



Warranty Certificate

(KISANKRAFT COPY)

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

Notes:

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- Dealers should have their own technician to provide After Sales Services to their Customers. KisanKraft Limited provides free training to Authorized Dealer's technicians at KisanKraft Limited's head office, on request from Authorized Dealer.

🌐: www.kisankraft.com ✉: info@kisankraft.com ☎: +91.80. 6835 7800

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Warranty Certificate

(DEALER COPY)

| | | | |
|--|---|--|--|
| Product | AGRICULTURAL INTERCULTIVATOR / POWER WEEDER | KisanKraft Invoice Date | |
| Brand | KisanKraft | KisanKraft Invoice No. | |
| Model | ☐ KK-IC-312P | | |
| 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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- (1) Operation of product with incorrect fuel or lubricants, (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 (8) Any modification to the product what-so-ever.

Important: (1) Normal maintenance and adjustments to the product is the responsibility of the customer. (2) Normal wear and tear are not covered under warranty. (3) Rubber/plastic parts and consumables such as blades, clutch and clutch-bell, sparkplugs, nylon line, air-filters, fuel-filters, oil seals and gaskets etc. are not covered under the warranty. (4) Electrical Motor, Electrical Parts, Battery Etc. are not covered under the warranty.

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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



KK-IC-312P

KisanKraft Limited

Warehouse: 818 3B1 to 818 3B18, Podalukur - Sangam Road, Prabagiripatnam, Podalukur, Nellore - 524345, Andhra Pradesh, INDIA

Head Office: Sri Huchhanna Tower, #4, 1st Main, 7-A Cross, Maruthi Layout, Dasarahalli, HAF Post, Hebbal, Bangalore 560024, Karnataka, INDIA

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



Scan the QR code to download KisanKraft App

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YouTube

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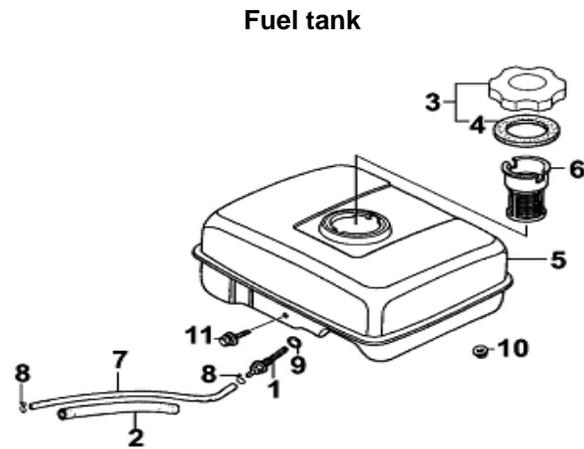
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KisanKraft has a large range of products to serve the farmers. A list of our products is given below:

| | |
|--|--|
| <p>Brush Cutters and Accessories</p> <ul style="list-style-type: none"> 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 <p>Chainsaws</p> <ul style="list-style-type: none"> Petrol Chainsaw Electric Chainsaw Chain Sharpening Machine <p>Engines and Water Pumps</p> <ul style="list-style-type: none"> Engine –Diesel-(Horizontal) Engine –Diesel(Vertical) Engine-Kerosene Water Pump with Petrol Engine Water Pump with Kerosene Engine Water Pump with Diesel Engine <p>Hand Tools</p> <ul style="list-style-type: none"> 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 <p>Garden Tools</p> <ul style="list-style-type: none"> Electric Pressure Washer Hedge Trimmer Lawn Mower (Electric, Petrol & Manual) Leaf Blower | <p>Cultivators and Accessories</p> <ul style="list-style-type: none"> Petrol and Diesel <p>Sprayers and Accessories</p> <ul style="list-style-type: none"> 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 / Granule Spreader HTP Sprayer Set with Diesel Engine HTP Sprayer Set with Kerosene Engine Fogging Machine <p>Milking Machine</p> <ul style="list-style-type: none"> Wood Shredder Fodder Ensiling Chaff Cutter Fodder Grinder Chaff Cutter Fodder Mini Chaff Cutter <p>Harvester</p> <ul style="list-style-type: none"> Maize Sheller Maize Sheller + Dehusker Maize Combine Harvester Onion Digger Carlotta Italy Tea Leaf Harvester Sugarcane Combine Harvester Sugarcane Leaf Stripper <p>Transplanter and Post Hole Digger</p> <ul style="list-style-type: none"> Paddy Transplanter (2 & 8 Rows) Transplanter-Vegetable & Tobacco Post Hole Digger(4" to 14" Augers) |
|--|--|



| SL-No | KK-No | KK-Name | Qty |
|-------|--------|---------------------------------|-----|
| 1 | E15-01 | Fuel outlet joint | 1 |
| 2 | E15-02 | Sleeve Fuel pipe | 1 |
| 3 | E15-03 | Fuel tank cap | 1 |
| 4 | E15-04 | Gasket Fuel tank Cap | 1 |
| 5 | E15-05 | Fuel tank | 1 |
| 6 | E15-06 | Fuel Filter | 1 |
| 7 | E15-07 | Fuel Tube M4.5x140 | 1 |
| 8 | E15-08 | Clip Fuel tube | 2 |
| 9 | E15-09 | O-ring 14mm (Fuel outlet joint) | 1 |
| 10 | E15-10 | Nut M6 Flanged | 2 |
| 11 | E15-11 | Bolt M6x30 Flanged Hex | 1 |

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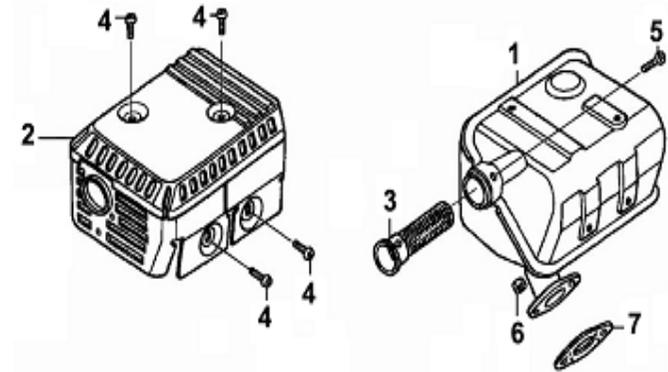
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Muffler



| SL-No | KK-No | KK-Name | Qty |
|-------|--------|----------------|-----|
| 1 | E14-01 | Muffler Assy | 1 |
| 2 | E14-02 | N/A | 1 |
| 3 | E14-03 | N/A | 1 |
| 4 | E14-04 | Screw M5 x 8 | 4 |
| 5 | E14-05 | N/A | 1 |
| 6 | E14-06 | Nut M8 | 2 |
| 7 | E14-07 | Gasket Muffler | 1 |

BEFORE GETTING STARTED

Thank you for purchasing our Inter-cultivator.

- This manual contains information on operation and maintenance of the Inter-cultivator, which is based on the most recent product information available at the time of approval for printing. We reserve the right to make amendments without prior notice and without incurring any obligation for sequences.
- No part of this publication may be reproduced without written permission.
- This manual should be considered a permanent part of the cultivator and remain with it if it is resold.
- Please pay special attention to statements preceded by the following words:

| | |
|---|---|
|  WARNING | Indicates a strong possibility of severe personal injury or death if instructions are not followed. |
|  CAUTION | Indicates a possibility of personal injury or equipment damage if instructions are not followed. |
| NOTE | Gives helpful information. |

APPLICATION

The Inter-cultivator is suitable for cultivating the sandy soil and clay soil of canopied vegetables base, slopes with gradient less than 10%, paddy field with the depth of water surface to hard layer not more than 250mm. For weedy and deep plots, remove the weeds before using the Inter-cultivator to cultivate the land. Assemble blades on both side of tilling system, and use pin to fixed blades to do tilling work. Take off resistance rod and assemble ditching blade, for ditching work.

| SL-No | KK-No | KK-Name | Qty |
|-------|--------|-----------------------|-----|
| 7 | E13-07 | N/A | 2 |
| 8 | E13-08 | N/A | 1 |
| 9 | E13-09 | Air Cleaner Seat Assy | 1 |
| 10 | E13-10 | Butterfly nut M6 | 2 |
| 11 | E13-11 | Nut M6 | 2 |
| 12 | E13-12 | ST Screw M4 x 12 | 1 |
| 13 | E13-13 | N/A | 1 |
| 14 | E13-14 | N/A | 1 |
| 15 | E13-15 | N/A | 1 |
| 16 | E13-16 | N/A | 1 |
| 17 | E13-17 | N/A | 1 |

SAFETY INSTRUCTION

Training

- a) Read the instructions carefully. Be familiar with the controls and the proper use of the equipment;
- b) Never allow children or people unfamiliar with these instructions to use the machine. Local regulations can restrict the age of the operator;
- c) Never work while people, especially children, or pets are nearby;
- d) Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.

Preparation

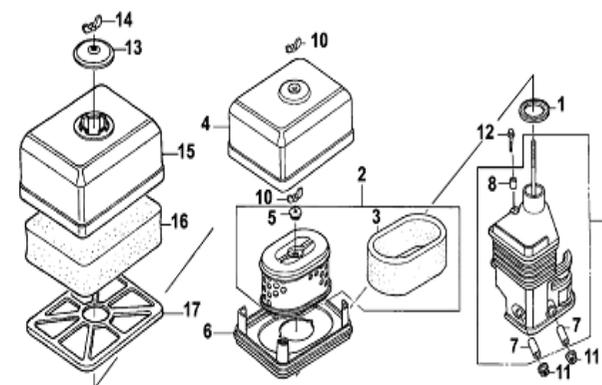
- a) While working, always wear substantial footwear and long trousers. Do not operate the equipment when barefoot or wearing open sandals;
- b) Thoroughly inspect the area where the equipment is to be used and remove all objects which can be thrown up by the machine;
- c) **WARNING – Petrol is highly flammable:**
 - Store fuel in container specifically designed for this purpose;
 - Refuel outdoors only and do not smoke while refueling;
 - add fuel before starting the engine. Never remove the cap of the fuel tank or add petrol while the engine is running or when the engine is hot;
 - if petrol is spilled, do not attempt to start the engine but move the machine away from the area of spillage and avoid creating any source of ignition until petrol vapors have dissipated;
 - replace all fuel tank and container caps securely;
- d) Replace faulty silencers;
- e) Before using, always visually inspect to see that the tools are not worn or damaged. Replace worn or damaged elements and bolts in sets to preserve balance.

Operation

- a) Do not operate the engine in a confined space where dangerous carbon Monoxide fumes can collect;
- b) Work only in daylight or in good artificial light;
- c) Always be sure of your footing on slopes;
- d) Walk, never run with the machine;
- e) Exercise extreme caution when changing direction on slopes;
- f) Do not work on excessively steep slopes;
- g) Use extreme caution when reversing or pulling the machine towards you;
- h) Do not change the engine governor settings or over speed the engine;
- i) start the engine carefully according to manufacturer instructions and with feet well away from the tool(s);
- j) When start the engine, ensure the Gearshift in neutral position. Do not put hands or feet near or under rotating parts;

| SL-No | KK-No | KK-Name | Qty |
|-------|--------|------------------------|-----|
| 6 | E12-06 | Stop lead | 1 |
| 7 | E12-07 | Fly Wheel Assy | 1 |
| 8 | E12-08 | Bolt 6 x 25 | 2 |
| 9 | E12-09 | Nut M14 Fly wheel Assy | 1 |

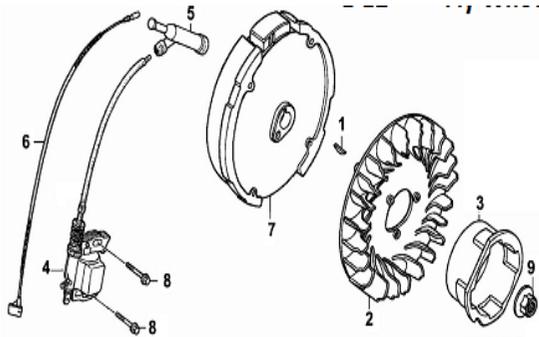
Air Cleaner



| SL-No | KK-No | KK-Name | Qty |
|-------|--------|--------------------|-----|
| | E13 | Air Cleaner Assy | 1 |
| 1 | E13-01 | Seal Ring 32x47x3 | 1 |
| 2 | E13-02 | Air Filter Element | 1 |
| 3 | E13-03 | N/A | 1 |
| 4 | E13-04 | Filter Case | 1 |
| 5 | E13-05 | Rubber Fixer | 1 |
| 6 | E13-06 | Cover board | 1 |

| SL-No | KK-No | KK-Name | Qty |
|-------|--------|------------------------|-----|
| 12 | E11-12 | Quadrante bolt M6x21 | 1 |
| 13 | E11-13 | Return Spring | 1 |
| 14 | E11-14 | Fine Adjustment Spring | 1 |
| 15 | E11-15 | N/A | 1 |
| 16 | E11-16 | Nut M6 Flanged Nylon | 1 |
| 17 | E11-17 | Adjustment Screw | 2 |

Fly Wheel



| SL-No | KK-No | KK-Name | Qty |
|-------|--------|--------------------|-----|
| 1 | E12-01 | Woodruff key | 1 |
| 2 | E12-02 | Fly Wheel Fan | 1 |
| 3 | E12-03 | Starter Sleeve | 1 |
| 4 | E12-04 | Ignition Coil Assy | 1 |
| 5 | E12-05 | Spark Plug Cap | 1 |

- k) Never pick up or carry a machine while the engine is running;
- l) Stop the engine:
 - Whenever you leave the machine;
 - Before refueling;
- m) Reduce the throttle setting during engine shut down and, if the engine is provided with a Shut-off valve, turn the fuel off at the conclusion of working;
- n) Never load person, when starting at cobbled road sidewalk or on the road, Please keep watch, and note the traffic situation in case of the potential dangers!
- o) once abnormal condition happens, immediately close the engine! Look for the reason, vibration is often the beginning of the fault
- p) When tilling in the hard land, the blades may lowering the ground, be more careful. If happens, go off the handle bar and not go to control machine

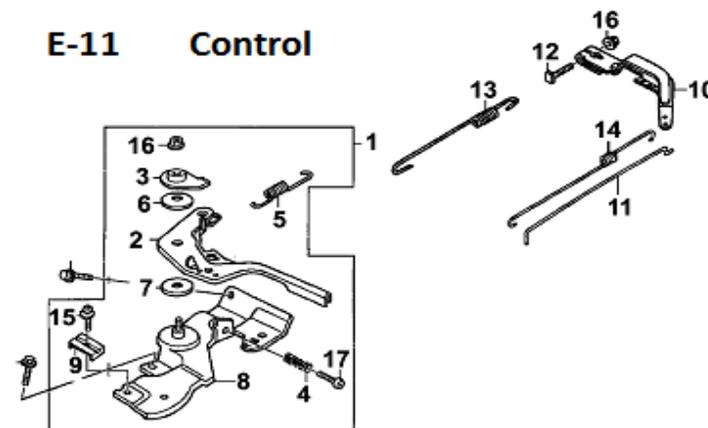
Maintenance and storage

- a) Keep all nuts, bolts, and screws tight to ensure the equipment is in safe working condition.
- b) Never store the equipment with petrol in the tank inside a building where fumes can reach an open flame or spark.
- c) Allow the engine to cool before storing in any enclosure;
- d) To reduce the fire hazard, keep the engine, silencer and petrol storage area free of vegetative material and excessive grease;
- e) Replace worn or damaged parts for safety;
- f) If the fuel tank has to be drained, this shall be done outdoors.

Matters need attention during the use of Intercultivator

- Operator should read this manual before using the machinery , and do the Adjustment and maintenance according to the manual.
- Before using the machinery, following items should be paid attention to:
- Please add clean fuel, make sure the engine is stopped and in well-ventilated Condition, never let fuel get in touch with high temperature surface rotating Parts or electrical components, never add too much oil in order to avoid Overflowing, if there is fuel spillage or leakage, dry it up before starting the machine, cover up fuel tank cap and tighten it. In case of fire, storage sites and venues are strictly prohibited fireworks,
- Check whether the bolt is fixed; any parts are loose or scratches stuck Phenomenon; whether the direction of rotation is consistent with the label mean to.
- Check whether external moving parts and rotating parts have reliable safety protection device and safety signs,
- Minors without training and master, is not allowed to operate the machine.

