WECAN GLOBAL ROTAVATOR

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MANUAL & PART LIST

LSG SERIES

WECAN

WECAN GLOBAL Co., LTD.

www.wecan21.com/eng

◈ OPERATIONAL SAFETY ◈

Before use

1. Before using your WECAN Rotavator please take the time to read this operator's manual and note all the operational and safety decals on the machine.
   Spending this time will not only ensure safer operation it will also ensure a longer machine life and cheaper operating costs.

2. Ensure that you wear the right clothing and safety equipment. Loose clothing and item like ties and loose belts can get caught in moving equipment such as PTO shafts and cause serious injury.

3. Rotavator-work is a one-man operation, there should be no bystander or children nearby.

4. Ensure that all safety covers are in place and in good working order, especially the PTO shaft cover.

5. Before starting the machine, check the PTO shaft to ensure both ends are correctly fitted and there is no free play in the universal joints.

6. Check the entire machine and tighten any nuts.

7. Before checking any aspect of the machine, stop the PTO, switch off the engine apply the brakes and remove the key, If working under the machine is requires, raise the machine and place safety stands under both sides before doing any work under the machine.(This is a critical area as children have been known to play on tractors and cause serious injury when precautions like these are not taken)

8. Ensure that the tractor is well balanced. Some tractors are light on the front, and since the weight of Rotavator is on the rear, when raised, the front of tractor may be lifted - sometimes to a dangerous extent. Correct the problem by fitting front weights; if weights cannot be fitted, water ballast the front tires.

When using the Rotavator

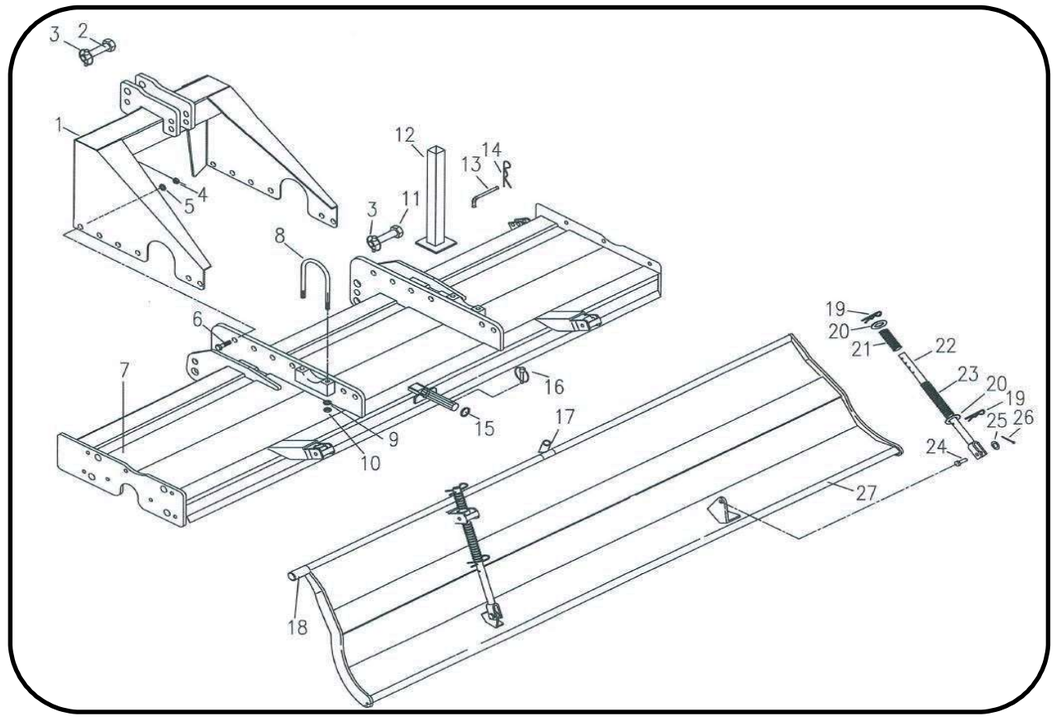
1. While still stationary, engage the PTO and briefly run the machine to ensure it is operating correctly.

