

OPERATOR'S AND  
SERVICE PARTS MANUAL

RP/4-RP/5-RP/6-RP/8-RP/10-RP/12

**MOUNTED SIDE DELIVERY RAKES RP/4 - RP/5 - RP/8 - RP/10**

**INTRODUCTION**

This manual includes full instructions for a correct use and maintenance of the machinery, and the recommended spare parts list.

In order to prevent any possible damage of the machine and/or the operator(s) you are kindly requested to go through this manual for a proper knowledge of the assembly of the implements, their use on the field, and their maintenance. If any doubt, please contact your local dealer or distributor.

- Should the machine be re-sold, you are kindly requested to supply this manual along with the machine to the new purchaser.

## CAUTION FOR USE

It could be dangerous for people who are not familiar with this type of machine to use the rake, particularly when kids are there during the assembly or operation on field. We therefore recommend the use of the rake only to those people who are very familiar with the machine and the safety precautions.

## ASSEMBLY SOLUTIONS

rakes are easily convertible into different sizes, as almost all parts are standard and interchangeable on all sizes (wheel arms, wheels - etc.). With a special frame it is possible to attach together two RP/4 or RP/5 rakes - R.H. and L.H. - and convert them into a V-rake.

Here are the advantages:

- 1) Having a R.H. RP/4 rake or a R.H. RP/5 rake you can convert them into a L.H. RP/4 or L.H. RP/5 rake by replacing all wheel arms marked RIGHT with those marked LEFT.
- 2) Having a R.H. RP/4 rake you can convert it into a RP/8 V-rake by attaching a L.H. RP/4 rake and the relevant frame. To get one RP/10 V-rake from two RP/5 rakes the procedure is still the same.
- 3) You could also use your V-rake as two single ones, L.H. or R.H. rake, according to your requirements.

## SPECIFICATIONS

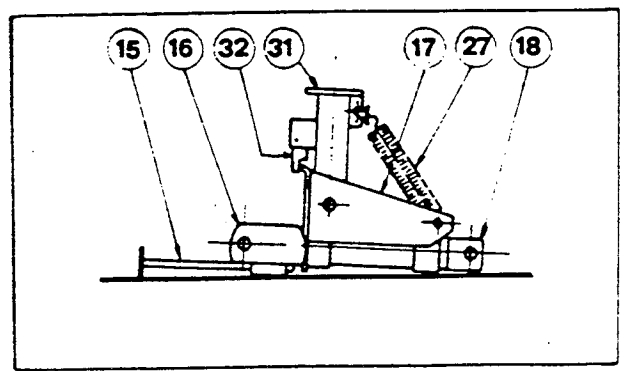
MODELS	RP/4	RP/5	RP/8	RP/10
Weight	180 Kg./396 lbs.	200 Kg. / 440 lbs.	460 Kg. / 1013 lbs.	520 Kg. / 1146 lbs.
Number of wheels	4	5	8	10
Number of tines on each wheel	40	40	40	40
Wheel Diam.	1,4 m. / 55"	1,4 m. / 55"	1,4 m. / 55"	1,4 m. / 55"
Raking working width	2,6 m. / 8' 6"	3,5 m. / 11' 6"	5,5 / 18' 1"	7,5 m. / 24' 7"
Turning and spreading working width	2,9 m. / 9' 6"	3,9 m. / 12' 10"	6,1 / 20'	8,7 m. / 28' 7"
Transport width	2,2 m. / 7' 3"	2,3 m. / 7' 6"	3,6 m. / 11' 10"	4,7 m. / 15' 5"
Working speed	22 Km/h/14mph	22 Km/h/14 mph	22 Km/h/14 mph	22 Km/h/14 mph
HP required min.	30 HP	30 HP	40 HP	40 HP

## RP/4 AND RP/5 RAKE ASSEMBLY INSTRUCTIONS

To save room in the container we supply the rakes partly knocked down. Here below please find assembly instructions. For part numbers please refer to the enclosed parts breakdown.

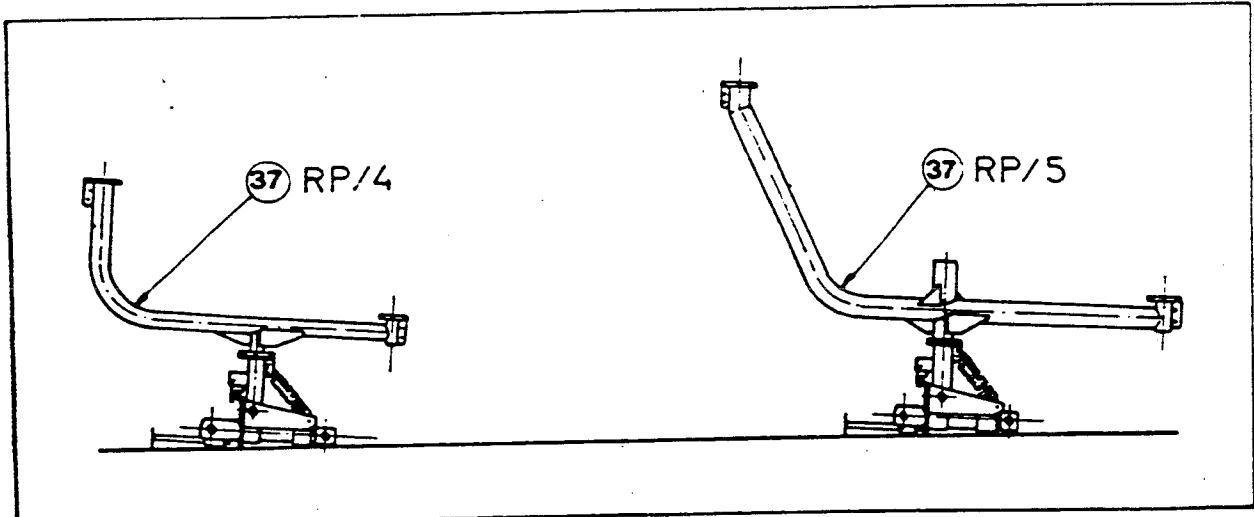
### ASSEMBLING

- a) Position the parking stand (15) in its housing and lock it with the pin (13). Next, lay the primary structure (supplied assembled) on the ground with the swinging pipe (31) upwards (pict. 1).



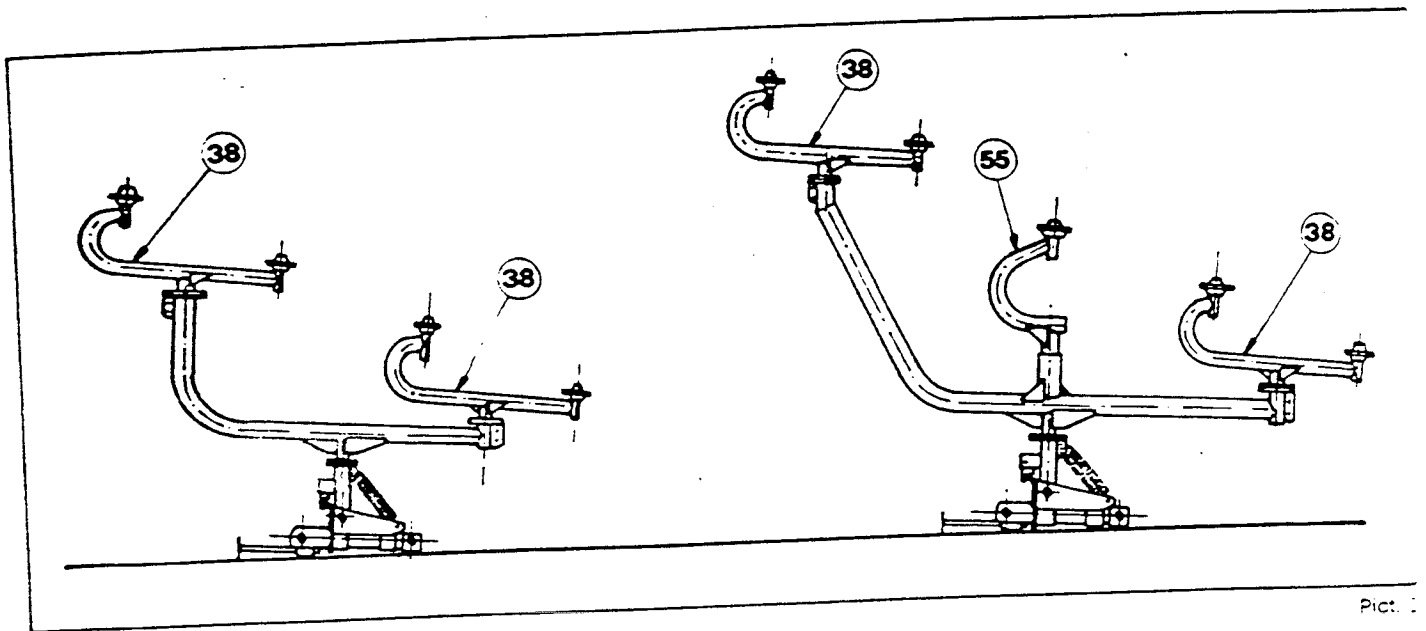
Pict. 1

- b) Slide the main pipe (37) into the swinging pipe (31) and retain with the supplied lever (33) and pin (36), so that it is on axle with the three point hitch (pict. 2).



