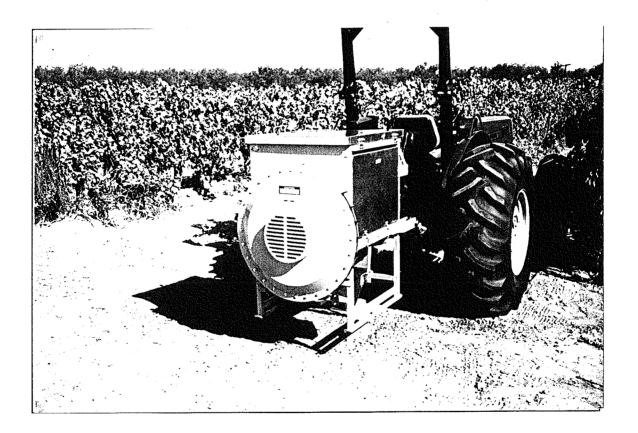
Valleytown Vineyard Duster

MODEL VT22 Parts Manual



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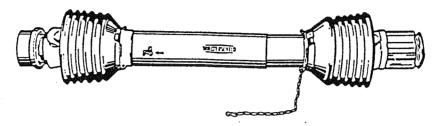
Manufactured by NIKKEL IRON WORKS, INC. Shafter, CA

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NO. 389520 VT22 DRIVELINE

(furnished complete only)



This driveline is for illustration purposes only and is not an illustration of the Driveline as supplied

CAUTION!!

THE DRIVELINE SUPPLIED WITH THIS MACHINE MAY BE TOO LONG FOR YOUR TRACTOR.

SEE THE OWNERS MANUAL & PARTS LIST OR CALL YOUR DEALER FOR SHORTENING INSTRUCTIONS

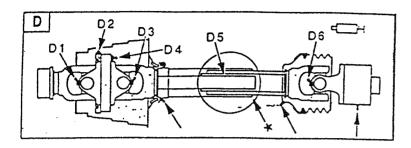
PART NO. DECAL9766

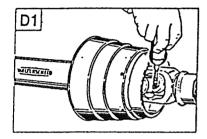


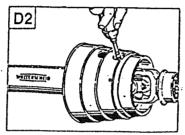
THIS IS YOUR RESPONSIBILITY -----

WARRANTY WILL NOT BE GRANTED ON DRIVELINES IMPROPERLY INSTALLED AND IMPROPERLY LUBRICATED.

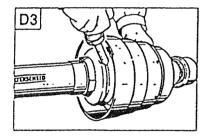
DRIVELINE LUBRICATING INSTRUCTIONS

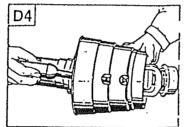






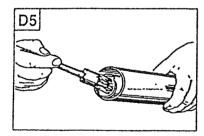
Lubricate with quality grease before starting work & every 8 operating hours. Clean & grease the implement input driveline before each prolonged period of non-use.

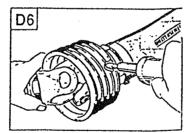




Molded nipples on the guard near each guard bearing are intended as grease fittings and should be lubricated every 8 hours of operation!

Telescoping members must have lubrication to operate successfully regardless of whether a grease fitting is provided for that purpose Telescoping members without fittings should be pulled apart & grease should be added manually.



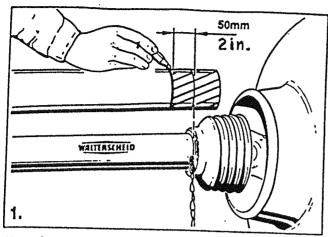


Check & grease the guard tubes in winter to prevent freezing.

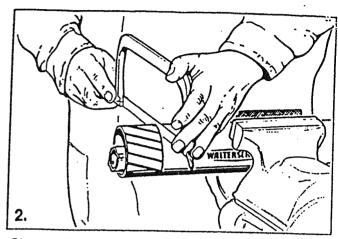
...... CHECK THE LENGTH OF THE TELESCOPING MEMBERS TO INSURE THE DRIVELINE WILL NOT BOTTOM OUT OR SEPARATE WHEN TURNING AND/OR GOING OVER ROUGH TERRAIN.

LENGTH MODIFICATION OF THE IMPLEMENT INPUT DRIVELINE SHOULD ONLY BE DONE AT THE DIRECTION OF THE IMPLEMENT MANUFACTURER.

