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### No Warranty On Electrical Motor / Electrical Parts / Battery Etc.

**Incidental / Consequential Loss:** KisanKraft Limited or its manufacturers will not be liable for general damages, including bodily injuries, or for incidental or consequential damages including, but not limited to, loss of use, loss of profits, loss of production, expense of substitute equipment or other commercial loss or damage.

**Limitation of Liability:** This limited warranty is in lieu of all other express warranties, obligations, or liabilities. Any implied warranties, obligations or liabilities, including, but not limited to, any implied warranty of merchantability shall be limited in duration to the applicable warranty period. Any action for breach of any warranties hereunder, including, but not limited to, any implied warranty of merchantability must be brought within the applicable warranty period.

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### Receipt is required for availing warranty services

**Jurisdiction:** All disputes are subject to Bangalore court's jurisdiction.

### Our Products

- ◆Chainsaws◆Brush Cutters and Accessories◆Harvesters◆
- ◆Engines and Water Pumps◆Hand Tools ◆Garden Tools◆
- ◆Cultivators and Accessories◆Sprayers and Accessories◆
- ◆Transplanter and Post Hole Digger ◆ Milking Machines ◆

**This warranty is null & void, if you fail to register the warranty with KisanKraft by sending the KisanKraft Copy with dealer's stamp.**

**KisanKraft Limited** (formerly known as KisanKraft Machine Tools P Ltd)

🌐: www.kisankraft.com

✉: info@kisankraft.com

☎: +91.80.22178200

Product	Agricultural Harvesting Reaper	KisanKraft Invoice Date	
Brand	KisanKraft	KisanKraft Invoice No.	
Model	<input type="checkbox"/> KK-SPR-1201P <input type="checkbox"/> KK-SPR-1201P (SHORT CROP) <input type="checkbox"/> KK-SPR-1202D <input type="checkbox"/> KK-SPR-1203DH <input type="checkbox"/> KK-SPR-1205P (TALL CROP)		
WARRANTY PERIOD	6 MONTHS	FOR THE SPECIFIED PERIOD FROM THE DATE OF SALE OR DELIVERY WHICHEVER IS EARLIER.	
Dealer's Invoice Date		Dealer's Invoice No.	
Buyer's Info (Name, Address, Phone, etc.):		Dealer's Stamp (Address, Phone, TIN, etc.):	
Buyer's Sign		Dealer's Sign	

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- (2) Incorrect usage of machine or misuse,
- (3) Lack of maintenance,
- (4) Negligence,
- (5) Accident or physical damage,
- (6) Repairs made by unauthorized parties and/or with unauthorized parts,
- (7) Improper set up, adjustments, tampering or altered products

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## Wide Range of Products for Every Need



For more information give **MISSED CALL: 07676065555**



Many of our products have BIS: ISI certification.



## User Manual



### **KisanKraft Limited**

(Formerly known as KisanKraft Machine Tools Pvt Ltd)

Sri Huchhanna Tower, #4, 1<sup>st</sup> Main, 7-A Cross, Maruthi Layout, Dasarahalli,  
 HAF Post, Hebbal, Bangalore 560024, Karnataka, INDIA

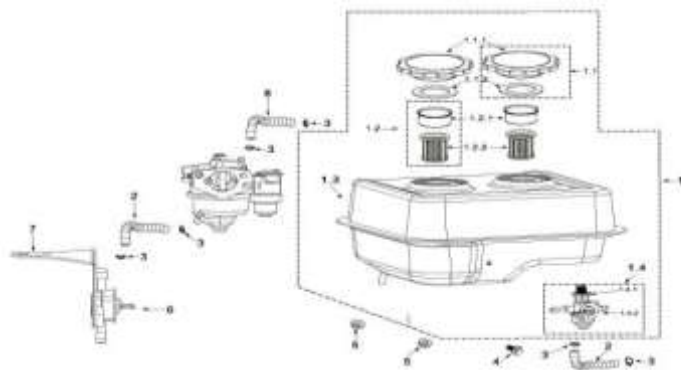
- ◆ Bangalore (HO) ◆ Ahmedabad ◆ Bhopal ◆ Bhubaneswar ◆ Coimbatore ◆
- ◆ Jammu ◆ Guwahati ◆ Hubli ◆ Hyderabad ◆ Shimla ◆
- ◆ Jaipur ◆ Karnal ◆ Kolkata ◆ Lucknow ◆ Pune ◆ Raipur ◆

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KisanKraft has a large range of products to serve the farmers. A list of our products is given below:

<b>Brush Cutters and Accessories</b> Brush Cutter/Power Weeder Backpack Brush Cutter Tea Pruner Pole pruner with Engine Reaper Attachment Blades-Circular Blades (2 &3 points) Baffle Nylon Rope Tap & Go <b>Chainsaws</b> Petrol Chainsaw Electric Chainsaw Chain Sharpening Machine <b>Engines and Water Pumps</b> Engine –Diesel-(Horizontal) Engine –Diesel(Vertical) Engine-Kerosene Water Pump with Petrol Engine Water Pump with Kerosene Engine Water Pump with Diesel Engine <b>Hand Tools</b> Secateurs Folding Saw Garden Rake Garden Shovel Hedge Shear Lopper Telescopic Hedge Shear Telescopic Lopping Shear Tree Pruner Telescopic Steel Pipe & Fruit Picker Bag Sheep Shear <b>Garden Tools</b> Electric Pressure Washer Hedge Trimmer Lawn Mower (Electric, Petrol & Manual) Leaf Blower	<b>Cultivators and Accessories</b> Petrol and Diesel <b>Sprayers and Accessories</b> Battery Sprayer Portable Power Sprayer Trolley Sprayer Manual Knapsack Sprayer Manual Pressure Sprayer Rose Cans Hose Crimping Machine HTP Sprayer HTP Delivery Hose HTP Hose Reel HTP Stand HTP Gun / Lance(Brass Rod) Knapsack Power Sprayer Mister / Duster / Granuel Spreader HTP Sprayer Set with Diesel Engine HTP Sprayer Set with Kerosene Engine Fogging Machine <b>Milking Machine</b> Wood Shredder Fodder Ensiling Chaff Cutter Fodder Grinder Chaff Cutter Fodder Mini Chaff Cutter <b>Harvester</b> Maize Sheller Maize Sheller + Dehusker Maize Combine Harvester Onion Digger Carlotti Italy Tea Leaf Harvester Sugarcane Combine Harvester Sugarcane Leaf Stripper <b>Transplanter and Post Hole Digger</b> Paddy Transplanter (2 & 8 Rows) Transplanter-Vegetable & Tobacco Post Hole Digger(4" to 14" Augers)
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Sl. No	KK Part No	KK Part Name
1	12-1	Fuel tank ass.
1.1	12-1.1	Fuel tank cover Assy.
1-1.1	12-1.1.1	N/A
1-1.2	12-1.2	Rubber seal, Fuel tank cover 38x56x3
1.2	12-1.2	Fuel filter Assy
1-2.1	12-1.2.1	N/A
1-2.2	12-1.2.2	N/A
1.3	12-1.3	N/A
1.4	12-1.4	Fuel joint Assy
1-4.1	12-1.4.1	N/A
1-4.2	12-1.4.2	N/A
2	12-2	Fuel tube 8.5x4.5 (Drain)
3	12-3	Clip Fuel tube
4	12-4	N/A
5	12-5	N/A
6	12-6	N/A
7	12-7	N/A
8	12-8	N/A

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# KisanKraft® Warranty Certificate

(CUSTOMER COPY)

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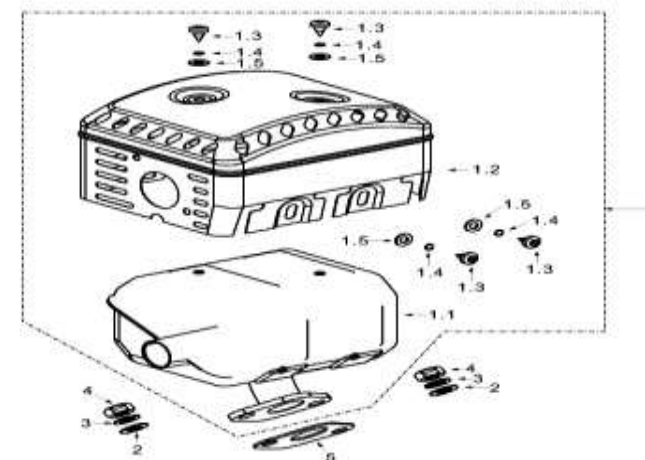
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KisanKraft®

**Agricultural Harvesting Reaper**  
KK-SPR-1201P / 1201P (SHORT CROP)  
KK-SPR-1202D / 1203DH  
KK-SPR-1205P (TALL CROP)

Sl. No	KK Part No	KK Part Name
1.6	10-1.6	Air duck
2	10-2	Nut M6

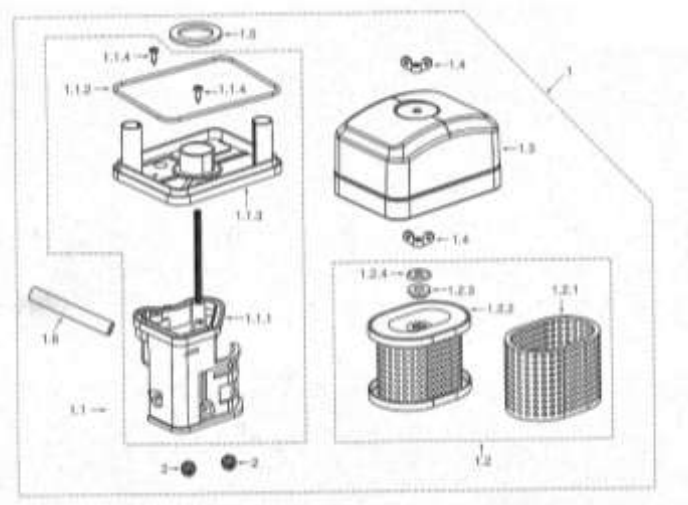


Sl. No	KK Part No	KK Part Name
1	11-1	Muffler Ass.
1.1	11-1.1	Muffler body
1.2	11-1.2	Protector Muffler -A
1.3	11-1.3	Screw M5 x 8
1.4	11-1.4	Spring washer Φ5
1.5	11-1.5	Washer Φ 5
2	11-2	Washer Φ 8
3	11-3	Spring Φ 8
4	11-4	Nut M8
5	11-5	Gasket (Exhaust Part)

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Sl. No	KK Part No	KK Part Name
1	10-1	Air Cleaner Assy
1-1	10-1.1	Air Cleaner Seat Ass.
1-1.1	10-1.1.1	Air Cleaner seat
1-1.2	10-1.1.2	Seal Ring
1-1.3	10-1.1.3	Cover board
1-1.4	10-1.1.4	Screw M4 x 12
1-2	10-1.2	Filter Assy
1-2.1	10-1.2.1	Foam Filter
1-2.2	10-1.2.2	Papery Filter
1-2.3	10-1.2.3	Rubber Fixer
1-2.4	10-1.2.4	Distal Washer
1.3	10-1.3	Filter Case
1.4	10-1.4	Butter Fly nut M6
1.5	10-1.5	Seal Ring 32x47x3

## BEFORE GETTING STARTED

Thanks for buying KisanKraft's KK-SPR-1201P/1202D/1203DH Self Propelled Reaper. This machine has features like simple and solid structure, easy operation and maintenance, is very popular among farmers. It occupies less volume, light in weight and has fuel efficient engine with high performance and provides safe operation. It is particularly suitable for harvesting in small field, highland, and areas with grass and in terraced field.

Before using the machine for the first time be sure to read and strictly follow the instructions given in this manual in order to avoid wrong operation. Please preserve this manual properly so that it can provide you with information whenever necessary.

## SAFETY INSTRUCTIONS

1. Please read this manual carefully, and know about the installation, operation, maintenance and management of the machine.
2. The operator should ensure that there are no bystanders or any other barriers around before stepping, turning and moving.
3. Do not bring or spill any flammable things (for example, diesel) near the machine, so as to avoid any fire.
4. Do not start the machine without fuel and lubricant.
5. It's strictly forbidden to remove any protective shell when the machine is running.
6. Do not touch the working parts with hand or foot.
7. Stay away from moving parts, nobody except the operator could come close to the machine. It's strictly forbidden to stand around the machine so as to avoid any accident.
8. Stop the machine before performing any maintenance operation or resolving any malfunction.
9. Do not fill fuel if the engine is still running or is hot. Keep away all fire sources while adding the fuel. Please screw down the oil cover and clean off the leaked oil after adding the oil.
10. It's necessary to place the filling material according to the height of the ridge when the machine walks across the ridge, so that the machine could keep the center of gravity balanced.
11. Please pay attention to any noise and performance of the engine. Stop the engine immediately if you notice any abnormal noise or other malfunction.
12. Before starting the engine, it is necessary to add oil (diesel, lubricant) and water, and to check the connection of the parts. After startup, observe the running of the engine (especially the clutch)
13. When the diesel engine "speeds", flame out immediately (stop supplying oil, close down the inlet pipe, or turn on the reliever).
14. Cutoff the power supply of the cutting platform while cleaning crops and weeds. It is strictly forbidden to stretch the hand towards the cutter

15. When turning or moving the machine in reverse direction, reduce the accelerator and stop cutting.
16. Do harvesting only when the machine runs stably. Ensure the machine is in good working condition, with the handles flexible and reliable, and the transmission parts running normally.
17. For harvesting the lodging crop, converse harvesting gives better efficiency.
18. Check the bolts of the gear box, gear case and the bearing base regularly.

