



Owner Manual

Rotovator
G-FTL Series



IMPORTANT: Read all instructions before using this attachment

Congratulations on the purchase of your new attachment!

Before you get started, we have provided a helpful space to jot down a few important details:

Model number: G-FTL085/G-FTL105/G-FTL125/G-FTL155

Serial number:

Date of purchase:

Factory reference: FTL85/FTL105/FTL125/FTL155

This manual should be considered a permanent part of this attachment and therefore should remain with it even if the attachment is subsequently sold.

The manufacturer continually seeks advancements in its product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your attachment and this manual.

If you have any questions concerning this manual, please consult your local dealer.

Safety Information

Before installation/maintenance, ensure tractor and attachment are stationary with the hydraulic lift system in a neutral position, and the ignition key removed. Read and understand this manual fully before operating machinery. Failure to follow all safety standards can result in severe injury or death.

1. Regularly check condition of/service both tractor and attachment.
2. Regularly check/tighten all bolts, nuts and screws.
3. Never consume alcohol/drugs while operating machinery.
4. This attachment is for use with compact tractors only, within the power range specified, and at the recommended speed at all times.
5. Always keep the PTO output from the tractor at 540 rpm. Reduce the speed when working on hillsides/rough terrain.
6. Only use for the indicated purpose. Do not use to transport personnel or livestock.
7. Always wear protective gloves, ear and eye protection and tie back long hair. Do not wear loose clothing.
8. Always check the immediate area is clear before operating.
9. Keep spectators at a safe distance.
10. Do not run the engine in an enclosed area.
11. Do not leave the machine unattended while operating.
12. Do not touch moving parts.
13. Stop the engine if excessive vibration occurs.
14. When travelling, keep the PTO turned off.
15. Ensure the engine is switched off before any maintenance. Be aware components can be hot after operation.
16. Pay attention to any sharp/pointed parts when servicing.
17. Always repair/replace any defective parts.
18. Do not modify the attachment in any way as this may impair the operation and overall safety.
19. Ensure all safety guards are in place and in good condition.
20. Keep all safety signs clean and legible. Replace missing/illegible signs.

Safety Information (continued)

Attachment Pre-use Checks

Upon receipt of your new attachment and again within the first 4 hours of use (the 'shake in' period), we recommend the following:

1. Check/tighten all bolts, nuts and screws (and those securing blades).
2. Check the tension of any belt(s), and adjust if required.
3. Apply grease to grease points if required.
4. Check gear oil level, top-up if required but do not overfill.

Be aware components can be hot after operation.

Tractor Pre-use Checks

1. Check the attachment is properly attached to the tractor. Ensure secure pins are used on the linkage mounting pins.
2. Add extra weights to the front of the tractor (or wheel weights) if required.
3. Check the tractor PTO turns freely, and the attachment's PTO drive shaft can extend sufficiently. Apply grease to the PTO drive shaft.
4. Frequently check the condition of the chain on the PTO drive shaft. Keep all universal joints and protective parts in a good condition.
5. Before installing, the tractor and attachment should be stationary, remove the key from the ignition.
6. Install and secure all safety guards, doors and covers before operating.
7. Bystanders should leave the immediate area before connecting the drive from the tractor.

Post-use Regular Checks

1. Check blades, belts and wearing parts. Ensure they are not damaged and blades are secure in their mounts. Repair or replace as required.
2. Clean the attachment, and check for/clear any entangled material around any moving parts.



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Specifications

The Rotovator G-FTL model is ideal for maintaining allotments and vegetable gardens. The blades cultivate and break up soil to aid planting.

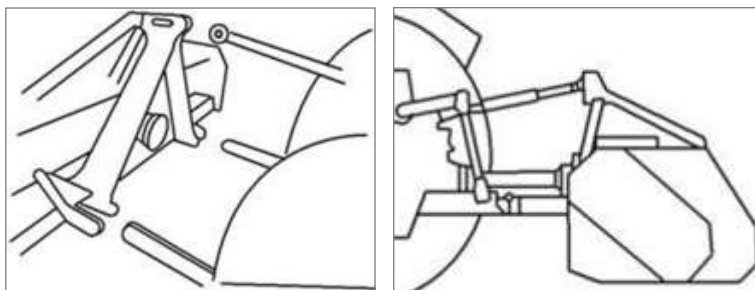
The G-FTL height is controlled by adjustable skids to 9cm. The blades are driven by a chain. Fitted with strong safety flaps to prevent debris being thrown and a support leg for storage. Fitted with an automatic chain tensioner. Housed in a sealed oil bath, the chain tensioner is simple and maintenance free.