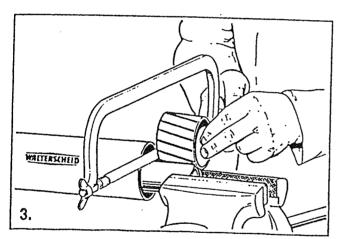
DRIVELINE LENGTH ADJUSTMENT INSTRUCTIONS



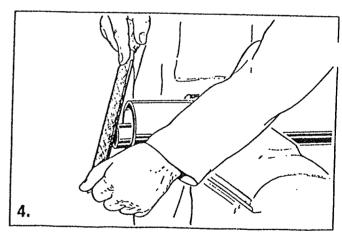
To adjust the length, hold the half-shafts next to each other in the shortest working position and mark them.



Shorten inner and outer guard tubes equally.



Shorten inner and outer sliding profiles by the same length as the guard tubes.



Round off all sharp edges and remove burrs. Grease sliding profiles. No other changes may be made to the PTO drive shaft and quard.



Farm Safety Association

Fact Sheet

NO. F-020 DECEMBER 1992

PTO Safety

A PTO shaft revolving at 540 rpm travels more than two metres in less than a second. Little wonder that PTO entanglement nearly always results in devastating injury or death!

Missing or damaged shielding is the main reason for driveline entanglement. Manufacturers have made tremendous strides in developing safer PTO shielding. However, it is impossible to make protection fool proof. All shielding components must be correctly installed and properly maintained to prevent injury in case of accidental contact.

Operator awareness and constant vigilance are also crucial if PTO entanglement is to be avoided. Making repairs while equipment is operating, stepping over or onto revolving shafts, wearing loose or frayed clothing are actions that set the stage for carnage.

Clear safety rules must be established for everyone who works with farm machinery. Even the most experienced operator will benefit by reviewing the PTO safety information summarized in this fact sheet. The guidelines will prove especially valuable for training novice equipment operators — new employees and children who are excited about the prospect of operating farm machinery must be made aware of the importance of sticking to these rules!



Shielding must be 100%

A tractor's master shield prevents accidental contact with the tractor stub shaft and the front universal joint of the attached machine's driveline. Never operate a tractor with a missing or damaged master shield.

Integral-journal shields completely enclose the power shafts of PTO-operated machines. Manufacturers have made great strides in the design of these tubular shields, most of which are now made of durable plastic. The "cones" that cover the universal joints at each end of a plastic power shaft shield have also been improved - their flexible design makes hook-up easier and provides greater protective cover.

Integral shields rotate on bearings, independently of the power shaft. They revolve with the shaft while it is turning, but the shield will stop spinning if it is contacted. These shields must be kept in place and maintained in good condition to provide protection against the grabbing action of shafts and universal joints.

The power shaft must also be shielded at the point of attachment of the driven machine. Both the universal joint and the machine's stub shaft must be well covered. If this shielding is missing or damaged, or if you feel it doesn't provide adequate protection, talk to your dealer about a replacement.

There are still some older machines in operation that have tunnel shields over their power shafts. This design offered only limited protection. Because tunnel shielding is still open at the bottom, clothing, shoelaces, hair, etc. can be caught by the shaft or universal joints. There is a case to be made for "retiring" such equipment. If it must be used, power shafts and shielding should be replaced with safer, modern components.

Proper Installation

A PTO shaft may break or separate during operation if improperly used or adjusted. If it does, the tractor-driven end can swing violently, with the potential for severe equipment damage and operator injury.

New equipment is fitted with the driveline recommended for that particular machine. Make very sure that all replacement driveline components conform to the same specifications

The tractor drawbar should be adjusted to the length specified in the driven machine's manual. This ensures that the telescoping power shaft and shield will stay together when they lengthen in operation. It also prevents driveline "bottoming out" when making a sharp turn, or when the rear tractor wheels enter a depression. This puts considerable strain on shaft and bearing supports, and the entire driveline may be damaged or bent.

Use your safety sense

To perform its intended function, farm machinery has to operate in a very powerful, aggressive fashion. Operators must adopt good safety habits to prevent injury, even with well-shielded equipment.

Unit 22, 340 Woodlawn Road West, Guelph, Ontario (519) 823-5600

Following are key considerations for preventing PTO entanglement.