## MAIN FUNCTION AND APPLICABLE RANGE

This reaper is a self-propelled harvesting machine, operated by 1 adult person. It is manufactured with the advanced technology like renovated surface, strengthened applicability, improved performance, more reliability and optimized technical structure. The machine is mainly used to harvest the paddy and wheat. It could also be used to harvest the soybeans and reeds. It can be used in the plains, hills, slopes, small fields, etc. in addition, it has the following advantages-small volume, light weight, flexible performance, simple operation, low batch-cutting, no limitation on distance. The machine is suitable for harvesting in the big, medium and small fields.

	Model	Engine Used
1	KK-SPR-1201P/1205P	KK-PE4-170
2	KK-SPR-1202D	KK-DEV-Z378F
3	KK-SPR-1203DH	KK-DEH-175

Sl. No	KK Part No	KK Part Name
1-12	9-1.12	N/A
1-13	9-1.13	Rubber seal (Fuel cup)
1-14	9-1.14	Fuel cup
1-15	9-1.15	Fuel drain plug (new)
1-16	9-1.16	Gasket fuel drain plug
1-17	9-1.17	Tighten bolt (Fuel cup)
1-18	9-1.18	O-ring 11x1.5
1-19	9-1.19	Hand grip chock valve Assy
1-20	9-1.20	Sediment cup
1-21	9-1.21	O-ring 21x2
1-22	9-1.22	Fuel Valve
1-23	9-1.23	Handle Bar
1-24	9-1.24	Spring Washer-
1-25	9-1.25	Upper cover
1-26	9-1.26	Spring washer-small 3
1-27	9-1.27	Screw M3x7
2	9-2	Steel gasket
3	9-3	Gasket carburetor
4	9-4	Block, Carburetor
5	9-5	Gasket, inlet port



Sl. No	KK Part No	KK Part Name
1	9-1	Carburetor Assy
1-1	9-1.1	N/A
1-2	9-1.2	Throttle Valve Assy
1-2.1	9-1.2.1	N/A
1-2.2	9-1.2.2	N/A
1-2.3	9-1.2.3	N/A
1-2.4	9-1.2.4	N/A
1-3	9-1.3	Chock Valve Assy
1-3.1	9-1.3.1	N/A
1-3.2	9-1.3.2	N/A
1-3.3	9-1.3.3	N/A
1-4	9-1.4	Measure hole Assy idel speed
1-4.1	9-1.4.1	N/A
1-4.2	9-1.4.2	O-ring 4.7x1
1-5	9-1.5	Adjustment Screw Assy ( mixture ratio)
1-5.1	9-1.5.1	N/A
1-5.2	9-1.5.2	N/A
1-6	9-1.6	Adjustment screw Idle speed
1-7	9-1.7	Fuel Floater
1-8	9-1.8	Pin Fuel Floater
1-9	9-1.9	Needle Valve Assy
1-9.1	9-1.9.1	N/A
1-9.2	9-1.9.2	N/A
1-9.3	9-1.9.3	N/A
1-10	9-1.10	Main Jet
1-11	9-1.11	Main Measuring hole

## TECHNICAL SPECIFICATIONS

### Performance Index:

If there is no weed on the cutting line, the crop is standing erect, the natural height of the paddy is 500-1000mm, the lodge angle is less than 10°, and the wind power is not more than 3m/s, the machine's performance index is as follows:

Item	Index
Placing Angle	90°± 20°
Total Loss Rate (%)	Wheat <0.5%,Rice,1.0%
Root Difference	≤ 80 mm

### Technical Parameters:

Item	Index
Model	KK-SPR-1201P/1201P (SHORT CROP) KK-SPR-1202D KK-SPR-1203DH KK-SPR-1205P (TALL CROP)
Type of cutting table	Standing-type
Cutting width (mm)	1200
Placing type	Sidewise & banded placed
Productivity (M2) per hour	2400-2700 Square Meters (1-hectare in 4 hours)
Overall dimensions (LxWxH))	2200 x 1600 x 1100 (mm)
Teeth space (mm)	127
Running speed of crank (rpm)	550
Diameter of star wheel (mm)	280
Working speed (km/h)	2.6 ~ 3.6
Chain speed (m/s)	2.24
Number of operator	1

### ENGINE: KK-PE4-170 -SPECIFICATIONS

Item	Index
Bore * Stroke	70 mm X 55 mm
Displacement	212 cc
Rated Power	4 kW /(3600 rpm)
Max Torque	12 Nm (2,500 rpm)
Fuel Tank Capacity	3.6 Liters
Oil Tank Capacity	0.6 Liters
Fuel Consumption Ratio	≤395 g/kWh

Item	Index
Net Weight	17 Kgs
Fuel	Petrol
Strokes	4
Reaper cutting	4-lines at a time
Row gap	300 mm
Reaper cutting width total	1200 mm
Power Turning	Single Wheel transmission
Wheel	Extra-wide, with air-tube
Loss Rate	Wheat: 0.5%, Paddy: 1%
Productivity	1 Hectare in 4-hours
Harvest Placement	Sidewise, banded, placed
Type of cutting blade	Standing type – ridged, forged steel
Moving Speed	2.5 – 3.5 km/h
Chain Speed	2.24 meters/second
Diameter of Star Wheel	280 mm
Running speed of crank	550 rpm

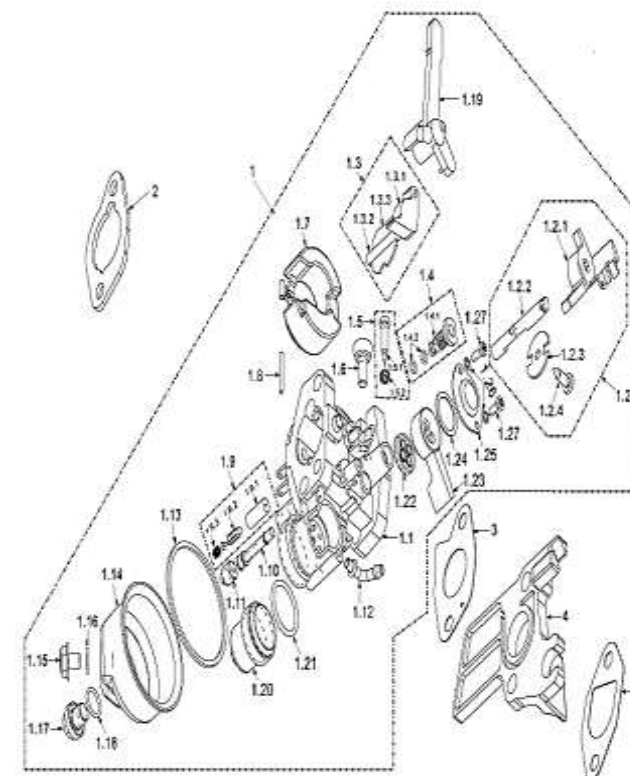
## ENGINE -KK-DEH-175-SPECIFICATIONS

Item	Index
Engine Type	4-Stroke
HP	3.7kW (5.0 hp)
CC	331 cc
Fuel Used	Diesel
Oil (Mixing)	1200ml (20W40 Grade)
Fuel Tank Capacity	4.5 liters
Fuel Consumption	350ml/1 hr (Engine)
RPM/Output Capacity	2600 RPM
Weight	50 Kg

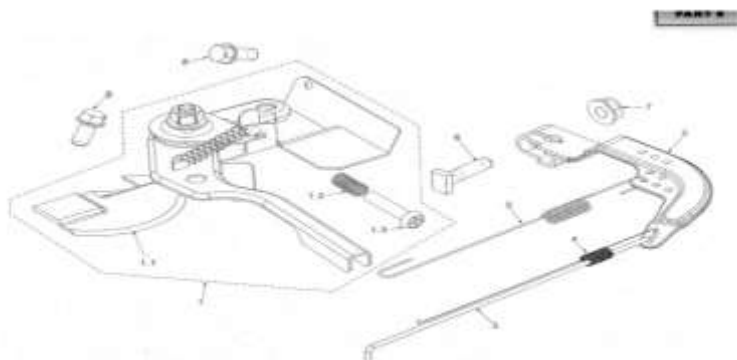
## ENGINE: KK-DEV – Z378F SPECIFICATIONS

Item	Index
Engine type	4-stroke
Rated Output Power	4.1kW(5.5hp)
Max Output Power(HP)	6.0
Displacement (cc)	296
Fuel used	Diesel
Rpm/output capacity	3600 rpm

Sl. No	KK Part No	KK Part Name
3	8-3	Return Spring
4	8-4	Fine Adjustment Spring
5	8-5	Pulling Rod
6	8-6	Quadrate bolt M6x21
7	8-7	Nut M6
8	8-8	Bolt M6 x 12



Sl. No	KK Part No	KK Part Name
2	7-2	Piston
3	7-3	Piston Pin
4	7-4	Clip Piston Pin
5	7-5	Piston Ring Assy
5-1	7-5.1	N/A
5-2	7-5.2	N/A
5-3	7-5.3	N/A
5-3.1	7-5.3.1	N/A
5-3.2	7-5.3.2	N/A



Sl. No	KK Part No	KK Part Name
1	8-1	Speed Adjustment base parts
1-1	8-1.1	N/A
1-2	8-1.2	Adjustment Spring
1-3	8-1.3	Adjustment Screw
2	8-2	Speed Adjustment arm

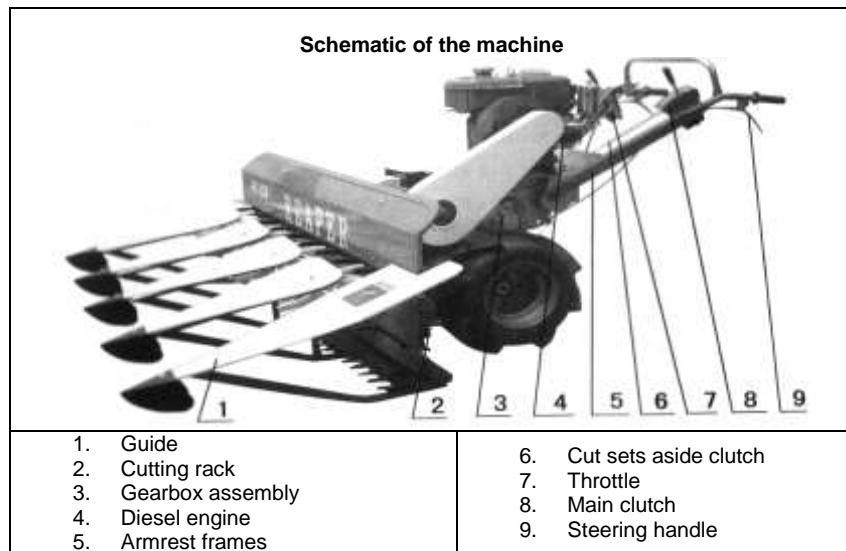
## HARVESTING PROCESS

This machine is driven by a petrol or diesel engine. The power is output to the chain wheel through the gear box, and then to the gear case of the cutting platform. Then, it drives the cutting knife moving through the gear case, the eccentric wheel and the connecting rod. Later the power is transmitted to the transmission shaft through the chain wheel on the gear-case box so as to make the transmission chain wheel working. When the machine moves forward, the divider and the grain-lifter in front of the cutting platform would touch the crop first. Then the grain-lifter cover, the grain-lifter star wheel and the belt would work together to lift and transport the crop to the cutting platform for cutting. With the comprehensive function of the upper & lower conveying chains, the grain-lifter star wheel, and the upper & lower pressing springs of the grain-lifter, the cut crop would keep standing and be conveyed to the exit, and then placed on the field.as shown in figure below.



## OVERVIEW

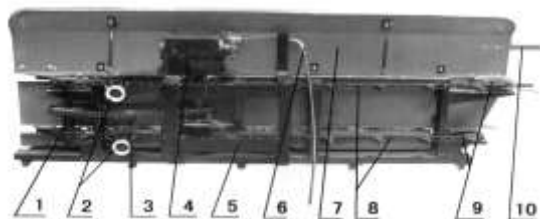
The machine is mainly made up of the grain-lifter, the cutting-platform support, the gear-box assembly, the diesel engine, the handrail frame subassembly, etc.as shown below.



