

# **SCHMEISER S-TINE SEEDER 2<sup>nd</sup> GENERATION – SERIES '98**

## **ASSEMBLY & PARTS MANUAL**



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VERSION 2.1



## INTRODUCTION

Your Schneiser S-Tine 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 S-Tine Seeder require replacement parts, go to your Schneiser dealer. Always order genuine Schneiser 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 Schneiser. If you need information not contained in this manual, contact your Schneiser dealer.

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

Thank you for buying a Schneiser S-Tine Seeder.

SERIAL NUMBER \_\_\_\_\_

MODEL NUMBER \_\_\_\_\_

DATE PURCHASED \_\_\_\_\_

DEALER NAME \_\_\_\_\_



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## SAFETY RULES

The safe operation of any machinery is a big concern to farmers and manufacturers. We have designed our S-Tine 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 S-Tine Seeder when moving.
2. Never permit anyone to ride on tractor when S-Tine Seeder is being moved.
3. Never allow anyone to be near the S-Tine Seeder when performing operating functions with seeder or tractor.
4. Never load S-Tine Seeder without being hooked-up to tractor.
5. Extra care should be taken when transporting with seed in the box.
6. Never back S-Tine Seeder up when s-tines 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 S-Tine Seeder in field position before lubrication.
10. Do **NOT** lubricate, adjust or repair the S-Tine Seeder 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 S-Tine Seeder, wear safety glasses.
16. When transporting, remember the S-Tine Seeder may be wider than your tractor and extreme care must be taken to allow for safe clearance.

## SCHMEISER S-TINE SEEDER SEED RATE CALIBRATION

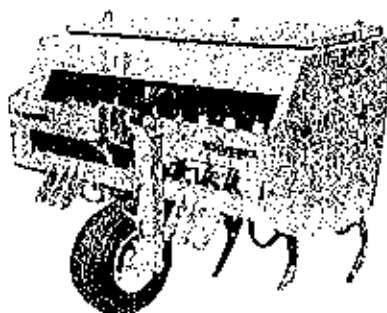
Note: Seeding rates will vary greatly with variations in sizes of seeds. Although the seeding rates listed in this manual are based on an average seed size, we recommend that you test and adjust your S-Tine Seeder using the procedures listed below.

- 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 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 S-Tine 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 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 S-Tine Seeder 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 S-Tine 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 S-Tine Seeder to your seed, you may need to adjust the seeding rate slightly to compensate for your field conditions.



# SEEDING RATES FOR SCHMEISER S-TINE SEEDER 2<sup>ND</sup> 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 S-TINE SEEDERS MANUFACTURED AFTER JANUARY 1998

