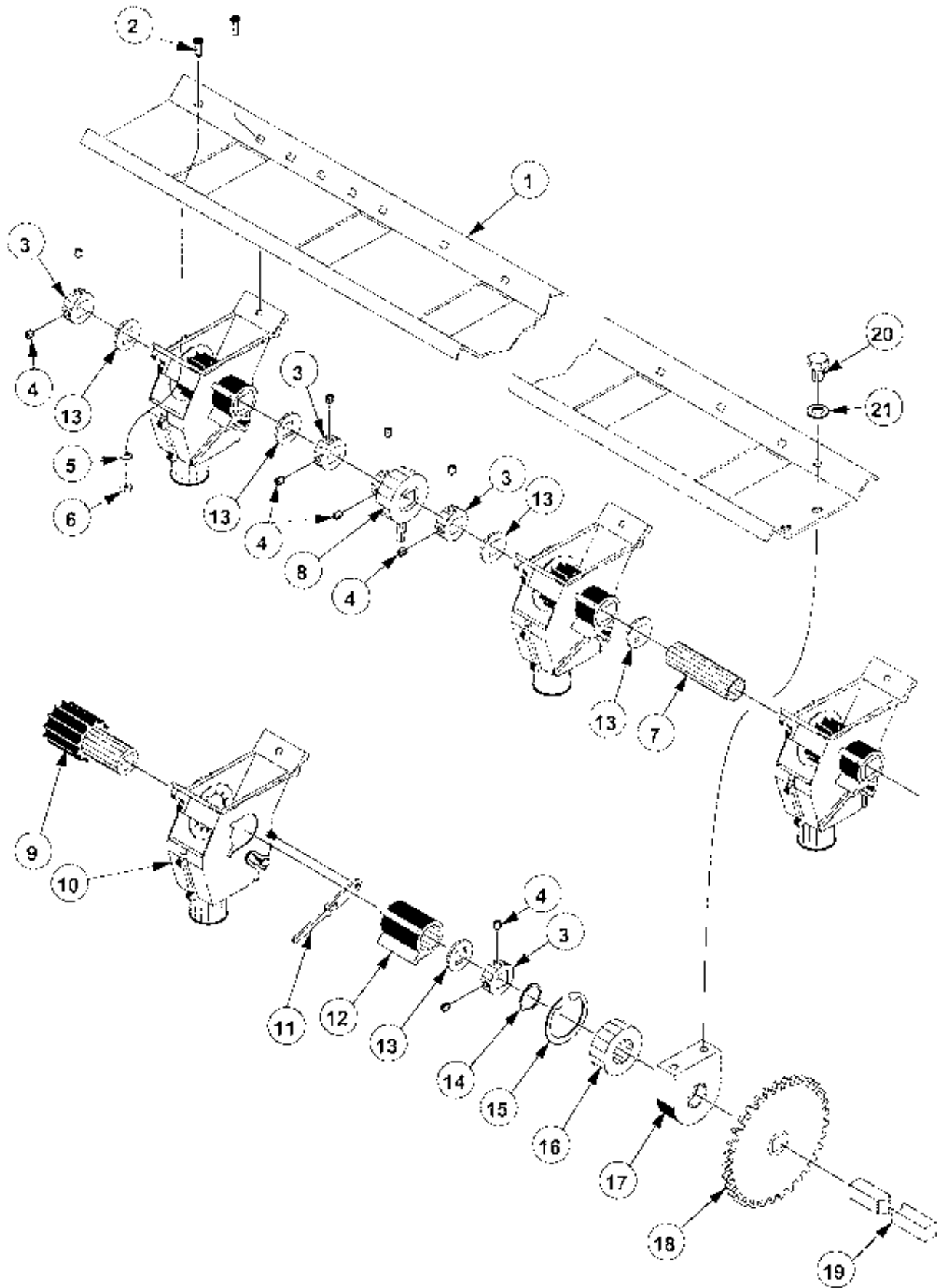
FEEDER CUP AND DRIVE COMPONENTS



FEEDER CUP ASSEMBLY

| <u>Ref. No.</u> | <u>Part No.</u> | <u>DESCRIPTION</u> |
|-----------------|-----------------------------|-------------------------------------------------|
| 1. | VD4-K-01 | 4' Seed Cup Tray |
| | VD5-K-01 | 5' Seed Cup Tray |
| | VD6-K-01 | 6' Seed Cup Tray |
| 2. | ----- | Bolt, Carriage 1/4" - 20 x 3/4" Long |
| 3. | 182-022D | Feeder Cup Shaft Locking Collar |
| 4. | 801-035C | Screw, Set Knurled Point 5/16" - 18 x 3/8" Long |
| 5. | ----- | Washer, Lock 1/4" |
| 6. | 803-006C | Nut, Hex 1/4" - 20 Gr 5 Plated |
| 7. | 113-433D VD-K-07 | Spacer Tube 3-9/16" Long |
| 8. | 308-004S | Sprocket Shaft Adjustment Bearing Assembly |
| 9. | 890-190C | Powder Metal Sprocket |
| 10. | 817-075C | Seed Cup Assembly |
| 11. | 817-071C | Seed Cup Adjustment Handle |
| 12. | 817-074C | Cup Sleeve |
| 13. | 804-031C | Washer, Retaining |
| 14. | 800-004C | Ring, Snap External 1-3/16" |
| 15. | 800-107C | Ring, Snap Internal 2.165 |
| 16. | 822-103C | Bearing, 30mm B x 55mm OD |
| 17. | 118-336D | Cup Drive Bearing Housing |
| 18. | VD-K-07 | Cup Drive Sprocket Weidment |
| 19. | VD4-K-05 | 4' Seed Cup Shaft |
| | VD5-K-05 | 5' Seed Cup Shaft |
| | VD6-K-05 | 6' Seed Cup Shaft |
| 20. | ----- | Bolt, Hex Head 3/8" - 13 x 3/4" Gr 5 |
| 21. | ----- | Washer, Lock Spring 1/2" Plated |
| | 176-031V | Cup Drive Housing Assembly |
| | | Includes 1 Each of Items 15 Through 17 |
| | VD-K-08 | Drive Sprocket Assembly 33 Tooth |
| | | Includes 1 Each of Items 14 Through 18 |