### Cutting-Platform Support:

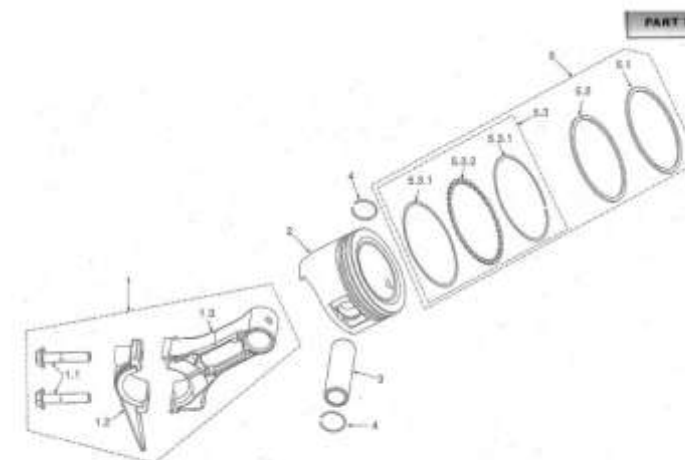
The cutting-platform support is the fundamental par as well as the framework of the machine. The cutter, the divider, the grain-lifter, the gear box and the conveying device are all installed on the support.

The cutting platform support is made up of the transmission shaft subassembly, the tension sprocket, the gear case assembly, the connecting socket, the baffle, the conveying chain and the passive sprocket as shown below.



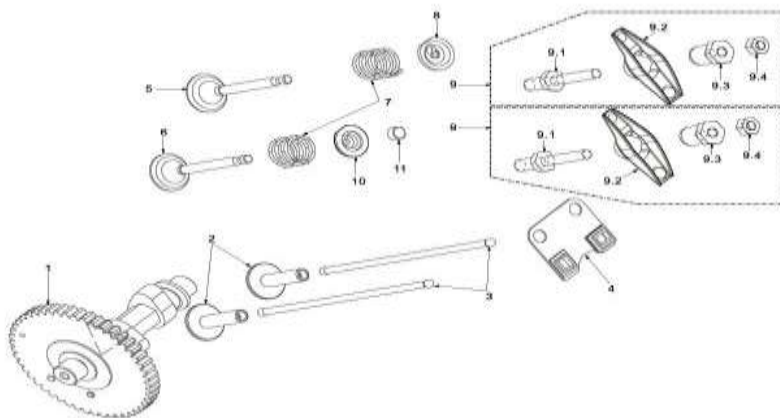
**Cutting-Platform Support**

Sl. No	KK Part No	KK Part Name
9-2	6-9.2	N/A
9-3	6-9.3	N/A
9-4	6-9.4	N/A
10	6-10	Spring Seat Exhaust Valve
11	6-11	Cap Exhaust Valve



Sl. No	KK Part No	KK Part Name
1	7-1	Connecting rod Assy
1-1	7-1.1	Bolt connecting rod M7x35
1-2	7-1.2	N/A
1-3	7-1.3	N/A

Sl. No	KK Part No	KK Part Name
7	5-7	Gasket Cylinder head cover
8	5-8	Cylinder head cover
9	5-9	Bolt M6x12

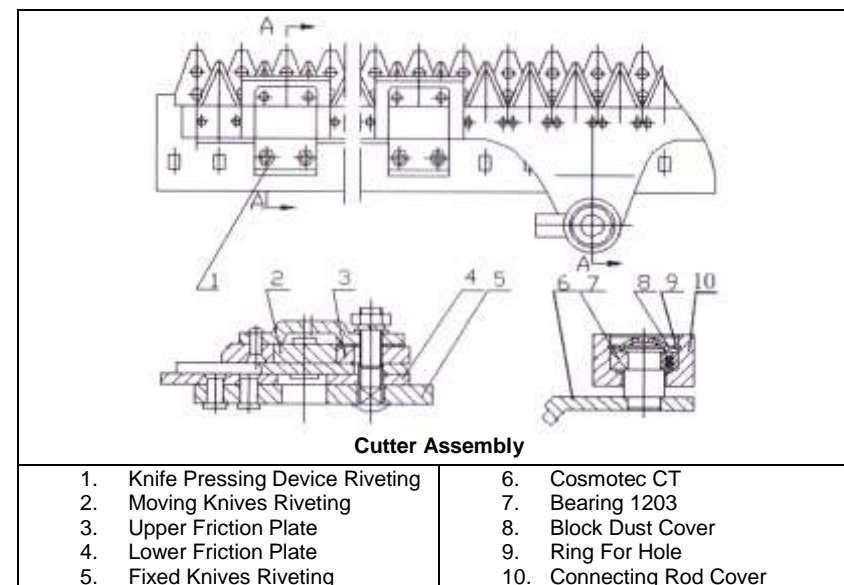


Sl. No	KK Part No	KK Part Name
1	6-1	Cam Shaft Assy
2	6-2	Tappet
3	6-3	Pusher
4	6-4	Pusher guide
5	6-5	Intake Valve
6	6-6	Exhaust Valve
7	6-7	Valve Spring
8	6-8	Spring seat Intake Valve
9	6-9	Rocker Ass.
9-1	6-9.1	N/A

1. Transmission shaft combination	6. Clutch cable
2. Entrusted sprocket	7. Tailgate
3. Tensioning sprocket	8. On next conveyor chain
4. Gear box combination	9. Passive guide sprocket
5. Connection frame	10. Conveyor support Plate

## Cutter:

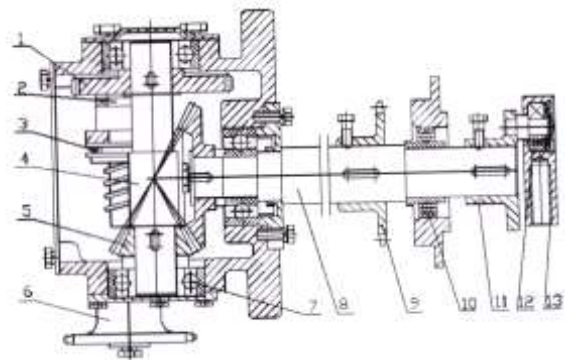
The cutter is installed on the lower part of the cutting platform, which is the main working part of the machine. Its performance would influence the machine directly. When the machine is running, the gear case, the eccentric axle pin and the connecting rod would drive to make the fixed and moving knives moving, so as to cut the crop. It is mainly made up of the knife pressing riveting, the moving knife riveting, the upper friction lining, hole ring, axle ring, bearing 1203, connecting-rod bushing and fixed knife riveting.



## Gear Case:

Gear case is the power transmission part of the machine. It transmits the power from the gear box to the moving knife of the cutter, the conveying chain and other working parts. The gear box transmits the power of the gear box not only to the moving knife of the cutter, but also to the transmission shaft, so as to make the conveying chain work. It is mainly made up of the gear, a pair of clutches, thrust ball bearing, transmission short shaft, a pair of bevel gears, power output sprocket, bearing 6204, transmission shaft of gear case,

transmission sprocket of conveying axle, bearing UC205, eccentric wheels welding bearing 1203, and connecting rod bushing.

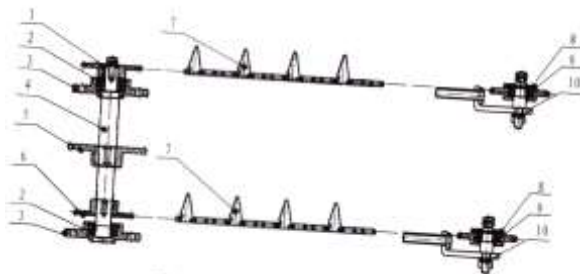


**Gear Case Subassembly**

- |                              |  |
|------------------------------|--|
| 1. Gear                      | 8. Transmission Shaft Of Gear Case         |
| 2. A Pair Of Clutches        | 9. Transmission Sprocket Of Conveying Axle |
| 3. Thrust Ball Bearing 51107 | 10. Bearing UC205                          |
| 4. Transmission Short Shaft  | 11. Eccentric Wheel's Welding              |
| 5. A Pair Of Bevel Gears     | 12. Bearing 1203                           |
| 6. Power Output Sprocket     | 13. Connecting Rod Bushing                 |
| 7. Bearing 6204              |  |

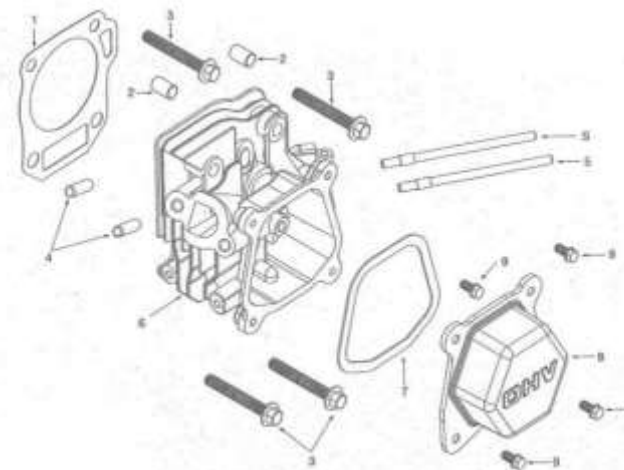
## Conveying Device:

The conveying device is used to convey the cut crop to the right side of the cutting platform, turn the crop vertical to the moving direction of the machine which could be 90°, and place on the field tidily. It is mainly made up of the conveying axle subassembly, the upper conveying chain subassembly, the lower conveying chain subassembly and the passive sprocket subassembly.



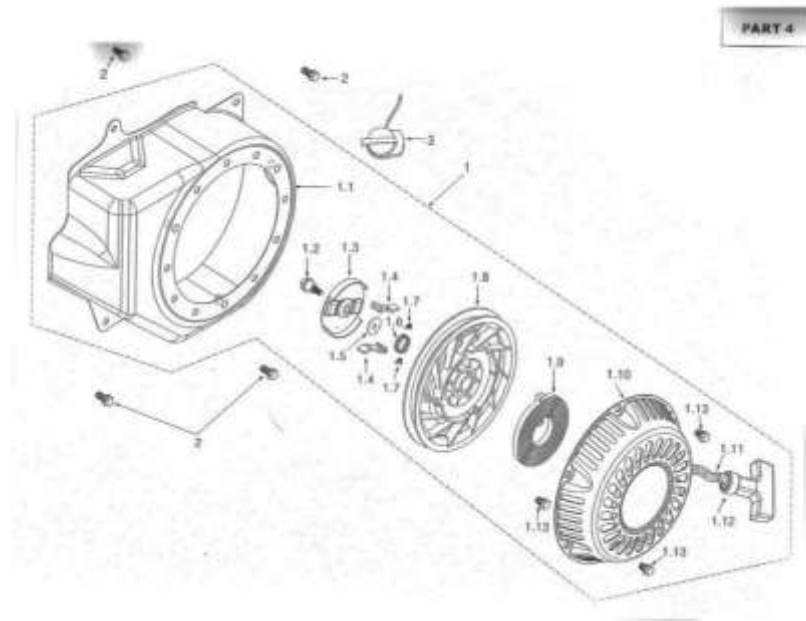
**Conveying Device**

Sl. No	KK Part No	KK Part Name
1-10	4-1.10	Starter cover
1-11	4-1.11	Rope
1-12	4-1.12	Pulling handle
1-13	4-1.13	Bolt M6x8
2	4-2	Bolt M6x12
3	4-3	Engine switch



Sl. No	KK Part No	KK Part Name
1	5-1	Gasket Cylinder head
2	5-2	Set pin 10x14
3	5-3	Bolt M8 x 60, 22
4	5-4	Stud Exhaust Port M8 x 32
5	5-5	Stud Intake Port M6 x 113
6	5-6	Cylinder head Assy





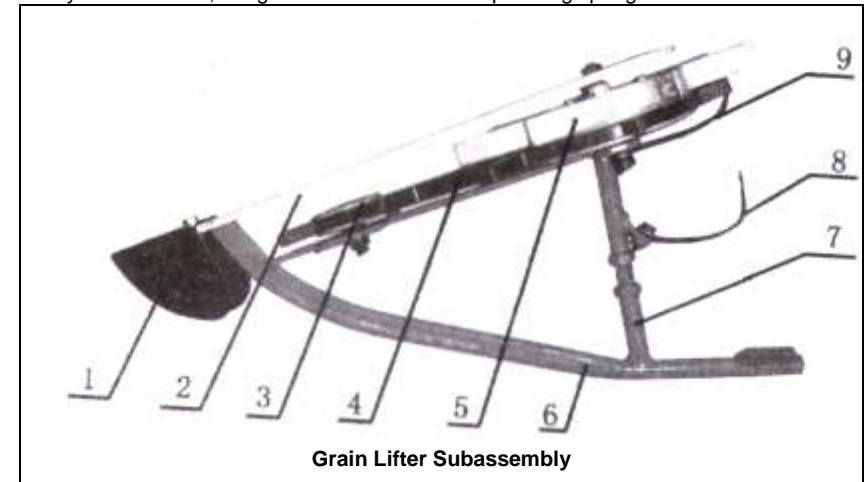
Sl. No	KK Part No	KK Part Name
1	4-1	Recoil Starter Assy Without fan cover
1-1	4-1.1	Fan cover
1-2	4-1.2	Pivot bolt M5 x 17
1-3	4-1.3	Ratchet guide
1-4	4-1.4	Ratchet
1-5	4-1.5	N/A
1-6	4-1.6	Friction Spring 16x1
1-7	4-1.7	Ratchet Spring 5.5x0.2
1-8	4-1.8	Roller
1-9	4-1.9	Starter spring

1. Over the conveyor drive wheel	6. Under the conveyor drive wheel
2. 6203 bearing	7. Conveyor chain
3. Flat bearing	8. Conveyor tension sprocket
4. Drive axle	9. 6202 bearing
5. Drive sprocket	10. Tension wheel strut on the welding parts

#### Grain-Lifter:

When the machine is running, the grain lifter and the divider would touch the crop at the same time. The grain lifter cover could take the fallen crop up, and convey the crop to the cutting platform, together with the grain lifter star gear and the tine shaped belt. Then the pressing ring on the grain lifter could press the crop on the baffle so as to avoid any inclining during the conveying period. The standing pole of the grain lifter is flat, so that the grain lifter could not push over the crop.