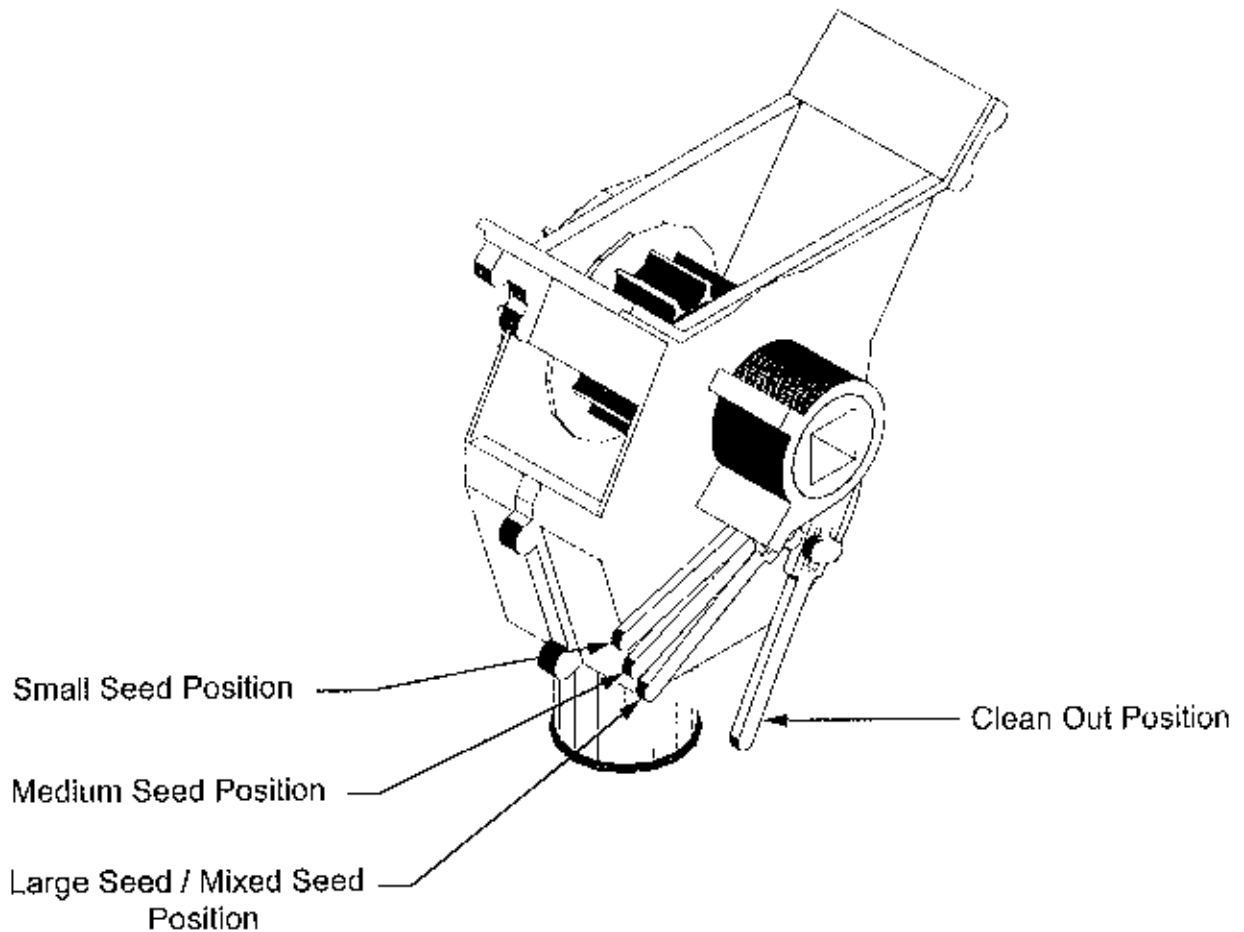


## SEED CUP

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

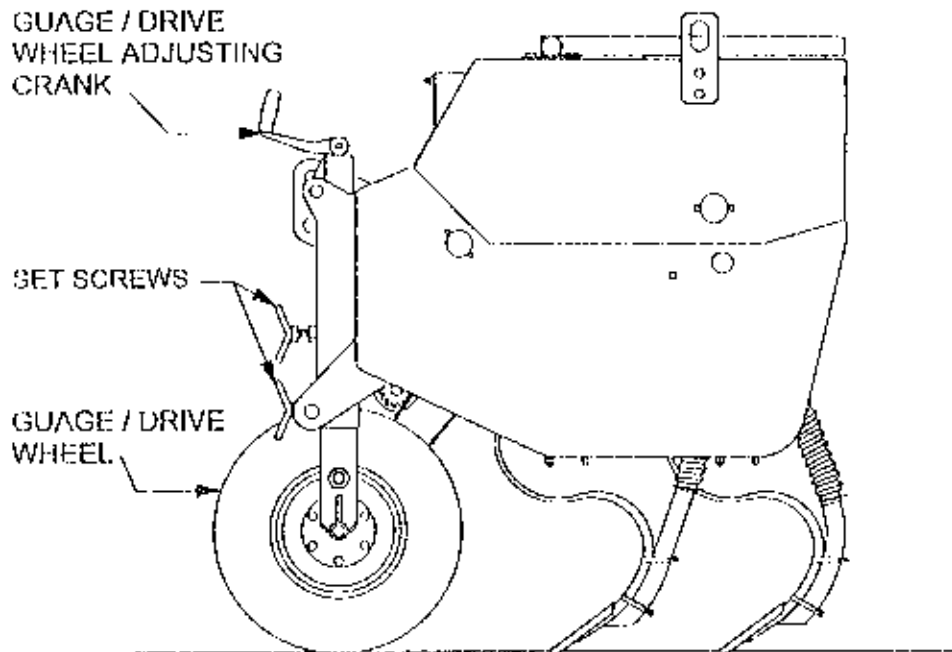
**WARNING:** Closing seed lever with seed in cup may damage or break lever.