2. Before moving, identify the location of other workers and obstacles in the field.

3. Do not operate the Rotavator beyond its specified ground speed and PTO RPM as this may shorten the working life of the machine.

4. When checking the universal joints or fitting/removing the PTO shaft, always stop the tractor engine and apply the brakes.

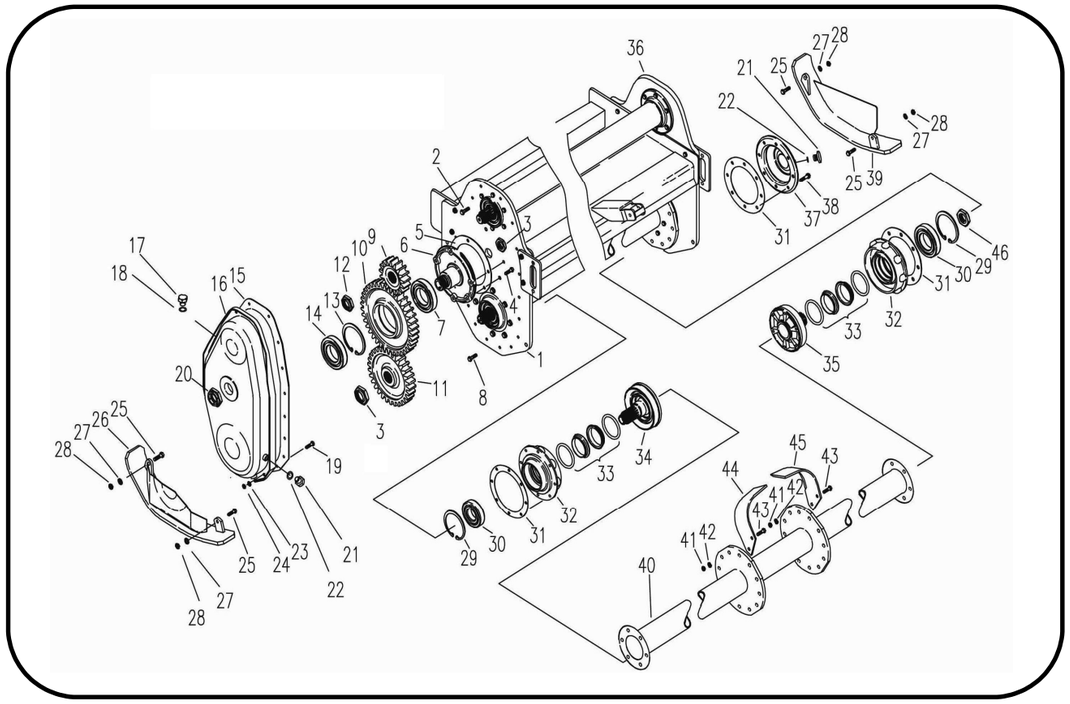
◈ LSG PART LIST (Top-cover, Rear-cover Group) ◈



No.	Part No.	Part Name	Spec.
1	WR101 - 801	Mast Group	
2	WR101 - 867	Category Pin	d10
3	WR101 - 855	Top Link Pin	∮19
4	WR101 - 659	Spring Washer	d12
5	WR101 - 650	Nut	m12
6	WR101 - 653	Bolt	M12*1.25*35
7	WR101 - 676	U-Bolt	m10*1.25p*D76
8	WR101 - 667	Category Pin	d10
9	WR101 - 675	Lower Link Pin	∮22
10	WR101 - 603	Stand Group	
11	WR101 - 606	L- Pin	d12
12	WR101 - 657	Snap Pin	d3
13	WR101 - 602	Top Cover Group	
14	WR101 - 653	Bolt	m12*1.25*30
15	WR101 - 659	Spring Washer	d10
16	WR101 - 650	Nut	m10*1.25
17	WR101 - 705	Rod	d12
18	WR101 - 709	Real Cover Chain	
19	WR101 - 753	Bolt	m10*1.25p*30
20	WR101 - 772	Plane Washer	d10

