

INSTRUCTION MANUAL

Flail Mower

ATTENTION



The 3-point flail mower may present dangers during its use
Read the instruction manual attentively before use.



SAFETY

Labels of safety and plate of identification



Read instruction manual before use or maintenance.



Stop the tractor engine and remove the key before working on the machine.



Risk of being caught by the transmission. Do not approach the machine and avoid wearing loose clothes which could become entangled in moving parts.



PTO Speed max. : 540 tr/min MAX



Risk of projections. To be held apart from the operating range of the machine. Make sure that all the guards are in their place during the use.



Danger of cutting. To be held apart from the operating range of the machine. Make sure that all the guards are in their place during the use.

It is strictly prohibited to remove protections of safety, labels of safety and the plate of identification manufacturer.

Safety rules:

In order to avoid accidents during work, it is necessary to observe the most elementary rules of prudence:

1. Operator

- The operator should not start the machine if they don't have all his mental and physical faculties:
 - Good eyesight and good hearing
 - Read and study the manual
 - Be attentive to its and others' security
 - Be familiar with the use and maintenance of the machine
 - It is strictly forbidden to drink alcohol, ingest drugs and other substances that might affect the use of the machine
- Do not wear loose floating clothing that could be caught by moving parts.
- Wear the appropriate security equipment :
 - Standardized working gloves
 - Safety shoes
 - Helmet
 - Hearing protection device
 - Protective glasses



2. Machine

- The coupling must be done only on the points provided for this purpose in accordance with safety standards.
- Prohibit using the machine as means of transport of people, animals or objects.
- The machine should be in perfect working condition, maintained with original parts.
- It is strictly prohibited to make modifications on the machine without authorization of the manufacturer.

3. Utilization

- Prudence is required during the attachment of the machine to the tractor and during its uncoupling.
- The maintenance, the cleaning as well as the adjustments must be made only if the engine of the tractor is turned off and the ignition key is removed.
- Make sure that no one is in the operating area of the machine.



ATTENTION: For the operation, machine is always turned off pour operation.

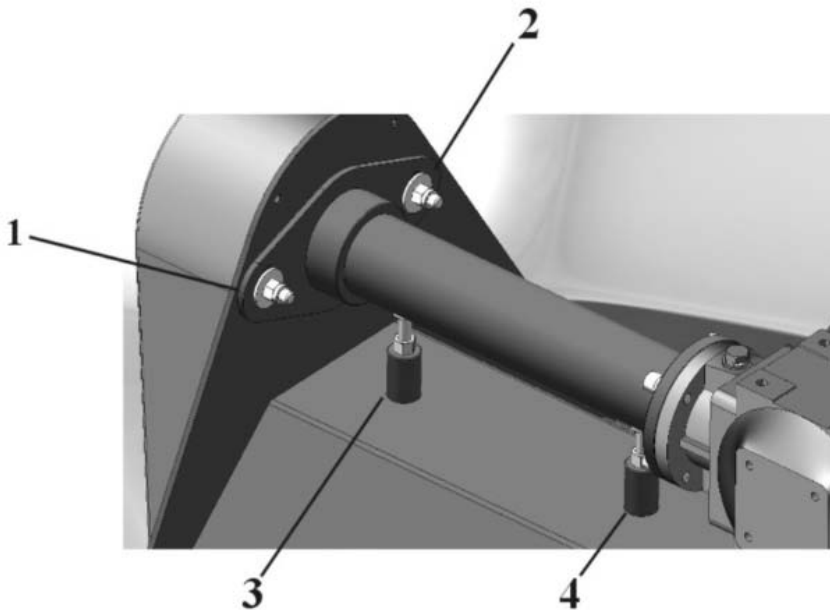
Remove the cover of the belts

Loosen the screws 1-2

Tighten the belts with the screw 3-4

Retighten the screws 1-2

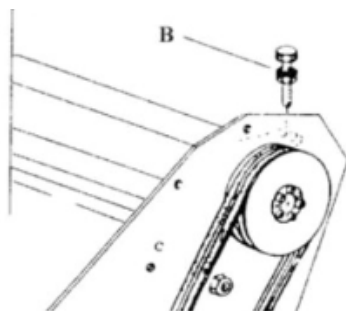
Replace the cover of the belt



The recommended working speed is 1.5km/h, according to the height and the consistency of the grass and the working conditions

