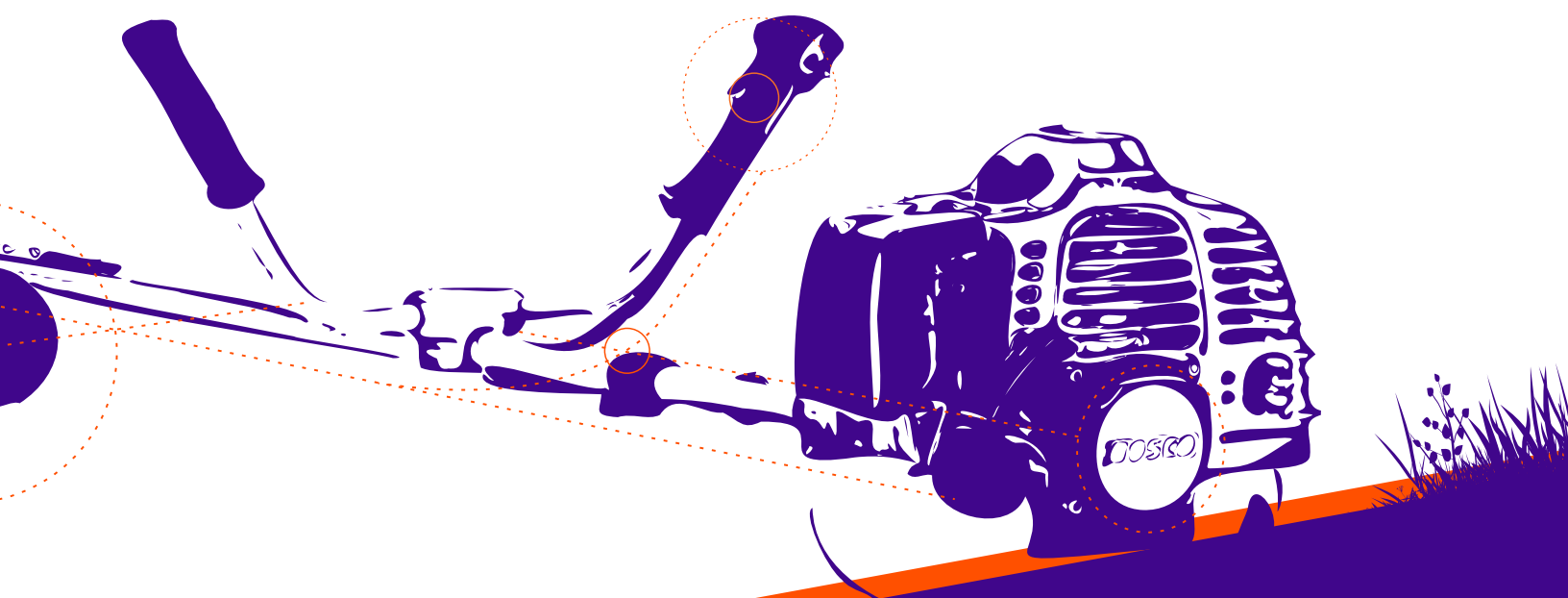




OWNER MANUAL

BRUSH CUTTER 2-STROKE

MODEL BC2S-427




BOSCH®



CAUTION

Before using our brush cutter, please read this manual carefully to understand the proper use of your unit. Keep this manual handy.