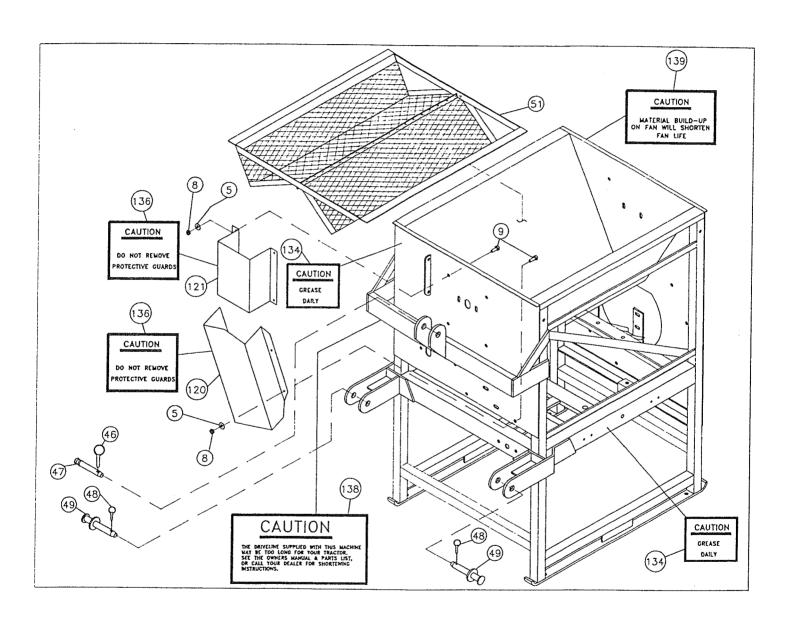
- Always disengage the PTO, shut off the engine and remove the keys before leaving the tractor seat. You can't be injured by the PTO or other machine parts if the driveline isn't rotating! Taking the keys prevents unexpected start-up by another person while you are cleaning, lubricating, adjusting, or making repairs.
- 2. Keep the tractor's master shield in place at all times.
- 3. Check frequently to confirm that Integral shields are in good condition. With the powershaft stopped, you should be able to rotate the shield freely by hand. Look for nicks, dents or bends that could catch clothing. Damaged shields or bearings must be repaired immediately. Don't operate the machine until damaged parts are fixed or replaced.
- 4. Never step across a rotating powershaft. Some equipment must be operated in a stationary location where you are working (e.g. forage wagons and blowers, grinder-mixers, etc.) When such machines are running, always walk around the revolving shaft. Safety devices are usually reliable, but could malfunction.
- Dress for safety. Wear close fitting clothes and keep long hair covered. Raggy old coats and long boot laces can easily be grabbed by rotating parts.

Make safety a habit

Broken bones, severed limbs, crushed skulls — such horrendous injuries are typical of PTO entanglement accidents. The only sure way to prevent such tragedy is to avoid all contact with moving machine parts. Good shielding is vital, but all equipment operators must be aware of hazards and make safety a part of their habitual behaviour.

The Information and recommendations contained in this publication are believed to be reliable and representative of contemporary expert opinion on the subject material. The Farm Safety Association does not guarantee absolute accuracy or sulficiency of subject material, nor can it accept responsibility for health and safety recommendations that may have been omitted due to particular and exceptional conditions and circumstances. Copyright® 1992

FRAME, SCREEN GUARDS

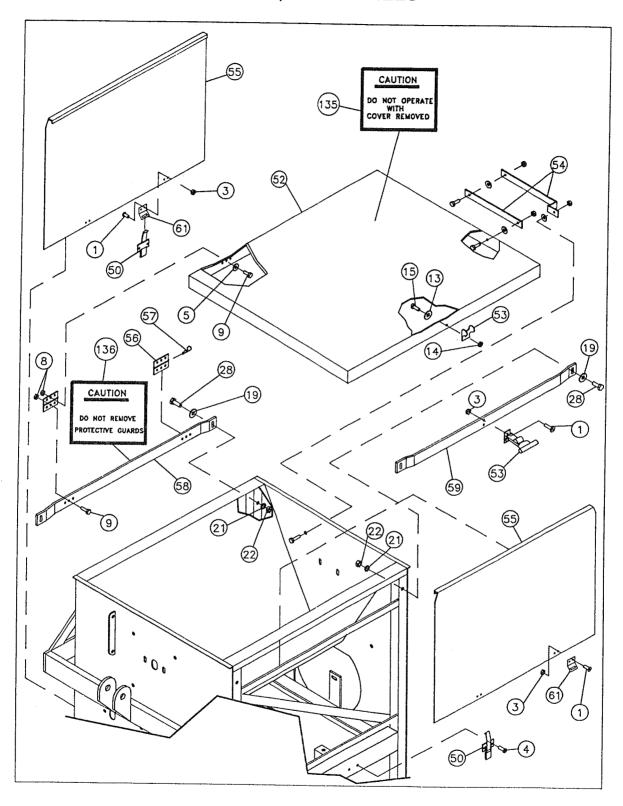


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FRAME, SCREEN GUARDS

REF	PART NO	DESCRIPTION	QT
5	FLTWA04	¼" FLAT WASHER PLATED	AR
8	NUT04NCNYL	1/4" NC LOCK NUT, NYLON	AR
9	CSNC04X12	1/4" X 3/4" GR5 NC CAP SCREW	AR
46	P791	LYNCH PIN	1
47	P772	TOP LINK PIN	1
48	P794	LYNCH PIN	2
49	2259	LIFT ARM PIN	2
51	3223	SCREEN	1
120	2012L	LOWER GUARD	1
121	2012T	UPPER GUARD	1
134	VTD9771	DECAL SET	1
136	VTD9771	DECAL SET	1
138	VTD9766	DECAL "DRIVELINE"	1
139	VTD9767	DECAL "MATERIAL BUILD UP"	1