The V-belts are tended to the hand by points of adjustment “B” (diagram below) after having unscrewed the screws of fixing, and carry out the adjustment while operating the screw B until obtaining the correct tension. Once finished, tighten all the loosened screws

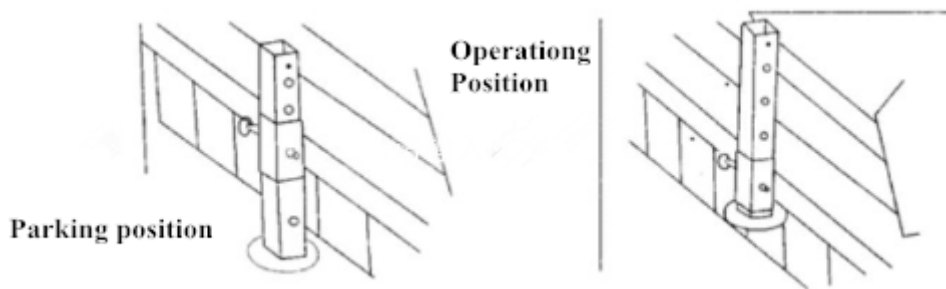
Replace the belts as soon as they are worn or in bad condition



Start

Before using, tighten all bolts, all nuts and all screws

To ensure stability, the machines should be equipped with a support when they are in the off of position (diagram below)



ATTENTION! Prohibit to be in the space between the machine and the tractor, when we change the machine from the position of placement to the position of working

The hitch of the machine is made through ankles with the 3 points. We can attach machine to all these tractors which are equipped with universal hitch to 3 points N⁰1. Lifting bars of tractors each have their length, it is necessary to determine the position of the most favorable machine compared to the tractor. The position is determined by putting the tool at a distance from the tractor such as the seal of the cardan joint is tight up to 5/10cm of the full closed position.

Approach the lift arms and put them between the axes, put the plugs and secure with locking pins, block the lift arms with chains and tensioners designed for this purpose to prevent lateral movement of the machine, engage the cardan joint, see if it is locked on the price of PTO tractor and side machine for that it neither leaver nor abut whatever the position in which it is located. Attach the 3 points in paying attention to that the axis of the PTO is parallel to the ground. It's Very important that the axis of the machine and that of the tractor PTO should always be parallels.



For the mouvement, the machine must be lifted from the ground.

Don't operate the machine in a closed area (cause smoke of tractor)

TRANSMISSION



Only use cardan joints with standard CE and follow the protections

The cardan joint should be installed only when the engine of the tractor is turned off and the removed key

The installation of the joint should be perfect and the protection should be in correct position



Make sure that chains which are located on the protection of the cardan joint are attached to avoid the autorotation

Keep anyone away before engaging PTO and make sure that the outlet from the tractor PTO is 540T/min

Do not approach when the PTO is in movement



Before all cleaning operations of maintenance or lubrication, turn off the engine and remove the key and keep it with you

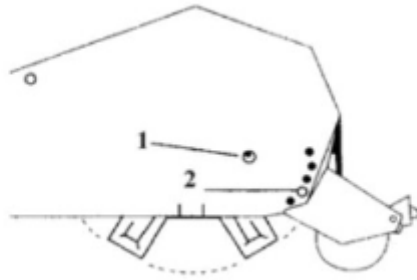
When the cardan joint is not encircled any more in the PTO of the tractor, it should be retained by its support for not being damaged

CUTTING HEIGHT

For a specific work, it is recommended to adapt the machine to the work that we want to come into effect.

To save fuel and the power and reduce the wear of the machine, adjust the working height correctly.

To adjust the working height, loosen the screw N⁰1, remove the screws from the N⁰2's right and left hand, move the height of the roller (diagram below) by setting the accessory in the chosen position. The lowest hole gives a higher cutting height, replace the N⁰2 screw to the selected hole, and tighten these 4 screws N⁰1 and N⁰2.



The machine was fabricated so that the cardan joint turns to 540T/min, protection must be equipped with the chain which prevents the autorotation when the cardan joint is used.

GEARS

Before the start of the machine, control the machine from time to time

Check the oil levels




Verify that the inlet vent which is located on the gear box is not blocked. If this is the case, clean or unblock with compressed air.

