

FAZA S.r.l

Macchine agricole

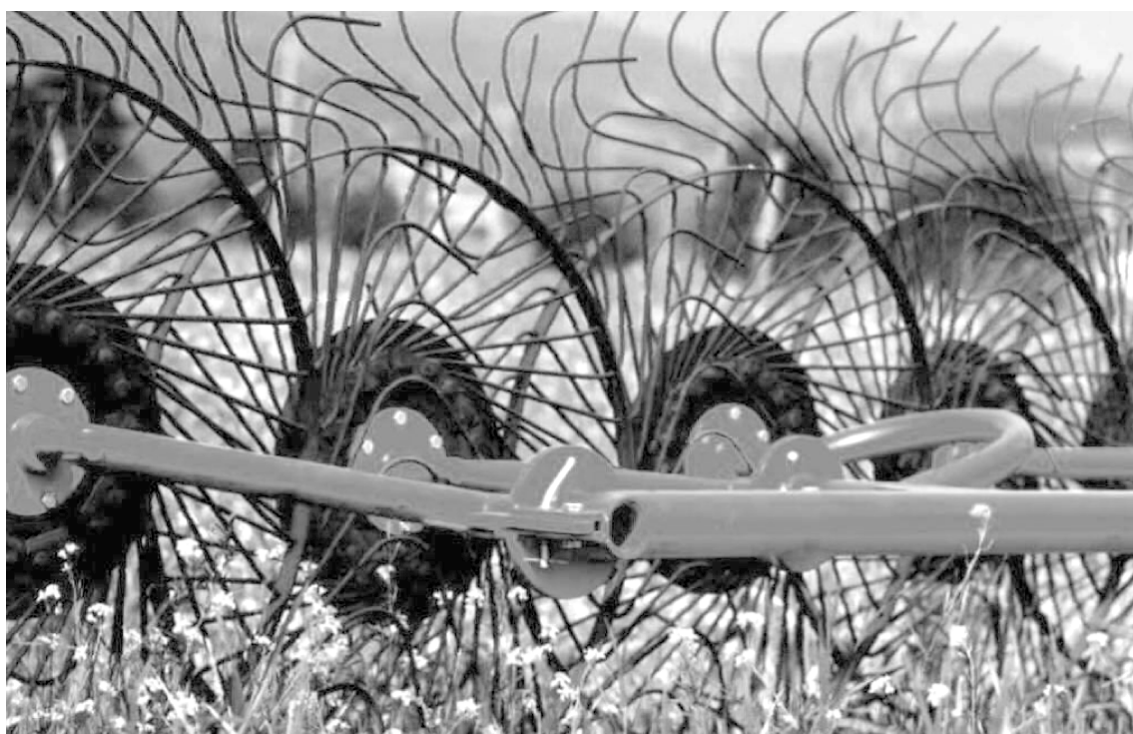
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**WHEEL RAKE/ V RAKE MODELS
RP/2 RP/4 RP/5-C RP/6 RP/8 RP/10
(DISASSEMBLING FRAME MODELS) RPA/5 C RPA/6**

INSTRUCTION MANUAL AND PARTS LIST



WARRANTY

The Manufacturer warrants each new product to be free from defects in material and workmanship. This Warranty is for the normal service life of the product, machine or parts involved and not to exceed twelve (12) consecutive months from the date of delivery of the products to the purchaser-user.

Under no circumstances does this Warranty cover any merchandise or component parts which, in the opinion of the Company, have been subjected to negligent use, misuse, alteration, accident or if repairs have been made with parts other than those manufactured and obtainable from the producer.

Under no circumstances are component parts Warranted against wear that is not related to defective materials or workmanship. Wear is a normal thing to any moving part. Use varies greatly from customer - to - customer within the same product line making it impossible to consider any guarantee against wear and tear.

The manufacturer in no way warrants engines, electric motors, batteries, tires or other components supplied by manufacturers that are warranted separately by suppliers.

Our obligation under this Warranty is limited to repairing or replacing free of charge to the original purchaser-user any part that in our judgements shows evidence of defect or improper workmanship, provided the parts is returned to the manufacturer to within thirty (30) days of the failure. Parts must be returned through the selling dealer and distributor, transportation charges prepaid.

This Warranty shall not be interpreted to render the manufacturer liable for injury or damages of any kind, direct, consequential, or contingent, to persons or property. Furthermore, this Warranty does not extend to loss of crops, losses caused by harvest delays or any expence or loss for labor, supplies, rental machinery of for any other reason.

The are not Warranties, either express or implied, of merchantability or fitness for particular purpose intended or fitness for any other reason.

This Warranty cannot guarantee that existing conditions beyond the control of the manufacturer will not affect our ability to obtain materials or manufacture necessary replacement parts.

The manufacturer reserves the right to make design changes, improve design or change specifications at any time, without any contingent obligation to purchaser of machines and parts previously sold.

No one is authorized to alter, modify or change this Warranty in any way.

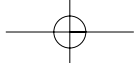
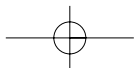
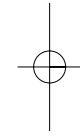
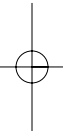


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3 - POINT WHEEL RAKE SPECIFICATIONS

Model	RP/4 RH RP/4 LH	RP/5C RH RP/5C LH	RP/6 RH RP/6 LH	RP/8	RP/10
Approximate Weight (Lbs.)	400	495	590	1,150	1,325
Number of Wheels	4	5	6	8	10
Number of Teeth per Wheel	40				
Wheel Diameter	55"				
Tooth Diameter	7mm				
Raking Working Width	8'6"	11'2"	13'6"	18'	22'
Turning and Spreading Working Width	9'6"	12'10"	14'5"	
Transport Width	7'3"	7'6"		11'10"	15'5"
Operating Speed	Up to 14 MPH				
Minimum Power Required	30 HP			40 HP	

SAFETY INSTRUCTIONS

When ordering parts, please specify the part number and the name of the part as shown in the parts section. Please give the serial number of the machine in all correspondence. Record the serial number and purchase date here for future reference.

Serial No

Model

Purchase Date

Read through this manual completely, watching especially for safety symbols which alert you to possible hazards in assembly and operation. The word "NOTE" will alert you to special information such as specification, techniques, reference information and other supplementary information. The word "IMPORTANT" is used to point out a note which is of an immediate and urgent nature.