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.**

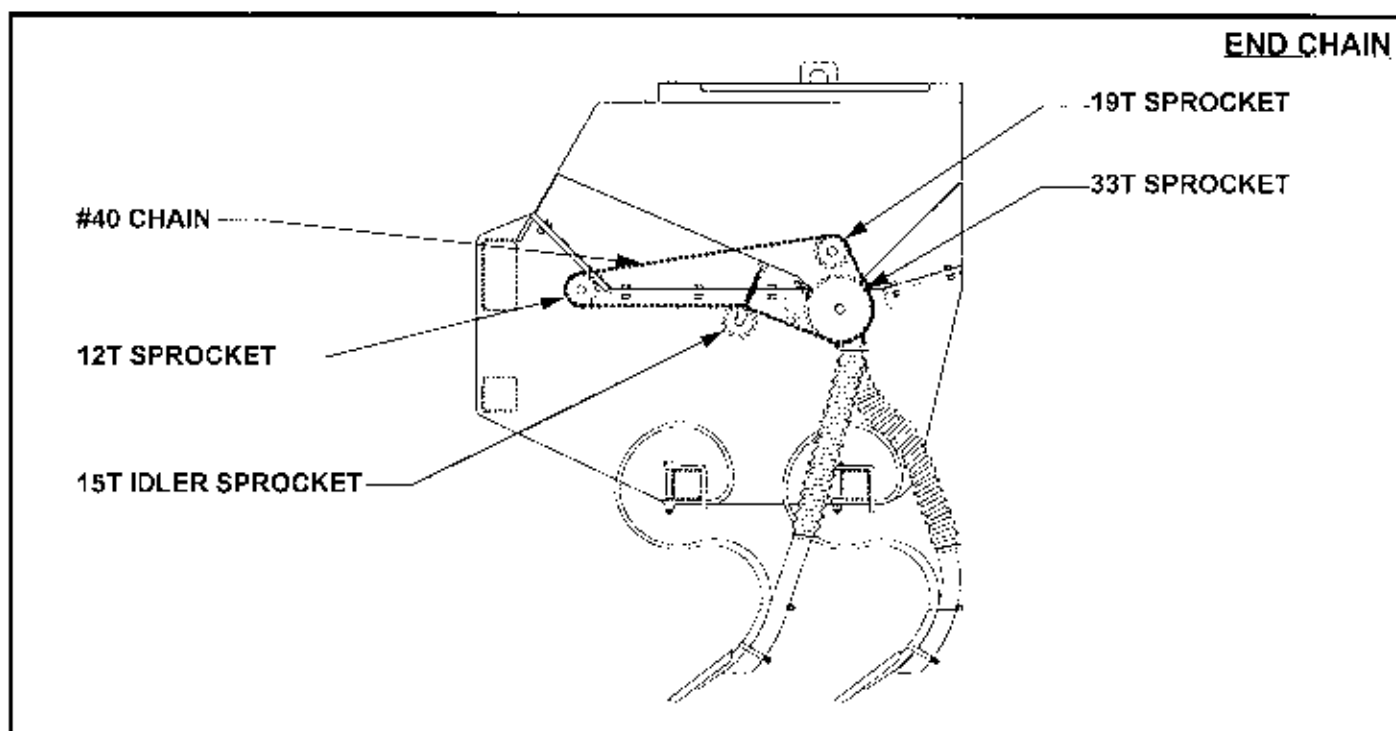
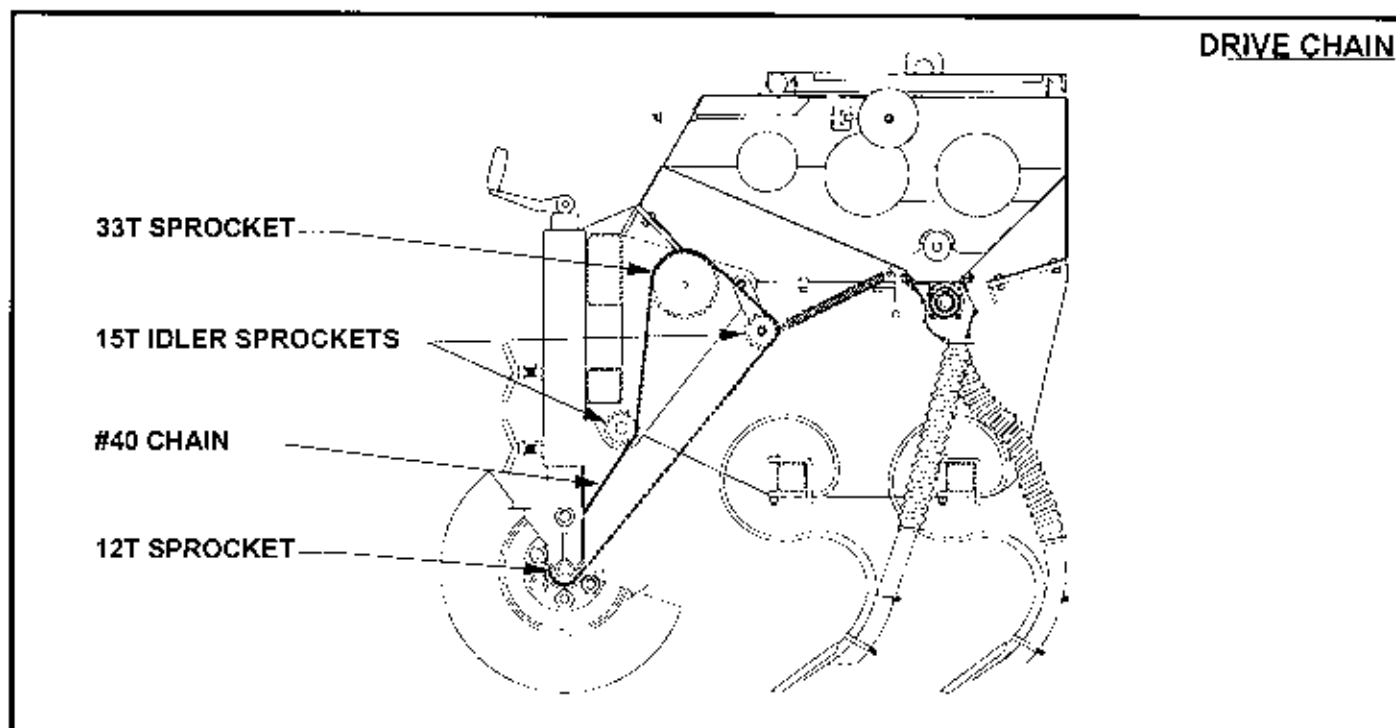


## PLANTING DEPTH ADJUSTMENT

Your Schneiser S-Tine Seeder is designed to run level to the ground when in planting position. Minor adjustments may be required to achieve the desired seed placement. In order to adjust your gauge wheel/drive wheel, loosen the two set screws located on the adjusting crank housing. Rotate crank to achieve desired planting depth. After adjusting the gauge wheel/drive wheel, be certain to tighten up both set screws.