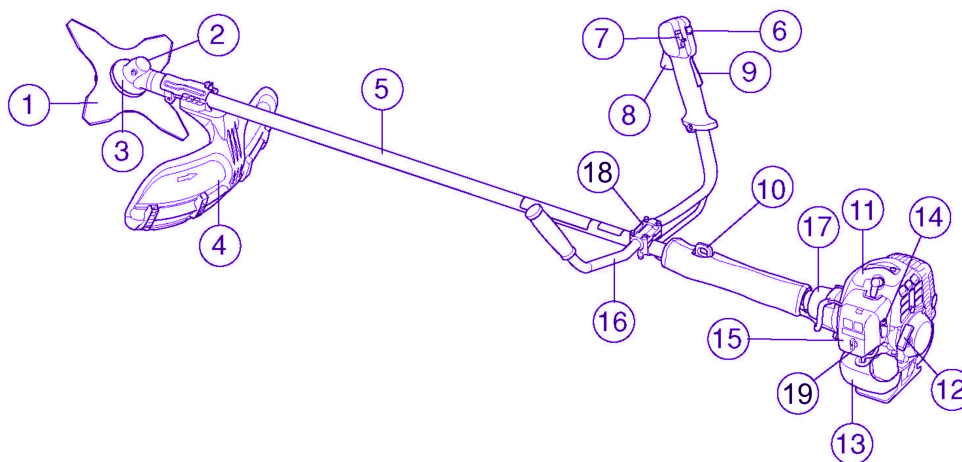
SAFETY FIRST

Instructions contained in warnings within this manual marked with a  symbol concern critical points which must be taken into consideration to prevent possible serious bodily injury, and for this reason you are requested to read all such instructions carefully and follow them without fail.

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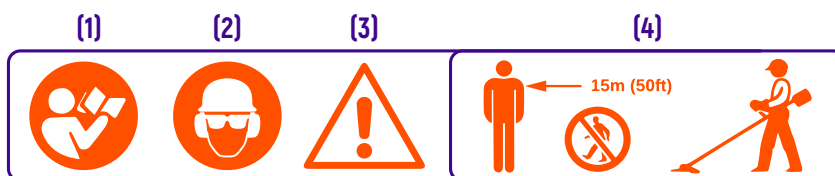
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I. PARTS LOCATION



- | | |
|----------------------------------|----------------------|
| 1. Blade (Not all markets) | 11. Cylinder cover |
| 2. Grease filler cap, bevel gear | 12. Starter handle |
| 3. Bevel gear | 13. Fuel tank |
| 4. Cutting attachment guard | 14. Choke control |
| 5. Shaft | 15. Air filter cover |
| 6. Start throttle | 16. Handlebar |
| 7. Stop switch | 17. Clutch cover |
| 8. Throttle control | 18. Handlebar clamp |
| 9. Throttle lockout | 19. Air purge |
| 10. Suspension ring | |

II. WARNING LABEL ON THE MACHINE



- (1) Read owner's manual before operating this machine
 (2) Wear head, eye and ear protection.
 (3) Warning/Attention.
 (4) Keep all children, bystanders and helpers 15 meters away from the brush cutter.

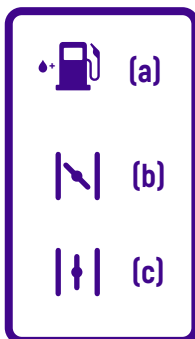
If warning seals peel off or become soiled and impossible to read, you should contact the dealer from which you purchased the product to order new seals and affix the new seal in the required location.

Never modify this machine.

Any modification to this machine will invalidate your warranty.

III. SYMBOLS ON THE MACHINE

For safe operation and maintenance, symbols are carved in relief on the machine.



(a). Put the petrol here (use ONLY unleaded fuel)

Position: FUEL TANK CAP

(b). Cold Start (Choke On)

Position: AIR CLEANER COVER

(c). Warm Start/Run Position (Choke Off)

Position: AIR CLEANER COVER

IV. SAFETY PRECAUTIONS

BEFORE USING THE MACHINE

- a) Read this owner's manual carefully to understand how to operate this machine safely and efficiently.
- b) This machine has been designed for trimming brush grass and weeds and should never be used for any other purpose.
- c) You should never use this machine when under the influence of alcohol, when suffering from exhaustion or lack of sleep when suffering from drowsiness as a result of having taken 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 brush cutter properly and in a safe manner.



- d) Avoid running the engine indoors. Exhaust gases contain harmful carbon monoxide.
- e) Never use your machine under circumstances like those:
 1. When the ground is slippery or when other conditions exist which might make it difficult to maintain a steady posture.
 2. At any other times when your field of vision might be limited.
 3. During rain or lightning storms, in gale-force winds
- f) When using this product for the first time, before beginning actual work, whenever possible, take advice from someone with experience.

g) Lack of sleep, tiredness, or physical exhaustion results in lower attention spans, and this in turn leads to accidents and injury. Limit the amount of time over which the machine is to be used continuously to somewhere around 30~40 minutes per session, and take 10~20 minutes of rest between work sessions. Also try to keep the total amount of work performed in a single day under 2 hours or less.

