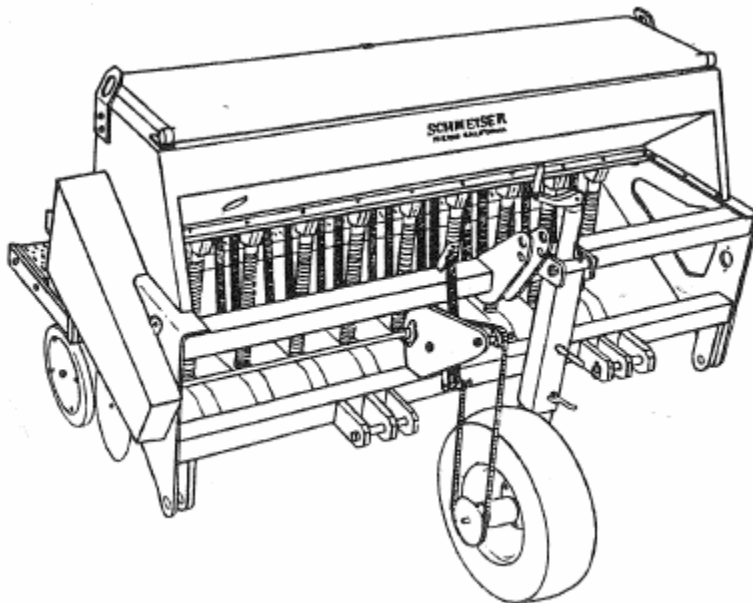


# **SCHMEISER VINEYARD DRILL**

## **ASSEMBLY & PARTS MANUAL**



**T.G. SCHMEISER CO. INC.**  
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VERSION 1.4

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## INTRODUCTION

Your Schmeiser Vineyard Drill/Seeder 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/Seeder require replacement parts, go to your Schmeiser dealer. Always order genuine Schmeiser replacement parts.

It is important 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 your 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, Chain Guard 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 .....                     | 13.3 |
| Till an' Pak Frame and Seed Box to Main Frame Assemblies .....    | 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/Seeder 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 Grain Drill when moving.
2. Never permit anyone to ride on tractor when Drill is being moved.
3. Never allow anyone to be near Drill when performing operating functions with the Grain Drill or tractor.
4. Never load Grain drill without being hooked-up to tractor.
5. Extra care should be taken when transporting with seed in the boxes.
6. Never back Grain 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 roads.
8. Reduce speed of tractor when transporting over hills or steep slopes.
9. Always set grain Drill in field position before lubrication.
10. Do **NOT** lubricate, adjust or repair the Grain 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 Drill, wear safety glasses.
16. When transporting, remember the Drill may be wider than your tractor and extreme care must be taken to allow for safe clearance.

## SCHMEISER VINEYARD DRILL/SEEDER SEED RATE ADJUSTMENTS

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/Seeder 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 on the gauge wheel drive having a 20.5 x 8.0 x 10 tire with the recommended tire inflation.
- 3) The large differences 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/Seeder.
  - 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 the seed as it is metered.
  - f. On 4 ft. wide models rotate the tire 46 times to obtain 1,000 square feet. On 6 ft. wide 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/Seeder 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/Seeder to your seed, you may need to adjust the seeding rate slightly to compensate for your field conditions.



## SEEDING RATES FOR SCHMEISER VINEYARD DRILL/SEEDER

1-1-93

Rates in Pounds per Planted Acre

Sprocket Combination: 15/25 x 15/33

| Seed                            | Seed Rate Indicator Setting Number |    |    |    |     |     |     |     |     |     |
|---------------------------------|------------------------------------|----|----|----|-----|-----|-----|-----|-----|-----|
|                                 | 10                                 | 20 | 30 | 40 | 50  | 60  | 70  | 80  | 90  | 100 |
|                                 | POUNDS PER ACRE                    |    |    |    |     |     |     |     |     |     |
| Pearl Millet                    | 17                                 | 34 | 48 | 64 | 80  | 95  | 111 | 129 | 145 | 161 |
| Winter Forage #1                | 9                                  | 19 | 39 | 52 | 65  | 80  | 93  | 104 | 117 | 130 |
| Westerwald<br>Annual Ryegrass62 | 8                                  | 16 | 24 | 32 | 40  | 44  | 52  | 56  | 62  | 69  |
| Crimson/Berseem                 | 19                                 | 37 | 53 | 71 | 88  | 107 | 125 | 135 | 152 | 168 |
| Cahaba Vetch                    | 22                                 | 44 | 60 | 81 | 101 | 128 | 149 | 166 | 187 | 208 |
| Cahaba/Barley Mix               | 20                                 | 40 | 60 | 81 | 101 | 133 | 155 | 160 | 180 | 200 |
| Germain's<br>Cover Crop #1      | 16                                 | 32 | 55 | 73 | 91  | 143 | 156 | 167 | 176 | 195 |
| Cover Crop #2                   | 12                                 | 24 | 54 | 72 | 90  | 119 | 139 | 154 | 173 | 192 |
| Cover Crop #3                   | 15                                 | 29 | 63 | 84 | 105 | 149 | 174 | 180 | 203 | 225 |
| Annual Clover Mix               | 25                                 | 49 | 62 | 82 | 103 | 120 | 141 | 145 | 163 | 181 |
| Germain's<br>Insectary Mix      | 15                                 | 30 | 44 | 59 | 74  | 86  | 101 | 107 | 120 | 134 |
| Perennial Clover                | 18                                 | 36 | 50 | 66 | 83  | 94  | 103 | 109 | 116 | 129 |
| Cover Mate                      | 6                                  | 13 | 19 | 25 | 31  | 35  | 41  | 43  | 48  | 54  |
| Chinese Red Cowpea              | 23                                 | 47 | 73 | 97 | 122 | 169 | 198 | 221 | 249 | 276 |
| Common Vetch                    | 14                                 | 29 | 44 | 58 | 73  | 100 | 117 | 132 | 149 | 165 |
| Purple Vetch                    | 21                                 | 41 | 66 | 89 | 111 | 137 | 150 | 161 | 181 | 201 |
| Wooly Pod Vetch                 | 20                                 | 39 | 65 | 86 | 108 | 150 | 161 | 175 | 192 | 214 |
| Buckwheat                       | 14                                 | 27 | 41 | 54 | 68  | 88  | 103 | 113 | 127 | 142 |
| Sudan Grass Bravo               | 15                                 | 29 | 44 | 59 | 74  | 86  | 100 | 109 | 123 | 136 |
| Merced Ryegrain                 | 19                                 | 37 | 53 | 70 | 88  | 106 | 124 | 130 | 146 | 162 |
| Winter Forage #2                | 9                                  | 19 | 39 | 52 | 65  | 80  | 93  | 104 | 117 | 130 |

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

**SEEDING RATES FOR SCHMEISER VINEYARD DRILL/SEEDER**  
**Rates in Pounds per Planted Acre**

**1-1-93**

**Sprocket Combination: 15/25 x 15/33**

| Seed               | Seed Rate Indicator Setting Number |    |    |     |     |     |     |     |     |     |
|--------------------|------------------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|
|                    | 10                                 | 20 | 30 | 40  | 50  | 60  | 70  | 80  | 90  | 100 |
|                    | <b>POUNDS PER ACRE</b>             |    |    |     |     |     |     |     |     |     |
|                    | <b><u>LOHSE-MILL SEEDS</u></b>     |    |    |     |     |     |     |     |     |     |
| Perennial Clover   | 10                                 | 20 | 29 | 39  | 49  | 55  | 64  | 68  | 77  | 85  |
| Max. Organic Bldr. | 16                                 | 32 | 59 | 78  | 98  | 121 | 141 | 151 | 169 | 188 |
| Plow Down Legumes  | 20                                 | 41 | 77 | 103 | 129 | 176 | 205 | 213 | 239 | 266 |
| Beneficial Blend   | 23                                 | 46 | 68 | 90  | 113 | 133 | 155 | 166 | 187 | 207 |

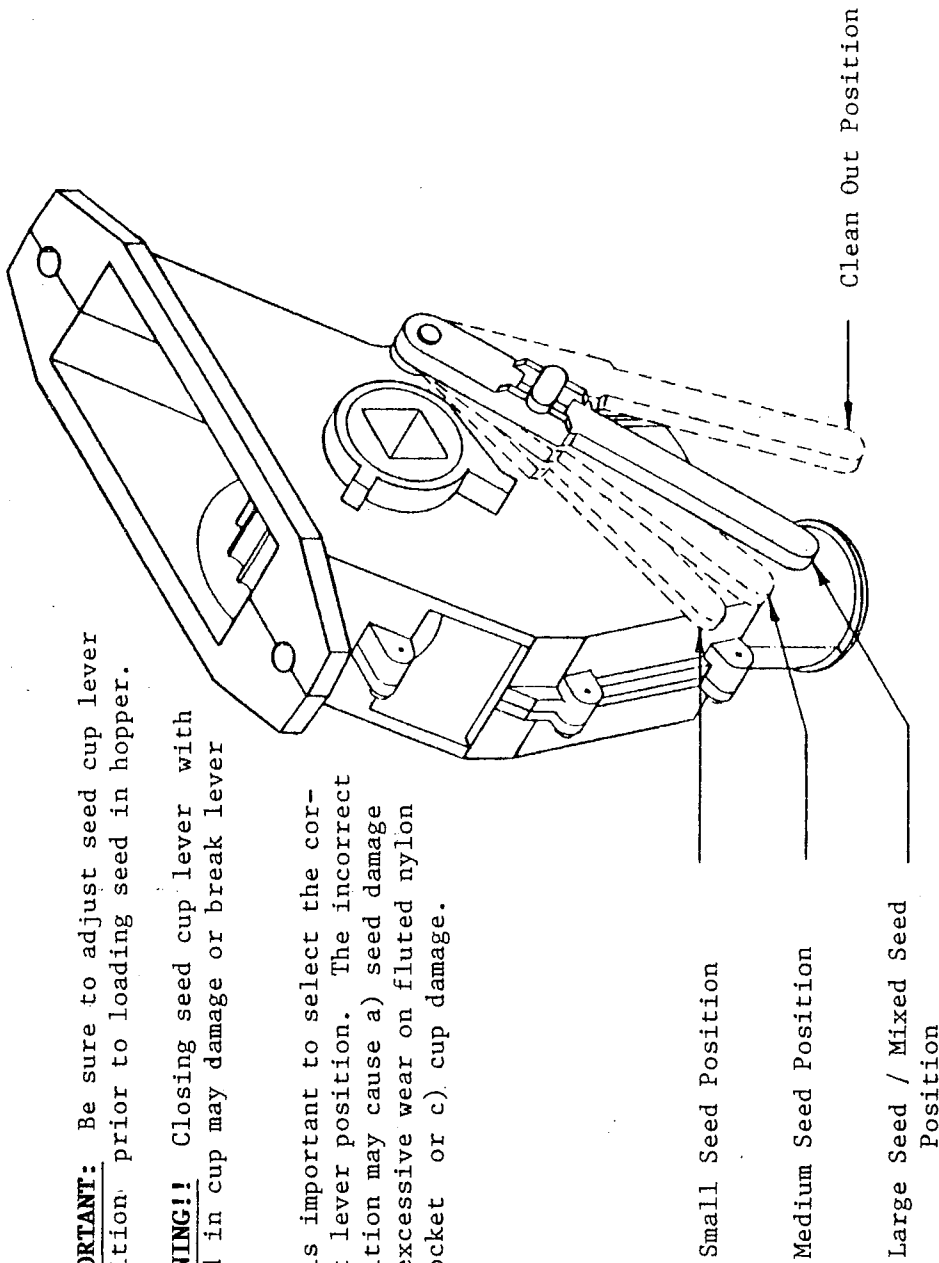
**CAUTION: THESE RATES ARE APPROXIMATE ONLY. PLEASE VERIFY OUTPUT PRIOR TO FIELD USE.**

