



**KMW**  
BY KIRLOSKAR

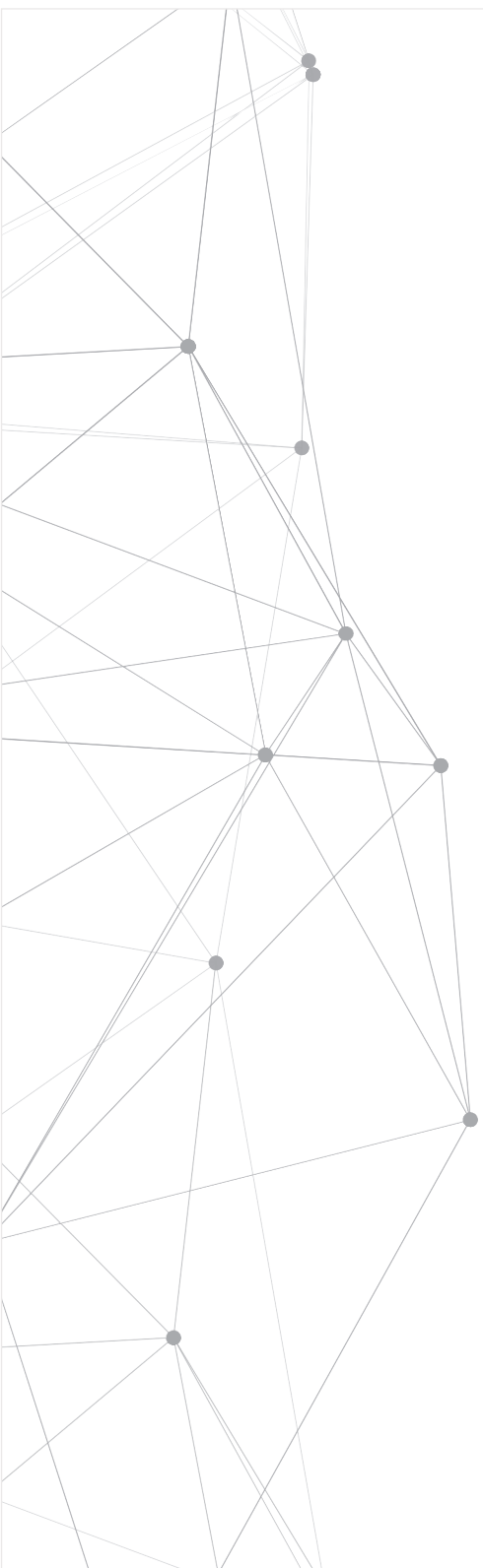


Operator's Manual

**KBX243**



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# 1. WARRANTY REGISTRATION CARD / SALES INTIMATION CARD

Details			
Model		Invoice No.	Invoice Date
Engine No.			
Frame No.		Warranty Start Date	Warranty End Date
Use of MIN T	<div> <div>1. Forest Professionals</div> <div>2. Orchard</div> <div>3. Vegetable Crops</div> <div>4. Hill Area</div> <div>5. House Garden</div> <div>6. Any Other (Please Specify)</div> </div>		
Customer Details			
Name			
Village		PIN	
		District	
City			
State			Country
Mobile / mail ID			Date of Birth
Customer's Signature (I acknowledge that I have read, understood and I accept the warranty policy and terms explained in Chapter 1.2)		Dealer's Seal & Signature	

Dealer has to maintain the photo copy of the WRC (Company Copy)

## **1.Kubix Warranty Period and Warranty Policy Guide Lines**

### **1.1 Warranty Period**

<b>Sl. No.</b>	<b>Product</b>	<b>Warranty Coverage</b>
1.	Machine (Engine)	6 months from Date of Sale to First Purchaser
2	Proprietary parts, Like : Rubber parts, Electrical parts	Warranties for Proprietary parts are subject to Respective manufactures as per their warranty policy and guidelines. etc.
3	Accessories / Implements	Will not be covered.

### **1.2 Warranty Policy Guide Lines**

1. The warranty period shall start from the date of purchase of product and applicable to the first purchaser on receipt of the warranty Registration Card.
2. The warranty only covers the manufacturing defect of defective part within the specified warranty time frame only.
3. The warranty will cease if Service maintenance is not carried out as per periodical maintenance schedule.
4. Warranty voids if KOEL genuine parts or approved blades are not used on machine during periodical maintenance.
5. The warranty will not cover for normal wear & tear of parts such as, rubber parts, plastic parts, and electrical parts.
6. Under warranty period, only repair or replacement of defective parts will be considered, replacement of the machine is not warranted.
7. Warranty is not transferable to the second and subsequent owners.
8. The warranty ceases if the machine is serviced or repaired by unauthorized persons or at any Local workshop.
9. The warranty will not cover for any accidental damage, fire collision, improper usage, tampering, customer abuse and external modifications / fabrications done by the customer.

**KOEL reserves the right to refuse warranty if the product was found not to be carried periodical maintenance & installed as per our installation instructions.**



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## TO THE OWNER




This manual contains warnings, operating precautions and safety precautions for the Kubix Brush Cutter. You must read the owner's manual for proper and safe operation.

- Careless or improper use may cause serious or even fatal injury.
- Do not lend or rent out your trimmer without the owner's manual.
- Be sure that anyone using your Trimmer understands the information contained in this manual.
- Kubix's philosophy is to continually improve all of its products. As a result, engineering changes and improvements are made from time to time.
- If the operating characteristics or the appearance of your Trimmer differs from those described in this manual, please contact your Kubix dealer for information and assistance.
- Contact your KMW dealer or the Kubix distributor in your area if you do not understand any of the instructions in this manual.
- 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.

- If a problem should arise, or if you have any questions about the Trimmer, consult an authorized Kubix dealer.









 **WARNING**

- The Kubix Brush Cutter is designed to give safe and dependable service if operated according to instructions.
- Read and understand this owner's manual before operating the Trimmer.
- Failure to do so could result in personal injury or equipment damage.
- The illustration may vary according to the type.

## FOR SAFE OPERATION

### 1) Symbols

Throughout this manual or on the Trimmer itself, you will find the following symbols. And it is very important to understand the symbols when reading this manual.

	Read and understand owners manual.		Wear eye, ear, head and mask protection
	Wear protective gloves		Wear sturdy, non-slip boots
	Wear a snug-fitting coat		Choke closed
	Choke Open		Beware of thrown objects
	WARNING CAUTION NOTE		Hot surface
	DO NOT allow flames or sparks near fuel		DO NOT smoke near fuel

### 2) Safety Precautions

#### **WARNING**

- Because the Trimmer is a high-speed tool, special safety precautions must be observed to reduce the risk of personal injury.
- It is important that you read, fully understand and observe the following safety precautions and warnings. Careless or improper use of any Trimmer may cause serious fatal injury.

### 3) Operator Safety

#### Physical Condition

- You must be in good physical condition and mental health and not under the influence of any substance (drugs, alcohol, etc.), which might impair vision, dexterity or judgment. Never use the product when suffering from exhaustion or lack of sleep, when suffering from drowsiness as a result of having taken cold medicine or at any other time when a possibility exists that your judgment might be impaired or that you might not be able to operate the product properly and in a safe manner.
- Be alert – if you get tired while operating your Trimmer, take a break. Tiredness may result in loss of control. Working with the product can be strenuous. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating the Trimmer.

#### 4) Proper Clothing

When using the product, you should wear proper clothing and protective equipment, including helmet, goggle, face shield, ear, and mask protectors, gloves, and boots.

#### WARNING

Trimmer operation can cause serious injury to eyes, ears and body.



- To reduce the risk of injury, never operate the Trimmer unless wearing suitable protective goggles, mask, face shield, hearing protection and protective cream, etc., paying attention to standards and the recommendations of farm work safety promotion organizations. (or your applicable national standard).



- Protect your hands with gloves when operating the Trimmer. Heavy-duty, nonslip gloves improve your grip and protect your hands.



- Clothing must be sturdy and snug-fitting, but allow complete freedom of movement. Avoid loose-fitting jackets, scarves, neckties, jewelry, flared or cuffed pants. Secure hair so it is above shoulder length.