Model	Width (cm)	Depth (cm)	Height (cm)	Working Width (cm)	No. of Blades		
G-FTL85	100	60	85	85	16	12-20 HP	155
G-FTL105	120	60	85	105	20	15-22 HP	195
G-FTL125	140	60	85	125	28	20-30	210
G-FTL155	170	60	85	155	32	25-40	295

Installation Overview

Before installation/maintenance, the tractor and attachment should be stationary with the hydraulic lift system in a neutral position and the ignition key removed.

On a flat area of ground lower the three point linkage on the tractor to its lowest position. Attach the attachment to the tractor using the three point linkage pins and lynch pins:



1. With the attachment on the ground, adjust the length of the top link arm so that the attachment is level.
2. Check the clearance between the attachment skids and the blades for the tilling depth.
3. Raise the tilling depth for drier patches of ground or heavier soil types. To do this, raise the tractor's hydraulic lift arms and adjust the skids on the attachment to increase the blade tilling depth. A lower pass can be made when the top layer of soil is broken up.
4. The working speed of the attachment should be at a walking pace of 1 to 4 mph. Heavier soil should be cultivated at a slow pace for the best finish and to avoid any damage to the attachment.
5. Lubricate all grease points including PTO drive shaft. Attach the PTO drive shaft and ensure locking pin is secure on both the tractor and attachment sides. Attach the chain to a secure point on the tractor/attachment.
6. Ensure all safety guards are in place. **Always replace worn or damaged PTO drive shafts.** Operate the attachment with tractor in a low gear range, keep the PTO output from the tractor at 540 rpm.

Installation Overview (Continued)

- Check the tractor's 3-point hydraulic lift system. It should operate up and down smoothly and hold its position when set.
- The tractor should be equipped with stabiliser bars, and adjustable sway chains or sway blocks to keep the attachment from swinging side to side.
- Small tractors may require front counter weights to counter-balance the weight of the attachment. We recommend the tractor has a Rollover Protection System (ROPS) and a seat belt is used.

Operating Advice

1. Take extreme care when travelling, slow down on turns and watch out for uneven land. Always reduce speed on slopes/corners to avoid tipping.
2. Check the soil type and moisture level. If the ground is too dry, the blades will struggle to cut in, and if too wet the soil will 'ball up' in the rotor and blades. Typically, sandy soils can be worked better than heavy clay or loam soil types.
3. Before starting any work, check for/remove any obstructions such as buried pipes, rocks and stumps.
4. Set correct working depth, check the drive chain, belts and blade condition and the tightness of all bolts, nuts and screws.
5. Check the oil level in the gearbox and chain case.
6. **Begin by slowly easing the rotovator into the soil:** Lower the rotovator so the blades are just off the ground, then start the PTO drive from the tractor, slowly increasing to 540 rpm to engage the blades. Lower the linkage slowly, to allow the blades to cut into the soil. Move forward in a low gear, and increase speed to suit the ground conditions. If the tractor/attachment appears to struggle, slow the speed.
7. We recommend using two passes when tilling hard or compacted soils. For consistency and to minimise compaction, make a second pass at an angle to the first.
8. Use the rear flap to maintain a level seedbed. Adjust the angle of the flap if necessary using the chain and brackets.

Set Working Depth

Before installation/maintenance, the tractor and attachment should be stationary with the hydraulic lift system in a neutral position and the ignition key removed.

Skid Adjustment:

Raise the tilling depth for drier patches of ground or heavier soil types. To do this, raise the tractor's hydraulic lift arms and adjust the skids on the attachment to increase the blade tilling depth. A lower pass can be made when the top layer of soil is broken up.