The grain lifter is mainly made up of the standing pole, the tine shaped belt, the star gear, the nylon-belt wheel, the grain lifter cover and the pressing spring.



1. Cover	6. Sub-Wo Stent
2. Fu Wo Plate	7. Regulator Tube Station
3. Small Pulley	8. Spring Under The Pressure
4. Fu WO With	9. Spring Over The Pressure
5. Rotary Wo Star Ferry	

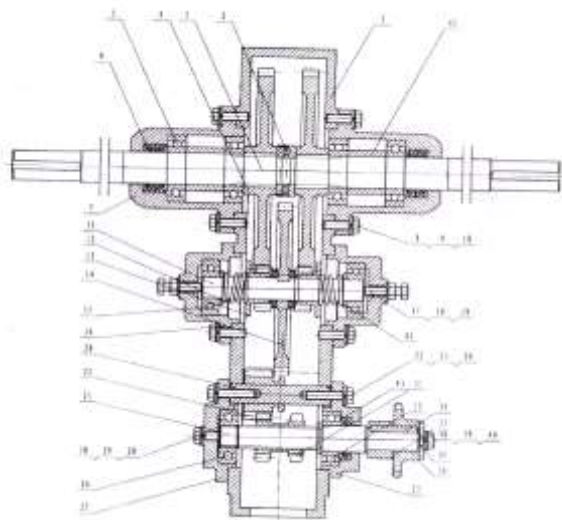
#### Handrail Frame Subassembly:

The handrail frame subassembly is the handrail for the movement of the machine. It could control the left & right turning of the machine, the clutch of the diesel engine and the accelerator by adjusting the handles. It is mainly made up of the handrail's fixed side plate,

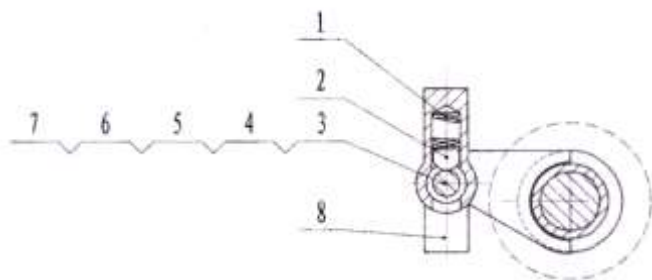
the turning clutch tie rod, the handle's strut beam, the accelerators pull wire, and the handle's bent beam and the clutching handle.

## Gear Box Assembly:

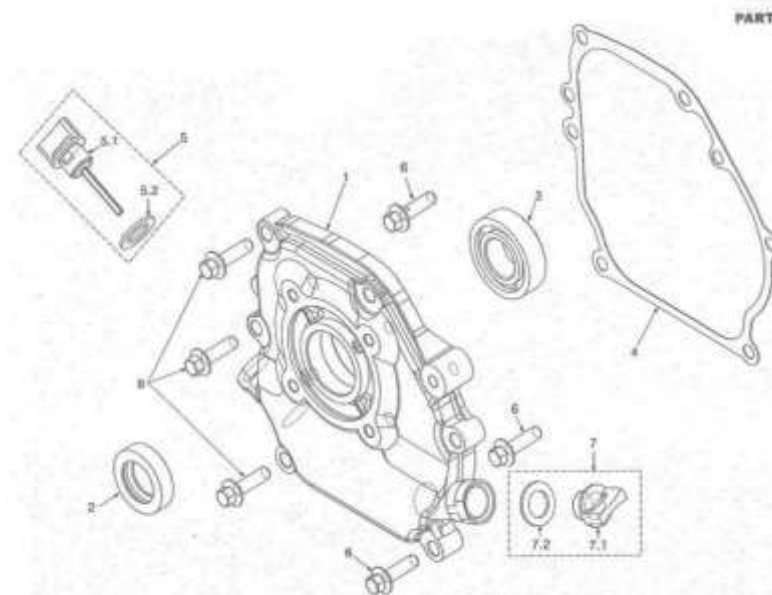
Gearbox unit is installed in the rear of the harvest, its power comes from the engine and is transmitted to the respective wheel and cutting units. Gear box is the power hub. It does this by a few pairs of spur gears to drive the two wheels, so that the machine moves forward and backward.



**Gear Box Assembly**



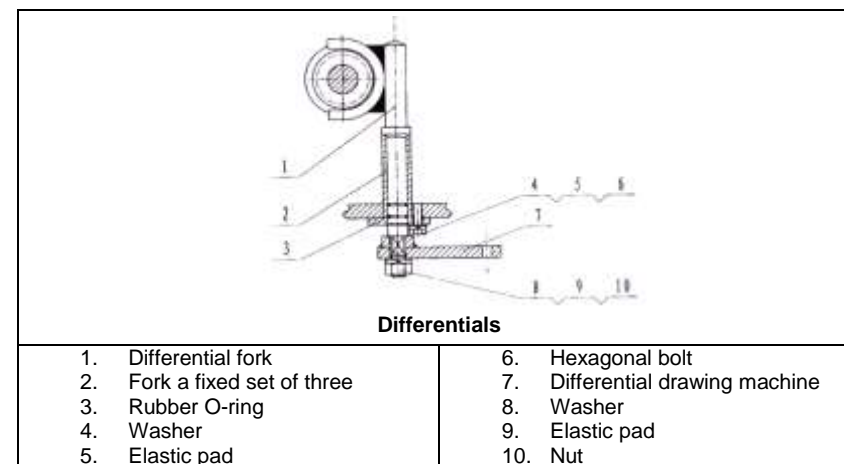
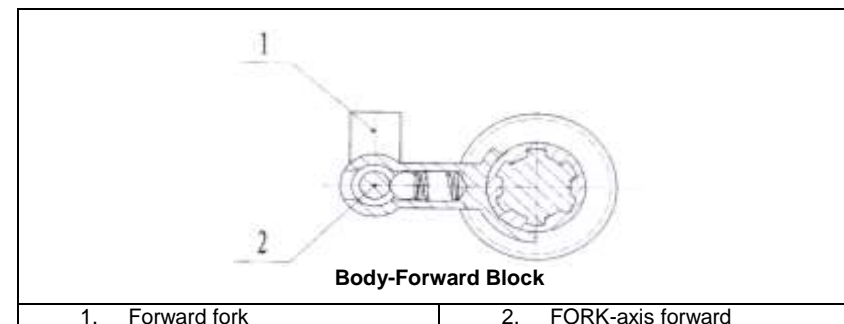
**Reverse Gear Body**



Sl. No	KK Part No	KK Part Name
1	3-1	Crankcase cover
2	3-2	Oil Seal 25x41.25x6
3	3-3	Ball Bearing 6205
4	3-4	Gasket crankcase
5	3-5	oil gauge assembly
5-1	3-5.1	N/A
5-2	3-5.2	seal-oil guage
6	3-6	Bolt M8 x 30
7	3-7	Oil Plug assembly
7-1	3-7.1	N/A
7-2	3-7.2	Seal Oil Plug

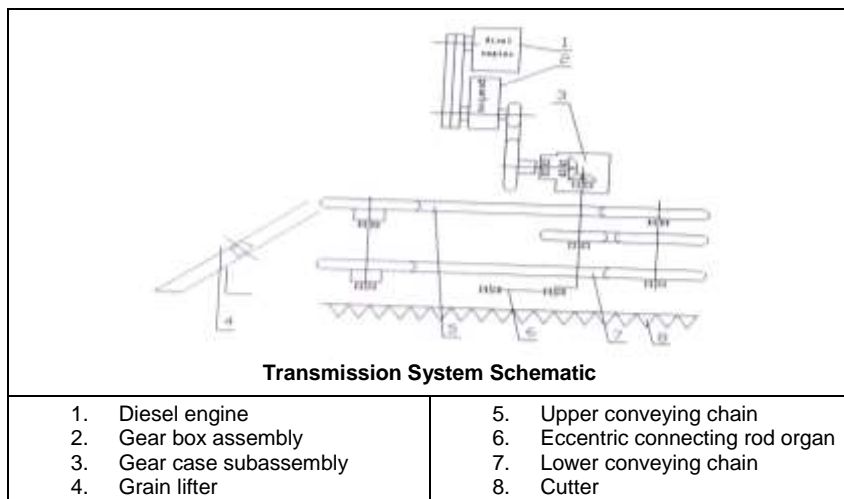
Sl. No	KK Part No	KK Part Name
4	2-4	Nut Fly wheel Assy
5	2-5	Crankshaft assy.
5-1	2-5.1	N/A
5-2	2-5.2	Timing Gear
5-3	2-5.3	Governor Gear
5-4	2-5.4	Woodruff key
5-5	2-5.5	Flat Key
6	2-6	Ignition Coil Assy
6-1	2-6.1	N/A
6-2	2-6.2	Stop lead
6-3	2-6.3	Spark Plug Cap
7	2-7	Spark Plug Assy.
7-1	2-7.1	N/A
7-2	2-7.2	N/A
8	2-8	Bolt 6 x 25
9	2-9	N/A
9.1	2-9.1	N/A
9.2	2-9.2	N/A

1. Spring	5. Elastic pad
2. Ball	6. Hexagonal bolt
3. Thick gasket	7. Reverse fork shaft
4. Washer	8. Inverted fork



## Transmission System:

The machine is driven by the diesel engine, the gear box assembly, the gear-case subassembly, the grain-lifer, the upper conveying chain, the eccentric connecting rod organ, the lower conveying chain and the cutter.



## INSTALLATION & WORKING

The machine is packaged and delivered with the separated cutting platform, the upper baffle, the grain-lifter, the divider, the moving organ, the upper catch lever, the engine, etc. Thus, it is necessary to check whether the parts and accessories are lost or damaged during the transportation, before installation. The users could have the installation and Working done referring to the following regulations:

### Installation

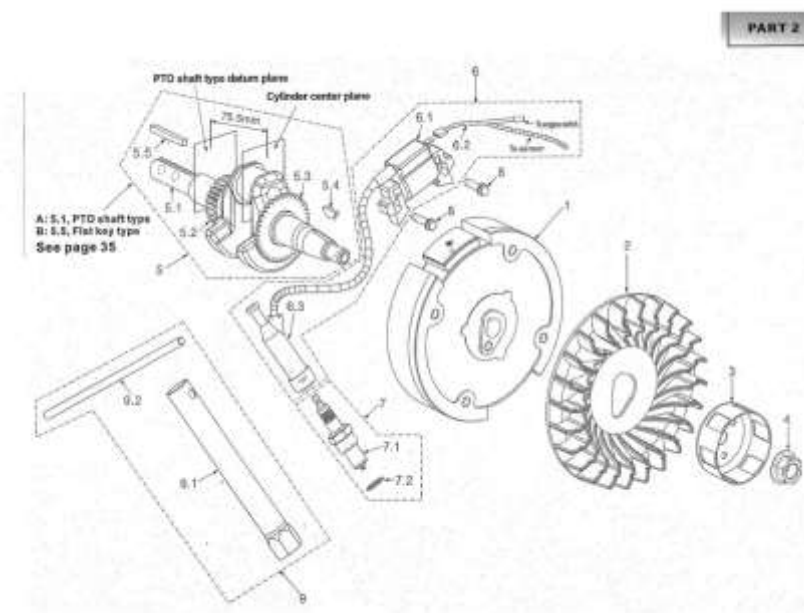
#### A. Installation of Grain-Lifter, Divider and Cutting Platform

1. Separate the bound grain lifter and the divider, and then install the grain-lifter from right to left gradually. (Note: the single-ear grain lifter is installed on the far right side. Remove the original fixed nut, put the fixed pin on the grain lifter, and then fasten the grain lifter on the bottom board. Finally, install the divider accordingly. For adjusting the pressing spring, it is advised to keep the pressing spring 1 cm away from the baffle. Fasten the nut after adjustment.
2. Open the case, and install the crop lever between the divider and the baffle of the cutting platform. The front side is set on the pin of the bottom beam of the divider and locked with the flat pad and the split pin. The other side should be fixed with M6X6 hexagonal flange bolt on the hole on the left side of the baffle of the cutting platform.