- Wear long pants made of heavy material to protect your legs. Do not wear shorts.
- Good footing is most important in your work. Wear sturdy boots with nonslip soles. Steel-toed safety boots are recommended. Wear an approved safety hard hat to reduce the risk of injury to your head when there is a danger of head injuries.

### 5) Protecting Others



- Minors should never be allowed to operate the Trimmer.
- Spectator and fellow workers must be warned, and children and animals prevented from coming nearer than 15M (50ft.) while the trimmer is in use.
- People working in the area near you should wear the same protective equipment as the operator.

### 6) Using the Brush Cutter

**Do not use this product in the following cases.**

- When the product could fall over or in other situations when it is difficult to hold or operate.
- After sunset or at other times when eyesight is poor and the safety of the cutting area is difficult to ascertain.
- In worsening weather (rain, fog, strong wind, lightning, etc.)

#### **WARNING**

- Never modify the Trimmer in any way. Only attachments supplied by Kubix or expressly approved by Kubix for use with the specific Trimmer models are authorized. Although certain unauthorized attachments are usable for the Trimmer, their use may, in fact, be extremely dangerous.
- Always turn off the engine and make sure the cutting attachment has stopped. When transporting your Trimmer in a vehicle, properly secure it to prevent turnover, fuel spillage and damage to the Trimmer. Keep metal cutting tools covered with the transport guard.
- To avoid noise complaints, in general, operate product between 8 a.m. and 5 p.m. on week days and 9 a.m. to 5 p.m. on weekends.

### 7) Preparation for the Use of the Trimmer

- Adjust the shoulder strap to suit your size before starting work.
- Always check your Trimmer for proper condition and operation before starting, particularly the throttle trigger, throttle trigger interlock, and ignition switch.
- The throttle trigger must move freely and always spring back to the idle position.

### 8) Carbon Monoxide Hazards

- The exhaust contains poisonous carbon monoxide, kind of colourless and odourless gas. Breathing the exhaust can cause loss of consciousness and may lead to death.
- If you operate the Trimmer in an area that is confined, or even partially enclosed, the air you breathe could contain a dangerous amount of exhaust gas. To keep exhaust gas from building up, provide adequate ventilation.



### 9) High Temperature

Do not touch the muffler, spark plugs, or other metal parts while the engine is running or immediately after stopping the engine, as there is the risk of burns due to high temperatures.

### 10) Starting

- Your trimmer is a one-person machine. Once started it may fling foreign objects for a great distance.
- To reduce the risk of injury from loss of control, be absolutely sure that the cutting attachment is clear of you and all other obstructions and objects, including the ground, because when the engine starts at starting-throttle, the engine speed will be fast enough for the clutch to engage and turn the cutting tool.
- Stop the engine immediately if you are approached. For specific starting instructions, see the appropriate section of your manual.
- Never touch a rotating cutting attachment with your hand or any part of your body. It continues to rotate for a short period after the throttle trigger is released.
- If the cutting attachment or safety guard becomes clogged or stuck, always turn off the engine and make sure the cutting attachment has stopped, always wear gloves when you touch the cutting tool.
- Before cleaning. Grass weeds etc. should be cleaned off the cutting attachment at regular intervals.

### WARNING

- Never attempt to operate the Trimmer with one hand. You might lose control of the Trimmer resulting in serious or fatal injury. To reduce the risk of bodily injury resulting from loss of control and contact with the cutting attachment, always attach and wear the harness on those Trimmers equipped with a straight shaft and loop handle.
- Do not operate using the starting throttle lock as you do not have the control of the engine speed.
- See the section of your owner's manual on the proper use of the slide control.
- During cutting, check the tightness and the condition of the cutting attachment at regular intervals.
- If the behaviour of the attachment changes, stop the engine immediately, and check the bolt securing the attachment for tightness and the cutting attachment for cracks and damage.
- Replace cracked, bent, warped, damaged or dull cutting attachments immediately. Such attachments may shatter at high speed and cause serious or fatal injury.

### 11) Working Conditions



Before working, inspect the area for stones, glass, pieces of metal, trash or other solid objects. The cutting attachment could throw objects of this kind.

- Operate and start your Trimmer only outdoors in a ventilated area. Operate the Trimmer under good visibility and daylight conditions only. Work carefully.
- Place the Trimmer on firm ground or other solid surface in an open area. Maintain a good balance and secure footing.
- Fatigue reduces powers of concentration and increases the risk of accidents. When planning work, please allow ample time, setting a limit of 30-40 minutes for single operating sessions and breaks of 10-20 minutes in between. Also, do not operate for more than 2 hours in any one day.

### 12) Idle Speed Adjustments details

- Refer page 23

#### **WARNING**

- To reduce the risk of personal injury from loss of control or contact with the running grass cutting attachment, do not use a grass attachment with incorrect idle adjustment. At correct idle speed, the grass attachment should not operate. For directions to adjust idle speed, see the appropriate section of your owner's manual.
- If you cannot set the correct idle speed, contact your Kubix dealer or distributor in your area to check your Trimmer and make proper adjustments or repairs.

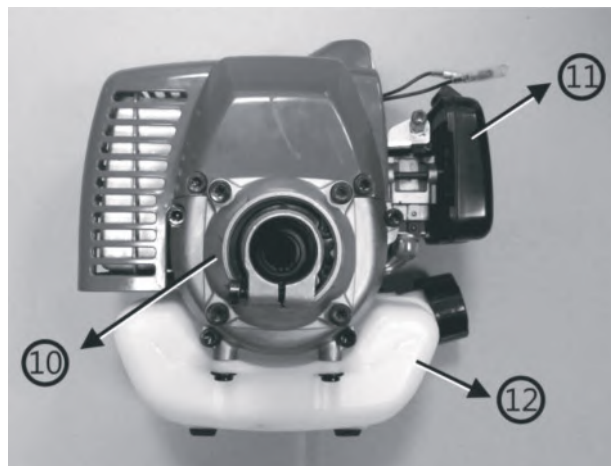
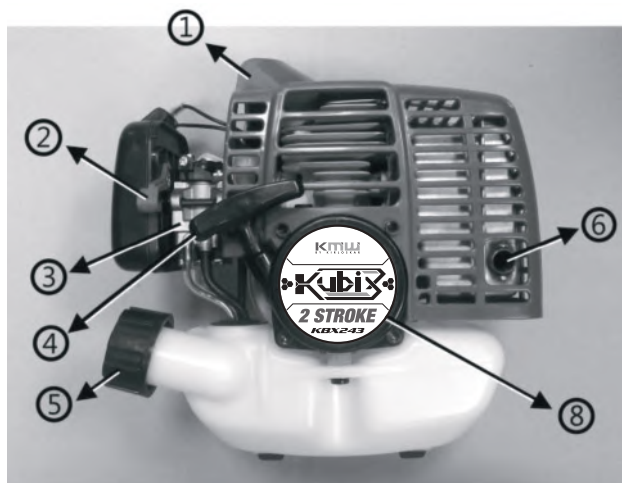
### 13) Risk of “kickout” with cutting attachments



- “Kickout” is the sudden and uncontrolled motion towards the operator's right or rear that can occur when the shaded area of the rotating cutting attachment comes in contact with a solid object like a tree, rock, bush or wall. The rapid counterclockwise rotation of the cutting attachment may be stopped or slowed, and the cutting attachment may be thrown in an area to the right or to the rear. This kickout may cause loss of control of the Trimmer and may result in serious or fatal injury to the operator or bystanders.
- To reduce the risk, extreme caution should be used when cutting with the shaded area of any cutting attachment and never use a cutting attachment on a Trimmer with handle.