Ensure the attachment is raised slightly off the ground, but stable and secure when adjusting the skids.



1. Loosen and remove bolt and nut **(1)** on the skids on both sides of the attachment.
2. Move the skids up or down to the desired height.
3. Align the hole on the body with the silver adjuster hole.
4. Re-insert and tighten bolt and nut **(1)**.

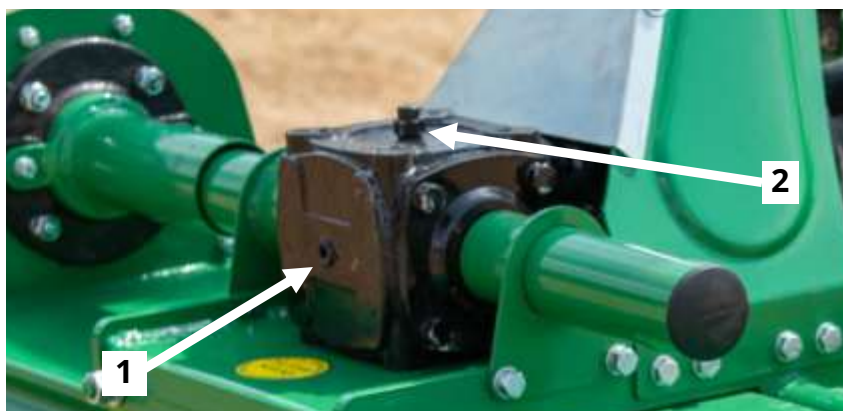
Gearbox Maintenance

Before installation/maintenance, the tractor and attachment should be stationary with the ignition key removed. Follow labels on any oil and grease, always dispose of oils as instructed.

Gear Oil Grade	80w90 gear oil for all conditions (or equivalent)
Gearbox Oil Level	Approx. 0.5 litres to level plug
First Oil Change	50 hours use
Oil Change Frequency	250 hours/yearly (whichever is first)

Gearbox Oil Level

Check oil level when the unit is cold and the machine is level. The gear oil should be up to the level plug on the side of the gearbox. Avoid over filling as this may cause excess pressure and oil leaks.



Remove level plug (1) and filler/breather plug (2). The oil level should reach level plug (1). Top-up the oil through (2) if required. Avoid over filling as this may cause excess pressure and oil leaks. Replace and tighten both plugs, do not over tighten filler/breather (2) as this may cause a pressure build-up in the gearbox).

Oil Change #1	Oil Change #2	Oil Change #3	Oil Change #4	Oil Change #5	Oil Change #6
/ /	/ /	/ /	/ /	/ /	/ /

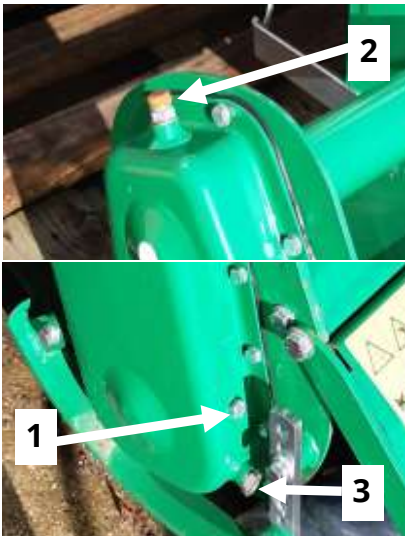
Chain Case Oil

Before installation/maintenance, the tractor and attachment should be stationary with the ignition key removed. Follow labels on any oil and grease, always dispose of oils as instructed.

Chain Case Oil Grade	SAE 140 gear oil for all conditions (or equivalent)
Chain Case Oil Level	Approx. 1 litre max
First Oil Change	50 hours use
Oil Change Frequency	250 hours/yearly (whichever is first)

Chain Oil Level

Check oil level when the unit is cold & the machine is level. The oil should be enough to just submerge the chain within the chain guard. Avoid over filling as this may cause excess pressure and oil leaks. Avoid over tightening the filler/breather plug.



Remove level plug from the lower side of the chain guard (1). Remove the filler/breather on top of the chain guard section (2). The oil level should reach level plug (1). Top-up the oil through (2) if required.

