

## BRUSHCUTTERS 260L/260U/330U/430U

### USER MANUAL, MAINTENANCE INSTRUCTIONS AND SPARE PARTS



# READ THIS MANUAL CAREFULLY BEFORE OPERATING THE MACHINE



#### **WARNING:**

THIS SYMBOL INDICATES IMPORTANT SAFETY PRECAUTIONS

#### **SAFETY INSTRUCTIONS:**

#### Before starting please note the following:

This brushcutter should only be used for cutting grass, bush and light shrub. Using the product for any other use not covered in this manual could compromise the user's safety and result in personal injury.

- Before using the machine, carefully read the safety advice in this manual. Keep the manual in a safe place for future reference.
- The brushcutter should only be used for the purposes for which it has been designed.
- Only competent operators should use this machine following training in its safe use and operation. Your dealer should be able to assist you in obtaining appropriate instruction from a qualified trainer.
- When using the brushcutter the operator is responsible for the safety of persons or objects that lie within the working area.
- Keep all people, animals and vulnerable objects at least 15 meters away from the machine and its working area.
- NEVER use the machine when under the influence of alcohol, drugs or any other medication that may impair your judgment and reaction time.
- The machine must be operated only in conditions of good visibility and natural daylight.
- Always wear appropriate safety clothing: this includes safety shoes or boots with non-slip soles and steel toe caps; safety helmets and gloves. Always use protective safety eye wear such as full protection glasses, goggles or face shields. The use of ear defenders is recommended to avoid excessive exposure to noise.

- Always ensure that your hair is tied safely to avoid any risk of contact with moving parts.
- Never use cutting devices other than those supplied by the manufacturer, and use only original spare parts supplied by the manufacturer. Never tamper with safety devices; this could be compromise your safety.
- Blades and cutting devices must be kept in good condition. Do not use cutting parts that are broken, worn, deformed, dented or cracked.
- To reduce the risk of carbon monoxide poisoning, never start or use the machine in an enclosed area. The fuel should only be mixed and handled in a well ventilated area away from all sources of heat, spark or flame. Always switch off the engine when handling fuel. Never smoke while refueling the tank or mixing the fuel.
- Ensure all safety devices are maintained in good working condition. Any maintenance, repair and component replacement must be undertaken with the engine switched off and all rotating cutting devices stationary and immobilized.
- When operating the machine, avoid prolonged exposure to vibration. Although designed to keep vibration to a minimum, it is recommended that short rest periods be taken to minimize any harmful effects that vibration may cause.
- Please be mindful that organic material from grass and shrub can cause discomfort to hay fever and other allergy sufferers.

#### **SAFETY SYMBOLS**

1. Warning, Danger, Caution



2. Read the documentation and safety instructions which are provided in this user manual.



3. When operating this machine, use protective equipment such as goggles, helmet and ear defenders.



4. Wear security shoes and gloves.





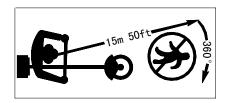
5. Beware: keep hands and feet away from moving parts. Always keep a safe distance from the cutting parts.



6. Beware of objects being thrown from the operating zone.



7. Warning: keep all people, animals and vulnerable objects at least 15 metres from the working area.



8. Directive 2000-14/CE. Guaranteed noise levels.



9. Danger: risk of intoxication.



10. Danger: risk of fire or explosion.



11. Hot surface, risk of burn.

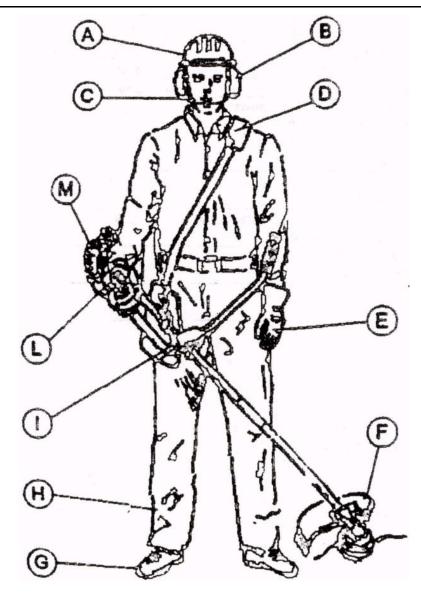


### Safety equipment:

- A) Safety helmet B) Ear defenders
- C) Safety visor
- D) Harness
- E) Gloves
- F) Cutter guard