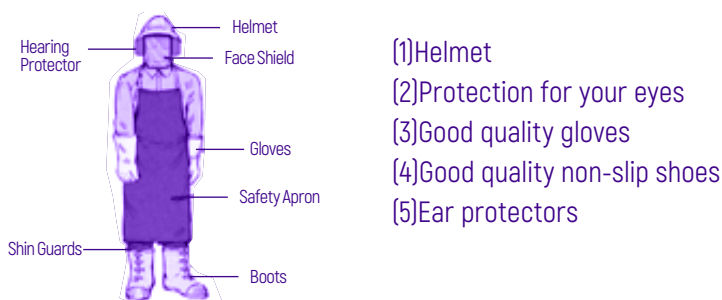
h) Be sure to keep this manual handy so that you may refer to it later whenever any questions arise.

i) Always be sure to include this manual when selling, lending, or otherwise transferring the ownership of this product.

j) Never allow children or anyone unable to fully understand the directions given in this manual to use this machine.

> WORKING GEAR AND CLOTHING

A. When using your brush cutter, you should wear proper clothing and protective equipment as follows.



B. Never wear loose clothing as this can get tangled in the machine and cause severe injury.

C. Take a mobile phone with you, a drink (water), some spare fuel and tools (provided).

⚠ WARNING WHEN HANDLING FUEL

a. This engine is designed to run on unleaded petrol. Never store cans of fuel or refill the fuel tank in any place where there is a boiler, stove, wood fire, electrical sparks, welding sparks, or any other source of heat or fire which might ignite the fuel.

b. Smoking while operating the brush cutter or refilling its fuel tank is extremely dangerous. Please refrain from smoking.

c. When refilling the tank always turn the engine off first and take a careful look around to make sure that there are no sparks or open flames anywhere nearby.

d. If any fuel spillage occurs during refueling, use a dry rag to wipe up spills before turning the engine back on again.

e. After refueling, screw the fuel cap back tightly onto the fuel tank and then carry the brush cutter to a spot 3 meters or more away from where it was refueled before turning on the engine.

THINGS TO CHECK BEFORE USING YOUR BRUSHCUTTER

a) Before beginning work, look around carefully to get a feel for the shape of the land, or grass to be trimmed and whether or not there are any obstacles which might get in the way while working. Remove any obstacles.

b) To reduce the risk of personal injury to the operator from contact with the blade or thrown objects, make sure your unit is equipped with the proper safety guard, handlebar, and harness for the type of cut.



c) The area within a perimeter of 15 meters of the person using the brush cutter should be considered a hazardous area into which no one should enter while the brush cutter is in use, and when necessary, a yellow warning rope/ warning signs should be placed around the work area. When work is to be performed simultaneously by two or more persons, always check the presence and locations of others so as to maintain a distance between each person sufficient to ensure safety



d) Make sure that there are no loose screws or bolts, fuel leaks, ruptures, dents, or any other problems, which might interfere with safe operation. Be especially careful to check that there is nothing wrong with the blades or with the joints by which the blades are attached to the brush cutter.

e) Never use Blades that are bent, warped, cracked, broken or damage in any way.

f) Always keep the blade sharp.

g) Check the bolt to fasten the blade is fully tightened and be sure the blade turns smoothly without any abnormal noise.

NOTES ON STARTING THE ENGINE

1. Take a careful look around to make sure that no obstacles exist within a perimeter of 15m or less around brush cutter.



2. Place the body of the brush cutter onto the ground in a flat clear area and hold it firmly in place so as to ensure that neither blades nor the throttle come into contact with any obstacles when the engine starts up.

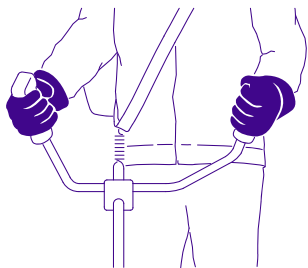
3. Place the throttle into the idling position when starting the engine.