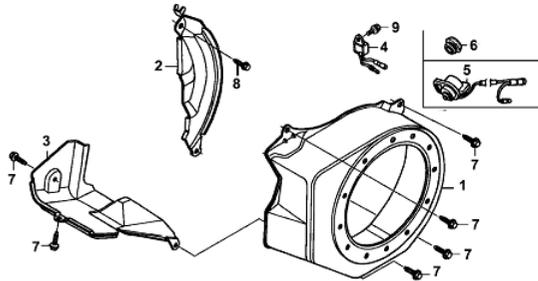
Control



| SL-No | KK-No | KK-Name | Qty |
|-------|--------|----------------------------|-----|
| 1 | E11-01 | Speed Adjustment Base Ass. | 1 |
| 2 | E11-02 | N/A | 1 |
| 3 | E11-03 | N/A | 1 |
| 4 | E11-04 | Adjustment Spring | 1 |
| 5 | E11-05 | Throttle spring | 1 |
| 6 | E11-06 | N/A | 1 |
| 7 | E11-07 | N/A | 2 |
| 8 | E11-08 | N/A | 1 |
| 9 | E11-09 | N/A | 1 |
| 10 | E11-10 | Speed Adjustment arm | 1 |
| 11 | E11-11 | Pulling Rod | 1 |

| SL-No | KK-No | KK-Name | Qty |
|-------|-------|------------------------|-----|
| 10 | E9-10 | Starter spring | 1 |
| 11 | E9-11 | Friction Spring 16x1 | 1 |
| 12 | E9-12 | Bolt M6x12 Flanged Hex | 3 |

Fan Cover



| SL-No | KK-No | KK-Name | Qty |
|-------|--------|--------------------------|-----|
| 1 | E10-01 | Fan cover | 1 |
| 2 | E10-02 | Side Plate | 1 |
| 3 | E10-03 | Wind guide | 1 |
| 4 | E10-04 | Current Amplifier | 1 |
| 5 | E10-05 | Engine switch | 1 |
| 6 | E10-06 | N/A | 1 |
| 7 | E10-07 | Bolt M6x12 Flanged Hex | 6 |
| 8 | E10-08 | Bolt M6 x 20 Flanged Hex | 1 |

2. Safety Labels

1. Muffler is a high temperature spare part, do not touch the power tiller in work or out of work freshly.



2. When the power tiller is working, keep an eye on the rotary parts, do not be too close to the machine to avoid being hurt by the rotary blades.



3. Keep the components of oil box away from fire and smoke.



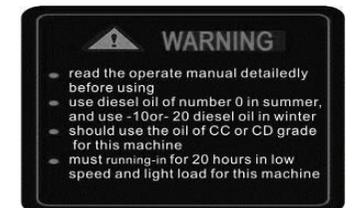
4. Keep this machine stabilization Before Use and Read the instruction carefully



5. Please refuel in time



6. Please pay attention to warning signs



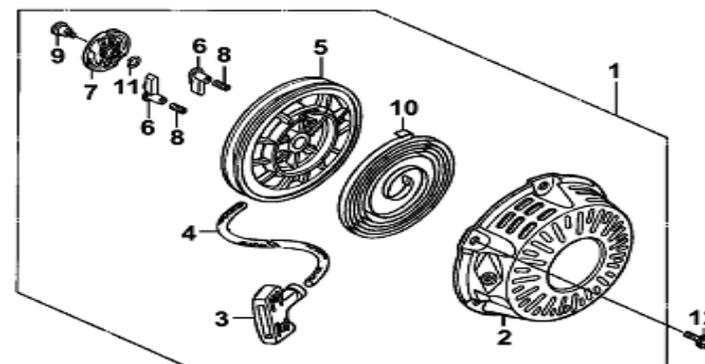
TECHNICAL SPECIFICATION

| Model | | KK-IC-312P |
|--------|--|-------------------------------|
| Items | | Parameter |
| Engine | Displacement | 212 cc |
| | Type | 4 Stroke, Petrol Engine |
| | Rated power | 5.22 kW (7 hp) |
| | Rated speed | 3600 RPM |
| | Fuel Tank | 3.6 L |
| | Max Torque | 11 Nm/2500 RPM |
| | Oil Tank | 0.6L |
| | Bore * Stroke | 68*54 mm |
| | Transmission Model inside transmission) | Gear drive (2 Fwd. 1 Rev) |
| | Connection type from output shaft to blades) | Coaxial straight-through type |
| | Speed (r/min) | High gear: 135; slow gear: 90 |
| knife | Max radius of gyration (mm) | 180 |
| | Blades (pcs) | 24 |
| | Tilling depth (mm) | ≥100 |
| | Tilling width (mm) | 800 |
| | operating speed (m/s) | 0.1~0.3 |
| | Hourly efficiency(hm ² /hm) | ≥0.04 |
| | Main fuel consumption (kg/hm ²) | ≤30 |

* Specifications may change due to improvements, and for reference only, not as the acceptance basis

| SL-No | KK-No | KK-Name | Qty |
|-------|-------|---------|-----|
| 27 | E8-27 | N/A | 1 |
| 28 | E8-28 | N/A | 1 |

Recoil Starter



| SL-No | KK-No | KK-Name | Qty |
|-------|-------|---------------------|-----|
| 1 | E9-01 | Recoil Starter Assy | 1 |
| 2 | E9-02 | Starter cover | 1 |
| 3 | E9-03 | Pulling handle | 1 |
| 4 | E9-04 | Rope | 1 |
| 5 | E9-05 | Roller/Rope Reel | 1 |
| 6 | E9-06 | Ratchet | 2 |
| 7 | E9-07 | Ratchet guide | 1 |
| 8 | E9-08 | Ratchet Spring | 2 |
| 9 | E9-09 | Pivot Bolt | 1 |

| SL-No | KK-No | KK-Name | Qty |
|-------|-------|---------------------------------------|-----|
| 5 | E8-05 | Adjustment screw Idle speed | 1 |
| 6 | E8-06 | Screw (Fuel Cup) | 1 |
| 7 | E8-07 | Tighten bolt (Fuel cup) | 1 |
| 8 | E8-08 | Chock Valve Assy | 1 |
| 9 | E8-09 | Carburetor Assy | 1 |
| 10 | E8-10 | Adjustment Screw Assy (mixture ratio) | 1 |
| 11 | E8-11 | Main Nozzle | 1 |
| 12 | E8-12 | O-ring 21x2(Sediment cup) | 1 |
| 13 | E8-13 | Block, Carburetor/Insulator | 1 |
| 14 | E8-14 | Gasket, inlet port | 1 |
| 15 | E8-15 | Steel gasket | 1 |
| 16 | E8-16 | Gasket carburetor | 1 |
| 17 | E8-17 | Hand grip chock valve assy | 1 |
| 18 | E8-18 | Handlebar Fuel on/off | 1 |
| 19 | E8-19 | Upper cover (Fuel on/off) | 1 |
| 20 | E8-20 | Spring Washer-(Fuel on/off) | 1 |
| 21 | E8-21 | Fuel Valve | 1 |
| 22 | E8-22 | Sediment cup | 1 |
| 23 | E8-23 | Screw M3x7 | 2 |
| 24 | E8-24 | N/A | 1 |
| 25 | E8-25 | Main jet | 1 |
| 26 | E8-26 | Measure hole Assy idle speed | 1 |

INSTALLATION AND USE METHODS

Installation

Before sending, we did the debugging of the Main part. But before you operate it, you still need some check and adjustment, to make it to the fullest use. Since you get the mini tiller, assemble it as follows:

1. Fix the walking wheel to the Six squares opposite ends of the drive shaft respectively with $\phi 8$ pin
2. Assembly of trailer coupling: connect rod assembly in the trailer body, with the connecting pin shaft connection and insert the cotter pin, then insert Subsoil resistance bar.
3. Installation of handle pipe: hand the tube opposition tube slots, adjust the height, use lock handle and bolt fixed before you use the power tiller, you'd better check the parts and do some adjustment for better use.

Routine check

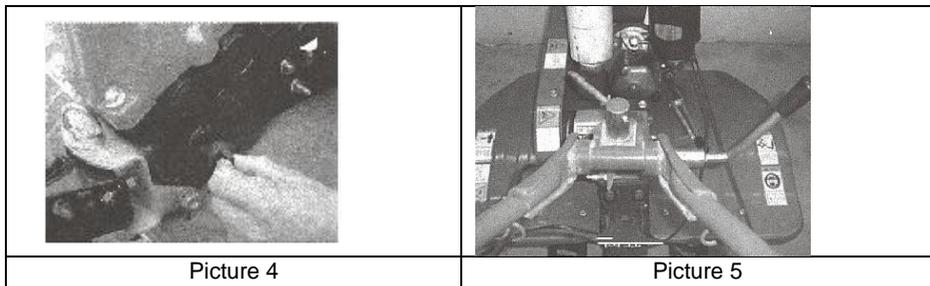
- **Check engine fuel**
- Put the engine in a horizontal position
- Turn out the oil level gauge, Wipe cleanly
- Insert the oil level gauge into the oil passage hole(don't need to turn in the thread)
- Turn out the oil level gauge, check the oil lever, within the Oil scale mark can be thought as normal
- Oil SAE10W-30 is recommended as the general lubricating oil, it suitable to normal environment.

Check the oil of gearbox

- Put the engine in a horizontal position, turn out the oil level gauge (see picture 4)
- Normal adding oil is 1.6L, the line under the lower edge of oil filler point, if oil lever in a low lever, add to the regular lever

Adjustment

- **Adjust height of handlebar**
- **Caution:** in order to avoid topple over, please put the engine in flat ground before adjusting the height of handlebar. (See picture 5)



Picture 4

Picture 5

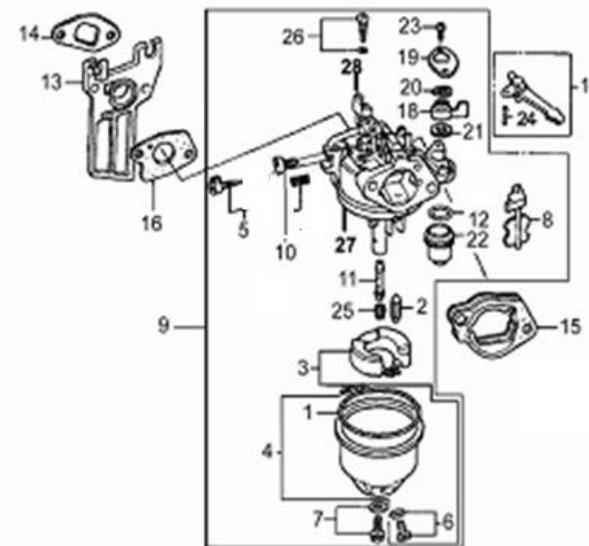
- Loosen the regulating handle, choose suitable hole, adjust the height of handle bar to a man's waist, and screw the regulating handle
2. **Adjust depth of the rotary tillage**
 - By adjusting the height of speed control rod, control the depth of rotary tiller, shift down, depth increase; shift up, depth decrease.
 3. **Start the power tiller**
 - Put the tiller in neutral gear position, press down handle bar of the emergency power cut off devices, then start the machinery according to this instruction
 4. **Adjust the clutch**

Caution: reduce the speed of engine before using clutch.

 - By adjusting the "separate" or "join" of clutch, to control the output of engine power.
 - Grip the clutch, clutch join together, the engine power transport to the power tiller, rotary blades begin running. (see picture 7)

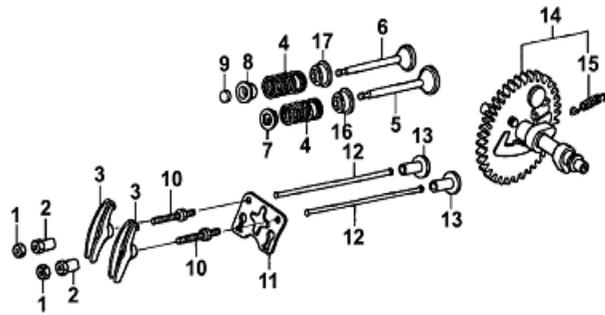
| SL-No | KK-No | KK-Name | Qty |
|-------|-------|----------------------|-----|
| 14 | E7-14 | Cam Shaft Assy | 1 |
| 15 | E7-15 | N/A | 1 |
| 16 | E7-16 | N/A | 1 |
| 17 | E7-17 | Inlet valve oil seal | 1 |

Carburetor

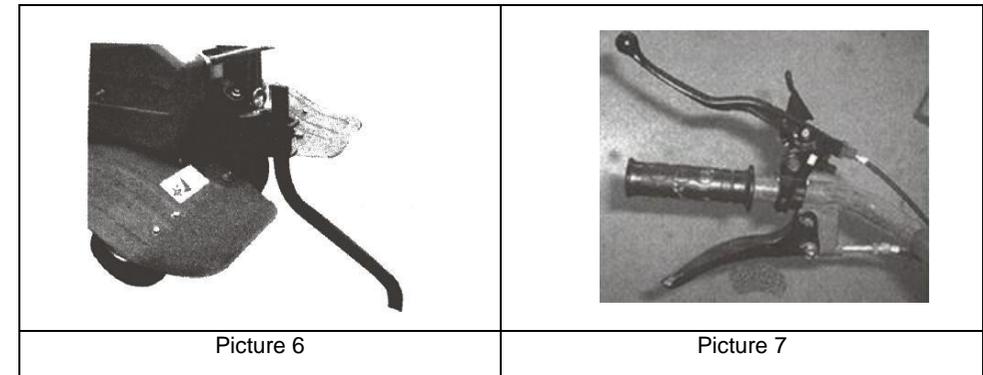


| SL-No | KK-No | KK-Name | Qty |
|-------|-------|------------------------|-----|
| 1 | E8-01 | Rubber seal (Fuel cup) | 1 |
| 2 | E8-02 | Needle Valve | 1 |
| 3 | E8-03 | Fuel Floater | 1 |
| 4 | E8-04 | Fuel cup | 1 |

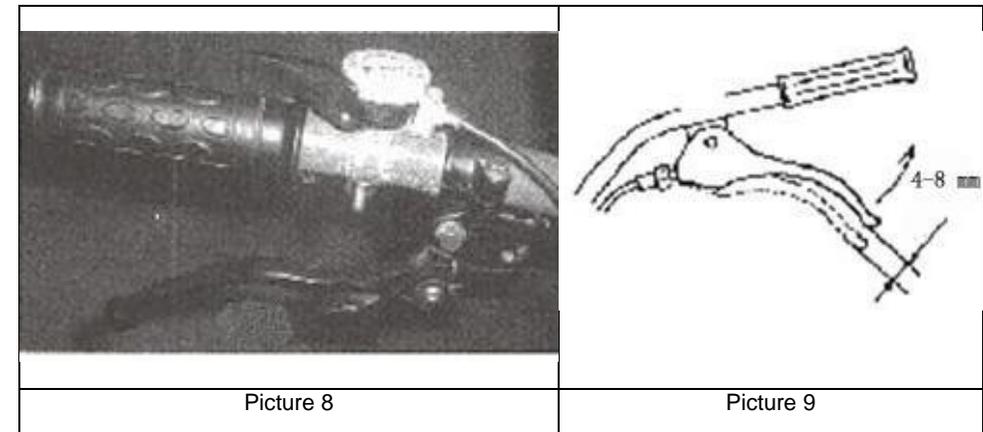
Camshaft



| SL-No | KK-No | KK-Name | Qty |
|-------|-------------|---------------------------|----------|
| | E7-1,2,3,10 | Rocker Assy | 1 |
| 1 | E7-01 | Buy Rocker Assy | |
| 2 | E7-02 | Buy Rocker Assy | |
| 3 | E7-03 | Buy Rocker Assy | |
| 4 | E7-04 | Valve Spring | 2 |
| 5 | E7-05 | Intake Valve | 1 |
| 6 | E7-06 | Exhaust Valve | 1 |
| 7 | E7-07 | Spring seat Intake Valve | 1 |
| 8 | E7-08 | Spring Seat Exhaust Valve | 1 |
| 9 | E7-09 | Cap Exhaust Valve | 1 |
| 10 | E7-10 | Buy Rocker Assy | 2 |
| 11 | E7-11 | Pusher guide | 1 |
| 12 | E7-12 | Pusher | 2 |
| 13 | E7-13 | Tappet | 2 |



- Confirm the density of clutch cable, 4-8mm can be the general degree, out of the scope, you have to loose locknut for adjustment, and tighten up. (see picture 9)



Gear shifting

Reverse (-1), Forward(1), Neutral(0), Forward(2)

- 4 gear shifting
 - The way of gear changes
- 1) Put the throttle switch to the left (a minimum position) Gear shifting by a clockwise rotation
 - 2) Loose the clutch handle to make the clutch separate
 - 3) Clench the clutch handle bar. Then the power tiller will work on the different gear shifting, and then step on the gas to the new speed as inquired.