No.	Part No.	Part Name	Spec.
21	WR101 - 759	Spring Washer	d10
22	WR101 - 750	Nut	m10*1.25
23	WR101 - 708	Real Cover	

◈ LSG PART LIST (Side Plate & Rotor Shaft Group) ◈



No.	Part No.	Part Name	Spec.
1	WR104-320	Side Plate(LH)	9T
2	WR104-353	Bolt	M12*35*1.25P
3	WR104-374	Hard lock Nut	M30*1.5P
4	WR104-353	Bolt	M12*30*1.25P
5	WR104-371	Packing	0.8T
6	WR104-316	Idle Gear Shaft	
7	WR104-352	Ball Bearing	#6213
8	WR104-353	Bolt	M12*25*1.25P
9	WR104-301	Gear	17T
10	WR104-315	Idle Gear	38T
11	WR104-317	Gear	30T
12	WR104-374	Hard lock Nut	M35*1.5P
13	WR104-356	Snap Ring	R-120
14	WR104-352	Ball Bearing	#6213
15	WR104-371	Packing	2.0T
16	WR104-306	Gear Case Group	
17	WR104-373	Plug Bolt	M20*1.5P
18	WR104-361	Seal Washer	M20
19	WR104-353	Bolt	M10*25*1.25P
20	WR104-374	Hard lock Nut	M45*1.5P
21	WR104-373	Plug Bolt	M14*12*1.25P
22	WR104-361	Seal Washer	M14
23	WR104-359	Spring Washer	M10
24	WR104-350	Nut	M10*1.25P
25	WR104-353	Bolt	M12*35*1.25P

No.	Part No.	Part Name	Spec.
26	WR104-312	Skid Group(LH)	
27	WR104-359	Spring Washer	M12
28	WR104-350	Nut	M12*1.25P
29	WR104-356	Snap Ring	R-100
30	WR104-352	Ball Bearing	#6309
31	WR104-371	Packing	2.0T
32	WR104-310	Bearing Case	
33	WR104-302	Group Seal	
34	WR104-305	Rotor Drive Shaft(LH)	
35	WR104-304	Rotor Drive Shaft(RH)	
36	WR104-319	Side Plate(RH)	9T
37	WR104-308	Bearing Case Cover	
38	WR104-353	Bolt	M12*30*1.25P
39	WR104-311	Skid Group(RH)	
40	WR104-504	Rotor Shaft Group	1650SG
41	WR104-550	Nut	M14*1.5P
42	WR104-559	Spring Washer	M14
43	WR104-553	Bolt	M14*35*1.25P
44	WR104-501	Blade(RH)	금성42HP
45	WR104-502	Blade(LH)	금성42HP
46	WR104-374	Hard lock Nut	M45*1.5P
47			
48			
49			
50			

5. Always use the seat provided on the tractor with safety belt when working and ensure the tractor has a ROPS certified safety frame or cab.

6. Monitor the tractor gauges and listen to the engine and Rotavator for unusual noises, if in doubt stop the tractor and check both the Tractor and Rotavator.

7. If there is a need to get off the tractor, stop the engine, apply the brake and ensure the Rotavator is on the ground. On hilly terrain, also engage the lowest gear in the gearbox after stopping the engine. (there have been cases where, in steep terrain, the handbrake was not enough to hold the tractor)

Driving on the road

1. When driving on the road, ensure that the PTO is stopped before raising the Rotavator to maximum height.

2. Adjust the transport speed to the conditions and gradient of the road and allow for the fact that the weight of the Rotavator in the raised position, and will lighten the front of the tractor. This is particularly important when driving on steep road.