- G) Safety shoes

- H) Heavy duty work suit
  I) Anti vibrating support
  L) Throttle lever with stop switch
  M) Engine with overheating protection



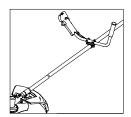
### TECHNICAL SPECIFICATION

MODELS	Mitox 260	Mitox 330	Mitox 430
Dry weight (without cutting tools and gasoline.)	5.8 kg	6.7 kg	7.4 kg
Fuel tank capacity: (litres)	0.71	0.75 1	1.1l
Blade diameter: (mm)	255	255	255
Blade thickness: (mm)	1.4	1.4	1.4
Number of teeth	3	3	3
Fixation hole diameter: (mm)	25.4	25.4	25.4
Max. blade rotation speed: rpm (min <sup>-1</sup> )	9000	9000	9000
Rotation direction (as seen from above)	Counter	Counter	Counter
	Clockwise	Clockwise	Clockwise
Cylinder displacement: (cm³)	25.4	32.6	42.7
Power max.: (kw) in accordance with ISO 8893	0.75	0.9	1.25
Engine speed at max. power: rpm (min <sup>-1</sup> )	7000	6500	6500
Shaft speed: rpm (min <sup>-1</sup> )	7000	6500	6500
Idle speed engine level: rpm (min <sup>-1</sup> )	2500	2500	2500
Specific fuel consumption at max. power	≤580	≤650	≤660
(g/kW*h) in accordance with ISO 8893			
Acoustic pressure level (lp a av) in dB	98 dBA	96 dBA	96dBA
In accordance with EN 27917			
Acoustic power level (lw a av) en dBA	109dBA	107dBA	107dBA
In accordance with EN 10883			
Acoustic power level guaranteed LwA	112dBA	110 dBA	110dBA
In accordance with Directive 2000-14/CE			
Vibration level at min. level ( m/s 2)	1.10	1.20	1.20
In accordance with ISO 7916			
Vibration level at full load ( m/s 2 )	8.8	7.5	7.5
In accordance with ISO 7916			

#### **ASSEMBLY**

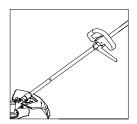
Before operating, make sure that all parts have been correctly assembled

#### **HANDLEBAR ASSEMBLY** ('U'handle)



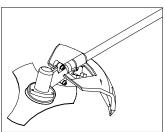
Take the right hand half handle (with the throttle switch) and place it on the right side of the mounting bracket. Similarly mount the left hand half handle on the left side. Secure the handle support bracket with the 4 fixing screws provided and tighten loosely. Adjust the handles on the shaft to a comfortable working position then tighten the fixing screws securely.

#### **HANDLEBAR ASSEMBLY** (Loop handle)



Fix the loop-handle to the shaft using the rubber block provided. Adjust to a comfortable working position then tighten the fixing screws securely.

# FITTING THE SAFETY GUARD. (all models)



The safety guard must be secured to the support, near the gear case, with the four screws and two plates provided.

#### **HARNESS:**

The harness provided has foam hip protection. It must be used with the belt on the left shoulder and the hip protection on the right side.

#### BALANCE OF THE MACHINE.

Before using the machine it is important to adjust the harness to achieve a well balanced operating position. Do this as follows:

Place the belt on your left shoulder and hook to the machine.

- -Adjust the position of the fixing bracket on the shaft of the machine to obtain an even balance between the front and rear of the machine.
- -If you use the machine the with nylon head, the harness must be adjusted so that the distance between the ground and the nylon head is between 0 and 300mm.
- If you use the 3 tooth blade, the harness must be adjusted so that the distance between the ground and the blade is between 100 and 300mm.

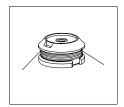
#### **TYPES OF CUTTING HEAD.**

For safe and effective operation, make sure you select the most appropriate cutting head for the required application.

The 3 tooth blade and the nylon head provided with the machine are suitable for most applications. Use only genuine, original spare parts that are supplied by the manufacturer. Failure to do so could cause injury.

Never use steel wire or other substitute materials. Only use the parts recommended by the manufacturer.