It is the user's responsibility to read the operator's manual and comply with all instructions pertaining to operation and maintenance. It is also the user's responsibility to inspect the machine at regular intervals and repair or replace worn or damaged parts when continued use would cause damage or excessive wear to other parts. Delivery of the machine to the manufacturer's dealer for repairs under the warranty is also the user's responsibility.

Always drive the tractors at safe speeds, especially over rough ground and sloping ground and when making a turn.

Never attempt to clean, adjust or lubricate the machine while the machine is in motion.

REMEMBER: A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT.



Safety Symbol



CAUTION: ALWAYS FOLLOW ALL STATE, FEDERAL AND LOCAL LAWS WHEN TRANSPORTING. MAKE SURE SMV SYMBOL AND LIGHTS ARE IN PLACE BEFORE TRANSPORTING WHERE REQUIRED DO NOT EXCEED 15 MPH DURING TRANSPORTING.



CAUTION: This machine should never be operated by anyone who is not familiar with the product and has not read the instruction manual. Do not operate the rake where people or animals are in the immediate area.

When changing the configuration of the rake, make sure everyone is clear of the folding and hinged parts and avoid pinch points which can cause serious injury.

IMPORTANT: When this machine is traded or sold, make sure this manual accompanies the machine so future operators will have complete operating instructions and safety warnings available to them.

NOTE: All reference number used in the assembly instructions correspond to the item numbers used in the parts breakdown section of this manual. When left or right-hand position are mentioned, they refer to the position as viewed from the rear of the machine while facing the tractor.

ASSEMBLY

Your Rake may come unassembled or partially assembled. Complete the assembly as required using the following instructions.

1. Install the Sector Support (8) on the 3-Point Base (1). Insert the 3-Point Cap (17) and secure in place with a capscrew and locknut through the cap and base. Lock the support plate in position on the 3-point base with a 3-Point Pin (10) secured with a Hairpin Cotter (9). See illustration 1.

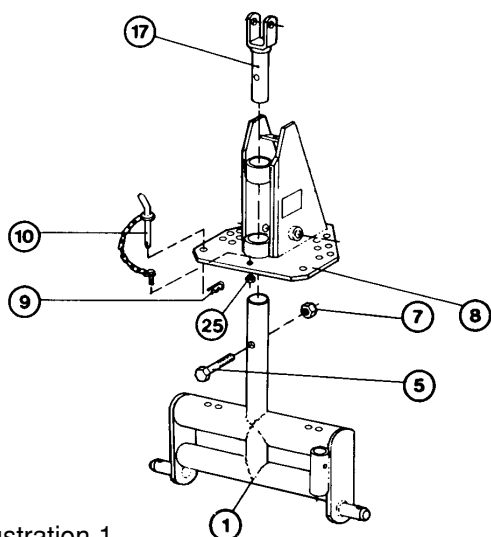


Illustration 1

2. Install the Stand (3) on the 3-point linkage and secure with a spring clip. See Illustration 2.
3. With the assembly laying on the ground so the sector plate's lower socket is facing up, insert the Floating Arm (26) into the socket and secure with a Sector Support Pin (15), two Flatwashers (32) and two Cotter Pins (14). Lock the floating arm in position by installing the Lock Plate (27) on the bottom of the arm and secure with a Hairpin Cotter (4). See Illustration 2.

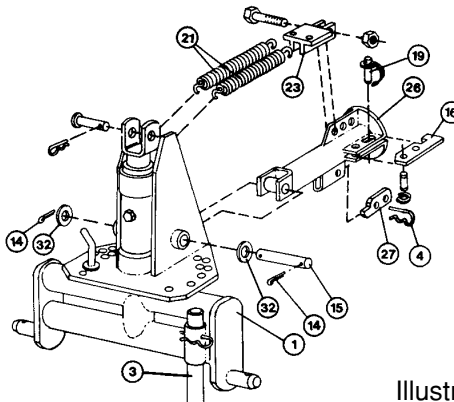


Illustration 2

4. Install the two Extension Springs (21) in the plate near the top of the sector support and then connect the other ends of the springs to the Lower Spring Mount (23). Secure the lower spring mount to the floating arm using a capscrew and nut. Use the center hole for the time being. After final assembly, move the lower mount necessary to allow the rake to "float" in operation. See Illustration 2.
5. Insert the Main Frame (33) into the Floating Arm (26). Lock the arm in place by installing the Lever Plate (16) on the floating arm and secure with a pin and retaining rings. Insert a Snapper Safety Pin (19) to lock the stop plate and secure with a hairpin cotter. See Illustration 3.
6. Install the Wheel Arms (34) in the main frame and secure the Lever Plates (16) with a pin and retaining rings and a snapper safety pin. See Illustration 4. On RP-5C RH and RP-5C LH models, install a single Wheel Arm (49) in the main arm and secure with capscrews, lockwashers and nuts (See Illustration 6).



CAUTION: Make sure the machine is supported as the main frame and wheel arms are installed to prevent the machine from falling.

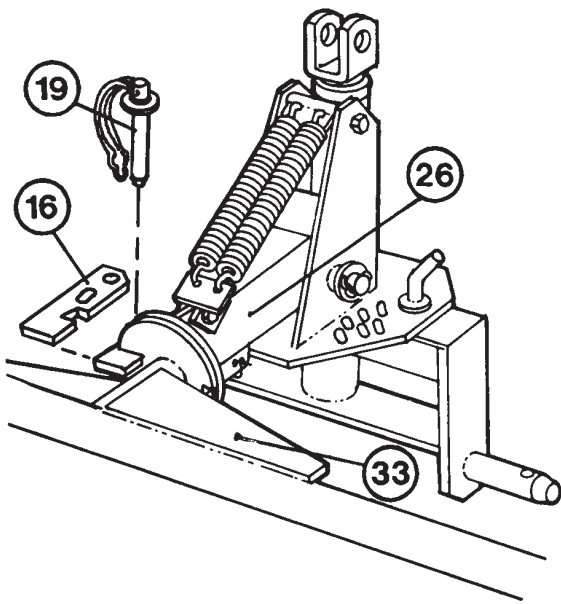
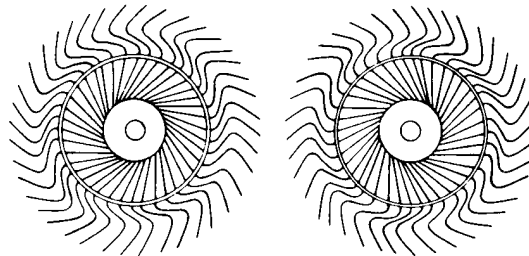


Illustration 3

7. Using an overhead hoist or fork lift, carefully tip the assembly over and support the assembly in the approximate position it will be in when installed on the tractor and high enough off the ground to install the wheels. Install the wheels on the hubs using the capscrews, lockwashers and nuts. The position of the teeth is determined by the direction of operation (See Illustration 5 Below).



