

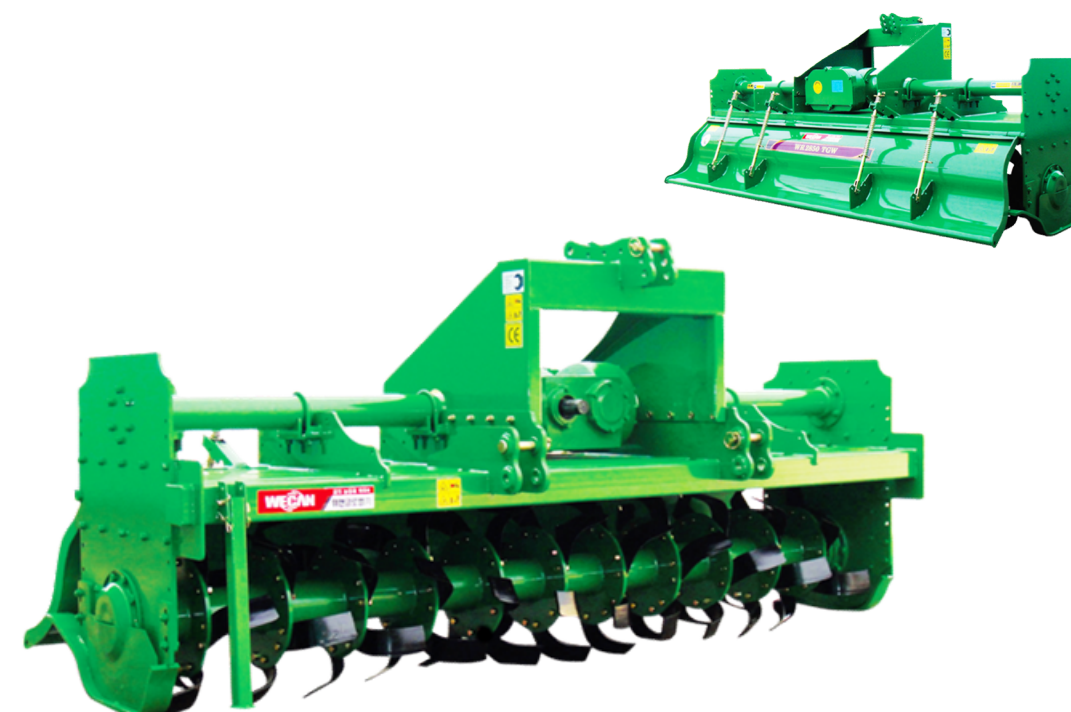


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## MANUAL & PART LIST

*TGW SERIES*



WECAN GLOBAL Co., LTD.

[www.wecan21.com/eng](http://www.wecan21.com/eng)