## PARTS DESCRIPTION

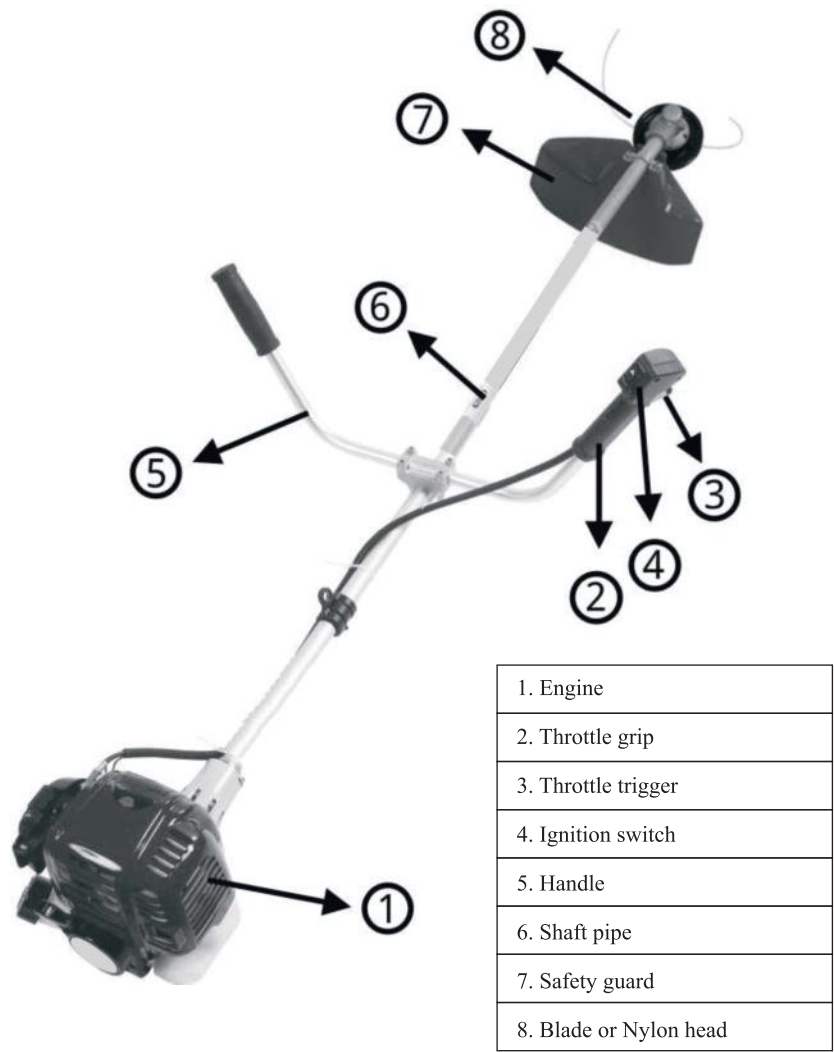
### 1) Engine (2-stroke)



1. Engine cover	5. Fuel cap	10. Clutch housing
2. Choke	6. Muffler	11. Air cleaner
3. Carburetor	8. Recoil starter	12. Fuel Tank
4. Starter handle		

**1) Bike handle**

**Model : KBX243**



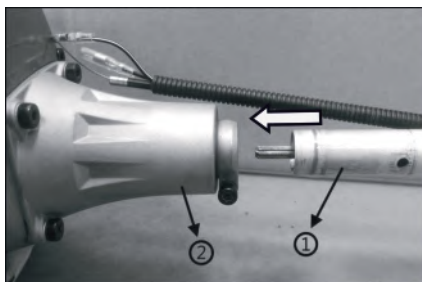
## BRUSH CUTTER ASSEMBLY

This trimmer is partly disassembled for ease of shipment and must be assembled before it can be used for the first time.

### WARNING

Because of the increased risk of accidents cutting tools must not be started if it is detached from the trimmer.

#### 1) Mounting the engine



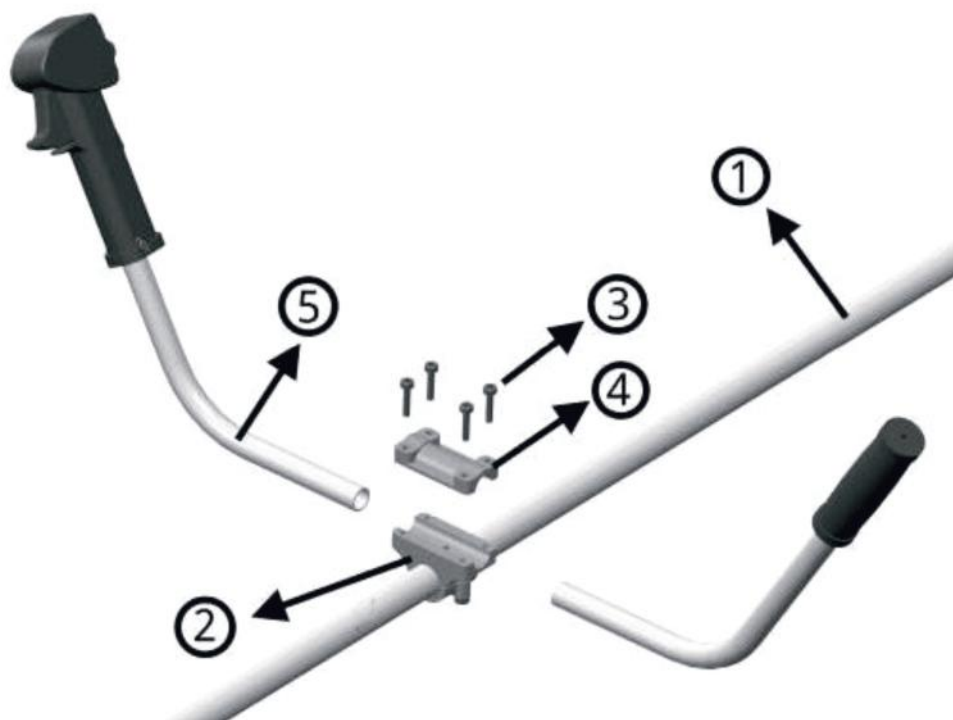
- Loosen the screw temporarily attached to the clutch housing.
- Push the shaft pipe ① into the holder of clutch housing ②. The drive shaft must engage the clutch drum and rotate it by hand to check.
- Install the pipe into the clutch housing until it bottoms.
- Fasten the screw ③ firmly.

### WARNING

Over 26mm diameter pipe, there is another screw to fix the pipe and clutch housing, align the hole of pipe and clutch housing, and fasten the screw.

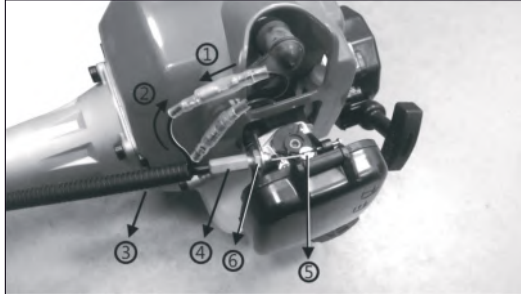
## 2) Mounting the bike handle

- Remove four screws ③ and clamp ④.
- Place the handle ⑤ in the handle support ② and position the clamp ④ on the handle support ②
- Tighten the screws ③ firmly.



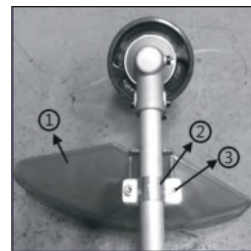
## 3) Connection of the throttle wire

- The ignition switch lead is already connected at the control grip. At the engine end it is necessary to connect terminal ① into the sockets ② as illustrated.
- Fit the adjustable throttle wire ③ to the wire holder ④ of carburetor and then set the wire end to the throttle lever ⑤ of the carburetor as illustrated.
- Maintain a wire end-play of about 1-2mm with the adjuster and fix it with the tightening nut ⑥.



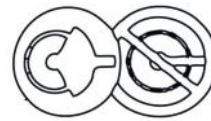
#### 4) Mounting the safety guard

Attach the safety guard ① to the clamp ② on the outer pipe , and tighten by two screws ③.



#### ⚠ WARNING

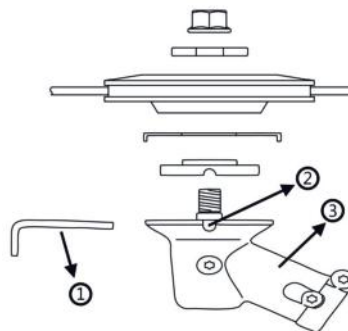
- To reduce the risk of injury from thrown objects and blade contact, never operate the Trimmer without a properly mounted safety guard.
- When using the nylon line Trimmer, attach the safety guard ① with a chopper blade on your Trimmer in order to keep the line at the proper length. Failure to follow this procedure may damage your Trimmer.
- Use a safety guard, which is appropriate for the blade.