Replace and tighten both plugs (do not over tighten as this may cause a pressure build-up in the chain guard). Remove drain plug (3) when draining/replacing oil.

Oil Change #1	Oil Change #2	Oil Change #3	Oil Change #4	Oil Change #5	Oil Change #6
/ /	/ /	/ /	/ /	/ /	/ /

Servicing & Maintenance

Before installation/maintenance, the tractor and attachment should be stationary with the ignition key removed. Follow labels on any oil and grease, always dispose of oils as instructed.

Greasing & Lubrication:

Use a clean cloth to wipe grease nipples before greasing to avoid injecting any dirt. Press grease into each nipple 3-5 times. For best results use a hand-held grease gun. If nipples will not take the grease, remove and clean thoroughly. Replace or repair any broken grease points immediately. **Store all lubricants away from excessive heat, dust, moisture and contaminants.**

Grease Type:	Multi-purpose lithium based grease (EP1 or EP2 recommended)
Grease Frequency:	Check every 4-8 hours (top-up if required)
Grease Points:	Bearings on the blade rotor x 1 quantity
	PTO drive shaft x 2 quantity

Regularly check the condition of **blades**, wear gloves and take care when handling. Replace blades if worn/broken and ensure they are balanced to avoid excessive vibration.

Check the **bearings** on the blade rotor. If the oil seals are damaged, debris may enter the bearings. Clean and replace with new bearings if required. Run the rotovator without a load for 3-5 minutes to check bearings are operating smoothly.

Check the condition of **PTO drive shaft**, immediately replace if worn or damaged. Check the condition of the side **skids**, replace if worn.

Regularly check oil levels and top-up/replace when required.

Ensure the deck is clean, remove any debris from moving parts. Do not spray water on bearings if cleaning with a high-pressure washer.

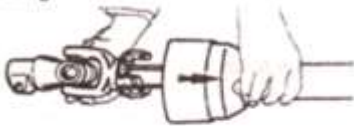
Re-paint any damaged paintwork to prevent corrosion. Store the rotovator in a dry, level area. Support the frame if necessary.

Attaching & Resizing PTO Shaft

Before installation/maintenance, the tractor and attachment should be stationary with the ignition key removed. Ensure all safety guards are in place and cover the PTO shaft when extended, ensure the sprung locking collar slides freely and is securely in the groove on the PTO. Always replace worn/damaged PTO shafts.

Most PTO driven attachments are supplied with a standard size PTO shaft which often requires resizing. Firstly, attach the rotovator to the tractor without the PTO shaft, then raise the linkage so the PTO shaft is level/horizontal. Measure the length between the tractor PTO and the rotovator's shaft. If the compressed (closed) PTO shaft length exceeds the one measured here then the driveline will need to be cut.