#### B. Installation of moving & Cutting Platform:

1. Place the rear of the running gear rack behind the hole and cut the connection coincide with the four connector bolts tightened with the M10.
2. Please fix the adjusting bolt in the front of the gear case's clutch pulling line on the moving organ on the connecting base of pulling line. Clip the head of the pulling line on the gear box's clutching axle head, and then pass through the

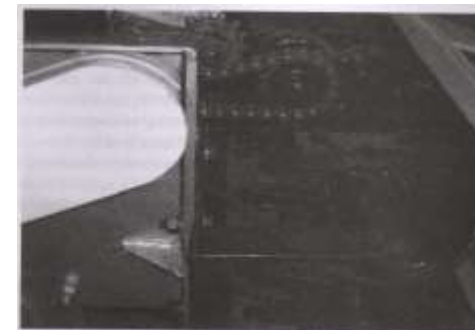
Sl. No	KK Part No	KK Part Name
15	1-15	N/A
16	1-16	Bolt M6 x 12
17	1-17	Bolt M6 x 20
18	1-18	Rubber wire hoop
19	1-19	Washer Sway Bar 6x15x0.5



Sl. No	KK Part No	KK Part Name
1	2-1	Fly Wheel Assy
2	2-2	Fly Wheel Fan
3	2-3	Starter Sleeve

Sl. No	KK Part No	KK Part Name
1	1-1	Crankcase Body
2	1-2	Current Amplifier
3	1-3	Sway bar
4	1-4	Split Clip
5	1-5	Side Plate
6	1-6	Ball Bearing 6205
7	1-7	Oil seal crankcase(25*41.25*6)
8	1-8	Wind guide
9	1-9	Drain bolt
10	1-10	Washer Drain bolt
11	1-11	Set pin 8X14
12	1-12	Centrifugal gear Parts
12-1	1-12.1	N/A
12-2	1-12.2	N/A
12-2-1	1-12.2.1	N/A
12-2-2	1-12.2.2	N/A
12-2-3	1-12.2.3	N/A
12-3	1-12.3	N/A
12-4	1-12.4	N/A
12-5	1-12.5	N/A
13	1-13	N/A
13-1	1-13.1	N/A
13-2	1-13.2	N/A
13-3	1-13.3	N/A
13-4	1-13.4	N/A
14	1-14	Bolt M6 x 10

- split pin. It is available to adjust the length of the pulling line by adjusting the two fixed nuts. Please fasten the two nuts after adjusting to the proper position.
- Drive the chain and sprocket gear box connect. Pressure on the tension wheel, and then fit with protective covers.



**C. Installation of Engine:**

Install the engine on the engine support and fix with 4 pieces of M10X45 hexagonal bolts, which is not necessary to be fastened now. Then, install the v-belt, adjust the engine to make two v-belt on the same level. Now, fasten the bolt, and press the ground cable of the engine under the bolt.

**D. Installation of Line Filter:**

Install the high tube between the filter and the bent tube so that the engine could stay away from the dust.

**E. Installation of Belt Guard & Sprocket Guard**

**F. Install the light on the self-propelled body and make it with power supply.**

**G. Connect the pulling line of the accelerator and the speed adjuster accordingly. Then the whole installation is completed.**

Before the no-load trial running, start up the engine by crank so as to observe the running of the platform. Please start up the engine for no load trial running after making sure it is normal.

**Working:** The operator should adjust and lubricate the machine properly so as to keep the machine working normally, with the satisfactory performance, improved working efficiency and longer service life.

**Warning:**

- Please abide by the following regulations so as to avoid any accident.
- Please stop running the engine on the flat area. Please check, adjust and clean the parts after they stop running.
- Please fix the wheel if parking the machine on the downhill.
- Please put the removed security guard on the original position before starting up the machine.



## A. Working of Cutter

1. The working faces of the moving and fixed knives should be on the same plane, with the difference not more than 5mm. the space in the front should be not more than 0.4mm, and the space on the back should be not more than 1.5mm. The space between the moving knife, the rod and the friction plate of the knife presser should be not more than 0.5mm. It is necessary to adjust the space, keep the knife rod vertical, adjust the knife presser by increasing or decreasing the spacer, or to replace the knife, so as to keep the above status.
2. The beginning and ending lines of the central route of all the moving knives should coincide with the central lines of the neighboring fixed knives, with the difference not more than 5 mm. If it does not coincide, adjust the length of the connecting rod accordingly.
3. Check the riveting of the moving and fixed knives if there's more than 1/3 knives lost or damaged, it would be necessary to replace the knife. It's also required to check the bolt of the knife presser to avoid any loosening.
4. Start up the diesel engine with crank to move flexible. If there is any block or tightening, it is advised to adjust the gap of the knife presser by increasing or decreasing the spacer.

## B. Working of Conveying Chain:

1. For the proper tension rate of the upper and lower conveying chains, it should make the turning smoothly. It is available by loosening the adjustable nut of the passive sprocket to move left and right, so as to change the tension of the conveying chain.
2. Check the tines and riveting of the upper and lower conveying chains, and repair them accordingly if there is any loosening or is lost.
3. Check the correspondence of the tines on the upper and lower conveying chain. Please adjust if it is not correspondent.

## Working of Grain-Lifter

1. The pressing springs of five grain-lifters should keep close to the baffle, but not too tight. The biggest gap should not be more than 10mm. if not, please change the position of the pressing spring by loosening the nut.
2. If the meshing position of the star wheel and the tine is not in the middle, it is advised to loosen the adjustable nut on the standing pole of the grain-lifter, and then to adjust the length of the adjusting axle, so as to adjust the height of the star wheel accordingly.
3. If the tine shaped belt on the grain-lifter loosens, loosen the fixed bolt of the tine-shaped wheel, adjust accordingly and then fasten it.

## Working of Placing Angle:

The angle between the placing and the moving direction could be  $90^\circ \pm 20^\circ$ . It could be adjusted according to the actual status by adjusting the bending degree of the crop leading plate.

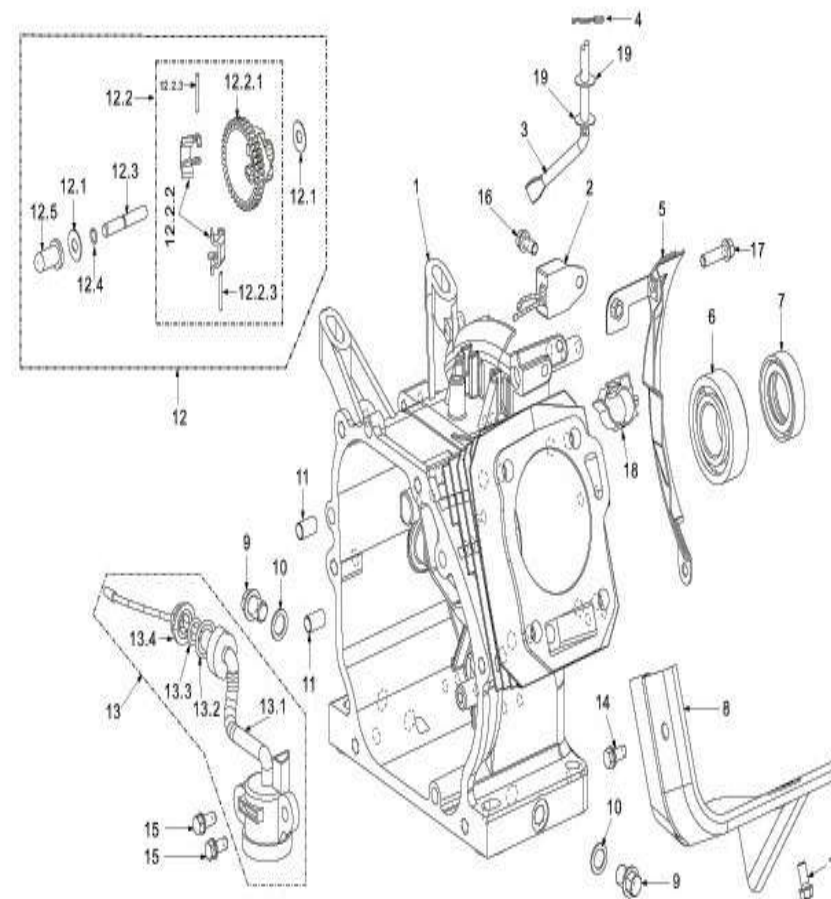
## Working of Clutch:

### A. Working of Turning Clutch Pulling Line:

**Note:** Whether the turning clutch is cut off while clenching the handle of the turning clutch, and whether it is connected while unlocking the handle?

## PARTS DIAGRAM & LIST – PETROL ENGINE

### Crankcase





S. No	KK-Part No	Parts Name
12	R22-12	Bolt M12x90
13	R22-13	Spring washer M12
14	R22-14	Flat washer M12
15	R22-15	Nut M12
16	R22-16	Bolt M8x20
17	R22-17	Nut M8

### Crop Indicating Board



S. No	KK-Part No	Parts Name
1	R23-1	Protective jacket
2	R23-2	Crop lifting board
3	R23-3	Support
4	R23-4	Flag pole
5	R23-5	Bolt M8x20
6	R23-6	Nut M8
7	R23-7	Bolt M8x25
8	R23-8	Nut M8

**Working:** Please make sure that the turning clutch works properly. If the handle cannot be reset while clenching the handle and unlocking, shake the machine to observe if the handle resets and adjust the gap of the handle to 0-1mm using bolt. It should make the turning clutch operate with the reliable connection and without loosening the conveyor line.

#### B. Working of Manual Accelerator:

For the Working of the manual accelerator, it should make the engine running at the highest speed as well as flameout. During working, to turn the handle of the accelerator to the limiting position counterclockwise, make the governor handle of the engine on the corresponding limiting position, and to fasten the fixed bolt.

#### C. Working of Gear Case's Clutch:

The gear case's clutch should be able to become completely free, or reliable connection as needed. It is available to adjust the nuts on the two ports of the pulling line accordingly.

#### D. Working of Master Clutch Pulling Line:

The master clutch should be able to become completely free, or reliable connection as needed. You may adjust the nuts on the two ports of the pulling line accordingly.

**Note:** Working of clutch: Adjust the space between the three pressing claws on the clutch and the separating bearing, which should be not less than 0.5mm when the clutch from the "connecting" status to the working status.

After completing the above Working, please start up the engine and use the clutch of the gear case together to make the machine for no load trial running. The trial running should meet the following requirements:

1. The separating of each handle of the machine should be complete.
2. The moving parts should move flexible and smooth, without breaking other parts.
3. The beginning and ending route of the central line of each moving knife should coincide with the central line of the neighboring fixed knives, with the difference not more than 5 mm.
4. The tines on the upper and lower conveying chains should be in correspondence.
5. There should be no abnormal noise from the gear case. The tension of the chain should be proper, without any abnormal noise. The tension of the belt wheel should also be kept proper.
6. All the fastening pieces should be kept tight.

## OPERATION

### Warning:

Please refer to the following regulations to avoid any accident.

- Install the shell removed after checking and Working. Don't put any flammable things near the vent of the muffler.
- Open the windows and doors for ventilation to avoid any gas poisoning if the machine starts up indoors.
- Do confirm the positions of the moving clutching handle (unoccupied), the master clutch handle (separated) and the harvester's clutch handle (separated) and notice whether there are children or others before starting up.

### A. Preparation and Startup:

1. Check the lubrication of the cases and the connecting bolts.
2. Place the clutch handle on the position of "separating", the tap handle on the neutral gear, and the accelerator on "startup".
3. Start up the engine.

### B. Stepping :

1. Place the tap handle on "gear" position.
2. Place the belt clutch handle on "gear" position smoothly, so as to make the machine step stably.
3. Place the gear case's clutch handle on "gear" position for the trial running of the cutter.

### C. Gear Shifting & Reversing:

1. Place the belt clutch handle on "separating" position.
2. Place the tap handle on gear reversing position.
3. Place the belt clutch handle on "gear" position smoothly, so as to make the machine walk backward (or forward).
4. Please have the gear shifting after stopping the machine. It is strictly forbidden to shift the gear while moving.
5. If failed to put into gear once, connect the clutch handle and separate, and then put into gear again. Do not put into gear by force, which can damage the gears.

### D. Turning:

For turning right, hold the right turning handle tightly. For turning left, hold the left turning handle tightly.