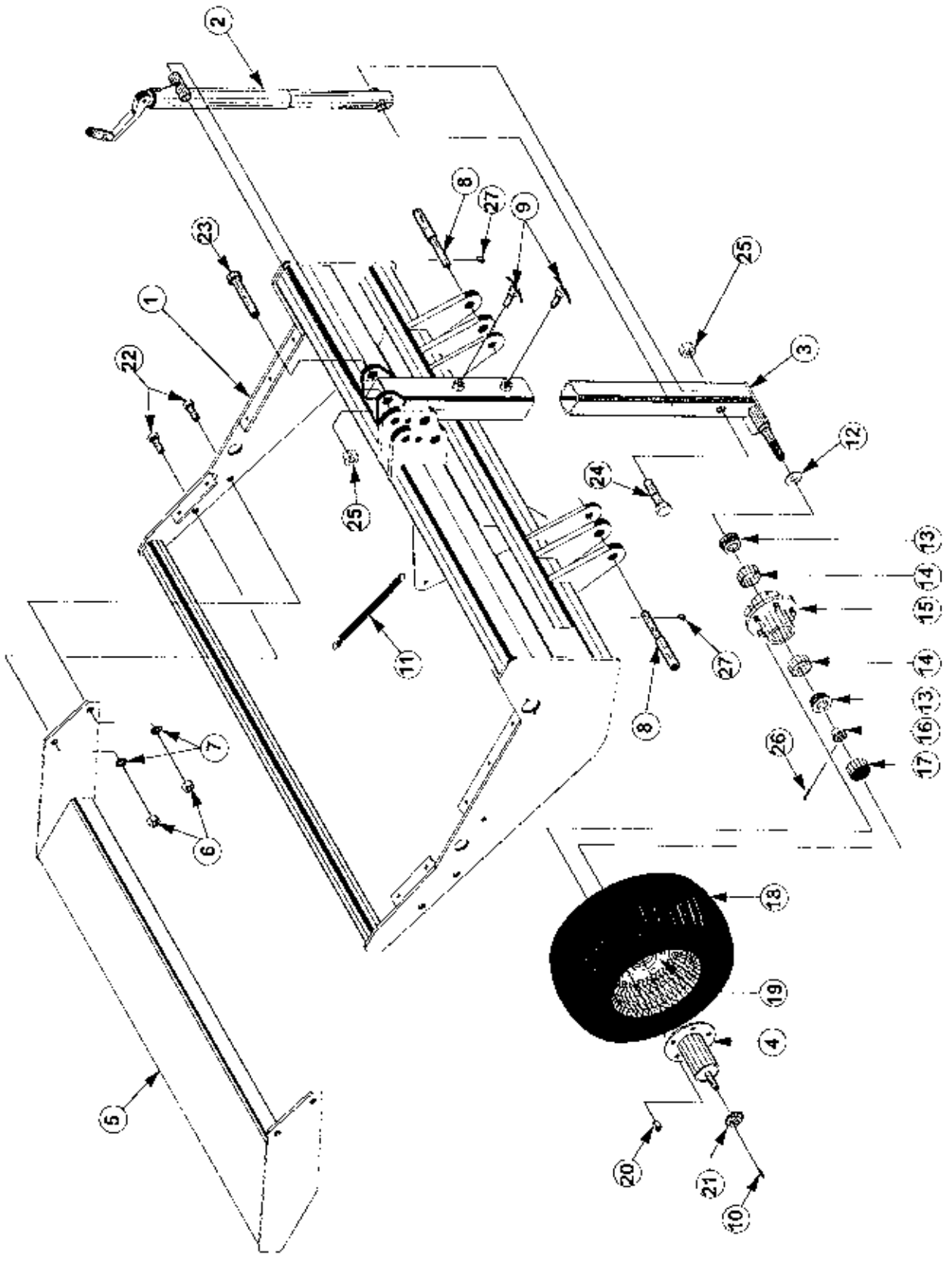
FEEDER CUP ASSEMBLY



MAIN FRAME, WHEEL LEG, & WALKBOARD ASSEMBLIES

| <u>Ref.No.</u> | <u>Part No.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|----------------|-----------------|-------------------------------------|-------------|
| 1. | VD4-A | 4' Main Frame | 1 |
| | VD5-A | 5' Main Frame | 1 |
| | VD6-A | 6' Main Frame | 1 |
| 2. | VD-J | Jack Screw | 1 |
| 3. | VD-E | Wheel Leg | 1 |
| 4. | VD-D | Wheel Shaft | 1 |
| 5. | VD4-H | 4' Walk Board | 1 |
| | VD5-H | 5' Walk Board | 1 |
| | VD6-H | 6' Walk Board | 1 |
| 6. | ----- | 3/4" Hex Nuts | 4 |
| 7. | ----- | 3/4" Lockwashers | 4 |
| 8. | VD-F-01 | Clevis Pin Cat. I & II | 2 |
| 9. | VD-J-02 | Set Screws | 2 |
| 10. | VD-G-10 | Sprocket Key | 1 |
| 11. | VDB-01 | 7" Tension Spring | 1 |
| 12. | VDB-04 | Oil Seal | 1 |
| 13. | VDB-05 | Bearing Cone | 2 |
| 14. | VDB-06 | Bearing Cup | 2 |
| 15. | VDB-07 | Hub, 5 Studs | 1 |
| 16. | VDB-08 | Castle Nut | 1 |
| 17. | VDB-09 | Hub Cap | 1 |
| 18. | VDB-10 | 20.5 x 8 x 10 Tire | 1 |
| 19. | VDB-11 | 8 x 10 Wheel, 5 on 5 | 1 |
| 20. | VDB-12 | Lug Nuts | 5 |
| 21. | VDB-13 | 12 Tooth Sprocket | 1 |
| 22. | ----- | 3/4" x 2" Hex Head Gr 5 z/p Bolts | 4 |
| 23. | ----- | 1" x 5-1/2" Hex Head Gr 5 z/p Bolts | 1 |
| 24. | ----- | 1" x 4" Hex Head Gr 5 z/p Bolts | 1 |
| 25. | ----- | 1" Hex Nuts | 2 |
| 26. | ----- | 1/4" x 1-1/2" Cotter Pin | 1 |
| 27. | ----- | 1/4" x 1-3/4" Lynch Pins | 2 |