Left Rake

Right Rake

Rake wheels as viewed from the rear

Illustration 5

When assembled, the rakes should be configured as shown in Illustration 6 below.

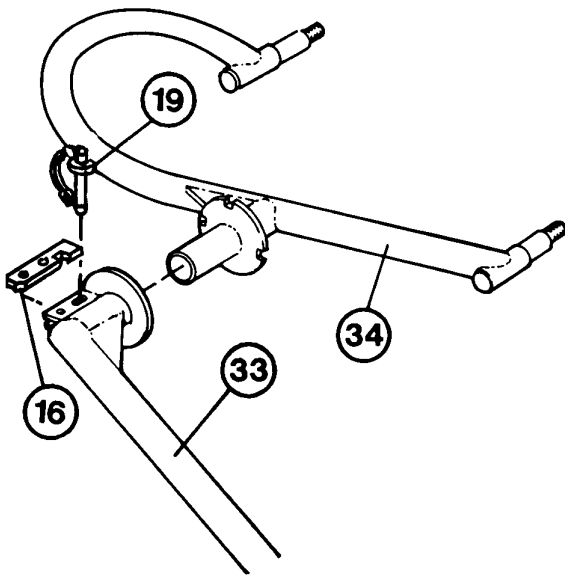


Illustration 4

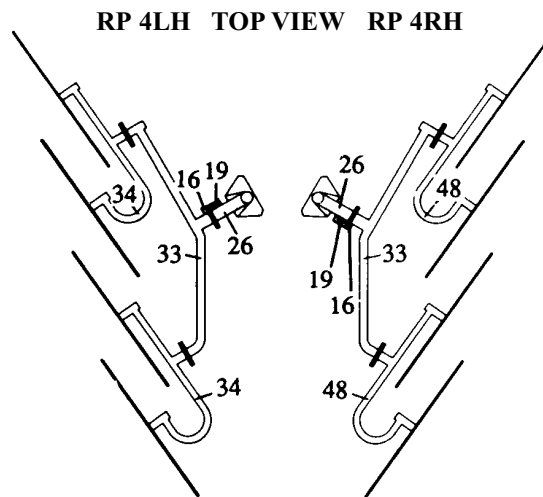


Illustration 6

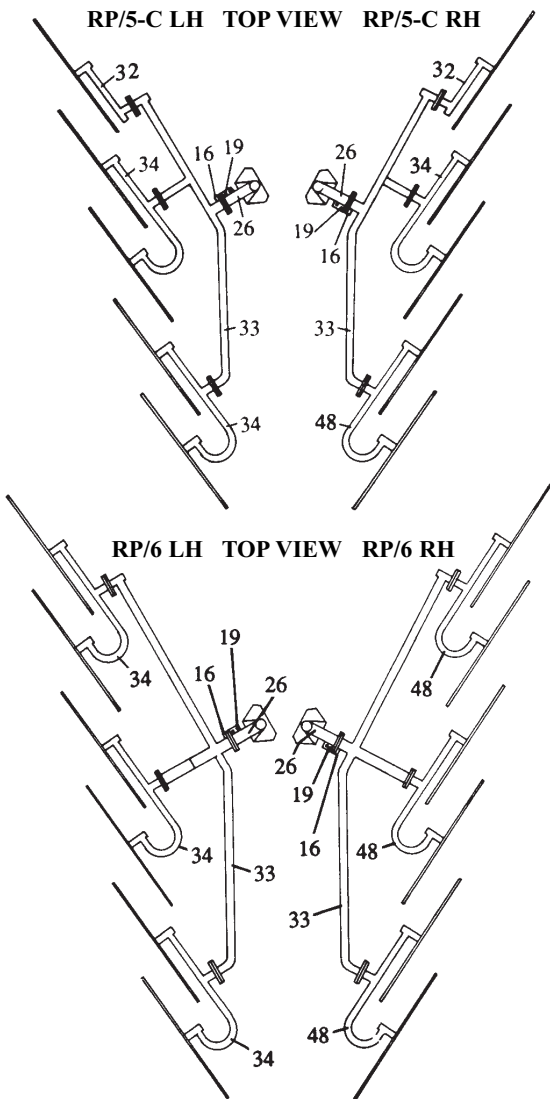


Illustration 6 (Continued)

CONNECTING THE RAKE TO THE TRACTOR

With the rake supported by the wheel teeth and the stand, back the tractor to the rake and connect the tractor to the 3-pont linkage. After connecting to the tractor, raise the machine and remove the stand from the 3-pont linkage.

Raise the rake using the tractor hydraulics until the teeth are off of the ground. Slide the Lock Plate (27) to the rear "B" to allow the rake to "float" during operation (See Illustration 7). This will allow the rake to adapt to irregular ground and reduce wheel damage.

IMPORTANT: The lock plate must be in the forward position "A" whenever the rake is being transported or not in operation.

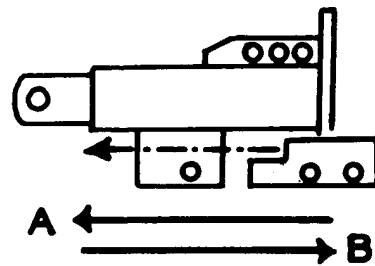


Illustration 7

OPERATION

The 3-Point Pin (10) is used to adjust the operating position of the rake. Position "A" (See Illustration 8) is used for raking position to the right. Position "B" is used for raking to the left.

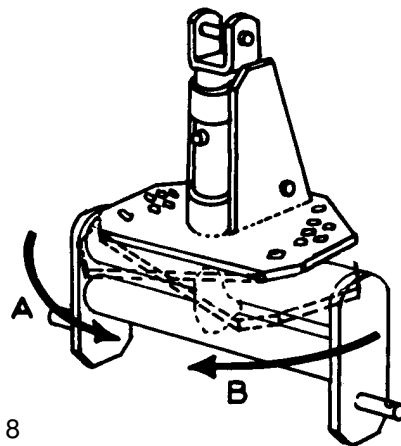


Illustration 8

By using adjustment holes 1 through 6 in the right or left position minor adjustments can be made when raking, spreading and turning the crop. When transporting the rake, the stop pin must be installed in position 7 (See Illustration 9).