SEED CUP

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

**WARNING!!** Closing seed cup 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.



VINEYARD DRILL

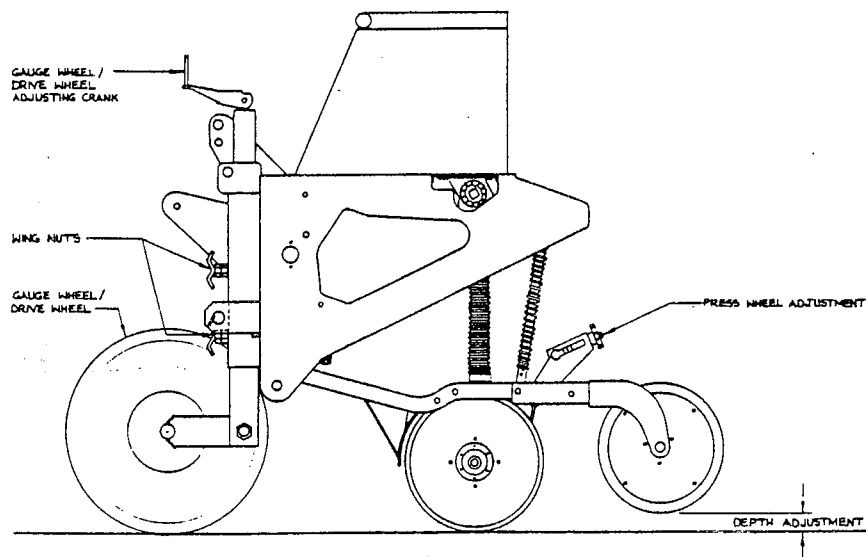
|                             |  |              |  |                    |  |
|-----------------------------|--|--------------|--|--------------------|--|
| SCALE: HALF SIZE            |  | APPROVED BY: |  | DRAWN BY M. JACOBY |  |
| DATE: 11/23/92              |  |              |  | REVISED            |  |
| SEED FEEDER CUP - ISOMETRIC |  |              |  |                    |  |
|                             |  |              |  | DRAWING NUMBER     |  |

# PLANTING DEPTH ADJUSTMENTS

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.

## **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 wing nuts located on the adjusting crank housing. 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 of your 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 of your openers.



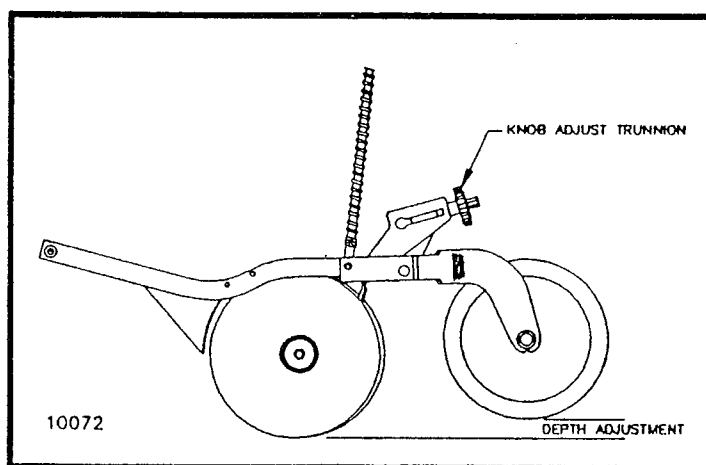
Check the spring rods cross bolts at the top of the spring rods to see that they are extended about 2" above their spring rod casting. This is a general dimension and may vary with spring rod down-pressure that you require for different soil conditions and planting depths. If you require more downward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

After adjusting the gauge wheel/gauge wheel, be certain to tighten up both wing nuts.

## PRESSWHEEL - OPENER LINKAGE DEPTH ADJUSTMENT

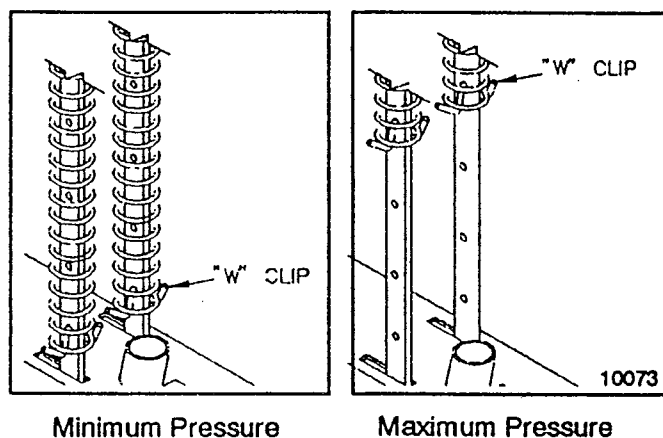
The depth of each opener is controlled by the height of the press wheel. For varying the height of the press wheel which automatically changes the seeding depth of the opener, simply rotate the knob located directly above each press wheel until the seeding depth is correct. A self-locking spring clip holds the knob at your setting to maintain the proper depth.



Direct Link Press Wheel Adjustment

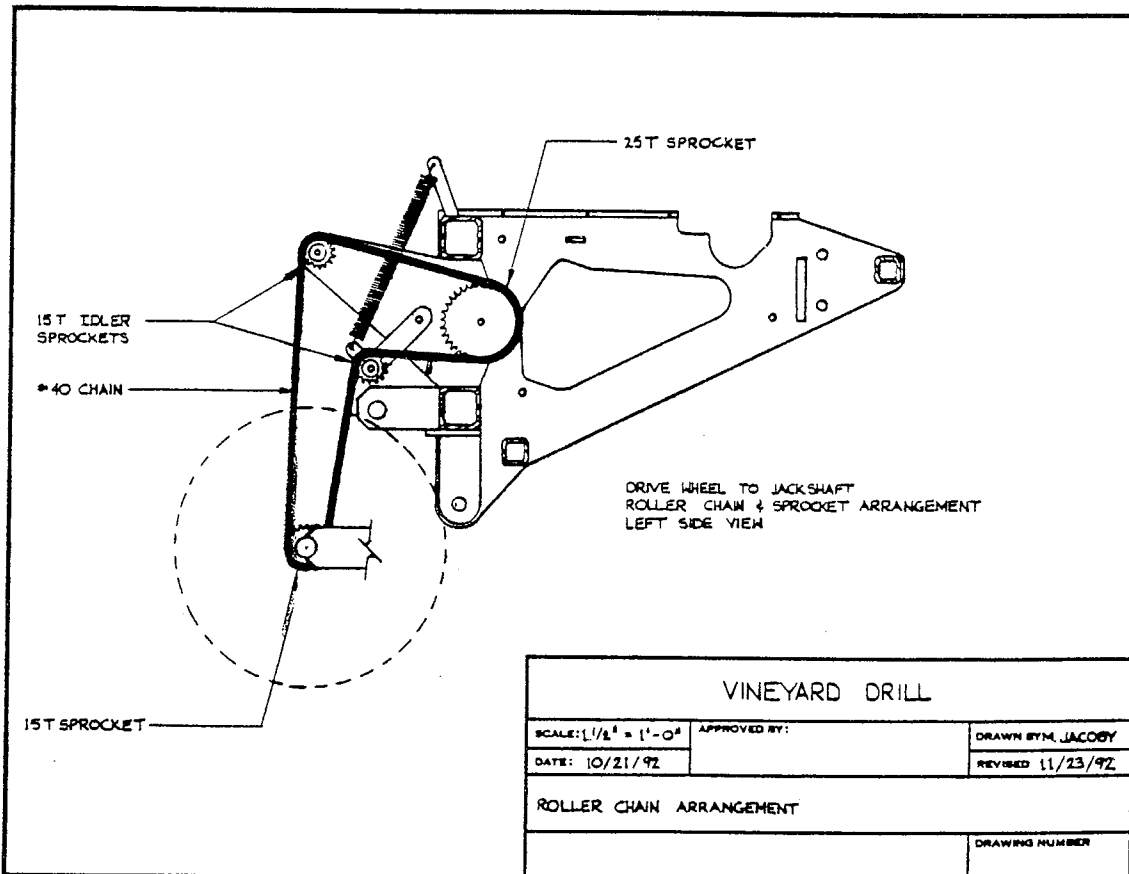
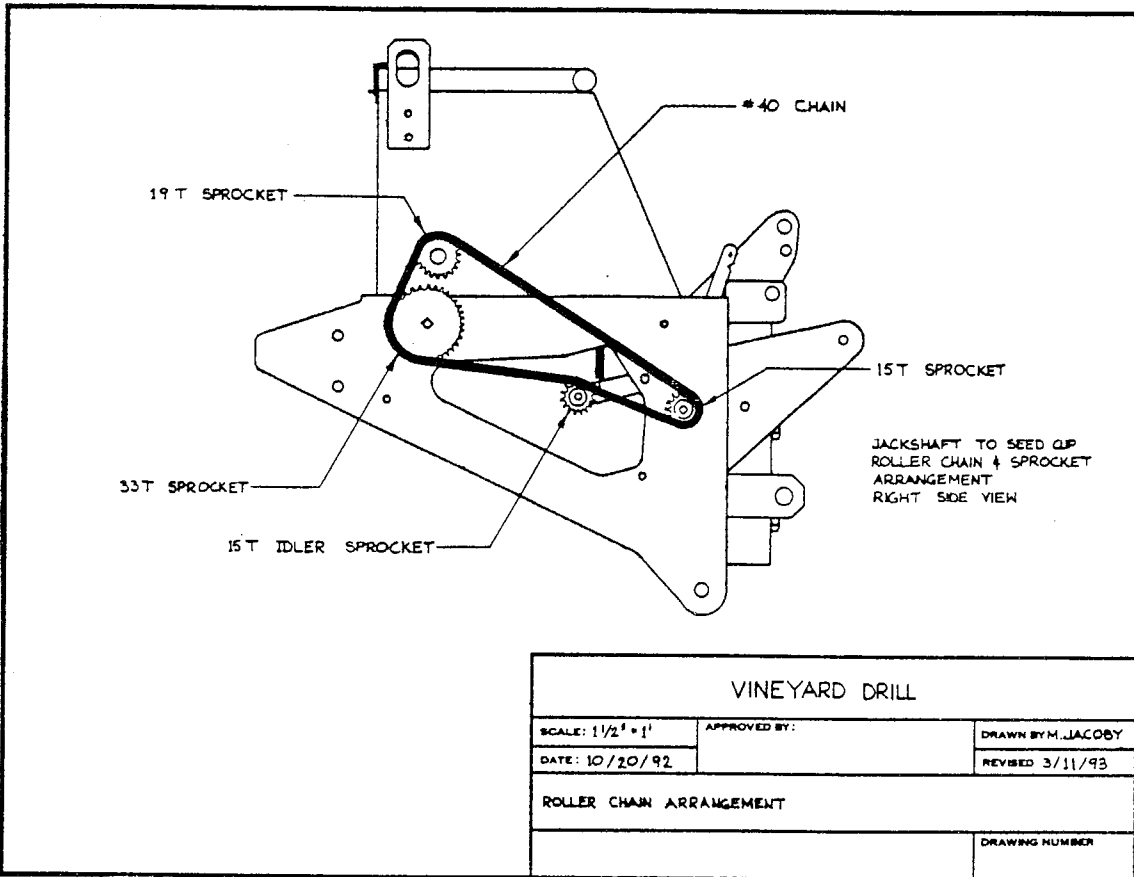
## DISK OPENER SPRING PRESSURE SETTING