1. PTO length adjustment, first remove PTO shaft shielding.



2. Shorten the driveline tubes to proper equal lengths.



3. Tidy edges of the drive tube with a file and clean all fillings from the tubes.



4. Shorten the equally long guard tubes to the same length as the driveline tubes.



5. Grease the internal driveline tube.



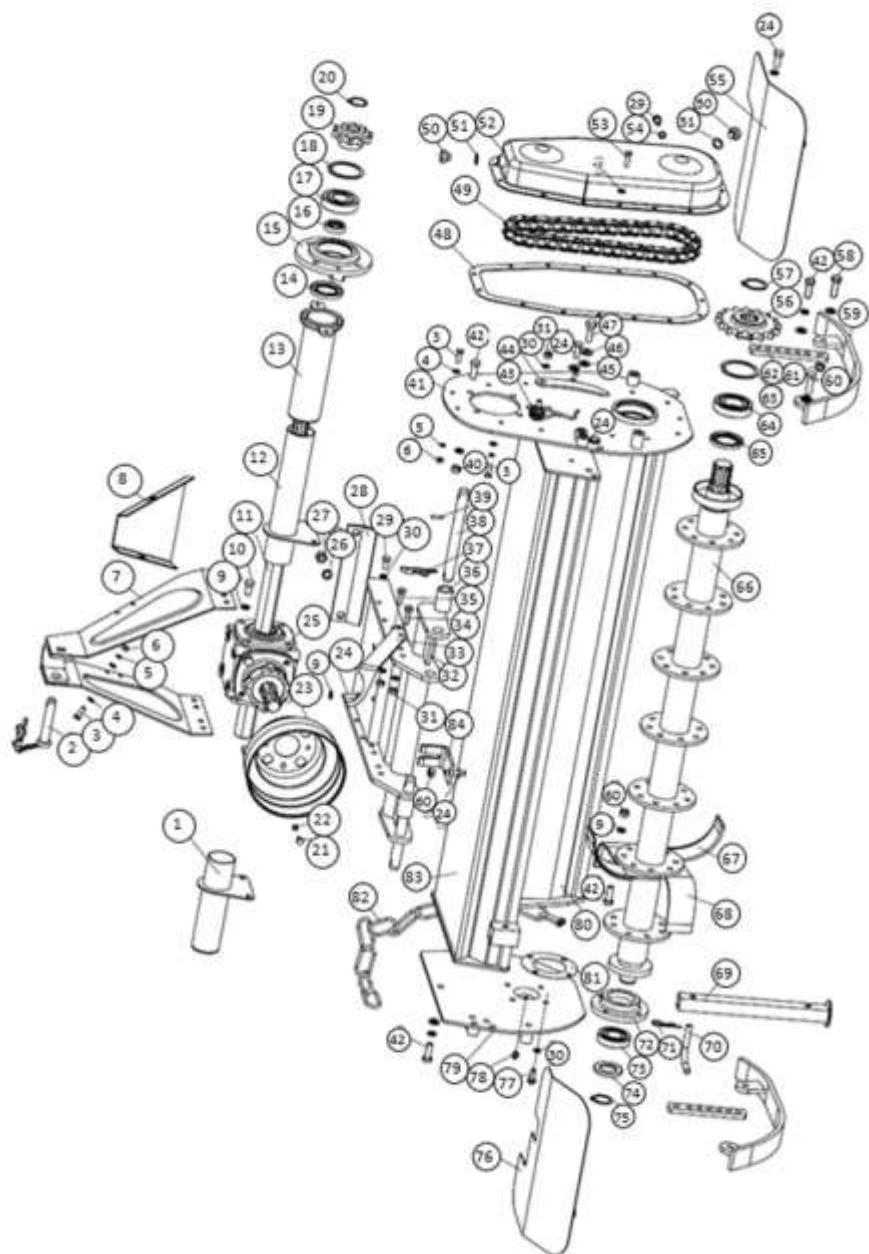
6. Fit the guard on the shaft.



7. Make sure that the length allows for at least 16cm (6 inches) of overlap or 1/3 of the length.



Parts Diagram 1



Parts List for Diagram 1

Dia. No	Ref No	Part No	Part Description	Qty
1	803400077	FTL.125.018	Shaft protection pipe (R)	1
2	803440016	EF100.00.019	Top link pin	1
3	501011100	GB5783-M8X25	Bolt M8x25	17
4	506010055	GB97.1-8	Plain washer 8	23
5	506030035	GB93-8	Spring washer 8	23
6	503010045	GB6170-M8	Nut M8	17
7	803400032	FTL.125.014	Side A Frame weldment	1
8	703340184	1GQ-125.11.110	Rear A Frame protection plate	1
9	506030037	GB93-12	Spring washer 12	93
10	501011125	GB5783-M12X25	Bolt M12x25	12
11	703360193	FTL.85.130	Drive shaft 85	1
	703380194	FTL.105.130	Drive shaft 105	1
	703400195	FTL.125.130	Drive shaft 125	1
	703430196	FTL.155.130	Drive shaft 155	1
12	803360081	FTL.85.019	Shaft protection pipe (L) 85	1
	803380082	FTL.105.019	Shaft protection pipe (L) 105	1
	803400083	FTL.125.019	Shaft protection pipe (L) 125	1
	803420084	FTL.155.019	Shaft protection pipe (L) 155	1
13	803360090	FTL.85.020	Main protection pipe 85	1
	803380091	FTL.105.020	Main protection pipe 105	1
	803400092	FTL.125.020	Main protection pipe 125	1
	803420093	FTL.155.020	Main protection pipe 155	1
14	510020631	CFW-45X72X10	Oil seal FB45x72x10	1
15	703400012	MZ105.128	Bearing seat	1
16	703400010	MZ105.124-1	Oil seal sleeve	1
17	511024243	GB281-1307	Bearing 1307	1
18	506060191	GB893.1-80	Circlip 80	1