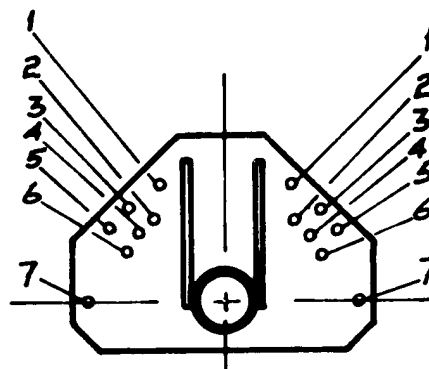


Illustration 9

WORKING POSITIONS

Pull the pin in the sector support and turn the main frame to the right and rotate the arms so the wheels are positioned as shown below (See Illustration 10). During operation, the wide slots in the frame and

arm flanges allow the arms to oscillate slightly to prevent damage to teeth by rough ground surfaces. The narrow slots used in the transport positioning hold the arms in a rigid position.

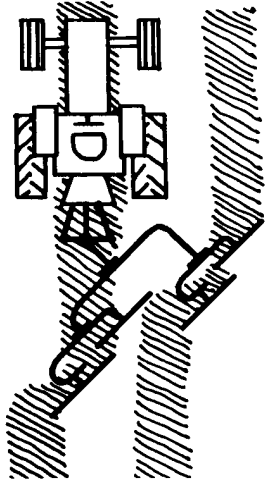
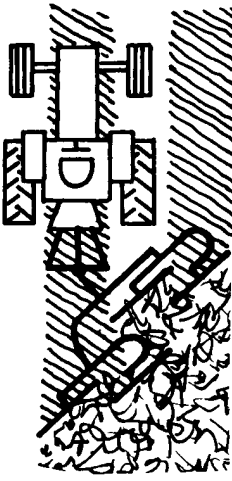
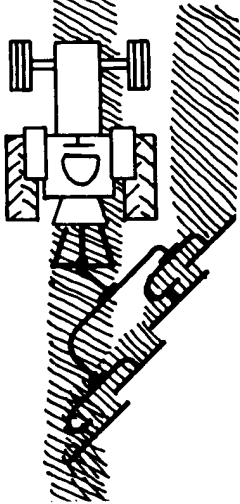
RIGH-HAND RAKE OPERATING POSITIONS		
TURNING	SPREADING	RAKING
Rotate the main frame to the right and the arms to the left. Lock in place with pins.	Rotate the main frame and arms to the left. Lock in place with pins.	Rotate the main frame and arms to the left. Lock in place with pins.
		

Illustration 10

TRANSPORTING

To reduce the width of the rake for transporting between fields, perform the following steps:

1. Raise the rake to the highest position.
2. Unlock the main frame at the Floating Arm (26) and rotate the frame so the forward wheel is at the top. Rotate the arms to the horizontal position. Center the rake behind the tractor.
3. Move the floating arm stop to the forward position to lock the frame in position during transporting.

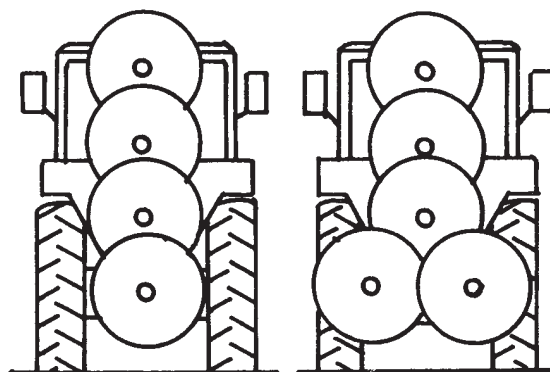


Illustration 11

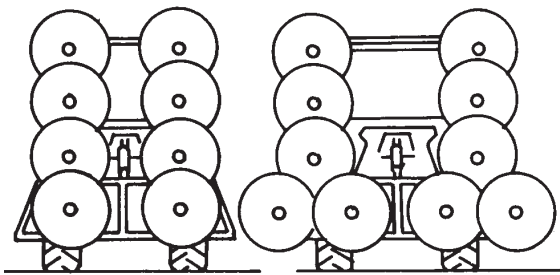


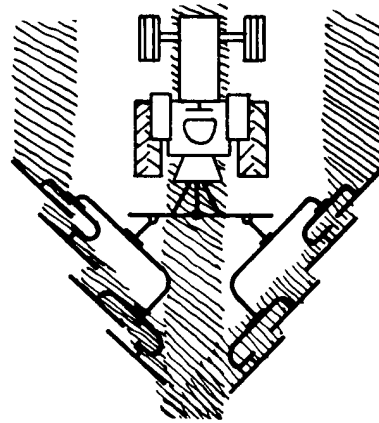
Illustration 12

USING LEFT AND RIGHT-HAND MODELS TO MAKE A V-RAKE

1. Install the Tool Bar Frame (1) to the tractor 3-point linkage using a forklift or crane. Raise the frame with tractor's hydraulics. See Illustration 13.
2. Install the 3-Point Upper and Lower Linkage (9 & 11) on the frame. Do not tighten bolts until all components are in place and rakes are installed so minor adjustment can be made.

3. Install the assembled left and right rakes on the toolbar frame.

The working width of the V-Rake and the width of the windrow can be changed by moving the 3-Point Upper and Lower Linkage (9 & 11) horizontally on the tool bar frame.