MAINTAINING METHODS

Because of running, friction and load change, inevitably produce connection bolt looseness, parts damage phenomenon, which make the system's correct state destroyed, the engine 's power decline, fuel consumption increase, increases the normal use of power tiller. In order to reduce the occurrence of the above situation, we must strictly, regularly do the maintenance work well. To keep the micro tillage machine in good technical shape and prolong its service life.

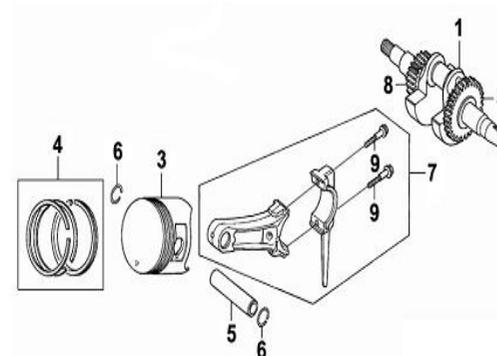
Running-in

1. The running of diesel engine Please consult its user manual.
2. new power tiller or repaired power tiller, should work for 1 hour in zero load condition. After 5 hours light load working, run out the whole lubricating oil of the transmission and crankcase of diesel engine at once while the temperature is hot, and then conduct 4 hours running-in as per the fourth demands.

The technical maintenance

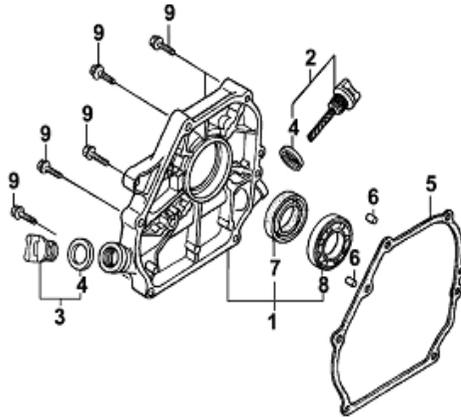
1. Per shift maintenance (before running and after running every time)
 - 1) Listen and observe the abnormal phenomenon (like abnormal sounds, overheating and bolt failure)
 - 2) Check the Oil leakage status of engine, transmission and walking box.
 - 3) Check the oil lever of engine and transmission, if it is within the limits of oil scale
 - 4) Timely clean the dirt, weeds, oil pollution of the power tiller.
 - 5) Write down the tillage record.
2. First class maintenance (ever 150 hours)
 - 1) Conduct the whole contents of per shift maintenance.
 - 2) Clean the transmission and crankcase, and change the oil
 3. Check the clutch, shift gear and reverse gear system.
3. Second class maintenance (ever 900 hours).
 - 1) Check the whole contents of working for 150hours,
 - 2) Check all the gear, bearing, if wearing serious, please change the parts.
 - 3) Other parts like rotary blades or bolt of the power tiller, if any, please change it.
4. Technical checking (1500-2000 hours)
 - 1) Ask professional personnel to check the friction plate and clutch.
5. Maintenance of gasoline power tiller.

Crankshaft Piston



| SL-No | KK-No | KK-Name | Qty |
|-------|-------|---------------------------|-----|
| 1 | E6-01 | Crankshaft Assy | 1 |
| 2 | E6-02 | Governor Gear | 1 |
| 3 | E6-03 | Piston | 1 |
| 4 | E6-04 | Piston Ring Assy | 1 |
| 5 | E6-05 | Piston Pin | 1 |
| 6 | E6-06 | Clip Piston Pin | 2 |
| 7 | E6-07 | Connecting rod Assy | 1 |
| 8 | E6-08 | Timing Gear | 1 |
| 9 | E6-09 | Bolt connecting rod M7x35 | 2 |

Crankcase Cover



| SL-No | KK-No | KK-Name | Qty |
|-------|-------|---------------------|-----|
| 1 | E5-01 | Crankcase cover | 1 |
| 2 | E5-02 | Oil Gauge | 1 |
| 3 | E5-03 | Oil Plug assembly | 1 |
| 4 | E5-04 | seal-oil gauge | 2 |
| 5 | E5-05 | Gasket crankcase | 1 |
| 6 | E5-06 | Set pin 8X14 | 2 |
| 7 | E5-07 | Oil Seal 25x41.25x6 | 1 |
| 8 | E5-08 | Ball Bearing 6205 | 1 |
| 9 | E5-09 | Bolt M8 x 30 | 6 |

The table of technical maintenance (sign ☐ means the things you need do)

| Working time / contents | Every day | 8 hours under the half load | 20 hours later or the first month later | 150 hours or the third month | 1000 hours or per year | 2000 hours or every 2 years |
|---|-----------|-----------------------------|---|------------------------------|------------------------|-----------------------------|
| Check the bolt, nut | (| | | | | |
| Check and add oil | (| | | | | |
| Clean and change oil | | ((first time) | ((second time) | ((third time and afterwards) | | |
| Check any oil leak | (| | | | | |
| Clean the dirt, weeds, oil pollution, keep tidy | (| | | | | |
| Remove breakdown | (| | | | | |
| Adjust control assembly | (| | | | | |
| Tightening belt | | | | | | (|
| Gear and bearing | | | | | (| |

Storage

Never store the machine with petrol in the fuel tank in a confined area with bad ventilation. Petrol fumes could reach open flames, sparks and cigarettes etc.

If the machine is to be stored for a longer period than 30 days, the following methods are recommended.

1. Empty the fuel tank.
2. Start the engine and let it run until it stops due to lack of fuel.
3. Change the engine oil if it has not been done for 3 months.
4. Remove the spark plug and empty a little engine oil (about 30 ml) in the hole. Crank the engine a couple of times. Screw back the spark plug.
5. Clean the whole machine thoroughly.
6. Lubricate all the parts as shown in LUBRICATING above.
7. Inspect the machine for damage, repair if necessary.
8. Touch up any paint damage.
9. Rust protection to the metal surfaces.
10. Store the machine indoors if possible.

DEBUGGING METHOD OF POWER TILLER

Debugging method of mesh of bevel gear

When the abnormal transmission of mesh of bevel gear of sound is confirmed, stop the machine and check as stipulated below:

1. Clearance adjustment of mesh of angel gear in gearbox (See Figure 10)

① When lateral clearance of mesh of the gear

$\Delta < 0.05\text{mm}$, we should put some vulcanized paper to enlarge the clearance between the gearbox and the traveling box.

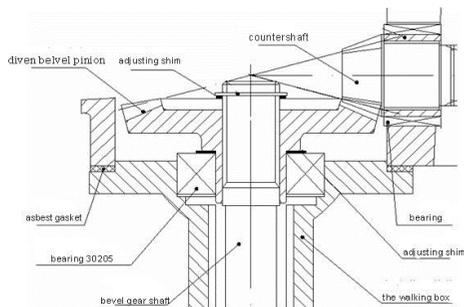
② When lateral clearance of mesh of the gear

$\Delta > 0.3\text{mm}$, we should reduce the clearance to 0.05-0.10 mm between the bearings and gear

II shaft

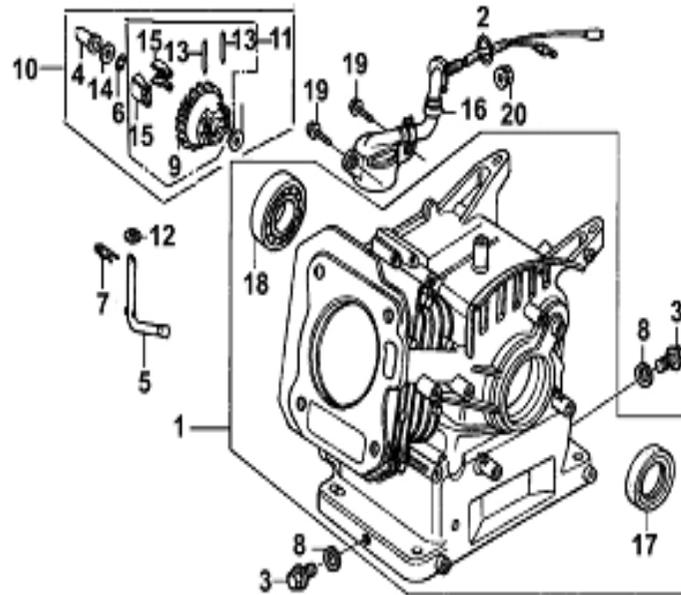
2. Clearance adjustment of mesh of the gear in the running case. (See Figure 11)

When lateral clearance of mesh of the gear



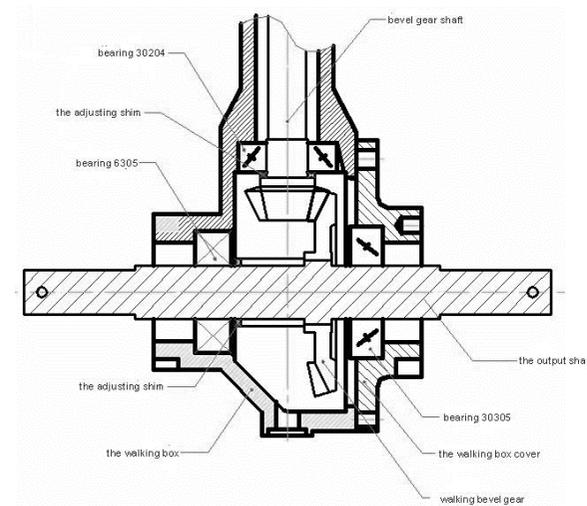
| SL-No | KK-No | KK-Name | Qty |
|-------|-------|---------------------------------|-----|
| 1 | E4-01 | Crankcase Body | 1 |
| 2 | E4-02 | O-ring 14mm | 1 |
| 3 | E4-03 | Drain bolt | 2 |
| 4 | E4-04 | N/A | 1 |
| 5 | E4-05 | Sway bar | 1 |
| 6 | E4-06 | N/A | 1 |
| 7 | E4-07 | Split Clip | 1 |
| 8 | E4-08 | Washer Drain bolt | 2 |
| 9 | E4-09 | N/A | 1 |
| 10 | E4-10 | Centrifugal gear Parts | 1 |
| 11 | E4-11 | N/A | 1 |
| 12 | E4-12 | Plain washer 6mm | 2 |
| 13 | E4-13 | N/A | 2 |
| 14 | E4-14 | N/A | 1 |
| 15 | E4-15 | N/A | 2 |
| 16 | E4-16 | Oil sensor Assy | 1 |
| 17 | E4-17 | Oil seal crankcase (25*41.25*6) | 1 |
| 18 | E4-18 | Ball Bearing 6205 | 1 |
| 19 | E4-19 | Bolt M6 x 14 | 2 |
| 20 | E4-20 | Nut M10 | 1 |

Crankcase Assembly



$\Delta < 0.05\text{mm}$, we should increase adjustment pad by 0.2-0.3mm to enlarge the clearance, and change vulcanized paper board and adjustment pad.

3. To ensure the axial clearance of the gear II is 0.05-0.15mm. When lateral clearance of mesh of the gear $\Delta > 0.3\text{mm}$, we should reduce adjustment pad I, meanwhile the axial clearance of gear II is 0.05-0.15mm, or increase the adjustment pad II, meanwhile ensure the axial clearance of gear I is 0.05-0.15mm.



TROUBLESHOOTING

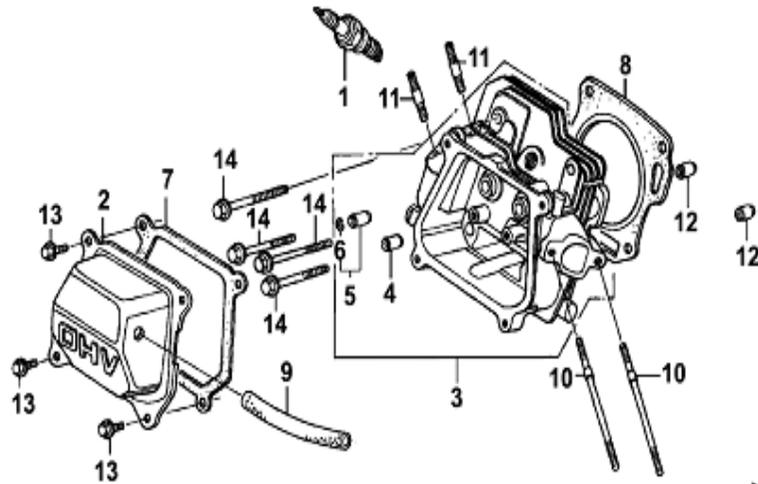
Clutch's faults and methods

| Phenomenon | Reasons | Methods |
|--|--|--|
| Clutch failure | Failure of clutch handle bar | Fix or replace |
| | Failure of clutch cables | Change |
| | Shifting fork not on the position | Readjustment or replace |
| | Drop of shift shaft, arm set | Fix or replace |
| | Break of shift fork | Replace |
| | □spring failure | Replace |
| Slip(loose the clutch handle bar, the engine works well, but the transmission slow-turning or stop working) | □spring fatigue failure | Replace |
| | Shift shaft turning ineffective, which make the shifting fork not on the right place | Clean the surface of locating shaft and shuffle disc |
| | Clutch cable maladjustment | Readjust the clutch cable |

| SL-No | KK-No | KK-Name | Qty |
|-------|-------|---------------------------|-----|
| 9 | E3-09 | Air duck/Pipe | 1 |
| 10 | E3-10 | Stud Intake Port M6 x 113 | 2 |
| 11 | E3-11 | Stud Exhaust Port M8 x 32 | 2 |
| 12 | E3-12 | Set pin 10x14 | 2 |
| 13 | E3-13 | Bolt M6x12 | 4 |
| 14 | E3-14 | Bolt M8 x 60, | 4 |

ENGINE PARTS DIAGRAM & LIST

Cylinder Head



| SL-No | KK-No | KK-Name | Qty |
|-------|-------|----------------------------|-----|
| 1 | E3-01 | Spark plug | 1 |
| 2 | E3-02 | Cylinder head cover | 1 |
| 3 | E3-03 | Cylinder head Assy | 1 |
| 4 | E3-04 | In. valve guide | 1 |
| 5 | E3-05 | Ex. valve guide | 1 |
| 6 | E3-06 | Valve guide clip | 1 |
| 7 | E3-07 | Gasket Cylinder head cover | 1 |
| 8 | E3-08 | Gasket Cylinder head | 1 |

Gearbox's faults and methods

| Symptom | Cause | Terms of settlement |
|---|--|---|
| Failure of fast, slow and neutral shift | Bolts and nuts for the main shaft are loose | Dismount the bolts, keys cover at the back of the main shaft, screw the round nuts tight, then fix back the bolts and keys cover and screw them tight |
| | | |
| Failure to shift to the right position | Excess abrasion of puller | Replace the puller |
| | Driving loose angle gear is | Tighten the round nuts |
| | Excess abrasion of the upper hole in the connection piece of support arm | Replace the support arm assembly |
| | Positioning spring inside the main shaft does not function | Replace |
| | Main shaft is moving, the bolts for tightening the cover for the rear of the gear-box body are loose | Screw the bolts tight |
| The reversing shaft is loose | Rear bolts of reversing shaft are loose | Screw the reversing shaft |
| | The matching between reversing shaft and gear-box body is too | Replace |
| Too much noise from the gears | Deformation and bend of the angle gear and reversing shaft | Replace |

| | | | |
|---------------------------------------|--|--|---|
| | | | |
| | Too much lateral clearance due to excess abrasion of gears | | Replace the gears |
| | The matching between bevel gear and reversing shaft and gear-box body is too loose | | Replace |
| | Deformation of shift bar brings about interference when you shift | Adjust the shift bar or Replace it | Adjust the shift bar or Replace it |
| | Abrasion of reversing fork | Re-adjust the cable of reversing shift | Re-adjust the cable of reversing shift |
| | Malfunction of reversing Replace the reversing fork cable | | |
| Failure to shift the | cable Replace the cable | | |
| | the reversing shaft is loose | | Screw the bolts tight at the back of the reversing shaft |
| reversing shift to the right position | The reversing fork is blocked to a standstill | | Clean the combined face between reversing fork and reversing pushing plate to make the fork move freely |
| | The loosening of reversing shaft makes the gear be blocked to a standstill | | Screw the bolts tight at the back of the reversing shaft. |

STORAGE

If the engine is not used for a long time, do the necessary maintenance before its storage.