### E. Operation on Field:

1. The height of the cutting stubble is determined by the operator.
2. Preparation: cut the crop at four corners manually with the square of 3\*3m, so that the machine would operate and turn on the field. If the field ridge is too high to place, cut off 2-3 rows of crop first.
3. Pay attention to the barriers including stub, numb, bricks, iron wire and deep pits on the field, so as to avoid damaging the machine.
  - i) Generally the machine enters the field from the left corner, and harvest clockwise.
  - ii) If the crop is fallen heavily, harvest manually. If the crop is fallen lightly, harvest reversely. If the condition is limited, harvest in the vertical lodging direction.
  - iii) If the field is wet, and the rubber wheels skid heavily, cancel the harvesting process.

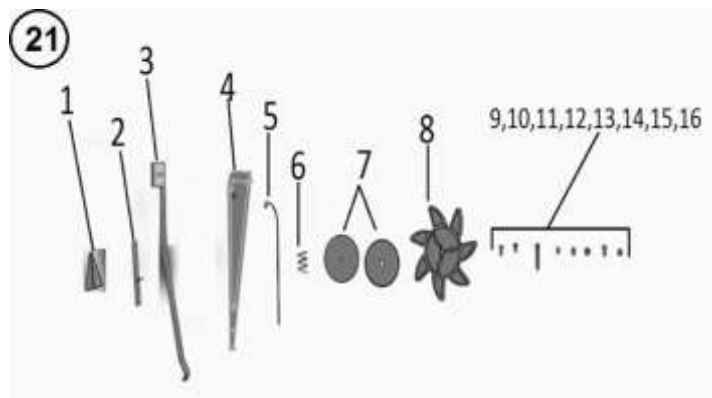
S. No	KK-Part No	Parts Name
14	R21-14	Nut M12
15	R21-15	Bolt M8x20
16	R21-16	Nut M8

## B C D Crop lifter



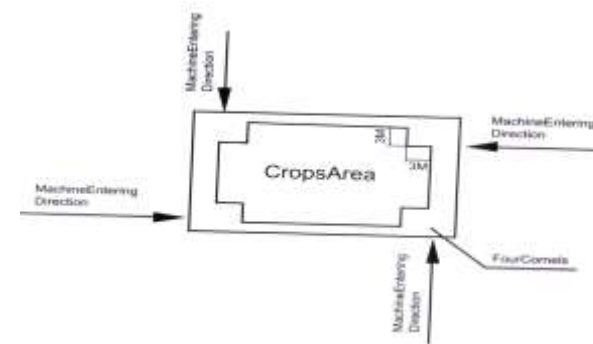
S. No	KK-Part No	Parts Name
1	R22-1	Protective jacket
2	R22-2	Support tube
3	R22-3	Support
4	R22-4	Crop lifter
5	R22-5/6/7	Crop lifting wire A & B With Compressed spring
6		
7		
8	R22-8	Anti-wind device
9	R22-9	Working star wheel
10	R22-10	Bolt M10x20
11	R22-11	Bolt M8x16

## Crop Lifting Assembly



S. No	KK-Part No	Parts Name
1	R21-1	Protective jacket
2	R21-2	Support column
3	R21-3	Support
4	R21-4	Crop lifter
5	R21-5/6	Wire A With Compressed spring
6		
7	R21-7	Anti-wind device
8	R21-8	Working star wheel
9	R21-9	Bolt M10x20
10	R21-10	Bolt M8x16
11	R21-11	Bolt M12x90(SPL-Star Wheel)
12	R21-12	Spring washer 12
13	R21-13	Flat washer 12

- iv) If the weather is windy, harvest crosswind, so as to improve the performance.
- v) When the machine walks downhill, increase the resistance manually (because the clutch is with single-direction connecting tines).
- vi) If the weeds twists the machine, decrease the speed immediately and separate the clutch, so as to stop running the engine and to remove the malfunction.



## F. Stopping :

1. Place the belt clutch handle and the gear case's clutch handle on "separating" position.
2. Place the gear handle on the neutral gear position.
3. Make the engine flameout.

**Warning:** Add the oil and check the flat field after the engine has stopped running.

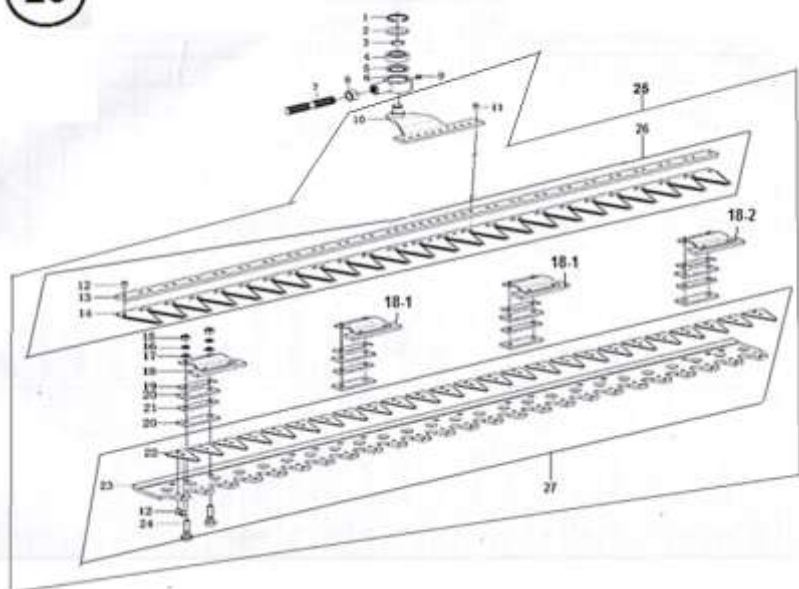
## TROUBLESHOOTING

Problem	Probable Cause	Remedy
The conveying is blocked	The upper & lower conveying chains are lost or broken	Adjust the tension of the upper & lower conveying chains.
	The crop is too wet, with dew or rain	Harvest after the crop is quite dry.
	The pressing spring is loose	Adjust the thickness accordingly
	The cutting knife digs the land.	Increase the cutting stubble properly.
	The crop falls heavily or disorderly.	Have the single direction harvest or cut part fallen crop manually
	The crop is too short.	It should be not shorter than 35cm
	The crop is too high and the crop inclines on the conveying	Increase the cutting stubble properly if the crop is higher than 1.2 m
	The crop inclines on the conveying when harvesting	Adjust the tension of the upper and lower conveying chains and make it consistent
The grain lifter star wheel doesn't work	The tines of the star wheel are broken	Replace the star wheel
	The star wheel and the tines are not meshing	Adjust them to make them meshing
The grain lifter star wheel runs on and off	The conveying chain belt is broken, or the tines are lost	Repair the tines
The conveying chain doesn't work.	The chain buckle is broken	Replace the chain buckle
	The transmission sprocket of the conveying chain is broken	Replace the sprocket
The cutting stubble is uneven, with the laceration	The moving speed is too rapid	Adjust the accelerator
	The cutting knife is blunt, or the gap is too large	Repair or replace the cutting knife, and adjust the gap accordingly.
The crop is fallen	The cutting knife digs the land	Clean and increase the cutting stubble accordingly
	There's one row left on the cutting range	Add the knives for the missing row
Abnormal noise	The bolt is loose	Check and fasten it
	The lubricating part is lack of lubricant	Check and add the lubricant.

S. No	KK-Part No	Parts Name
8	R20-8	Nut M16 ( Left)
9	R20-9	Oil Cup M6
10	R20-10	Driving Plate
11	R20-11	Rivet 6x15
12	R20-12	Rivet 6x25
13	R20-13	Moving Blade Riveted Bar
14	R20-14	Moving Blade
15	R20-15	Nut M8
16	R20-16	Washer M8
17	R20-17	Washer M8
18	R20-18	Cutter Pressing Holder
18-1	R20-18-1	Cutter Pressing Holder-A
18-2	R20-18-2	Cutter Pressing Holder-B
19	R20-19	Adjusting Shim
20	R20-20	Adjusting Plate A
21	R20-21	Adjusting Plate B
22	R20-22	Fixed Blade
23	R20-23	Fixed Blade Base Bar
24	R20-24	Cup Head Square Neck Bolt M8x40
25	R20-25	Cutter Assembly
26	R20-26	Moving Blade Assembly
27	R20-27	Fixed Blade Assembly

## Cutter Assembly

20



S. No	KK-Part No	Parts Name
1	R20-1	Collar 40
2	R20-2	Dust Preventing Cover(A)
3	R20-3	Collar 17
4	R20-4	Bearing 1203
5	R20-5	Dust Preventing Cover(B)
6	R20-6	Connecting Rod Head Welding(Left)
7	R20-7	Connecting Rod

## MAINTENANCE & STORAGE

**Note:** It is required to add the oil and have the check on the flat field after stopping the engine.

### Maintenance:

1. The cutting performance would be influenced if the knife is blunt or broken. It is advised to grind or replace the knife.
2. If the gap in front of the knife is more than 1.5 mm because the knife presser is warp resulted from the abrasion of the friction plate or the knife presser.
3. When the riveting of the fixed knives and the moving knives is loose, fasten them accordingly.
4. If the knife is bent, it is necessary to shape or replace it.
5. If the grain lifter star wheel is worn or broken, which influence the grain lifting, it should be replaced.

### Up keeping:

It is necessary to lubricate the parts of the machine, which could be very helpful to decrease the abrasion of the working parts, and to keep the machine in good condition, to develop the working efficiency and to extend the service life. Before operation, the operator should check whether the parts are lubricated. Do the lubrication as shown in the table below.

Item	Lubricant	Lubricating type	Period
Chain & sprocket	Engine oil	Press adding	Each turn
Connecting – rod bushing bearing	Butter	Press adding	Each turn
Other bearings & bearing bases	Butter	Painting	Once in every season
Gear case	Butter		Each season
Gear box	Engine oil		Each season
Knife presser, friction plate	Engine oil	Brushing	2-4 hours

**Note:** The gear box would not be added with oil on delivery. The users should add engine oil after completing the installation.

Lubricate the parts according to the table given above.

Check the fasten pieces and riveting before operation, and repair or replace it accordingly.

Check the gap of the cutting knife and adjust accordingly.

Thoroughly clean the machine after operation

### Storage:

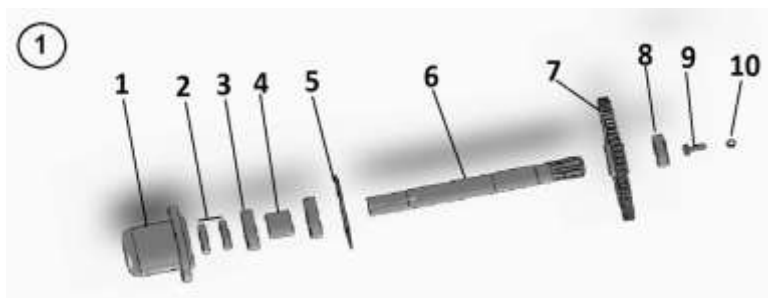
After completing the working on one season, the machine should be stored for the next season. Thus, the machine should be kept well as it's a long period.

1. After completing the harvesting, it is required to unload the machine from the tractor, clean it thoroughly and repair or replace the damaged parts.
2. Add enough lubricant on each adding point. The fixed knives and moving knives should be painted with butter on the surface. In addition, the baffle of the cutting platform and the grain-lifter cover should be painted with the antirust.

3. Unload the conveying chain, and store with the cutting platform together.
4. The cutting platform should be stored in a clean, dry and rainproof place. The tine of the grain lifter should be inward, so as to avoid any accident. In addition, it is strictly forbidden to place anything on the cutting platform.