V-Rake in Operation

Illustration 13

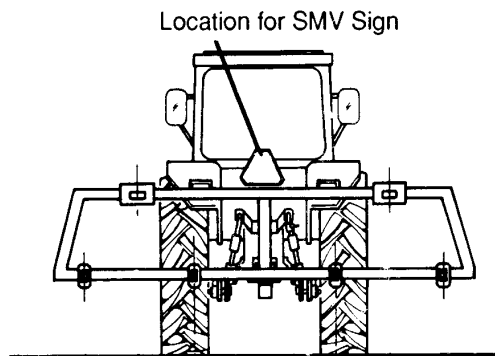
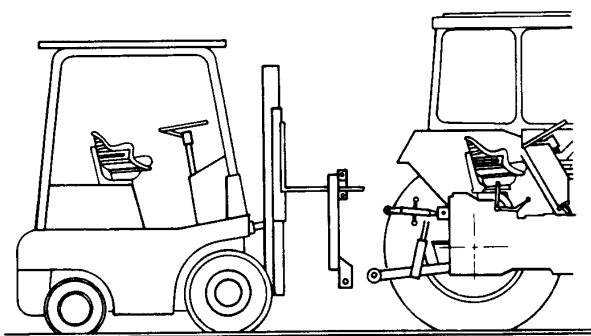


Illustration 14

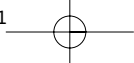
IMPORTANT: Safety reflectors have been installed on the ends of the Tool Bar Frame to warn approaching traffic of a potential hazard. Make sure reflectors are clean and in good condition at all times. Replace damaged or missing reflectors immediately.

TROUBLESHOOTING

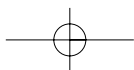
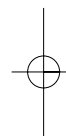
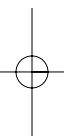
PROBLEM	PROBABLE CAUSE		SOLUTION	
Hay carrying over on the wheels.	1.	Teeth not polished.	1.	Operate rake on gravel surface for a short distance.
	2.	Mud collected on tine ends.	2.	Dew on hay, wait until dry. Do not run in soft, wet ground.
Tooth breakage.	1.	Backing with teeth in contact with ground.	1.	Avoid backing with teeth on ground.
	2.	Too much of rake weight on wheels.	2.	Raise the 3-point hitch slightly.
	3.	Corrosion in storage.	3.	Coat teeth with grease or oil during storage.
Rake missing hay.	1.	Wheels running too flat.	1.	Adjust angle at sector plate.
	2.	Wheels not pitched back enough.	2.	Pitch wheels back by adjusting 3-point top link.
	3.	Teeth missing or worn.	3.	Replace teeth. It is best to replace all teeth at the same time to maintain uniform tine height.
Rake wheels bounce excessively.	1.	Wheels have too little ground weight.	1.	Lower 3-point hitch.
Bent teeth.	1.	Backing with wheels down.	1.	Avoid doing so.
	2.	Excessive speed on rough terrain.	2.	Reduce speed.
	3.	Narrow or deep ditches or furrows, rocky ground.	3.	Avoid or cross slowly.
	4.	Too much weight on wheels.	4.	Raise 3-point slightly.

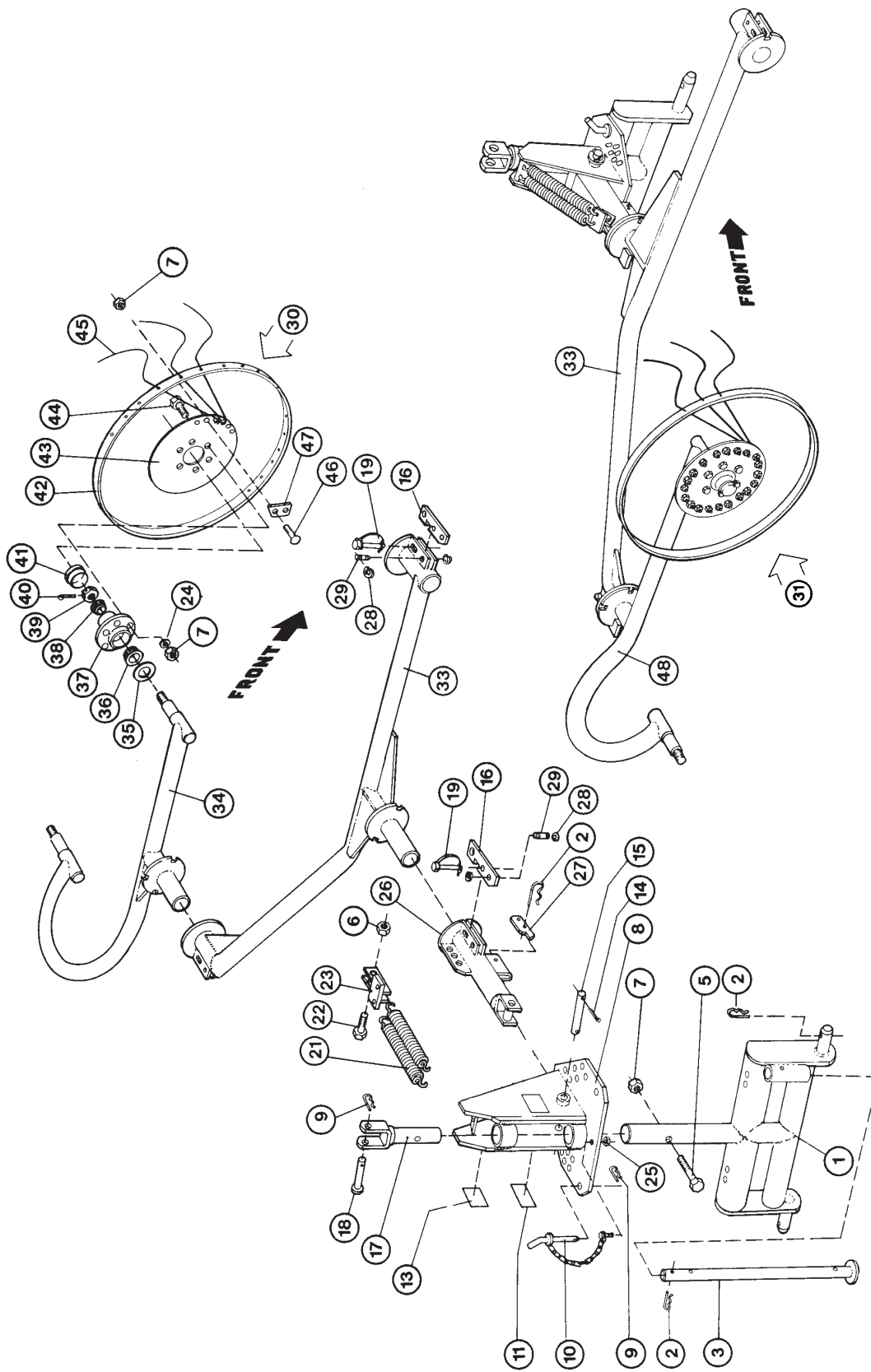
MAINTENANCE

This Wheel Rake requires no tools for operation and no lubrication is required except for occasional repacking of the hub bearings on the wheels. A light coating of grease applied periodically to the frame and arm pivots and flanges will allow smoother operation and retard rusting which will hinder operation.



