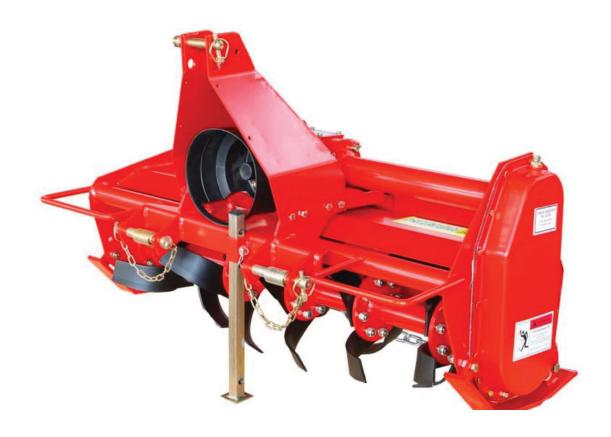


### 21 Plummers Point Road, Tauranga



## **Rotary Hoe**

Models: TL105, TL135

# Operator's Manual

### Technical parameters

Model	TL85	TL95	TL105	TL115	TL125	TL135
Working Width(cm)	85	95	105	115	125	135
Blades shaft speed (rpm)	210	210	210	210	210	210
Number of blades	16	16	20	24	28	28
Tilling depth (cm)	8-12	8-12	8-12	8-12	8-12	8-12
Fitted power	18	20	22	22-25	25-30	30-35
Net weight (kg)	120	128	138	148	158	168
Gross weight (kg)	152	160	172	182	192	202

#### HAND-OPERATING MILLING CUTTERS

Seeing this symbol means possible danger to you, so please pay enough attention to this symbol.

#### SAFETY & PREVENTIVE STEPS FOR ACCIDENT

During operation, you should always remind yourself to be careful to maintain and replace parts and to obey rules to avoid accident.

To operate the machine in a better way, please follow safety rules including these:



(1) Stop tractor, waiting all moving parts to stop. Stop the machine vertically on ground. Lift universal shaft and then begin adjusting, washing or maintenance.



(2) Before using, adjust the elasticity of nuts and bolts, especially adjust blade well.



- (3) After operation is finished, cardan shaft should still get care and kept in good condition. Replace the old one if necessary.
- (4) Before and during operation, all people must leave the field, because some small clod can be cashed out.



- (5) Choose the tractors with protective booth if you can.
- (6) Don't let machine operate without human control.



- (7) When you maintain, repair or keep the key of tractor, keep the machine from moving forward.
- (8) Don't wear tights to avoid being rolled. Wear glove when cutting parts.
- (9) Don't let anybody seat on implements and tractor.
- (10) Cardan shaft should always be kept in good condition. Fit a small chain to make it easy for stopping rotation. Once default or abrasion is found, the part should be replaced.

To get part under guarantee, use original parts and follow the instructions well.

#### IV OPERATION & TRAVEL

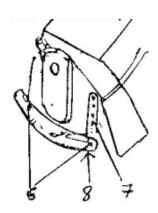


- 1. Before using, looks though Operation Manual. Keep center bonnet and side cover level and fill with EP80W90 engine oil.
- 2. After 30 work hours, screw out plug and bread out bonnets and engine cases before a second operation. Control oil level with meter and break out again after 200 work hours.
- 3. Before operation, tractor should have the right output power of 540rpm to avoid damaging machine.
- 4. Operation speed is better to be 1.2-1.5 km/h.

#### V TENSILITY OF CHAIN

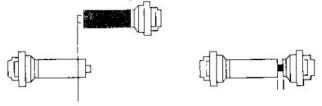
1. Tensility of chain is caused by elasticity inside bonnet. If the machine has noise or works for successive 200 hours, adjust elasticity and chain.

- Adjust parts and components in special workshop. Install bonnet with new fastening. This maintenance can keep chain and machine bolts in good condition.
- 2. Adjust operation depth. Stop engine of tractor. After the parts and components stop working, loose bolt(6), screw down bolt(7), adjust left and right braking blocks of adjuster(8), and tighten loosen bolts for a proper height.



#### VI TRANSMISSION

1. When milling cutter is fixed on tractor, adjust length of cardan shaft. If it is so long that it cuts the outside protective device, file the bushing short. In a working positing, bushing should be inset into the other bushing at least 150mmm (see the picture).



When cutting tool is fixed on tractor, it should get some adjustment.

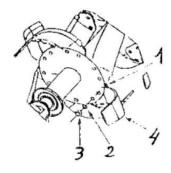
- 2. Adjust and install transmission gear (cardan shaft) in special workshop. If there is damage on protective gear, replace it completely. Generally, a chain should be fitted on protective device not only under working condition.
- 3. When an implement is fitted on tractor, always use pins to lock the crankshaft. If pins go wrong, replace them.
- 4. When implements are locked on tractor, cardan shaft should be fixed and

lock on both ends through pins. The protective device of cardan should be in good condition and kept still during machine running. When safety device is damaged. For safety, use a small chain that is ready to replace it.