## ◆ OPERATIONAL SAFETY ◆

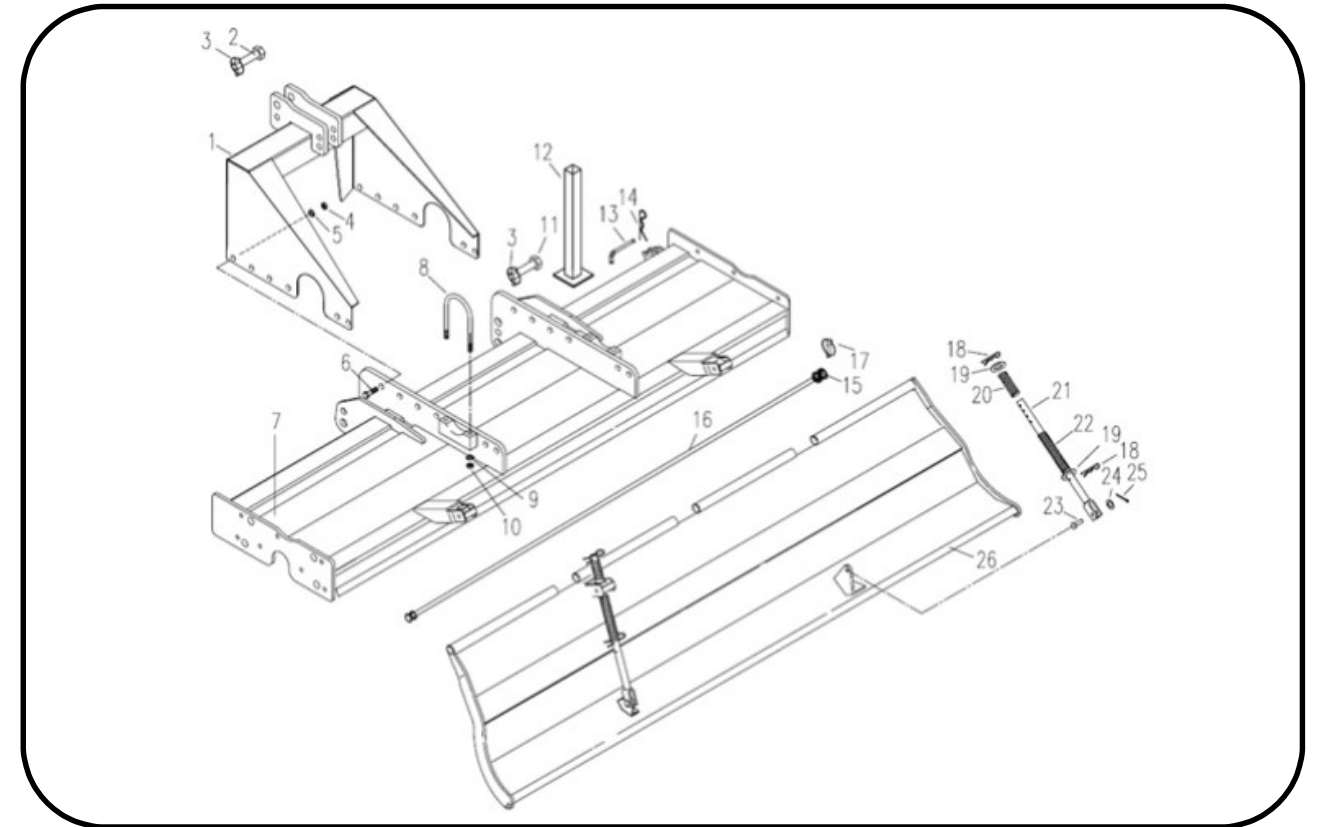
### Before use

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.

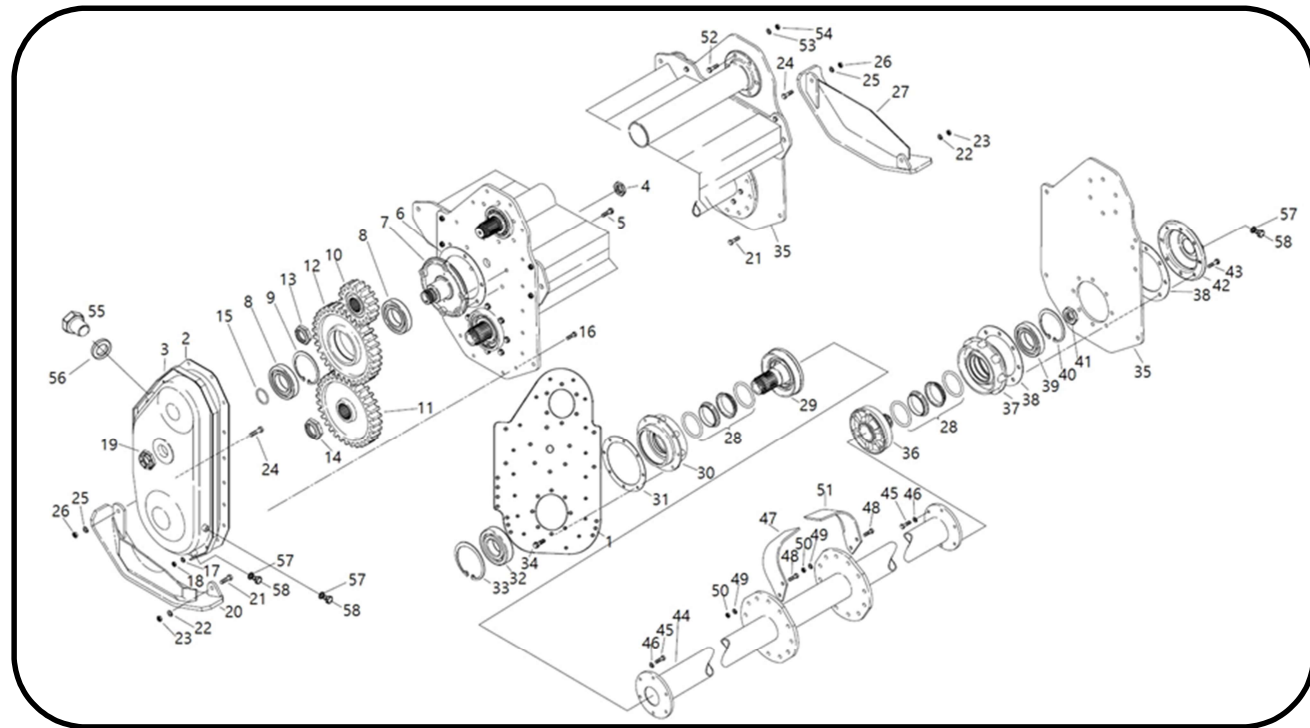
## ◆ TGW PART LIST (Top-cover, Rear-cover Group) ◆