#### FITTING THE NYLON HEAD



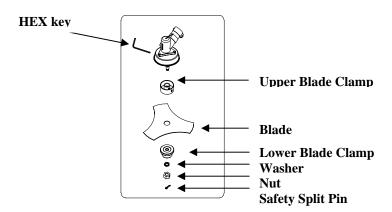
Screw the nylon head anti-clockwise (turn left) onto the threaded shaft at the end of the gear case. Keep the shaft locked in place by inserting a screwdriver or hexagonal key through the hole in the upper blade clamp and tighten securely.

Make sure that the nylon head is securely and safely locked in position.



The blade MUST be correctly positioned on the upper blade clamp otherwise SERIOUS DAMAGE AND INJURY TO PERSONS AND PROPERTY could result.

#### **FITTING THE 3 TOOTH BLADE**



Remove split pin, unscrew the nut clockwise (turn right) and remove the lower blade clamp.

Place the 3 tooth blade on the upper blade clamp, centring the centre of the blade on the raised boss of the upper blade clamp.

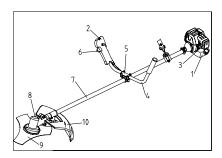
Replace the lower blade clamp in order to secure the blade. Refit washer.

Screw the nut anti-clockwise (turn left) using the tool provided.

Tightening torque: 30 Nm or 3 Mkg. Make sure that the blade is completely and safely locked in position. Refit split pin.

#### **MAIN PARTS BRUSHCUTTER:**

- 1. Fuel tank 2 stroke mixture.
- 2. Stop control switch.
- 3. Carburettor / air filter.
- 4. Handlebar
- 5. Anti-vibration support.
- 6. Throttle control lever.
- 7. Transmission shaft.
- 8. Gear box
- 9. Cutting head (blade shown)
- 10. Safety guard.



Never use nylon heads and/or three tooth blades other than those provided by the manufacturer. Ensure that cutting heads are always in perfect condition, free of dents, broken or deformed teeth that could cause damage to the machine and the cutting heads.

The cutting heads rotate at high-speed. Objects can be projected at very high speed so, to avoid serious injury or damage to persons or property, great care should be exercised at all times.

The manufacturer accepts no liability for damage sustained through the incorrect operation of the machine.

#### **BEFORE STARTING**

Before putting the machine into work, make sure it is safely placed on a clean, flat area, free from any loose obstacles. The machine must be in a safe, horizontal position, ensuring that the cutting head cannot contact the soil or other loose object.

Make sure that all nuts and screws are securely tightened. Make sure that both the safety guard and the cutting heads used are correctly assembled.

Always clear the working area of all foreign objects such as nails, metal wire, stones or broken glass that might be thrown or become entangled with the cutting heads.

NEVER start the machine in an enclosed area or in a building. Carbon monoxide exhaust gas can be fatal if inhaled.

Organic material from grass and shrub can cause discomfort to sufferers of hay fever and other allergies. Use an appropriate mask or other breathing protection.

#### STARTING THE ENGINE

#### FUEL MIXTURE: 25:1

Use fresh, unleaded petrol (95 RON) and 100 % synthetic oil specially made for high performance two stroke engines. Mix it in a ratio of 25 parts of petrol to 1 part of oil.

Using synthetic oil specially made for twostroke engines, will reduce the formation of ashes and carbon deposits in the spark plug, the piston, the muffler and in the cylinder as well as reducing emissions of harmful exhaust gases. Lubrication will be maximised and the engine's life extended.

It is important only to use good quality, fresh petrol and oil. The mixture should be used within three weeks of being prepared.

The petrol and oil must be mixed prior to filling the fuel tank. For best results, add the oil to the fuel can after the petrol. This operation must be carried out in a well ventilated area away from naked flames, sparks or lights and with the engine switched off. Never smoke or use a mobile telephone when carrying out this operation. Shake the mixture well in the fuel can and the engine fuel tank before use.

To fill the fuel tank, unscrew the cap of the tank and, using a filler, pour the petrol/oil mixture into the tank. Take care not to spill any mixture around and/or on your clothing. In the event of a spillage, wipe away immediately.

To avoid a fire risk, start the engine at least three metres away from the area where the fuel tank had been filled.

Never fill the fuel tank when the engine is hot.

#### **ENGINE STARTING**

To start the engine, proceed as follows:

1. Move the throttle control lever and push the red button on the right handle to the "START" position 'U' handle models.