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.



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# SPROCKET AND CHAIN ASSEMBLIES

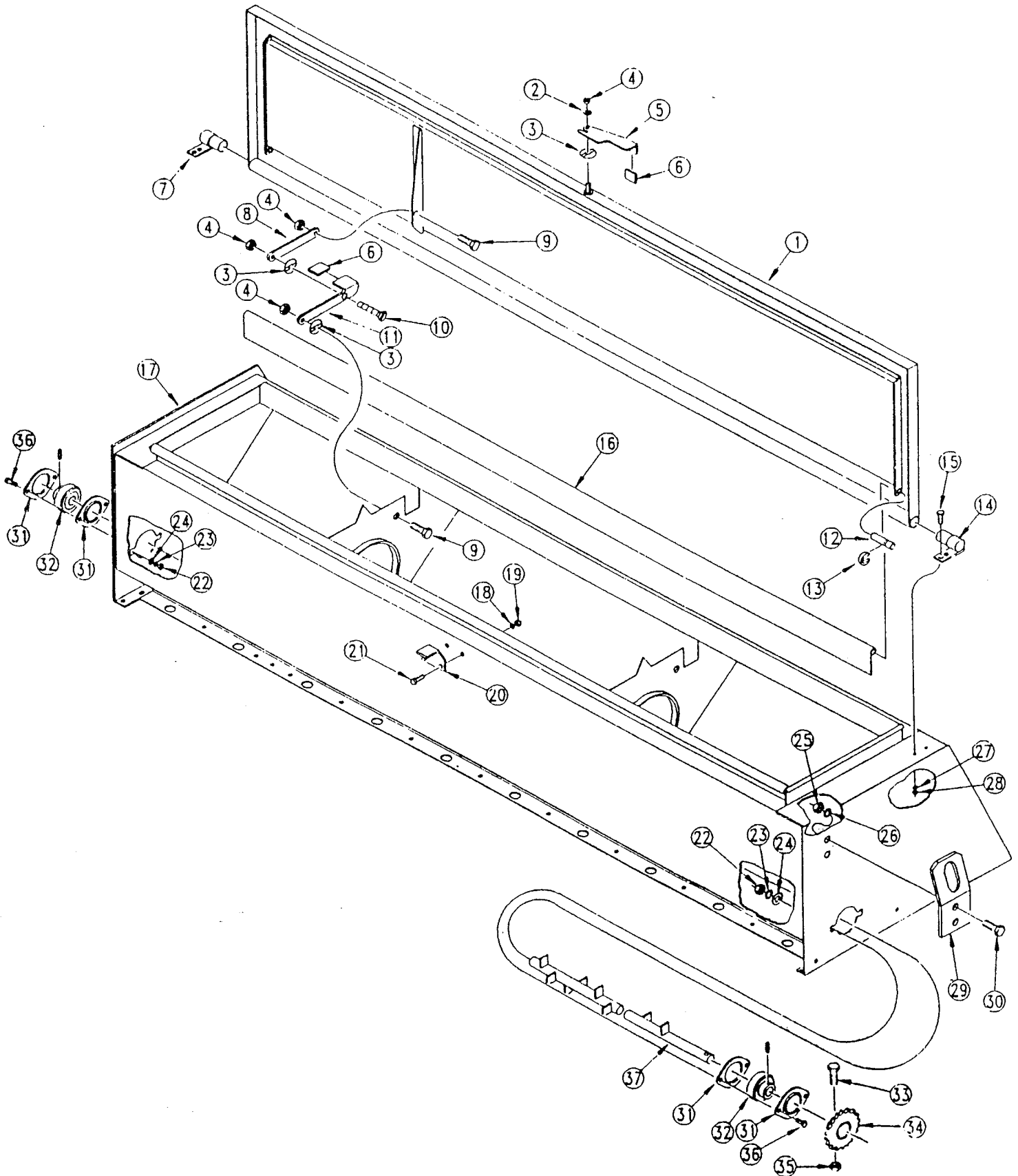


**VINEYARD DRILL BOX ASSEMBLY**

| <u>Ref. No.</u> | <u>Part No.</u> | <u>DESCRIPTION</u>                                     |
|-----------------|-----------------|--|
| 1.              | ✓308-002H       | Overseeder Lid Weldment OS1572                         |
|                 | 308-081H        | Overseeder Lid Weldment OS1548                         |
| 2.              | 804-036C        | Washer, Flat 5/16" SAE                                 |
| 3.              | 804-056C        | Washer, Wave Spring 5/16"                              |
| 4.              | 803-084C        | Nut, Hex Lock Collared 5/16" - 18                      |
| 5.              | ✓179-023C       | Lid Latch-Handle                                       |
| 6.              | 817-033D        | Lid Latch Grip   |
| 7.              | ✓179-004H       | Lid Hing Weldment - Left Hand                          |
| 8.              | ✓179-022D       | Lid Latch - Upper Arm                                  |
| 9.              | ✓802-159C       | Bolt, Hex Head 5/16" - 18 x 1" Long Gr 5 Plated        |
| 10.             | ✓801-024C       | Screw, Countersunk 5/16" - 18 x 82" x 3/4" Long Plated |
| 11.             | ✓179-021D       | Lid Latch - Lower Latch                                |
| 12.             | ✓179-025D       | Seed Diverter Pin                                      |
| 13.             | ✓800-048C       | Ring, Snap External "E" 5/8" IRR #E-62                 |
| 14.             | ✓179-005H       | Lid Hinge Weldment - Right Hand                        |
| 15.             | ✓802-017C       | Bolt, Hex Head 3/8" - 16 x 1" Long Gr 5 Plated         |
| 16.             | ✓308-117D       | Seed Diverter OS1572                                   |
|                 | 308-175D        | Seed Diverter OS1548                                   |
| 17.             | ✓308-164H       | Seedbox OS1548   |
|                 | ✓308-165H       | Seedbox OS1572   |
| 18.             | ✓804-004C       | Washer, Internal Star #10 Plated                       |
| 19.             | ✓803-001C       | Nut, Hex #10-24 Plated                                 |
| 20.             | ✓179-030D       | Rear Lid Latch Strike                                  |
| 21.             | ✓801-021C       | Screw, Round Head #10-24 x 3/4" Long Plated            |
| 22.             | ✓803-008C       | Nut, Hex 5/16" - 18 Gr 2 Plated                        |
| 23.             | ✓804-009C       | Washer, Lock Spring 5/16" Plated                       |
| 24.             | ✓804-010C       | Washer, Flat 5/16" USS Plated                          |
| 25.             | 803-020C        | Nut, Hex 1/2" - 13 Gr 2 Plated                         |
| 26.             | 804-015C        | Washer, Lock Spring 1/2" Plated                        |
| 27.             | 804-013C        | Washer, Lock Spring 3/8" Plated                        |
| 28.             | 803-014C        | Nut, Hex 3/8" - 16" Gr 2 Plated                        |
| 29.             | ✓308-193D       | Overseeder Sling Bracket                               |
| 30.             | ✓802-258C       | Bolt, Hex Head 1/2" - 13 x 1" Long Gr 5                |
| 31.             | ✓822-041C       | Flangette 47 MST                                       |
| 32.             | 822-040C        | Bearing 3/4" Bore Fafnir #RA12RRB                      |
| 33.             | 802-167C        | Bolt, Hex Head 1/4" - 20 x 1 1/2" Long Gr 5            |
| 34.             | 202-002H        | Sprocket, Speed Change 19T                             |
| 35.             | 803-007C        | Nut, Lock Dimpled 1/4" - 20 Plated                     |
| 36.             | ✓802-007C       | Bolt, Hex Head 5/16" - 18 x 3/4" Long Gr 5             |
| 37.             | 308-003H        | Agitator Weldment OS1572                               |
|                 | ✓308-085H       | Agitator Weldment OS1548                               |



