SEED SLINGER$_{TM}$

OPERATORS MANUAL

PARTS LISTING

MAY 2004

ELECTRIC MODEL

MANUAL MODEL

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INTRODUCTION

This Owner/Operators Manual covers both the hand operated and electric models of the *Seed Slinger*. Read and understand the contents of this manual prior to operating your *Seed Slinger*. Follow recommended safety precautions and safe operating practices to prevent personal injury or damage to the equipment.

SAFETY

Read and understand this manual and become familiar with the *Seed Slinger* for safe operation. Keep all guards covering moving parts in good condition and in place before operating the equipment. The safety decal located above the belt guard cover on both models provides a warning for rotating parts.

On electric models do not remove the seed hopper lid from the unit. Do not disable the button switch activated by the lid located on the side of the seed hopper. This switch stops all rotating parts when the seed hopper lid is open to prevent personal injury. During operation, always keep the seed hopper lid closed and fastened with the tie down straps mounted on the seed hopper.

OPERATING THE *SEED SLINGER*

The *Seed Slinger* is available in two models. A hand-operated model is fitted with a hand crank and shoulder strap for carrying across the field. The electric model is fitted with an electric motor and brackets for mounting on all terrain vehicles (ATV), tractors, etc.

The *Seed Slinger* is a broadcast seeder developed for surface broadcast application of native prairie grass and forb species as well as some introduced grass and legume species. The *Seed Slinger* seed hopper features two seed compartments. The large compartment is for large fluffy, chaffy seeds such as big bluestem, little bluestem, Indiangrass, sideoats grama, smooth bromegrass, etc. The second smaller compartment is for smaller, smooth, hard seed such as switchgrass, alfalfa, clover species, etc.

DO NOT USE THE SEED SLINGER TO APPLY FERTILIZER.

Fluffy, chaffy seed in the large seed hopper is kept from bridging with the Truax style auger/agitator to enhance seed flow. **When filling the fluffy seed box, leave a 2-3 inch space between the seed level and the top of the seed hopper or seed hopper lid.** This allows the auger/agitator to stir the seed to prevent packing and bridging. Seed is picked from the hopper with two Truax style picker wheels and dropped onto the impeller fan for broadcast application. The flow of seed is dictated by the speed at which the picker wheels and seed impeller rotate with the crank handle on hand operated models or the small motor on electric models. Operating speed of the electric motor **is not** adjustable

The small seed compartment features a seed control gate control that adjusts to set the rate of seed delivery onto the seed impeller fan. Adjustments to the seed gate opening will have to be made on a trial and error basis to get the desired seeding rate. A starting point is to set the opening at twice the diameter of the largest seed being seeded from the seed compartment. Seed delivery and seeding rate should be checked using the procedure described under seed calibration.

MOUNTING ON THE ATV

Mount the electric *Seed Slinger* on the back of the ATV or other motorized equipment.

Seed distribution from the electric *Seed Slinger* is dictated by the position of the unit on the ATV. When the unit is mounted so the base plate sets parallel with the ATV, the seeding pattern will be to the left side as the ATV moves forward. This may be desirable for some situations. Where a seed distribution pattern equal on each side is desirable, adjust the mounting arms so the base plate of the seeding unit sets at a 45 degree angle counter clockwise from parallel with the ATV. This is necessary to achieve uniform seed distribution behind the machine.

The electric *Seed Slinger* will draw up to 12 amps on the electrical system. If there is concern for this load on the electrical system, a supplemental 12-volt deep draw battery can be used to operate the *Seed Slinger*.

SEEDBED PREPARATION

Since the *Seed Slinger* broadcasts seed on the soil surface it is necessary to apply seed on a prepared firm seedbed that is relatively free of plant residues or mulch. The prepared seedbed **must** be firm before applying the seed. A seedbed is considered firm when foot prints from walking across the area are less than $1/8^{th}$ inch deep. If the seedbed is not firm, seed will be buried deeper than ¼ to ½ inch and will have little or no chance for emergence. Firm the prepared seedbed before seeding by double dragging with a field harrow with the teeth set in the least aggressive position or similar type equipment, or roll with a cultipacker.