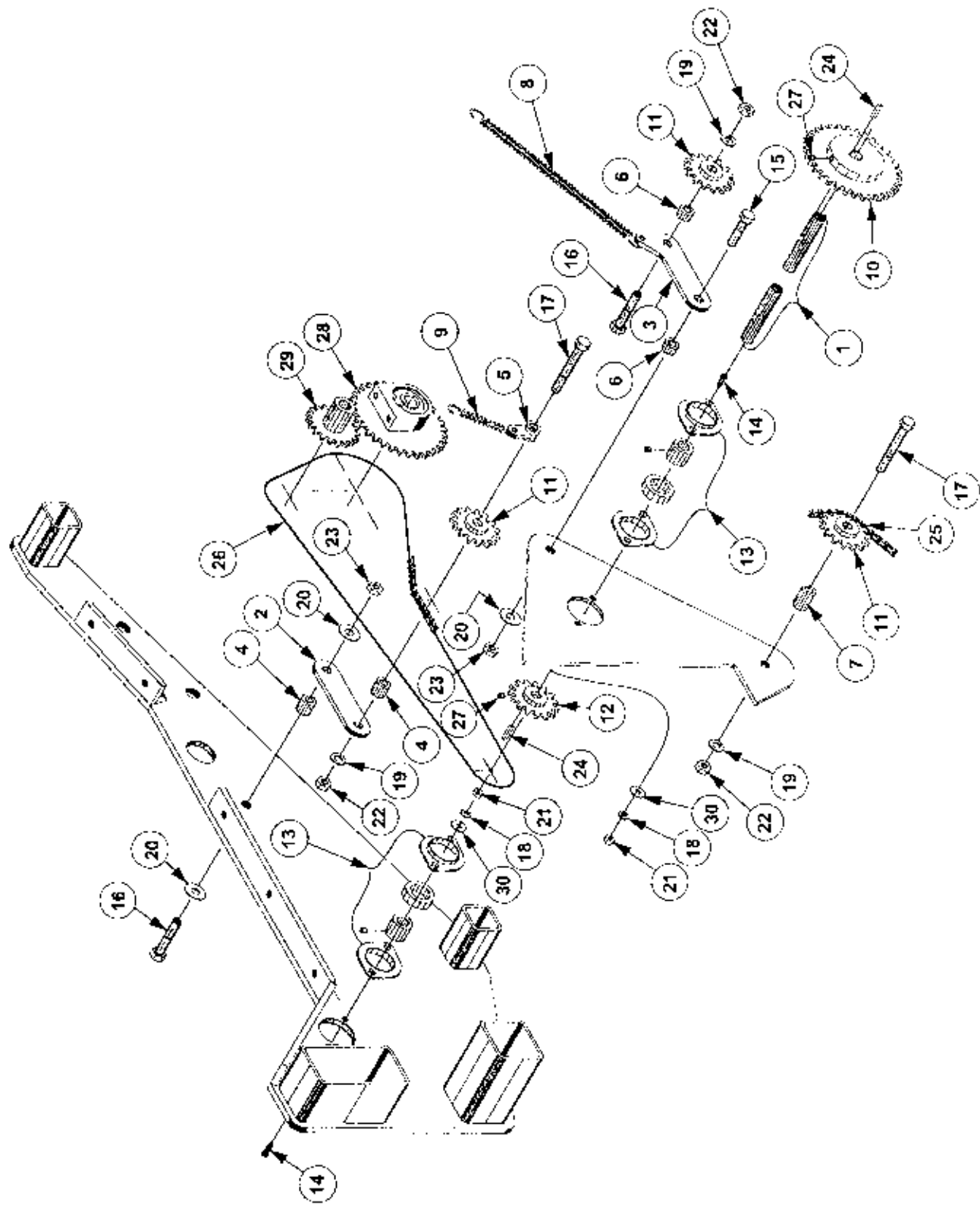
MAIN FRAME, WHEEL LEG & WALKBOARD ASSEMBLIES