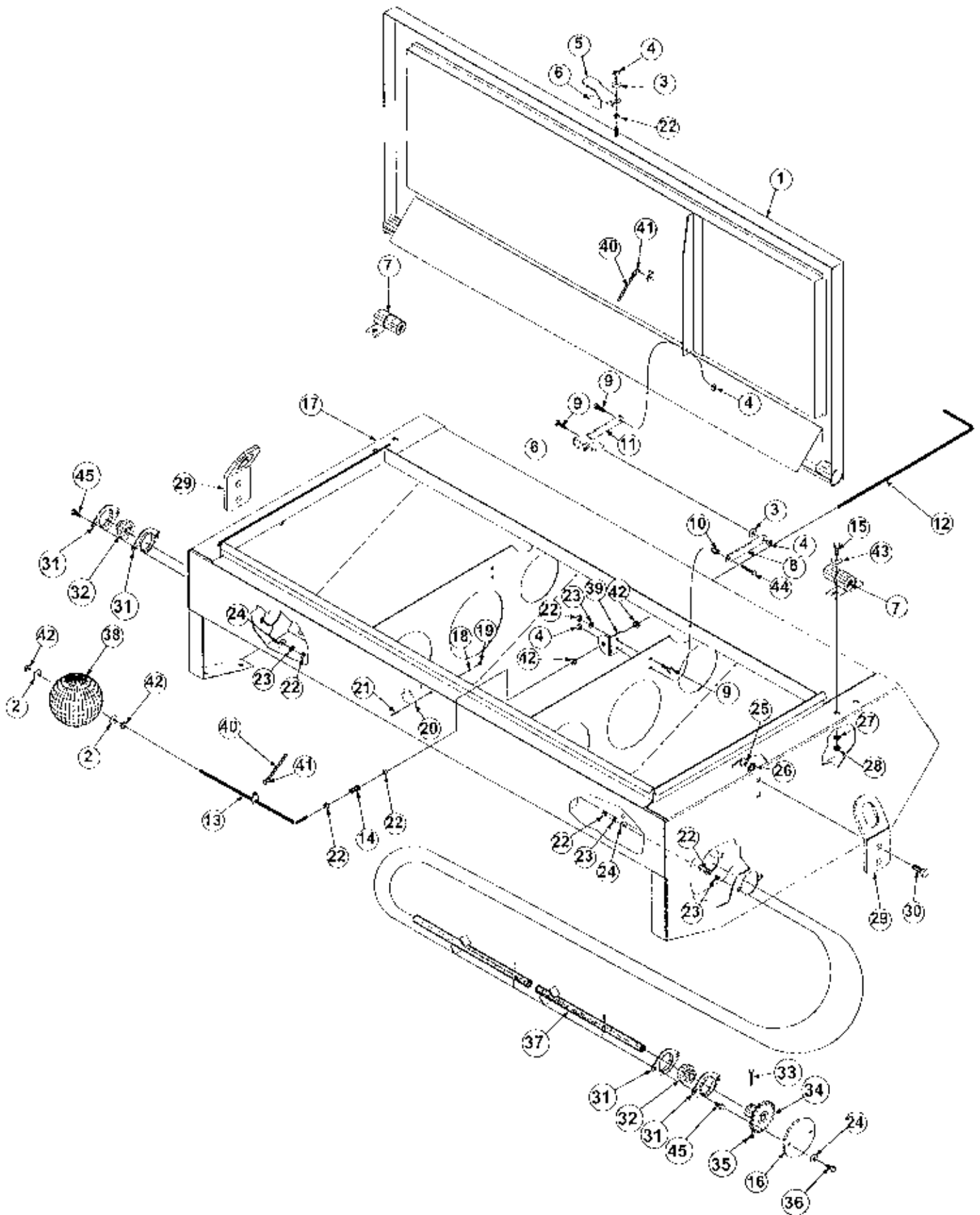
## SPROCKET AND CHAIN ASSEMBLIES



## S-TINESEEDER BOX ASSEMBLY

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
1.	VD4-C	4' S-Tine Seeder Lid Weldment
	VD5-C	5' S-Tine Seeder Lid Weldment
	VD6-C	6' S-Tine Seeder 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	4' Seedbox
	VD5-B	5' Seedbox
	VD6-B	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	S-Tine Seeder Lift Hooks
30.	-----	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.	-----	Bolt, Hex Head 1/4" - 20 x 1-1/2" Long Gr 5
34.	202-00211	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	4' Agitator Weldment
	VD5-G-09	5' Agitator Weldment
	VD6-G-09	6' Agitator Weldment
38.	-----	Float Indicator - Float
39.	VD-L-03	Float Indicator - Shaft Bracket - Weldment
40.	-----	Float Indicator - Chain 10 1/2" 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, Carriage 5/16" x 1/4" Long Gr. 5