The Seed Slinger is suitable for making a frost seeding on frozen soil in late winter or early spring. In this application seeding into light residue cover is acceptable. Application of seed just ahead of a snowfall or a rain event can improve the level of success for frost seeding.

COVERING THE SEED AFTER SEEDING

After the seed has been uniformly applied across the area, it is necessary to incorporate the seed to a shallow depth (¼ to ½ inch). For most species this is best accomplished with a cultipacker or corrugated roller. If a cultipacker is not available, cover the seed lightly with a garden rake or drag a piece of chain link fence or similar tool over the seeded area and pack with a smooth roller.

CALIBRATION

The first step in calibration of seeding equipment is to determine the desired seeding rate in terms of Pure Live Seed (PLS) seeds per square foot or PLS pounds per acre. The applied seeding rate for bulk seed will depend on the species in the seed mixture as well as the purity and germination of the seed being used. A normal drill applied seeding rate is 20 - 25 PLS seeds per square foot for introduced cool season species and/or legumes and 30 - 40 PLS seeds per square foot for native cool and warm season species. For a broadcast seeding apply 1.5-2.0 times the planned drill seeding rate. Thus in a broadcast seeding apply 35 - 50 PLS seeds per square foot for introduced cool season species and/or legumes and 50 - 80 PLS seeds per square foot for native cool and warm season species. See **Exhibit A** for determining seeding rates and seeds per square foot.

Once the seeding rate is determined, two methods for determining the seed being delivered from the *Seed Slinger* may be used

METHOD ONE - SEEDS PER SQUARE FOOT

1. Spread a large tarp or piece of plastic on a smooth level surface and anchor the edges to hold in place.
2. Place seed in the seed compartment(s) and travel across the tarp at the anticipated speed you will travel in the field. Make one pass across the tarp to check seeding rate.
3. Using a one square foot frame count the seeds in one square foot. Count the seeds on three to five samples and average.
4. Compare the results from step # 3 with the planned seeding rate number of seeds per square foot of bulk seed for the seed mixture. Use the planned seeds per square foot of bulk seed since you will be counting all seeds on the tarp. If necessary adjust the control gate for the small seed compartment and/or travel speed and repeat the test until the desired seeding rate is achieved.
5. Make two or three passes across the tarp at a selected spacing to check seed distribution and seeding pattern overlap. Adjust the travel spacing to achieve the desired overlap.
6. It may be desirable to check the seed being delivered from each seed compartment individually. In this case carryout Steps 2 through 4 independently for each seed compartment.

METHOD TWO - POUNDS PER ACRE

1. Measure out some fraction of an acre. For example 1000 square feet is 2.3% (0.023) of an acre; 2000 square feet is 4.6% (0.046) of an acre; or 10890 square feet is 25% (0.25) of an acre.
2. Calculate the amount of seed required for the measured area. Weigh out the appropriate amount of each seed type and place in the appropriate *Seed Slinger* box(s).
3. Seed the measured area and check if you had sufficient seed to cover the area or ran out before covering the measured area.
4. Adjust the Seed Slinger settings and/or travel speed and repeat the trial on a new area as necessary.

SEEDING

Apply the seed mixture uniformly across the area to be seeded. Be sure the seeded area overlaps with each trip across the area. The width of seed distribution will depend on the density of seed. Light fluffy seed will be distributed in a narrower band than heavier, denser seed. When seeding fluffy, chaffy seed, passes from 4 to 6 feet apart may be necessary to insure good overlap. When seeding denser seed (usually through the small seed box) passes across the field may be as wide as 10 to 15 feet. When both types of seed are being applied, ensure that you get overlap with the fluffy seed and adjust the small seed control gate down to achieve the desired effect. Adding inert material such as cracked corn, vermiculite, etc. to fluffy seed will not increase the width of seeding since the seed does not adhere to these added materials.

Operate the *Seed Slinger* so seed is being spread with the wind direction, not against the wind. Operate hand units with the wind at your back. Operate electric models mounted on motorized equipment driving into the wind. Observe how the wind impacts the seeding pattern and make adjustments in your travel pattern as needed. If seed distribution is not the same distance on each side of the *Seed Slinger*, it may be better to travel around the area rather than back and forth from end to end.