3. When traveling on the road at night, ensure that the width of the Rotavator is within the legal limits for your country. Check if all head lights, tail lights and the rear work lights are on. In some countries, a revolving orange beacon is also required when traveling on the road.

Maintenance after each use

1. After finishing work, wash the Rotavator and check the oil and the transmission. Grease any points fitted with a grease nipple, and where possible. Store the machine under cover.

2. Ensure that the machine is stable when removed from the tractor, and is standing at a height which makes putting it back on the tractor easy. To ensure that playing children are not harmed by any movement of the Rotavator, use props to stabilize any instability of the machine.

3. For long term storage, fully service and check the machine before placing it under cover. (Long exposure to adverse weather can shorten the working life of some components in the machine)

◈ SAFETY & INSTRUCTIONAL DECALS ◈

ATTENTION! BE ALERT! YOUR SAFETY IS INVOLVED!
Replace Immediately If Damaged!

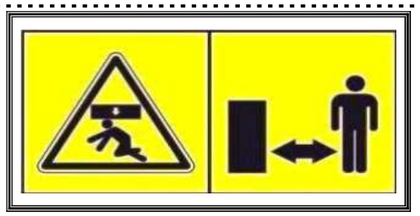
Follow all safety rules and safety decal information.

Blade contact or thrown objects can cause serious injury or death.

Keep bystanders away.

Do not put your hands under or into rotavator when engine is running.

Do not put your feet under or into rotavator and keep safe distance.



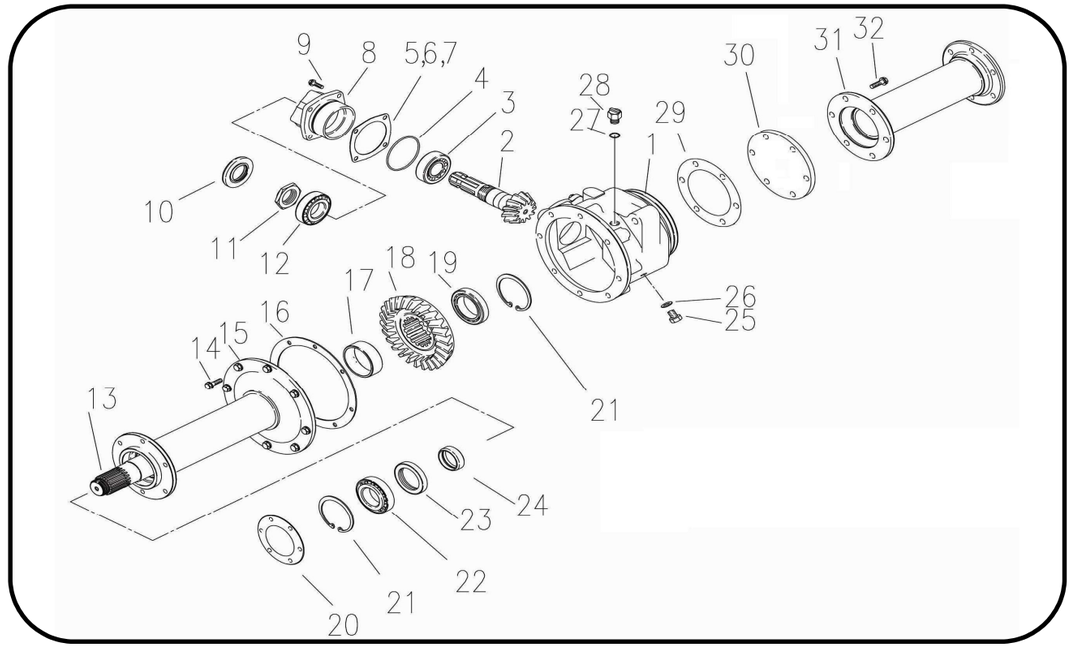
Do not work under the machine without blocking prevents equipment.

Be extremely careful handling various parts of the machine. They are heavy and hands, fingers could be crushed or pinched between tractor and implement

Keep away from rotating parts while in operation.