LID, SIDE PANELS

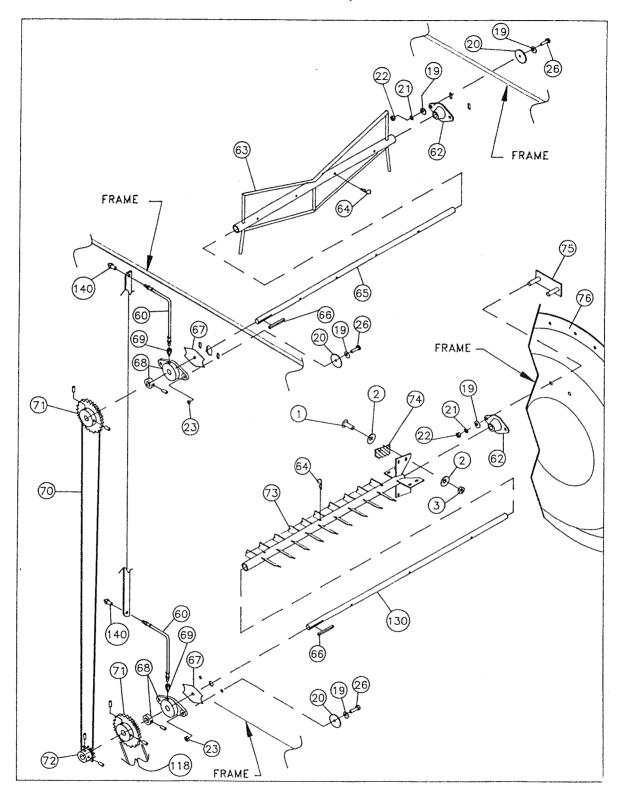


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LID, SIDE PANELS

REF	PART NO.	DESCRIPTION	QTY
1		10/24X3/4" PAN HEAD	AR
3	NUT10/24NYL	10/24X3/4" PAN HEAD 10/24 LOCK NUT, NYLON #10/2/4" SHEET METAL SOREW	AR
4	SMHH10X12	#10/3/4 SHEET METAL SCREW	AR
5	FLTWA04	¼" FLAT WASHER, PLATED	AR
8	NUT04NYL	¼" NC LOCK NUT, NYLON	AR
9	CSNC04X12	¼"X3/4" NC CAP SCREW	AR
13	FLTWA05	5/16" FLAT WASHER	AR
14		5/16" NC LOCK NUT	AR
15		5/16"X1/2" NC CAP SCREW	AR
19	FLTWA06	3/8" FLAT WASHER, PLATED	AR
21	LW06SP	3/8" LOCK WASHER, PLATED	AR
22	NUT06NC		AR
28	CSNC06X40	3/8"X2-1/2" NC CAP SCREW, PLT	
50	110048	LATCH	AR
52	2022S	STEEL HOPPER LID	1
53	35M	LATCH WITH KEEPER	1
54	2022L	LID STOP ASSEMBLY	1
55	2008A	SID PANEL	2
56	01735	HINGE	2 2
57	12HAIR	#12 HAIR PIN	
58	32108	HINGE BAR	1
59		LATCH BAR	1
61	HS11	CATCH	AR
	VTD9771	DECAL SET	1
136	VTD9771	DECAL SET	1