- Firstly, take off the fuel tank, drain out all fuel, and clean the dirt and water inside the tank. Open the fuel cock, unscrew the drain plug at the bottom of carburetor, drain out fuel in carburetor thoroughly, and then tighten the drain plug.
- Secondly, unscrew the drain plug at the bottom of the crankcase and drain out the lubricant oil in the crankcase thoroughly, then tighten the drain plug.
- Finally, clean the surface of the engine with clean cloth, remove the dirt and dust etc. Then store the engine in a well-ventilated, dirt-free place.

TRANSPORTATION

- Contact with the hot engine or exhaust system can cause serious burns or fires. Allow the engine to cool down before transporting or storing the engine.
- During transport of the engine, turn the engine switch and the fuel valve to OFF. Keep the engine cool.

TROUBLESHOOTING

1. The Engine Can't Start

- Have the engine checked if it is hard to or cannot be started.
- Firstly, check the fuel level of the fuel tank. Turn fuel valve to (2), Fuel should flow from the drain when the fuel valve is turned ON. Tighten the drain plug. (Refer to starting of the engine)

2. Spark Plug

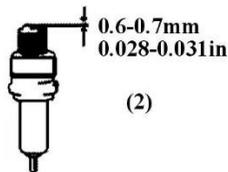
Check the spark plug. Remove the spark plug cap and clean any dirt around it. If the engine still cannot be started after repeating several times, please see the authorized dealer. Users are not allowed to dismantle or reassemble the unit by themselves.

3. Not Enough Power

- Check the air-cleaners. Please refer the maintenance inspection book to clear the air cleaner.
- Check the fuel. Please strain out the gasoline in fuel tank and in carburetor, and fill in new gasoline.
- For any other trouble, please contact our dealer.

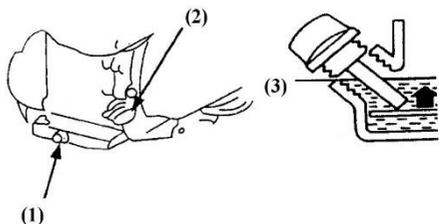


(1) Dismantle Spark Plug



(2) Adjust Clearance

4. Clean the fuel tank and filter when working time reaches 100hrs: Remove the fuel cover, drop out filter, and wash it with brush slightly. Remove fuel tank, clean the fouling and water inside fuel tank. Reinstall fuel tank, place filter from fill-in hole, filling the clean fuel to red line level.



1) Drain plug 2) Engine switch 3) Lower level

Check aging of fuel pipe every 2 years. If ageing, hardening, and cracking is detected, have it replaced. Tighten the joints, and check leakage.

Before storing the unit for an extended period:

1. Make sure the storage area is free of excessive humidity and dust.
2. Service according to the table below.

| Storage Time | Recommended Service Procedure to Prevent Hard Starting |
|--------------------|---|
| Less than 1 month | No preparation required |
| 1 to 2 months | Fill with fresh gasoline and add gasoline conditioner |
| 2 months to 1 year | <ul style="list-style-type: none"> • Fill with fresh gasoline and add gasoline conditioner • Drain the carburetor float bowl • Drain the fuel sediment cup |

| | | |
|----------------------------------|--|-----------------------------|
| | | |
| | Malfunction of spring of the reversing shaft | Replace the spring |
| The reversing gears do not reset | The reversing shaft is bent and deformed | Replace the reversing shaft |

Faults and methods of walking system

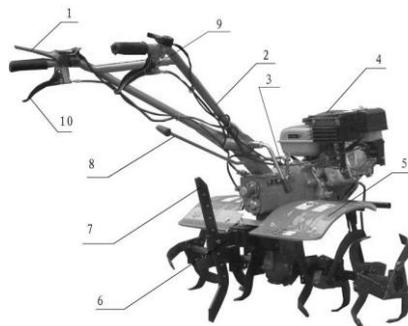
| Phenomenon | Reasons | Methods |
|---|--------------------------------|------------------------|
| Gear's noise too loud | excessive wear or wrong fix | Reassemble or replace |
| Rotational hairpin of gear | Wrong assembling | Reassemble |
| Excessive fever | Too little lubricating oil | Add oil as per demands |
| Oil leak of output shaft sleeve cylindrical surface | Oil seal is damaged | Change oil seal |
| Serious oil leak of output shaft sleeve | Sleeve fracture | Replace |
| Oil leak of oil drain | O-rings damaged | Change |
| | Bolt loose | Tightening |
| Oil leak of crankcase | Crankcase has micro loose hole | Welding or priming |

Other failures

| Phenomenon | Reasons | Methods |
|------------------------|--------------------------------|---|
| Break-in of blades | Plough into rock or other flip | Replace it, and pay attention to avoid crash with hard objects like stone |
| Control cable break-in | Long-term wearing | Replace |

PRODUCTS FEATURES

1. Emergency power cut off devices
2. Handle bar
3. Gear box
4. 170F gasoline engine
5. Fender
6. Trailer body
7. Drag strut
8. Gear lever
9. Reverse gear handle
10. Clutch handle



MACHINE LIST FOR MATCHING

Attached Tools

| Series | Name | Unit | Application |
|--------|--------------------------------|------|-------------------------------------|
| 1 | Dry field blades | Set | Dry-land cultivation |
| 2 | Paddy field wheel | Set | Paddy field cultivation |
| 3 | 2 piece-4 unit anti-wind knife | Set | Wetland farming with too much grass |
| 4 | 3 piece-4 unit anti-wind knife | Set | |
| 5 | Efficient paddy field wheel | Set | Paddy field cultivation |
| 6 | Flood composite knife | Set | Dry-land, paddy field cultivation |
| 7 | Crawl plate | Set | Used for climbing |

- Fuel vapors are extremely flammable and may ignite after the engine has started. Make sure that any fuel spillage has been wiped off before starting the engine.
- Avoid skin coming in contact with gasoline for a long time, avoid breathing in gasoline vapors. Keep children away from them.

NOTE:

Fuel can damage paint and plastics. Be careful when refueling. Damage caused by spilling fuel is not covered under warranty.

MAINTENANCE

Do periodic maintenance to keep the engine in good condition. Always follow the inspection and maintenance recommendation and schedules given in this manual.

! WARNING:

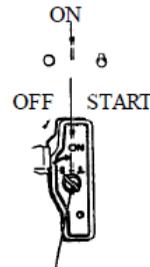
Stop the engine before doing any maintenance work. If the engine must be operated, provide adequate ventilation. Breathing in exhaust can cause loss of consciousness and even lead to death.

Everyday Maintenance:

1. **Air cleaner:** A dirty air cleaner will restrict air flow into the carburetor. To prevent carburetor malfunction, service the air cleaner regularly. Service more frequently when operating the generator in extremely dusty areas.
 - Check air cleaner core, get rid of fouling, and keep the core clean.
 - Check bolts, fasten the loose ones.
 - Check whether lubricant oil level is within the limits.
2. Clean the core after 25hrs of engine run
3. Clean carbon fouling of the spark plugs after working up to 50hrs. Check the clearance, and adjust the gap to 0.6-0.7mm (see figure 4-1). Check radiator, and clean fouling among radiators.
 - Drain the oil while the engine is warm to assure rapid and complete draining.
 - Remove the drain plug and sealing washer, remove the oil filler cap, and drain the oil.
 - Reinstall the drain plug and sealing washer. Tighten the plug securely.
 - Refill with the recommended oil and check the oil level.

Electrical Starting:

Turn the engine switch to START position and hold a while until the engine started

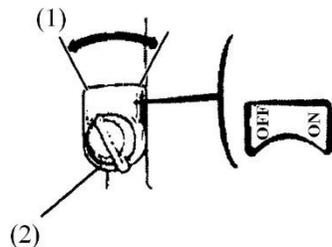


ENGINE SWITCH

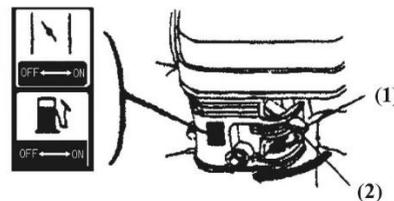
NOTE: Restrict the starting time within 5 seconds to avoid engine damage. If engine cannot be started, release starter knob, retry after 10 seconds.

STOPPING THE ENGINE

Adjust throttle to proper position. Reduce engine speed, close the choke. Turn engine switch to OFF position.



(1) Throttle knob



(2) Throttle is at OFF

Easily Damaged Parts List

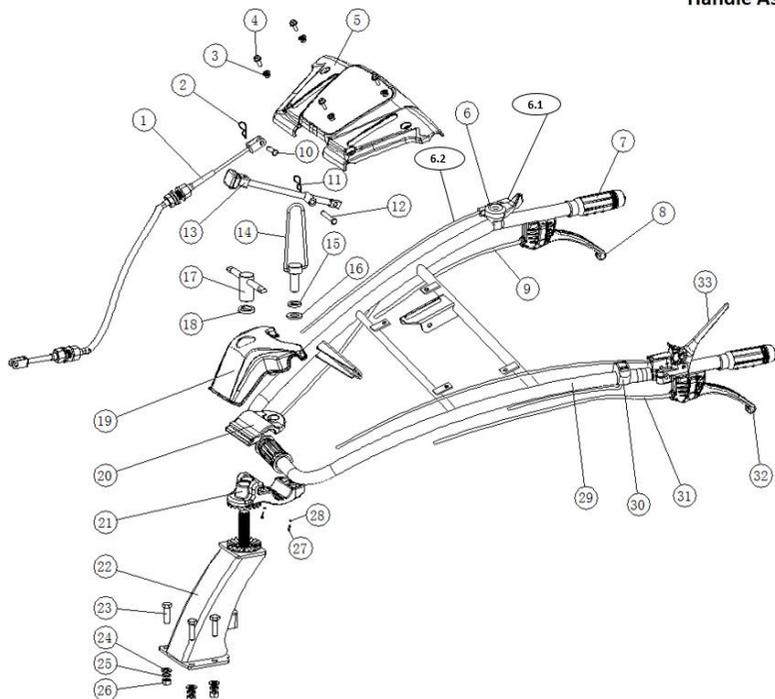
| Series | Parts | Work Site | Series | Parts | Work Site |
|--------|--------------------------------|-----------|--------|-----------------------------|-----------------|
| 1 | Spark Plug | Engine | 9 | The Filter Elements | Engine |
| 2 | Stop Switch | Engine | 10 | Kinds Of Spring | Engine Gear Box |
| 3 | Oil Plug | Engine | 11 | Paper Pad | Engine Gear Box |
| 4 | Piston Roll | Engine | 12 | Oil Seal, Oil Cover, O-ring | Engine Gear Box |
| 5 | Oil Tube | Engine | 13 | Bearing | Engine Gear Box |
| 6 | Connecting Rod Bearing Shell | Engine | 14 | Chain | Gear Box |
| 7 | Inlet Exhaust Valve Rocker Arm | Engine | 15 | Kinds Of Cable | Machine Frame |
| 8 | Start Pull Plate | Engine | 16 | Pin Roll, Cotter Pin | Cylinder |

! DANGER:

- Gasoline is extremely flammable and explosive under certain conditions.
- Refuel in well-ventilated places with the engine stopped. Do not smoke or allow flames or sparks near the places where the engine is refueled, or gasoline is stored.
- Do not add fuel over the shoulder of strainer. After fueling, tighten the tank cover.

PARTS DIAGRAM & HANDLE ASSY-(KK-IC-312P)

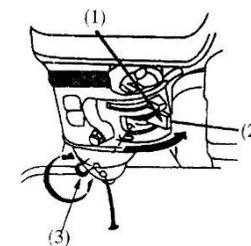
Handle Assy



Handle Assy

STARTING THE ENGINE

- Turn the fuel valve to ON position, unscrew the drain plug on carburetor bottom, and fasten the drain plug until oil spills out.
- Pull the choke rod to the CLOSE position. Adjust throttle to proper position. Pull the starter grip lightly until resistance is felt, then pull it rapidly



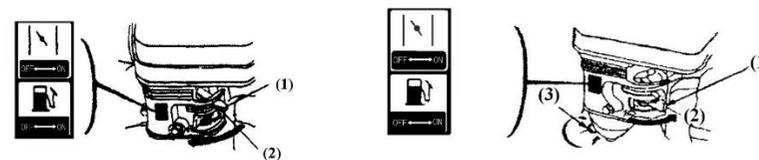
(1) Fuel Valve

(2) Start Level

(3) Drain Plug

NOTE:

- Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.
- Once the engine got started, let it run for 1~3 minutes at idle speed, check whether it is balanced, cracked, then pull the throttle to open position, adjust choke rod to OPEN.

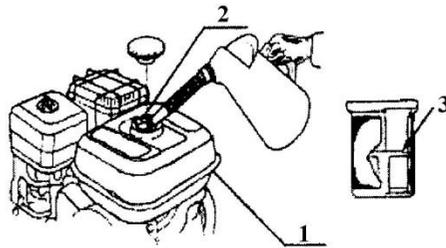


(1) Auto-Throttle

(2) Off Position

(3) Starter Knob

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|-------------------|------------------------------|------|-----------------------|----------|
| 1 | 73010-T90A-300C | GEAR SHIFT CHANGE CABLE | pcs | 1 | GB1-1 |
| 2 | 72205-TA5A-000C | B PIN Φ2×9×38 | pcs | 2 | GB1-2 |
| 3 | B6183-2-06KG-000C | HEXAGON FLANGE NUTS M6 | pcs | 4 | GB1-3 |
| 4 | B5789-06KG-014C | HEXAGON FLANGE BOLT M6*P1*16 | pcs | 4 | GB1-4 |
| 5 | 73115-TA5A-30YG | TOOL BOX | pcs | 1 | GB1-5 |
| 6 | 73104-T90A-4000 | THROTTLE GOVERNOR SWITCH | pcs | 1 | GB1-6.1 |
| | | THROTTLE CABLE | pcs | 1 | GB1-6.2 |
| 7 | 73002-TA5A-1000 | GRIP | pcs | 2 | GB1-7 |
| 8 | 73136-T90A-0000 | REVERSE GRIP | pcs | 1 | GB1-8 |

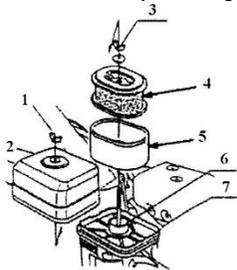


(1) Fuel tank (2) Fill in hole (3) Red line level

Air cleaner

The air cleaner is a dry type including paper element and foam element.