Do not ride or stay on implement while in operation or when it is being moved.

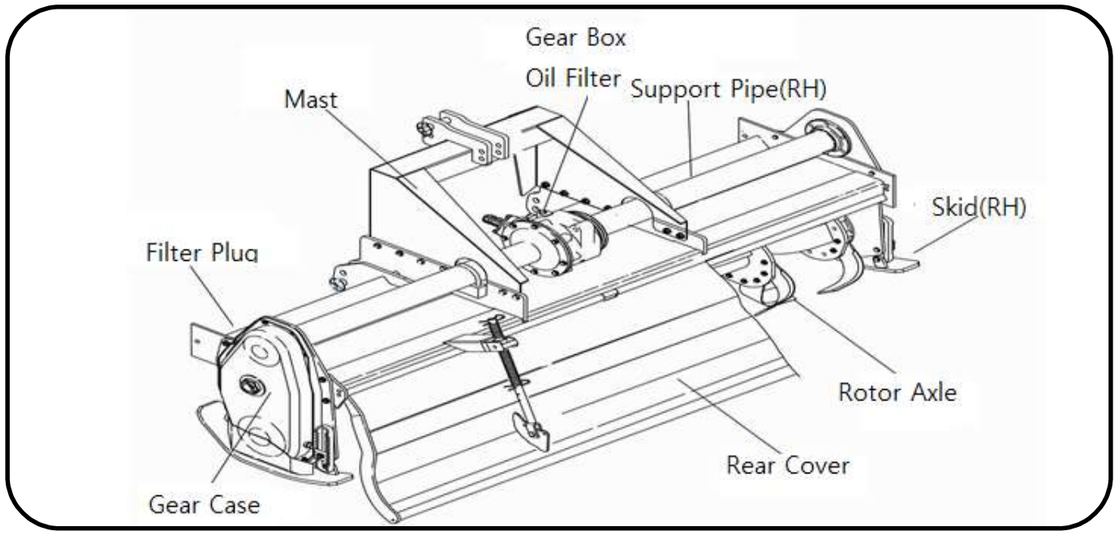
◈ LSG PART LIST (Gear Box Group) ◈



No.	Part No.	Part Name	Spec.
1	WR104 - 102	Gear Box	
2	WR104 - 117	Bevel Pinion	11T
3	WR104 - 170	Taper roller Bearing	#32208
4	WR104 - 162	O-Ring	Ø3*95
5	WR104 - 111	Shim	0.25T
6	WR104 - 111	Shim	0.5T
7	WR104 - 111	Shim	0.8T
8	WR104 - 114	Bevel Pinion Cover	
9	WR104 - 153	Bolt	M10*35*1.25P
10	WR104 - 163	Oil Seal	35*80*12T
11	WR104 - 174	Hard lock Nut	M39*1.5P
12	WR104 - 170	Taper roller Bearing	#32208
13	WR104 - 101	Drive Shaft	1650SG
14	WR104 - 153	Bolt	M10*30*1.25P
15	WR104 - 202	Support Pipe(LH)	1650SG
16	WR104 - 171	Packing	2.0T
17	WR104 - 169	Collar	
18	WR104 - 107	Bevel Gear	24T
19	WR104 - 152	Ball Bearing	#6211
20	WR104 - 171	Packing	0.8T

No.	Part No.	Part Name	Spec.
21	WR104 - 156	Snap Ring	S-55
22	WR104 - 152	Ball Bearing	#6309
23	WR104 - 163	Oil Seal	55*80*12T
24	WR104 - 169	Collar	
25	WR104 - 173	Plug Bolt	M14*12*1.5P
26	WR104 - 161	Seal Washer	M14
27	WR104 - 161	Seal Washer	M20
28	WR104 - 173	Plug Bolt	M20*1.5P
29	WR104 - 171	Packing	
30	WR104 - 204	Support Pipe Cover	1T
31	WR104 - 201	Support Pipe(RH)	1650SG
32	WR104 - 153	Bolt	M10*30*1.25P