AGITATORS, SHAFTS, BEARINGS

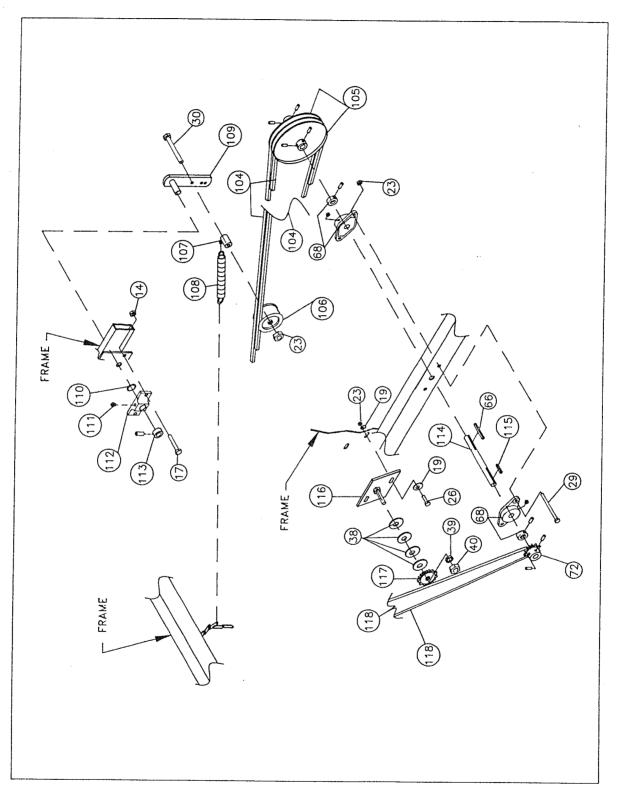


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AGITATORS, SHAFTS, BEARINGS

REF	PART NO.	DESCRIPTION	QTY
1	PHMS10/24X12	10/24X3/4" PHILLIPS PAN, PLT	AR
2 3	FLTWA10	#10 FLAT WASHER, PLT	AR
	NUT10/24NYL	10/24 NYLON LOCK NUT, PLT	AR
19	FLTWA06	3/8" FLAT WASHER, PLT	AR
20	FENWA06X32	3/8"X2" FENDER WASHER, PLT	AR
21	LW06SP	3/8" LOCK WASHER, PLT	AR
22	NUT06NC	3/8" NC NUT, PLT	AR
23	NUT06NCLK	3/8" NC LOCK NUT, PLT	AR
26	CSNC06X20	3/8"X1-1/4" NC CAP SCREW, PLT	AR
60	11312	GREASE HOSE	2
62	1F572	UHMW BEARING ASSEMBLY	1
63	2248	AUXILIARY AGITATOR	1
64	12HAIR	#12 HAIR PIN	7
65	2258	SHAFT, 4 HOLE, AUXILARY AGIT.	1 2 2 2
66	CFSQ03	3/16X3/16"X2" KEY STOCK	2
67	2205	SEAL	2
68	210037	BEARING	
69	51942	ADAPTER TO GREASE HOSE (56 PITCHES & CON LINK)	2
70	2033	AUXILIARY AGITATOR CHAIN PC40	1
71	2035	SPROCKET, 30 TOOTH	2
72	2034A	SPROCKET, 12 TOOTH	1
73	2003A	FEED AGITATOR W/WIRE & WIPER	1
74	330068	WIPER	4
75	2045	SHIM W/BOLTS	1
76	2023	INNER FAN HOUSING	1
118	2233	FEED AGITATOR CHAIN	1
130	2257	SHAFT 3-HOLE-FEED AGITATOR	1
140	1618B	ZERK FITTING, 1/8" NPT, FEMALE	2

DRIVE BELT, IDLER ARM & RELATED PARTS



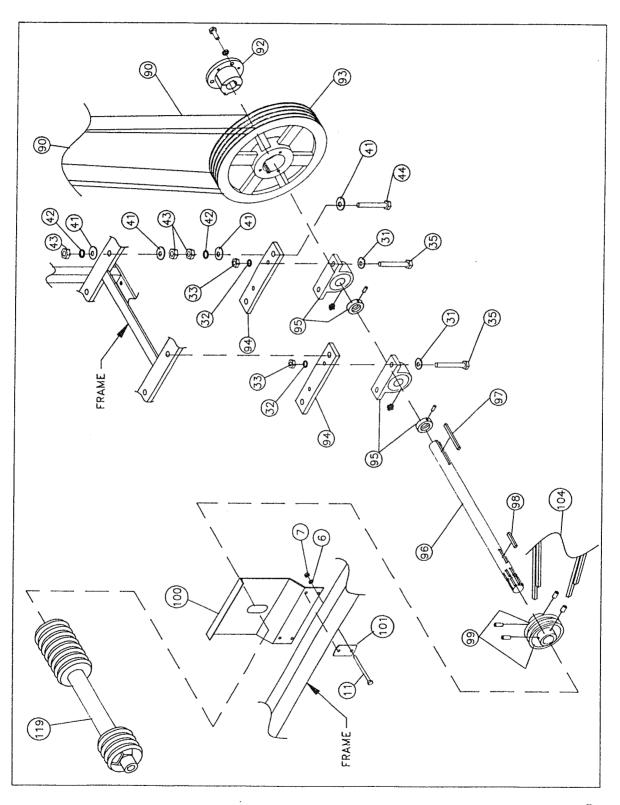
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DRIVE BELT, IDLER ARM & RELATED PARTS