| No. | Part No.   | Part Name      | Spec.         |
|-----|------------|----------------|---------------|
| 1   | A106-801T  | Mast Group     | 800           |
| 2   | B023000240 | Top Link Pin   |               |
| 3   | B023000290 | Category Pin   |               |
| 4   | B051012010 | Fixing Nut     | M12*1.25p     |
| 5   | B071012010 | Washer (SP)    | m12           |
| 6   | B032012070 | Fixing Bolt    | M12*1.25p*35L |
| 7   | WR240-661T | Top Cover      |               |
| 7   | WR260-661T | Top Cover      |               |
| 7   | WR285-661T | Top Cover      |               |
| 7   | WR305-661T | Top Cover      |               |
| 8   | B021014010 | U-Bolt         | M14*1.5P      |
| 9   | B071014010 | Washer         | M14           |
| 10  | B051014010 | Nut            | M14*1.5P      |
| 11  | B023000280 | Lower Link Pin | d28           |
| 12  | A010606250 | Stand          |               |
| 13  | B023000260 | L-Pin          |               |

| No. | Part No.    | Part Name        | Spec. |
|-----|-------------|------------------|-------|
| 14  | B023000350  | Snap Pin (R-pin) |       |
| 15  | B052000300  | Spacer           |       |
| 16  | B029000190  | Rod              | d19   |
| 17  | B023000040  | Fixing Pin       | d8    |
| 18  | B023000350  | Snap Pin         |       |
| 19  | B089000010  | Plain Washer     |       |
| 20  | B061030120  | Spring           |       |
| 21  | A0190103707 | Spring           |       |
| 22  | B061030250  | Spring           |       |
| 23  | B081122810  | Clevis Pin       |       |
| 24  | B083012010  | Washer           |       |
| 25  | B072000130  | Split Pin        |       |
| 26  | WR240-771T  | Rear Cover Group |       |
| 26  | WR260-771T  | Rear Cover Group |       |
| 26  | WR285-771T  | Rear Cover Group |       |
| 26  | WR305-771T  | Rear Cover Group |       |