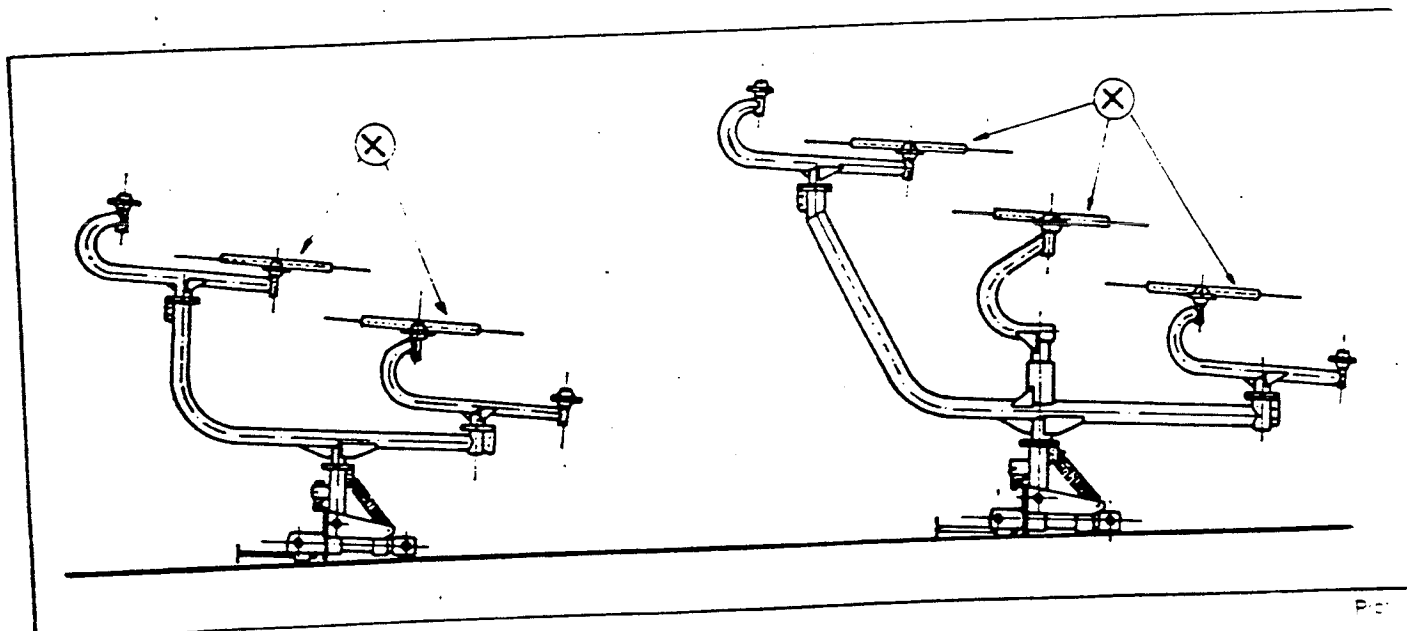
Pict. 2

- c) Attach the wheel arms (38) and lock them to the main pipe (37) with pins (36), so that they are on axle with the main pipe (37). For the RP/5 rake, attach also the central arm (55) to the main pipe (37) and retain with bolts (53-54-30) (pict. 3).



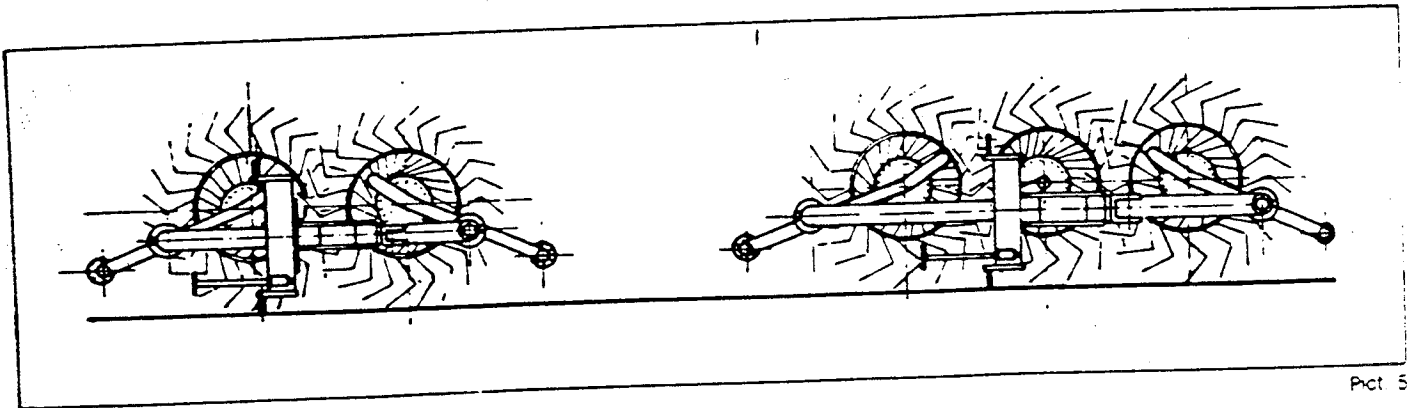
Pict. 3

- d) Attach the two central wheels (RP/4) or the three central wheels (RP/5) to the supplied arm flanges (38-55) and bolt them with the supplied bolts (pict. 4). When bolting the wheels (x) check that the tine clamps (48) are turned toward the hub.



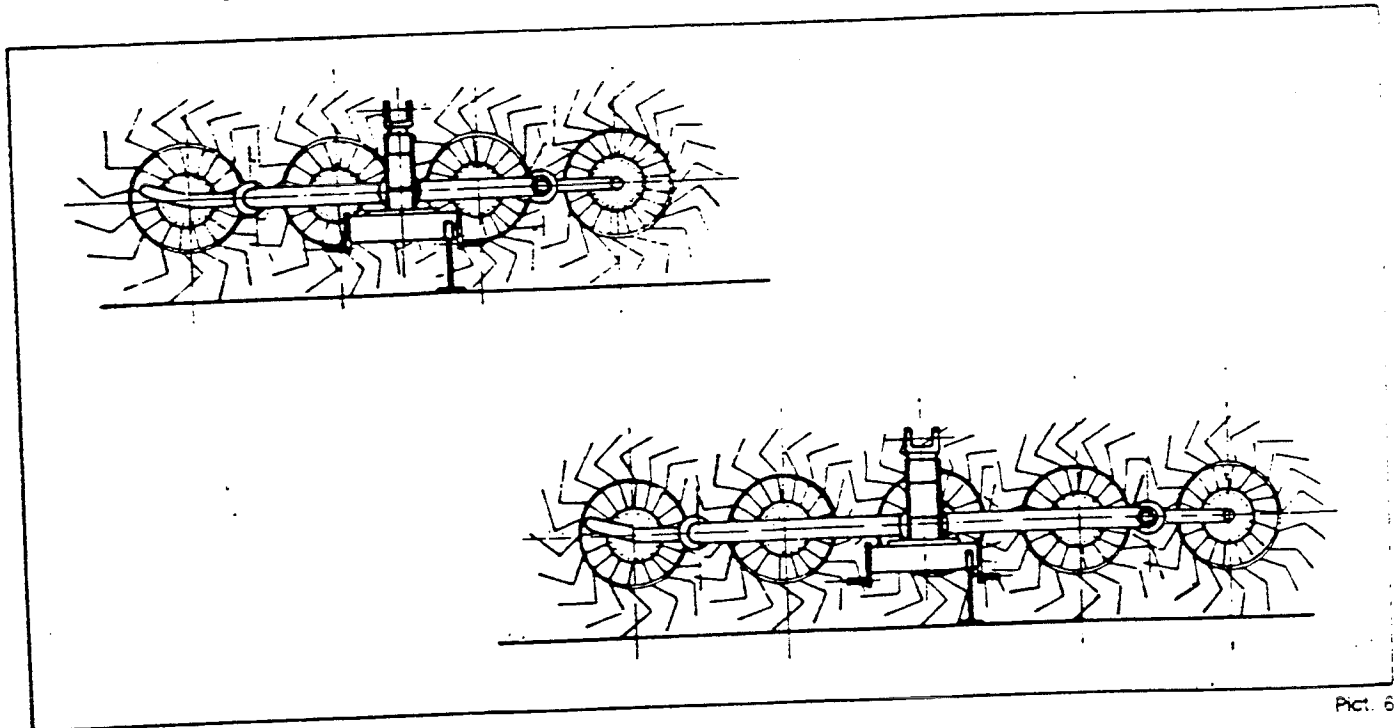
Pict. 4

- e) Lift the wheels (x) from the ground until they are in the working position (pict. 5).