REF	PART NO	DESCRIPTION	QTY
14	NUT05NCLK	5/16" NC LOCK NUT	2
17	CSNC05X16	5/16"X1" NC CAP SCREW, PLT	2
19	FLTWA06	3/8" FLAT WASHER, PLT	2
23	NUT06NCLK		4
26	CSNC06X20	3/8"X1-1/4" NC CAP SCREW, PLT	2
29	CSNC06X56	3/8"X3-1/2" NC CAP SCREW, PLT	2
30	CSNC06X64	3/8"X4" NC CAP SCREW, PLT	1
38	FLTWA10	5/8" FLAT WASHER, PLT	AR
39	LW10SP	5/8" LOCK WASHER, PLT	1
40	NUT10NC	5/8" NC HEX NUT, PLT	1
66	CFSQ03	3/16X3/16"X1-1/2" KEY STOCK	1
68	210037	FLANGE BEARING 12 TOOTH SPROCKET	2
72	2034A	12 TOOTH SPROCKET	1
		BELT SET	1
105	510039A	SHEAVE	2 1
100	2000	IDLER	-
107	110124	IDLER SPACER	1
108	110128	IDLER TENSION SPRING	1
109	110123	IDLER TENSION SPRING IDLER ARM	1
110	568214	O-RING	1
	B610	ZERK FITTING	1
		BEARING ASSEMBLY W/O-RING	1
113	SCOLLAR12	¾" SET COLLAR	1
		SHAFT	1
	CFSQ03	3/16X3/16"X2-1/2" KEY STOCK	1
	2013	IDLER BRACKET	1
		CHAIN IDLER SPROCKET	1
118	2033	TOP CHAIN ASSEMBLY	1

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DRIVE, BEARING, SHEAVE, BELTS, FEEDER ASSEMBLY



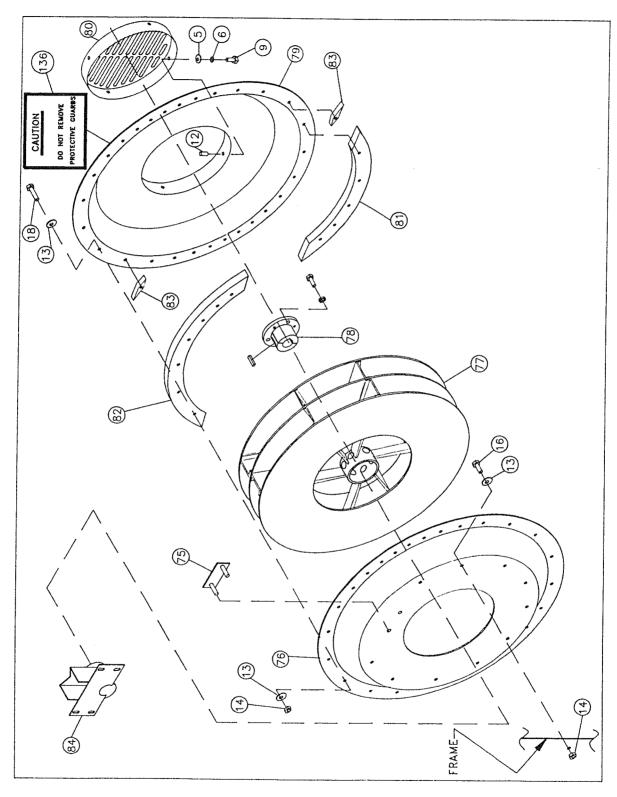
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DRIVE, BEARING, SHEAVE, BELTS, FEEDER ASSEMBLY

REF	PART NO	DESCRIPTION	QTY
6	LWA04SP	½" LOCK WASHER, PLT	4
7	NUT04NC	¼" NC HEX NUT, PLT	4
11	CSNC04X40	1/4X2-1/2" CAP SCREW NC, PLT	4
31	FLTWA08	½" FLAT WASHER, PLT	4
32	LW08SP	½" LOCK WASHER, PLT	4
33	NUT08NC	½" NC HEX NUT, PLT	4
35	CSNC08X32	1/2X2" CAP SCREW NC, PLATED	4
41	FLTWA12	¾" FLAT WASHER, PLT	16
42	LW12SP	¾" LOCK WASHER, PLT	4
43	NUT12NC	¾" NC HEX NUT, PLT	4
44	2037	FULL THD 3/4X5" ADJ BOLT, PLT	4
90	2019	POWER BAND BELT	1
92	Q1X1-3/8"	TAPER LOCK BUSHING	1
93	4TB160	4-GROOVE SHEAVE W/BUSHING	1
94	2010	BEARING MOUNTING BAR	2
95	8085	1-3/8" PILLOW BLOCK BEARING	2
96	2204	DRIVE SHAFT, 6-SPLINE 540 RPM	1
97	CFSQ06	3/8X3/8X4" KEY STOCK	1
98	CFSQ06	3/8X3/8X3-3/8" KEY STOCK	1
99	2018	SHEAVE	2
100	2038	SHEAVE GUARD	1
101	2038A	CLIP	2
119	389520	DRIVE LINE ASSEMBLY	1