JACK SHAFT, SPROCKET, IDLER & BEARING ASSEMBLIES

| <u>Ref No.</u> | <u>Part No.</u> | <u>DESCRIPTION</u> | <u>QTY.</u> |
|----------------|-----------------|---------------------------------------|-------------|
| 1. | VD4-G-06 | 4' Jack Shaft | 1 |
| | VD5-G-06 | 5' Jack Shaft | 1 |
| | VD6-G-06 | 6' Jack Shaft | 1 |
| 2. | VD-G-02 | End Plate Tensioner Arm | 1 |
| 3. | VD-G-01 | Center Tensioner Arm & Spring Anchor | 1 |
| 4. | VD-G-03b | Bushing, 13/16" Long | 2 |
| 5. | VD-G-03 | Bushing, Spring Anchor | 1 |
| 6. | VD-G-04 | Bushing, 1/2" Long | 2 |
| 7. | VD-G-05 | Bushing, 1-1/4" Long | 1 |
| 8. | VDB-01 | 7" Tension Spring | 1 |
| 9. | VDB-02 | 2-1/2" Tension Spring | 1 |
| 10. | VDB-33TS | 33 Tooth Sprocket | 1 |
| 11. | VDB-15I | 15 Tooth Idlers | 3 |
| 12. | VDB-12TS | 12 Tooth Sprocket | 1 |
| 13. | VDB-03 | Stamped Flange Bearings, 3/4" Bore | 2 |