## PARTS DIAGRAM & LIST-REAPER

### Output Shaft



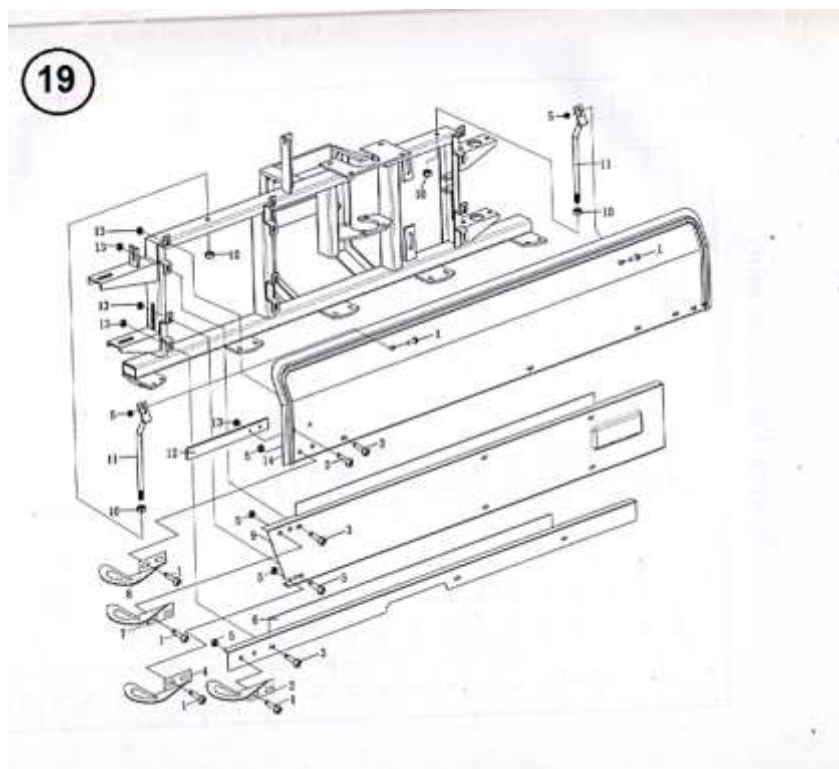
S. No	KK-Part No	KK-Name
1	B1-1	Output shaft seat
2	B1-2	Oil seal 30x45x10
3	B1-3	Bearing 6206
4	B1-4	Ring mat 31x38x5
5	B1-5	Paper mat
6	B1-6	Output shaft
7	B1-7	Gear 62 teeth
8	B1-8	Bearing 198905
9	B1-9	Bolt M8x25
10	B1-10	Spring washer M8

S. No	KK-Part No	Parts Name
1	R19-1	Hexagon Bolt with Flange M6x15
2	R19-2	Exit Guide Plate(Lower2)
3	R19-3	Hexagon Bolt with Flange M8x15
4	R19-4	Exit Guide Plate(Upper2)
5	R19-5	Lock Nut M6
6	R19-6	Panel C
7	R19-7	Exit Guide Plate(Lower1)
8	R19-8	Exit Guide Plate(Upper1)
9	R19-9	Panel B
10	R19-10	Nut M10
11	R19-11	Panel Supporter
12	R19-12	Crop Guide Plate
13	R19-13	Lock Nut M8
14	R19-14	Panel A

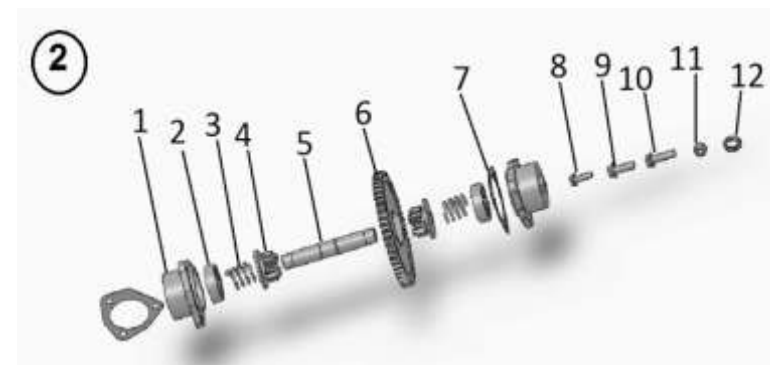


S. No	KK-Part No	Parts Name
36	R18-36	Key 8x7x20
37	R18-37	Key 6x6x20
38	R18-38	Convey Chain Transmission Lower Sprocket 20
39	R18-39	Transmission Shaft Lower Spacer Ring

## Reaper Panel Assembly

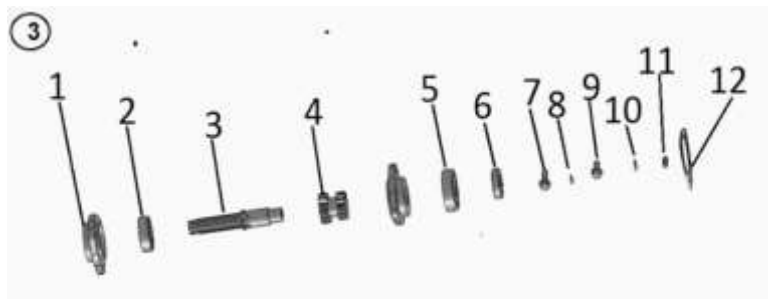


## Steering Shaft



S. No	KK-Part No	Parts Name
1	B2-1	Steering shaft seat
2	B2-2	Bearing 6304
3	B2-3	Spring 28x32x3
4	B2-4	Steering gear
5	B2-5	Steering shaft
6	B2-6	Middle gear for steering 52
7	B2-7	Steering seat paper mat
8	B2-8	Bolt M8x25
9	B2-9	Bolt M10x30
10	B2-10	Bolt M10x35
11	B2-11	Bolt M10
12	B2-12	Ring 23x15

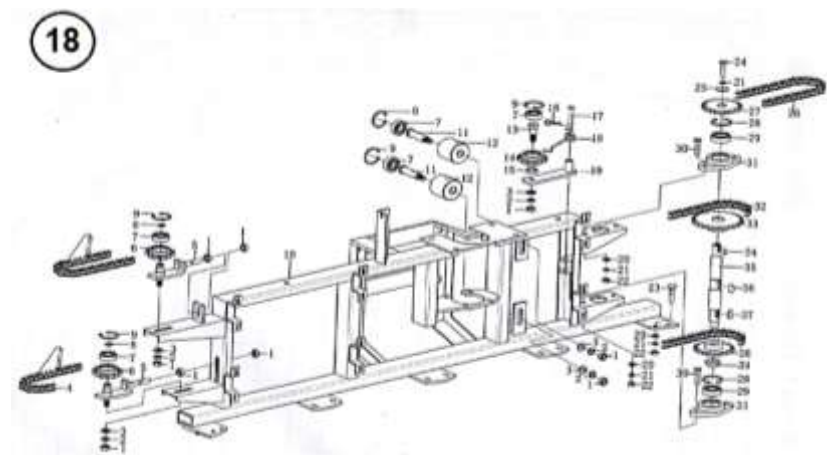
## Gear Shifting Shaft



S. No	KK-Part No	Parts Name
1	B3-1	Main shaft bearing seat
2	B3-2	Bearing 6304
3	B3-3	Gear shifting shaft
4	B3-4	Gear shifting shunt-wound gear
5	B3-5	Bearing 6205
6	B3-6	Oil seal 25x45x10
7	B3-7	Bolt M8x25
8	B3-8	Spring washer M8
9	B3-9	Bolt M8x20
10	B3-10	Flat washer M8
11	B3-11	Flat key 6x6x20
12	B3-12	Paper mat

S. No	KK-Part No	Parts Name
12	R18-12	Convey Chain Supporting Roller
13	R18-13	Tension Sprocket Shaft
14	R18-14	Tension Sprocket 14 Teeth
15	R18-15	Space Ring
16	R18-16	Split 2x35
17	R18-17	Pin Shaft
18	R18-18	Outer Arm Torsion Spring
19	R18-19	Rocker Arm Welding
20	R18-20	Washer M8
21	R18-21	Washer M8
22	R18-22	Nut M8
23	R18-23	Carriage Bolt M8x25
24	R18-24	Bolt M8x20
25	R18-25	Washer
26	R18-26	Conveyer Chain 20 Teeth
27	R18-27	Convey Chain Transmission Upper Sprocket 20 Teeth
28	R18-28	Collar 40
29	R18-29	Bearing 6203-2RS
30	R18-30	Bolt M8x25
31	R18-31	Bearing Base
32	R18-32	Transmission Chain 77 Links
33	R18-33	Transmission Sprocket 26 Teeth
34	R18-34	Key 6x6x15
35	R18-35	Transmission Shaft

## Reaper Frame Assembly



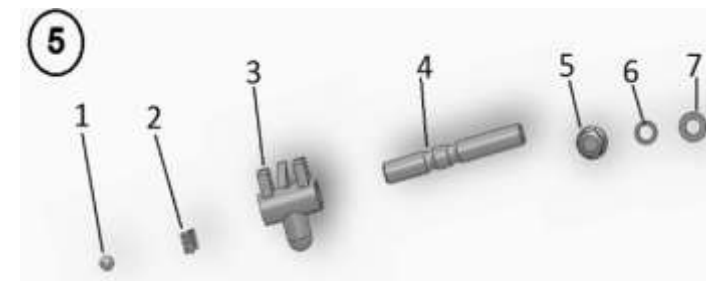
S. No	KK-Part No	Parts Name
1	R18-1	Nut M10
2	R18-2	Washer M10
3	R18-3	Washer M10
4	R18-4	Convey Chain 19 Teeth
5	R18-5	Convey chain Tension Adjusting Sprocket supporting plate
6	R18-6	Tension Sprocket
7	R18-7	Closed Bearing 6202
8	R18-8	Stop Ring-15 Outer
1	R18-9	Stop Ring-35 Inner
10	R18-10	Reaper Frame
11	R18-11	Roller Shaft

## Reverse Gear Shaft



S. No	KK-Part No	Parts Name
1	B4-1	Reverse gear shaft
2	B4-2	Reverse gear tooth

## Reverse Gear Shifting Fork



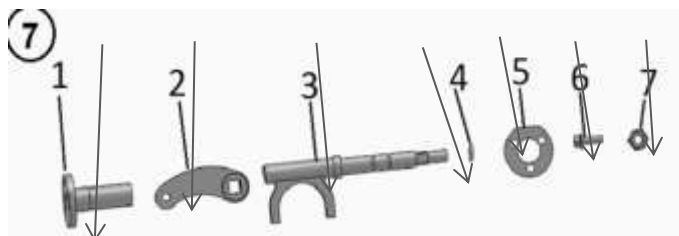
S. No	KK-Part No	Parts Name
1	B5-1	Shifting fork ball M8
2	B5-2	Shifting fork spring 8x17x1
3	B5-3	Reverse gear shifting fork
4	B5-4	Reverse gear shifting fork shaft
5	B5-5	Bolt M8x16
6	B5-6	Spring washer M8
7	B5-7	Flat washer M8

## Gear Shift Shifting Fork Assembly



S. No	KK-Part No	Parts Name
1	B6-1	Gear shift shifting fork shaft
2	B6-2	Gear shift shifting fork
3	B6-3	Shifting fork spring 8x17x1
4	B6-4	Shifting fork ball 8

## Steering Shifting Fork Assembly

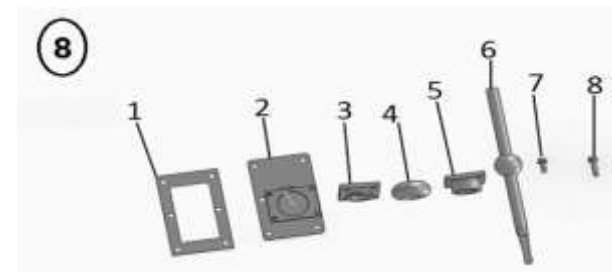


S. No	KK-Part No	Parts Name
1	B7-1	Steering bush
2	B7-2	Steering arm
3	B7-3	Steering shifting fork
4	B7-4	O-ring 13x10x2
5	B7-5	Steering paper mat
6	B7-6	Reel bolt M6x20
7	B7-7	Nut M10

S. No	KK-Part No	Parts Name
34	R17-34	Big Bevel Gear 28 Teeth
35	R17-35	Spacer Ring
36	R17-36	Oil Seal 25x40x10
37	R17-37	Gland
38	R17-38	Bolt M6x25
39	R17-39	Key 6x6x20
40	R17-40	Reaper Output Shaft
41	R17-41	Key 8x7x35
42	R17-42	Key 8x7x40
43	R17-43	Nut M8
44	R17-44	Lock Screw M8x20
45	R17-45	Reaper Output Sprocket 18 Teeth
46	R17-46	Bearing UC205
47	R17-47	Bearing Base FC 205
48	R17-48	Corner Shaft Sleeve
49	R17-49	Conneting Rod Head Welding(R)
50	R17-50	Nut M16
51	R17-51	Oil Cup M6
52	R17-52	Dust Preventing Cover(B)
53	R17-53	Bearing 1203
54	R17-54	Stop Ring-17 Outer
55	R17-55	Dust Preventing Cover(A)
56	R17-56	Stop Ring-40 Inner
57	R17-57	Bolt M10x40

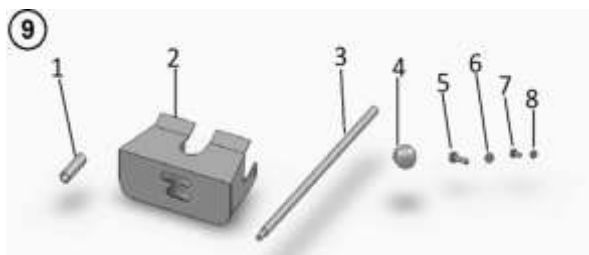
S. No	KK-Part No	Parts Name
10	R17-10	Key 6x6x25
11	R17-11	Key 6x6x35
12	R17-12	Spring
13	R17-13	Reaper Clutch Sleeve
14	R17-14	Bearing 8107
15	R17-15	Shifting fork Shaft
16	R17-16	Shifting fork
17	R17-17	Reaper Transmission box body
18	R17-18	Cover of Transmission
19	R17-19	Washer M6
20	R17-20	Bolt M6x15
21	R17-21	Oil Bearing
22	R17-22	Combine Gear 18 Teeth
23	R17-23	Bearing 6303
24	R17-24	End Cover(C)
25	R17-25	End Cover(B)
26	R17-26	Reaper Reversing Shaft
27	R17-27	Key 6x6x40
28	R17-28	Bolt M10x25
29	R17-29	Washer M10
30	R17-30	Nut M10
31	R17-31	Small Bevel Gear 17 Teeth
32	R17-32	Gear 33 Teeth
33	R17-33	Bolt M8x16