◈ THE STRUCTURE OF ROTAVATOR ◈



◈ CHECKING OIL ◈

Type	Checking Part	Capacity	Lubricant	Checking Frequency				Method
				Daily	50Hours	100Hours	200Hours	
LSG	Gear Box	1.7L	Gear Oil SAE 90		△		○	Supplement and change the oil after checking the optimum and viscosity with oil gauge
	Gear Case	2.4L						
	Bearing Case Cover	0.27L						

As with all mechanical equipment, the running in period is critical in ensuring a maximum trouble free service life of the machine.
While running in minute, metal particles can be generated from the bedding in of components.
To remove these particles and any other impurities, it is very important that after 50 hours all oils are drained.
As with all oil changes, Gear boxes and gear or chain cases should be drained while the oil is at operating temperature and any impurities are suspended in the oil.
This allows all of them to be removed.

Note on service

(a) Always use the recommended oil and do not replace it with grease.
(b) Stop the Rotavator and allow the oil to settle before checking the oil level.
(c) Always clean around the area where oil level checks are made on both gearboxes and gear cases to avoid contamination.
(d) Always change oils when they are at operating temperature to ensure removal of any impurities.
(e) Use only oil from reputable manufacturers and never recycled oil.

◈ TROUBLE SHOOTING CHART ◈

In the even of any problem, it is very important to deal with the problem as quickly as possible to avoid further problems.
To assist with this, the following trouble shooting chart deals with a range of items, the symptoms and the way to rectify the problem for anything not covered by this chart, please consult your local dealer.

Problem	Part	Symptom	Cause	Corrective Action
	Spline	Noisy	Lack of Grease	Grease it
PTO Shaft	Universal Joint	Vibration	Not aligned	Align Joint
		Vibration Breakage	Improper Angle	Operate at correct angles and not in the raised position
Gear Box	Gear / Bearing	Noisy	Lack of Oil	Drain, flush and refill
		Broken Gear or Bearing	Lack of Oil or overloading	Replace parts clean and fill with oil
Chain Case	Chain	Chain Failure	Broken master link	Replace link
			Chain Worn out	Replace Chain
		Chain tension device	Overload / Lack of Oil	Replace faulty parts Drain oil
Gear Case	Gear	Gear failure or noise		
Blade Shaft	Blade	Broken	Stony soil / overload	Replace blades work within capacity
	Flange	broken / Distorted	Hit obstacle or severe overload	Replace shaft
All Parts containing oil		Oil leaks	Loose Bolts Faulty gasket Faulty seal Faulty o-ring	Tighten Replace Replace Replace

◈ DEMENSION AND SPECIFICATION ◈

Model	Body(mm)			Weight (kg)	Flange (pcs)	Blade (pcs)	Working Width (mm)	Tractor (HP)
	Length	Width	Height					
WR1250LSG	1450	840	800	285	5	30	1250	25~32
WR1350LSG	1550	840	1050	300	5	30	1350	28~35
WR1450LSG	1650	840	1050	325	6	36	1450	30~38
WR1550LSG	1750	840	1050	350	6	36	1550	34~40
WR1650LSG	1850	950	1050	385	6	36	1650	36~45
WR1750LSG	1950	950	1050	403	7	42	1750	38~45
WR1850LSG	2064	950	1050	415	7	42	1850	40~50
WR2000LSG	2298	950	1050	438	8	48	2000	45~70

◈ ROTAVATOR ADJUSTMENT ◈

Varying the pressure on the rear cover

For all type Rotavator the rear cover can be adjusted to cater for a range of conditions.

(a) For a rough wet field, adjust the springs so the weight of the cover itself gives a smooth even result.

(b) For clean dry land, adjust the springs on the rear cover to level the tilled soil and produce the seed bed required.