- 2. Push the "primer" button under the carburettor, 4 or 5 times, to allow the petrol to reach the clear plastic pipe by the fuel tank..
- 3. Move the choke lever of the carburettor to the closed position.
- 4. With your left hand, grip the brushcutter and hold the transmission

- shaft firmly on the ground. With the right hand, slowly pull the recoil starter handle until engagement of the pawls with the flywheel is felt.
- 5. Pull the recoil starter handle firmly for 4 or 5 times until the engine starts. The red button will return to its original position when the throttle lever is engaged.
- **6.** After starting release the choke lever to

the open position:



7. To avoid damage to the recoil starter, never pull the cord to its entire length.

Should the engine become flooded, turn the ignition switch off, unscrew the spark plug, wipe it dry or replace, pull the recoil starter several times, without the spark plug in place and choke in the open position. This will help clean and ventilate the combustion chamber.

#### **IMPORTANT:**

When the engine is at operating temperature, these operations are not necessary. Pull the recoil starter until the engine starts.

When the engine is at idling speed, the cutting head should not rotate. If it does, seek the assistance of your dealer who will carry out the necessary adjustments.

#### **RUNNING IN**

During the first ten hours of work, run the engine at a moderate speed. Do not run the engine at maximum speed for prolonged period until all the components have bedded in. After the engine has been run in, it will reach its maximum power.

After the two first hours of work, check that all nuts and screws are securely fastened and tighten if necessary.

#### **USING THE BRUSHCUTTER**

# Which setting to use with each cutting head?

The safety guard is two coloured the main part red and the small blade holder is black.

#### 1. When using the nylon head:

The safety guard must be used with both parts in position; (main part red + the small black blade holder).

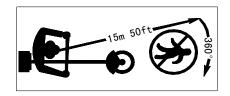
#### 2. When using the 3 tooth blade.

Remove the small black blade holder (with a screwdriver) and use only the main red safety guard.

Only use the cutting tools supplied by the manufacturer. All other blades, particularly SAW BLADES, are FORBIDDEN.

This brushcutter is only made to cut grass, bush and light shrub.

- \* Ensure the machine is perfectly balanced between the engine and the cutting head. The cutting head must be parallel to the ground and should not require to be held in position.
- \* Ensure everything in the assembly is in good working order by operating the throttle gently for a few times without reaching maximum engine revolutions.
- \* Make sure the cutting head is completely stationary before moving to the working area. Always carry the machine with the cutting head below waist height and as far away from the body as possible. Make sure there are no other people, animals or other objects within a 15 metre radius.



The correct operating stance must have both feet placed firmly on the ground and the body well balanced.

#### **Grass cutting**

Cut the grass in 1.5 metre widths, keeping the machine well balanced and each step firm. When using the 3 tooth blade for grass or shrub, always cut from right to left to leave the debris on the left for collection at a later time.

Try to avoid engaging stones, piles of earth, small pieces of wood or anything that could be hidden or difficult to see in the grass. If a large object is accidentally struck or if the cutting head gets blocked or overloaded or stringy material gets wrapped in the cutting head: reduce the engine speed to the idle speed to disengage the clutch. Make sure that the cutting head has stopped rotating switch off the engine.

Put the brushcutter on the ground and check that the cutting tool has not been damaged e.g. broken teeth on the blade or a cracked component. If necessary, change the cutting head. If the head is only wrapped by vegetation, remove by hand and clean the cutting head.

Always wear safety gloves for this operation and only with the engine switch off and the head stationary.

When the 2 nylon cords become too short, accelerate the engine and bump the nylon head on the ground, automatically the 2 nylon cords will feed out and be cut to the correct length. Repeat the operation if necessary.

## **CORRECT USE OF THE 3 TOOTH BLADE.**

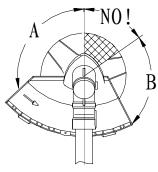
All safety systems and parts of the machine must be in good order when the brushcutter is in use.

When using the 3 tooth blade, avoid the risk of serious injury by adopting good safety practices. Pay attention to the drawing below.

When cutting woody and fibrous materials always use the 3 tooth blade in the circular direction "A" below.

The circular position "B" is acceptable only if the brushcutter is gripped very tightly. It is not recommended.

The circular position "NO" is forbidden as it can endanger people, animals and other objects. Never use this position.





All safety devices and safety equipment must be maintained in good operational condition at all times.

The engine and cutting head must be at a complete standstill during assembly, repair and cleaning operations. Put the ignition switch to the "STOP"

Put the ignition switch to the "STOP" position.