## Standpipe Assembly



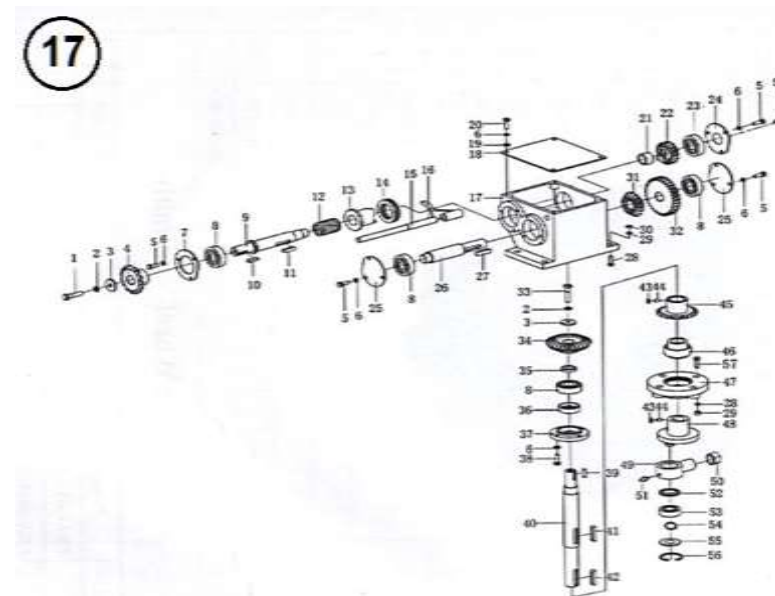
S. No	KK-Part No	Parts Name
1	B8-1	Paper mat(main shaft bearing seat)
2	B8-2	Stand pipe
3	B8-3	Ball head hold-down plate A
4	B8-4	Rubber dust cover
5	B8-5	Ball head hold-down plate B
6	B8-6	Ball head gear shifting rod
7	B8-7	Bolt M6x16
8	B8-8	Bolt M6x25

## Gear Shifting Rod Assembly



S. No	KK-Part No	Parts Name
1	B9-1	Gear shifting rod sleeve
2	B9-2	Gear indicator
3	B9-3	Gear shifting straight rod
4	B9-4	Gear shifting rod handle ball
5	B9-5	Bolt M8x25
6	B9-6	Nut M8
7	B9-7	Bolt M6x12
8	B9-8	Self-lock nut M6

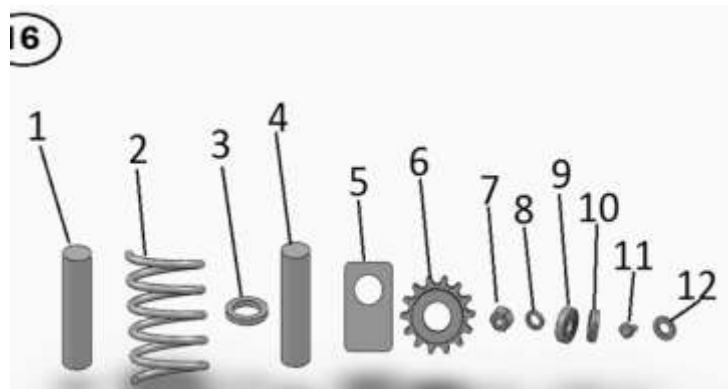
## Cutting Table Gear Transmission



S. No	KK-Part No	Parts Name
1	R17-1	Bolt M8x20
2	R17-2	Washer M8
3	R17-3	Washer M8
4	R17-4	Reaper Input Sprocket 15 Teeth
5	R17-5	Bolt M6x15
6	R17-6	Washer M6
7	R17-7	End Cover(A)
8	R17-8	Bearing 6204
9	R17-9	Reaper Input Shaft

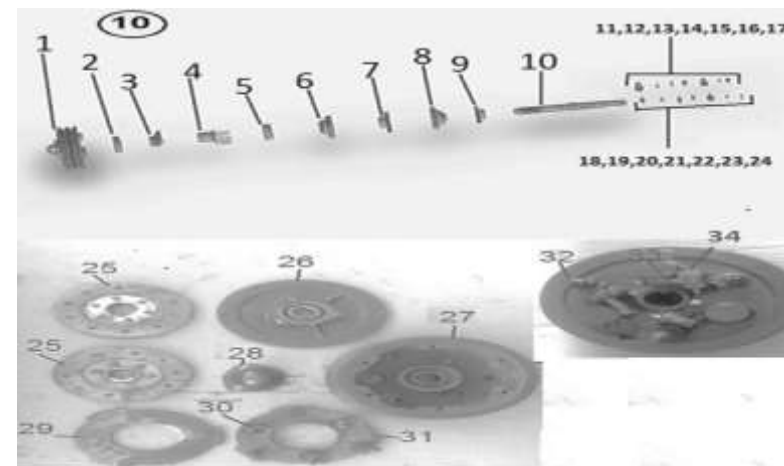


## Cutting Table Chain Wheel Tensioning Assembly



S. No	KK-Part No	Parts Name
1	B16-1	Tensioning wheel location shaft
2	B16-2	Tensioning wheel torsional spring
3	B16-3	Tensional wheel push
4	B16-4	tensional wheel shaft
5	B16-5	Tensional wheel assemble arm
6	B16-6	Tensioning chain wheel
7	B16-7	Bolt M10
8	B16-8	spring washer M10
9	B16-9	bearing 6202
10	B16-10	Stop Ring-35 inner
11	B16-11	special bolt
12	B16-12	plat washer M10

## Clutch Shaft Assembly

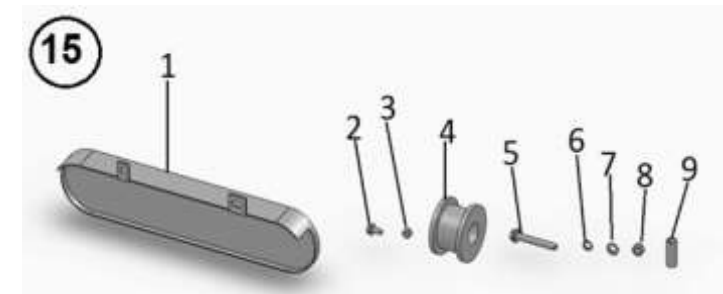


S. No	KK-Part No	Parts Name
1	B10-1	Clutch Assy
2	B10-2	Thrust bearing 688808
3	B10-3	Clutch separator
4	B10-4	Buy # B10-6
5	B10-5	Bearing 6205
6	B10-6	Clutch seat
7	B10-7	Cutting table chain wheel 20 Teeth
8	B10-8	Spherical bearing with seat UC 204
9	B10-9	Input chain wheel 16 Teeth
10	B10-10	Clutch shaft
11	B10-11	Bolt M10x30

S. No	KK-Part No	Parts Name
12	B10-12	Spring washer M10
13	B10-13	Flat washer M10
14	B10-14	Nut M10
15	B10-15	Bolt M8x25
16	B10-16	Spring washer M8
17	B10-17	Nut M8
18	B10-18	Bolt M6x20
19	B10-19	Nut M6
20	B10-20	Flat key 6x6x30
21	B10-21	Flat key 6x6x20
22	B10-22	Bolt M8x20
23	B10-23	Spring washer M8
24	B10-24	Flat washer M8
25	B10-25	Clutch Plate
26	B10-26	Cover Clutch Housing
27	B10-27	Clutch Housing
28	B10-28	Dust Cover Clutch
29	B10-29	Pressure Plate-1
30	B10-30	Clutch Spring
31	B10-31	Pressure Plate-2
32	B10-32	Eye Bolt-Clutch
33	B10-33	Finger -Clutch
34	B10-34	Pin for Finger-Clutch
35	B10-35	Split pin

7	B14-7	Pulling rod cover
8	B14-8	Bolt M10x30
9	B14-9	Bolt M10x60
10	B14-10	Bolt M10
11	B14-11	Spring washer M10
12	B14-12	Flat washer M10
13	B14-13	Bolt M10 x 25

## Cover Tensioning Part



S. No	KK-Part No	Parts Name
1	B15-1	Running chain belt cover
2	B15-2	Bolt M8x16
3	B15-3	Nut M8
4	B15-4	Nylon tensioning wheel
5	B15-5	Bolt M10x70
6	B15-6	spring washer M10
7	B15-7	Flat washer M10
8	B15-8	Nut M10
9	B15-9	Tensioning wheel push

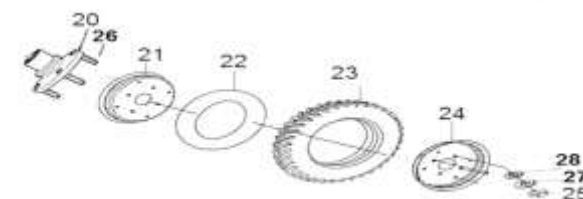
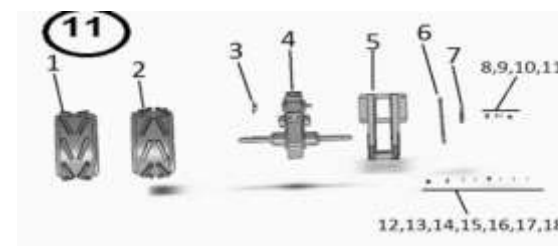
S. No	KK-Part No	Parts Name
1-2	B13-1-2	Cable Stopper
2	B13-2	Throttle cable
3	B13-3	Walking clutch wire 1060 MM
4	B13-4	Cutting table clutch wire 1570 MM
5	B13-5	Belt B 1219

### Handle Rack Assembly



S. No	KK-Part No	Parts Name
1	B14-1	Frame rack
2	B14-2	Handle rack
3	B14-3	Handle(Left)
4	B14-4	Handle(Right)
5	B14-5	Spring(Reaper clutch lever)
5-1	B14-5-1	Spring(Master Clutch)
6	B14-6	Clutch pulling rod

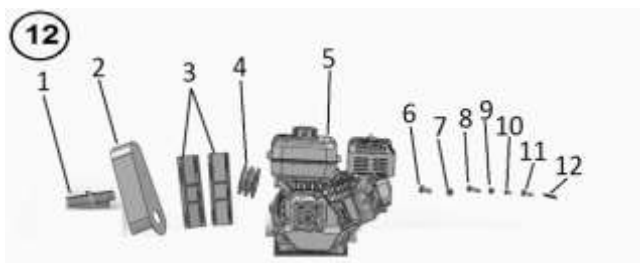
### Herringbone Gear



S. No	KK-Part No	Parts Name
1	B11-1	N/A
2	B11-2	N/A
3	B11-3	Input chain wheel
4	B11-4	Transmission case
5	B11-5	N/A
6	B11-6	Chain 68
7	B11-7	Chain 46
8	B11-8	Bolt M10x110
9	B11-9	Bolt M10
10	B11-10	Spring washer M10
11	B11-11	Bolt M10x15

S. No	KK-Part No	Parts Name
12	B11-12	Bolt M12x35
13	B11-13	Bolt M12
14	B11-14	Spring washer M12
15	B11-15	Flat washer M12
16	B11-16	Bolt M10x25
17	B11-17	Spring washer M10
18	B11-18	Flat washer 35x10x3
19	B11-19	Flat key 8x8x60
20	B11-20	Wheel Hub (L/R)
21	B11-21	Disc Inner (L/R)
22	B11-22	Tube
23	B11-23	Tyre
24	B11-24	Disc Outer (L/R)
25	B11-25	Nut-M12
26	B11-26	Bolt-12X30 Hex
27	B11-27	Washer-12 Spring
28	B11-28	Washer-12 Plain

## Power Engine Assembly



S. No	KK-Part No	Parts Name
1	B12-1	Belt cover rack
2	B12-2	Belt cover
3	B12-3	U-steel connecting seat 36x54x200x3
4	B12-4	Pulley 85
5	B12-5	Power engine 170F
6	B12-6	Bolt M10x25
7	B12-7	Nut M10
8	B12-8	Bolt M8x30
9	B12-9	Nut M8
10	B12-10	Bolt M6x12
11	B12-11	Bolt M8x25
12	B12-12	flat key 5x5x40

## Belt & Wire



S. No	KK-Part No	Parts Name
1	B13-1	Turning wire
1-1	B13-1-1	Turning Lever