Pict. 5

- f) Unlock the primary structure with the supplied lever (33) and pin (36), turn it by 90 degrees and lock it again with the same pin. Now the rake is properly positioned on the ground and you only have to attach the remaining wheels as explained above.  
The rake is now fully assembled and ready to be mounted to the tractor (pict. 6)



Pict. 6

### **IMPORTANT**

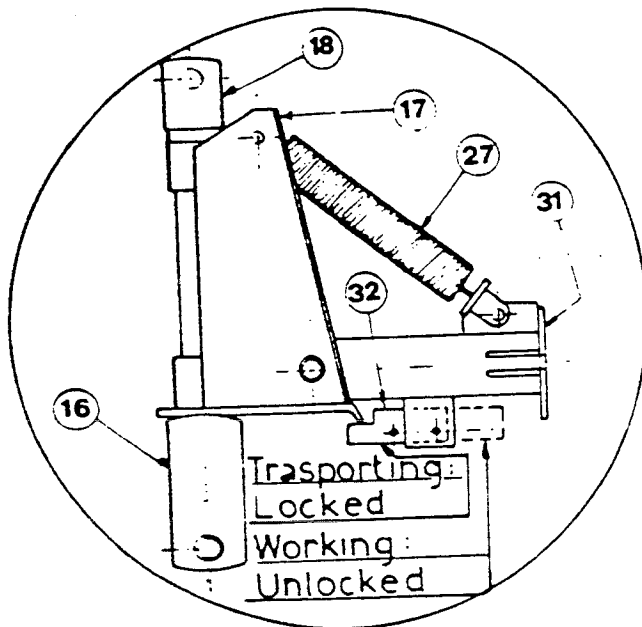
Above are the instructions for the R.H. rake assembly. Please refer to the above instructions also for the L.H. rake assembly. Most parts are interchangeable for both rakes, only the specific parts are marked RIGHT or LEFT.

## MOUNTING OF RP/4 AND RP/5 RAKE TO TRACTOR

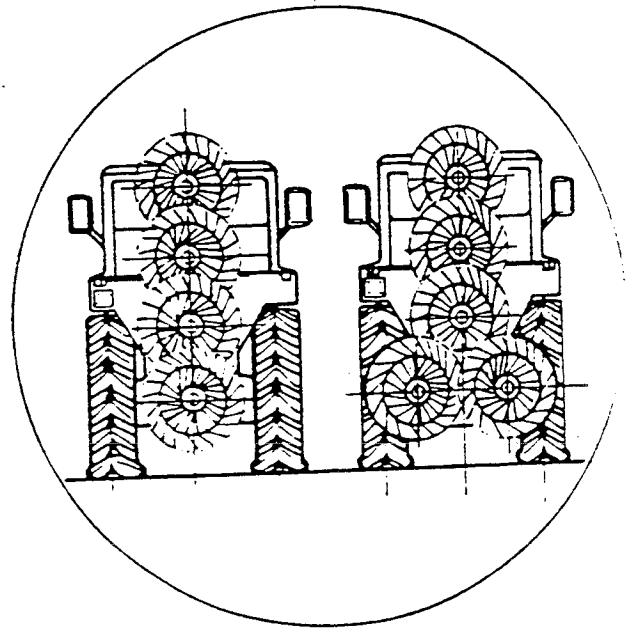
When the rake is ready to be mounted to the tractor (pict. 6) attach the lifting arms to the pins on both sides of the primary structure (16).

Next, attach the three point arm to the cap (18) of the primary structure with the pin. Now lift the rake to its highest setting and for transport lock with the pin (32) for no rake floating (pict. 7).

Retain the part (17) to the crossbar (16) with the pin (19) into hole 1 (pict. 15) of the above said crossbar. Now turn the main pipe (37) and bring the rake to the vertical position for transport (pict. 8).



Pict. 7



(Pict. 8)

## VERY IMPORTANT

Never operate the rake with the pin (32) in the locked position. The locked position is for transport only (pict. 7).

## RP/8 AND RP/10 V-RAKE ASSEMBLY INSTRUCTIONS

RP/8 and RP/10 V-rakes are made as follows:

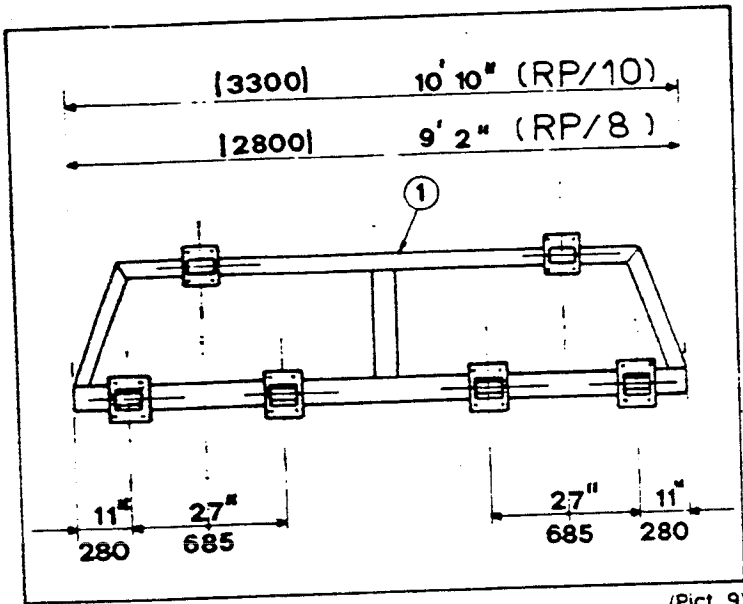
- no. 1 main frame (1) complete of hitches (4-12)
- no. 1 R.H. RP/4 or RP/5 rake, duly assembled as above.
- no. 1 L.H. RP/4 or RP/5 rake, duly assembled as above.

## IMPORTANT

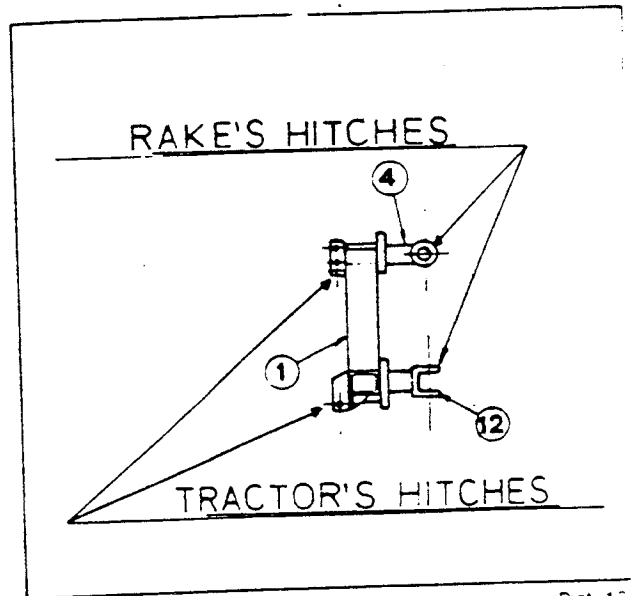
On the R.H. and L.H. RP/4 and RP/5 rakes only the wheel arms and the wheels are specific, all other parts are interchangeable for both rakes. The specific parts are marked RIGHT (for the R.H. rake) and LEFT (for the L.H. rake).

# ASSEMBLING

Attach the hitches (4-12) and relevant counterplates (5) to both ends of the main frame (1) - in the position show in picture 9 - with bolts (6-7-8)  
 Attach hitches (4-12) to the opposite side of the tractor's hitches welded on the frame (1) (pict. 10).

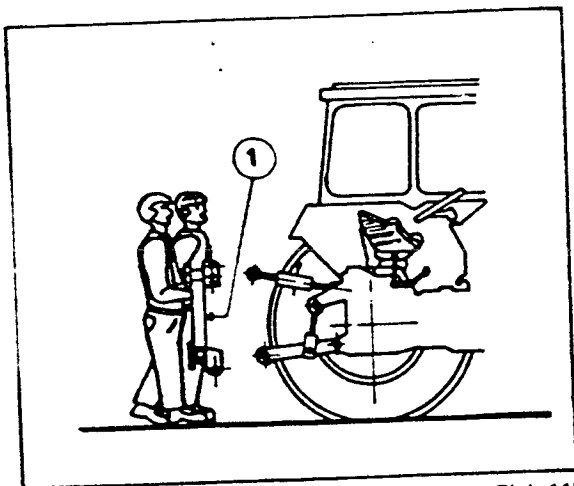


(Pict. 9)

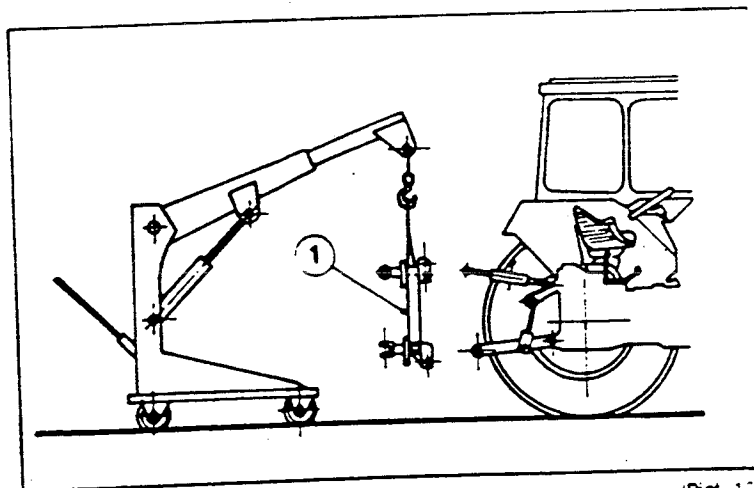


(Pict. 10)

Next, manually (pict. 11) or with a crane (pict. 12) lift the main frame (1) and bolt it to the tractor's lifting arms.