#### 5) Mounting the cutting attachments

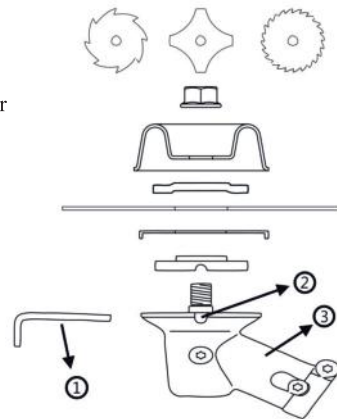
(A) Install the Nylon head as illustrated.

- Put the locking tool ① into the side holes ② of the inner holder and the gear case ③
- Remove the nut (Left-handed), guard, and plate from the gear shaft.
- Install the nylon head onto the inner holder.
- Put the washer on the nylon head, and fasten by nut.



(B) Install the Blade as illustrated.

- Put the locking tool ① into the side holes ② of the inner holder and the gear case ③.
- Remove the nut (Left-handed), guard, and plate from the gear shaft.
- Install the blade onto the inner holder, make the marked side face the holder.
- Put the plate and guard on the blade, and fasten by nut



**⚠ WARNING**

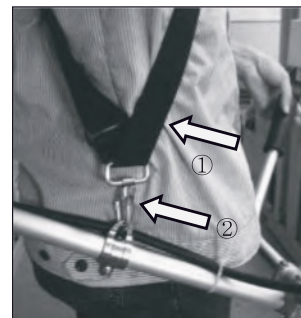
If the trimmer head is fitted improperly, it may cause serious or fatal injury.

**6) Using the shoulder harness**

- Put on the shoulder strap ①.
- Adjust the length until the spring hook rests ②
- against your right hip.

**⚠ WARNING**

The shoulder harness must be put on when using trimmers.



## FUEL

### 1) Fueling

The Kubix Brush Cutter uses a regular unleaded-gasoline (Automotive gasoline) as fuel.

#### WARNING



- Gasoline is an extremely flammable fuel. If spilled or ignited by a spark or other ignition source, it can cause fire and serious burn injury or property damage. Use extreme caution when handling gasoline or fuel mix.
- Do not smoke or bring any fire or flame near the fuel.

### 2) Fueling Instructions

Fuel your Trimmer in well-ventilated areas, outdoors.

#### WARNING

- Gasoline vapor pressure may build up inside the gas tank of a engine depending on the fuel used, the weather conditions, and the venting system of the tank.
- In order to reduce the risk of personal injury from escaping gas vapor and fumes, remove the fuel filler cap on your Trimmer carefully so as to allow any pressure build-up in the tank to release slowly.
- Never remove the fuel tank cap while the engine is running.
- Select bare ground for fueling and move at least 10 feet (3m) from the fueling spot before starting the engine. Wipe off any spilled fuel before starting your Trimmer and check for leakage.
- Never refuel the engine when it is hot or running.

#### WARNING

- Check for fuel leakage while refueling and during operation. If a fuel or oil leakage is found, do not start or run the engine until the leak is fixed and the spilled fuel has been wiped away.
- If fuel is spilled on cloths change it immediately.



- Vibrations can cause an improperly tightened fuel cap to loosen or come off and spill quantities of fuel. In order to reduce the risk of fuel spillage and fire, tighten the fuel cap by hand with as much force as possible.

### 3) Fuel

- Use regular branded unleaded gasoline with a minimum octane number of 90 RON (U.S.A/Canada: pump octane min. 89) if the octane number of the regular grade gasoline in your area is lower , use premium unleaded fuel.
- Fuel with a lower octane number may result in pre-ignition (causing "pinging"), which is accompanied by an increase of the risk of piston seizure and damage to the engine.
- The chemical composition of the fuel is also important. Some fuel additives not only detrimentally affect elastomers (carburetor diaphragms, oil seals, fuel lines etc.), but magnesium castings as well. This could cause running problems or even damage the engine. For this reason it is essential that you use only branded fuel.
- Take care when handling gasoline. Avoid direct contact with the skin and avoid inhaling fuel vapor.

### 4) Fuel of 2-stroke engine

- Your two-stroke engine requires a mixture of branded gasoline and quality two-stroke engine oil with the **classification TC**.
- The mix ratio is 25:1
- Do not use BIA or TCW (two-stroke water cooled) mix oils.

Gasoline	Oil
	
<b>25</b>	<b>1</b>
600 ml	24 ml
1000 ml	40 ml

#### NOTE

Only mix sufficient fuel for a few days, not to exceed 30 days of storage. Store in approved safety fuel-canisters only. When mixing, pour oil into the canister first, and then add gasoline.

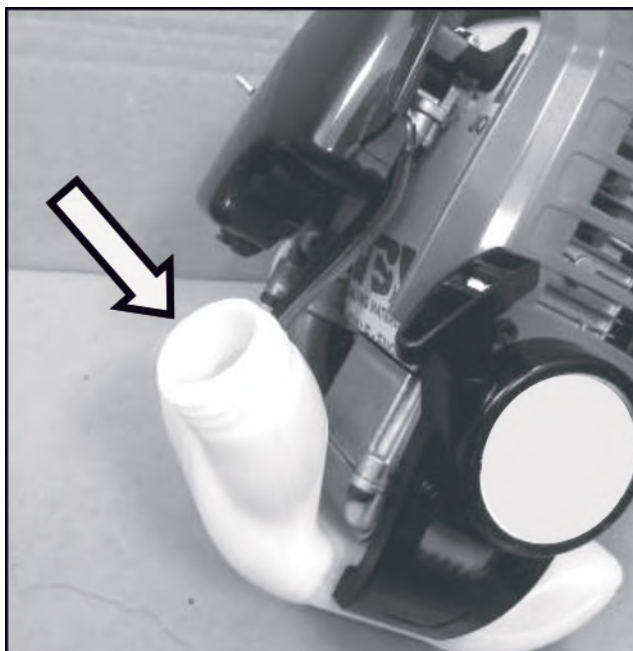
## PRE-OPERATION CHECK

### 1) Check fuel

#### CAUTION

Do not refill while smoking, near an open flame or other potential hazards.

- Stop the engine and open the cap.
- Incline the engine as fuel inlet upward, then refill fuel to the upper level. Do not fill fuel too much.
- After filling the tank with fuel, firmly tighten the cap.
- Wipe off any spilled gasoline before starting the engine.



## OPERATION

### 1) Starting Trimmer

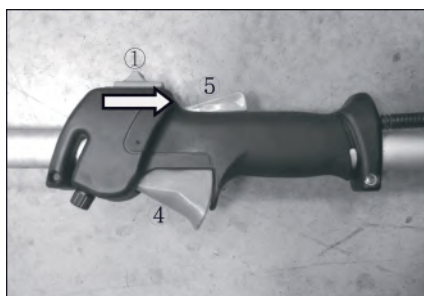
#### Safe starting techniques


- Inspect carefully for missing or loosened parts.
- Check the clogging of air intake/exit ports.
- Always clear the work area of debris before starting operation.
- Always hold the unit firmly on the ground.
- When pulling the starting rope, use short pulls, 1/2 to 2/3 of the rope length.
- Do not allow the starter handle to snap back against the housing.
- Check the cutting attachment stops turning when the engine idles.

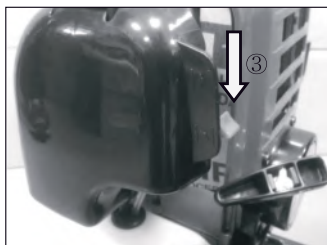
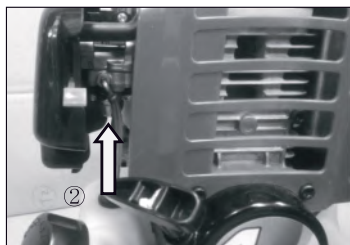
#### **WARNING**


- When you pull the starter grip, don't wrap the starter rope around your hand. Do not allow the grip to snap back, but guide the starter rope to rewind properly. Failure to follow this procedure may result in injury to your hand or fingers and may damage the starter mechanism.
- When the engine starts, the cutting tool may rotate even with the throttle trigger in the low-speed position.