4. The engine has been adjusted at the factory so that when starting and when in its idle position, the blade does not turn. If the blade turn when starting or idling, check the throttle cable is not snagged. If not snagged, adjust the idling screw as shown on Page 16.

KICKBACK SAFETY PRECAUTIONS

Contacting a solid object or obstruction is extremely dangerous and will cause Kick Back reaction causing the operator to lose control of the unit which can result serious or fatal injury.

Avoid kickback at all times by observing the safety precautions below.



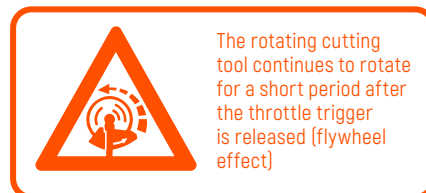
1. Before beginning work, clear your working area of any obstacles.
2. Keep a firm grip on both handles.
3. Do not let the blade or trimmer get too close to your feet. Do not raise the machine above waist height.

> NOTES ON TRANSPORTATION

1. Make sure the appropriate blade cover is in place
2. When transporting by car, fix the unit firmly using a rope. Do not transport by bicycle or motorcycle because it is dangerous.
3. Never transport the brush cutter over rough roads over long distances without first removing all fuel from the fuel tank, as doing so might cause fuel to leak from the tank.

OPERATION SAFETY PRECAUTIONS

1. Grip the handles of the brush cutter firmly with both hands. When you take a rest, stop the machine.
2. Always be sure to maintain a steady, even posture while working.
3. Maintain the speed of the engine at the level required to perform cutting work, and never raise the speed of the engine above the level necessary.



4. If the grass gets caught in the blade during operation, or if you need to check the unit or refuel the tank, always be sure to turn off the engine.
5. If the blade touches a hard object like a stone, immediately stop the engine and check if something is wrong with the blade. If so, replace the blade with new one.
6. If someone calls out while working, always be sure to turn off the engine before turning around.
7. Never touch the spark plug or plug cord while the engine is in operation as this may result in being subjected to an electrical shock.



8. Never touch the silencer, spark plug, or other metallic parts of the engine while the engine is in operation or immediately after shutting down the engine as this may result in serious burns.
9. When you finish cutting in one location and wish to continue work in another spot, turn off the engine prior to moving location

MAINTENANCE SAFETY PRECAUTION

1. Perform the maintenance and checking operations described in this manual at regular intervals. If any parts must be replaced or any maintenance or repair work not described in this manual must be performed, please contact an authorized distributor.
2. Under no circumstances should you ever take apart the brush cutter or alter it in any way. Doing so might result in the brush cutter becoming damaged during operation or the brush cutter becoming unable to operate properly. Any modification of this machine is dangerous and will invalidate your guarantee.
3. Always be sure to turn off the engine before performing any maintenance or checking procedures.
4. When sharpening, removing, or re-attaching the blade, be sure to wear sturdy gloves and use only proper tools and equipment to prevent injury.
5. When replacing blade or any other parts, always be sure to use only BOSCO original products.

V. ASSEMBLY

> THE HANDLE

1. Loosen the 4 bolts on the handle bracket.
2. Insert the right handle (throttle lever is attached) and the left handle assembly into the bracket and retighten the bolts securely.



> THE SAFETY GUARD

1. Slide the chromed metal guard holder already affixed to the shaft into the recess on the plastic guard.
2. Line up the four holes. Fix and tighten the four bolts using the spanner and Hex key supplied.

> THE METAL BLADE



1. Loosen the blade retainer nut clockwise and remove the blade retainer.



2. You'll need to line up the two holes in the side of the cutting head assembly and insert the hex key in them to keep the blade still.



Put the bush and the blade seat onto the end of the shaft , then the metal blade into the seat.
Fit the domed cover, then the securing nut and tighten the nut

> THE NYLON CUTTER (OPTION)

If you use the unit as a grass trimmer follow the instructions below:

1. Loosen the blade retainer nut clockwise and remove the blade retainer.
2. Fit the line cutting head on to the end of the shaft and tighten the cutting head.a



NOTE: Please store the blade retainer and nut in a safe place.