(Pict. 11)



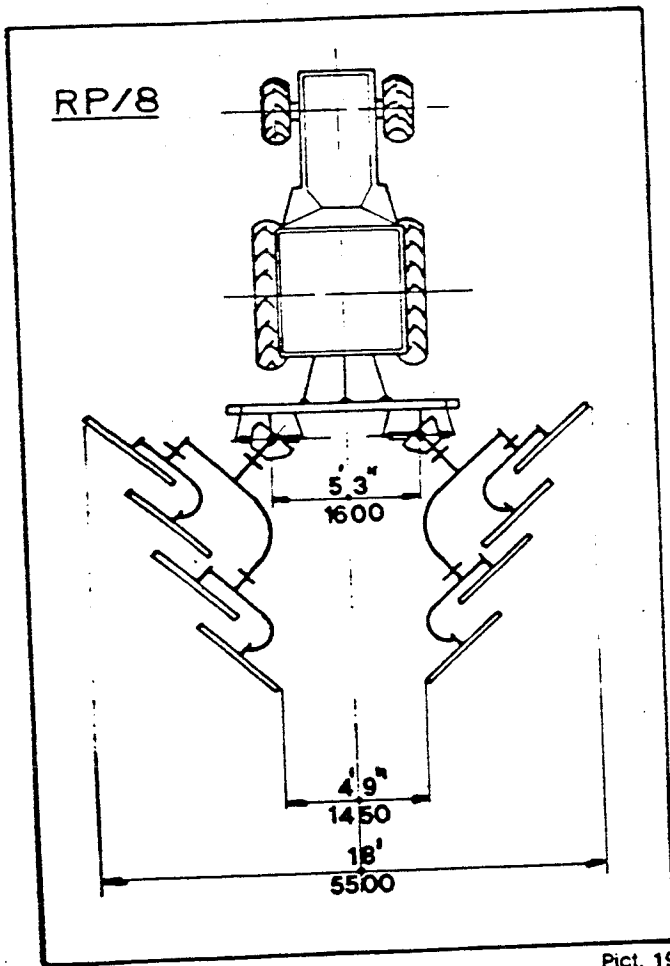
(Pict. 12)



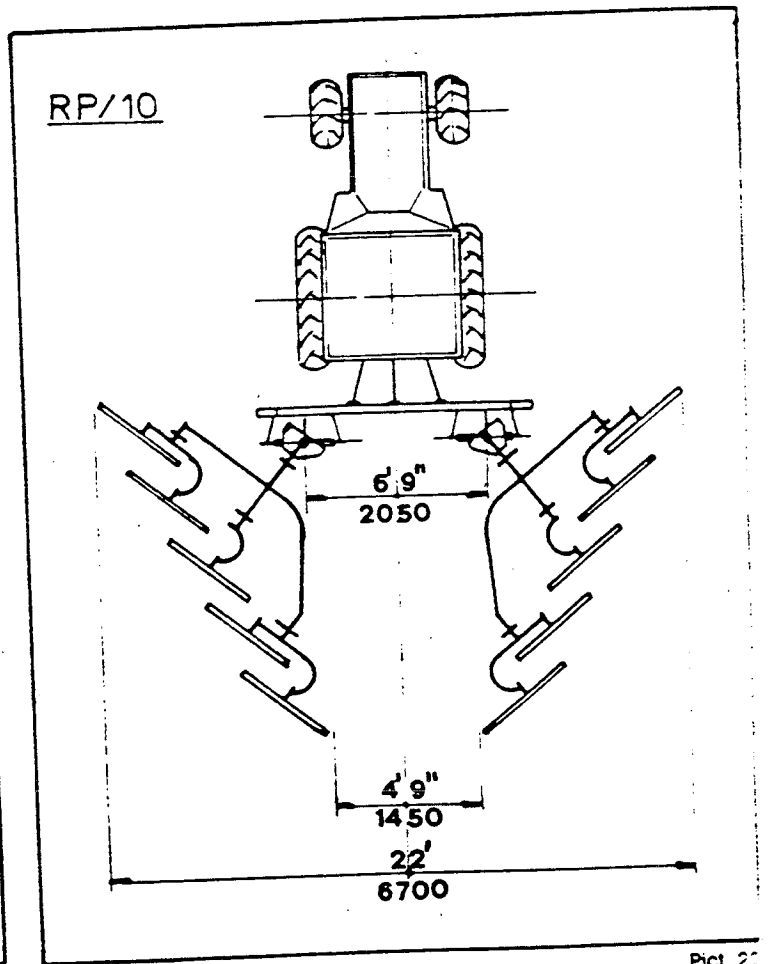
## ON THE FIELD WITH RP/8 AND RP/10 V-RAKES

RP/8 and RP/10 V-rakes are properly designed for windrowing, as ideal implement to complement the big balers. Slide the RP/4 or RP/5 rakes on the frame (1) to get different working widths.

Below (pict. 19-20) the ideal positioning of the rake for a swath suitable for a 5' pick-up baler.



Pict. 19



Pict. 20

## FEATURES

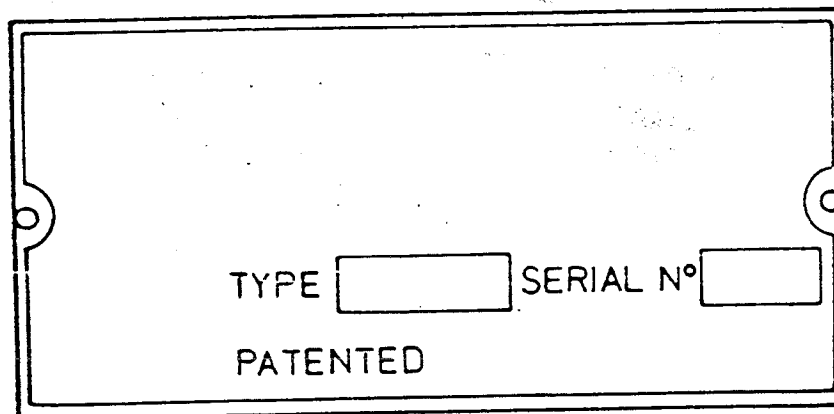
Hayrakes are basically made of a primary structure of bent steel pipes, which make the implement particularly sturdy and flexible. Tines are also very flexible, many are the possible adjustments of the rake, and the implement can work fast and successfully even on slopes or on stony and rough soils. The wheel hubs are made of pressed steel and are equipped with taper roller bearings, protected with a dust cover, so that the wheels can properly turn.

## MAINTENANCE

On hayrakes no maintenance is required. As a matter of fact no maintenance is required for all gearings, wheel hubs (equipped with 1st quality taper roller bearings and protected with a dust cover) and all setting operations. No special tools are therefore required for servicing. However, when the season is over, we recommend to clean the implement, to protect it from rust by oiling and store it until next season.