| 14. | ----- | 5/16" x 1" Carriage Square Neck Bolts | 4 |
| 15. | ----- | 1/2" x 2" Hex Head Gr 5 z/p Bolt | 1 |
| 16. | ----- | 1/2" x 2-1/2" Hex Head Gr 5 z/p Bolt | 2 |
| 17. | ----- | 1/2" x 3-1/2" Hex Head Gr 5 z/p Bolt | 2 |
| 18. | ----- | 5/16" Lock Washers | 4 |
| 19. | ----- | 1/2" Lock Washers | 3 |
| 20. | ----- | 1/2" Flat Washer | 3 |
| 21. | ----- | 5/16" Hex Nuts | 4 |
| 22. | ----- | 1/2" Hex Nuts | 3 |
| 23. | ----- | 1/2" Nylon Locknuts | 2 |
| 24. | VD-G-10 | Sprocket Key | 2 |
| 25. | ----- | #40 Roller Chain 63 1/2" Long | 1 |
| 26. | ----- | #40 Roller Chain 54 1/2" Long | 1 |
| 27. | ----- | Set Screws, 3/16" | 2 |
| 28. | 118-226S | Feeder Cup Bearing Assembly | 1 |
| 29. | ----- | 19 Tooth Speed Change Sprocket | 1 |
| 30. | ----- | 5/16" Flat Washer | 2 |

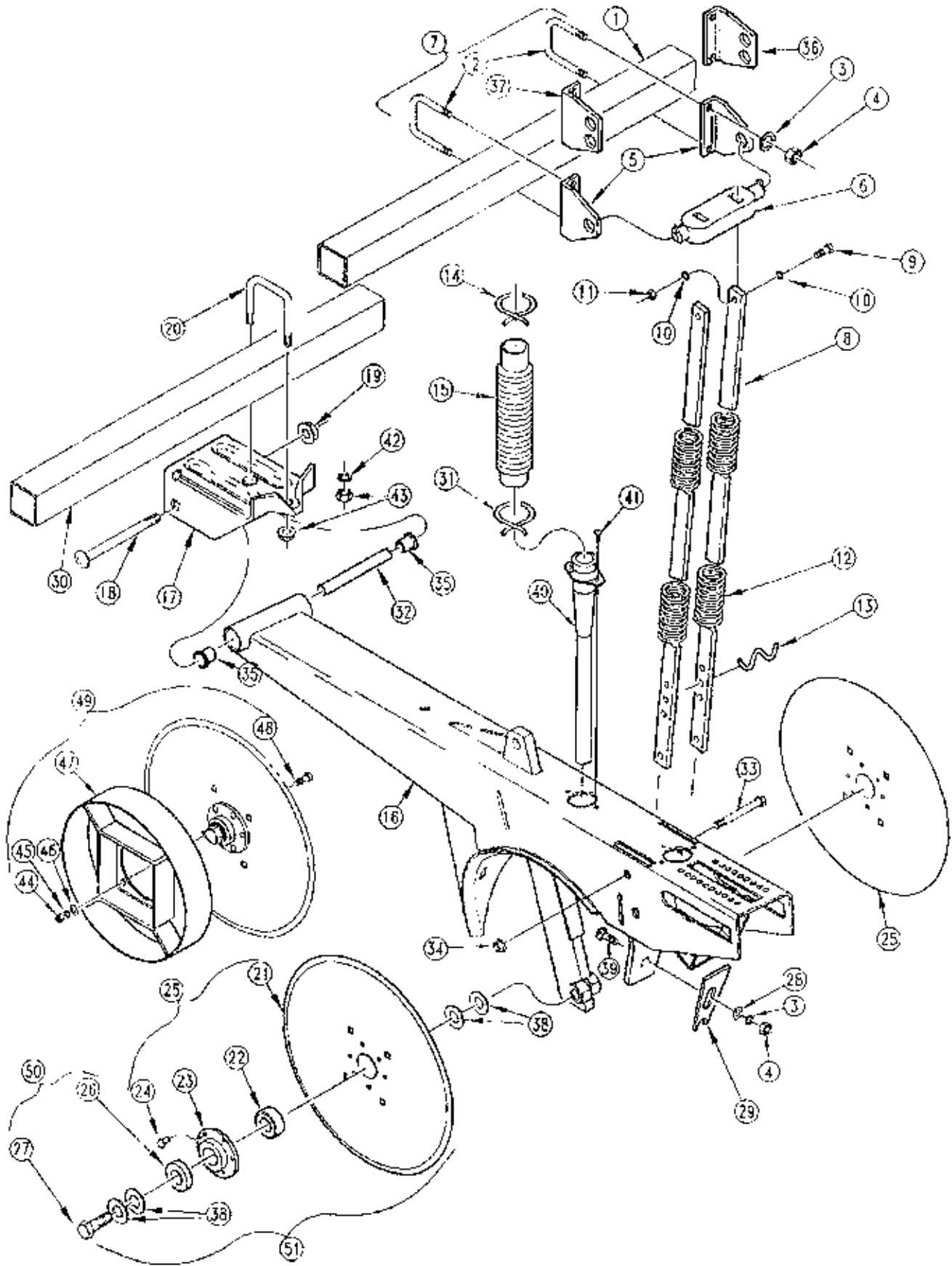
JACK SHAFT, SPROCKET, IDLER & BEARING ASSEMBLIES