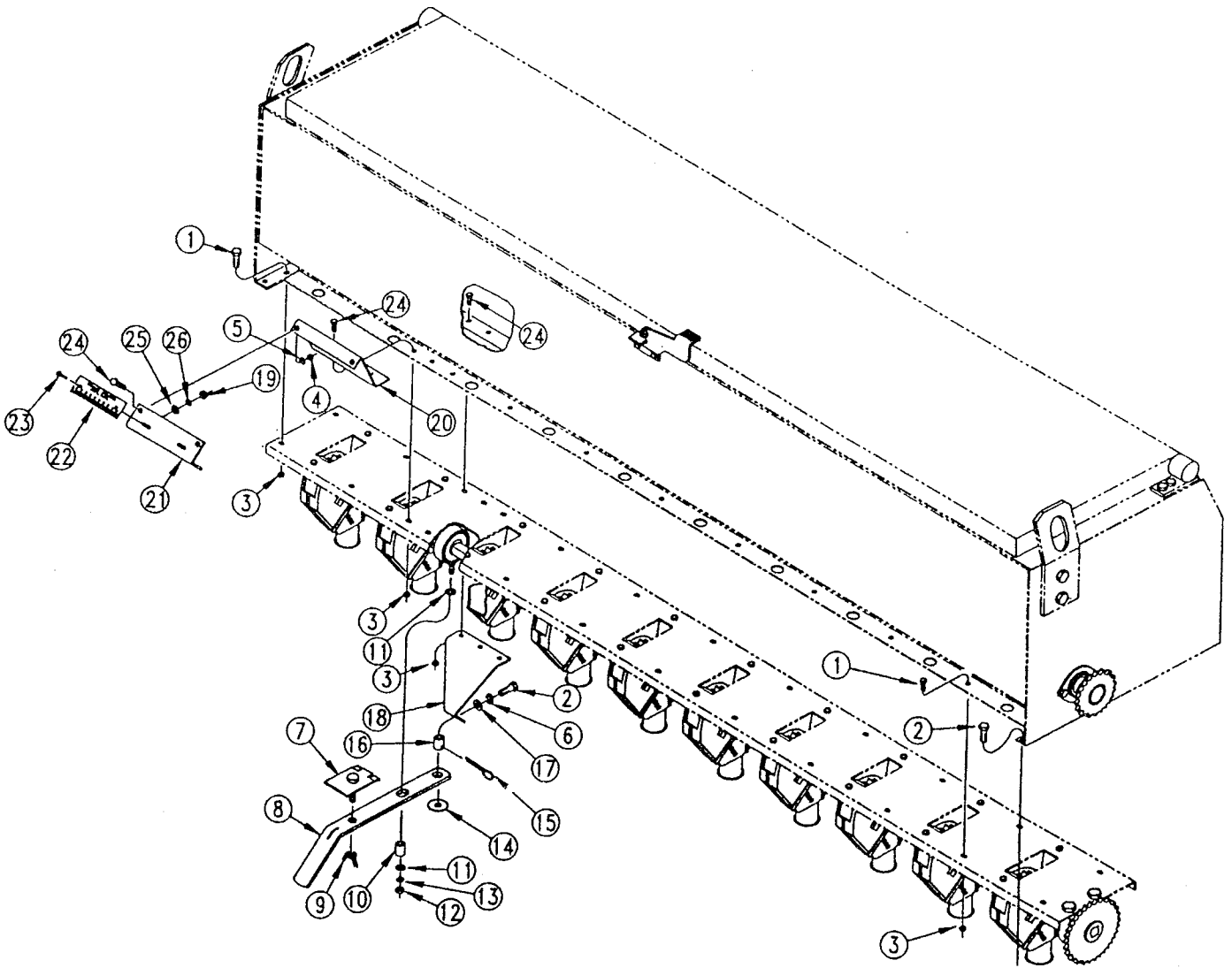
# VINEYARD DRILL BOX ASSEMBLY



## FEEDER CUP AND DRIVE COMPONENTS

| <u>Ref. No.</u> | <u>Part No.</u> | <u>DESCRIPTION</u>                     |
|-----------------|-----------------|--|
| 1.              | ✓ 802-148C      | Bolt, Whiz Head 1/4" - 20 x 1/2" Long  |
| 2.              | 802-017C        | Bolt, Hex Head 3/8" - 16 x 1" Long     |
| 3.              | 803-088C        | Nut, Hex Lock Flanged 1/4" - 20        |
| 4.              | 803-006C        | Nut, Hex 1/4" - 20 Gr 2 Plated         |
| 5.              | 804-006C        | Washer, Lock Spring 1/4" Plated        |
| 6.              | 804-013C        | Washer, Lock Spring 3/8" Plated        |
| 7.              | 109-025H        | Adjustment Lock Plate                  |
| 8.              | ✓ 308-306D      | Seed Rate Adjustment Handle            |
| 9.              | ✓ 803-016C      | Nut, Wing 1/2" - 13 Plated             |
| 10.             | 308-015D        | Seed Adjustment Bearing Ring Pivot     |
| 11.             | 804-010C        | Washer, Flat 5/16" USS Plated          |
| 12.             | 803-008C        | Nut, Hex 5/16" - 18                    |
| 13.             | 804-009C        | Washer, Lock 5/16"                     |
| 14.             | ✓ 804-019C      | Washer, Flat 5/8" USS Plated           |
| 15.             | ✓ 805-016C      | Pin, Cotter 3/16" x 1 1/4" Long Plated |
| 16.             | 109-069D        | Adjustment Handle Pivot                |
| 17.             | 804-012C        | Washer, Flat 3/8" SAE Plated           |
| 18.             | ✓ 313-054D      | Pivot Handle Adjustment Mounting       |
| 19.             | ✓ 803-035C      | Nut, Hex #8-32 Brass                   |
| 20.             | 313-055D        | Gauge Mounting Plate                   |
| 21.             | ✓ 313-056D      | Seed Gauge Mount Plate                 |
| 22.             | ✓ 819-005C      | Name Plate Adjustment Gauge Short      |
| 23.             | ✓ 801-001C      | Screw, Round Head #8-32 x 3/8" Brass   |
| 24.             | ✓ 802-196C      | Bolt, Hex Flange 1/4" - 20 x 5/8" Long |
| 25.             | ✓ 804-003C      | Washer, Flat #8 Brass                  |
| 26.             | ✓ 804-002C      | Washer, Internal Star #8 Brass         |