## IMPORTANT

Every hayrake is provided with an identification label, as follows:



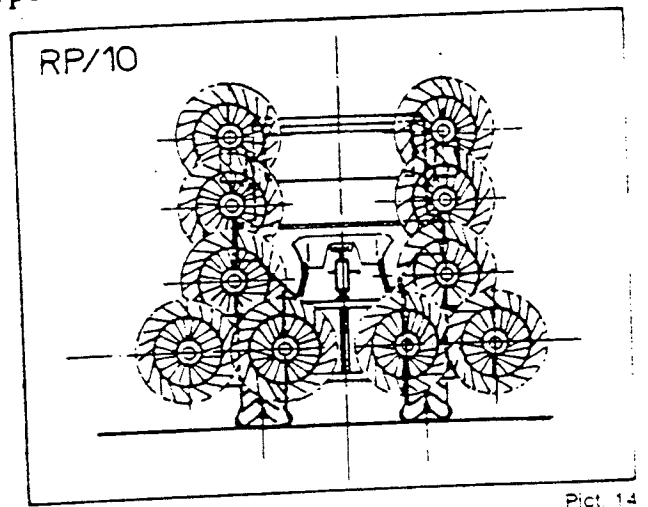
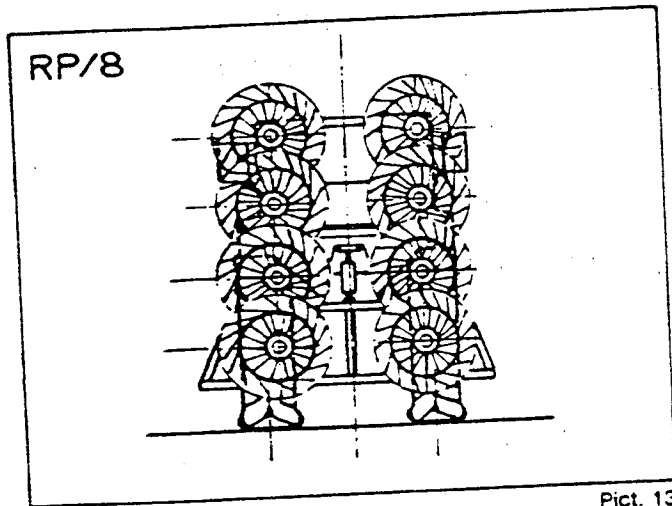
We recommend the use of original spare parts only, to get your implement working well for a long time. By ordering spare parts please always refer to the parts breakdown provided with this manual.

## ATTACHING THE RAKES TO THE FRAME

Attach hitches (12) of frame (1) to the lateral pins welded on the primary structure (16) of rake with the pins (11) and the split pins (10). Attach the upper hitch (4) to the cap (18) with the pin (9) and the split pin (10).

## IMPORTANT

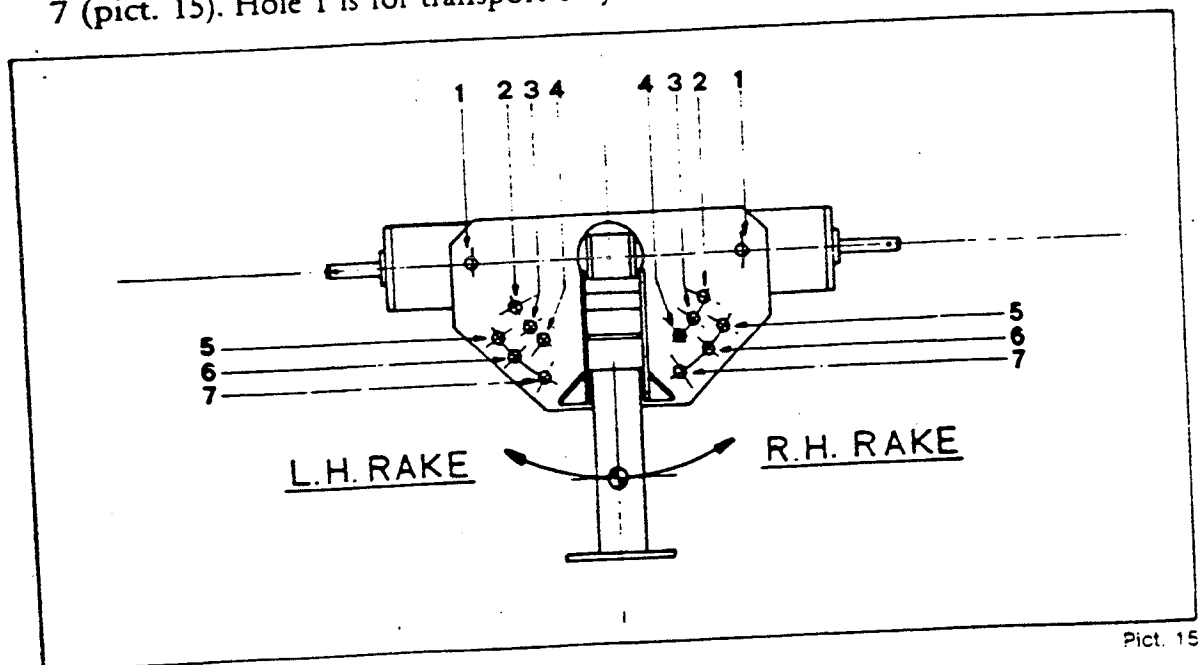
For the V-rake transport please refer to the RP/4 and RP/5 rake transport. Pictures 13 and 14 below show the transport position of RP/8 and RP/10 V-rakes.



## ON THE FIELD

Before operating the rake and after you have reached the field, unlock pin (32) (pict. 7 and relevant notes). This will enable the rake to float independent of the main frame.

Next, adjust the rake working angle by positioning the pin (19) into the holes 2 to 7 (pict. 15). Hole 1 is for transport only.

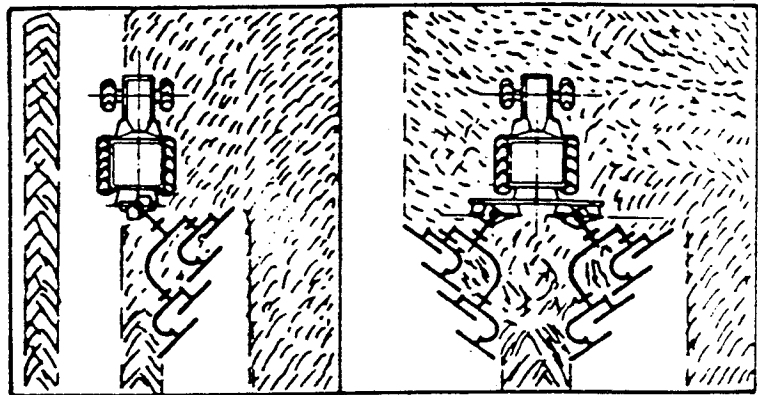


The rake is suitable for:

1) RAKING (pict. 16)

Turn the main pipe (37) with the bend to the left.

Turn the wheel arms (38) (on RP/5 rake turn the wheel arm 55 as well) with the bend to the left.

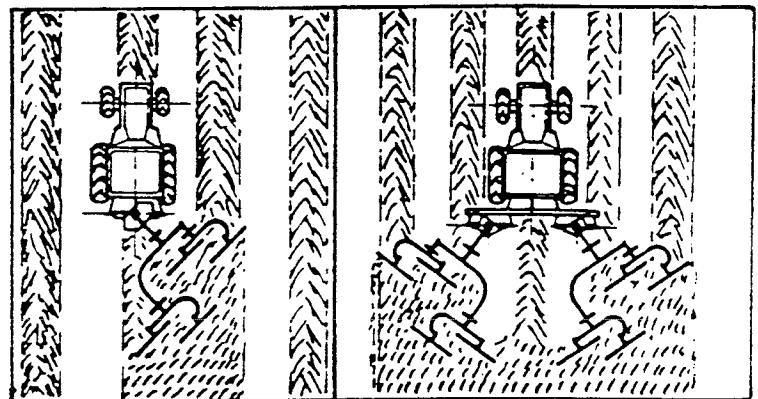


Pict. 16

2) SPREADING (pict. 17)

Turn the main pipe (37) with the bend to the left.

Turn the wheel arms (38) (on the RP/5 rake turn the wheel arm 55 as well) with the bend to the right.

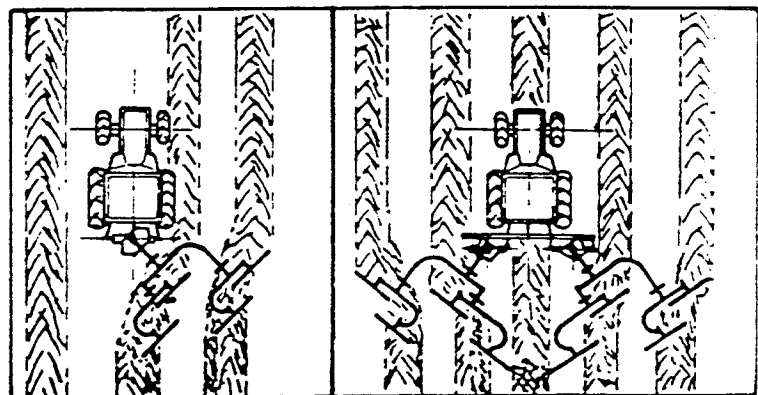


Pict. 17

3) TURNING (pict. 18)

Turn the main pipe (37) with the bend to the right.

Turn the wheel arms (38) (on RP/5 rake turn the wheel arm 55 as well) with the bend to the left.



Pict. 18

## IMPORTANT

Above we have described how to set a R.H. rake for the different operations. If you need to set a L.H. rake for the above operations, please refer to pictures 16-17 and 18 of V-rakes.