STRAIGHT ARM DOUBLE DISK OPENER ASSEMBLY

| Ref No. | Part No. | DESCRIPTION |
|---------|----------|-----------------------------------------------------------------------------------------------------------------------------|
| 1. | | Spring Rod Mounting Tube |
| 2. | 806-004C | U-Bolt, 3/8" - 16 x 2" x 2-3/4" Long |
| 3. | 804-013C | Washer, Lock 3/8" |
| 4. | 803-014C | Nut, Hex 3/8" - 16 |
| 5. | 121-025D | Clip, Spring Rod Casting |
| 6. | 812-012C | Triple Spring Rod Casting |
| 7. | 121-011A | Spring Casting Mounting Assembly, Includes 1 Each of Item 6, 2 Each of items 2 & 5, 4 Each of Items 3 & 4 |
| 8. | 121-133D | Straight Arm Opener Spring Rod |
| 9. | 802-004C | Bolt, Hex 1/4" - 20 x 3/4" Long |
| 10. | 804-006C | Washer, Lock 1/4" |
| 11. | 803-006C | Nut, Hex 1/4" - 20 |
| 12. | 807-118C | Spring Comp 13/16 IDX. 156Wx19.5 |
| 13. | 107-027D | Double Disk Bar Wire Clip |
| 14. | 800-009C | Clamp, Hose 1-5/8" #26 |
| 15. | 816-114C | Seed Hose - 30 Ribs x 7 1/2 I.G |
| 16. | 121-703H | Opener Weldment - Short |
| 17. | 142-194D | 94 Straight Arm Opener Mount |
| 18. | 802-121C | Bolt, Carriage 1/2" - 13 x 5-1/2" Long Gr 5 |
| 19. | 803-169C | Nut, Hex Ft.G. Lock 1/2 - 13 Plt |
| 20. | 806-109C | U-Bolt 1/2" - 13 3 1/32" x 3 7/8" |
| 21. | 107-134A | 13 1/2 Blade Update 1/4 Rivets |
| 22. | 188-001C | Bearing AA205DD |
| 23. | 890-452C | Ribbed Bearing Flange-Plated |
| 24. | 800-212C | Rivet, Button Head .203 x 9/16" |
| 25. | 107-133S | D.D. W/ 205 BRG Assy-Plt Flng |
| 26. | 107-111D | DD BRG Flange Dust Cover |
| 27. | 802-228C | HHCS 5/8-11 x 1 1/2 GR5 Nyl |
| 28. | 804-012C | Washer Flat 3/8 SAE Plt |
| 29. | 107-113D | D.D. Slotted Scraper |
| 30. | | Opener Mounting Tube |
| 31. | 800-008C | Clamp Hose 1 1/2 No. 24 |
| 32. | 142-198D | Straight Arm Opener Pivot Pipe |
| 33. | 802-427C | HFS 3/8 - 16 x 3 5/8 SPTIID |
| 34. | 803-209C | Nut Flange Lock 3/8 - 16 Plt |
| 35. | 817-084C | Parallel Arm Pivot Bushing |
| 36. | 121-127D | Offset Spring Rod Clip R.H. |
| 37. | 121-128D | Offset Spring Rod Clip L.H. |
| 38. | 804-040C | Washer Mach 1.00 x .625 x 18GA |
| 39. | 802-015C | RHSNB 3/8 - 16 x 1 GR 5 |
| 40. | 817-133C | Plastic Opener Seed Tube |
| 41. | 801-007C | Screw Hex Slit 10 - 16 x 3/8 P.THd CT |
| 42. | 804-015C | Washer Lock Spring 1/2 Plt |
| 43. | 803-037C | Nut Hex Whiz 1/2 - 13 Plt |
| 44. | 803-008C | Nut Hex 5/16 - 18 Plt |
| 45. | 804-009C | Washer Lock Spring 5/16 Plt |
| 46. | 804-036C | Washer Flat 5/16 SAE Plt |
| 47. | 121-704H | 10 1/2 Depth Band Wlmt |
| 48. | 802-029C | HHCS 7/16 - 14 x 1 1/2 GR 5 |
| 49. | 121-705A | 10 1/2 Depth Band Bundle |
| 50. | 107-136S | Blade Update Hardware |
| 51. | 107-134A | 13 1/2 Blade Update - 1/4 Rivets |