## ◆ TGW PART LIST (Side Plate & Rotor Shaft Group) ◆



| No. | Part No.   | Part Name          | Spec.        |
|-----|------------|--------------------|--------------|
| 1   | A01900302T | Side Plate L       |              |
| 2   | B03730022T | Gear Case Packing  | 1T           |
| 3   | A01900313T | Gear Case          |              |
| 4   | B032000160 | Lock Nut           | M30*1.5P     |
| 5   | B032012070 | idle shaft bolt    | M12*1.25P*35 |
| 6   | B037200390 | idle shaft packing | 0.8T         |
| 7   | A019105303 | idle gear shaft    |              |
| 8   | B011062130 | Bearing            | #6213        |
| 9   | B077012060 | Snap Ring          | d120         |
| 10  | A01900305T | idle Gear          | 21T          |
| 11  | A01900308T | Gear               | 37T          |
| 12  | A01900310T | idle gear          | 42T          |
| 13  | B022000190 | lock nut           | M45*1.5P     |
| 14  | B022000100 | lock nut           | M50*1.5P     |
| 15  | B088040310 | O-ring             |              |
| 16  | B032010300 | case lock bolt     | M10*1.25P*30 |
| 17  | B071010240 | Spring Washer      | M10          |
| 18  | B051010240 | Nut                | M10          |
| 19  | B022000190 | Hard lock Nut      | M45*1.5P     |
| 20  | A01900616T | Skid L             |              |
| 21  | B032012070 | skid lock bolt     | M12*1.25P*35 |
| 22  | B071012010 | Spring Washer      | M12          |
| 23  | B051012010 | Nut                | M12          |
| 24  | B032012070 | skid lock bolt     | M12*1.25P*35 |
| 25  | B071012010 | Spring Washer      | M12          |
| 26  | B051012010 | Nut                | M12          |
| 27  | A01900621T | Skid R             |              |
| 28  | B031000030 | Group Seal         |              |
| 29  | A01900306T | Rotar Shaft L      |              |
| 30  | A01900307T | Rotar shaft case L |              |
| 31  | B037300310 | Packing            | 0.8t         |

| No. | Part No.   | Part Name            | Spec.        |
|-----|------------|----------------------|--------------|
| 32  | B011063120 | Bearing              | #6312        |
| 33  | B077013040 | Snap Ring            | d130         |
| 34  | B032014006 | Lock Bolt            | M14*1.5P*30  |
| 35  | A01900611T | Side Plate R         | 12t          |
| 36  | A01900401T | Rotar shaft R        |              |
| 37  | A01900307T | Shaft Bearing Case R |              |
| 38  | B037300310 | Packing              | 0.8t         |
| 39  | B011063120 | Bearing              | #6312        |
| 40  | B077013040 | Snap Ring            | d130         |
| 41  | B022000010 | Lock Nut             | M50*1.5P     |
| 42  | A01900403T | Bearing Cover        |              |
| 43  | B032014070 | Lock Bolt            | M14*1.5P*35  |
| 44  | WR240-551T | Rotary shaft         |              |
| 44  | WR260-551T | Rotary shaft         |              |
| 44  | WR285-551T | Rotary shaft         |              |
| 44  | WR305-551T | Rotary shaft         |              |
| 45  | B071016001 | Spring Washer        | M16          |
| 46  | B032016006 | Lock Bolt            | M16*1.5P*30L |
| 47  | B062080570 | Blade R              |              |
| 48  | B032014007 | Blade Lock Bolt      | M14*1.5P*35L |
| 49  | B071014010 | Spring Washer        | M14          |
| 50  | B051014002 | Lock Nut             | M14*1.5P     |
| 51  | B062080580 | Blade L              |              |
| 52  | B032012070 | Sideplate Lock Bolt  | M12*1.25P*35 |
| 53  | B071012010 | Spring Washer        | M12          |
| 54  | B051012010 | Nut                  | M12.*1.25P   |
| 55  | B051000700 | Oil Seal             | M20*1.5PF    |
| 56  | B081000020 | Seal washer          | M20          |
| 57  | B081000014 | Seal washer          | M14          |
| 58  | B031001401 | Plug Bolt            | M14*1.5PF    |

- 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.
- 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.
- 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

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

- 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.
- 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.
- 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