# VINEYARD DRILL BOX ASSEMBLY

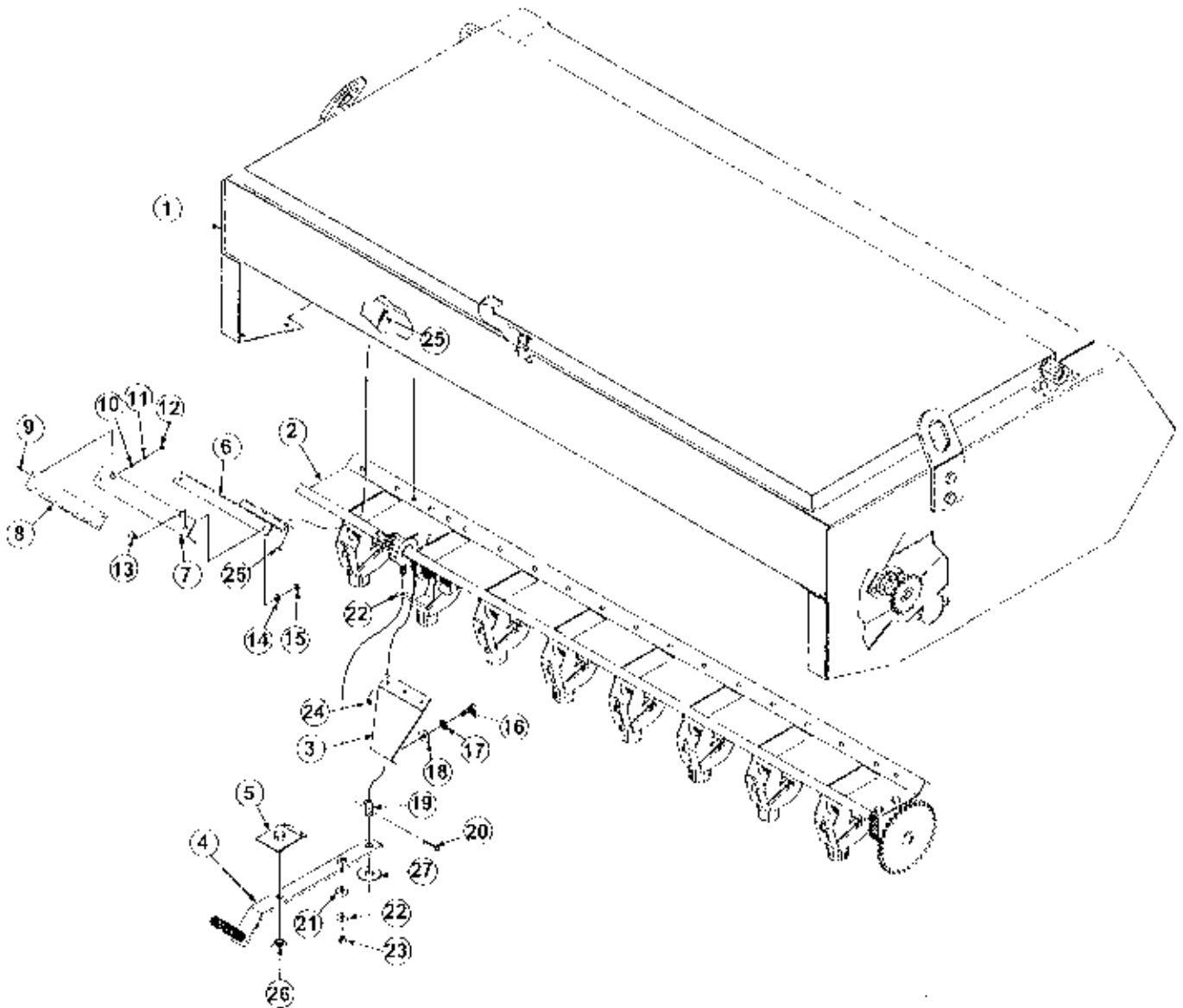


## FEEDER CUP AND DRIVE COMPONENTS

<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



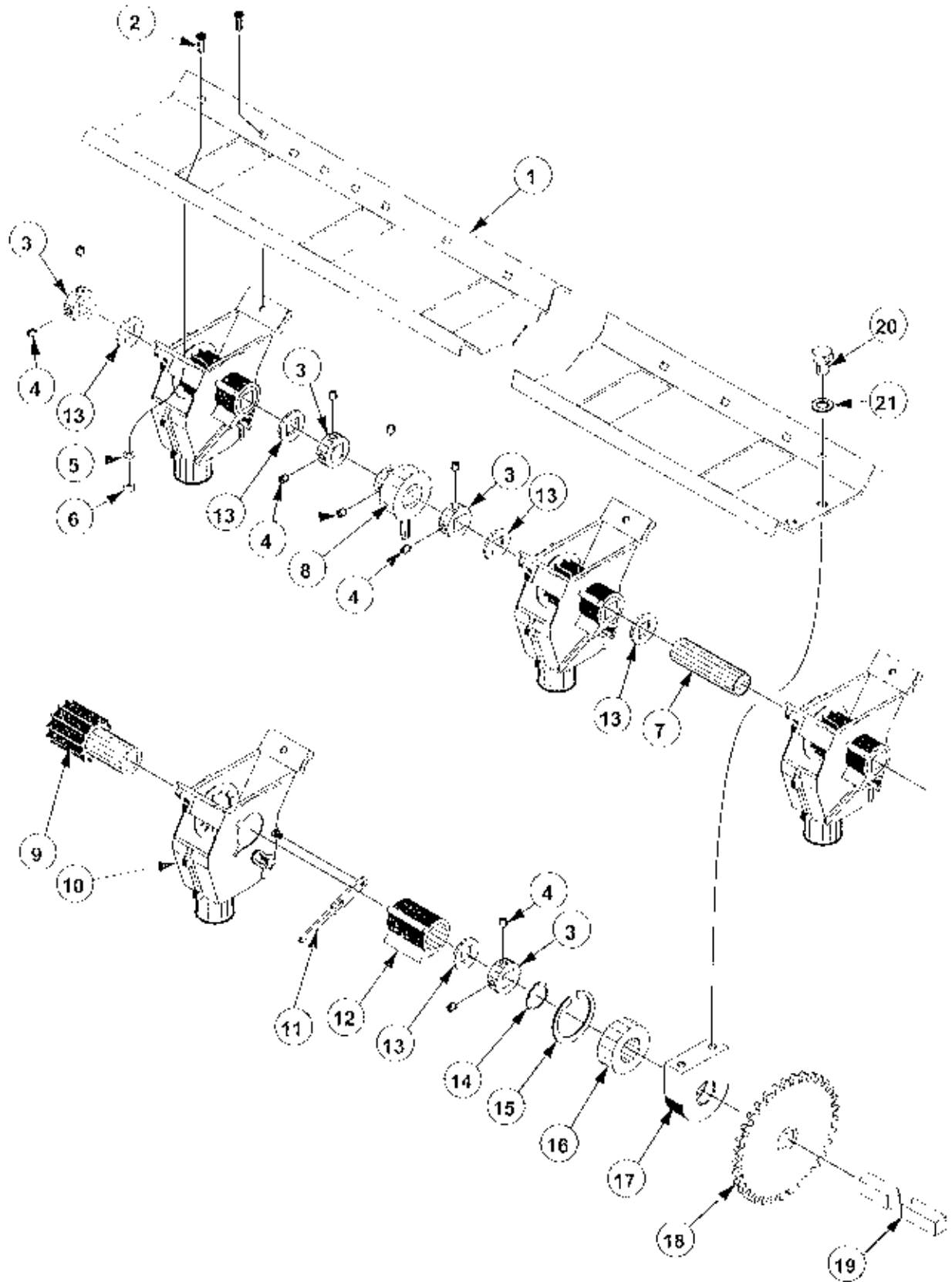
# FEEDER CUP AND DRIVE COMPONENTS



## 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.	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 Weldment
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