5. When machine stops work, let tractor come away from hook. To avoid stopping on the ground, an extra chain of cardan shaft can be used. When fix cardan shaft, make sure it is locked up.

#### VII CUTTING TOOL REPLACING

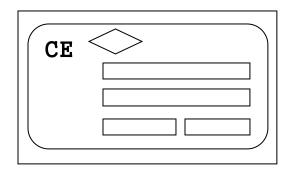
- 1. Before changing operation of the implement, stop engine of tractor, and after all moving parts and components stops, disconnect cardan shaft with force.
- 2. Stop the implement on a plain ground and do as the following: screw down all the bolts(1), replace used or damaged cutting tools, install left and right(4) carefully, tighten bolts(1) with shim(2) and nut (3), and tighten bolt(1).



3. For good performance of implement, use original cutting tools only.

#### IX INFORMATION SYMBOLS

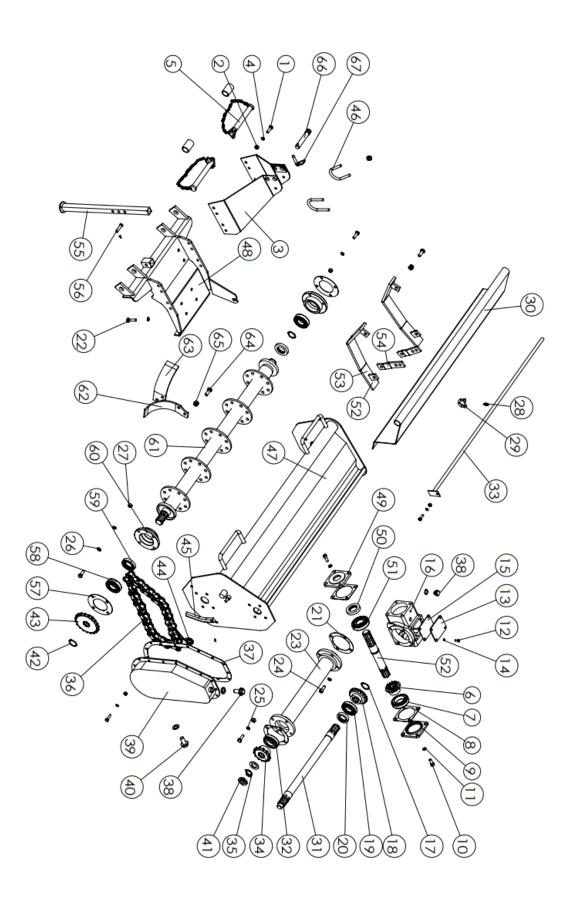
- 1. Label No. 1 means the model.
- 2. To transport easily, machine can be delivered without engine oil.



3. Read Operation Instruction carefully before using.



- 4. Output power is 540rpm.
- 5. Pay attention to the small clods casted out. Frequent inspection for the working parts and components is necessary.
- 6. Don't interfere the working machine by compelling and keep yourself away from it.



Ser. No.	Name	Qty	Ser. No	Name	Qty
1	Bolts	8	35	Stop washer	1
2	Nuts	8	36	Chain	1
3	Shield protective cover	1	37	Oil seal ring	1
4	Washer	8	38	Oil filler plug	1
5	Lower suspension pin	2	39	Side chain gear box	1
6	Small bevel gear	1	40	Oil drain plug	1
7	Bearing	1	41	Circular nut	1
8	Oil seal ring	2	42	Circlip	1
9	Сар	1	43	Big sprocket wheel	1
10	Bolts	8	44	Spring	1
11	Washer	8	45	Tension plate	1
12	Bolts	4	46	U-bolts	2
13	Сар	1	47	Main frame pipe	1
14	Washer	4	48	Foot pedal	1
15	Oil seal ring	1	49	Сар	1
16	Intermediate gearbox	1	50	Oil seal	1
17	Circlip	1	51	Bearing	1
18	Big bevel gear	1	52	First shaft	1
19	Bearing	1	53	Anti-friction plate	2
20	Oil seal	1	54	Connection plate	2
21	Oil seal ring	2	55	Stay bar	1
22	Bolts	4	56	Pin	1
23	Main frame pipe	1	57	Oil seal ring	2
24	Bolts	8	58	Bearing	2
25	Washer	8	59	Oil seal	2
26	Washer	8	60	Bearing seat	2
27	Nut		61	Blades shaft	1
28	Chain	1	62	Left-bent blade	
29	Hook	1	63	Right-bent blade	
30	Tail plate	1	64	Blades bolt	
31	2 <sup>nd</sup> shaft	1	65	Blades nut	
32	Bearing	1	66	Upper suspension pin	1
33	Rod	1	67	Spring lock pin	1
34	Small sprocket wheel	1	68		