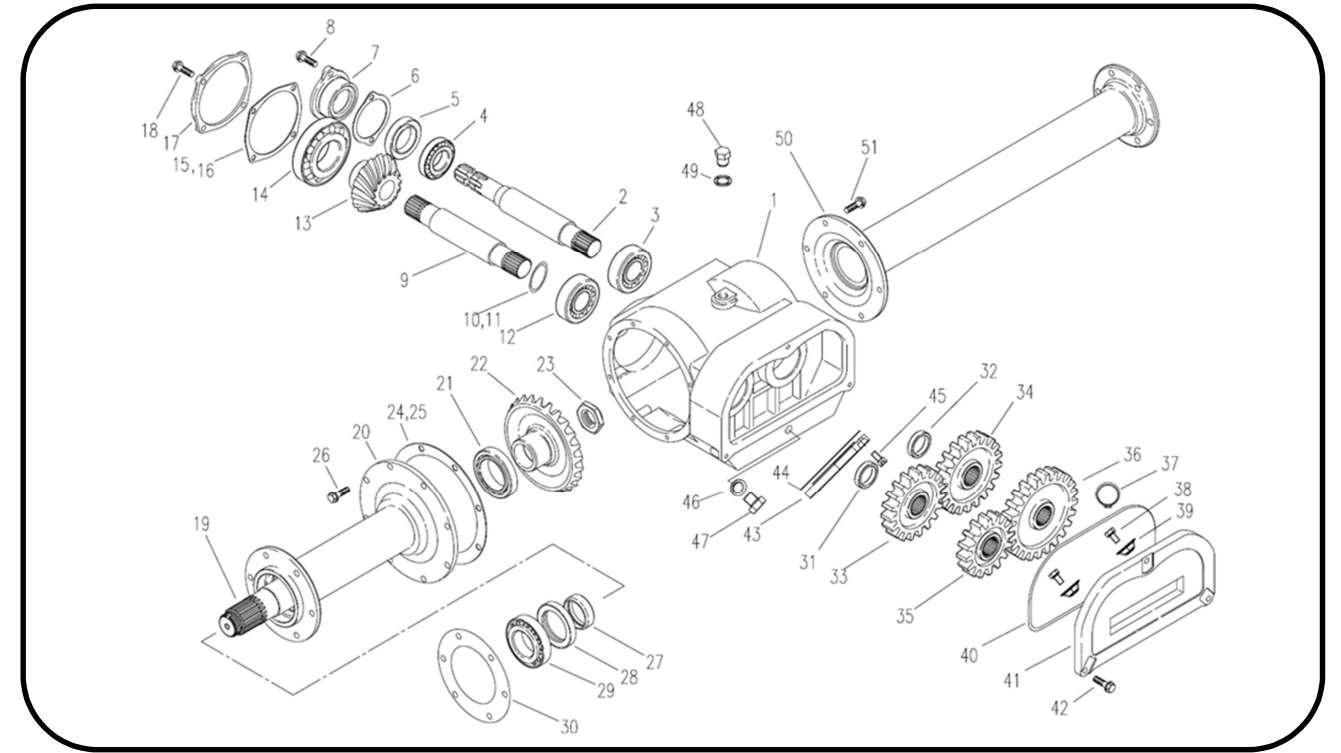


Keep away from rotating parts while in operation.