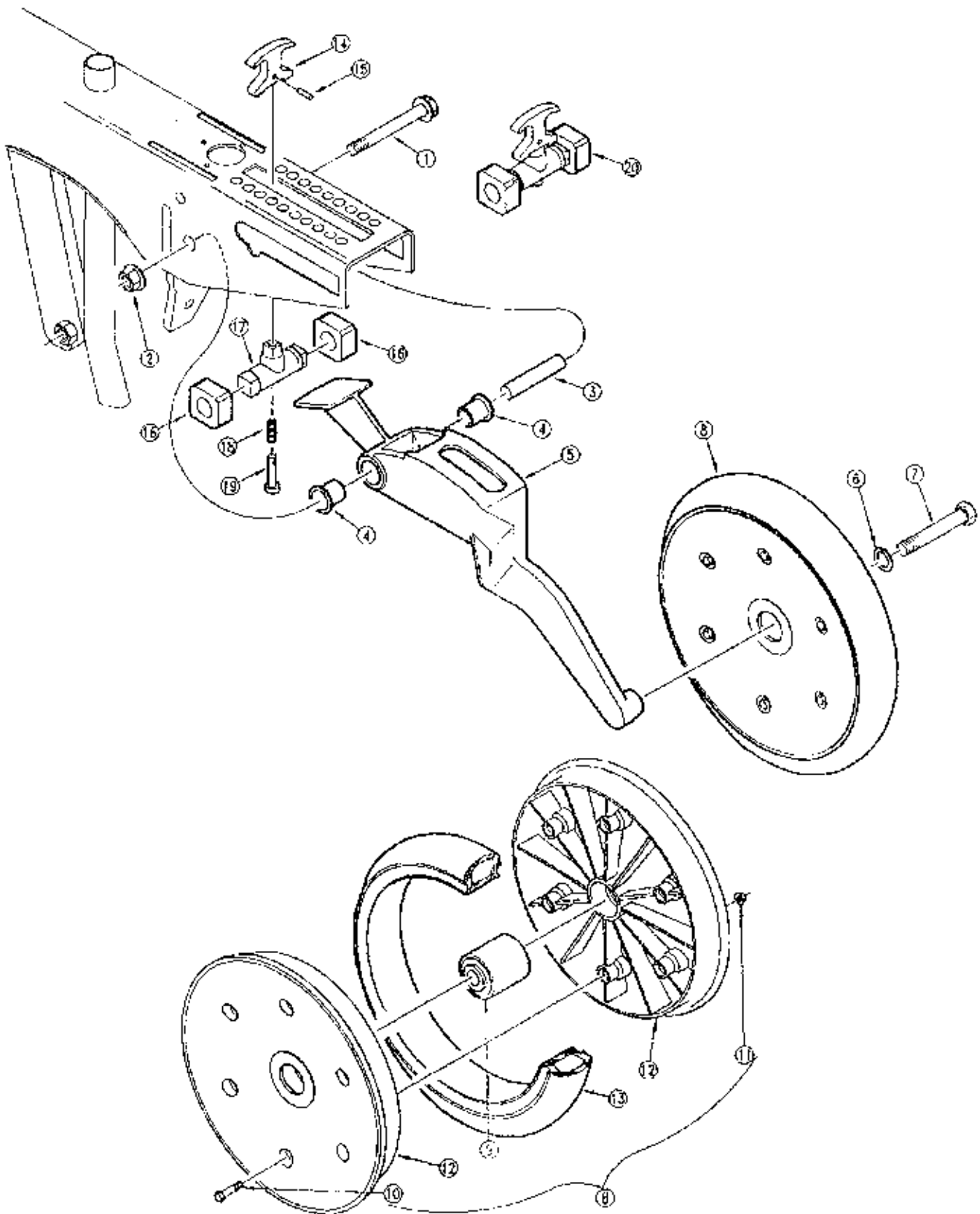
STRAIGHT ARM DOUBLE DISK OPENER ASSEMBLY