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IMPELLER & HOUSINGS



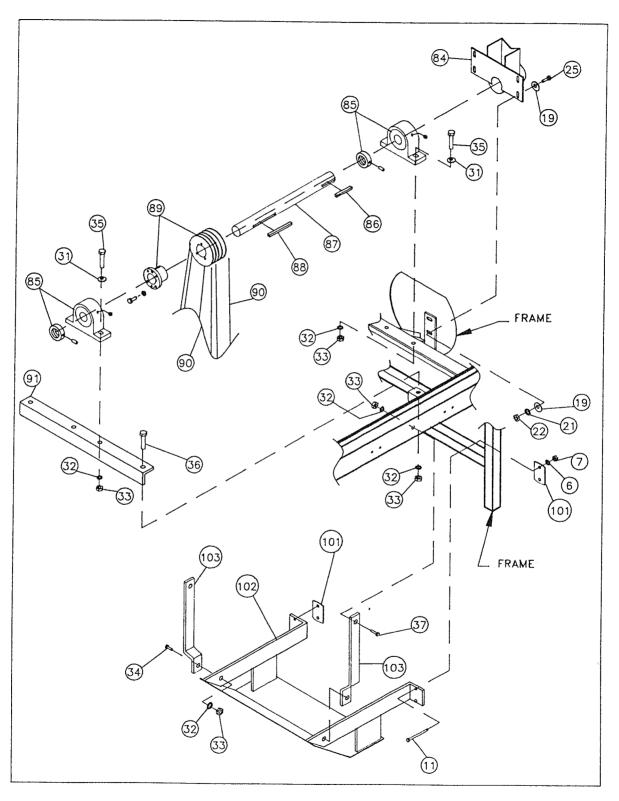
----- Page 16

IMPELLER & HOUSINGS

REF	PART NO	DESCRIPTION	QTY
5	FLTWA04	½" FLAT WASHER, PLT	4
6	LW04SP	1/4" LOCK WASHER, PLT	4
9	CSNC04X12	1/4X3/4" NC CAP SCREW, PLT	4
13	FLTWA05	5/16" FLAT WASHER, PLT	28
14	NUT05NCLK	5/16" NC HEX LOCK NUT	28
16	CSNC05X12	5/16X3/4" NC CAP SCREW, PLT	10
18	CSNC05X32	5/16X2" NC CAP SCREW, PLT	28
75	2045	DOUBLE BOLT ASSEMBLY	1
76	2023	INNER HOUSING	1
77	2026	IMPELLER W/BUSHING	1
78	P1X1-7/16	TAPER LOCK BUSHING	1
79	2024	OUTER HOUSING	1
80	2028	GUARD	1
81	2031	LOWER DEFLECTOR	1
82	2030-22	UPPER DEFLECTOR	1
83	2025	1" VANE	16
84	2014-22	FEEDER ASSEMBLY	1
136	VTD9771C	DECAL "GUARD"	1