The amount of seed delivered to the ground is also affected by the rate of travel across the area being seeded. For hand operated models a moderate continuous turn of the crank with a moderate walking rate (approximately 2 mph) across the field is desirable. Travel speed of the ATV should be equal to a moderate walking rate (approximately 2 mph).

MAINTENANCE

The *Seed Slinger* requires little day to day maintenance. The sealed gear casing has been lubricated with grease and should not require further lubrication. At the start of each season a drop of oil at each of the five bearing sites will be beneficial.

Never store seed in the seed hopper even for short periods of time such as overnight. Always empty the seed hopper immediately after use. At the end of the season empty all seed from the hoppers and use air pressure to remove all dirt, seed, chaff, etc. from the seed hopper, seed impeller, area between the impeller and back shroud, and other machine parts. Store hand operated models upside down in a dry place during the off season. Store the electric models upright in a dry place.

SEED SLINGER LIMITED WARRANTY

TRUAX COMPANY, INC. ("Manufacturer") warrants to the original purchaser that the *Seed Slinger* will be free from defects in material and workmanship under normal use and condition for a period of one (1) year after the date of delivery. This warranty is limited to replacement or repair, at the Manufacturer's facilities in Minneapolis, Minnesota, USA, of such parts as shall under normal use and service appear to have been defective in material or workmanship. This warranty is null and void if parts other than the Manufacturer's parts are used. This warranty does not extend to *Seed Slinger* and parts that have been subject to misuse, accident, tampering, alterations or installation in a manner not approved by the Manufacturer in writing. **This warranty is exclusive, and the manufacturer makes no other warranty, express or implied, including but not limited to any warranty of merchantability or fitness for a particular purpose.**

Parts claimed to be defective shall be returned to the Manufacturer at Minneapolis, Minnesota, transportation prepaid. If upon inspection by the Manufacturer, the part(s) are determined to have been defective, the Manufacturer will replace or repair such defective part(s) without charge except for transportation. Prior to returning any *Seed Slinger* or part(s) alleged to be defective, the purchaser shall notify the Manufacturer in writing of the claimed defect. **This is the exclusive remedy for any breach of warranty.** The sole purpose of this remedy shall be to provide the purchaser with the replacement or repair of defective part(s). This exclusive remedy shall not be deemed to have failed its essential purpose so long as the Manufacturer is willing and able to replace or repair the defective part(s).

No person, agent, distributor, or dealer is authorized to give any warranty other than the one herein expressed on the Manufacturer's behalf or assume for it any liability pertaining to the *Seed Slinger*. **In no event shall the Manufacturer or its dealers be liable for any amount in excess of the price paid by the purchaser for the *Seed Slinger* or for any incidental or consequential damages of any kind, whether for breach of any warranty, for breach or repudiation of any term of condition of sale, for negligence, on the basis of strict liability or otherwise.**

A defect, within the meaning of this warranty, in any part of the *Seed Slinger* shall not, when such part is capable of being repaired or replaced, operate to condemn the entire *Seed Slinger*.

This warranty is expressly in lieu of all warranties, guarantees, allegations, or liabilities expressed or implied, by the Manufacturer, its dealers or its representatives.

EXHIBIT A - CALIBRATION AND DETERMINING SEEDING RATES

When preparing a seed mixture and purchasing seed, think in terms of Pure Live Seed (PLS). Pure Live Seed is an expression of the percent of a bulk seed lot that is viable seed and can be expected to germinate. Pure Live Seed (PLS) is calculated by multiplying the seed lot purity by the seed lot germination divided by 100. Germination should include both the percent germination and the percent hard seed.

% Pure Live Seed (PLS) = % Purity x % Germination / 100

Bulk seed is a term used to describe the total material in a seed lot or bag. Bulk seed includes viable seed (PLS), weed seed (within allowable tolerances); inert material (stems, straw, etc.); and other crops.
The seeding rate for bulk seed (the seed in the bag) is determined by dividing the planned PLS seeding rate by the percent PLS.