Brushcutters vibrate during use. Although equipped with an anti-vibration device, the vibrations can generate increased fatigue. For this reason it is recommended that regular pauses be taken during work.

It is also recommended that, after a few hours of work, the machine be allowed to idle at low rpm's for a few minutes to allow the engine to cool.

#### **MAINTENANCE**

#### Carburettor

- Idle speed adjustment.
- Screw or unscrew the butterfly screw until the engine is at around 2500 Rpm.
- This adjustment requires the use of a small Philips screwdriver.

#### **Annual Engine Maintenance**

- Clean air filter in warm soapy water, dry and lightly oil before assembly, or replace as necessary.
- Remove and replace petrol filter.
- Remove and inspect spark plug.
- Replace if worn, or if it has excessive build-up of carbon.

#### **GEAR BOX.**

Every 25 hours, grease the gearbox. Unscrew the lateral cap of the gearbox and put grease inside using an appropriate tool. Use special gearbox grease that is designed for high temperature conditions. Screw the cap back on tightly.

#### MAINTENANCE AND **STORAGE** AFTER USE.

After use, clean the brushcutter thoroughly. Remove all residual grass and dirt; making sure no debris is wrapped round the cutting head. If possible re-wrap the machine in its original packing material for safe storage or transportation.

Avoid hitting or cutting the fuel tank while putting the machine to the ground. Do not let the brushcutter fall as this may cause damage.

Whenever the machine is out of use for over 1 month, take the following steps:

- Completely empty the fuel tank.
- Protect all metal parts from corrosion by applying a thin coat of oil.
- With the ignition switch in the stop position remove the spark-plug, put some drops of oil in the cylinder, then pull the recoil starter 2 to 3 times in order to distribute evenly the oil. Replace the spark plug.
- During the storage period, it is recommended that the engine be run for a few minutes every 3 months.

- In order to re-mix the oil with the petrol, vigorously shake the mixture in the fuel tank before use.
- Dispose of fuel mixture after one month.

#### **TROUBLESHOOTING**

#### Power loss or engine stopping.

- Check that the fuel tank is not empty.
- The mixture does not reach to the carburettor. Clean or change the fuel filter in the fuel tank.
- There is water in the mixture. Drain then clean the entire fuel system.
- The air filter is dirty. Clean the air filter. Wash the foam with water and soap. Dry the foam, oil it, and replace it in the filter.
- There are carbon deposits in the cylinder exhaust pipe or the muffler. Clean or change the muffler.

#### Bad quality cut.

- Area too overgrown or thick for the available engine power. Take smaller quantities with each pass of the cutting head.
- Wrapped debris on the cutting. Stop the machine and clear the obstruction as previously instructed.
- If blade is used: blade worn or not sharp enough. Change the blade.

#### WARNING.

Using the engine with a petrol/oil mixture that does not conform to the the manufacturer's specification will invalidate the warranty.

Only use the machine with the cutting tools provided by the manufacturer.

□ Nylon head : CG305F.8 3 teeth blade: CG420-2

The use of the brush-cutter with a "saw blade" is strictly forbidden

#### **CONDITIONS OF WARRANTY**

The manufacturer warrants the product against faulty materials and workmanship for a period of 2 years from the date of first purchase. The warranty is applicable when the product is used in normal "home owner" applications. If products are used for commercial or professional purposes, the warranty period is for 6months from the date of first purchase. Warranty does not extend to failure due to fair wear and tear.

The manufacturer undertakes to replace at his expense, any spare parts that are classified as defective by him or his appointed service dealer. The manufacturer will not accept liability for the replacement of the machine, either partially or wholly, and /or consequential damages and /or interest charges either directly or indirectly.

Warranty does not cover failure due to:

Insufficient maintenance
Abnormal use or accidental damage
Incorrect assembly, adjustment or operation of the product
Spare parts that are subject to wear e.g. safety parts, blades, blade supports, bearings, cables, guards, deflectors, spark plugs, air filters etc.

Neither does warranty extend to:

Freight and packing costs.

Use of non-genuine spare parts i.e. those from another manufacturer.

Use of the machine for any other purpose than that for which it was designed.

Use and maintenance of the machine in a manner not described in the owner's manual.

#### READ THE MANUAL CAREFULLY BEFORE OPERATING THE MACHINE

When ordering spare parts from your supplying dealer please ensure that the correct model number and serial number of the product is registered.