- Remove the clip and dismantle the air cleaner housing or remove the wing nuts and air cleaner cover.
- Wash the element in solution of household detergent and warm water, then rinse thoroughly, or wash in nonflammable or high flash point solvent. Allow the element to dry thoroughly



- 1) Butterfly nut
- 2) Air cleaner cover
- 3) Butterfly nut
- 4) Paper element
- 5) Foam element
- 6) Seal washer
- 7) Silencer plate

! WARNING:

Do not run the engine without air cleaner.

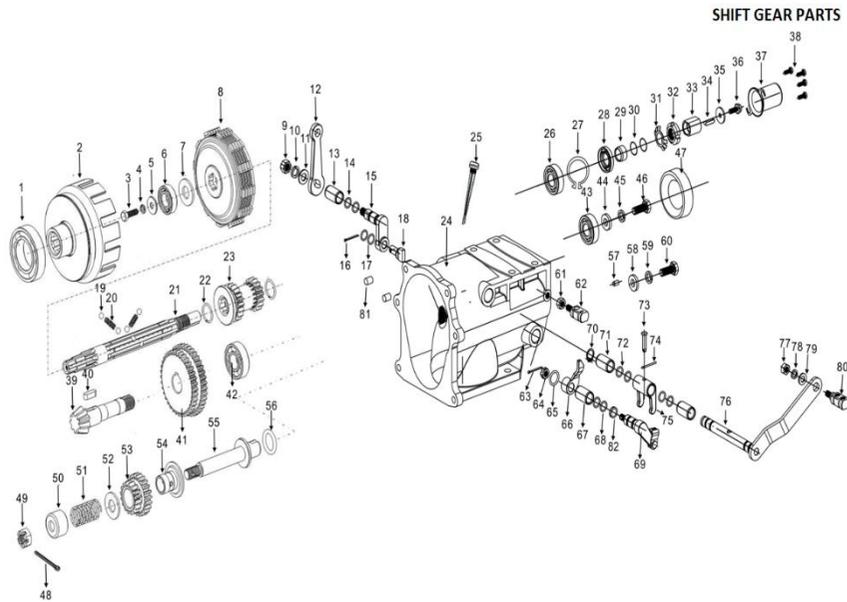
! DANGER

Using gasoline or flammable solvent to clean the filter element can cause a fire or explosion.

! CAUTION:

Do not run the engine without air cleaner core, otherwise dust and/or other foreign matters may get into the engine through carburetor, and results in rapid engine worn-out.

| | | | | | |
|------|--------------------|---------------------------------|-----|---|----------|
| 9 | 73139-T90C-410C | REVERSE GEAR CABLE | pcs | 1 | GB1-9 |
| 10 | B882-0080-025C | B PIN Φ8*25 | pcs | 2 | GB1-10 |
| 11 | 72205-TA5A-000C | B PIN Φ2×9×38 | pcs | 1 | GB1-11 |
| 12 | B882-0080-050C | B PIN Φ8*50 | pcs | 1 | GB1-12 |
| 13 | 73002-T90A-2000 | SHIFT LEVER GRIP | pcs | 1 | GB1-13 |
| 13.1 | B823-06JC-012C | SCREW M6*P0.8*12 | pcs | 1 | GB1-13.1 |
| 14 | 73203-TA5A-200C | U CLAMP HANDLEBAR M16 | pcs | 1 | GB1-14 |
| 15 | B93-160G-000C | SPRING WASHER Φ16 | pcs | 1 | GB1-15 |
| 16 | B95-160G-000C | FLAT WASHER Φ17.5*Φ30*3.0 | pcs | 1 | GB1-16 |
| 17 | 73203-TA5A-000C | T CLAMP HANDLEBAR ASSY Q235 | pcs | 1 | GB1-17 |
| 18 | B93-200G-00C | SPRING WASHER Φ20 | pcs | 1 | GB1-18 |
| 19 | 73413-T90A-00C2 | DECORATIVE COVER | pcs | 1 | GB1-19 |
| 20 | 73215-TA5A-02Y0 | PRESSING PLATE(UP) | pcs | 1 | GB1-20 |
| 21 | 73216-TA5A-10Y0 | PRESSING PLATE(DOWN) | pcs | 1 | GB1-21 |
| 22 | 73201-T90C-10Y0 | HANDLE SEAT | pcs | 1 | GB1-22 |
| 23 | B16674-1-10MG-035C | HEXAGON FLANGE BOLT M10*P1.5*35 | pcs | 4 | GB1-23 |
| 24 | B93-100G-000C | SPRING WASHER Φ10 | pcs | 4 | GB1-24 |
| 26 | B6170-10MG-000C | HEXAGON NUTS M10*P1.5 | pcs | 4 | GB1-26 |
| 27 | B823-06JC-012C | SCREW M6*P0.8*12 | pcs | 2 | GB1-27 |
| 28 | B95-060G-000A | FLAT WASHER Φ6.6*Φ12*1.6 | pcs | 2 | GB1-28 |
| 29 | 73101-T90C-70Y0 | HANDLE BAR | pcs | 1 | GB1-29 |
| 30 | 73133-TA5B-1100 | LIGHT SWITCH ASSY | pcs | 1 | GB1-30 |
| 31 | 73112-T90A-410C | CLUTCH CABLE | pcs | 1 | GB1-31 |
| 32 | 73111-TA5A-3000 | CLUTCH HANDLE | pcs | 1 | GB1-32 |
| 33 | 73130-T90A-130C | EMERGENCY STOP HANDLE ASSY | pcs | 1 | GB1-33 |

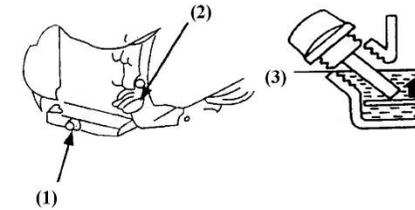


SHIFT GEAR PARTS

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|------------------|--|------|-----------------------|----------|
| 1 | B276-6007-00 | DEEP GROOVE BALL BEARING Φ35*Φ62*14 | pcs | 1 | GB2-1 |
| 2 | 71300-T90A-0001 | COVER, CLUTCH | pcs | 1 | GB2-2 |
| 3 | B5789-06KG-016C | HEXAGON FLANGE BOLT M6*P1.5*16 | pcs | 1 | GB2-3 |
| 4 | B862-2-060G-000B | LOCK WASHER Φ6*Φ11*0.6 | pcs | 1 | GB2-4 |
| 5 | B5287-060G-000C | BIG WASHER Φ6*Φ22*2 | pcs | 1 | GB2-5 |
| 6 | B276-6202-00 | DEEP GROOVE BALL BEARING Φ15*Φ35*11 | pcs | 1 | GB2-6 |
| 7 | 71109-155H-0000 | GASKET Φ15.5*Φ26*2.6 | pcs | 1 | GB2-7 |
| 8 | 71300-T90A-0002 | CORE COMP, CLUTCH | pcs | 1 | GB2-8 |
| 9 | B6170-08LG-000C | HEXAGON NUTS M8*P1.25 | pcs | 1 | GB2-9 |
| 10 | B93-080G-000C | SPRING WASHER Φ8 | pcs | 1 | GB2-10 |
| 11 | B95-080G-000C | FLAT WASHER Φ9*Φ16*1.6 | pcs | 1 | GB2-11 |
| 12 | 71143-T90A-020C | SHEATH,SHIFT ROD | pcs | 1 | GB2-12 |

Engine oil alert system (optional function):

The oil alert system is designed to prevent engine damage caused by insufficient oil in the crankcase. When the oil level in the crankcase falls below the safe limit, the oil alert system will automatically stop the engine even if the engine switch remains at the ON position. If the engine stops and cannot be restarted, check the engine oil level before troubleshooting in other areas.



(1) Drain plug

(2) Engine switch

(3) Lower level

Fuel level

- Check the fuel gauge, and refill the tank if the fuel level is low. Do not fill above the shoulder of the fuel strainer. The fuel 90# gasoline is recommended.
- Unleaded gasoline produces less engine and spark plug fouling and extends exhaust system life.
- Never use stale or contaminated gasoline or oil/gasoline mixture. Avoid dirt, rubbish, and water from getting into the fuel tank.
- If spark knock or pinging occurs at a steady engine speed under normal load, change brands of gasoline. If spark knock or pinging persists, see an authorized dealer.

! WARNING:

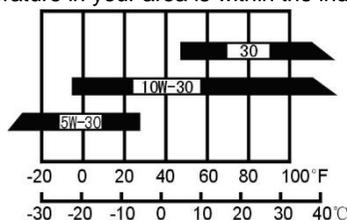
- Running the engine with persistent spark knock or pinging can cause engine damage.
- If persistent spark knocks or pinging is caused by improper usage of the unit, the Distributor's Limited Warranty does not cover parts damaged by that.

PRE-OPERATION CHECKS

Check the oil level

Lubricating oil:

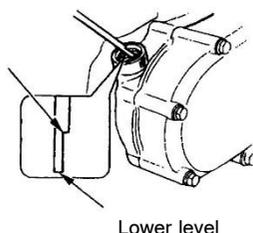
- Engine lubricant oil is a major factor affecting engine performance and service life.
- The use of the lubricating oil free of cleaning agent or the lubricating oil for the two-stroke engine will shorten the life of the gasoline engine.
- The operating temperature range recommended for the gasoline engine is -5°C~40°C.
- Use 4-stroke motor lubricant oil. 20W-40 is recommended in general, at all temperature use. Other viscosities shown in the chart may be used when the average temperature in your area is within the indicated range.



Ambient temperature →

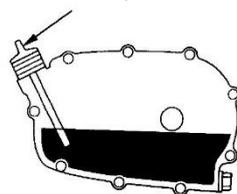
- Before checking engine lubricant oil, place the engine on level surface
- Turn out the oil filler cap and clean the dipstick with a clean cloth.
- Insert the dipstick back into the oil filler hole without turning it in.
- If oil level is below the lower mark of the dipstick, fill oil to the upper level of the dipstick.
- Reinstall the oil filler cap properly.

Upper level



Lower level

Dipstick



| | | | | | |
|----|-------------------|---|-----|---|--------|
| 13 | 71102-T90A-0000 | CLUTCH SLEEVE $\Phi 14 \times \Phi 18 \times 30$ | pcs | 1 | GB2-13 |
| 14 | B3452-1-180C-0100 | O-RING $\Phi 1.8 \times \Phi 10$ | pcs | 2 | GB2-14 |
| 15 | 71141-T90A-1000 | GEARSHIFT SHAFT | pcs | 1 | GB2-15 |
| 16 | B91-0016-020C | COTTER PIN $\Phi 1.6 \times 20$ | pcs | 1 | GB2-16 |
| 17 | B95-080G-000C | FLAT WASHER $\Phi 9 \times \Phi 16 \times 1.6$ | pcs | 2 | GB2-17 |
| 18 | 71142-T90A-000B | SHIFTING FORK | pcs | 1 | GB2-18 |
| 19 | B308-0635-0000 | STEEL BALL $\Phi 6.35$ | pcs | 4 | GB2-19 |
| 20 | 71115-T90A-000B | POSITIONING SPRING $\Phi 6 \times \Phi 0.8 \times 10$ | pcs | 2 | GB2-20 |
| 21 | 71111-T90A-0000 | MAIN SHAFT 20CRMNNTI | pcs | 1 | GB2-21 |
| 22 | B895-2-0018-000B | CHECK RING $\Phi 18 \times 1$ | pcs | 2 | GB2-22 |
| 23 | 71112-T90A-0000 | DOUBLE GEAR, MAIN SHAFT | pcs | 1 | GB2-23 |
| 24 | 71101-T90A-10Y0 | GEARBOX | pcs | 1 | GB2-24 |
| 25 | 11010-E68F-2000 | OIL DIPSTICK ASSY | pcs | 1 | GB2-25 |
| 26 | B276-6203-00 | DEEP GROOVE BALL BEARING $17 \times 35 \times 10$ | pcs | 1 | GB2-26 |
| 27 | B894-1-0040-000B | ELASTIC CHECK RING $\Phi 40 \times 1.0$ | pcs | 1 | GB2-27 |
| 28 | B9877-1-020B-4000 | OIL SEAL $\Phi 20 \times \Phi 40 \times 10$ | pcs | 1 | GB2-28 |
| 29 | 71113-T90A-0000 | MAIN SHAFT BUSHING $\Phi 16 \times \Phi 20 \times 12.5$ | pcs | 1 | GB2-29 |
| 30 | B3452-1-180C-0132 | O-RING $\Phi 1.8 \times \Phi 13.2$ | pcs | 2 | GB2-30 |
| 31 | 71109-172H-100B | GASKET $\Phi 17.2 \times \Phi 26 \times 1$ | pcs | 1 | GB2-31 |
| 32 | B812-16MG-000B | NUT M16 \times 1.5 | pcs | 1 | GB2-32 |
| 33 | 71114-T90A-0000 | MAIN SHAFT KEY SLEEVE | pcs | 1 | GB2-33 |
| 34 | 71116-T90A-000B | FLAT KEY | pcs | 1 | GB2-34 |
| 35 | B5287-060G-000C | BIG WASHER $\Phi 6 \times \Phi 22 \times 2$ | pcs | 1 | GB2-35 |
| 36 | B5789-06KG-016C | HEXAGON FLANGE BOLT M6 \times P1.0 \times 16 | pcs | 1 | GB2-36 |
| 37 | 71108-T90A-000C | MAIN SHAFT SHIELD | pcs | 1 | GB2-37 |
| 38 | B5789-06KG-010C | HEXAGON FLANGE BOLT M6 \times P1.0 \times 10 | pcs | 4 | GB2-38 |
| 39 | 71121-T90A-0000 | COUNTER SHAFT | pcs | 1 | GB2-39 |
| 40 | 71116-TA5A-0000 | FLAT KEY(35/6 \times 6 \times 20) | pcs | 1 | GB2-40 |
| 41 | 71123-T90A-0000 | DOUBLE GEAR, COUNTER SHAFT | pcs | 1 | GB2-41 |
| 42 | B297-30203-00 | SINGLE-ROW TAPERED ROLLER BEARING $\Phi 15 \times \Phi 42 \times 14.25$ | pcs | 1 | GB2-42 |
| 43 | B276-6203-00 | DEEP GROOVE BALL BEARING $17 \times 35 \times 10$ | pcs | 1 | GB2-43 |
| 44 | B95-080G-200C | FLAT WASHER $\Phi 8 \times \Phi 34 \times 3$ | pcs | 1 | GB2-44 |
| 45 | B93-080G-000C | SPRING WASHER $\Phi 8$ | pcs | 1 | GB2-45 |