> THE SHOULDER STRAP

1. Clip the belt hook to the hanging rings on shaft tube.
2. Adjust the length of the belt in order to obtain the most comfortable working position.

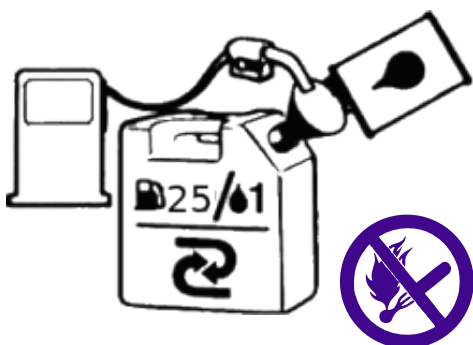
VI. FUEL



- Gasoline is very flammable.Avoid smoking or bringing any flame or sparks near fuel.
- Wipe up all spills before starting the engine.
- Make sure to stop the engine and allow it cool before refueling the unit.
- Keep open flames away from the area where fuel is handled or stored.

IMPORTANT

Never use oil for 4-cycle engine use or water cooled 2-cycle engine. It can cause spark plug fouling exhaust port blocking or piston ring sticking. Mixed fuels which have been left unused for a period of one month or more may clog the carburetor or result in the engine failing to operate properly. Put remained fuel into an airtight container and keep it in the dark and cool room.



Mix a regular grade gasoline (leaded, alcohol-free) and a quality-proven motor oil for air-cooled 2 cycle engines.

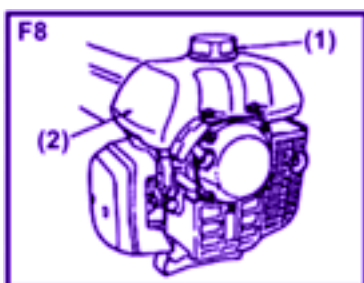
RECOMMENDED MIXING RATIO
GASOLINE 25: OIL 1

VII. OPERATION

> STARTING THE ENGINE

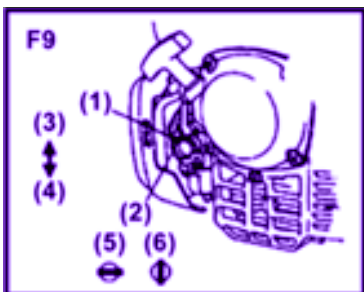
⚠ IMPORTANT

Before starting the engine, inspect the entire unit for loose fittings or fuel leaks, and the cutting attachment is properly installed and securely fastened.



Place the unit on a flat, firm place. Keep the cutting head clear of everything around it.

1. Turn the cap to the fuel tank to make sure that it is fixed on tightly,
- (1) Cap
- (2) Fuel tank

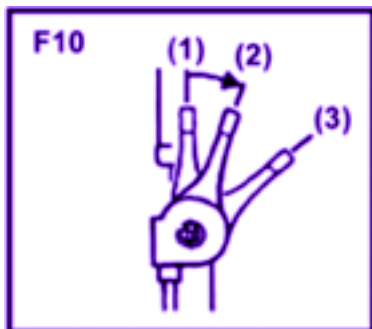


2. Open the fuel tank cock.(9)
3. Move the choke lever to the closed position.(9)
- (1) Choke lever
- (2) Fuel cock
- (3) Close
- (4) Open
- (5) Close
- (6) Open

NOTE

When restarting immediately after stopping the engine, move the choke lever to the open position.

4. Set the throttle lever to the starting position. (F10)



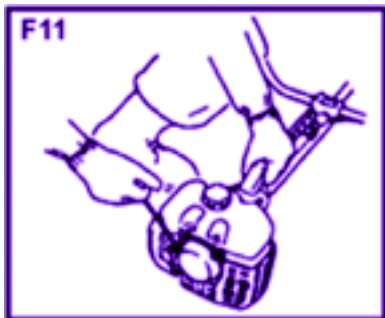
(1) Idling

(2) Starting (1/3-1/20 pen)

(3) Full throttle
4. Set the throttle lever to the starting position. (F10)

NOTE

When restarting immediately after stopping the engine, move the throttle lever to the idling position.