Bulk Seeding Rate = PLS Seeding Rate Per Acre / % Pure Live Seed (PLS)

When planning a seeding, think in terms of how many viable seeds per square foot should be planted for the seed mixture and for each species in the mixture. A normal drill applied seeding rate is 20 - 25 PLS seeds per square foot for introduced cool season species and/or legumes and 30 - 40 PLS seeds per square foot for native cool and warm season species. For a broadcast seeding apply 1.5-2.0 times the planned drill seeding rate. Thus in a broadcast seeding, apply 35 - 50 PLS seeds per square foot for introduced cool season species and/or legumes and 50 - 80 PLS seeds per square foot for native cool and warm season species.

Table 1 provides information on number of seeds per pound and per square foot at a one pound seeding rate for several species. Number of seeds per square foot at 1 pound per acre is determined by dividing the number of seeds per pound by 43,560 square feet per acre.

 # Seeds Per Sq. Ft @ 1 LB Rate = # Seeds Per Pound / 43,560 Sq. Ft Per Acre

Seeds per pound at the one pound rate multiplied by the planned PLS seeding rate calculates viable seeds per square foot for the planned seeding.

Example: A three species mixture of big bluestem, Indiangrass, and switchgrass is planned. The desired plant community is 50% big bluestem, 35% Indiangrass, and 15% switchgrass. The seed will be applied as a broadcast seeding at a rate of 80 PLS seeds per square foot. Using information from Table 1 and seed tag purity and germination, an example is shown below.

Species	% Stand	PLS Seeds/Sq Ft[1]	PLS Rate/Acre[2]	% Purity	% Germ	% PLS[3]	Bulk Seed Lbs/Acre[4]	Bulk Seed Seeds/Sq Ft[5]
Big Bluestem	50	40	10.5	85	78	66.3	15.8	60
Indiangrass	35	28	7.0	85	72	61.2	11.4	46
Switchgrass	15	12	1.3	98	80	78.4	1.7	15
Total	100	80	18.8				28.9	121

1. PLS Seeds/SqFt - Seeding rate of 80 PLS seeds per square foot multiplied by % Stand planned.
2. PLS Rate/Acre - Seeds per square foot divided by Table 1 value for Seeds/Sq. Ft @ 1 LB/Ac for each species.
3. Percent PLS - Percent purity multiplied by percent germination divided by 100.
4. Bulk Seed Pounds/Acre - PLS Rate/Acre divided by percent PLS.
5. Bulk Seed /SqFt - Bulk Seeding Rate multiplied by Table 1 value for Seeds/Sq. Ft @ 1 LB/Ac for each species.

In this example the bulk seeding rate is 28.9 LB/Ac (27.2 LB/Ac for the fluffy seeds and 1.7 LB/Ac for the switchgrass). A calibration count of 100-120 total seeds per square foot on the tarp would indicate proper *Seed Slinger* settings and operation.

TABLE 1 - SEED INFORMATION[1]

Species	Number Seeds Per Pound	Seeds Per Square Foot @ 1 Pound Per Acre[2]
Native Warm Season		
Alkali sacaton	1,758,000	40.4
Big bluestem	165,000	3.8
Blue grama	825,000	18.9
Buffalograss (Burs)	56,000	1.3
Eastern gamagrass	7,280	0.17
Indiangrass	175,000	4.0
Little bluestem	260,000	6.0
Prairie cordgrass	183,000	4.2
Prairie sandreed	273,000	6.3
Sand bluestem	113,000	2.6
Sand dropseed	5,289,000	121.4
Sand lovegrass	1,300,000	29.8
Sideoats grama	191,000	4.4
Switchgrass	389,000	8.9
Native Cool Season		
Canada wildrye	115,000	2.6
Green needlegrass	181,000	4.2
Needle-and-thread	115,000	2.6
Reed canarygrass	533,000	12.2
Slender wheatgrass	159,000	3.7
Western wheatgrass	110,000	2.5
Introduced Cool Season		
Creeping foxtail	750,000	17.2
Creeping red fescue	615,000	14.1
Crested wheatgrass	175,000	4.0
Hard fescue	680,000	15.6
Intermediate wheatgrass	88,000	2.0
Kentucky bluegrass	2,177,000	50.0
Meadow bromegrass	71,000	1.6
Orchardgrass	654,000	15.0
Perennial Ryegrass	227,000	5.2
Pubescent wheatgrass	100,000	2.3
Red top	4,990,000	114.6
Russian wildrye	175,000	4.0
Smooth bromegrass	136,000	3.1
Tall fescue	227,000	5.2
Tall wheatgrass	79,000	1.8
Timothy	1,230,000	28.2