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

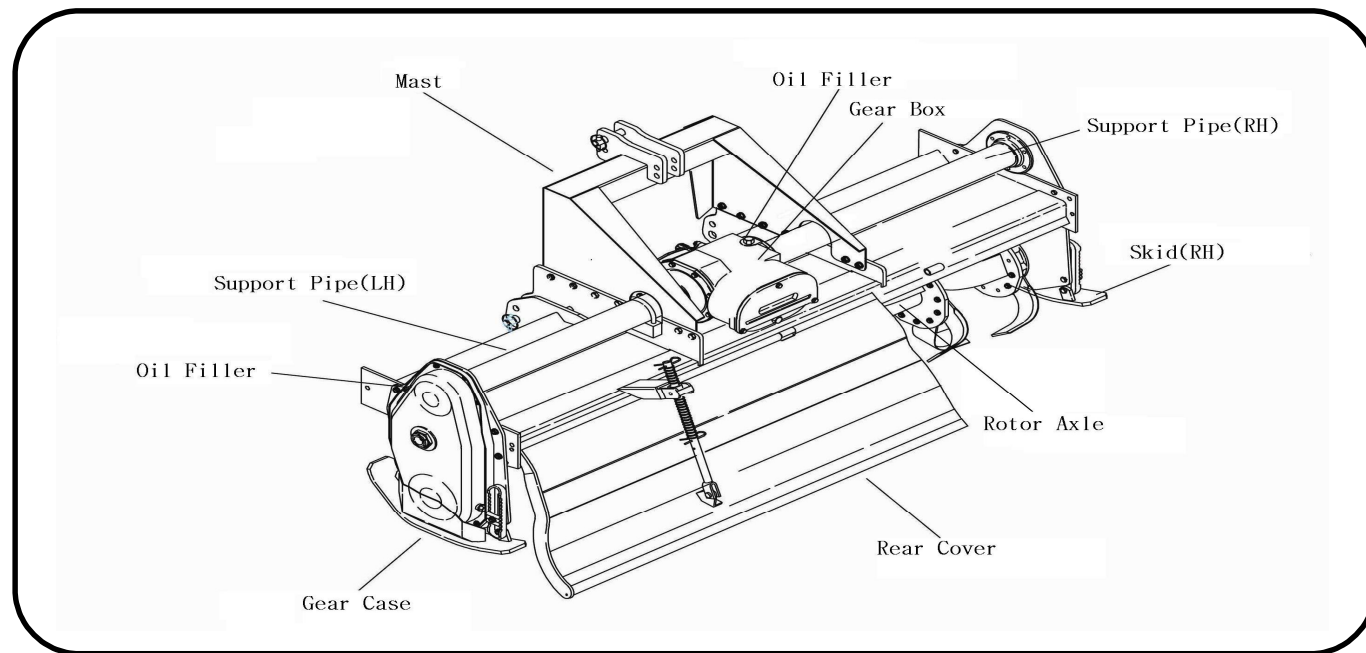
## ◆ TGW PART LIST (Gear Box Group) ◆



| No. | Part No.    | Part Name      | Spec.        |
|-----|-------------|----------------|--------------|
| 1   | A0190001011 | Gear Box       |              |
| 2   | A0190001051 | input shaft    |              |
| 3   | B0120303101 | bearing        | #30310JR     |
| 4   | B0120030311 | bearing        | #33211JR     |
| 5   | B0310456812 | oil seal       | TC456812     |
| 6   | B0370120081 | packing        | 0.8t         |
| 7   | A0190001031 | shaft cover    |              |
| 8   | B0320100302 | lock bolt      | M10*1.25P*30 |
| 9   | A0190001061 | pinion shaft   |              |
| 10  | B0430014041 |                | 0.4t         |
| 11  | B0430015051 |                | 0.5t         |
| 12  | B0120303101 | bearing        | #30310JR     |
| 13  | A0190111014 | pinion gear    | 14t          |
| 14  | B0120322151 | bearing        | #32215JR     |
| 15  | B0370012108 | packing        | 0.8t         |
| 16  | B0370012205 | packing        | 0.5t         |
| 17  | A0190010401 | pinion cover   |              |
| 18  | B0320100306 | lock bolt      | M10*1.25P*30 |
| 19  | A0190240251 | Drive Shaft    |              |
| 19  | A0190260251 | Drive Shaft    |              |
| 19  | A0190285251 | Drive Shaft    |              |
| 19  | A0190305251 | Drive Shaft    |              |
| 20  | A0190240253 | Support pipe L |              |
| 20  | A0190260253 | Support pipe L |              |
| 20  | A0190285253 | Support pipe L |              |
| 20  | A0190305253 | Support pipe L |              |
| 21  | B0120320131 | bearing        | #32013JR     |
| 22  | A0190112261 | bevel gear     | 26T          |
| 23  | B0200402501 | lock nut       |              |
| 24  | B0370122051 | packing        | 0.5t         |