After 50 hours of work, the oil must be drained, then every 250 hours and at least once a year.

Proceed in the following way, remove the drain screw which is located under the gear to make the oil flow out, then replace the cap and fill with the gear oil up to the level which is indicated.

Use the same type of oil SAE 90 EP

Don't spill oil or grease on the V-belts, if that occurs, remove without leaving any trace, to prevent the slip and the wear of the V-belts

Models		-Working width(cm)					
		105	125	135	150	165	180
	HP	25	30	35	40	45	50
	KW	18.3	21.9	25.6	29.3	32.9	36.6
P.T.O.		540	540	540	540	540	540
		No.of blades					
		40	48	56	56	64	72
		20	24	28	28	32	36

 **ATTENTION!**

Every 10 hours, check the machine in case of blade damaged, worn or missing, replace them following the manufacturer's recommendations to avoid imbalances.

Check and change the fixing element if necessary.

Don't remove protections which prevent the access to the dangerous points and protect the machine

Don't install those knives which are worn missing or damaged that produce dangerous imbalances. Control the knives and the fixing element every day and replace the missing and the worn ones by the new ones

For the fixing of blade, the bushings should be replaced by new ones if it is wore.

Always use original fixing screws

ATTENTION: When there are vibrations, the machine should be stopped to check the blades. If they are broken or damaged, they must be replaced by new knives. Having the same weight, if the machine still vibrates, make it control by a specialist workshop.

LUBRICATION

Before starting the machine, check that all the internal parts are lubricated

For the cardan joint, follow the manufacturer's recommendations

The flail mower's rotor is equipped with bearings of the two sides which should be lubricated, with manual tool, please lubricate often in small quantities

Clean the grease nipples before each lubrication.

Inject the grease in the bearings slowly. Avoid excessive pressure to avoid damaging the bearings fittings

After use, clean and lubricate the machine

 **ATTENTION !**

For all interventions, repairs, cleaning, greasing, please turn off the engine of the tractor and remove the key, keep the key on you.

Wear gloves and use appropriate tools to replace the cutting tools.

Replace worn or broken protections.

Drain the oil at the recommended time.

Do not forget to disconnect the cable of the generator and the battery, if you need to make a welding to the machine when it is hanged on the tractor.

Only use spare parts relating to your machine.

Check that all screws or nuts are quite tight before the use

STORAGE

The machine should be thoroughly cleaned to avoid corrosion.

Do not direct a stream of water on the bearings if you clean the machine with a high pressure cleaner.

Check the accessories such as cardan, rollers, belt, clean them well, check their condition and change them with new ones if necessary

Oil all parts which are required.

Add the rust inhibitor and possibly repaint the scratched or damaged parts.