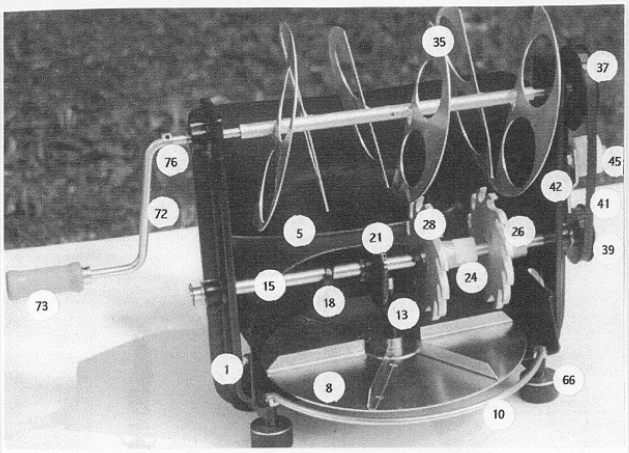
TABLE 1 - SEED INFORMATION CON'T

Species	Number Seeds Per Pound	Seeds Per Square Foot @ 1 Pound Per Acre[2]
Legumes		
Alfalfa	200,000	4.6
Alsike clover	700,000	16.1
Birdsfoot trefoil	375,000	8.6
Cicer milkvetch	130,000	3.0
Crownvetch	109,000	2.5
Hairyvetch	20,000	0.50
Purple vetch	10,000	0.23
Korean lespedeza	225,000	5.2
Sericea lespedeza	350,000	8.0
Crimson clover	149,700	3.4
Ladino clover	871,650	20.0
Red Clover	275,000	6.3
Strawberry clover	300,000	6.9
Sweetclover	260,000	6.0
White clover	800,000	18.4
Forbs		
Maximillian sunflower	150,000	3.4
Purple prairieclover	275,000	6.3
Pitcher sage	150,000	3.4
Roundhead lespedeza	151,000	3.5
Thickspike gayfeather	110,000	2.5
Dotted gayfeather	141,000	3.2
Shell-leaf penstemon	272,200	6.3
Cereal Grain		
Barley	14,000	0.32
Oats	13,000	0.30
Regreen	11,000	0.25
Rye	18,000	0.41
Wheat	15,000	0.34

1. Source - Grass, USDA Yearbook of Agriculture 1948
2. Seeds Per Sq. Ft @ 1 LB Per Acre - Number of Seeds Per Pound divided by 43,560 Sq. Ft Per Acre

EXHIBIT B - SEED SLINGER PARTS LIST

ITEM #		# REQ'D
	A - BASIC FRAME ASSEMBLY	
1	Frame, Aluminum	1
2	Brass Flanged Bushing 3/8x1/2	1
3	Brass Bushing 1/4x1/2	2
4	Brass Bushing 1/2x1/2	2
5	Back Shroud	1
6	Hex Head Bolt 5/16x1/2	4
7	Washer 5/16x3/4	4
8	Seed Impeller	1
9	Set Screw 1/4-28x1/4 Knurl Cup	1
10	Guard, Seed Impeller	1
11	Impeller Shaft 3/8x4 1/4	1
12	Washer 25/64x5/8	5
13	Sm Gear for Impeller Shaft	1
14	Roll Pin 1/8x11/16	1
15	Shaft for Picker Wheels 1/2x14 7/8	1
16	Retaining Ring Series 1000	1
17	Washers 33/64x7/8	5
18	Gear Housing Collar	2
19	Gear Housing Back w/Zerk	1
20	Gear Housing Front Plain	1
21	Lg Gear for Picker Wheel Shaft	1
22	Roll Pin 1/8x7/8	1
23	Gear Housing Collar Bottom	1
24	Poly Block for Small Agitator Wire	1
25	Roll Pin 1/8x7/8	1
26	Picker Wheel Long Hub	1
27	Set Screw 5/16-18x3/8 Knurl Cup	1
28	Picker Wheel Short Hub	1
29	Set Screw 5/16-18x3/8 Knurl Cup	1
	B - SEED HOPPER	
30	Seed Hopper	1
31	Divider for Seed Hopper	1
32	Philips Machine Screw 6-32x1/2	10
33	Washer # 6	12
34	Nut 6-32	10
35	Auger/Agitator	1
36	Cotter Key 1/8x1 1/4	1
	C - BELT DRIVE	
37	Pulley 3 Inch Diameter	1
38	Roll Pin 1/8x7/8	1
39	Pulley 2 1/4 Inch Diameter	1
40	Roll Pin 1/8x7/8	1
41	Belt SPD 192XL 3/8 Inch Width	1
42	Belt Idler Bracket	1
43	Washer 5/16x3/4	2
44	Nut Self Locking 1/4-20	1
45	Poly Belt Tightener Roller	1
46	Belt Guard Cover	1
47	Hex Head Bolt 1/4-20x1/2	2
48	Washer 1/4x3/4	4
49	Self Locking Flanged Nut 1/4-20	2
50	Hex Head Cap Screw 5/16x1/2	1