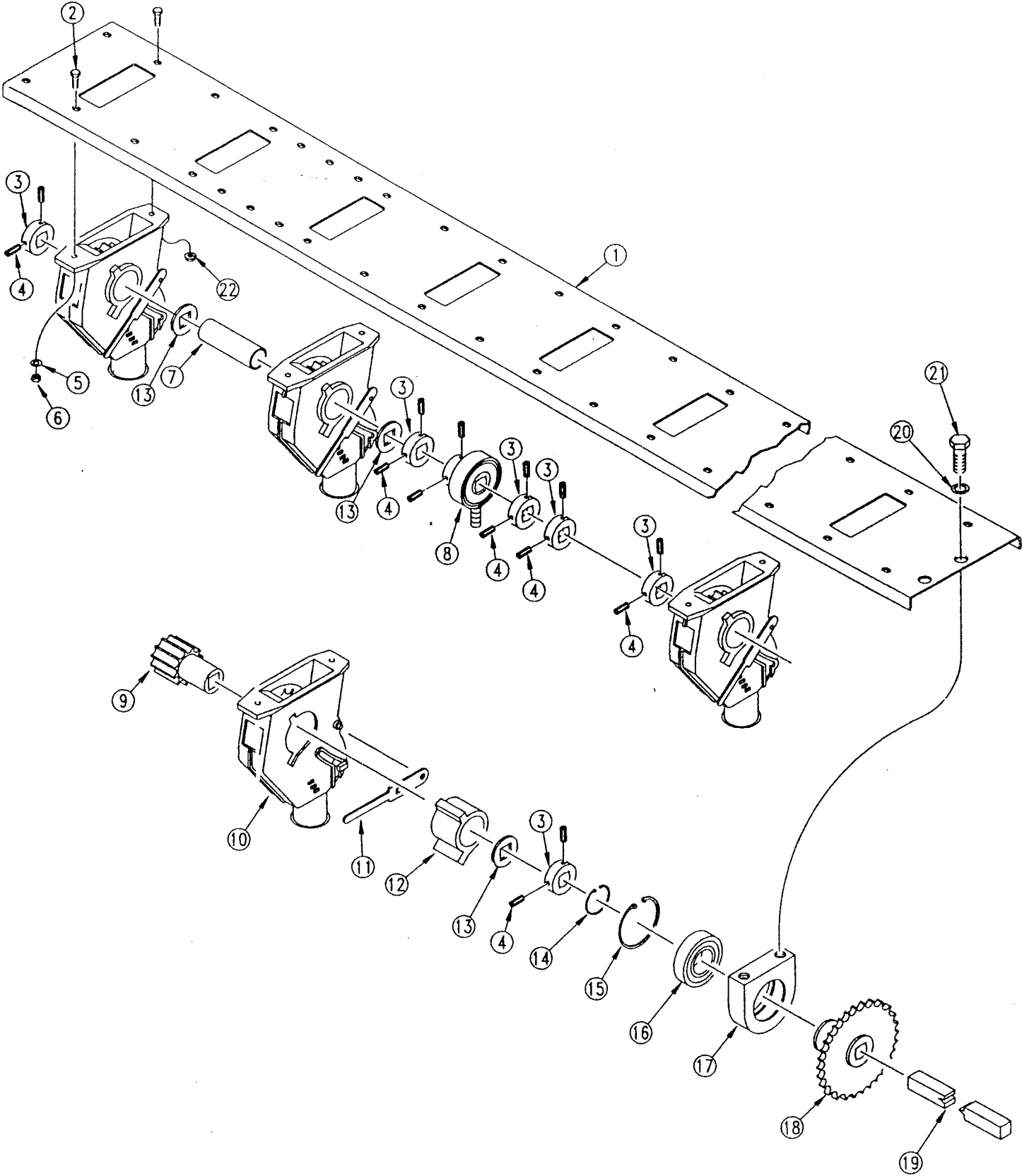
# FEEDER CUP AND DRIVE COMPONENTS



**FEEDER CUP ASSEMBLY**

| <u>Ref. No.</u> | <u>Part No.</u> | <u>DESCRIPTION</u>   |
|-----------------|-----------------|--|
| 1.              | 308-227D        | Feeder Cup Channel   |
| 2.              | 802-196C        | Bolt, Hex Flange 1/4" - 20 x 5/8" Long                                     |
| 3.              | 182-022D        | Feeder Cup Shaft Locking Collar  |
| 4.              | 801-035C        | Screw, Set Knurled Point 5/16" - 18 x 3/8" Long                            |
| 5.              | 804-052C        | Washer, Lock External Tooth 1/4"   |
| 6.              | 803-006C        | Nut, Hex 1/4" - 20 Gr 2 Plated   |
| 7.              | 308-234D        | Spacer Tube 4.898" Long  |
| 8.              | 308-004S        | Sprocket Shaft Adjustment Bearing Assembly                                 |
| 9.              | 890-121Z        | Powder Metal Sprocket  |
| 10.             | 817-016C        | Seed Cup Assembly  |
| 11.             | 817-014C        | Seed Cup Adjustment Handle   |
| 12.             | 308-022D        | Cup Sleeve   |
| 13.             | 804-031C        | Washer, Retaining  |
| 14.             | 800-004C        | Ring, Snap External 1 3/16" IRR #3100-118                                  |
| 15.             | 800-005C        | Ring, Snap Internal IRR #3000-X244   |
| 16.             | 822-059C        | Bearing, Fafnir #206PP 30mm  |
| 17.             | 176-006D        | Cup Drive Bearing Housing  |
| 18.             | 308-006E        | Cup Drive Sprocket Weldment  |
| 19.             | 308-010D        | Feeder Cup Shaft   |
| 20.             | 804-015C        | Washer, Lock Spring 1/2" Plated  |
| 21.             | 802-032C        | Bolt, Hex Head 1/2" - 13 x 3/4" Gr 5                                       |
| 22.             | 803-088C        | Nut, Hex Flanged Lock 1/4" - 10  |
|                 | 176-031V        | Cup Drive Housing Assembly<br>Includes 1 Each of Items 15 Through 17       |
|                 | 308-036S        | Drive Sprocket Assembly 33 Tooth<br>Includes 1 Each of Items 14 Through 18 |

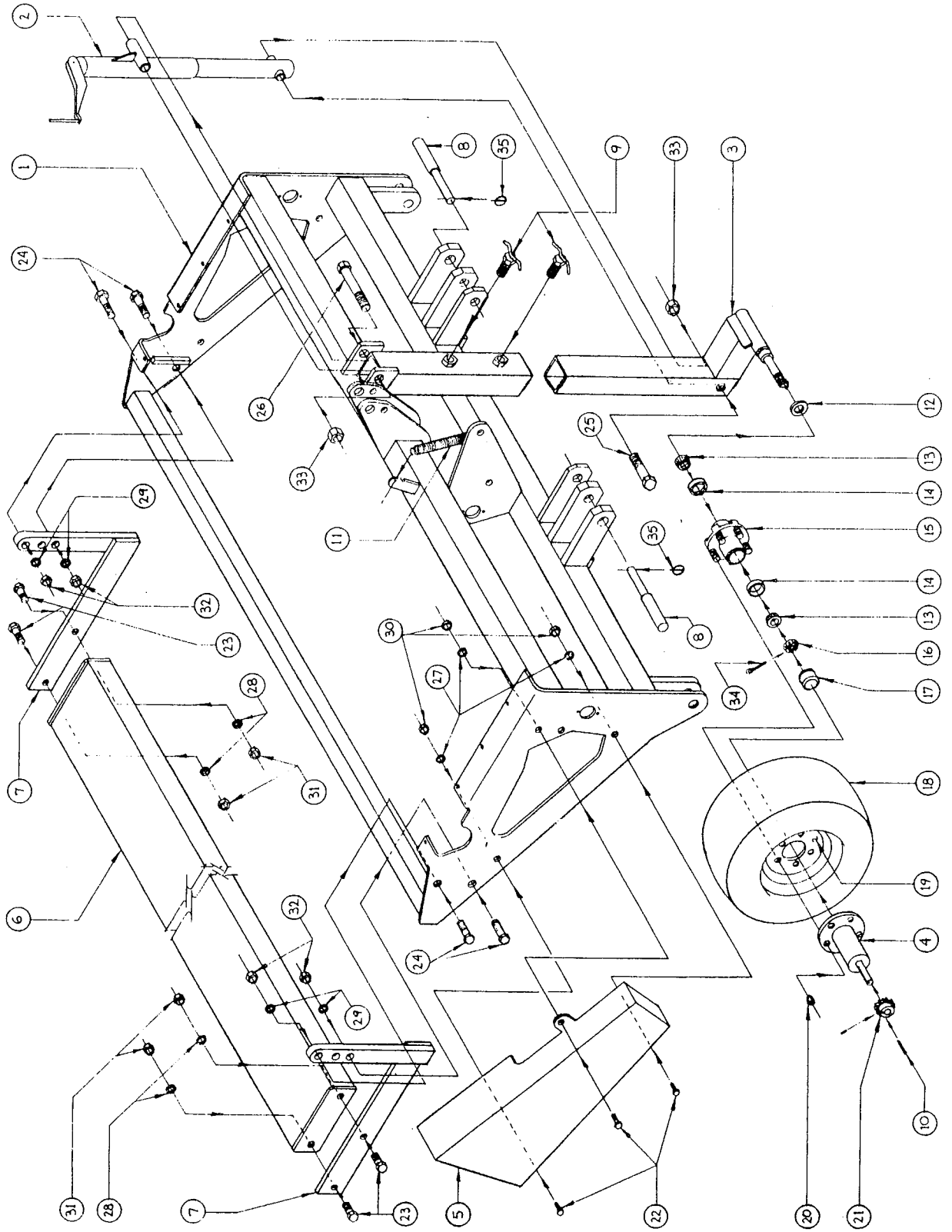
**FEEDER CUP ASSEMBLY**



## MAIN FRAME, WHEEL LEG, CHAIN GUARD & WALK BOARD ASSEMBLIES

| <u>Ref.</u><br><u>No.</u> | <u>Part</u><br><u>No.</u> | <u>DESCRIPTION</u>  | <u>QTY.</u>  |
|---------------------------|---------------------------|---|--------------|
| 1.                        | DDD-MF                    | Main Frame  | 1            |
| 2.                        | DDD-JS                    | Jack Screw  | 1            |
| 3.                        | DDD-WL                    | Wheel Leg   | 1            |
| 4.                        | DDD-WS                    | Wheel Shaft   | 1            |
| 5.                        | DDD-MF-2                  | Chain Guard   | 1            |
| 6.                        | DDD-WK                    | Walk Board  | 1 (optional) |
| 7.                        | DDD-WB                    | Walk Board Brackets   | 2 (optional) |
| 8.                        | TP3HS-15                  | Clevis Pin Cat. 1 & 2   | 2            |
| 9.                        | DDD-MF-18                 | Adjustment Handles  | 2            |
| 10.                       | DDD-WS-5                  | Sprocket Key  | 1            |
| 11.                       | DDD-MFB-1                 | 7" Tension Spring   | 1            |
| 12.                       | DDD-MFB-2                 | Oil Seal  | 1            |
| 13.                       | DDD-MFB-3                 | Bearing Cone  | 2            |
| 14.                       | DDD-MFB-4                 | Bearing Cup   | 2            |
| 15.                       | DDD-MFB-5                 | Hub, 5 Studs  | 1            |
| 16.                       | DDD-MFB-6                 | Castle Nut  | 1            |
| 17.                       | DDD-MFB-7                 | Hub Cap   | 1            |
| 18.                       | DDD-MFB-8                 | 20.5 x 8 x 10 Tire  | 1            |
| 19.                       | DDD-MFB-9                 | 8 x 10 Wheel, 5 on 5  | 1            |
| 20.                       | DDD-MFB-10                | Lug nuts  | 5            |
| 21.                       | DDD-MFB-11                | 15 Tooth Sprocket   | 1            |
| 22.                       | ----                      | <sup>3</sup> / <sub>8</sub> " x 1" Hex Head Gr 5 z/p Bolts                              | 3            |
| 23.                       | ----                      | <sup>1</sup> / <sub>2</sub> " x 1 <sup>1</sup> / <sub>2</sub> " Hex Head Gr 5 z/p Bolts | 4 (optional) |
| 24.                       | ----                      | <sup>3</sup> / <sub>4</sub> " x 2" Hex Head Gr 5 z/p Bolts                              | 4 (optional) |
| 25.                       | ----                      | 1" x 4" Hex Head Gr 5 z/p Bolts   | 1            |
| 26.                       | ----                      | 1" x 5 <sup>1</sup> / <sub>2</sub> " Hex Head Gr 5 z/p Bolts                            | 1            |
| 27.                       | ----                      | <sup>3</sup> / <sub>8</sub> " Lockwashers   | 3            |
| 28.                       | ----                      | <sup>1</sup> / <sub>2</sub> " Lockwashers   | 4 (optional) |
| 29.                       | ----                      | <sup>3</sup> / <sub>4</sub> " Lockwashers   | 4 (optional) |
| 30.                       | ----                      | <sup>3</sup> / <sub>8</sub> " Hex Nuts  | 3            |
| 31.                       | ----                      | <sup>1</sup> / <sub>2</sub> " Hex Nuts  | 4 (optional) |
| 32.                       | ----                      | <sup>3</sup> / <sub>4</sub> " Hex nuts  | 4 (optional) |
| 33.                       | ----                      | 1" Hex Nuts   | 2            |
| 34.                       | ----                      | <sup>1</sup> / <sub>4</sub> " x 1 <sup>1</sup> / <sub>2</sub> " Cotter Pin              | 1            |
| 35.                       | ----                      | <sup>1</sup> / <sub>4</sub> " x 1 <sup>3</sup> / <sub>4</sub> " Lynch Pins              | 2            |