OPERATION AFTER STORAGE

Check the oil level, supply if lacking

Check and tighten all the screws and nuts

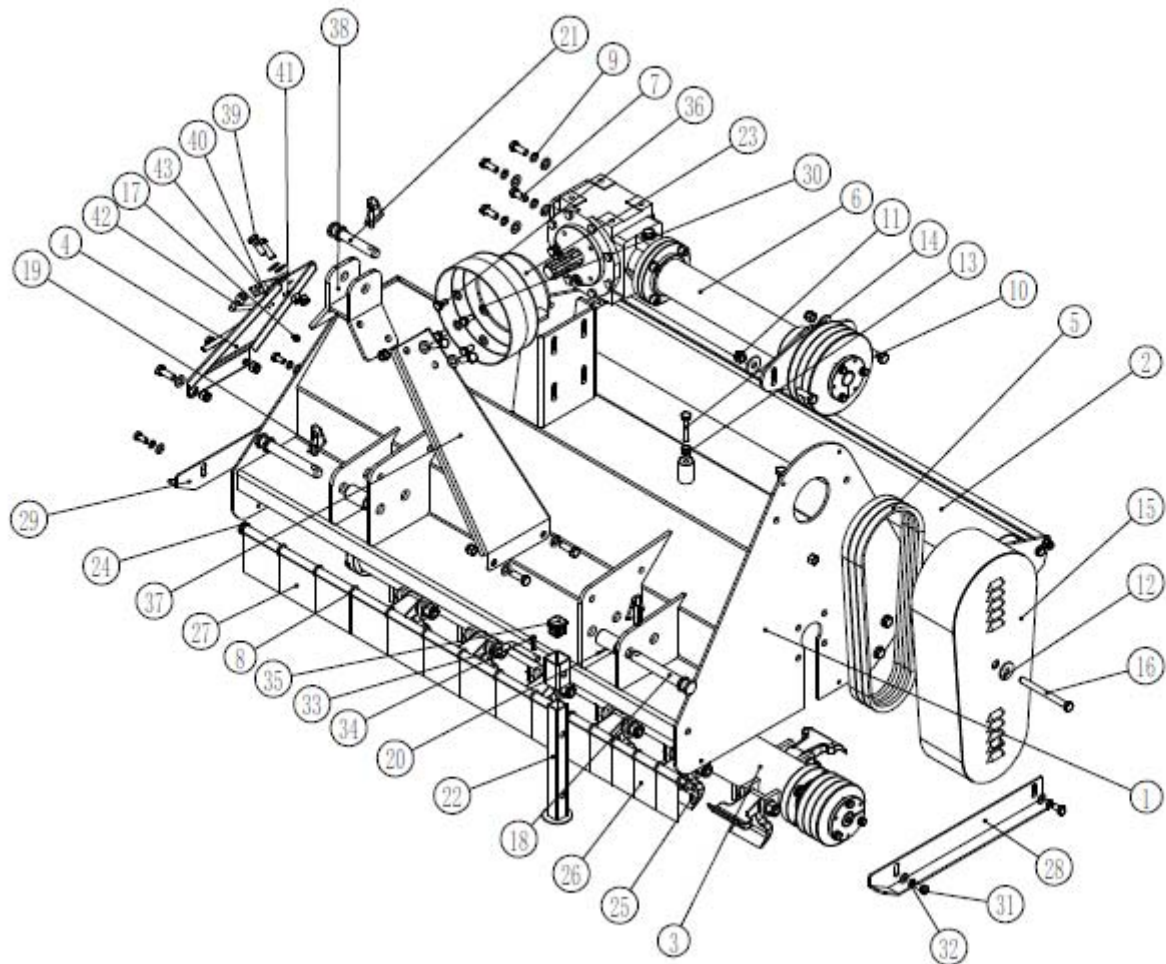
Check the settings of the machine

Check the condition of the blade

EFG Flail Mower Assembly

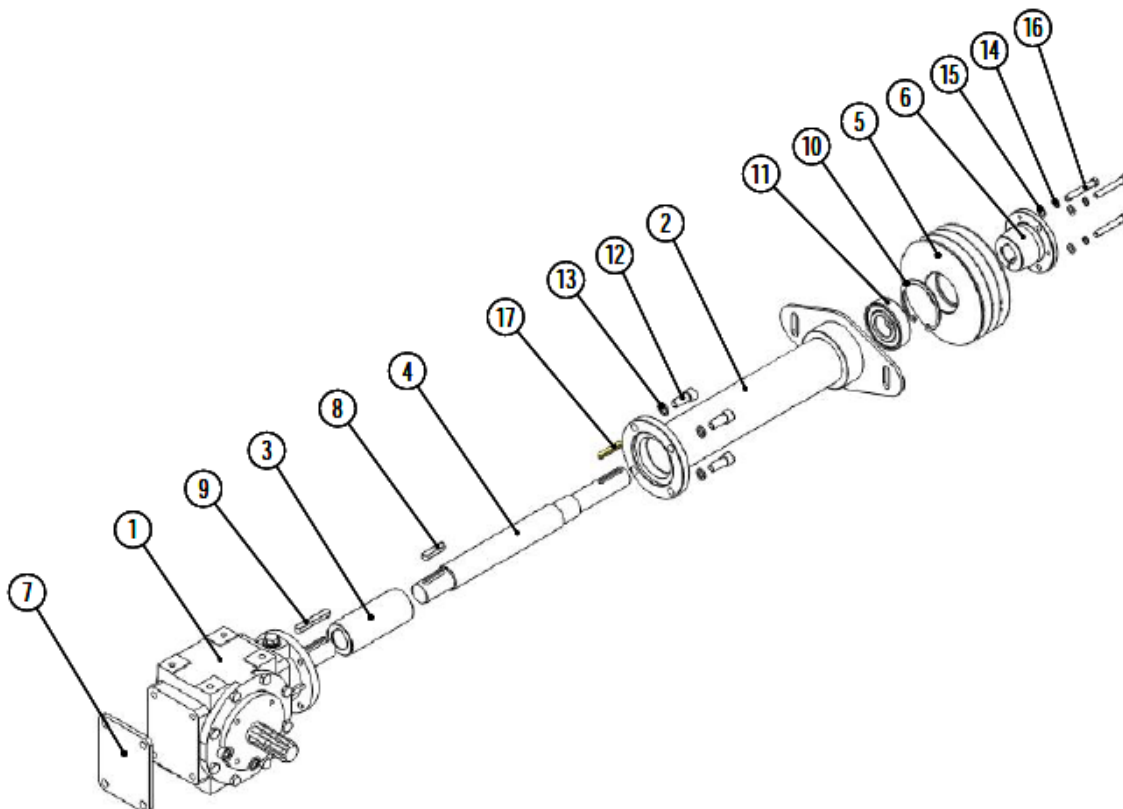
Ser.No	Reference	Name	Qty.
1	EFG125-01-011	Main welding assembly	1
2	EFG125-04-001	Roller Assembly	1
3	EFG125-03-001	Blade Axle Assembly	1
4	EFG125-00-012	Suspension plate(left)	1
5	V B1092Li	V-Belt B1092Li	3
6	EFG125-02-001	Gearbox Assembly	1
7	GB/T 5783-2000	Bolts M12x30	4
8	GB/T 97.1-2002	Plain washer 12	32
9	GB/T 93-1987	Spring lock washer 12	4
10	GB/T 5783-2000	Bolts M12x40	2
11	GB/T 889.1-2000	Lock nuts M12	14
12	GB/T 96.1-2002	Big plain washer 12	3
13	GB/T 41-2000	Nut M12	2
14	GB/T 5783-2000	Nuts M12x55	2
15	EFG125-00-015	Belt wheel cover	1
16	GB/T 5782-2000	Bolts M12x150	1