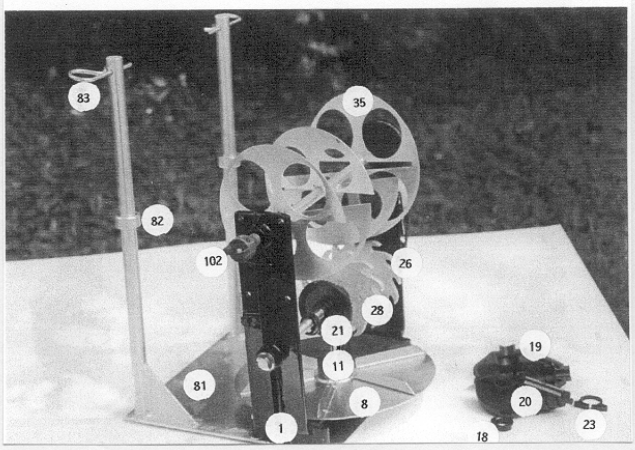
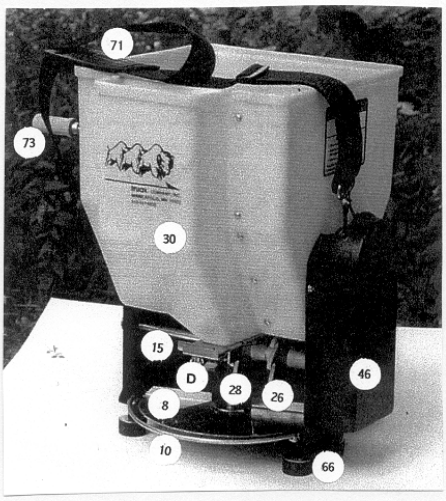


EXHIBIT B - SEED SLINGER PARTS LIST

	D - SEED CONTROL LEVER	
51	Seed Control Gate	1
52	Philips Machine Screw 10-24x1/2	1
53	Philips Machine Screw 10-24x3/4	1
54	Philips Machine Screw 10-24x1	1
55	Washer # 10	4
56	Nut 10-24	3
57	Small Agitator Wire	1
58	Gate Lever	1
59	Aluminum Round Spacer	1
60	Wave Disc Spring	1
61	Washer 21/64x9/16x1/16	1
62	Arens Control Lever & Cable	1
63		
64		
65		
	E - HAND OPERATED MODELS	
66	Rubber Feet	4
67	Fender Washers 9/32x1-1/2	4
68	Philips Machine Screw 1/4-20x1 3/4	4
69	Self Locking Flanged Nut 1/4-20	2
70	Bracket for Shoulder Strap	2
71	Shoulder Strap	1
72	Hand Crank Agitator/Auger Shaft	1
73	Crank Handle	1
74	Retaining Ring Series 2000	1
75	Washer 5/16x9/16	6
76	Collar	2
	F - MOUNT SEED HOPPER-HAND UNIT	
77	Hex Head Bolt 1/4-20x1	4
78	Self Locking Flanged Nut 1/4-20	4
79	Hex Head Bolt 1/4-20x2-3/4	4
80	Self Locking Flanged Nut 1/4-20	4
	G - ELECTRIC MODELS	
81	Base Plate Assembly	1
82	Collar for Mounting 3/4	2
83	Snap Pin Clip	2
84	ATV Mounting Arm Right Side	1
85	ATV Mounting Arm Left Side	1
86	Hex Head Bolt 1/4-20x1 1/2	4
87	Washer 33/64x7/8	4
88	Self Locking Flanged Nut 1/4-20	2
89	Shaft for Electric motor 5/16x15 3/4	1
90	Washer 5/16x 9/16	5
	H - MOUNT SEED HOPPER-ELECTRIC	
91	Hex Head Bolt 1/4-20x1	2
92	Self Locking Flanged Nut 1/4-20	2
93	Hex Head Bolt 1/4-20x3/4	6
94	Self Locking Flanged Nut 1/4-20	6
95	Electric Motor Mount	1
96	Stud for Motor Mount 1/4-28x2	3
97	Spacer for Motor Mount 1/2(1/4)x1 1/4	3
98	Washer 1/4x3/4	6
99	Nut 1/4-28	3
100	Electric Motor	1
101	U Joint for 5/16" Shaft	1
102	U Joint for 1/2" Shaft	1
103	Spider	1