| | | | | | |
|----|--------------------|--|-----|---|--------|
| 46 | B16674-1-08LG-020C | HEXAGON FLANGE BOLT M8*1.25*20 | pcs | 1 | GB2-46 |
| 47 | 71187-T90A-0000 | OIL SEAL Φ40X10,END CAP OF COUNTER SHAFT | pcs | 1 | GB2-47 |
| 48 | B91-0016-020C | COTTER PIN Φ1.6*20 | pcs | 1 | GB2-48 |
| 49 | B6181-12NG-000C | HEXAGON SLOTTED NUT M12*P1.75 | pcs | 1 | GB2-49 |
| 50 | 71134-T90A-0000 | RESTRICT COVER,REVERSE GEAR | pcs | 1 | GB2-50 |
| 51 | 71136-90A-000B | SPRING Φ20*Φ2*63,REVERSE GEAR | pcs | 1 | GB2-51 |
| 52 | 71135-TA5A-100C | FLAT KEY Φ30×Φ16.5×4 | pcs | 1 | GB2-52 |
| 53 | 71132-T90A-0000 | DOUBLE GEAR, REVERSE GEAR | pcs | 1 | GB2-53 |
| 54 | 71133-T90A-1000 | PUSHING PLATE,REVERSE GEAR | pcs | 1 | GB2-54 |
| 55 | 71131-T90A-0000 | SHAFT,REVERSE GEAR | pcs | 1 | GB2-55 |
| 56 | B3452-1-180C-0180 | O-RING Φ1.8*Φ18 | pcs | 1 | GB2-56 |
| 57 | B119-1-0050-0100 | CYLINDRICAL PINΦ5*10 | pcs | 1 | GB2-57 |
| 58 | B96-3-100G-000C | FLAT WASHER Φ10*Φ20*4 | pcs | 1 | GB2-58 |
| 59 | B93-100G-000C | SPRING WASHER Φ10 | pcs | 1 | GB2-59 |
| 60 | B5782-10MG-025C | HEXAGON BOLT M10*P1.5*25 | pcs | 1 | GB2-60 |
| 61 | B6170-08LG-000C | HEXAGON NUT M8*P1.25 | pcs | 1 | GB2-61 |
| 62 | 71105-T90B-100C | SEAT,REVERSE GEAR CABLE | pcs | 1 | GB2-62 |
| 63 | B91-0016-020C | COTTER PIN Φ1.6*20 | pcs | 1 | GB2-63 |
| 64 | B6181-08LG-000C | HEXAGON SLOTTED NUT M8*P1.75 | pcs | 1 | GB2-64 |
| 65 | B95-080G-000C | FLAT WASHER Φ9*Φ16*1.6 | pcs | 1 | GB2-65 |
| 66 | 71152-T90A-000B | REVERSE GEAR FORK | pcs | 1 | GB2-66 |
| 67 | 71103-T90A-0000 | REVERSE GEAR BUSHING | pcs | 1 | GB2-67 |
| 68 | B3452-1-180C-0100 | O-RING Φ1.8*Φ10 | pcs | 2 | GB2-68 |
| 69 | 71151-T90A-000C | SHAFT,REVERSE GEAR FORK | pcs | 1 | GB2-69 |
| 70 | B894-1-0013-000B | CHECK RING Φ14*1.0 | pcs | 1 | GB2-70 |
| 71 | 71102-T90A-0000 | CLUTCH BUSHING | pcs | 2 | GB2-71 |
| 72 | B3452-1-180C-0100 | O-RING Φ1.8*Φ10 | pcs | 4 | GB2-72 |
| 73 | B882-0060-025C | B PIN Φ6*25 | pcs | 1 | GB2-73 |
| 74 | B91-0016-020C | COTTER PIN Φ1.6*20 | pcs | 1 | GB2-74 |
| 75 | 71162-T90A-000B | CLUTH FORK | pcs | 1 | GB2-75 |
| 76 | 71161-T90A-000C | SHAFT, CLUTH FORK | pcs | 1 | GB2-76 |
| 77 | B6170-08LG-000C | HEXAGON NUT M8*P1.25 | pcs | 1 | GB2-77 |
| 78 | B93-080G-000C | SPRING WASHER Φ8 | pcs | 1 | GB2-78 |
| 79 | B95-080G-000C | FLAT WASHER Φ9*Φ16*1.6 | pcs | 1 | GB2-79 |
| 80 | 71102-090A-000C | SEAT,CLUTCH | pcs | 1 | GB2-80 |
| 81 | 71102-T90A-1000 | POSITIONING BUSHING Φ8*Φ10*14 | pcs | 1 | GB2-81 |
| 82 | B95-140G-010C | FLAT WASHER Φ14*Φ22*4 | pcs | 1 | GB2-82 |

SAFETY INSTRUCTIONS

1. Please perform some pre-operation checks before operation to avoid human injury and equipment damage.
2. Keep the engine in good, ventilated places at least 1 meter away from buildings and other equipment's during operation and keep the flammable substances away from the engine to avoid fire.
3. Keep children and pets away from the operation area.
4. Make sure that the person who operates the engine receives proper instruction.
5. Keep the flammable substances (gasoline, matches) away from the operating engine.
6. As gasoline is extremely flammable and explosive under certain conditions, please refuel in a well-ventilated area with the engine stopped.
7. Do not fill above the shoulder of the fuel strainer.
8. Make sure the fuel cover is tightened.
9. Make sure that any spilled fuel has been wiped off before starting the engine.
10. Do not smoke or allow flames or sparks where the engine is refueled or where gasoline is stored.
11. Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death. Do not operate the engine without good ventilation or in enclosed room.
12. If you run the engine in an area that is confined, or even partially enclosed, the air you breathe could contain a dangerous amount of exhaust gas. Provide adequate ventilation so as to keep exhaust gas from accumulation.
13. Place the engine on flat (level) surface, tilting angle of the engine should not be more than 20°, otherwise it will lead to fuel spilling out.
14. Do not cover the engine so as to avoid fire occurrence.
15. The muffler becomes very hot during and immediately after operation. Be careful not to touch the muffler while it is hot. Let the engine cool down before storing the engine indoor.

USER MANUAL



BEFORE GETTING STARTED

Thank you for your purchase and use of our products. In order to avoid accidents or injury, **please read this manual carefully** before using the machine. After reading, preserve it for further reference. This manual is a part of the gasoline engine and should be transferred when the machine is resold.

SAFETY LABELS



DANGER

Indicates a hazard, if not avoided, can result in human injury or death.



WARNING

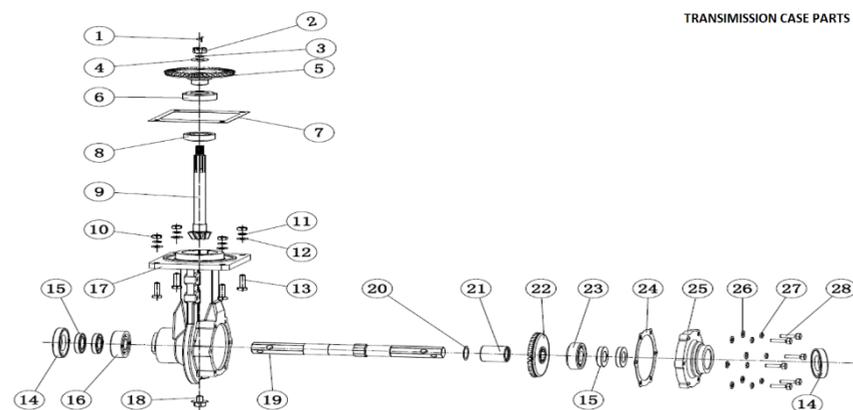
Indicates a hazard, if not avoided, could result in human injury and/or property damage.

CAUTION

Indicates a hazard, if not avoided, might result in slight injury and/or property damage.



Please read and understand this owner's manual before operation of the engine to avoid accidents by familiarizing yourself with your engine's controls and safe operation procedures.



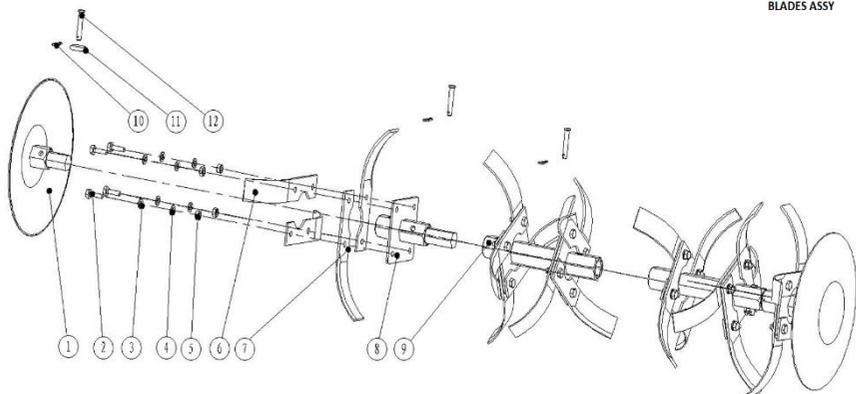
TRANSMISSION CASE PARTS

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|-------------------|---|------|-----------------------|----------|
| 1 | B91-0020-030C | COTTER PIN $\Phi 2 \times 30$ | pcs | 1 | GB3-1 |
| 2 | B6181-12NG-000C | HEXAGON SLOTTED NUT M12*P1.75 | pcs | 1 | GB3-2 |
| 3 | B93-120G-000C | SPRING WASHER $\Phi 12$ | pcs | 1 | GB3-3 |
| 4 | B95-120G-010C | FLAT WASHER $\Phi 13 \times \Phi 24 \times 2$ | pcs | 1 | GB3-4 |
| 5 | 71222-T90A-0400 | DRIVEN BEVEL GEAR | pcs | 1 | GB3-5 |
| 6 | B297-30205-00 | SINGLE-ROW TAPERED ROLLER BEARING 30205 | pcs | 1 | GB3-6 |
| 7 | 71005-T90A-2000 | PAPER PAD | pcs | 1 | GB3-7 |
| 8 | B297-30204-00 | SINGLE-ROW TAPERED ROLLER BEARING $\Phi 20 \times \Phi 47 \times 15.25$ | pcs | 1 | GB3-8 |
| 9 | 71211-T90A-0100 | BEVEL GEAR SHAFT | pcs | 1 | GB3-9 |
| 10 | B6170-10MG-000C | HEXAGON NUT M10*P1.5 | pcs | 4 | GB3-10 |
| 11 | B93-100G-000C | SPRING WASHER $\Phi 10$ | pcs | 4 | GB3-11 |
| 12 | B95-100G-000C | FLAT WASHER $\Phi 11 \times \Phi 20 \times 2.0$ | pcs | 4 | GB3-12 |
| 13 | B5783-10MG-040C | HEXAGON BOLT M10*P1.5*40 | pcs | 4 | GB3-13 |
| 14 | 71006-T90A-200C | DUST SHIELD | pcs | 2 | GB3-14 |
| 15 | B9877-1-025C-4700 | OIL SEAL $\Phi 25 \times \Phi 47 \times 7$ | pcs | 4 | GB3-15 |
| 17 | B276-6305-00 | DEEP GROOVE BALL BEARING $\Phi 25 \times \Phi 62 \times 17$ | pcs | 1 | GB3-17 |
| 16 | 71201-T90A-01RQ | WALKING CASE | pcs | 1 | GB3-16 |
| 18 | 71204-T75A-1000 | OIL DRAIN BOLT M10*1.25*10 | pcs | 1 | GB3-18 |
| 19 | 71008-T90A-0000 | FLANGE OUTPUT SHAFT | pcs | 1 | GB3-19 |

| | | | | | |
|----|--------------------|---|-----|---|--------|
| 20 | 71109-255K-020B | GASKET $\Phi 25.5 \times \Phi 33 \times 0.5$ | pcs | 1 | GB3-20 |
| 21 | 71223-T90A-0000 | COVER,OUTPUT SHAFT | pcs | 1 | GB3-21 |
| 22 | 71221-T90A-0200 | WALKING BEVEL GEAR | pcs | 1 | GB3-22 |
| 23 | B297-30305-00 | SINGLE-ROW TAPERED ROLLER BEARING $\Phi 25 \times \Phi 62 \times 18.25$ | pcs | 1 | GB3-23 |
| 24 | 71203-T90A-1000 | SIDE COVER GASKET $\Delta 0.5$ | pcs | 1 | GB3-24 |
| 25 | 71202-T90A-01RQ | SIDE COVER | pcs | 1 | GB3-25 |
| 26 | B95-080G-000C | FLAT WASHER $\Phi 9 \times \Phi 16 \times 1.6$ | pcs | 6 | GB3-26 |
| 27 | B93-080G-000C | SPRING WASHER $\Phi 8$ | pcs | 6 | GB3-27 |
| 28 | B16674-1-08LG-030C | HEXAGON BOLT $M8 \times 1.25 \times 30$ | pcs | 6 | GB3-28 |

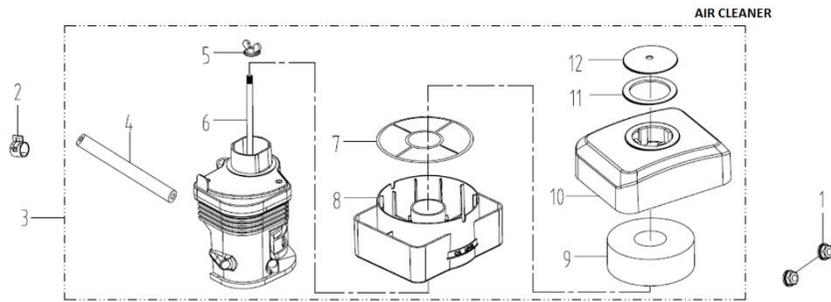
BLADES ASSY

| | | | | | |
|----|----------------|--|-----|---|--------|
| 8 | 20025-00010-04 | (PART INCLUDED IN HIGHER ASSEMBLY {E11-3}) | pcs | 1 | E11-8 |
| 9 | 20025-00010-05 | ELEMENT ASSY,AIR CLEANER(PART INCLUDED IN HIGHER ASSEMBLY {E11-3}) | pcs | 1 | E11-9 |
| 10 | 20025-00010-06 | COVER,AIR CLEANER(PART INCLUDED IN HIGHER ASSEMBLY {E11-3}) | pcs | 1 | E11-10 |
| 11 | 20025-00010-07 | PACKING,ELBOW(PART INCLUDED IN HIGHER ASSEMBLY {E11-3}) | pcs | 1 | E11-11 |
| 12 | 20025-00010-08 | (PART INCLUDED IN HIGHER ASSEMBLY {E11-3}) | pcs | 1 | E11-12 |

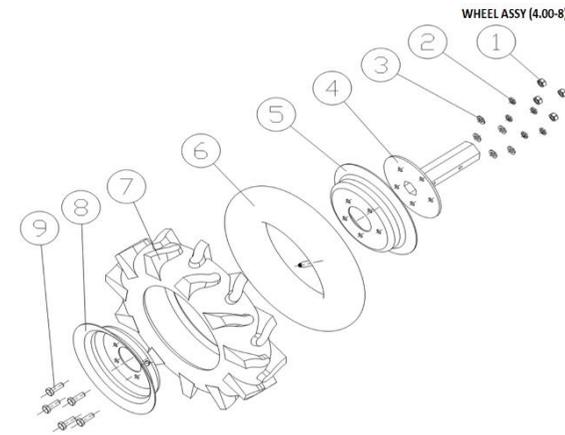


BLADES ASSY

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|-----------------|---|------|-----------------------|----------|
| 1 | 79512-T80A-51B5 | SIDE DISC | pcs | 2 | GB4-1 |
| 2 | B5783-10MG-030C | HEXAGON BOLT $M10 \times P1.5 \times 30$ | pcs | 24 | GB4-2 |
| 3 | B95-100G-000C | FLAT WASHER $\Phi 11 \times \Phi 20 \times 2.0$ | pcs | 24 | GB4-3 |
| 4 | B93-100G-000C | SPRING WASHER $\Phi 10$ | pcs | 24 | GB4-4 |
| 5 | B6170-10MG-000C | HEXAGON NUT $M10 \times P1.5$ | pcs | 24 | GB4-5 |
| 6 | 79113-T80A-01B5 | BLADE(L) | pcs | 12 | GB4-6 |
| 7 | 79114-T80A-01B5 | BLADE(R) | pcs | 12 | GB4-7 |
| 8 | 79112-T80A-0100 | COUNTER TUBE | pcs | 2 | GB4-8 |
| 9 | 79121-T75A-0000 | MAIN TUBE | pcs | 2 | GB4-9 |
| 10 | 72205-TA5A-000C | R PIN $\Phi 2 \times \Phi 9 \times 38$ | pcs | 6 | GB4-10 |
| 11 | B882-0080-050C | B PIN $\Phi 8 \times 50$ | pcs | 6 | GB4-11 |