#### Retain the receipt of purchase without which no warranty can be offered.

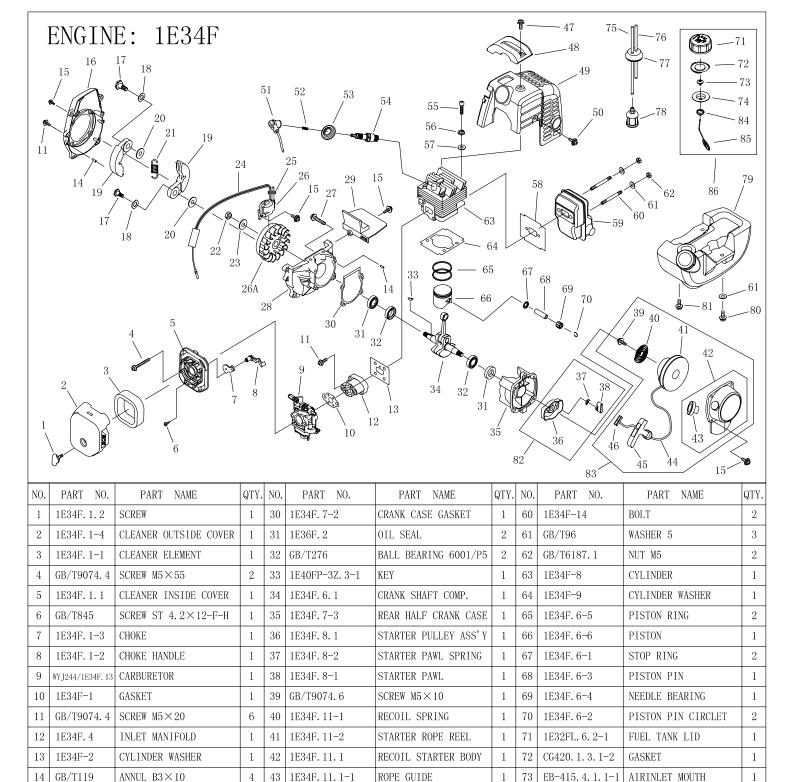
#### U.K. IMPORTER

To find your nearest stockist and authorised service dealer please contact:

### **Mitox Garden Machinery**

Wincanton Business Park
WINCANTON
Somerset
BA9 9RS
U.K.

Tel.: 01963 828050 Fax.: 01963 828052



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GB/T9074.4

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1E36F-2. 3.

1E34F. 5-1

1E34F.5

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1E34F, 7-1

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1E34F. 10-1

SCREW M4×16

CLUTCH STEP SCREW

CLUTCH SHOE COMP.

CLUTCH SPRING

STOP CORD COMP.

MAGNETO STATOR

MAGNETO ROTOR

SCREW M5×25

GUIDE PLATE

PRIMARY CORD GROMMET

FRONT HALF CRANK CASE

NUT M8 $\times$ 1

WASHER 8

FAN COVER

WASHER

WASHER

9

1 45

2 | 46

2 | 47

2

2 | 49

1 | 50

1 | 51

1 | 52

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1E34F. 11-3

1E36F. 1-1

1E36F. 1-5

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1E34F-6

1E34F.3

GB/T9074.4

1E34F. 5-2

1E34F. 5-3

GB/T70.1

GB/T93

GB/T848

1E34F-3

1E34F. 2

1E40F-3A. 8-2

L9T(LD)/RCJ6Y/BPMR6ASPARK PLUG

ROPE

**GASKET** 

COVER

COVER

STARTER HANDLE

SCREW M5×14

SCREW M4×12

CLICK SPRING

SCREW M5×20

MUFFLER COMP.

WASHER 5

WASHER 5

GASKET

PLUG COVER

PLUG CAP

1 74

1

1 | 76

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1E34F. 9. 2-1

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GB/T9074.3

GB/T9074.4

1E34F.8

1E34F. 11

1E32FL. 6. 2-3

1E32FL, 6, 2-4

1E32FL. 6. 2

INSIDE COVER

OUTLET FUEL PIPE

INLET FUEL PIPE

CLEANER

STARTER

LID

CHAIN

FUEL TANK

SCREW M5 × 16

SCREW M5×16

PRIMARY CORD GROMMET

STARTER PULLEY ASS'Y

FUEL TANK LID COMP.

1

1

1

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2

1

1

1

1

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