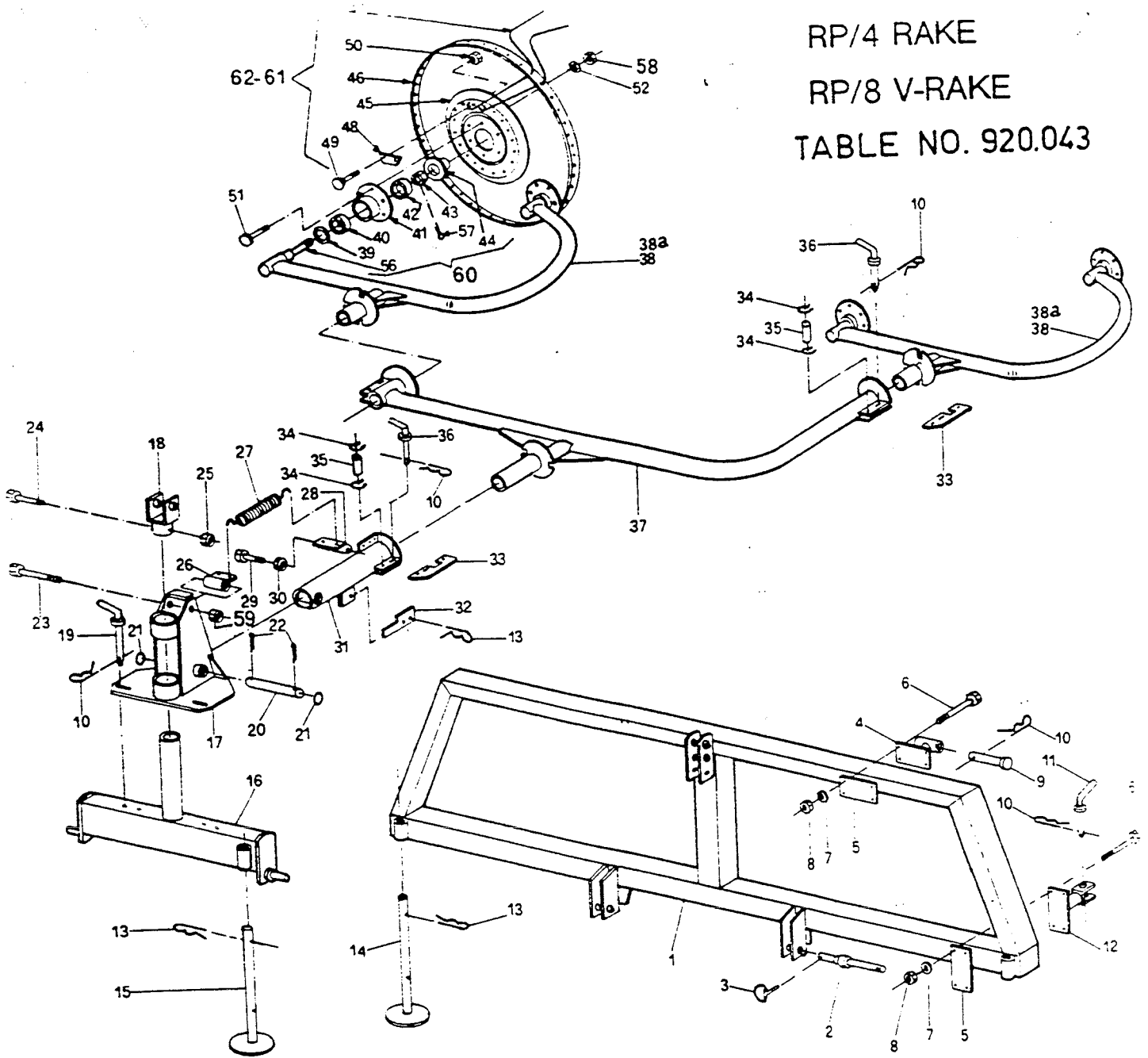
## TROUBLES

## CAUSES

## REMEDIES

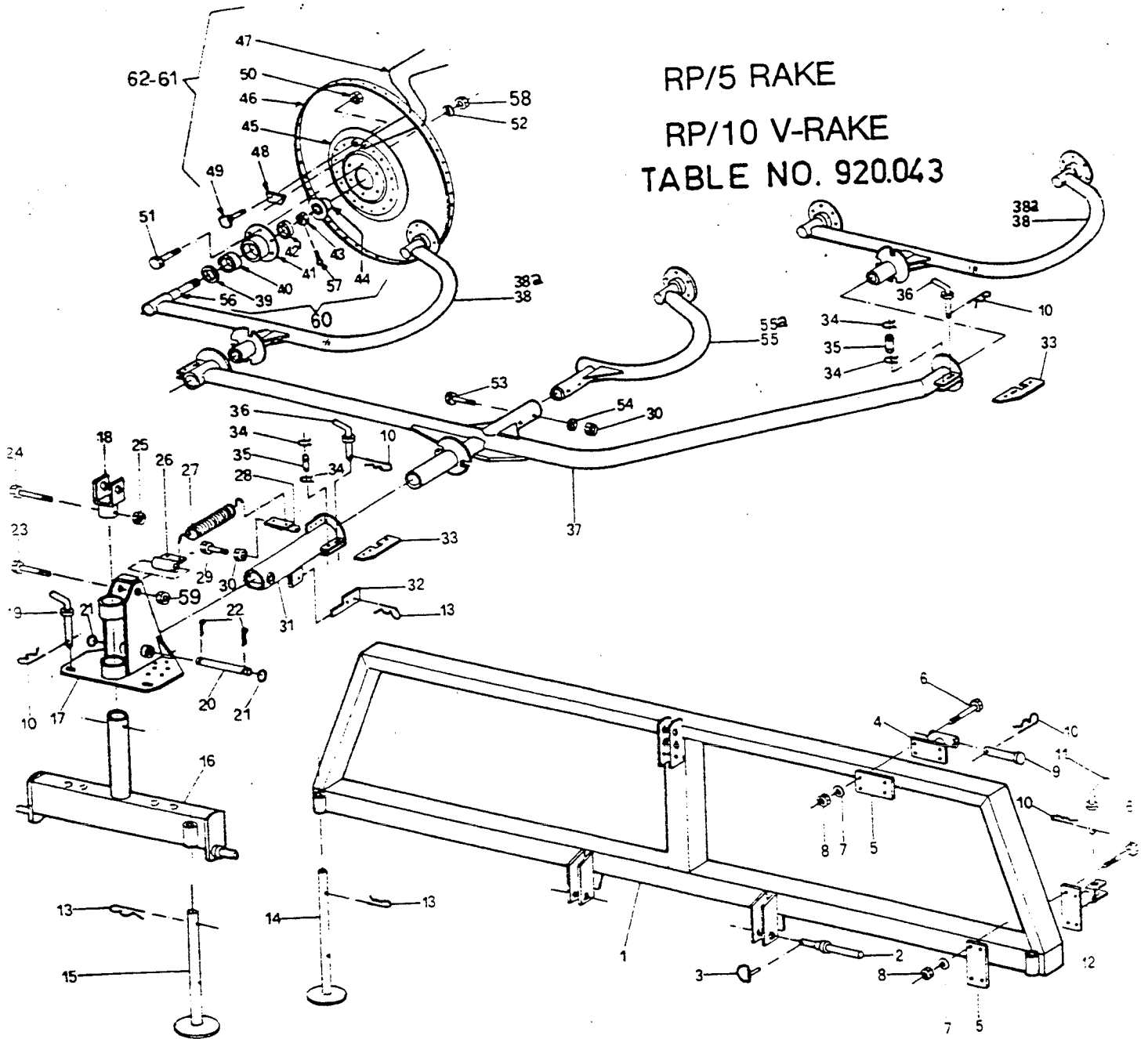
1) Wheel does not unload hay	1) New tine, too much paint on it. 2) Mud on tine point due to moist soil.	1) Have the wheels be turning on gravelly soil until the tine is clean again. 2) The wheels are too close to the ground
2) Tine failure	1) Going backwards with wheels not lifted. 2) Too much pressure on the wheels. 3) Tine rusted.	1) Lift the wheels before going backwards. 2) Lightly lift the rake. 3) Protect it by oiling.
3) The rake does not collect the hay	1) The wheel is too much inclined to the ground. 2) Tine worn out.	1) By setting the 3rd point arm, bring the wheel vertical to the ground. 2) Replace it. We recommend to replace all tines for uniform height.
4) Too much floating of wheels.	1) Wheels too far from ground.	1) Lightly lower the rake.
5) Bent tine	1) Going backwards with the wheels not lifted. 2) Too much speed on rough soil. 3) Going across deep and narrow ditches or prominences. 4) Too much weight on the wheels.	1) Lift the wheels when going backwards 2) Reduce speed. 3) Reduce speed. 4) Lightly lift the rake.