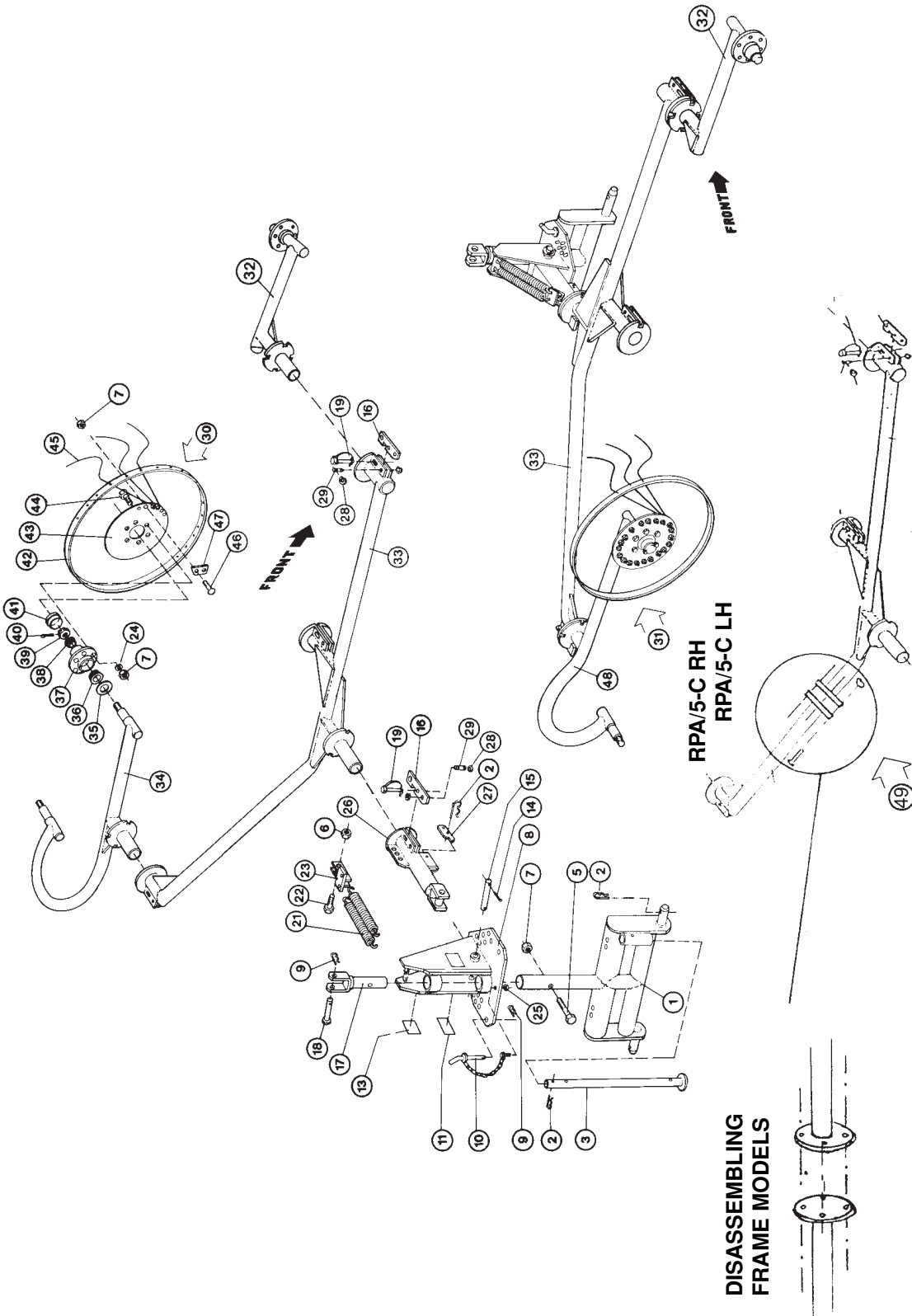
PARTS LIST





**WHEEL RAKES & V-RAKES
MODELS RP4 RH, RP4 LH, RP8
PART LIST**

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	RP000302	3-Point Base	1	28	RP000344	Retaining Ring	6
2	RP000342	Hairpin Cotter, .178x3 9/16"	4	29	RP000345	Pin, M20	3
3	RP000335	Stand	1	30	RP000376	Complete Wheel, LH	4
5	RP000374	Hex Capscrew, M10x1.5x90, GR 8.8	1	31	RP000377	Complete Wheel, RH	4
6	RP000351	Hex High Nut, M12x1.75	1	33	RP000309	Main Frame, 4 Wheel Models	1
7	RP000375	Hex High Nut, M10x1.5	105	34	RP000308	Dual Wheel Arm, LH	2
8	RP000303	Sector Support	1	35	RP000361	Seal	4
9	RP000356	Hairpin Cotter, .148x3 5/16"	1	36	RP000362	Inner Bearing	4
10	RP000338	3-Point Pin w/Chain	1	37	RP000363	Hub	4
11		Decal	2	38	RP000364	Outer Bearing	4
13		Decal, Caution Operating	1	39	RP000365	Low Hex Castle Nut, M18x1.5	4
14	RP000340	Cotter Pin, M5x32	2	40	RP000380	Cotter Pin, 3.2x32	4
15	RP000339	Sector Support Pin	1	41	RP000366	Hub Cap	4
16	RP000343	Lever Plate	3	42	RP000311	Rim	4
17	RP000305	3-Point Cap	1	43	RP000312	Flange	4
18	RP000357	3-Point Pin	1	44	RP000371	Hex Capscrew, M10x1.5x25, GR 8.8	24
19	RP000348	Snapper Safety Pin	3	45	RP000370	Tine, 7 mm	160
21	RP000352	Extension Spring	2	46	RP000369	Carriage Bolt, M10x1.5x25, GR4.6	80
22	RP000350	Hex Capscrew, M12x1.75x35, GR8.8	1	47	RP000367	Tine Clamp	40
23	RP000349	Lower spring Mount	1	48	RP000310	Dual Wheel Arm, RH	2
24	RP000373	Lockwasher, M10	24		RP000378	Weld-on Spindle	RP
25		Hex Nut, M6x1	1		RP000379	Hub & Spindle Assembly (Includes Spindle & Items 35,36,37,38,39,40,41,7,24 & 44)	RP
26	RP000304	Floating Arm	1				
27	RP000346	Floating Arm Plate	1				