| No. | Part No.    | Part Name      | Spec.         |
|-----|-------------|----------------|---------------|
| 25  | B0370123081 | packing        | 0.8t          |
| 26  | B0320100308 | lock bolt      | M10*1.25P*30  |
| 27  | B0410901301 | color          |               |
| 28  | B0310901301 | oil sear       | TC659013      |
| 29  | B0120322110 | bearing        | #32211        |
| 30  | B0370012008 | packing        | 0.8t          |
| 31  | B0410801001 | spacer         |               |
| 32  | B0410801001 | spacer         |               |
| 33  | A0190109019 | Change Gear    | 19T           |
| 34  | A0190011021 | Change Gear    | 21T           |
| 35  | A0190107016 | Change Gear    | 16T           |
| 36  | A0190106024 | Change Gear    | 24T           |
| 37  | B0770050010 | Snap ring      |               |
| 38  | B0320010202 | lock bolt      | M10*1.25P*20  |
| 39  | A0410007801 | lock washer    |               |
| 40  | B0370001320 | packing        |               |
| 41  | A0170010020 | rear cover     |               |
| 42  | B0320010030 | lock bolt      | M10*1.25P*30  |
| 43  | A0170010410 | rear cover     |               |
| 44  | A0170101221 | packing        |               |
| 45  | B0330010020 | rench bolt     | M10*1.25P*20L |
| 46  | B0810020001 | seal washer    | d20           |
| 47  | B0510020008 | bolt           | M20*1.5       |
| 48  | B0510020007 | bolt           | M20*1.5       |
| 49  | B0810020001 | seal washer    | d20           |
| 50  | A0190240258 | support pipe R |               |
| 50  | A0190260258 | support pipe R |               |
| 50  | A0190285258 | support pipe R |               |
| 50  | A0190305258 | support pipe R |               |
| 51  | B0320010030 | bolt           | M10*1.25P*30L |

## ◆ THE STRUCTURE OF ROTAVATOR ◆



## ◆ CHECKING OIL ◆

| Type | Checking Part      | Capacity | Lubricant          | Checking Frequency |         |          |          | Method                                                                                |
|------|--------------------|----------|--------------------|--------------------|---------|----------|----------|---------------------------------------------------------------------------------------|
|      |                    |          |                    | Daily              | 50Hours | 100Hours | 200Hours |                                                                                       |
| TGW  | Gear Box           | 7.5L     | Gear Oil<br>SAE 90 |                    |         |          |          | Supplement and change the oil after checking the optimum and viscosity with oil gauge |
|      | Gear Case          | 4.7L     |                    |                    | △       |          | ○        |                                                                                       |
|      | Bearing Case Cover | 0.42L    |                    |                    |         |          |          |                                                                                       |

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

- Always use the recommended oil and do not replace it with grease.
- Stop the Rotavator and allow the oil to settle before checking the oil level.
- Always clean around the area where oil level checks are made on both gearboxes and gear cases to avoid contamination.
- Always change oils when they are at operating temperature to ensure removal of any impurities.
- 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<br>Faulty gasket<br>Faulty seal<br>Faulty o-ring | Tighten<br>Replace<br>Replace<br>Replace                 |

## ◆ *DEMENSION AND SPECIFICATION* ◆

| Model      | Body(mm) |       |        | Weight<br>(kg) | Flange<br>(pcs) | Blade<br>(pcs) | Working Width<br>(mm) | Tractor (HP) |
|------------|----------|-------|--------|----------------|-----------------|----------------|-----------------------|--------------|
|            | Length   | Width | Height |                |                 |                |                       |              |
| WR2600 TGW | 2670     | 1221  | 1387   | 930            | 10              | 60             | 2600                  | 115~125      |
| WR2850 TGW | 2950     | 1221  | 1387   | 1130           | 11              | 66             | 2850                  | 125~150      |
| WR3050 TGW | 3290     | 1221  | 1387   | 1330           | 12              | 72             | 3050                  | 130~250      |

## ◆ *CHANGE ROTAVATOR SPEED* ◆

Disengage the PTO and lower the Rotavator on the ground.