#### (A) When the engine is cold



- Set the ignition switch ① to the “I” position (START)
- Push the priming pump ② several times until fuel can be seen in return pipe.
- Close the choke ③ completely. 



- Grasp the throttle trigger ④ fully, and then release it slowly while pushing the lock button ⑤. Then the throttle trigger is set at half-throttle position.
- Place the machine on a flat and firm place, and make sure to keep the blade clear of everything around it.
- While holding the unit firmly, pull out the starter rope quickly until engine fires ⑥.
- When the engine starts, set the choke lever to the "FULL OPEN" position. 



 **NOTE**


- Do not stand or kneel on the shaft pipe.
- Pull the starter grip. When pulling the power unit up, use short pulls, 1/2 to 2/3 of the rope length.
- Do not let the power unit snap back, guide it slowly into the housing so that the starter rope can rewind properly.
- If the engine does not start even after the starter is pulled several times, set the choke lever to full-open and pull the starter rope. Be sure not to pull the starter lever completely out.
- After the engine starts, open the choke lever slowly, move the throttle lever to the idle position, and let the engine warm up for 2-3 minutes.

 **NOTE**

**Close the choke lever** 

- If the engine is cold or the ambient temperature is low, close the choke lever fully.
- If the engine is warm or the ambient temperature is high, open the choke lever half-way or keep it fully open.

**(B) When the engine is warm**

- Restarting the engine after it has been stopped.
- Set the ignition switch to the "I" position (START).
- Push the priming pump several times.
- Set the choke lever to the "FULL OPEN" position. 
- Pull the power unit up.

 **CAUTION**


Grasp the throttle trigger immediately after the engine is started, then the throttle trigger lockout is released automatically and engine idling is maintained.

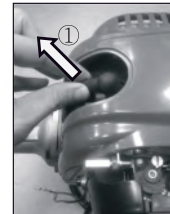
 **NOTE**

If the engine does not start after 4-6 pulls, use the cold start procedure.

**2) If the engine doesn't start**

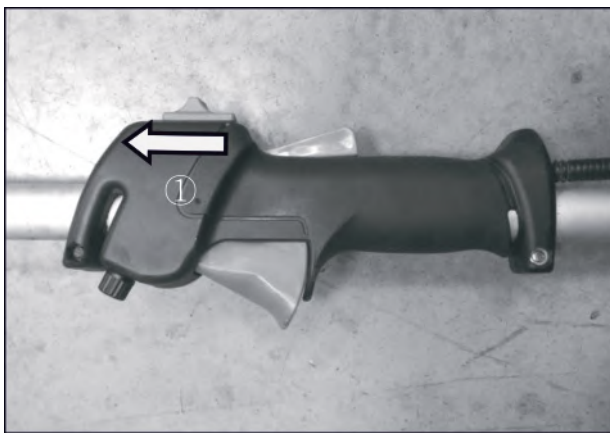
If you did not move the choke lever to OPEN quickly enough after the engine began to fire, the combustion chamber has flooded.

- Remove the spark-plug terminal ①.
- Unscrew and dry off the spark-plug ②.
- Set the ignition switch to the "O" position (STOP).
- Open the throttle trigger fully.
- Pull the starter rope several times to clear the combustion chamber.
- Refit the spark plug and connect the spark plug terminal.
- Set the ignition switch to the "I" position (START).
- Set the choke lever to the "FULL OPEN" position. 
- Now start the engine.



### 3) Stopping

- Release the throttle trigger and run the engine for half a minute.
- Set the ignition switch ① to the "O" position (STOP).



### WARNING

- Never use a cutting tool if it is cracked, broken, warped or vibrates unusually. Replace the cutting tool with new one in such a case.
- If the cutting tool hits foreign objects (stone, iron, pole, etc.), the broken cutting tool or foreign substance pieces may be scattered, hurting the operator or people nearby, objects, etc. observe the cautions described above when operating with a cutting tool.

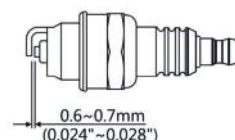
## INSPECTION AND MAINTENANCE

### 1) Checking the spark plug

The contaminated fuel, a dirty air filter and unfavorable running conditions (mostly at part throttle etc.) affect the condition of the spark-plug.

These factors cause deposits to form on the insulator nose, which may result in trouble in operation. If the engine is down on power, difficult to start or runs poorly at idling speed, first check the spark-plug.


- Remove the spark-plug and see "If engine doesn't start."
- Clean the dirty spark-plug.
- Check the electrode gap. It should be 0.6 mm- 0.7 mm ( 0.024" - 0.028n )
- Readjust gap if necessary.
- Use only spark-plugs of the approved type.
- NGK BM6A or equivalent type (KBX243)

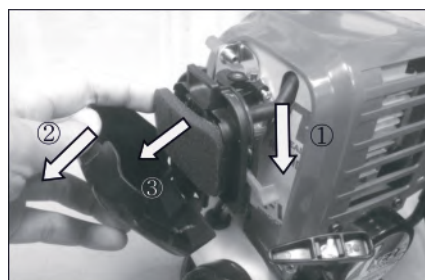


Rectify the faults which caused the fouling of the spark plug: Incorrect carburetor setting, contaminated fuel, dirty air filter, unfavorable running conditions, e.g. operating at part load.

### 2) Cleaning the air filter

Dirty air filters reduce engine power, increase fuel consumption and make starting more difficult. If there is a noticeable loss of engine power:

- Turn the choke ① to CLOSE. 
- Remove the air filter cover ②.
- Remove the foam element ③.
- Wash the foam element in fresh, nonflammable cleaning solution (e.g. warm soapy water) and then dry. Always replace a damaged foam element.
- Fit the foam element in the filter housing.
- Fit the filter cover in position.



### 3) Cooling system maintenance

The cooling system relies on cooling air entering the engine through the bottom engine grille located between the fuel tank and starter. The cooling fan pushes this air through the cylinder fin area and out the rear grille openings in the engine cover.

#### CAUTION

To maintain proper engine operating temperatures, cooling air must pass freely through the cylinder fin area. This flow of air carries combustion heat away from the engine.

#### Overheating and engine seizure can occur when :

- Air intakes are blocked, preventing cooling air from reaching the cylinder.
- Dust and grass build up on the outside of the cylinder. This build-up insulates the engine and prevents the heat from leaving.

### 4) Fuel system

- Check and change the fuel filter every year if necessary.
- Before storing your machine for a long period, drain and clean the fuel tank and run the engine until the carburetor is dry.
- The fuel tank and the canister in which the fuel is stored should be cleaned from time to time.



### 5) Throttle wire adjustment

- Maintain a wire end-play of about 1-2mm with the adjuster and fix it with the tightening nuts ①.
- If you don't tighten nuts ①, when you operate the Trimmer, the throttle wire ② is easy to pull and makes the machine rotate.



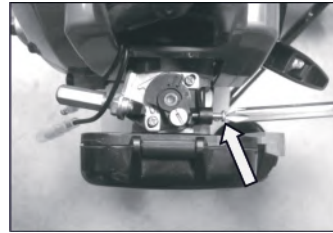
#### WARNING

To reduce the risk of injury from loss of control, maintain the wire end-play about 1-2mm. If the wire end-play is not maintained, engine speed may be high enough for the clutch to engage and turn the cutting tool.

## 6) Adjusting carburetor

### Adjusting idle speed

- When adjust screw is turned right, engine idle speed increases, and when it is turned left, idle speed decreases.
- Normal idle speed: 1) 2-stroke engine : 2800~3000 rpm



### ⚠ NOTE

The carburetor greatly affects the performance of the engine. Since it has been adjusted carefully at our factory before shipment, avoid adjusting unless absolutely necessary.

If adjustments are needed, contact your nearest dealer.

## 7) Lubricating the gear head

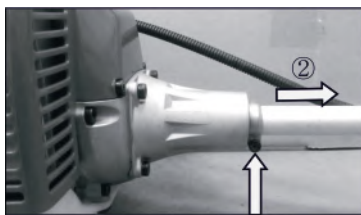
- Remove the filler plug.
- Check the level and add grease, if necessary.
- Leave about 5 - 10g (1/4 oz) for any expansion of grease.