5. while holding the unit firmly, pull out the starter rope quickly. (F11)

6. After the engine has started, open the choke gradually.

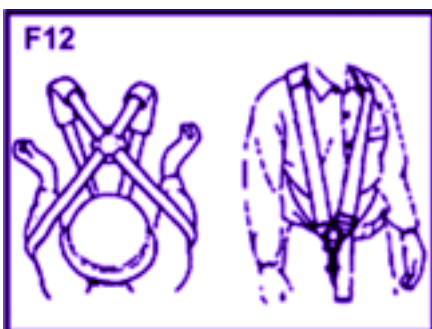
7. Allow the engine to run for 2 to 3 minutes to warm up.

> STOPPING THE ENGINE

1. Return the throttle lever to the Idling position.

2. Push the engine switch button.

> EQUIPPING THE SHAWL BAND (F12)



1. Equip the attached shawl band. (F12)
2. Turn on the engine ,return the throttle lever to the lowest speed position,and put the shawl band hock to the hanging part of the machine.
3. Adjust the length of the shawl band so that the blade may be parallel to the ground in the working position. in order to prevent slack during operation, turn up the extra part of the band from the buckle

> USE OF SHEET METAL

1. Slide the chromed metal guard holder already affixed to the shaft into the recess on the plastic guard.
2. Line up the four holes. Fix and tighten the four bolts using the spanner and Hex key supplied.



- Always cut by guiding the head from your right to left.
- A metal blade cut best up to the point 1/3 from the edge. Use that area for cutting shrubs, tough and thick weeds. For cutting young grass, you can use up to 2/3 from the tip of blade.
- Adjust the engine speed according to the cutting objects. Cut the young grass at middle speed, and cut shrubs or tough and thick weeds at high speed.

- (1) For branches and trees
- (2) For grass and weeds
- (3) Direction of cutting
- (4) Direction of rotation

⚠ IMPORTANT

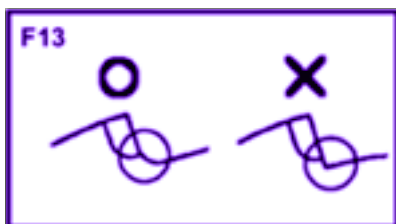
Operating at low speed makes it easier for grass weeds, or twigs to become caught up in the blades, and also it makes the shaft and clutch wear down more quickly.

> NYLON CUTTER USAGE

- Nylon cord consumes large power. Please note that the engine rotation speed in operation should be 50% as large as when using metal blade.
- Nylon cutter cut grass with the power of cord rotation if you try to cut grass for the length of cord at one time, rotation speed becomes lower due to resistance and you cannot cut well. In case of large resistance get the nylon cutter away from grass once ,make the rotation speed higher and cut a small amount of grass at one time.
- If you try to cut grass by swinging the brush cutter in the reverse way (from left to right), scraps fly in the direction away from the body. You can avoid getting your clothes dirty.

VIII. MAINTENANCE

> BLADE



a) Sharpen each cutting edge with a file and make sure the bottom corner is rounded (F13)

⚠ Do not cool the Blade with water if using a grinder as this may cause cracks in Blade.

> AIR CLEANER



Check and clean the filter element in warm, soapy water as required. Dry completely before installing.

If the element is broken or shrunk, replace with a new one. (F14)

- (1) Cover
- (2) Element
- (3) Screen
- (4) Body

A clogged air filter will increase fuel consumption while cutting down the engine power.

⚠ **Never operate the brush cutter without the air filter!**

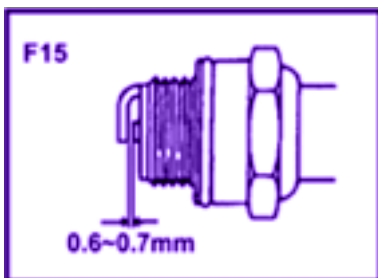
> FUEL FILTER

Take the filter out of the fueling port using a small wire hook. Disconnect the filter assembly from the fuel pipe and unhook the retainer to disassemble it.

Clean the components with neat petrol.

A clogged fuel filter may cause poor acceleration of the engine.