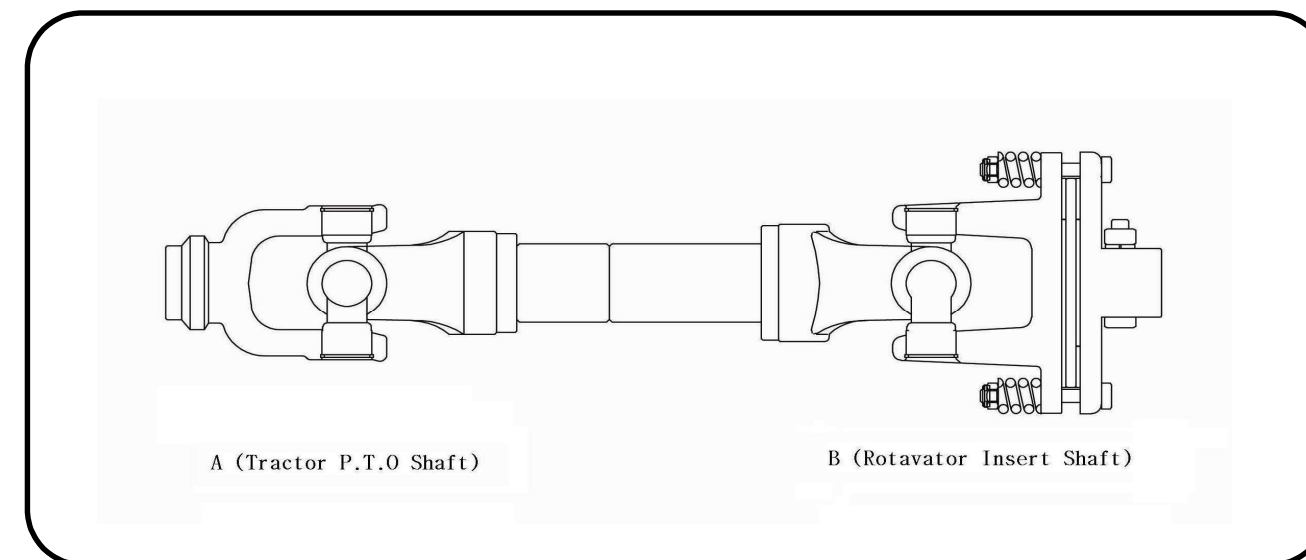
Before doing any mechanical work ensure that the outside of the gearbox is perfectly clean and dry to avoid any contamination of moving parts.

- Drain the oil from the gearbox in a clean container.
- Avoid contamination of the oil by covering the container.
- Remove all nuts from the gearbox side cover and remove the cover.  
(ensure that the gears do not fall on the ground)
- Change the gears to the ratio required.
- Wipe the inside of the gearbox side plate and the edge of the gearbox to ensure that the join is perfectly clean.
- Place a light coating of the grease on the mating surface of the gearbox to ensure that the join is perfectly clean.
- Refill the gearbox with oil to the correct level and work the rotavator for a short time and then check that there are no oil leaks.

**Gear Box Chart (\*Default)**

| Speed | Change Gear  |             | Ratio      | Rotavator Speed@ 540 PTO rpm |
|-------|--------------|-------------|------------|------------------------------|
|       | Pinion Shaft | Input Shaft |            |                              |
| 1 st  | 24 T         | 16 T        | 1 : 0.1907 | 110RPM                       |
| 2 nd  | 21 T         | 19 T        | 1 : 0.2588 | 149RPM                       |
| *3 rd | 19 T         | 21 T        | 1 : 0.3161 | 1182RPM                      |
| 4 th  | 16 T         | 24 T        | 1 : 0.4290 | 248PM                        |

## ◆ *CONNECTING THE PTO SHAFT* ◆



- 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)
- Fit the PTO shaft to the shaft on the Rotavator and ensure that the quick release button or retaining pin/bolt is secure.
- 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.
- 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.
- Raise and lower the Rotavator gently with the three point linkage to ensure the sway chains are adjusted correctly for a range of heights.
- 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.
- 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)