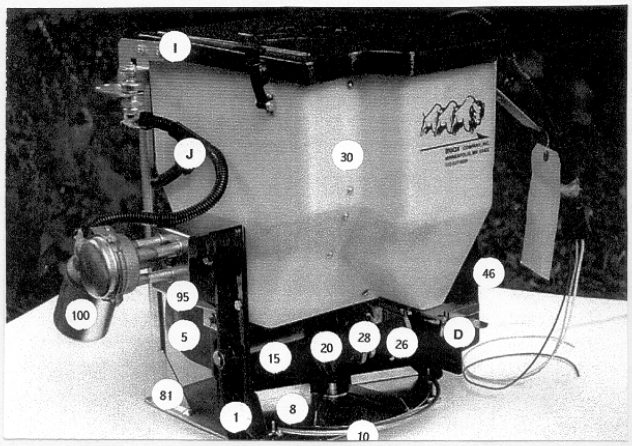


EXHIBIT B - SEED SLINGER PARTS LIST

	I - LID ASSEMBLY-ELECTRIC UNIT	
104	Lid for Seed Hopper	1
105	Hinge Bracket Left Side	1
106	Philips Machine Screw 12-24x1/2	2
107	Nut 12-24	2
108	Hinge Bracket Right Side (Motor)	1
109	Philips Machine Screw 12-24x1/2	2
110	Nut 12-24	2
111	Hinge Bracket Back	1
112	Philips Machine Screw 12-24x1/2	3
113	Washer # 10	3
114	Nut 12-24	3
115	Hex Cap Screw 1/4-20x5/8	2
116	Self Locking Flanged Nut 1/4-20	2
117	Cup Type Expansion Plug 1"	1
118	Hex Head Machine Bolt 1/4-20x2	1
119	Self Locking Flanged Nut 1/4-20	3
120	Lid Holddown Clips	2
121	Phillips Machine Screw 6-32x3/8	2
122	Nut 6-32	2
123	Lid Holddown Straps w/Hinge	2
124	Philips Machine Screw 6-32x1/2	4
125	Washer # 6	4
126	Nut 6-32	4
	J - WIRING HARNESS	
127	Corrugated Loom	5
128	White Wire 16ga	7
129	Green Wire 16ga	6
130	Yellow Wire 16ga	5
131	Toggle Switch	1
132	Weather Pack Seal (Green)	6
133	Female Terminal/Tower Half 16-14ga	3
134	Three Contact Tower Half	1
135	Spade Terminal # 8 16-14ga	3
136	Butt Connector 16-14ga	3
137	Corrugated Fitting (T)	1
138	Corrugated Fitting (Clamp)	5
139	Corrugated Fitting (Clamp w/Peg)	1
140	Male Terminal/Shroud Half 16-14ga	3
141	Three Contact Shroud Half	1
142	Toggle Switch Mounting Plate (1 3/4x3 1/2)	1
143	Neutral Safety Starter Switch	1
144	Wiring Instruction Tag	1