17	JB/T 7940.1-1995	Grease nipple M10x1	1
18	EFG125-00-112	Inf. suspension pin	2
19	EFG125-00-018	Lock pin	3
20	EFG125-00-102	Sleeving	2
21	EFG125-00-124	Sup. suspension pin	1
22	EFG125-00-016	Stay bar	1
23	EFG125-00-103	Plastic cover	1
24	EFG125-00-019	Combined fender shaft	1
25	GB/T 879.2-2000	Elastic cylindrical pin 4x20	1
26	EFG125-00-107	Small combined fender	5
27	EFG125-00-106	Big combined fender	9
28	EFG125-00-011	Anti-friction plate(right)	1
29	EFG125-00-017	Anti-friction plate(left)	1
30	GB/T 97.1-2002	Plain washer 10	8
31	GB/T 5783-2000	Bolts M10x20	4
32	GB/T 93-1987	Spring lock washer 10	4
33	EFG125-00-105	Pin for stay bar	1
34		R-pin	1
35	EFG125-00-104	Plug for stay bar	1
36	GB/T 5783-2000	Bolts M10x20	4
37	EFG125-00-013	Suspension plate(right)	1
38	EFG125-00-014	Bracket	1
39	GB/T 5783-2000	Bolts M12x35	12
40	EFG125-00-119	Spring clip	2
41	GB/T 867-1986	Cup head rivet3X7	4