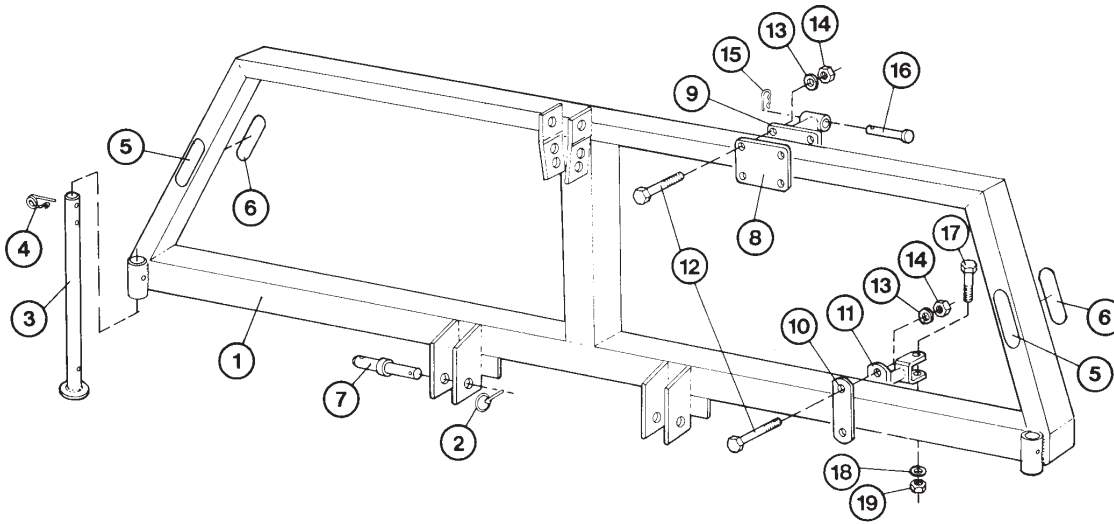
**WHEEL RAKES & V-RAKES
MODELS RP/5-C RH, RP/5-C LH E RP-10
PART LIST
DISASSEMBLING FRAME MODELS RPA/5-C RH RPA/5-C LH**

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	RP000302	3-Point Base	1	28	RP000344	Retaining Ring	8
2	RP000342	Hairpin Cotter, .178x3 9/16"	4	29	RP000345	Pin, M20	4
3	RP000335	Stand	1	30	RP000376	Complete Wheel, LH	5
5	RP000374	Hex Capscrew, M10x1.5x90, GR 8.8	1	31	RP000377	Complete Wheel, RH	5
6	RP000351	Hex High Nut, M12x1.75	1	32	RP000381	Single Wheel Arm	1
7	RP000375	Hex High Nut, M10x1.5	131	33	RP000306	Main Frame, 5 Wheel Models	1
8	RP000303	Sector Support	1	34	RP000308	Dual Wheel Arm, LH	2
9	RP000356	Hairpin Cotter, .148x3 5/16"	1	35	RP000361	Seal	5
10	RP000338	3-Point Pin w/Chain	1	36	RP000362	Inner Bearing	5
11		Decal	2	37	RP000363	Hub	5
13		Decal, Caution Operating	1	38	RP000364	Outer Bearing	5
14	RP000340	Cotter Pin, M5x32	2	39	RP000365	Low Hex Castle Nut, M18x1.5	5
15	RP000339	Sector Support Pin	1	40	RP000380	Cotter Pin, 3.2x32	5
16	RP000343	Lever Plate	3	41	RP000366	Hub Cap	5
17	RP000305	3-Point Cap	1	42	RP000311	Rim	5
18	RP000357	3-Point Pin	1	43	RP000312	Flange	5
19	RP000348	Snapper Safety Pin	3	44	RP000371	Hex Capscrew, M10x1.5x25, GR 8.8	30
21	RP000352	Extension Spring	2	45	RP000370	Tine, 7 mm	200
22	RP000350	Hex Capscrew, M12x1.75x35, GR8.8	1	46	RP000369	Carriage Bolt; M10x1.5x25, GR4.6	100
23	RP000349	Lower spring Mount	1	47	RP000367	Tine Clamp	80
24	RP000373	Lockwasher, M10	30	48	RP000310	Dual Wheel Arm, RH	2
25		Hex Nut, M6x1	1		RP000378	Weld-on Spindle	RP
26	RP000304	Floating Arm	1		RP000379	Hub & Spindle Assembly (Includes Spindle & Items 35,36,37,38,39,40,41,7,24 & 44)	RP
27	RP000346	Floating Arm Plate	1	49	RP000382	Disassembling main frame, 5 wheels Models	1