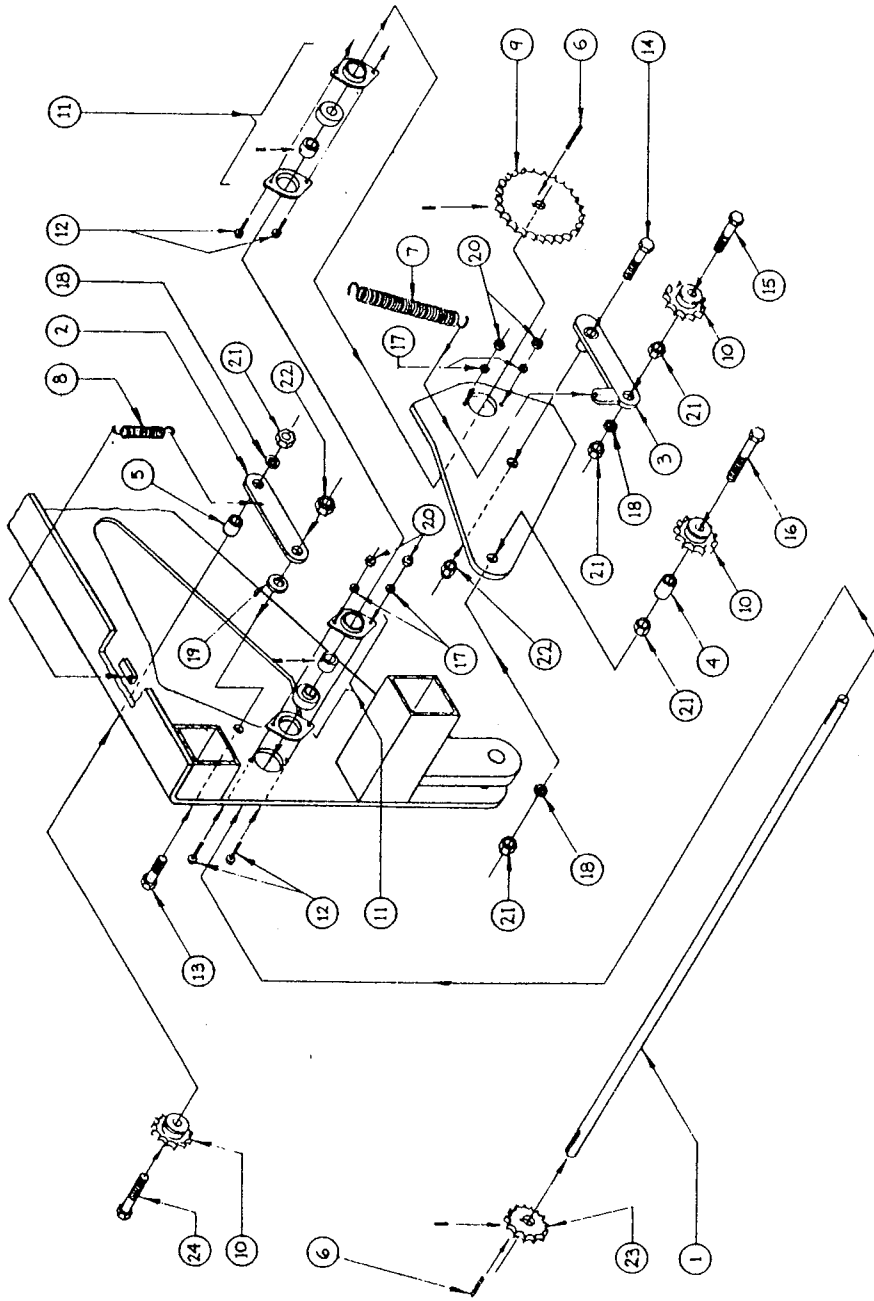
MAIN FRAME, WHEEL LEG, CHAIN & WALKBOARD ASSEMBLIES



**JACK SHAFT, SPROCKET, IDLER & BEARING ASSEMBLIES**

| <u>Ref.</u><br><u>No.</u> | <u>Part</u><br><u>No.</u> | <u>DESCRIPTION</u>                   | <u>QTY.</u> |
|---------------------------|---------------------------|--------------------------------------|-------------|
| 1.                        | DDD-MF-17                 | Main Frame Jack Shaft                | 1           |
| 2.                        | DDD-IDL-2                 | End Plate Tensioner Arm              | 1           |
| 3.                        | DDD-IDL-3                 | Center Tensioner Arm                 | 1           |
| 4.                        | DDD-IDL-3A                | Bushing, 15/16" Long                 | 1           |
| 5.                        | DDD-IDL-1                 | Bushing, 3/4" Long                   | 1           |
| 6.                        | DDD-WS-5                  | Sprocket Key                         | 2           |
| 7.                        | DDD-MFB-1                 | 7" Tension Spring                    | (1)         |
| 8.                        | DDD-IDLB-1                | 2 1/2" Tension Spring                | 1           |
| 9.                        | DDD-MFB-12                | 25 Tooth Sprocket                    | 1           |
| 10.                       | DDD-IDLB-2                | 15 Tooth Idlers                      | 3           |
| 11.                       | DDD-MFB-13                | Stamped Flange Bearings              | 2           |
| 12.                       | ----                      | 1/4" x 1" Carriage Square Neck Bolts | 4           |
| 13.                       | ----                      | 1/2" x 1 1/2" Hex Head Gr 5 z/p Bolt | 1           |
| 14.                       | ----                      | 1/2" x 2" Hex Head Gr 5 z/p Bolt     | 1           |
| 15.                       | ----                      | 1/2" x 2 1/2" Hex Head Gr 5 z/p Bolt | 1           |
| 16.                       | ----                      | 1/2" x 3 1/2" Hex Head Gr 8 z/p Bolt | 1           |
| 17.                       | ----                      | 1/4" Lock Washers                    | 4           |
| 18.                       | ----                      | 1/2" Lock Washers                    | 3           |
| 19.                       | ----                      | 1/2" Flat Washer                     | 1           |
| 20.                       | ----                      | 1/4" Hex Nuts                        | 4           |
| 21.                       | ----                      | 1/2" Hex Nuts                        | 5           |
| 22.                       | ----                      | 1/2" Nylon Locknuts                  | 3           |
| 23.                       | DDD-MFB-11                | 15 Tooth Sprocket                    | 1           |
| 24.                       | ----                      | 1/2" x 3" Hex Head Gr 5 z/p Bolt     | 1           |





JACK SHAFT, SPROCKET, IDLER & BEARING ASSEMBLIES

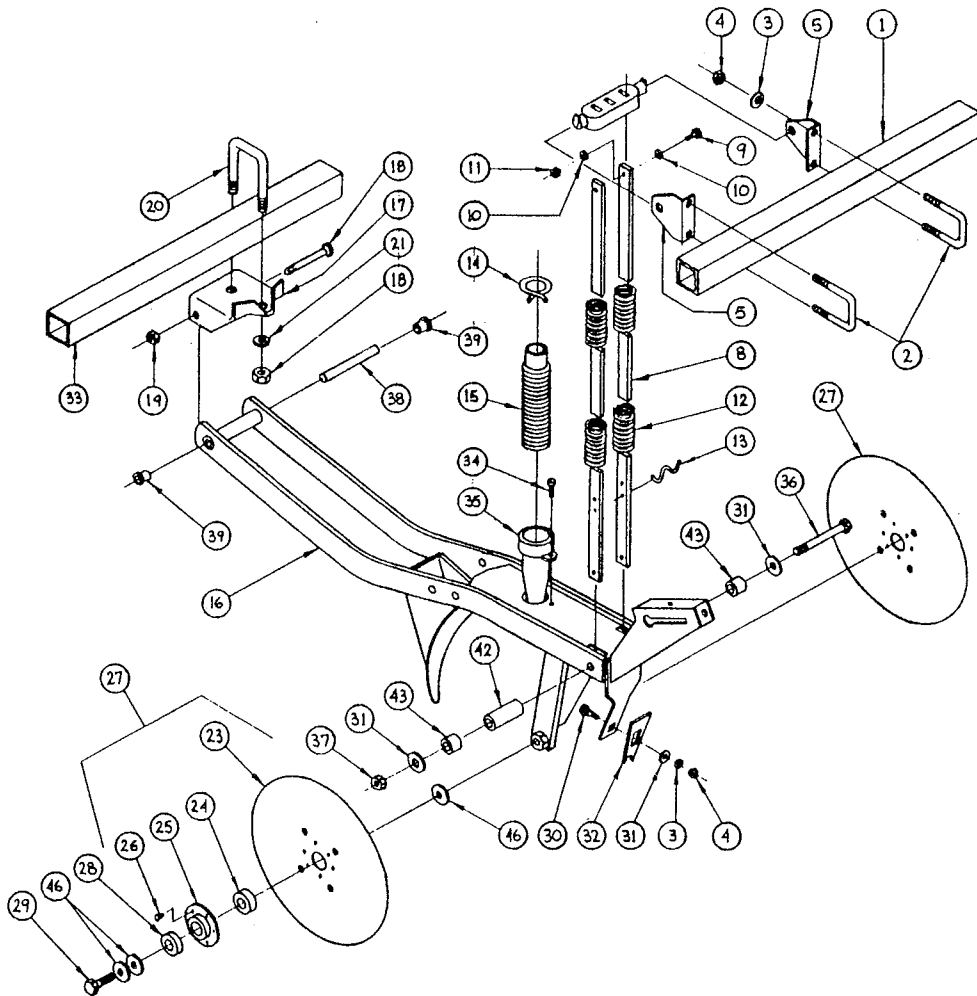
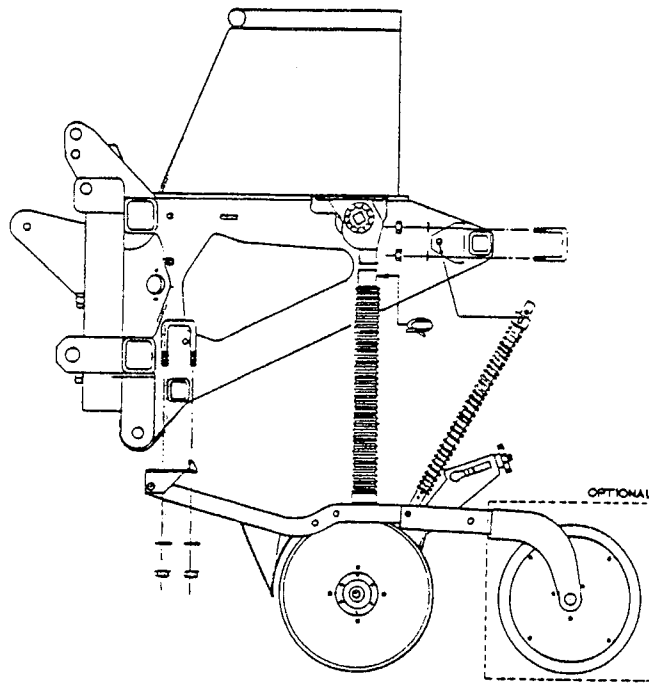
VINEYARD DRILL

|                     |              |
|---------------------|--------------|
| SCALE: 1/2" = 1'-0" | APPROVED BY: |
| DATE: 2/4 / 93      | REVISION     |
| DRAWN BY: M. JACOBY |              |
| DRAWING NUMBER      |              |