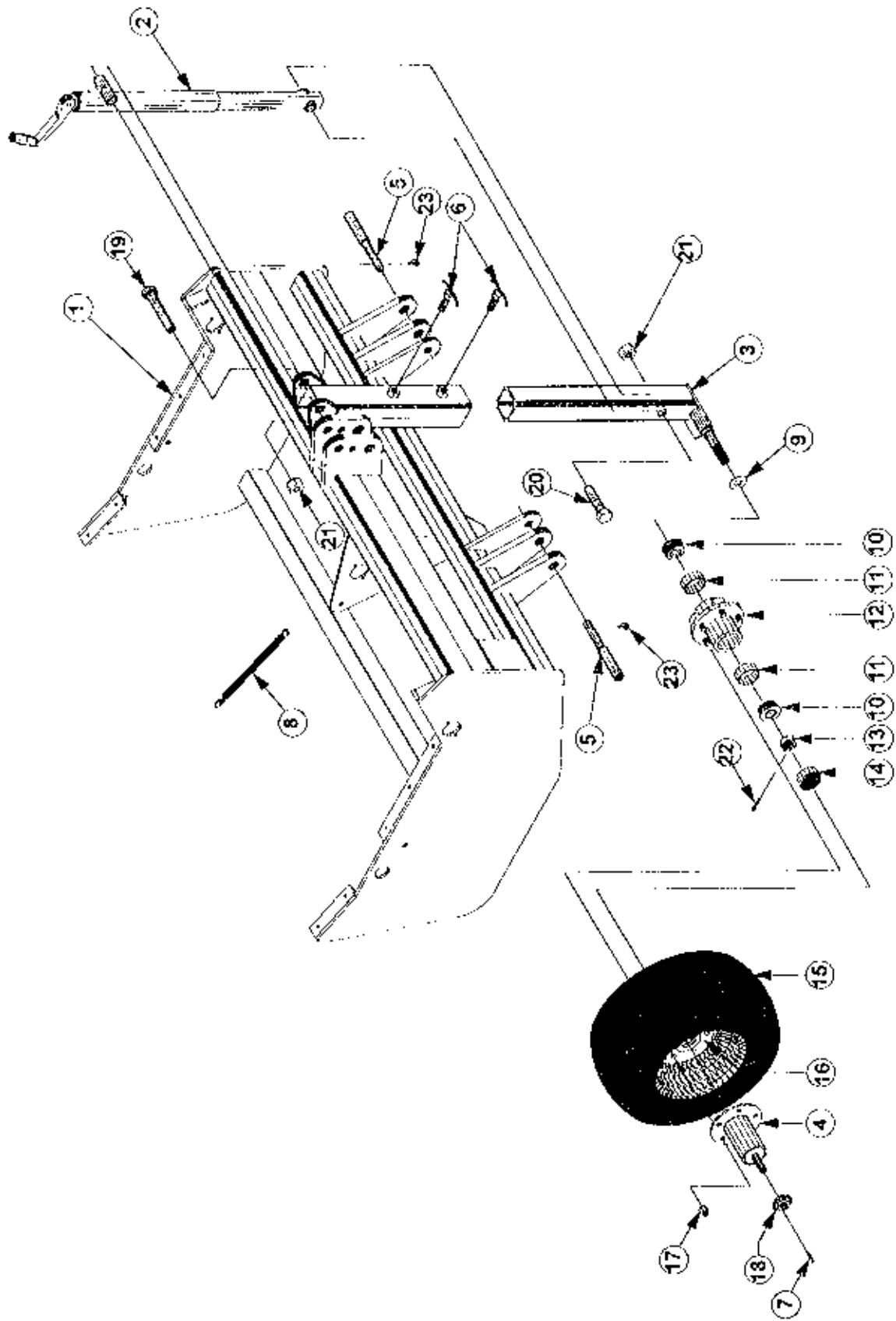
# FEEDER CUP ASSEMBLY



## MAIN FRAME & WHEEL LEG ASSEMBLIES

Ref.No.	Part No.	DESCRIPTION	QTY.
1.	ST4-A	4' Main Frame	1
	ST5-A	5' Main Frame	1
	ST6-A	6' Main Frame	1
2.	VD-J	Jack Screw	1
3.	VD-E	Wheel Leg	1
4.	VD-D	Wheel Shaft	1
5.	VD-F-01	Clevis Pin Cat. I & II	2
6.	VD-F-02	Set Screws	2
7.	VD-G-10	Sprocket Key	1
8.	VDB-01	7" Tension Spring	1
9.	VDB-04	Oil Seal	1
10.	VDB-05	Bearing Cone	2
11.	VDB-06	Bearing Cup	2
12.	VDB-07	Hub, 5 Studs	1
13.	VDB-08	Castle Nut	1
14.	VDB-09	Hub Cap	1