> SPARK PLUG



- a. Remove and inspect the spark plug and clean the electrodes as necessary with brush.
- b. The spark gap should be adjusted to 0.6~0.7mm (0,024-0,028 pulg.).
- c. Check the spark plug washer is in Good condition and thread the spark plug in by hand to prevent cross-threading.
- d. After the spark plug is seated, tighten with a spark plug wrench to compress the washer.

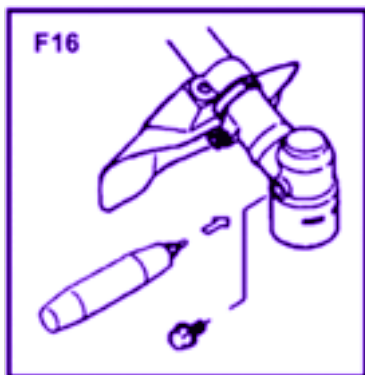
> INTAKEAIR COOLING VENT

Check the intake air cooling vent and the area around the cylinder cooling fins, and remove any debris which has attached itself with a soft brush. Do not use water or chemicals.

⚠ NOTE

Failing to remove debris will cause the silencer to become overheated, which, in turn could cause the brush cutter to over-heat and catch on fire.

> GEAR CASE



Top up with multi-purpose grease at every 25 hours of use. Remove the cutter holders to remove old Grease (F16). Failure to add lubrication will result in much faster wear and eventual failure.

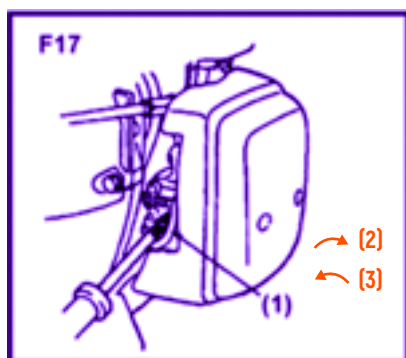
> SILENCER

1. Remove the silencer, insert a screwdriver into the vent and wipe away any carbon build up on the silencer exhaust vent at the same time.
2. Tighten all screws, bolts, and fittings.
3. Check to see if any oil or grease has worked its way in between the clutch lining and drum , and if it has wipe it away using neat unleaded petrol.
4. Remove the float cabin of the carburetor and clean the inside.

> ADJUSTING CARBURETOR

A wrong adjustment may cause damage to your unit. If the engine does not run well after adjusting the carburetor, please contact the BOSCO helpline.

> IDLE ADJUSTMENT SCREW(F17)



This is the screw to adjust the engine rotation when the throttle lever is set to the lowest speed position. If you turn the screw right (clockwise), rotation increases, and left (counterclockwise) it decreases. In case the blade continues to rotate or engine stops when you return the throttle lever completely to the original position, make readjustment.

- (1) Idle adjustment screw
- (2) High
- (3) Low

> ENGINE COOLING FINS

Inspect the fin visually through the cover. If there are dry grass , leaves and mud clogged, contact the power equipment dealer for cleaning it.

> MAINTENANCE BEFORE STORAGE

- 1) Brush off any dirt or debris from the machine, check for any damage or loose parts. Adjust / re-tighten where necessary for the next use.
- 2) Empty the fuel from the tank, and run the engine until it stops naturally.

- 3) Remove the spark plug, put a few drops of oil into the cylinder and then pull the recoil starter 2~3 times in order to distribute the oil evenly. Replace the spark plug.
- 4) Apply anti-rust oil to the metal parts such as the throttle wire, put the cover on the blade, and keep the machine well protected from the elements to avoid damp and frost.