Parts List for Diagram 1 (Continued)

Dia.	Ref No	Part No	Part Description	Qty
19	703400011	MZ105.127	Top Drive chain wheel	1
20	506060315	GB894.1-32	Circlip 32	1
21	501011098	GB5783-M8X16	Bolt M8x16	5
22	506030035	GB93-8	Spring washer 8	23
23	703400008	FM120.00.199	PTO shaft cover	1
24	501011126	GB5783-M12X30	Bolt M12x30	9
25	803400001	FTL.125.011	Gear box Assembly	1
26	506030038	GB93-14	Spring washer 14	2
27	503010048	GB6170-M14	Nut M14	2
28	703400177	FTL.125.112	Deck fixing plate	1
29	501011111	GB5783-M10X20	Bolt M10x20	5
30	506030036	GB93-10	Spring washer 10	17
31	503010046	GB6170-M10	Nut M10	9
32	803400016	FTL.125.012	Gear box supporting plate	1
33	703320195	1GQR-105.101	Hook	1
34	501011114	GB5783-M10X35	Bolt M10x35	2
35	501011113	GB5783-M10X30	Bolt M10x30	6
36	700920096	EF100.00.106	Pin sleeve	2
37	700080010	200.56.011	Combined lock pin	2
38	703400178	FTL.125.124	Bottom link pin	2
39	508011537	GB879.1-6X30	Elastic cylindrical pin 6x30	2
40	503010047	GB6170-M12	Nut M12	4
41	803430002	FTL.125.025	Left supporting plate weldment	1
42	501011127	GB5783-M12X35	Bolt M12x35	68
43	703400197	FTL.125.133	Adjusting lath spring	1
44	703400180	FTL.125.134	Adjusting lath	1
45	506010057	GB97.1-12	Plain washer 12	8
46	506010058	GB97.1-14	Plain washer 14	2

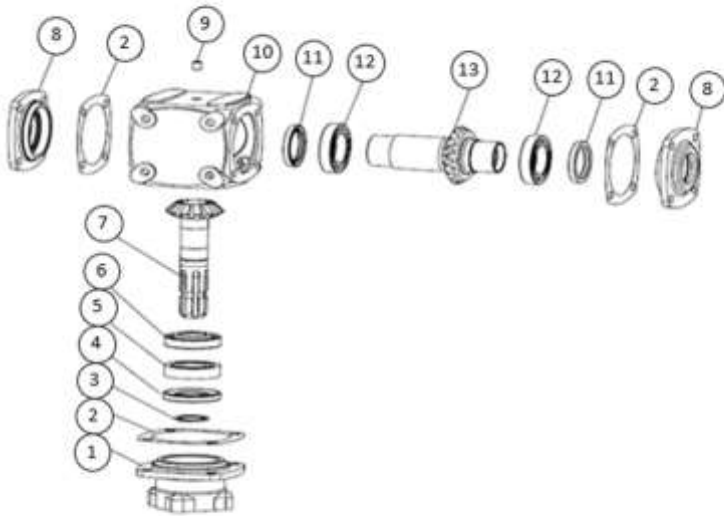
Parts List for Diagram 1 (continued)