**WHEEL RAKES & V-RAKES
MODELS RP6 RH & RP-6 LH
PART LIST
DISASSEMBLING FRAME MODELS RPA/6 RH RPA/6 LH**

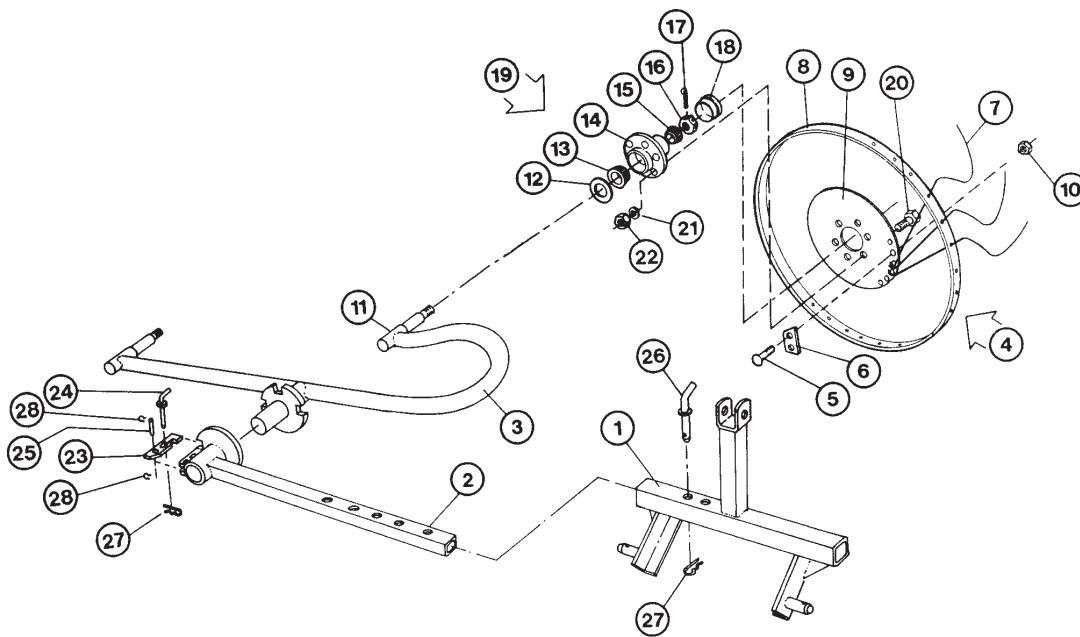
Item	Part No.	Description	Qty.
1	RP000302	3-Point Base	1
2	RP000336	Klick Pin	2
3	RP000335	Stand	1
4	RP000342	Hairpin Cotter, M5	2
5	RP000374	Hex Capscrew, M10x1.5x90, GR 8.8	1
6	RP000354	Hex Nut, M14x2	1
7	RP000375	Hex Nut, M10x1.5	157
8	RP000303	Sector Support	1
9	RP000356	Hairpin Cotter, M3	5
10	RP000338	3-Point Pin	1
11		Decal	2
12	RP000355	Hex Capscrew, M14x2x110, GR8.8	1
13		Decal, Caution Operating	1
14	RP000340	Cotter Pin, M6.3x40	2
15	RP000339	Sector Support Pin	1
16	RP000343	Lever Plate	4
17	RP000305	3-Point Cap	1
18	RP000357	3-Point Pin	1
19	RP000348	Lever Pin	4
20	RP000353	Upper Spring Mount	1
21	RP000352	Extension Spring	2
22	RP000350	Hex Capscrew, M12x1.75x30, GR8.8	1
23	RP000349	Lower spring Mount	1
24	RP000373	Lockwasher, M10	36
25		Hex Nut, M6x1	1
26	RP000304	Floating Arm	1

Item	Part No.	Description	Qty.
27	RP000346	Lock Plate	1
28	RP000344	Retaining Ring	8
29	RP000345	Pin	4
30	RP000376	3-Point Wheel Assembly, LH	6
31	RP000377	3-Point Wheel Assembly, RH	6
32	RP000383	Flatwasher, 7/8" SAE	2
33	RP000384	Main Frame, 6 Wheel Models	1
34	RP000308	Wheel Arm, LH	3
35	RP000361	Seal	6
36	RP000362	Inner Bearing	6
37	RP000363	Hub	6
38	RP000364	Outer Bearing	6
39	RP000365	Hex Castle Nut, M18x1.5	6
40	RP000380	Cotter Pin, M3.2x32	6
41	RP000366	Hub Cap	6
42	RP000311	Rim	6
43	RP000312	Flange	6
44	RP000371	Hex Capscrew, M10x1.5x25, GR 8.8	36
45	RP000370	Tine	240
46	RP000369	Carriage Bolt, M10x1.5x25, GR4.6	120
47	RP000367	Tine Clamp	60
48	RP000310	Wheel Arm, RH	3
	RP000378	Weld-on Spindle	RP
	RP000379	Hub & Spindle Assembly (Includes Spindle RP000378 & Items 35-41)	RP
49	RP000385	Disassembling main frame, 6 wheel Models	1



**WHEEL RAKES & V-RAKES
MODELS RP-8 & RP-10
V-RAKE FRAME
PARTS LIST**

Item	Part No.	Description	Qty.
1A	RP000301A	Main Frame - 8 Wheel V-Rake	1
1B	RP000301B	Main Frame - 10 Wheel V-Rake	1
2	RP000332	Klick Pin	2
3	RP000335	Stand	2
4	RP000334	Locking Spring Clip, M4	2
5		Yellow Oblong Reflector	2
6		Red Oblong Reflector	2
7	RP000333	Linkage Pin	2
8	RP000325	Third Point Upper Base Plate	2
9	RP000324	Third Point Upper Linkage Mount	2
10	RP000331	Third Point Lower Base Plate	4
11	RP000330	Third Point Lower Linkage Mount	4
12	RP000327	Mount Plate Bolt	16
13	RP000386	Lockwasher, M12	16
14	RP000326	Hex Nut, M12x1.75	16
15	RP000323	Hairpin, M5	2
16	RP000322	Third Point Pin	2
17	RP000328	Hex Capscrew, M16x2x70, GR8.8	2
18	RP000387	Lockwasher, M16	2
19	RP000329	Hex Nut, M16x2	2



WINDROW TURNER MODEL RP-2 PARTS LIST

Item	Part No.	Description	Qty.
1	RP000313	3-Point Frame	1
2	RP000314	Sliding Arm	1
3	RP000315	Wheel Arm, RH	1
4	RP000377	Wheel Assembly, RH	2
5	RP000369	Carriage Bolt, M10x1.5x25, GR4.6	40
6	RP000367	Tine Plate	20
7	RP000370	Tine	80
8	RP000311	Rim	2
9	RP000312	Flange	2
10	RP000368	High Hex Nut, M10x1.5	40
11	RP000378	Weld-on Spindle	2
12	RP000361	Seal	2
13	RP000362	Inner Bearing	2
14	RP000363	Wheel Hub	2
15	RP000364	Outer Bearing	2
16	RP000365	Low Hex Castle Nut, M18x1.5	2
17	RP000380	Cotter Pin, M3.2x32	2
18	RP000366	Hup Cap	2
19	RP000379	Hub & Spindle Assembly	2
20	RP000371	Hex Capscrew, M10x1.5x25, GR8.8	12
21	RP000373	Lockwasher, M10	12
22	RP000372	High Hex Nut, M10x1.5	12
23	RP000343	Lever Plate	1
24	RP000348	Lever Pin	1
25	RP000345	Pin	1
26	RP000319	Frame Pin	1
27	RP000320	Hairpin Cotter, M3	2
28	RP000344	Retaining Ring	2