42	EFG125-00-021	Hook	1
43	EFG125-00-110	Fixing plate	1



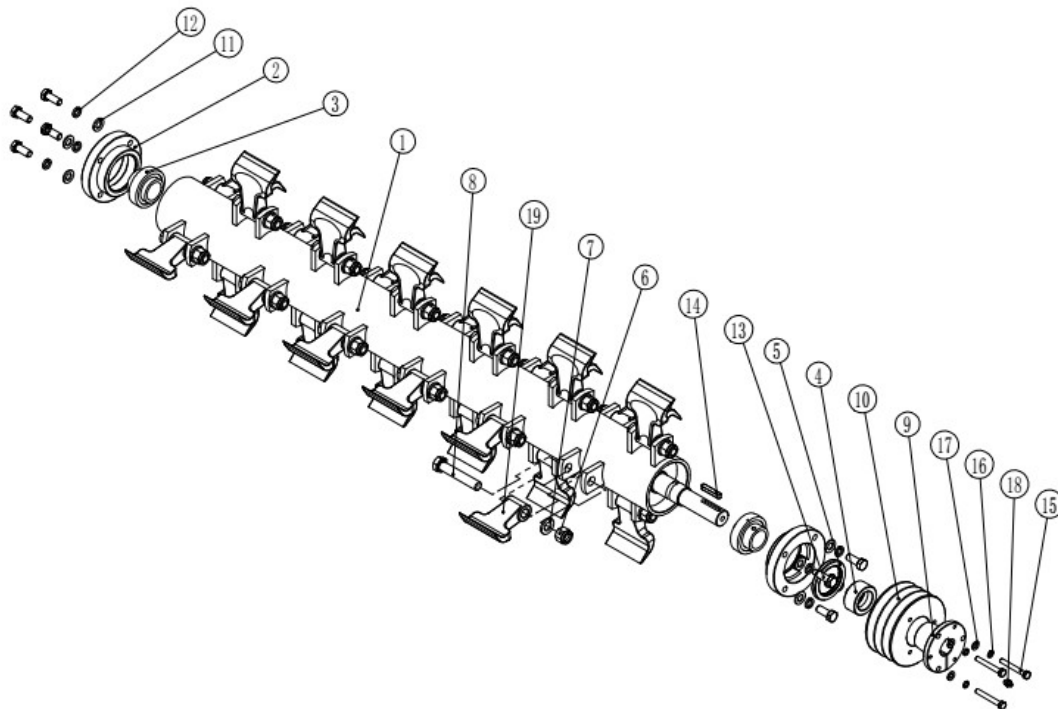
Gearbox Assembly

Ser.No	Reference	Name	Qty.
1	EFG125-02-011	Gearbox	1
2	EFG125-02-012	Sleeving	1
3	EFG125-02-101	Shaft sleeve	1
4	EFG125-02-102	Transmission shaft	1
5	EFG125-02-103	Driving pulley	1
6	EFG125-02-104	Swellable sleeve	1
7	EFG125-02-113	Base plate	1
8	GB/T 1096-1979	Key A10×45	1
9	GB/T 1096-1979	Key C10×70	1
10	GB 893.1-86	Circlip 80	1
11	GB/T 276-94	Bearing 6307-2Z	1
12	GB/T 70.1-2000	Screw M12×30	4
13	GB/T 93-1987	Spring lock washer 12	4
14	GB/T 93-1987	Spring lock washer 8	3
15	GB/T 97.1-2002	Plain washer 8	3
16	GB/T 5783-2000	Bolts M8×60	3
17	GB/T 1096-1979	Key A8×50	1



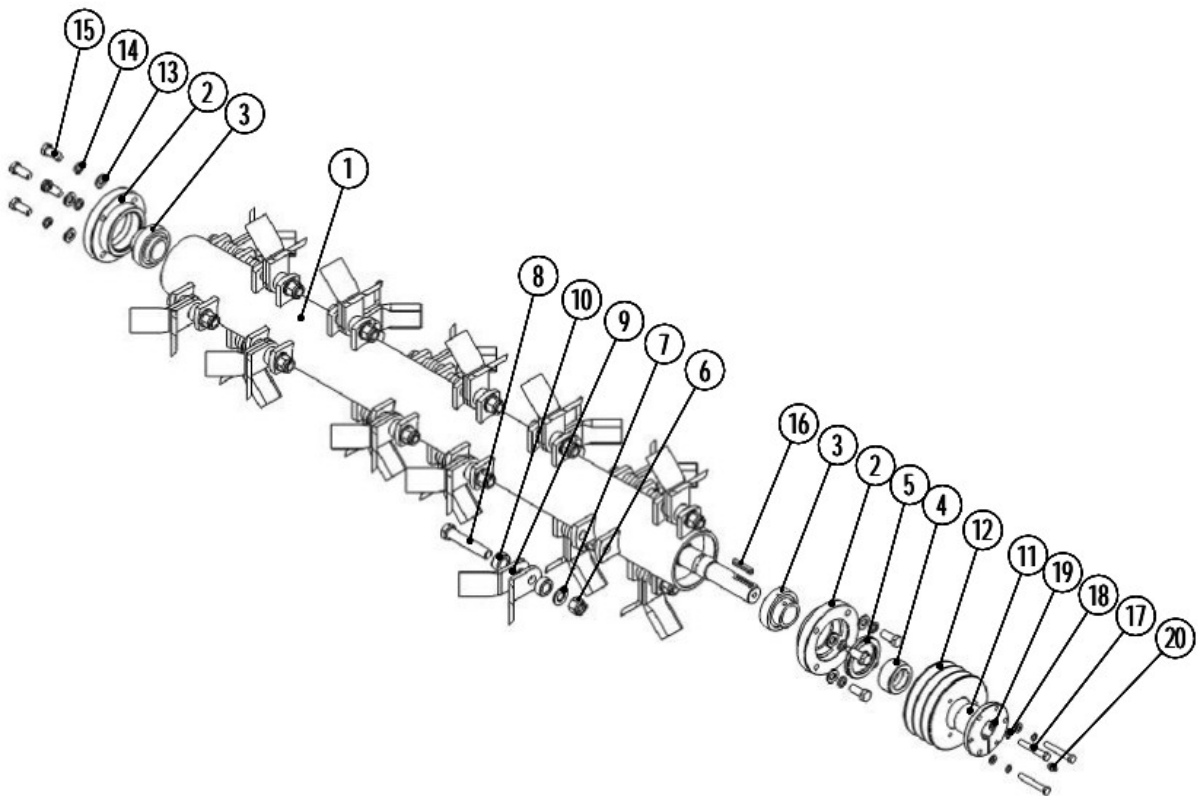
Blade Axle Assembly (hammer)