### ⚠ NOTE

- Use a good quality lithium multi grease. DO NOT overfill the housing.
- Tighten the filler plug firmly.

## 8) Lubricating the drive shaft



①



②

- Disconnect the throttle wire first
- Loosen screw ① and remove the shaft pipe.
- Pull the shaft out of the shaft pipe ③.
- Use a good quality lithium multi grease to coat any dry areas of the shaft.
- Assemble the engine and shaft pipe.
- Connect the throttle wire.

 **NOTE**

- Do not apply too much grease.
- Never pump grease into the drive pipe.

**9) Long term storage**

- Set the ignition switch to the "O" position (STOP).
- Remove any accumulation of grease, oil dirt and debris from the exterior of the unit.
- Perform all periodic lubrication and services that are required.
- Tighten all the screws and nuts.
- Drain the fuel tank completely and pull the start grip several times to remove any fuel from the carburetor.
- Remove the spark plug, pour about 10 drops of engine oil into the cylinder. Pull the recoil grip 2 or 3 times slowly until the piston reached the top of its travel and leave it there. After that, tighten the spark plug.
- Clean the entire Trimmer completely, cover it so it does not accumulate dirt and dust.
- Follow Transportation instructions for securing the machine during the transportation to prevent loss of the fuel damage and injury.

 **WARNING**

- Do not store in an enclosure where fuel fumes may accumulate or reach an open flame or spark.
- Do not store your unit for a prolonged period of time without performing protective storage maintenance.
- Store the unit in a dry, dust free place, out of the reach of children.

## SPECIFICATIONS

<b>Model</b>	<b>KBX243</b>
<b>Type of engine</b>	Air-cooled, 2-stroke single cylinder gasoline engine
<b>Pipe diameter (mm.)</b>	Ø 28
<b>Bore(mm)</b>	Ø 40
<b>Stroke (mm)</b>	34
<b>Displacement (cm<sup>3</sup>)</b>	42.7 cm <sup>3</sup>
<b>Engine power</b>	1.3KW / 7000rpm
<b>Idle speed</b>	2800 ~ 3000 rpm
<b>Carburetor</b>	All position diaphragm carburetor with priming pump
<b>Air Cleaner</b>	Semi-Dry Type
<b>Clutch System</b>	Automatic Centrifugal Type (Drum I.D.Ø78)
<b>Rotation</b>	Counter Clockwise (form PTO view)
<b>Ignition System</b>	Solid State Ignition
<b>Spark Plug</b>	NGK BM6A or equivalent type
<b>Starting System</b>	Easy Recoil Starter
<b>Shaft</b>	1 section
<b>Fuel</b>	Mixed (gasoline : oil = 25 : 1)
<b>Engine oil (Lubricant)</b>	Classification TC or higher grade oil
<b>Fuel tank capacity</b>	1.0 L
<b>Dry weight (kg)</b>	7.4
<b>Dimension (mm)</b>	1810x624x402

## SERVICE AND MAINTENANCE

### Maintenance Chart

Part	Maintenance	Before Use	Monthly or 10hrs	Every 6 month or 50hrs	Yearly or 100hrs	If faulty or damaged
Complete machine (condition, leaks, etc.)	Visual inspection	x				
	Clean	x				
Control handle	Check operation	x				
Air filter	Clean	x				
	Replace					x
Fuel filter	Check		x			
	Replace					x
Carburetor	Adjust				x	x
Spark plug	Clean/Check				x	x
	Replace					x
Cooling system	Clean	x				
Muffler	Check		x			
	Clean					x
Fuel leakage	Check	x				
	Replace					x
Fuel lines	Check		x			
	Replace					x
Clutch and Clutch drum	Check/clean				x	
	Replace					x
Nuts, Bolts, Fasteners (not adjusting screws)	Retighten	x				
Cutting tools	Visual inspection	x				
	Replace					x
	Check tightness Of cutting tools	x				
Gear box lubrication	Check		x			
	Top up				x	
Drive shaft lubrication	Check		x			
	Replenish				x	

#### **NOTE**

Time intervals shown are a maximum. Actual use and your experience will determine the frequency of required maintenance.

## TROUBLESHOOTING

Problem		Cause	Remedy
Engine cranks→(NO) ↓(YES)	Engine does not crank	Internal engine problem	<ul style="list-style-type: none"> <li>See your Kubix dealer</li> </ul>
Fuel at carburetor→(NO) ↓(YES)	No fuel at carburetor	Fuel strainer clogged Fuel line clogged carburetor	<ul style="list-style-type: none"> <li>Clean or Replace</li> <li>Clean or Replace</li> <li>See your Kubix dealer</li> </ul>
Fuel at cylinder→(NO) ↓(YES)	No fuel at the cylinder	Carburetor	<ul style="list-style-type: none"> <li>See your Kubix dealer</li> </ul>
	Muffer wet with fuel	Fuel mixture is too rich <b>(2-stroke)</b>	<ul style="list-style-type: none"> <li>Open choke</li> <li>Clean/replace air filter</li> <li>Adjust carburetor</li> <li>See your Kubix dealer</li> </ul>
Spark at end of plug wire→(NO) ↓(YES)	No spark at end of plug wire	Ignition switch off electrical problem	<ul style="list-style-type: none"> <li>Turn switch on</li> <li>See your Kubix dealer</li> </ul>
Spark at plug	No spark at plug	Spark gap incorrect Covered with carbon Fouled with fuel Spark plug defective	<ul style="list-style-type: none"> <li>Adjust. 0.6~0.7mm (0.024"~0.028")</li> <li>Clean or replace</li> <li>Clean or replace</li> <li>Replace plug</li> </ul>
Engine runs	Dies or Accelerates poorly	<ul style="list-style-type: none"> <li>Air filter dirty</li> <li>Fuel filter dirty</li> <li>Fuel vent plugged</li> <li>Spark plug</li> <li>Carburetor</li> <li>Cooling system plugged</li> </ul>	<ul style="list-style-type: none"> <li>Clean or Replace</li> <li>Replace</li> <li>Plugged</li> <li>Clean and adjust/replace</li> <li>Adjust</li> <li>Clean</li> </ul>
Cutting tool rotation	No rotation	<ul style="list-style-type: none"> <li>Incorrect mounting</li> <li>Twining of string or grass round cutting tool</li> <li>Wear of clutch shoe and drum</li> </ul>	<ul style="list-style-type: none"> <li>Remount</li> <li>Clean</li> <li>Remount</li> </ul>
	Dull cutting tool	<ul style="list-style-type: none"> <li>Reverse mounted cutting tool (Only 8 tooth and circular saw)</li> <li>Round cutting tool</li> <li>Suitable cutting tool</li> </ul>	<ul style="list-style-type: none"> <li>Remount</li> <li>Remount</li> <li>Remount</li> </ul>
Vibration	Offensive vibration	<ul style="list-style-type: none"> <li>Loosened bolt securing the tool</li> <li>Incorrect mounting</li> <li>Bent or damaged cutting tool</li> <li>Balance of cutting tool</li> <li>Loosened bolt and nut</li> </ul>	<ul style="list-style-type: none"> <li>Tighten</li> <li>Remount</li> <li>Replace</li> <li>Correct or replace</li> <li>Tighten</li> </ul>