RP/4 RAKE  
 RP/8 V-RAKE  
 TABLE NO. 920.043

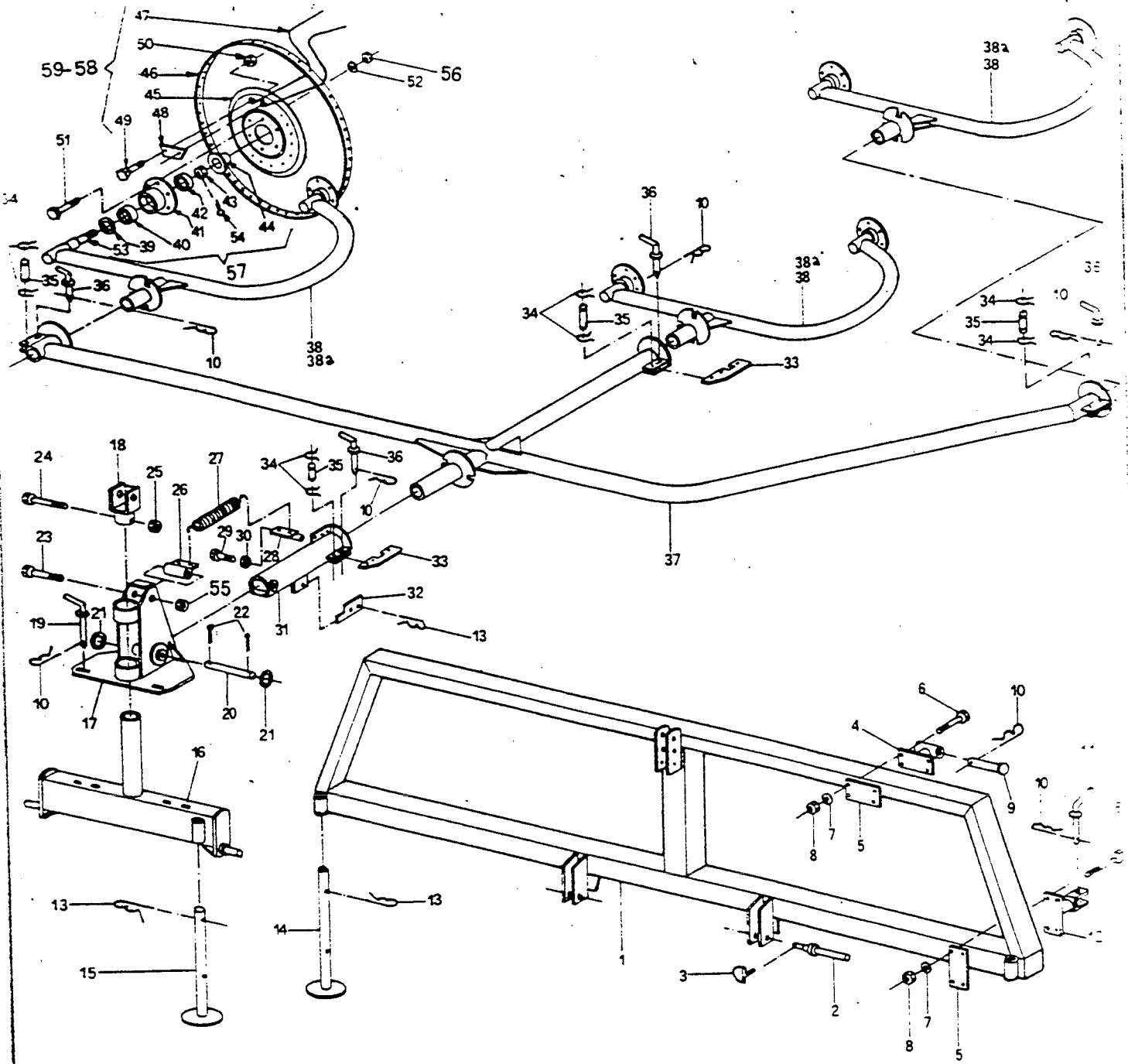


Pos.	Q.ty	Code	DESCRIPTION	16	1	200063	Base
				17	1	200064	Support
1	1	200055	RP/8 Frame	18	1	200065	Cap
1	1	200081	RP/10 Frame	19	1	200066	Pin
2	2	200047	Pin	20	1	200067	Pin
3	2	600017	Spilt Pin	21	2	600021	Washer
4	2	200056	Upper Linkage	22	2	600022	Split Pin
5	6	200057	Counterplate	23	1	610018	Screw
6	24	600001	Screw	24	1	600003	Screw
7	24	600018	Spring Washer	25	1	600009	Nut
8	24	600008	Nut	26	1	200068	Upper Linkage. spring
9	2	200058	3rd Point Pin	27	2	200069	Spring
10	10	600019	Split Pin	28	1	200070	Lower Linkage. spring
11	4	200059	Pin	29	1	600004	Screw
12	4	200060	Lower Linkage	30	3	600008	Nut
13	4	600020	Split Pin	31	1	200071	Swinging pipe
14	2	200061	Parking stand. frame	32	1	200072	Lock device
15	1	200062	Parking stand. base				

RP/5 RAKE  
 RP/10 V-RAKE  
 TABLE NO. 920.043



33	3	200073	Lever	48	-	200012	Tine clamp
34	6	600023	Snap ring	49	-	600005	Screw
35	3	200074	Pin	50	-	600029	Nut
36	3	200075	Pin	51	-	600006	Screw
37	1	200076	RP/4 Main pipe	52	-	600024	Spring washer
37	1	200082	RP/5 Main pipe	53	2	600007	Screw
38	2	200077	Wheel arm, R.H.	54	2	600018	Spring washer
38a	2	200078	Wheel arm, L.H.	55	1	200079	Arm, R.H.
39	-	600011	Dust cover	55a	1	200080	Arm, L.H.
40	-	600012	Bearing	56	-	205277	Pin
41	-	600013	Wheel hub	57	-	600301	Split Pin
42	-	600014	Bearing	58	-	600010	Nut
43	-	600015	Selflocking nut	59	-	600075	Nut
44	-	600016	Safety cap	60	-	205041	Hub assy
45	-	200010	Flange	61	-	210,180	Wheel assy, R.H.
46	-	200009	Rim	62	-	210,181	Wheel assy, L.H.
47	-	200011	Tine				