## DOUBLE DISK OPENER ASSEMBLY

| <u>Ref. No.</u> | <u>Part No.</u> | <u>DESCRIPTION</u>  |
|-----------------|-----------------|---|
| 1.              |                 | Rear Mounting Tube - (Welded to Frame)  |
| 2.              | 806-004C        | U-Bolt, $\frac{3}{8}$ " - 16 x 2" X 2 $\frac{3}{4}$ " Long  |
| 3.              | 804-013C        | Washer, Lock $\frac{3}{8}$ "  |
| 4.              | 803-014C        | Nut, Hex $\frac{3}{8}$ " - 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.              | 121-110D        | Double Disk Spring Bar (Standard)   |
|                 | 121-090D        | Hillside Spring Bar (Optional)  |
|                 | 121-111D        | Bedded Irrigation Bar - 20', 27', and 30' Bedded Irrigation Drills Only                                   |
| 9.              | 802-004C        | Bolt, Hex $\frac{1}{4}$ " - 20 x $\frac{3}{4}$ " Long   |
| 10.             | 804-006C        | Washer, Lock $\frac{1}{4}$ "  |
| 11.             | 803-006C        | Nut, Hex $\frac{1}{4}$ " - 20   |
| 12.             | 807-028C        | Spring, Heavy Duty Double Disk 19 $\frac{1}{2}$ " Long (Standard)   |
|                 | 807-029C        | Spring, Light Duty Double Disk 19 $\frac{1}{2}$ " Long (Optional)   |
| 13.             | 107-027D        | Double Disk Bar Wire Clip   |
| 14.             | 800-009C        | Clamp, Hose 1 $\frac{5}{8}$ " #26   |
| 15.             | 816-028C        | Seed Hose - 33 Ribs (Bedded Irrigation Only)  |
|                 | 816-046C        | Seed Hose - 29 Ribs   |
| 16.             | 121-147H        | Double Disk Mounting Arm  |
| 17.             | 107-097D        | Flanged U-Mount Bracket   |
| 18.             | 802-121C        | Bolt, Carriage $\frac{1}{2}$ " - 13 x 5 $\frac{1}{2}$ " Long Gr 5   |
| 19.             | 803-178C        | Nut, Hex Jam $\frac{1}{2}$ " - 13 Nylock  |
| 20.             | 806-005C        | U-Bolt $\frac{1}{2}$ " - 13 x 2" x 3" Long  |
| 21.             | 804-015C        | Washer, Lock $\frac{1}{2}$ "  |
| 22.             | 803-020C        | Nut, Hex $\frac{1}{2}$ " - 13   |
| 23.             | 820-080C        | Disk, Flat 3 mm thick 6 Rivets on 3 $\frac{1}{8}$ " Diameter  |
| 24.             | 188-001V        | Bearing, Double Disk #AA205DD   |
| 25.             | 107-112D        | Bearing Flange For 188-001V-Plated  |
| 26.             | 800-010C        | Rivet, Button Head $\frac{3}{16}$ " x $\frac{9}{16}$ "  |
| 27.             | 107-130S        | Double Disk Assembly. Includes 1 Each of 820-080C, 188-001V, & 107-112D; and 6 Each of 800-010c.          |
| 28.             | 107-111D        | Bearing Flange Dust Cover for 107-130S  |
| 29.             | 802-228C        | Bolt, Hex Nylock $\frac{5}{8}$ " - 11 x 1 $\frac{1}{2}$ " Long  |
| 30.             | 802-015C        | Bolt, Carriage $\frac{3}{8}$ " - 16 x 1" Long   |
| 31.             | 804-012C        | Washer, Flat $\frac{3}{8}$ " SAE  |
| 32.             | 107-113D        | Double Disk Slotted Scraper   |
| 33.             |                 | Front Mounting Tube (Welded To Frame)   |
| 34.             | 801-002C        | Screw, Socket Head #10-16 x $\frac{3}{8}$ " Long  |
| 35.             | 817-060C        | Plastic Seed Tube With Seed Guide   |
| 36.             | 802-174C        | Bolt, Hex $\frac{3}{8}$ " - 16 x 4 $\frac{3}{4}$ " Long   |
| 37.             | 803-078C        | Nut, Nylock $\frac{3}{8}$ " - 16  |
| 38.             | 121-101D        | Spacer, Pivot Pipe  |
| 39.             | 817-028C        | Bushing, Pivot  |
| 42.             | 121-091D        | Spacer Tube - Spring Rod Center   |
| 43.             | 121-092D        | Spacer Tube - Spring Rod End  |
| 46.             | 804-040C        | Washer $\frac{5}{8}$ " ID x 1" OD x 18 Gauge Thick As Required  |