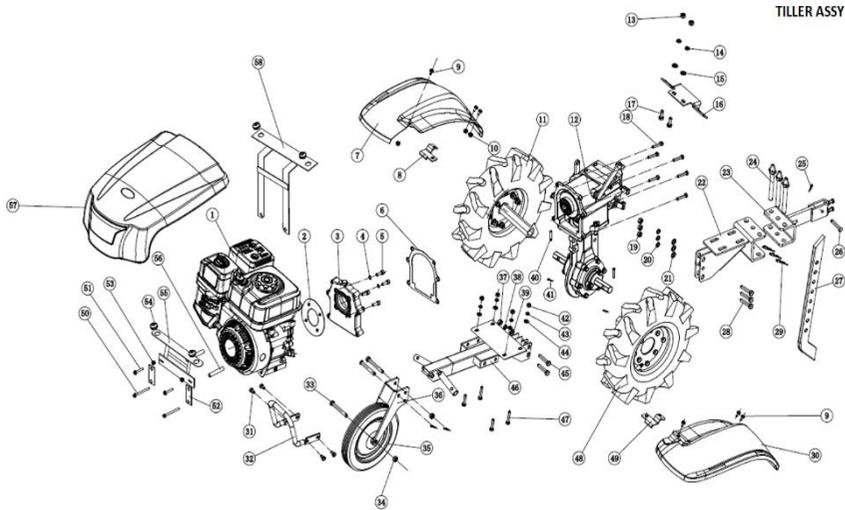
AIR CLEANER



WHEEL ASSY (4.00-8)

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|----------------|--|------|-----------------------|----------|
| 1 | 30125-00002-00 | NUT,FLANGE M6 | pcs | 2 | E11-1 |
| 2 | 34024-00003-00 | CLIP,TUBE B12 | pcs | 1 | E11-2 |
| 3 | 20025-00010-00 | AIR CLEANER ASSY | pcs | 1 | E11-3 |
| 4 | 20025-00010-01 | TUBE,BREATHERΦ12(PART INCLUDED IN HIGHER ASSEMBLY {E11-3}) | pcs | 1 | E11-4 |
| 5 | 70002-01335-00 | NUT,BUTTERFLY M6(PART INCLUDED IN HIGHER ASSEMBLY {E11-3}) | pcs | 1 | E11-5 |
| 6 | 20025-00010-02 | ELBOW COMP,AIR CLEANER(PART INCLUDED IN HIGHER ASSEMBLY {E11-3}) | pcs | 1 | E11-6 |
| 7 | 20025-00010-03 | NOSE,SILENCER(PART INCLUDED IN HIGHER ASSEMBLY {E11-3}) | pcs | 1 | E11-7 |

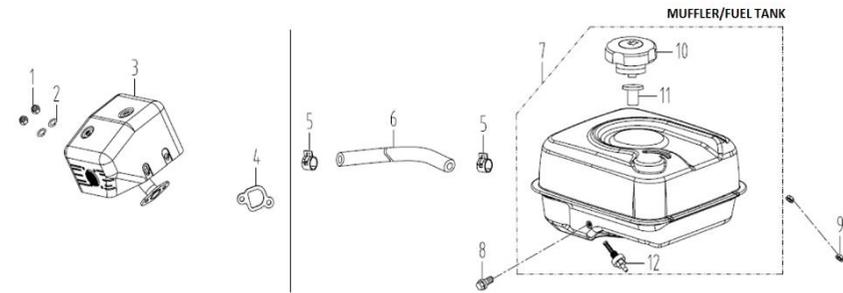
| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|-----------------|--------------------------|------|-----------------------|----------|
| 1 | B6170-10MG-000C | HEXAGON NUT M10*P1.5 | pcs | 16 | GB5-1 |
| 2 | B93-100G-000C | SPRING WASHER Φ10 | pcs | 16 | GB5-2 |
| 3 | B95-100G-000C | FLAT WASHER Φ11*Φ20*2.0 | pcs | 16 | GB5-3 |
| 4 | 75115-T80A-00B5 | WHEEL SHAFT | pcs | 2 | GB5-4 |
| 5 | 75113-TA5A-01Y0 | INSIDE WHEEL HUB | pcs | 2 | GB5-5 |
| 6 | 75112-TA5A-1000 | INNER TUBE | pcs | 2 | GB5-6 |
| 7 | 75111-TA5A-1000 | OUTTER TUBE | pcs | 2 | GB5-7 |
| 8 | 75114-TA5A-01Y0 | OUTSIDE WHEEL HUB | pcs | 2 | GB5-8 |
| 9 | B5783-10MG-025C | HEXAGON BOLT M10*P1.5*25 | pcs | 16 | GB5-9 |



TILLER ASSY

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|--------------------|--------------------------------|------|-----------------------|----------|
| 1 | 10000-E70F-D340 | GASOLINE ENGINE | pcs | 1 | GB6-1 |
| 2 | 04.71004-T90A-1000 | FLANGE GASKET | pcs | 1 | GB6-2 |
| 3 | 04.71001-TA5A-00Y0 | FLANGE | pcs | 1 | GB6-3 |
| 4 | B93-080G-000C | SPRING WASHER Φ8 | pcs | 4 | GB6-4 |
| 5 | B70-1-08LG-025C | SCREW M8*P1.25*25 | pcs | 4 | GB6-5 |
| 6 | 71003-T90A-0000 | PAPER GASKET, GEAR BOX | pcs | 1 | GB6-6 |
| 7 | 74111-T90A-20C3 | RIGHT FENDER | pcs | 1 | GB6-7 |
| 8 | 74122-T90A-50B5 | FRONT SUPPORT(R),FENDER | pcs | 1 | GB6-8 |
| 9 | B5789-06KG-016C | HEXAGON FLANGE BOLT M6*P1.0*16 | pcs | 6 | GB6-9 |
| 10 | B6177-1-06KG-000C | HEXAGON FLANGE NUTS M6*P1.0 | pcs | 6 | GB6-10 |
| 11 | 75110-T90A-62Y0 | RIGHT WHEEL ASSY | pcs | 1 | GB6-11 |
| 12 | 71000-T90A-91Y0 | GEARBOX ASSY | pcs | 1 | GB6-12 |
| 13 | B6170-10MG-000C | HEXAGON NUT M10*P1.5 | pcs | 2 | GB6-13 |
| 14 | B93-100G-000C | SPRING WASHER Φ10 | pcs | 2 | GB6-14 |
| 15 | B95-100G-000C | FLAT WASHER Φ11*Φ20*2.0 | pcs | 2 | GB6-15 |
| 16 | 74121-T90A-30B5 | REAR SUPPORT, FENDER | pcs | 1 | GB6-16 |
| 17 | B5783-10MG-025C | HEXAGON BOLT M10*P1.5*25 | pcs | 2 | GB6-17 |

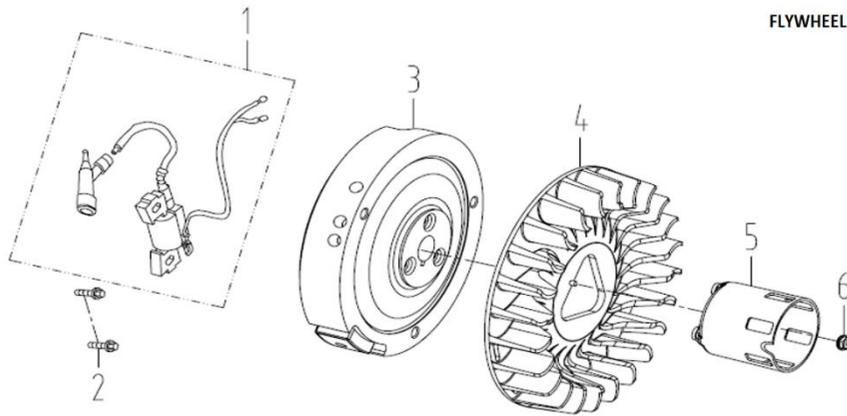
| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|----------------|------------------------|------|-----------------------|----------|
| 1 | 30101-00070-00 | BOLT,FLANGE M6X12 | pcs | 2 | E9-1 |
| 2 | 20022-00009-00 | CONTROL,ASSY | pcs | 1 | E9-2 |
| 3 | 34015-00017-00 | SPRING,CABLE RETURN | pcs | 1 | E9-3 |
| 4 | 34015-00026-00 | SPRING,THROTTLE RETURN | pcs | 1 | E9-4 |
| 5 | 34026-00007-00 | ROD,GOVERNOR | pcs | 1 | E9-5 |
| 6 | 34025-00003-00 | CONTROL,ASSY | pcs | 1 | E9-6 |



MUFFLER/FUEL TANK

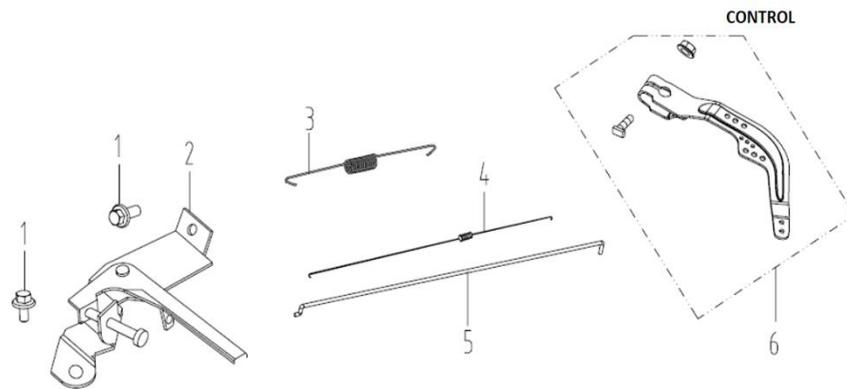
MUFFLER/FUEL TANK

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|----------------|----------------------|------|-----------------------|----------|
| 1 | 30121-00040-00 | NUT,HEX M8 | pcs | 2 | E10-1 |
| 2 | 30139-00037-00 | SPRING WASHERΦ8.5 | pcs | 2 | E10-2 |
| 3 | 20202-00019-00 | MUFFLER ASSY | pcs | 1 | E10-3 |
| 4 | 33048-00099-00 | GASKET,MUFFLER | pcs | 1 | E10-4 |
| 5 | 34024-00002-00 | CLIP,TUBEΦ8 | pcs | 2 | E10-5 |
| 6 | 34023-00004-00 | TUBE,FUELΦ8.5 | pcs | 1 | E10-6 |
| 7 | 20130-00007-05 | FUEL TANK ASSY | pcs | 1 | E10-7 |
| 8 | 30101-00530-00 | BOLT,FLANGE M6X30 | pcs | 1 | E10-8 |
| 9 | 30125-00002-00 | NUT,FLANGE M6 | pcs | 2 | E10-9 |
| 10 | 20131-00025-00 | CAP COMP,FUEL FILLER | pcs | 1 | E10-10 |
| 11 | 34037-00019-00 | FILTER,FUEL | pcs | 1 | E10-11 |
| 12 | 70010-00113-00 | JOINT COMP,FUEL TANK | pcs | 1 | E10-12 |



FLYWHEEL

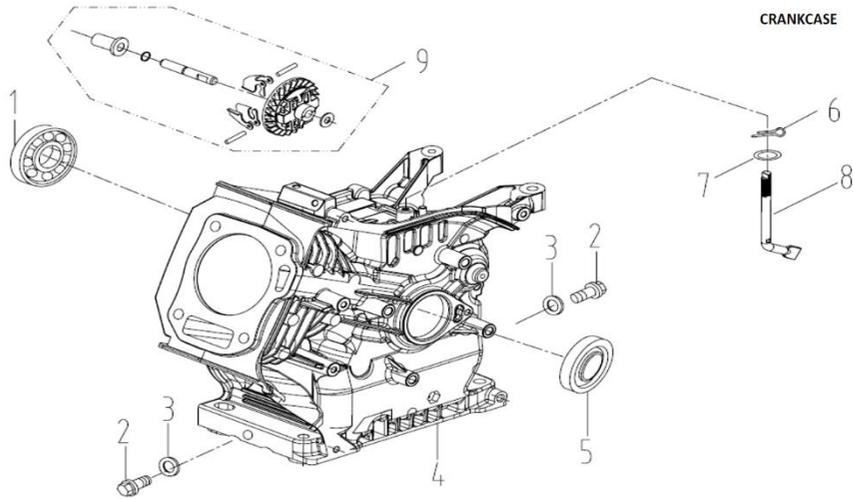
| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|----------------|--------------------|------|-----------------------|----------|
| 1 | 20028-00024-00 | COIL ASSY,IGNITION | pcs | 1 | E8-1 |
| 2 | 30101-00408-00 | BOLT,FLANGE M6X25 | pcs | 2 | E8-2 |
| 3 | 33099-00040-00 | FLYWHEEL COMP | pcs | 1 | E8-3 |
| 4 | 33155-00040-00 | FAN COOLING | pcs | 1 | E8-4 |
| 5 | 34022-00007-00 | PULLEY,STARTER | pcs | 1 | E8-5 |
| 6 | 30125-00011-00 | NUT SPECIAL M14 | pcs | 1 | E8-6 |



CONTROL

| | | | | | |
|----|--------------------|--|-----|---|--------|
| 18 | B16674-1-08LG-040C | HEXAGON FLANGE BOLT M8*1.25*40 | pcs | 6 | GB6-18 |
| 19 | B6170-10MG-000C | HEXAGON NUT M10*P1.5 | pcs | 3 | GB6-19 |
| 20 | B93-100G-000C | SPRING WASHER Φ10 | pcs | 3 | GB6-20 |
| 21 | B95-100G-000C | FLAT WASHER Φ11*Φ20*2.0 | pcs | 3 | GB6-21 |
| 22 | 72201-T90A-11B5 | COUPLING | pcs | 1 | GB6-22 |
| 23 | 72202-T80A-31B5 | CONNECTION PART | pcs | 1 | GB6-23 |
| 24 | 72203-T80A-000C | PIN OF PULLEY COSRP | pcs | 3 | GB6-24 |
| 25 | 72205-TA5A-000C | R PIN Φ2*Φ9*38 | pcs | 1 | GB6-25 |
| 26 | B882-0080-040C | B PIN Φ8*40 | pcs | 1 | GB6-26 |
| 27 | 72204-TA5A-00B5 | DEEP FURROWING RESISTANCE PART (TYPE-L) | pcs | 1 | GB6-27 |
| 28 | B5789-10KG-045C | HEXAGON FLANGE BOLT M10*P1.5*45 | pcs | 3 | GB6-28 |
| 29 | 72205-TA5A-010C | R PIN 3*20*60 | pcs | 3 | GB6-29 |
| 30 | 74112-T90A-20C3 | LEFT FENDER | pcs | 1 | GB6-30 |
| 31 | B16674-1-08LG-250C | HEXAGON FLANGE BOLT M8*1.25*25 | pcs | 2 | GB6-31 |
| 32 | 72111-T75A-10B5 | BUMPER | pcs | 1 | GB6-32 |
| 33 | B5789-08KG-080C | HEXAGON FLANGE BOLT M8*80 | pcs | 1 | GB6-33 |
| 34 | 72310-T75A-50Y0 | FRONT WHEEL | pcs | 1 | GB6-34 |
| 35 | B6177-1-08KG-000C | HEXAGON FLANGE BOLT M8 | pcs | 1 | GB6-35 |
| 36 | 72310-T75A-20B5 | BRACKET, FRONT WHEEL | pcs | 1 | GB6-36 |
| 37 | B6170-10MG-000C | HEXAGON NUT M10*P1.5 | pcs | 2 | GB6-37 |
| 38 | B93-100G-000C | SPRING WASHER Φ10 | pcs | 2 | GB6-38 |
| 39 | B95-100G-000C | FLAT WASHER Φ11*Φ20*2.0 | pcs | 2 | GB6-39 |
| 40 | B882-0080-040C | B PIN Φ8*40 | pcs | 2 | GB6-40 |
| 41 | 72205-TA5A-000C | R PIN Φ2*Φ9*38 | pcs | 2 | GB6-41 |
| 42 | B6170-08LG-000C | HEXAGON NUT M8*P1.25 | pcs | 4 | GB6-42 |
| 43 | B93-080G-000C | SPRING WASHER Φ8 | pcs | 4 | GB6-43 |
| 44 | B95-080G-000C | FLAT WASHER Φ9*Φ16*1.6 | pcs | 4 | GB6-44 |
| 45 | B5789-10KG-040C | HEXAGON FLANGE BOLT M10*P1.5*40 | pcs | 2 | GB6-45 |
| 46 | 72101-T90A-52B5 | ENGINE SUPPORT | pcs | 1 | GB6-46 |
| 47 | B5789-08KG-045C | HEXAGON FLANGE BOLT M8*P1.25*45 | pcs | 4 | GB6-47 |
| 48 | 75110-T90A-52Y0 | LEFT WHEEL ASSY | pcs | 1 | GB6-48 |
| 49 | 74122-T90A-40B5 | FRONT SUPPORT(L),FENDER | pcs | 1 | GB6-49 |
| 50 | B5789-06KG-065C | HEXAGON FLANGE BOLT M6*P1.0*65 | pcs | 2 | GB6-50 |
| 51 | B5783-08LG-020C | HEXAGON BOLT M8*P1.25*20 | pcs | 2 | GB6-51 |
| 52 | 73409-TA5A-00B5 | CONNECTING PLATE | pcs | 1 | GB6-52 |

| | | | | | |
|----|-------------------|------------------------------|-----|---|--------|
| 53 | B6177-1-08KG-000C | HEXAGON FLANGE NUT M8 | pcs | 2 | GB6-53 |
| 54 | 00001-W001-0027 | RUBBER BOLT | pcs | 4 | GB6-54 |
| 55 | 73401-T90C-30B5 | FRONT SUPPORT, LIGHT COVER | pcs | 1 | GB6-55 |
| 56 | 73402-T90A-000C | SUPPORTING TUBE, LIGHT COVER | pcs | 1 | GB6-56 |
| 57 | 73411-T75A-20Y0 | LIGHT COVER ASSY | pcs | 1 | GB6-57 |
| 58 | 73401-T90C-41B5 | REAR SUPPORT, LIGHT COVER | pcs | 1 | GB6-58 |