## **Do's & Don't**

### **Do's:-**

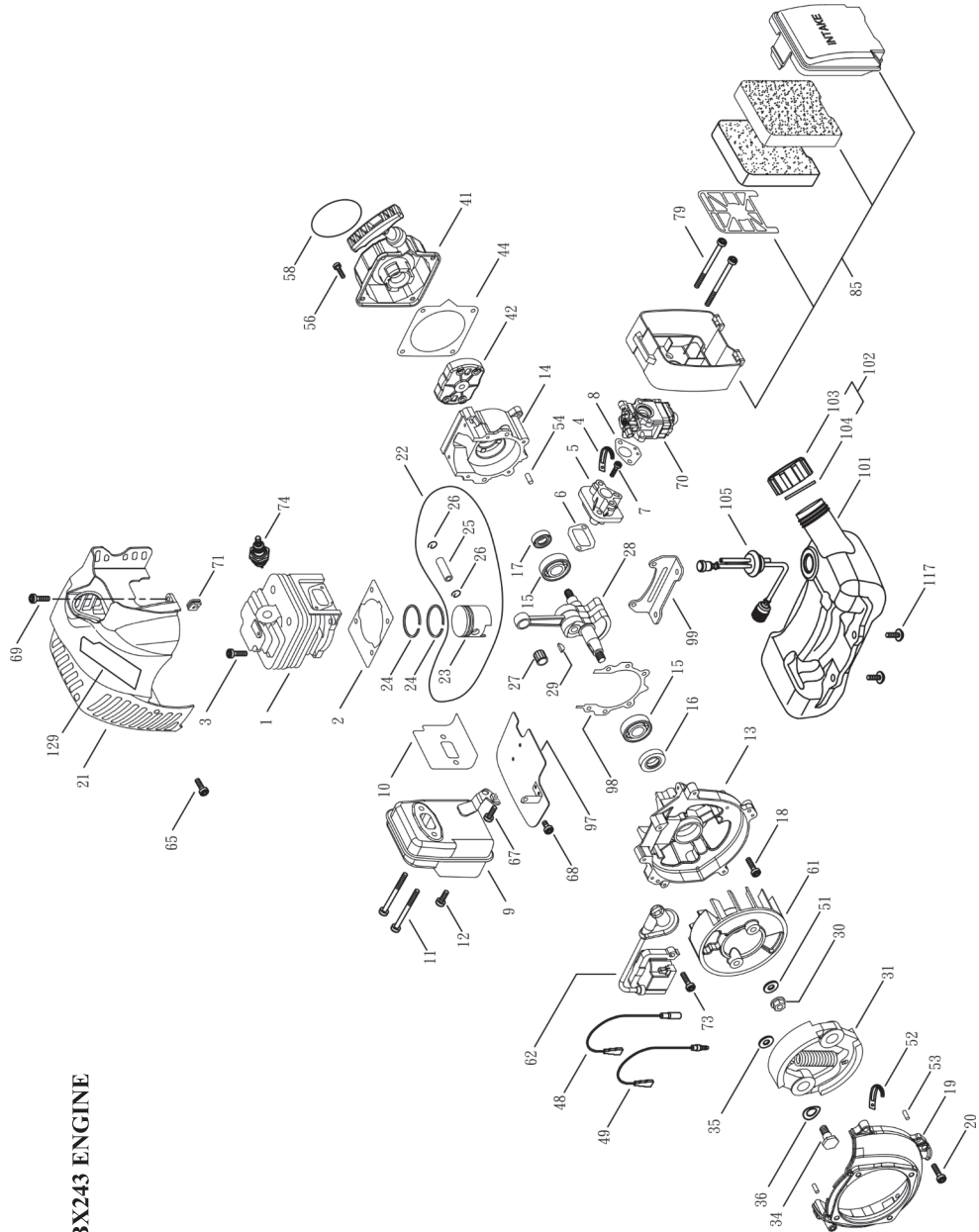
1. Before starting the machine operator should inspect the machine and make certain that it is properly adjusted and in good working condition & Location .
2. Operator should mix the proper fuel & oil mixture for two stroke engine. ( for 1 litre of gasoline 40 ml two stroke engine oil recommended by company )
3. During cold starting condition fully close the choke for more Air fuel Mixture for starting.
4. Take Break of 10 to 20 min., after 45 to 60 min. off operations.
5. During the operation keep away rotating cutting attachment from operator body & any other person.
6. Use PPE ( Hearing protection, face mask, wear goggles. Heavy-duty gloves, preferably made of leather. Tight-fitting clothing. Sturdy shoes with non-slip soles. etc)

### **Don't:-**

1. Don't operate the Kubix without training.
2. Don't run the machine with partial acceleration. (During operation always keep throttle lever fully pressed)
3. Don't run machine more than 1Hrs. continuous.
4. Don't run machine without PPE .