15.	VDB-10	20.5 x 8 x 10 Tire	1
16.	VDB-11	8 x 10 Wheel, 5 on 5	1
17.	VDB-12	Lug Nuts	5
18.	VDB-13	12 Tooth Sprocket	1
19.	-----	1" x 5-1/2" Hex Head Gr 5 z/p Bolts	1
20.	-----	1" x 4" Hex Head Gr 5 z/p Bolts	1
21.	-----	1" Hex Nuts	2
22.	-----	1/4" x 1-1/2" Cotter Pin	1
23.	-----	1/4" x 1-3/4" Lynch Pins	2

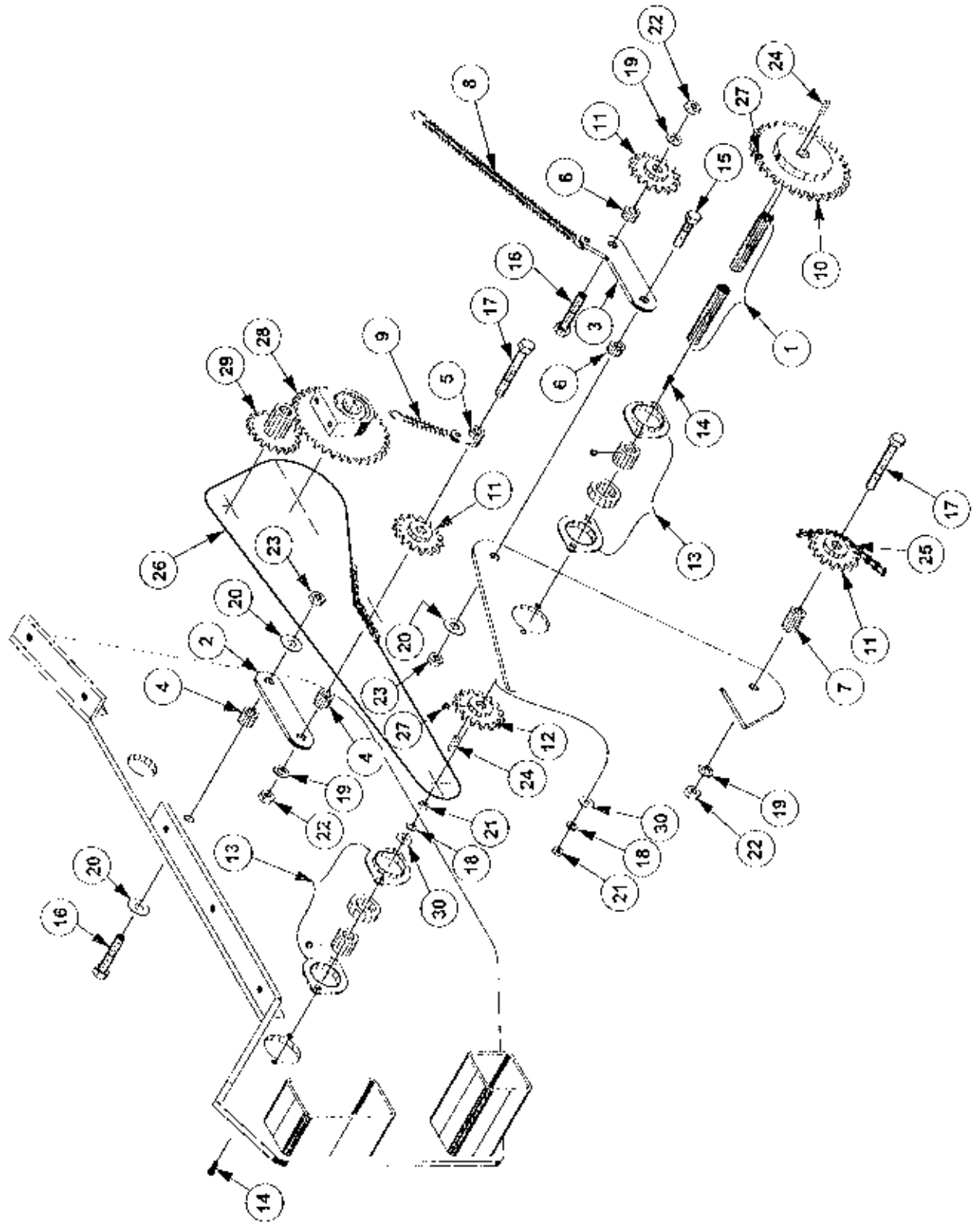
# MAIN FRAME & WHEEL LEG ASSEMBLIES



## JACK SHAFT, SPROCKET, IDLER & BEARING ASSEMBLIES

Ref.No.	Part No.	DESCRIPTION	QTY.
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