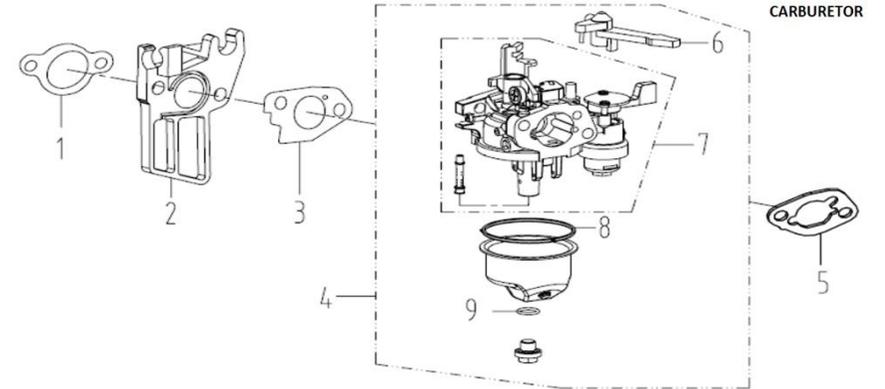


Engine

CRANKCASE

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|----------------|--------------------|------|-----------------------|----------|
| 1 | 30141-00120-00 | BEARING 6205 | pcs | 1 | E1-1 |
| 2 | 30101-00487-00 | BOLT,FLANGE M10X15 | pcs | 2 | E1-2 |
| 3 | 30136-00078-00 | WASHERΦ10.2 | pcs | 2 | E1-3 |
| 4 | 34011-00010-00 | CRANKCASE | pcs | 1 | E1-4 |
| 5 | 34007-00003-00 | OIL SEAL | pcs | 1 | E1-5 |
| 6 | 34006-00016-00 | PIN, LOCK | pcs | 1 | E1-6 |
| 7 | 30136-00092-00 | WASHER | pcs | 1 | E1-7 |
| 8 | 34026-00003-00 | SHAFT,GOVERNOR ARM | pcs | 1 | E1-8 |

| | | | | | |
|---|----------------|---------------------|-----|---|------|
| 2 | 30101-00042-00 | BOLT,FLANGE M6X20 | pcs | 1 | E6-2 |
| 3 | 34024-00004-00 | N/A | pcs | 1 | E6-3 |
| 4 | 30101-00070-00 | BOLT,FLANGE M6X12 | pcs | 4 | E6-4 |
| 5 | 20010-00049-02 | RECOIL STARTER COMP | pcs | 1 | E6-5 |
| 6 | 20010-00014-01 | COVER COMP,PAN | pcs | 1 | E6-6 |
| 7 | 20034-00032-03 | STARTER ASSY | pcs | 1 | E6-7 |



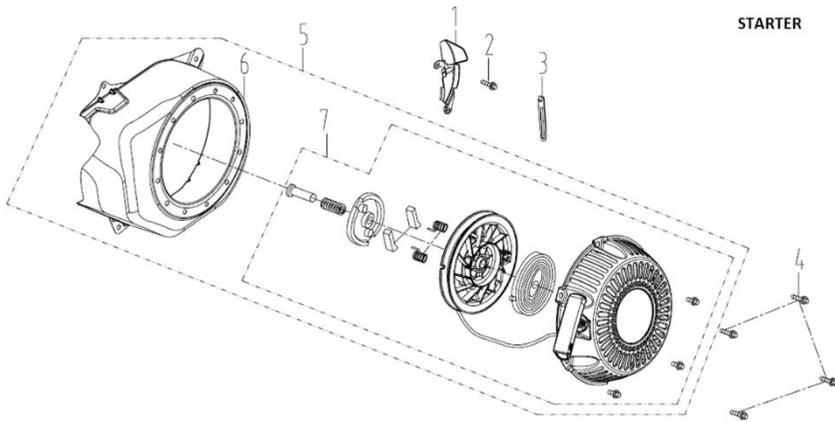
CARBURETOR

CARBURETOR

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|----------------|--|------|-----------------------|----------|
| 1 | 33048-00051-00 | PACKING,INSULATOR | pcs | 1 | E7-1 |
| 2 | 34012-00009-00 | INSULATOR,CARBURETOR | pcs | 1 | E7-2 |
| 3 | 33048-00076-00 | PACKING,CARBURETOR | pcs | 1 | E7-3 |
| 4 | 20024-00047-00 | CARBURETOR | pcs | 1 | E7-4 |
| 5 | 33048-00045-00 | PACKING,AIR CLEANER | pcs | 1 | E7-5 |
| 6 | 20024-00053-01 | LEVER ASSY,CHOKE(PART INCLUDED IN HIGHER ASSEMBLY {E7-4}) | pcs | 1 | E7-6 |
| 7 | 20024-00047-01 | NOUMENON,CARBURETOR(PART INCLUDED IN HIGHER ASSEMBLY {E7-4}) | pcs | 1 | E7-7 |
| 8 | 20024-00053-03 | GASKET,OIL CUP(PART INCLUDED IN HIGHER ASSEMBLY {E7-4}) | pcs | 1 | E7-8 |
| 9 | 20024-00053-04 | GASKET,OIL CUP(PART INCLUDED IN HIGHER ASSEMBLY {E7-4}) | pcs | 1 | E7-9 |

CAMSHAFT

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|----------------|-----------------------|------|-----------------------|----------|
| 1 | 33141-00021-00 | ROTATOR,VALVE | pcs | 2 | E5-1 |
| 2 | 34016-00006-00 | RETAINER,VALVE SPRING | pcs | 1 | E5-2 |
| 3 | 34015-00003-00 | SPRING,VALVE | pcs | 2 | E5-3 |
| 4 | 34016-00003-00 | SPRING,VALVE | pcs | 1 | E5-4 |
| 5 | 34018-00002-00 | OIL SHIELD | pcs | 1 | E5-5 |
| 6 | 34013-00027-00 | VALVE,EXHAUST | pcs | 1 | E5-6 |
| 7 | 34013-00008-00 | VALVE, INTAKE | pcs | 1 | E5-7 |
| 8 | 30121-00034-00 | UNT,PIVOT ADJUSTING | pcs | 2 | E5-8 |
| 9 | 30134-00005-00 | PIVOT ROCKER ARM | pcs | 2 | E5-9 |
| 10 | 34019-00003-00 | ROCKER ARM | pcs | 2 | E5-10 |
| 11 | 30110-00032-00 | BOLT POVIT | pcs | 2 | E5-11 |
| 12 | 34017-00004-00 | PLATE,PUSH ROD GUIDE | pcs | 1 | E5-12 |
| 13 | 34020-00004-00 | PUSH ROD | pcs | 2 | E5-13 |
| 14 | 34008-00004-00 | LIFTER,VALVE | pcs | 2 | E5-14 |
| 15 | | CAM SHAFT ASSY | pcs | 1 | E5-15 |

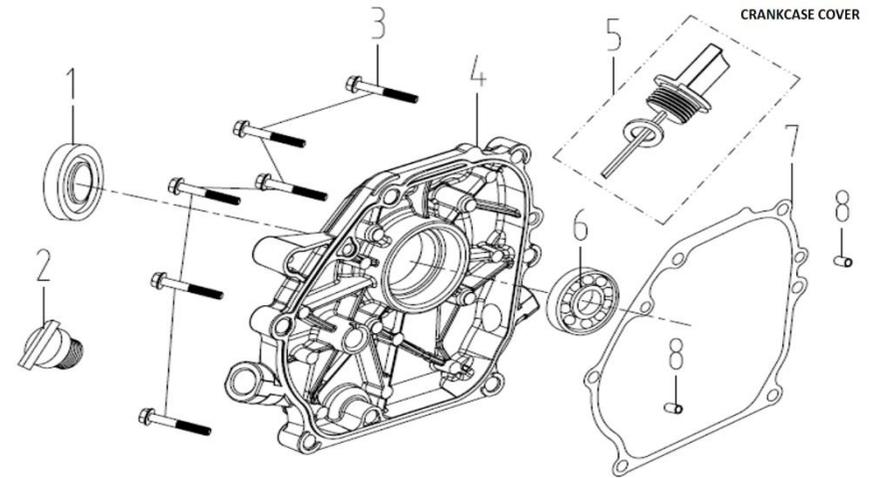


STARTER

SERIES NO.

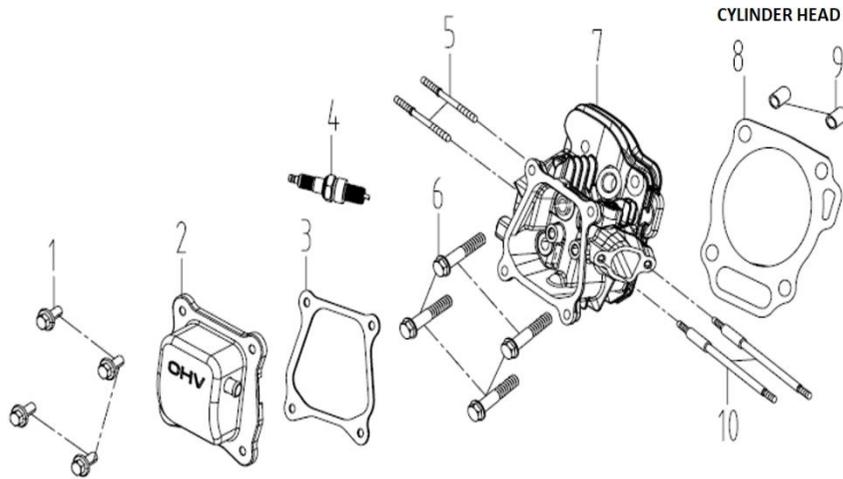
| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|----------------|--------------|------|-----------------------|----------|
| 1 | 34021-00033-00 | SHROUD | pcs | 1 | E6-1 |

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|----------------|--------------|------|-----------------------|----------|
| 9 | 20013-00008-00 | GOVERNOR KIT | pcs | 1 | E1-9 |



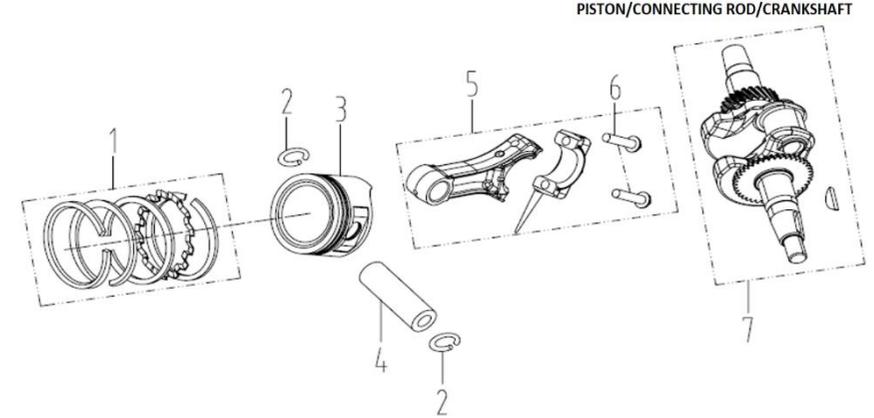
CRANKCASE COVER

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|----------------|------------------------|------|-----------------------|----------|
| 1 | 34007-00003-00 | OIL SEAL | pcs | 1 | E2-1 |
| 2 | 20026-00016-00 | CAP ASSY | pcs | 1 | E2-2 |
| 3 | 30101-00461-00 | BOLT,FLANGE M8X32 | pcs | 6 | E2-3 |
| 4 | 33129-00026-00 | CRANKCASE COVER | pcs | 1 | E2-4 |
| 5 | 20026-00001-00 | CAP ASSY | pcs | 1 | E2-5 |
| 6 | 30141-00120-00 | BEARING 6205 | pcs | 1 | E2-6 |
| 7 | 33048-00061-00 | GASKET,CRANKCASE COVER | pcs | 1 | E2-7 |
| 8 | 34006-00002-00 | DOWEL PINΦ8X14 | pcs | 2 | E2-8 |



CYLINDER HEAD

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|----------------|-------------------------|------|-----------------------|----------|
| 1 | 30101-00070-00 | BOLT,FLANGE M6X12 | pcs | 4 | E3-1 |
| 2 | 20021-00009-00 | COVER COMP.HEAD | pcs | 1 | E3-2 |
| 3 | 33048-00023-00 | PACKING,HEAD COVER | pcs | 1 | E3-3 |
| 4 | 20027-00006-00 | SPARK PLUGF6TC | pcs | 1 | E3-4 |
| 5 | 30110-00026-00 | BOLT,STUD,EXHAUST M8X35 | pcs | 2 | E3-5 |
| 6 | 30101-00468-00 | BOLT,FLANGE M8X60 | pcs | 4 | E3-6 |
| 7 | 20023-00006-00 | CYLINDER HEAD COMP | pcs | 2 | E3-7 |
| 8 | 33048-00015-00 | GASKET,CYLINDER | pcs | 1 | E3-8 |
| 9 | 34006-00009-00 | DOWEL PINΦ10X16 | pcs | 2 | E3-9 |
| 10 | 30110-00017-00 | BOLT,STUD,INTAKE M6X113 | pcs | 2 | E3-10 |



PISTON/CONNECTING ROD/CRANKSHAFT

| SERIES NO. | PART CODE | ENGLISH NAME | UNIT | QUANTITY FOR ONE UNIT | IMAGE NO |
|------------|----------------|---------------------|------|-----------------------|----------|
| 1 | 20084-00006-00 | RING SET,PISTON | pcs | 1 | E4-1 |
| 2 | 30150-00022-00 | CLIP,PISTON PIN | pcs | 2 | E4-2 |
| 3 | 34004-00009-00 | PISTON | pcs | 1 | E4-3 |
| 4 | 34006-00013-00 | PIN,PISTON | pcs | 1 | E4-4 |
| 5 | 20008-00004-00 | CONNECTING ROD ASSY | pcs | 1 | E4-5 |
| 6 | 20008-00005-01 | BOLT,FLANGE M6X32 | pcs | 2 | E4-6 |
| 7 | 20011-00025-00 | CRANKSHAFT ASSYΦ20 | pcs | 1 | E4-7 |

PISTON/CONNECTING ROD/CRANKSHAFT