RP/6 RAKE  
RP/12 V-RAKE

TABLE NO. 920.035

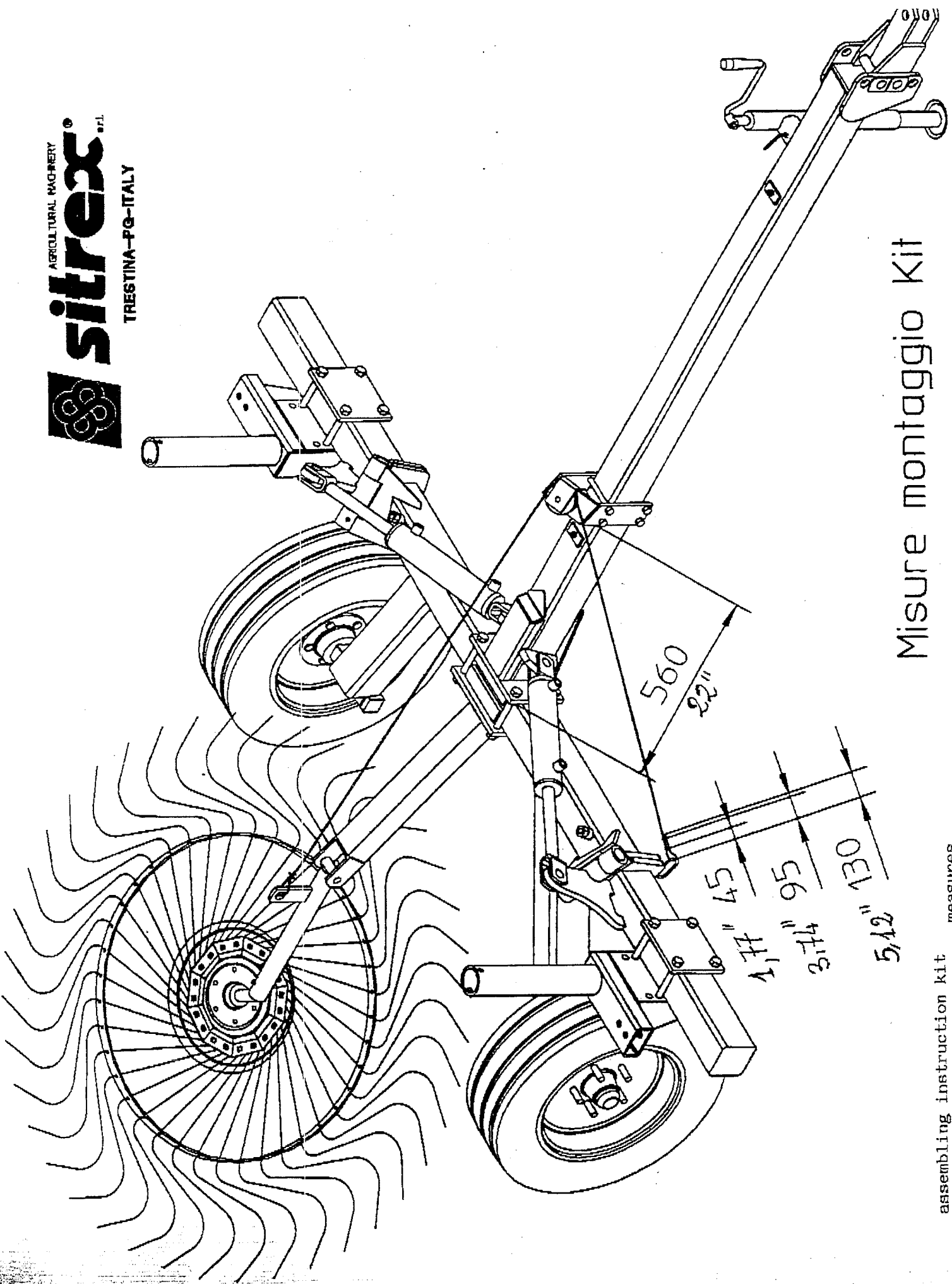


TABLE NO 920.036

RP / 6 - RP / 12

ITEM	PART NO	Qty	DESCRIPTION	NOTE
1	200.081	1	FRAME	
2	200.047	2	PIN	
3	600.017	2	SPLIT PIN	
4	200.056	2	UPPER LINKAGE	
5	200.057	6	COUNTER PLATE	
6	600.001	24	SCREW	
7	600.018	24	SPRING WASHER	
8	600.008	24	NUT	
9	200.058	2	3RD POINT PIN	
10	600.019	11	SPLIT PIN	
11	200.059	4	PIN	
12	200.060	4	LOWER LINKAGE	
13	600.020	4	SPLIT PIN	
14	200.061	2	PARKING STAND,FRAME	
15	200.062	1	PARKING STAND,BASE	
16	200.117	1	BASE	
17	200.118	1	SUPPORT	
18	200.094	1	CAP	
19	200.066	1	PIN	
20	200.067	1	PIN	
21	600.021	2	WASHER	
22	600.022	2	SPLIT PIN	
23	610.018	1	SCREW	
24	600.003	1	SCREW	
25	600.009	1	NUT	
26	200.121	1	UPPER LINKAGE,SPRING	
27	300.015	2	SPRING	
28	200.122	1	LOWER LINKAGE,SPRING	
29	600.004	1	SCREW	
30	600.008	1	NUT	
31	200.071	1	SWINGING PIPE	
32	200.072	1	LOCK DEVICE	
33	200.073	4	LEVER	
34	600.023	8	SNAP RING	
35	200.074	4	PIN	
36	200.075	4	PIN	
37	200.093	1	MAIN PIPE	
38	200.077	3-6	WHEEL ARM RH	
38a	200.078	3-6	WHEEL ARM LH	
39*	600.011	.	DUST COVER	
40*	600.012	.	BEARING	
41*	600.013	.	WHEEL HUB	
42*	600.014	.	BEARING	
43*	600.015	.	SELF-LOCKING NUT	
44*	600.016	.	SAFETY CAP	
45x	200.010	.	FLANGE	
46x	200.009	.	RIM	
47x	200.011	.	TINE	
48x	200.012	.	TINE CLAMP	
49x	600.005	.	SCREW	
50x	600.010	.	NUT	
51	600.006	.	SCREW	
52	600.024	.	SPRING WASHER	
53	205.277	.	PIN	
54	600.301	.	SPLIT PIN	
55	600.075	.	NUT	
56	600.010	.	NUT	
57	205.041	6-12	HUB ASSY	
58	210.180	6-12	WHEEL ASSY,RH	
59	210.181	6-12	WHEEL ASSY,LH	





Misure montaggio kit



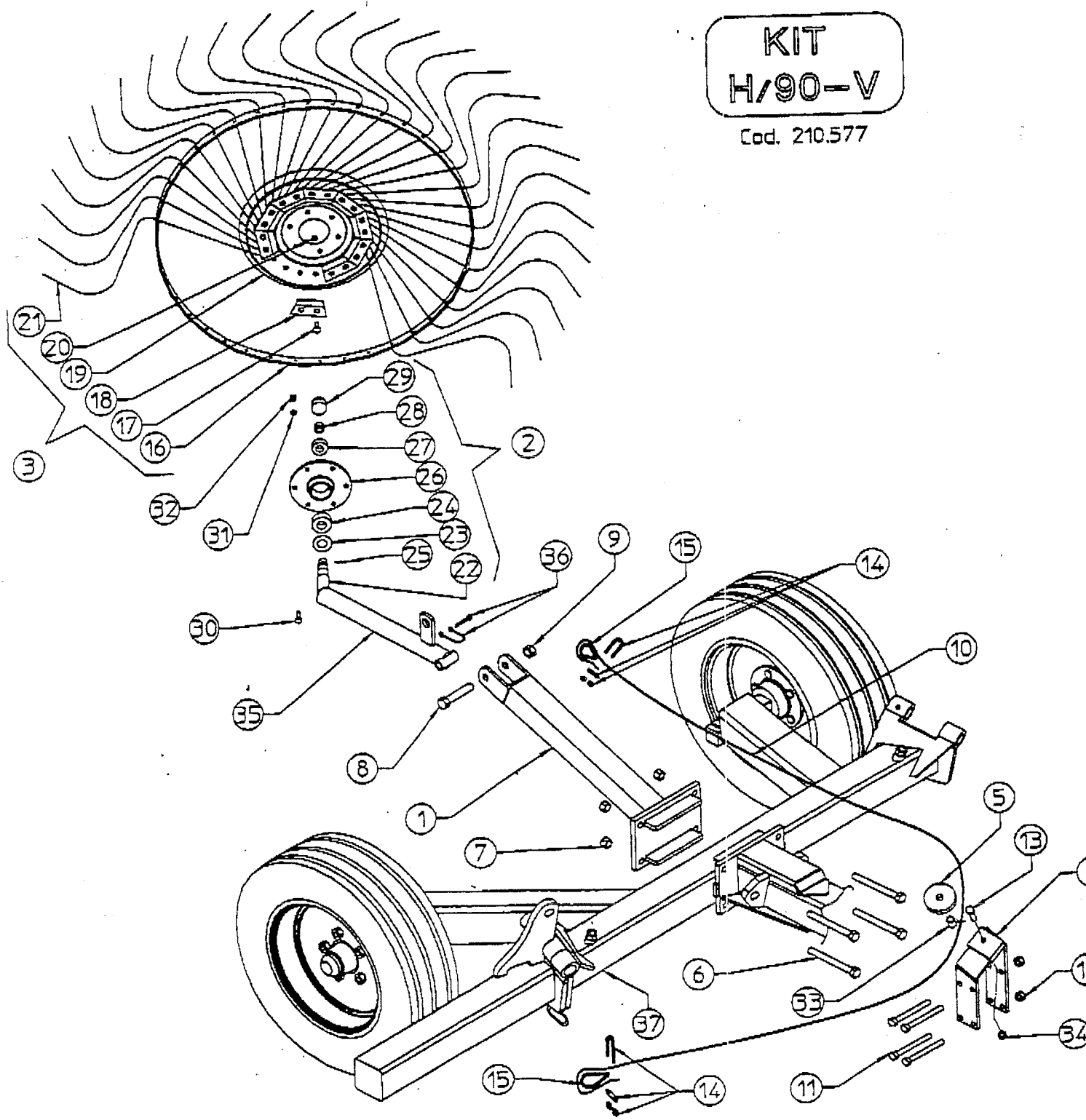


AGRICULTURAL MACHINERY  
**sitrex** s.r.l.

TRESTINA-PG-ITALY

KIT  
H/90-V

Cod. 210.577





## KIT H/90 COD. 210.577

ITEM	Q.ty	PART/NO	DESCRIPTION	NOTE
1	1	210.579	ARM	
2	1	205.041	HUB ASSY	
3	1	210.181	WHEEL ASSY L.H.	
4	1	210.580	BRACKET	
5	1	200.741	PULLEY	
6	4	600.219	SCREW	CART H/90
7	4	600.080	NUT	CART H/90
8	1	600.265	SCREW	
9	1	600.078	NUT	
10	1	200.748	STEEL CABLE	
11	4	610.282	SCREW	
12	4	600.029	NUT	
13	1	600.754	SCREW	
14	2	600.760	CLAMP ASSY	
15	2	600.759	THIMBLE	
16	1	200.009	RIM	
17	20	600.005	SCREW	
18	10	200.012	TINE LOCK	
19	1	200.010	FLANGE	
20	20	600.029	NUT	
21	40	200.011	TINE	
22	1	205.277	PIN	
23	1	600.011	DUST COVER	
24	1	600.012	BEARING	
25	1	600.301	SPLIT PIN	
26	1	205.291	HUB	
27	1	600.014	BEARING	
28	1	600.015	NUT	
29	1	600.016	CAP	
30	6	600.006	SCREW	
31	6	600.024	WASHER	
32	6	600.010	NUT	
33	1	210.581	BUSHING	
34	1	600.077	NUT	
35	1	210.578	HOOK	
36	1	600.761	FORK ASSY	CART H/90
37	1	210.533	CART FRAME	