## **PARTS CATALOGUE**

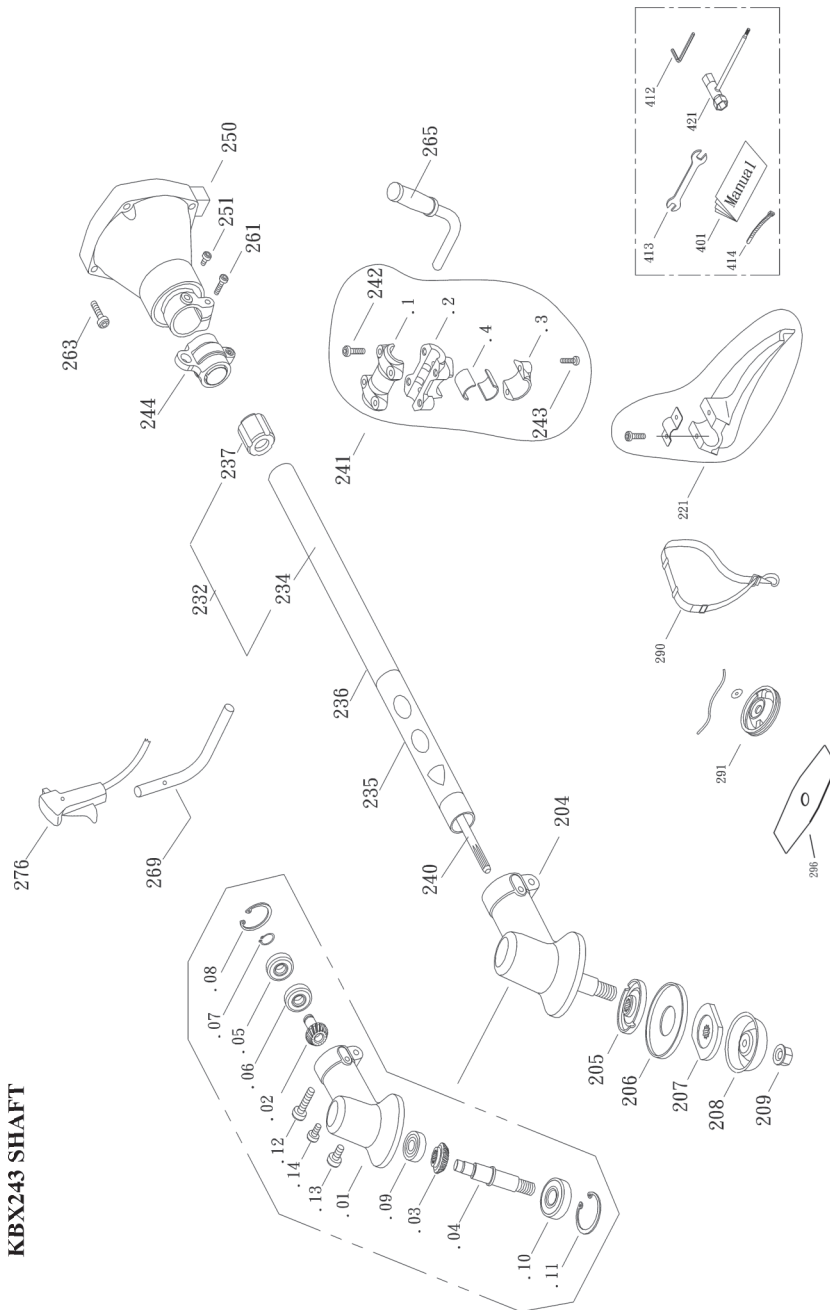
## KBX243 ENGINE



NO	PART NO.	PART NAME	QTY
1	ASE.BC43.110.0.00	CYLINDER	1
2	ASE.BC43.310.0.00	GASKET, CYLINDER	1
3	ASE.BC43.210.0.00	SCREW M5*20	4
4	ASE.BC43.111.0.00	CLAMP	1
5	ASE.BC43.112.0.00	INSULATOR	1
6	ASE.BC43.311.0.00	GASKET, INSULATOR	1
7	ASE.BC43.211.0.00	SCREW M5*25	2
8	ASE.BC43.312.0.00	GASKET, CARBURETOR	1
9	ASE.BC43.113.0.00	MUFFLER-C	1
10	ASE.BC43.313.0.00	GASKET-C, MUFFLER	1
11	ASE.BC43.212.0.00	SCREW M6*55	2
12	ASE.BC43.213.0.00	SCREW M5*12	1
13	ASE.BC43.114.0.00	CASE(P), CRANK	1
14	ASE.BC43.115.0.00	CASE(R), CRANK	1
15	ASE.BC43.314.0.00	BEARING, BALL(6202)	2
16	ASE.BC43.315.0.00	SEAL, OIL(Ø15*Ø30*7)	1
17	ASE.BC43.316.0.00	SEAL, OIL(Ø12*Ø22*7)	1
18	ASE.BC43.214.0.00	SCREW M5*30	4
19	ASE.BC43.116.0.00	COVER, FAN	1
20	ASE.BC43.211.0.00	SCREW M5*25	4
21	ASE.BC43.117.0.00	COVER, TOP	1
22	ASE.BC43.118.0.00	PISTON ASSEMBLY	1
24	ASE.BC43.119.0.00	RING, PISTON	2
27	ASE.BC43.317.0.00	BEARING, NEEDLE	1
28	ASE.BC43.120.0.00	SHAFT-C, CRANK	1
29	ASE.BC43.216.0.00	KEY	1
30	ASE.BC43.217.0.00	NUT	1
31	ASE.BC43.121.0.00	CLUTCH-A	1
34	ASE.BC43.218.0.00	BOLT	2
35	ASE.BC43.219.0.00	WASHER	2
36	ASE.BC43.220.0.00	WASHER, WAVE	2
41	ASE.BC43.122.0.00	RECOIL-A	1
42	ASE.BC43.123.0.00	PULLEY	1

NO	PART NO.	PART NAME	QTY
44	ASE.BC43.124.0.00	SPACER	1
48	ASE.BC43.125.0.00	LEAD	1
49	ASE.BC43.126.0.00	LEAD	1
51	ASE.BC43.221.0.00	WASHER	1
52	ASE.BC43.127.0.00	CLAMP	1
53	ASE.BC43.222.0.00	PIN	2
54	ASE.BC43.222.0.00	PIN	2
56	ASE.BC43.210.0.00	SCREW M5*25	4
58	ASE.BC43.128.0.00	LABEL	1
61	ASE.BC43.129.0.00	ROTOR	1
62	ASE.BC43.130.0.00	COIL-A	1
65	ASE.BC43.225.0.00	SCREW M5*12	1
67	ASE.BC43.226.0.00	SCREW M5*8	1
68	ASE.BC43.226.0.00	SCREW M5*8	1
69	ASE.BC43.225.0.00	SCREW M5*12	1
70	ASE.BC43.131.0.00	CARBURETOR	1
71	ASE.BC43.132.0.00	CROMMET	1
73	ASE.BC43.210.0.00	SCREW M5*20	2
74	ASE.BC43.133.0.00	PLUG, SPARK	1
79	ASE.BC43.231.0.00	SCREW M5*48	2
85	ASE.BC43.134.0.00	CLEANER-A, AIR	1
97	ASE.BC43.135.0.00	PLATE INSULATING	1
98	ASE.BC43.318.0.00	GASKET	1
99	ASE.BC43.136.0.00	ADAPTOR	1
101	ASE.BC43.137.0.00	TANK-C, FUEL	1
102	ASE.BC43.138.0.00	CAP-A, TANK	1
103	ASE.BC43.139.0.00	CAP, TANK	1
104	ASE.BC43.319.0.00	PACKING	1
105	ASE.BC43.140.0.00	PICK-UP-A	1
117	ASE.BC43.232.0.00	SCREW M5*14	4
129	ASE.BC43.141.0.00	LABEL	1

## KBX243 SHAFT



NO	PART NO.	PART NAME	QTY
204	ASE.BC43.710.0.00	GEAR COMP	1
1	ASE.BC43.711.0.00	CASE, GEAR	1
2	ASE.BC43.712.0.00	PINION	1
3	ASE.BC43.713.0.00	GEAR	1
4	ASE.BC43.714.0.00	SPINDLE	1
5	ASE.BC43.715.0.00	BEARING, BALL(6001Z)	1
6	ASE.BC43.716.0.00	BEARING, BALL(6001)	1
7	ASE.BC43.717.0.00	RING(STW-12)	1
8	ASE.BC43.718.0.00	RING(RTW-28)	1
9	ASE.BC43.719.0.00	BEARING, BALL(6000)	1
10	ASE.BC43.720.0.00	BEARING, BALL(6201UU)	1
11	ASE.BC43.721.0.00	RING(RTW-32)	1
12	ASE.BC43.512.0.00	SCRW M6*25	1
13	ASE.BC43.723.0.00	SCRW M6*8	1
14	ASE.BC43.724.0.00	SCRW M6*12	2
205	ASE.BC43.410.0.00	PLATE	1
206	ASE.BC43.411.0.00	COVER	1
207	ASE.BC43.412.0.00	PLATE	1
208	ASE.BC43.413.0.00	CUP	1
209	ASE.BC43.510.0.00	NUT M10	1
221	ASE.BC43.414.0.00	COVER, SAFETY	1
232	ASE.BC43.415.0.00	PIPE, ASSY	1
234	ASE.BC43.416.0.00	PIPE	1
237	ASE.BC43.610.0.00	BUSH-A	6
235	ASE.BC43.417.0.00	PLATE, WARNING	1
236	ASE.BC43.418.0.00	LABEL	1
240	ASE.BC43.419.0.00	SHAFT	1
241	ASE.BC43.810.0.00	JOINT ASSY	1
241.1	ASE.BC43.811.0.00	JOINT A	-
241.2	ASE.BC43.812.0.00	JOINT B	1
241.3	ASE.BC43.813.0.00	JOINT C	-
241.4	ASE.BC43.814.0.00	RUBBER	2
242	ASE.BC43.210.0.00	SCREW M5*20	4

NO	PART NO.	PART NAME	QTY
243	ASE.BC43.512.0.00	SCERW M6*25	2
244	ASE.BC43.420.0.00	HANGER - ASSY	1
250	ASE.BC43.421.0.00	HOUSING - ASSY, CLUTCH	1
251	ASE.BC43.513.0.00	SCREW M5*12	1
261	ASE.BC43.512.0.00	SCREW M6*25	1
263	ASE.BC43.515.0.00	SCREW M6*16	4
265	ASE.BC43.422.0.00	HANDLE-A, BIKE	1
269	ASE.BC43.425.0.00	PIPE, HANDLE	1
276	ASE.BC43.426.0.00	LEVER-ASSY, THROTTLE	1
290	ASE.BC43.427.0.00	BAND, SHOULDER	1
291	ASE.BC43.428.0.00	HEAD, NYLON LINE	1
296	ASE.BC43.519.0.00	2-T BLADE (305mm*1.6t)	1
401	ASE.BC43.429.0.00	MANUAL	1
412	ASE.BC43.516.0.00	WRENCH, HEXAGON 4 mm	1
413	ASE.BC43.517.0.00	SPANNER 8X10 mm	1
414	ASE.BC43.430.0.00	TIE	3
421	ASE.BC43.518.0.00	WRENCH BOX 17X19 mm	1

## MEMO

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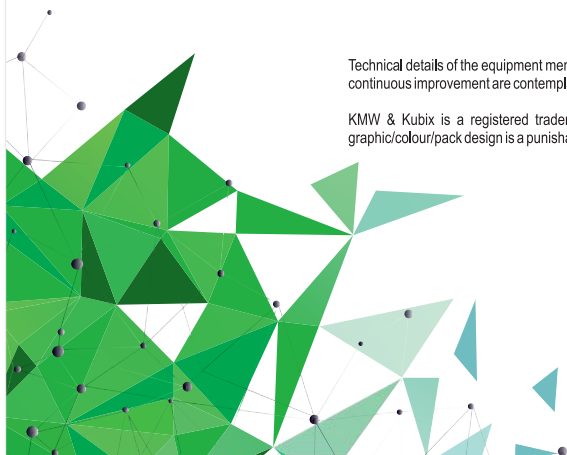
For enquiries please visit [www.koel.co.in](http://www.koel.co.in)

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Email : [koel.helpdesk@kirloskar.com](mailto:koel.helpdesk@kirloskar.com)

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Dealer Stamp

Date of Purchase

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