(c) For stony conditions or a damp field with large lumps of soil, adjust the downward pressure on the springs and adjust the top link so the rear cover is fractionally above the soil.

(d) To replace Rotavator blades remove the springs and spring nods on the rear cover and raise the cover to its highest point and secure it.
Raise the rotavator with the three point linkage and make sure the PTO is disengaged.
Stop the engine, apply the brakes remove the key and place safety stands under the rotavator.
Replace the blades with genuine WECAN replacement blades ensuring they are fitted in the same way as the originals to ensure balance then remove all stands, lower the rotavator to the ground and replace the spring rods and springs.

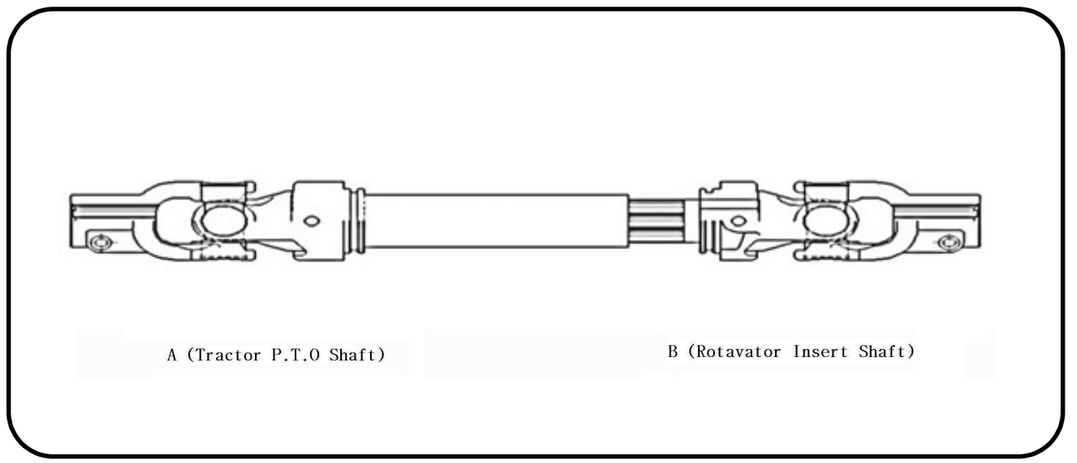
Adjusting the Rotavator Skid plate

(a) The Purpose of the skid plate is to allow operation at the correct depth and to protect gear and bearing cases.

(b) Adjustment Loosen the skid plate retaining bolts and set the skid plate to the correct height, tighten the bolts to an even tension.

※ Make certain that the adjustment is to the same height on both sides

◈ CONNECTING THE PTO SHAFT ◈



1. Ensure that the universal joints at each end of the PTO shaft are in alignment as shown in the drawing.
   If they are not, rectify the problem before attempting to fit the shaft.
   (when universal joints on a PTO shaft are not correctly aligned they will cause severe vibration and prolonged use without correction will destroy the PTO shaft)

2. Fit the PTO shaft to the shaft on the Rotavator and ensure that the quick release button or retaining pin/bolt is secure.

3. Now fit the other universal joint to the tractor PTO outlet and again ensure that the quick release button or retaining pin/bolt is secure.

4. Raise the Rotavator aprox"(10cm) of the ground and adjust the sway chains (or bars) so the Rotavator is central behind the tractor and the tractor PTO shaft and the Rotavator input shaft are as near as possible to being in line.

5. Raise and lower the Rotavator gently with the three point linkage to ensure the sway chains are adjusted correctly for a range of heights.

6. As a final check lower the Rotavator until it is just in the ground and engage the PTO and increase revolutions for 540 rpm PTO speed. Check that there is no vibration then starting the tillage.

7. It is very important that the Rotavator is not operated in the raised position as this will damage the universal joints or the PTO shaft or both. Always stop the PTO before raising the Rotavator.
   (Some modern tractors have an automatic setting on the PTO and it is recommended that this be used where it is fitted)