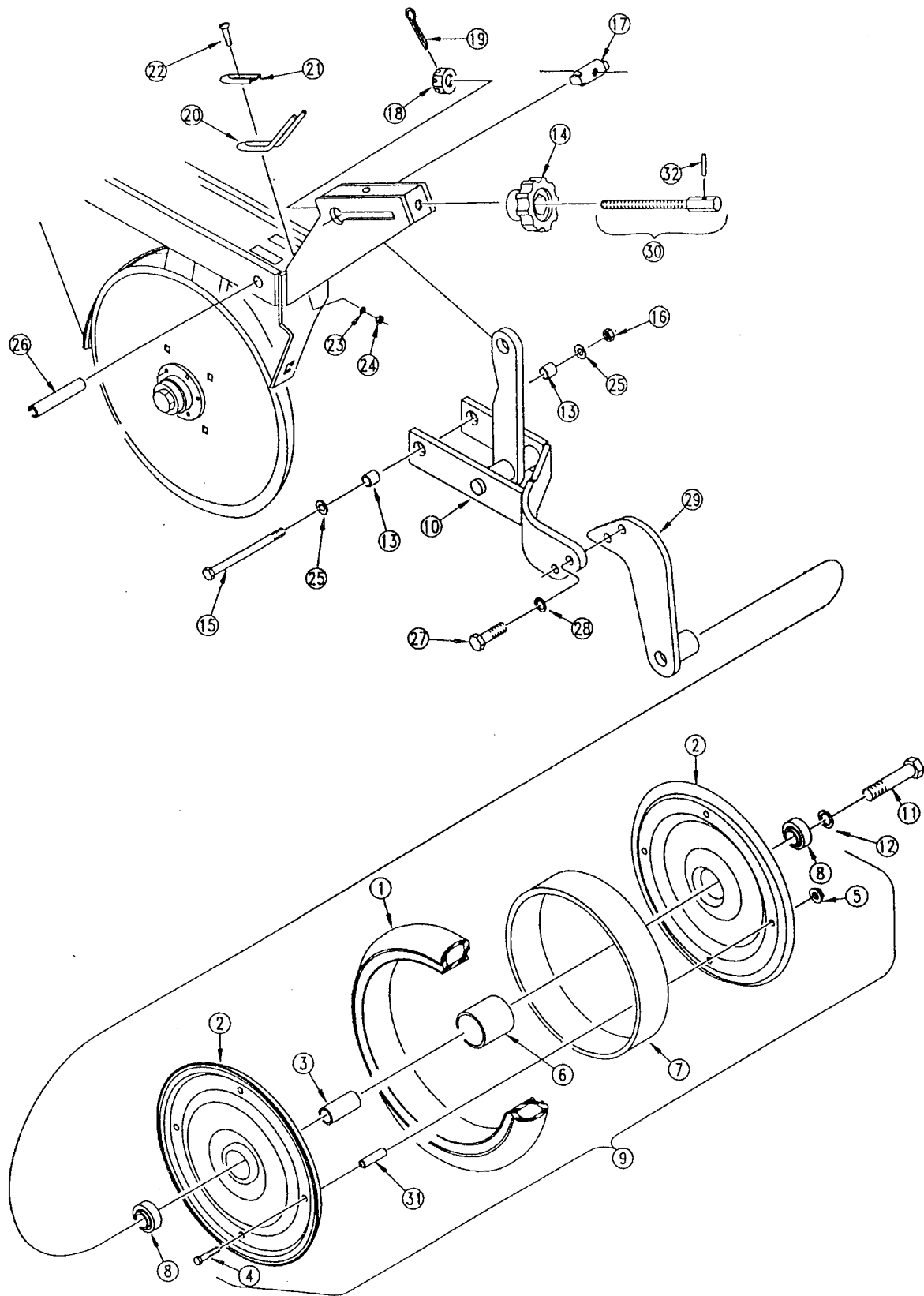
# DOUBLE DISK OPENER ASSEMBLY



**PRESS WHEEL ASSEMBLY 2" X 13" SINGLE (CONT.)**

| <u>Ref. No.</u> | <u>Part No.</u> | <u>DESCRIPTION</u>  |
|-----------------|-----------------|---|
| 1.              | 814-069C        | Tire, Rubber - 2" x 13" With Crown                                |
| 2.              | ✓122-015D       | Rim Half 13"  |
| 3.              | ✓122-114D       | Spacer Tube, Bearing 2" x 13" Press Wheel                         |
| 4.              | ✓802-013C       | Bolt, Hex Head $\frac{5}{16}$ " x 18 x $1\frac{3}{4}$ " Long Gr 5 |
| 5.              | ✓803-177C       | Nut, Hex Lock Flanged $\frac{5}{16}$ " - 18                       |
| 6.              | ✓122-002D       | Hub, Bearing Ribbed 2"  |
| 7.              | 817-067C        | Press Wheel Rim Spacer Ring 2"                                    |
| 8.              | 822-095C        | Bearing 203 Double Lip x $\frac{5}{8}$ " Bore                     |
| 9.              | ✓122-115S       | Press Wheel Assembly - Smooth Crown 2" x 13"                      |
| 10.             | ✓122-110H       | Combination Press Wheel Arm Weldment                              |
| 11.             | ✓802-059C       | Bolt, Hex Head $\frac{5}{8}$ " - 11 x 3" Long Gr 5 Plated         |
| 12.             | ✓804-022C       | Washer, Lock Spring $\frac{5}{8}$ " Plated                        |
| 13.             | 121-092D        | S.R. End Spacer   |
| 14.             | 817-021C        | Knob, Press Wheel Adjustment                                      |
| 15.             | 802-174C        | Bolt, Hex $\frac{3}{8}$ " - 16 x $4\frac{3}{4}$ " Long            |
| 16.             | 803-078C        | Nut, Lock $\frac{3}{8}$ " - 16 Nylon Insert                       |
| 17.             | ✓122-061D       | Trunnion Slide  |
| 18.             | ✓803-069C       | Nut, Slotted Hex $\frac{7}{16}$ " - 14                            |
| 19.             | ✓805-064C       | Pin, Cotter $\frac{7}{64}$ " x 1" Long                            |
| 20.             | ✓807-066C       | Spring, Screw Adjustment Tension Bent                             |
| 21.             | ✓122-065D       | Tension Spring Retainer   |
| 22.             | ✓801-018C       | Screw, Round Head $\frac{1}{4}$ " - 20 x $\frac{5}{8}$ " Long     |
| 23.             | 804-006C        | Washer, Lock $\frac{1}{4}$ " - 20                                 |
| 24.             | ✓803-006C       | Nut, Hex $\frac{1}{4}$ " - 20                                     |
| 25.             | ✓804-012C       | Washer, Flat $\frac{3}{8}$ " SAE Plated                           |
| 26.             | 121-091D        | Spacer Tube - Spring Rod Center                                   |
| 27.             | ✓802-034C       | Bolt, Hex Head $\frac{1}{2}$ " - 13 x $1\frac{1}{4}$ " Long Gr 5  |
| 28.             | ✓804-015C       | Washer, Lock , Spring $\frac{1}{2}$ " Plated                      |
| 29.             | ✓122-172H       | Press Wheel Arm Weldment  |
| 30.             | ✓122-055S       | Screw Adjustment Rod  |
| 31.             | ✓890-198C       | Spacer, Bolt 2" x 13"   |
| 32.             | ✓805-073C       | Pin, Roll $\frac{5}{32}$ " x 1" long                              |

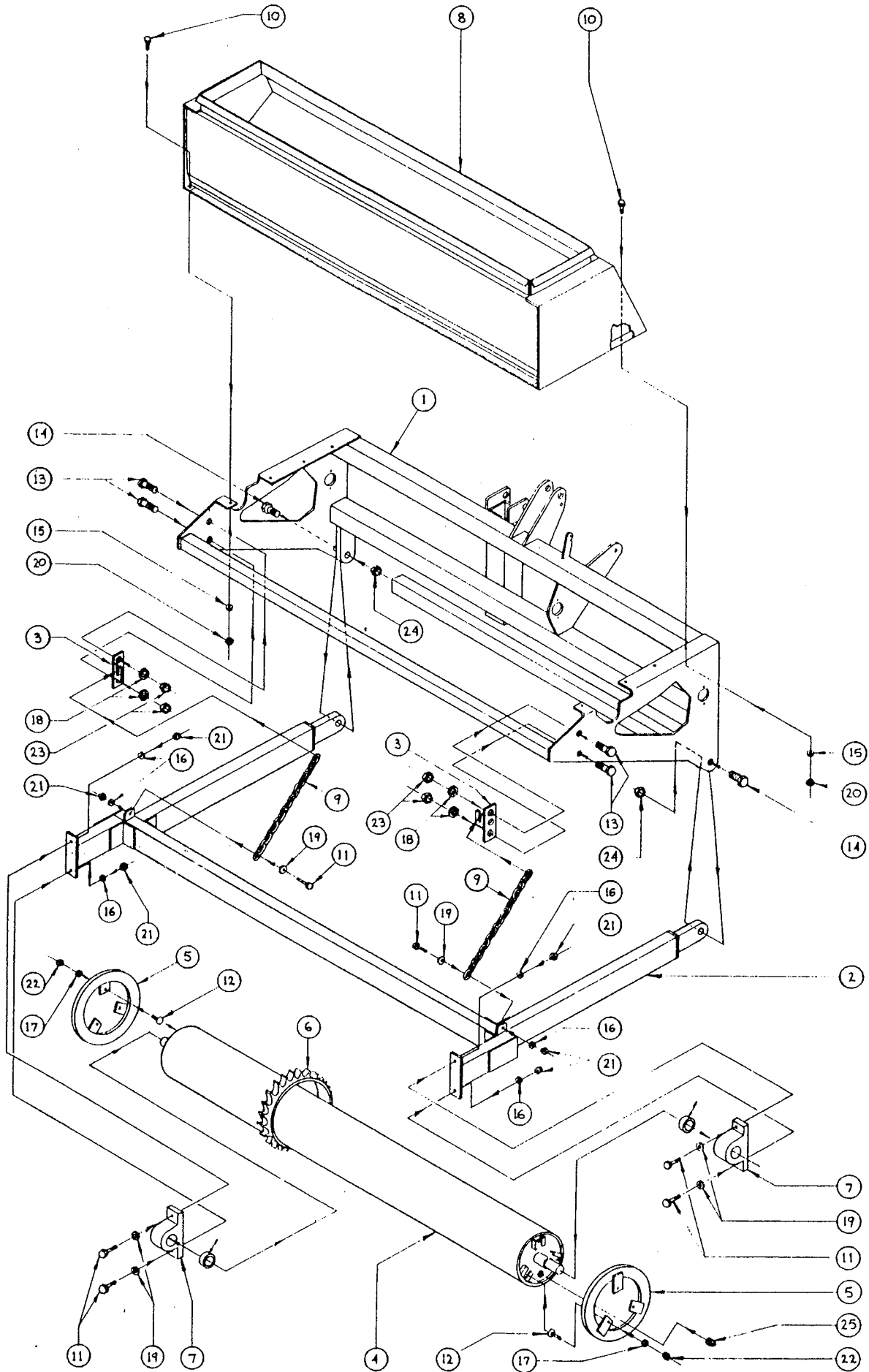
**PRESS WHEEL ASSEMBLY - 2" X 13" SINGLE**



**TILL AN' PAK FRAME & SEED BOX TO MAIN FRAME ASSEMBLIES**

| <u>Ref.</u><br><u>No.</u> | <u>Part</u><br><u>No.</u> | <u>DESCRIPTION</u>   | <u>QTY.</u>                                       |
|---------------------------|---------------------------|--|---|
| 1.                        | DDD-MF                    | Main Frame   | (1)   |
| 2.                        | DDD-TPa                   | Till An' Pak Frame   | 1 (optional)                                      |
| 3.                        | DDD-TPb                   | Till An' Pak Frame Chain Bracket   | 2 <sup>(1) L.H.</sup> <sub>(1) R. H.</sub> (opt.) |
| 4.                        | TPR-A                     | 10" Till An' Pak Ring Roller   | 1 (optional)                                      |
| 5.                        | TPR-C                     | Till An' Pak Roller Retainers  | 2 (optional)                                      |
| 6.                        | 12/16                     | Till An' Pak Rings   | 30 (optional)                                     |
| 7.                        | DDD-TPB-1                 | 1 <sup>11</sup> / <sub>16</sub> " Pillow Block Bearings                                    | 2 (optional)                                      |
| 8.                        | DDD-BXB                   | Seed Box   | 1   |
| 9.                        | DDD-TPc                   | <sup>3</sup> / <sub>8</sub> " Chain  | 2 (optional)                                      |
| 10.                       | ----                      | <sup>3</sup> / <sub>8</sub> " x 1" Hex Head Gr. 5 z/p Bolts                                | 8   |
| 11.                       | ----                      | <sup>1</sup> / <sub>2</sub> " x 2 <sup>1</sup> / <sub>4</sub> " Hex Head Gr. 5 z/p Bolts   | 6 (optional)                                      |
| 12.                       | ----                      | <sup>5</sup> / <sub>8</sub> " x 1 <sup>1</sup> / <sub>4</sub> " Square Neck Carriage Bolts | 6 (optional)                                      |
| 13.                       | ----                      | <sup>3</sup> / <sub>4</sub> " x 2" Hex Head Gr. 5 z/p Bolts                                | 4 (optional)                                      |
| 14.                       | ----                      | 1" x 3 <sup>1</sup> / <sub>2</sub> " Hex Head Gr. 5 z/p Bolts                              | 2 (optional)                                      |
| 15.                       | ----                      | <sup>3</sup> / <sub>8</sub> " Lock Washers   | 8   |
| 16.                       | ----                      | <sup>1</sup> / <sub>2</sub> " Lock Washers   | 6 (optional)                                      |
| 17.                       | ----                      | <sup>5</sup> / <sub>8</sub> " Lock Washers   | 6 (optional)                                      |
| 18.                       | ----                      | <sup>3</sup> / <sub>4</sub> " Lock Washers   | 4 (optional)                                      |
| 19.                       | ----                      | <sup>1</sup> / <sub>2</sub> " Flat Washers   | 6 (optional)                                      |
| 20.                       | ----                      | <sup>3</sup> / <sub>8</sub> " Hex Nuts   | 8   |
| 21.                       | ----                      | <sup>1</sup> / <sub>2</sub> " Hex Nuts   | 6 (optional)                                      |
| 22.                       | ----                      | <sup>5</sup> / <sub>8</sub> " Hex Nuts   | 6 (optional)                                      |
| 23.                       | ----                      | <sup>3</sup> / <sub>4</sub> " Hex Nuts   | 4 (optional)                                      |
| 24.                       | ----                      | 1" Nylon Lock Nuts   | 2 (optional)                                      |
| 25.                       | ----                      | <sup>1</sup> / <sub>2</sub> " Plug   | 2 (optional)                                      |

**TILL AN' PAK FRAME AND SEED BOX TO MAIN FRAME ASSEMBLIES**



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## LIMITED WARRANTY

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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 the 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 of 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.