2" x 13" SMOOTH CROWN PRESS WHEEL

| Ref. No. | Part No. | DESCRIPTION |
|----------|----------|--------------------------------|
| 1. | 802-421C | HFS ½ - 13 x 3 ¾ |
| 2. | 803-169C | Nut Hex Flg. Lock ½ - 13 Pht. |
| 3. | 198-137D | Press Wheel Pivot Tube |
| 4. | 817-084C | Parallel Arm Pivot Bushing |
| 5. | 199-028D | 2 x 13 Press Wheel Arm |
| 6. | 804-022C | Washer Lock Spring 5/8 Plt |
| 7. | 802-058C | HHCS 5/8 11 x 2 ½ GR5 |
| 8. | 814-157C | 2 x 13 Press Wheel Assembly |
| 9. | 822-170C | Bearing Press Wheel Assembly |
| 10. | 802-617C | HHFS ¼ -20 x 1 ½ GR 5 |
| 11. | 803-088C | Nut Hex Lock ¼ - 20 Flg |
| 12. | 817-296C | 2 x 13 Press Wheel Rim Half |
| 13. | 814-159C | 2 x 13 Press Wheel Tire |
| 14. | 817-328C | T Handle Assembly |
| 15. | 805-186C | Pin Roll 5/32 x 5/8 Plt |
| 16. | 817-132C | Press Wheel Arm Bumper |
| 17. | 812-194C | Casting PW Adjustment Trunnion |
| 18. | 807-106C | Spring .540 O.D. x 1 ¼ x .054W |
| 19. | 805-154C | Pin Clevis 3/8 x 2 1/8 Usable |
| 20. | 122-202S | PW Adjustment Trunnion Assy |

2" x 13" SMOOTH CROWN PRESS WHEEL.



LIMITED WARRANTY

T.G. Schmeiser Co., Inc. P.O. Box 1047, Fresno, California 93714, warrants, to the original Retail Customer, the new Schmeiser equipment identified to be free of defects in material and workmanship. Any part of said equipment that, in Schmeiser's judgement, shows evidence of such defects will be repaired without charge, provided that the failure of part(s) shall have occurred within six (6) months from the date of delivery of said equipment to the Retail Customer. Tires, hoses, Hydraulic components and other trade accessories may be warranted by their respective manufacturers and those warranties, if any, are hereby extended to the Retail Customer. Expendable components such as points, shanks, blades, rings, teeth, and the like are excluded from this warranty.

The Retail Customer must pay the transportation cost to and from the Schmeiser Dealer's service shop for warranty service. Warranty service will be performed by the Schmeiser Dealer from whom the equipment was purchased, in his service shop and during his regularly scheduled days and hours of operation.

All Schmeiser obligations under this warranty shall be terminated if the equipment is modified or altered in ways not approved in writing by Schmeiser, if repair parts other than genuine Schmeiser repair parts have been used, or if the equipment has been subject to misuse, neglect, accident, improper maintenance or improper protection in storage.

Schmeiser reserves the right to make improvements in design or changes in specification at any time without incurring any obligation to owners of equipment previously sold.

No agent or persons has authority to alter, add to or waive above warranties which agreed to be the only warranties, representation or promises, expressed or implied, as to the quality or performance of the products covered and which do not include any implied warranty or merchantability or fitness. In no event will Schmeiser be liable for incidental or consequential damages or injuries, including, but not limited to, loss of crops, loss of profits, rental of substitute equipment or other commercial loss.