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IMPELLER SHAFT

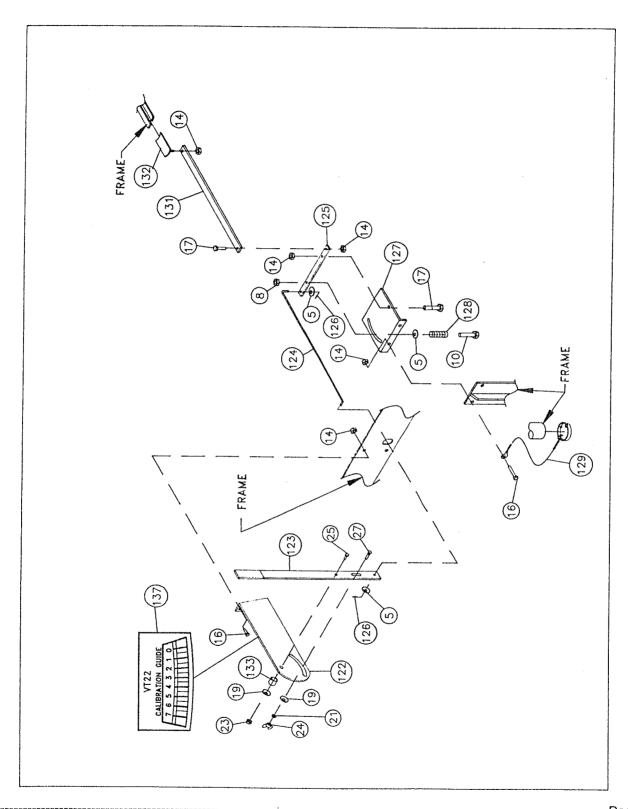


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IMPELLER SHAFT

REF	PART NO	DESCRIPTION	QTY
6	LW04SP	¼" LOCK WASHER, PLT	4
7	NUT04NC	1/4" NC HEX NUT	4
11	CSNC04X40	1/4"X2-1/2" NC CAP SCREW, PLT	4
19	FLTWA06	3/8" FLAT WASHER, PLT	8
21	LW06SP	3/8" LOCK WASHER, PLT	4
22	NUT06NC	3/8" NC HEX NUT	4
25	CSNC06X16	3/8"X1" NC CAP SCREW, PLT	4
31	FLTWA08	½" FLAT WASHER, PLT	4
32	LW08SP	½" LOCK WASHER, PLT	10
33	NUT08NC	½" NC HEX NUT, PLT	10
34	CSNC08X24	½"X1-1/2" NC CAP SCREW, PLT	2
35	CSNC08X32	½"X2" NC CAP SCREW, PLT	4
36	CSNC08X40	½"X2-1/2" NC CAP SCREW, PLT	2
37	CSNC08X48	½"X3" NC CAP SCREW, PLT	2
84	2014-22	FEEDER ASSEMBLY	1
85	2047	1-7/16" PILLOW BLOCK BEARING	2
86	CFSQ06	3/8"X3/8"X2-3/8" KEY STOCK	1
87	2005	FAN SHAFT	1
88	CFSQ06	3/8X3/8"X4" KEY STOCK	1
89	4TB38	4-GROOVE SHEAVE W/P1X1-7/16 BUSH	IING 1
90	2019	POWER BAND BELT	1
91	2011	BEARING MOUNTING ANGLE	1
101	2038A	GUARD CLIP	2
102	2008B	LOWER SHEAVE GUARD	1
103	2046	SHEAVE GUARD BRACE BAR	2

GATE & CONTROL COMPONENTS



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GATE & CONTROL COMPONENTS

REF	PART NO	DESCRIPTION QTY	
5	FLTWA04	¼" FLAT WASHER, PLT	AR
8	NUT04NC	1/2" NC HEX NUT, PLT	AR
10	CSNC04X24	1/4X1-1/2" NC CAP SCREW, PLT	1
14	NUT05NCLK	5/16" NC HEX NUT LOCK, PLT	AF
16	CSNC05X12	5/16"X3/4" NC CAP SCREW, PLT	2
17	CSNC05X16	5/16"X1" NC CAP SCREW, PLT	2
19	FLTWA06	3/8" FLAT WASHER, PLT	AR
21	LW06SP	3/8" LOCK WASHER, PLT	AR
23	NUT06NCLK	3/8" NC HEXNUT LOCK, PLT	AR
24	WINGNUT06NC	3/8" NC WING NUT, PLT	1
25	CSNC06X16	3/8"X1" NC CAP SCREW, PLT	1
27	CABLT06X24	3/8"X1-1/2" NC CARRIAGE BOLT, PLT	1
122	2054	MOUNTING PLATE	1
123	12066A	CONTROL HANDLE	1
124	2009	CONTROL ROD	1
125	330001	LEVER	1
126	COT17P	7/64X1" COTTER PIN	2
127	230001	FEED CONTROL BRACKET	1
128	3696	SPRING	1
129	CA3839	CAP & CHAIN	1
131	2021	CONTROL STRAP	1
132	110004	CUT OFF	1
133	PIPE06S40	BUSHING LEVER 3/8"PIPE	1
137	VTD9770	DECAL "CALIBRATION GUIDE"	1

VT22 OPERATING INSTRUCTIONS

1. After attaching to your tractor, be sure to check the following:

Install the Power Take-Off Driveline and slowly raise the unit the full range of lift.

Be sure that the driveline does not bottom out At any point---it may be necessary to cut both halves of the driveline as well as the plastic shields in order to prevent this from occurring.

If it is necessary to cut the driveline, refer to "Driveline Length Adjustments" on Page 3.

- 2. With the tractor running at idle speed, engage the PTO clutch slowly, making certain that the unit is running smoothly.
- 3. For trial purposes you may want to put 2 or 3 sacks of sulfur in the hopper, set the control handle at "6". This should result in approximately 12 lbs. per acre. The rate of application can be changed by merely moving the control handle as required. After you have determined the setting you desire, tighten the stop bolt to secure the handle location.
- 4. When you begin to dust <u>ALWAYS ENGAGE THE PTO WITH THE ENGINE AT AN IDLE</u> slowly increase RPM until the fan RPM is up to full speed.
- 5. <u>Lubricate the driveline fittings twice daily.</u> It may be necessary to remove the driveline in order to get to the Zerk fittings. See lubricating instructions on Page 2.
- 6. Lubricate all other fittings once daily.