Ser.No	Reference	Name	Qty.
1	EFG125-03-011	Blade axle	1
2	EFG120-03-101	Bearing housing	2
3	GB/T 3882-1995	Bearing UC207	2
4	EFG125-03-107	Sleeve	1
5	GB/T 13871.1-2007	Oil seal FB55x75x8	1
6	GB/T 889.1-2000	Lock nuts M16	20
7	GB/T 97.1-2002	Plain washer 16	20
8	GB/T 5782-2000	Bolts M16x90	20
9	EFG125-02-106	Swellable sleeve	1
10	EFG125-02-105	Follower pulley	1
11	GB/T 97.1-2002	Plain washer 12	8
12	GB/T 93-1987	Spring lock washer 12	8
13	GB/T 5783-2000	Bolts M12x30	8
14	GB/T 1096-1979	Key A8x45	1
15	GB/T 5783-2000	Bolts M8x60	3
16	GB/T 93-1987	Spring lock washer 8	3
17	GB/T 97.1-2002	Plain washer 8	3
18	JB/T 7940.1-1995	Grease nipple M10	1
19	EFG120-03-109	Hammer	24



Blade Axle Assembly

Ser.No	Reference	Name	Qty.
1	EFGL125-03-011	Blade axle	1
2	EFGL120-03-101	Bearing housing	2
3	GB/T 3882-1995	Bearing UC207	2
4	EFGL125-03-107	Sleeve	1
5	GB/T 13871.1-2007	Oil seal FB55x75x8	1
6	GB/T 889.1-2000	Lock nuts M16	20
7	GB/T 97.1-2002	Plain washer 16	20
8	GB/T 5782-2000	Bolts M16x90	20
9	EFGL120-03-108	Y blades	48
10	EFGL125-03-110	Spacer	48
11	EFGL125-02-106	Swellable sleeve	1
12	EFGL125-02-105	Follower pulley	1
13	GB/T 97.1-2002	Plain washer 12	8
14	GB/T 93-1987	Spring lock washer 12	8
15	GB/T 5783-2000	Bolts M12x30	8
16	GB/T 1096-1979	Key A8x45	1
17	GB/T 5783-2000	Bolts M8x60	3
18	GB/T 93-1987	Spring lock washer 8	3
19	GB/T 97.1-2002	Plain washer 8	3
20	JB/T 7940.1-1995	Grease nipple M10	1



Roller Assembly

Ser.No	Reference	Name	Qty.
1	EFG125-04-011	Roller	1
2	EFG125-04-012	Mud shield	1
3	EFG125-04-105	Hanging plate	2
4	GB/T 7810-1995	Bearing UCFLU205	2
5	GB/T 5783-2000	Bolts M10x40	4
6	GB/T 97.1-2002	Plain washer 10	6
7	GB/T 889.1-2000	Lock nuts M10	6