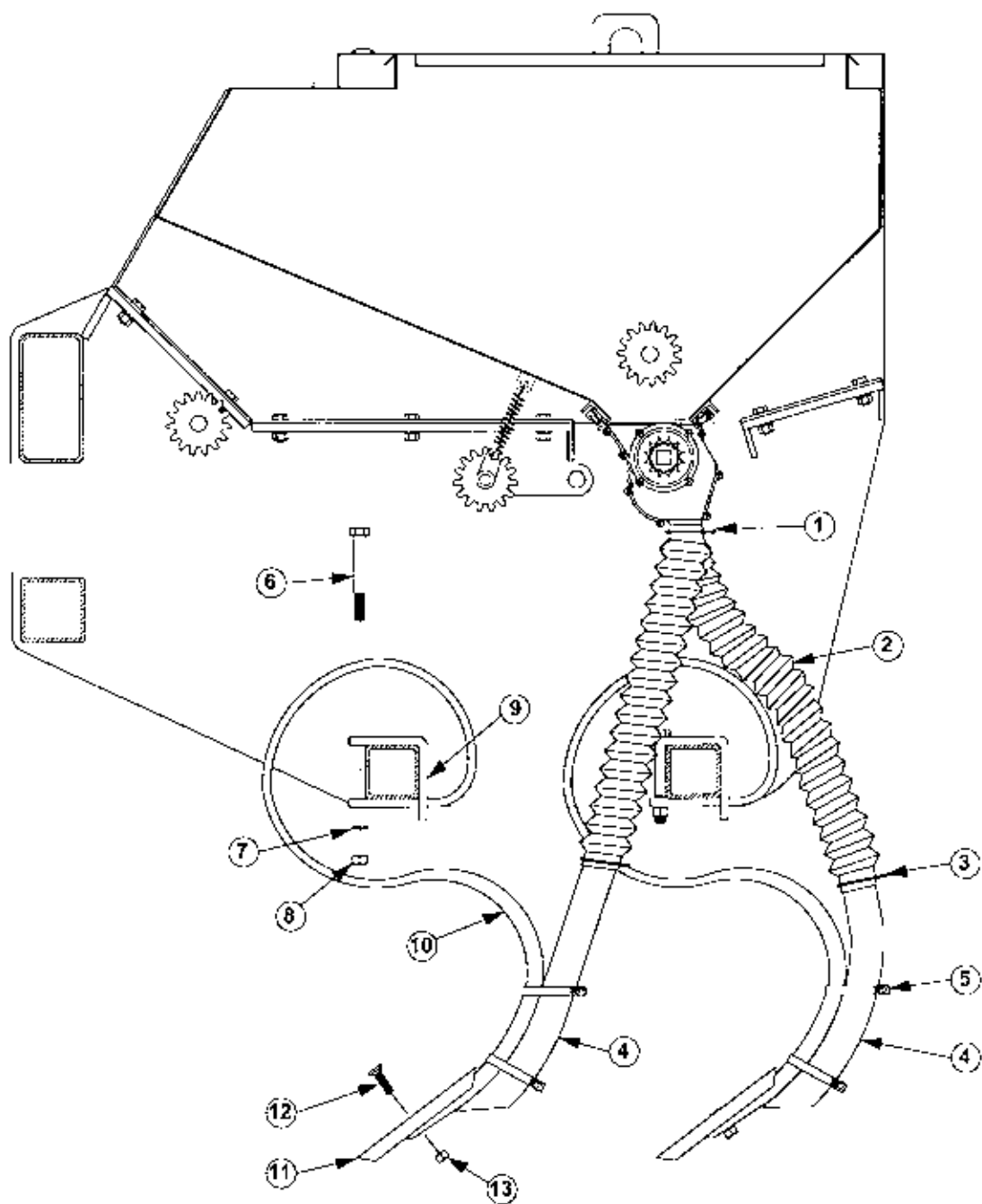


## S-TINE & HOSE ASSEMBLIES

<u>Ref No.</u>	<u>Part No.</u>	<u>DESCRIPTION</u>
1.	800-009C	1-5/8" Hose Clamp #26
2.	816-028C	Seed Hose - 33 Ribs
3.	ST-BO-01	1-3/8" Hose Clamp
4.	ST-A-20	1" Green Hose 16" Long
5.	ST-BO-02	Green Hose Clamps
6.	-----	1/2" x 4" Hex Head Gr. 5 Bolt
7.	-----	1/2" Lockwasher
8.	-----	1/2" Hex Nut
9.	ST-BO-03	2-1/2" Tool Bar Clamp
10.	ST-BO-04	1/2"x 1-1/4" S-Tines
11.	ST-BO-05	S-Tine Points
12.	ST-BO-06	Elliptical Head Bolt M10 x 38
13.	ST-BO-07	Hex Nut For M10 x 38 Bolt



## S-TINE & HOSE ASSEMBLIES



## LIMITED WARRANTY

T.G. Schmeiser Co., Inc. P.O. Box 1112, Fresno, California 93714-1112, 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.