Dia. No	Ref No	Part No	Part Description	Qty
47	703400182	FTL.125.136	Bolt	2
48	703400198	FTL.125.139	Gasket	1
49	703400031	FTL.125.013	Transmission chains 16Ax17	1
50	703140008	CBW-00.112	Oil plug M16x1.5x15	2
51	510015240	JB982-16	Dowty washer 16	2
52	803400138	FTL.125.026	Chain cover	1
53	501011101	GB5783-M8X30	Bolt M8x30	2
54	510015237	JB982-10	Combined oil seal 10	1
55	803360142	FTL.85.027	Protecting handrail weldment (LH) 85	1
	803380144	FTL.105.027	Protecting handrail weldment (LH) 105	1
	803400146	FTL.125.027	Protecting handrail weldment (LH) 125	1
	803430149	FTL.155.027	Protecting handrail weldment (LH) 155	1
56	703400199	FTL.125.140	Lower driven chain wheel	1
57	506060322	GB894.1-42	Circlip 42	1
58	501011128	GB5783-M12X40	Bolt M12x40	2
59	803400100	FTL.125.021	Active plate	2
60	501011129	GB5783-M12X45	Bolt M12x45	2
61	503010763	DIN985-M12	Lock nut M12	60
62	703400181	FTL.125.135	Adjusting plate	2
63	506060193	GB893.1-85	Circlip 85	1
64	511022615	GB276-6209	Rotor bearing 6209	1
65	510020451	CFW-50X72X10	Oil seal FB50x72x10	1
66	803360121	FTL.85.024	Shaft for blade 85	1
	803380123	FTL.105.024	Shaft for blade 105	1
	803400125	FTL.125.024	Shaft for blade 125	1
	803430128	FTL.155.024	Shaft for blade 155	1
67	703340191	1GQ.11.127	Blade (R)	14
68	703340192	1GQ.11.128	Blade (L)	14

Parts List for Diagram 1 (Continued)

Dia. No	Ref No	Part No	Part Description	Qty
69	803400047	FTL.125.016	Support stand	1
70	707180017	RB-00.101	The brance pin	1
71	703340017	ZL-25.104	R pin	1
72	703340195	1GQ-125.11.104-1	Bearing seat	1
73	511022613	GB276-6207	Rotor bearing 6207	1
74	510020386	GB13871-FB-40X62X10	Oil seal FB40x62x10	1
75	506060317	GB894.1-35	Circlip 35	1
76	803360159	FTL.85.028	Protecting handrail weldment (RH) 85	1
	803380161	FTL.105.028	Protecting handrail weldment (RH) 105	1
	803400163	FTL.125.028	Protecting handrail weldment (RH) 125	1
	803430166	FTL.155.028	Protecting handrail weldment (RH) 155	1
77	501011112	GB5783-M10X25	Bolt M10x25	4
78	509010009	GB1152-M10X1	Grease nipple M10x1	1
79	803400040	FTL.125.015	Right supporting plate weldment	1
80	803360103	FTL.85.022	Rear protecting plate weldment 85	1
	803380105	FTL.105.022	Rear protecting plate weldment 105	1
	803400107	FTL.125.022	Rear protecting plate weldment 125	1
	803430110	FTL.155.022	Rear protecting plate weldment 155	1
81	703340178	1GQ-125.11.105	Bearing seat gasket	1
82	707180018	LH-6X300	Chain ϕ 6x300mm	1
83	803360050	FTL.85.017	Deck 85	1
	803380052	FTL.105.017	Deck 105	1
	803400054	FTL.125.017	Deck 125	1
	803430057	FTL.155.017	Deck 155	1
84	703400183	FTL.125.153	Chain fixing bracket	1

Parts Diagram 2 & Parts List



Dia. No	Ref No	Part No	Part Description	Qty
1	703400003	FTL.125.102	Bearing seat for input shaft	1
2	703400005	FTL.125.106	Paper washer for rear cover	1
3	506060317	GB894.1-35	Circlip 35	1
4	510020398	CFW-35X72X10	Oil seal 35x72x10	1
5	511022613	GB276-6207	Bearing 6207	1
6	511016411	GB297-30207	Bearing 30207	1
7	703400006	FTL.125.107	Input shaft	1
8	703400004	FTL.125.103	Bearing seat	2
9	516010003	ZBT32001.3-ZG3/8-19"	Oil plug ZG3/8-19"	1
10	703400002	FTL.125.101	Gear box case	1
11	510020390	CFW-50X68X8	Oil seal FB50x68x8	2
12	511022559	GB276-6010	Bearing 6010	2
13	703400007	FTL.125.108	Output shaft	1



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