IX. SPECIFICATIONS

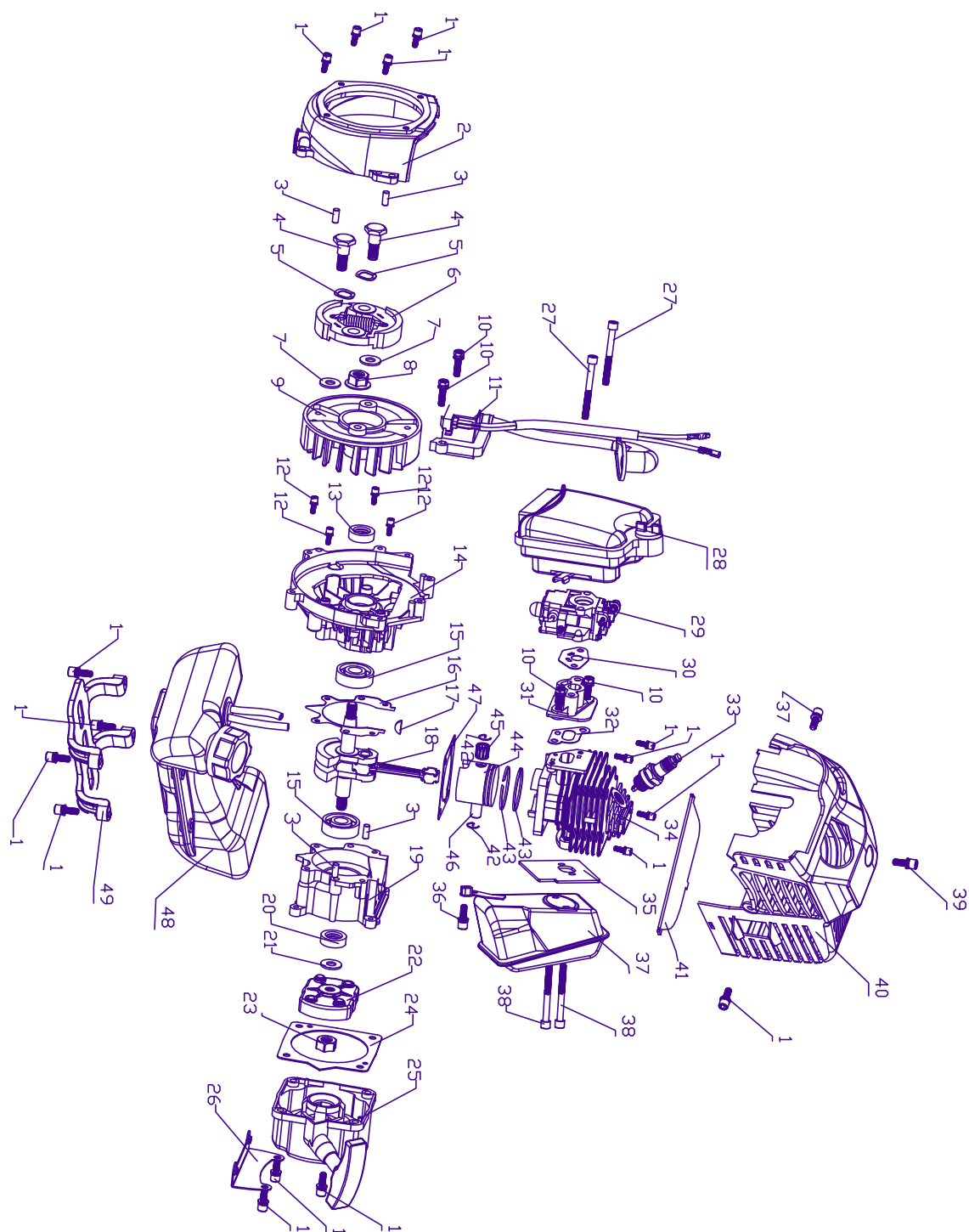
Engine model	1E40F-5	1E40F-6
Engine type	2 stroke, single cilinder, Air-cooled	
Displacement	42.7 cc	40.2 cc
Ignition	CDI (electrónico)	
Carburetor	Diaphragm type	Float type
Rated output Power	1.4 Kw	1.5Kw
Idling	2800 – 3000 rpm	
Fuel Mixture Ratio	25 (gasolina #90) : 1 (two-cycle oil)	
Working pole	28/26mm (Diameter) / 1.5mm (Thickness) / 1500mm (Lenght)	
Handle Pole	19mm (Diameter) / 1.2mm (Thickness)	
Net Weight	8.8 Kg	8.6 Kg
Noise	110 dB	

X. GUARANTEE

This product is guaranteed against fault workmanship for a period of 12 months from date of purchase. It is not guaranteed against misuse, reckless use, abuse, or outside a domestic environment.

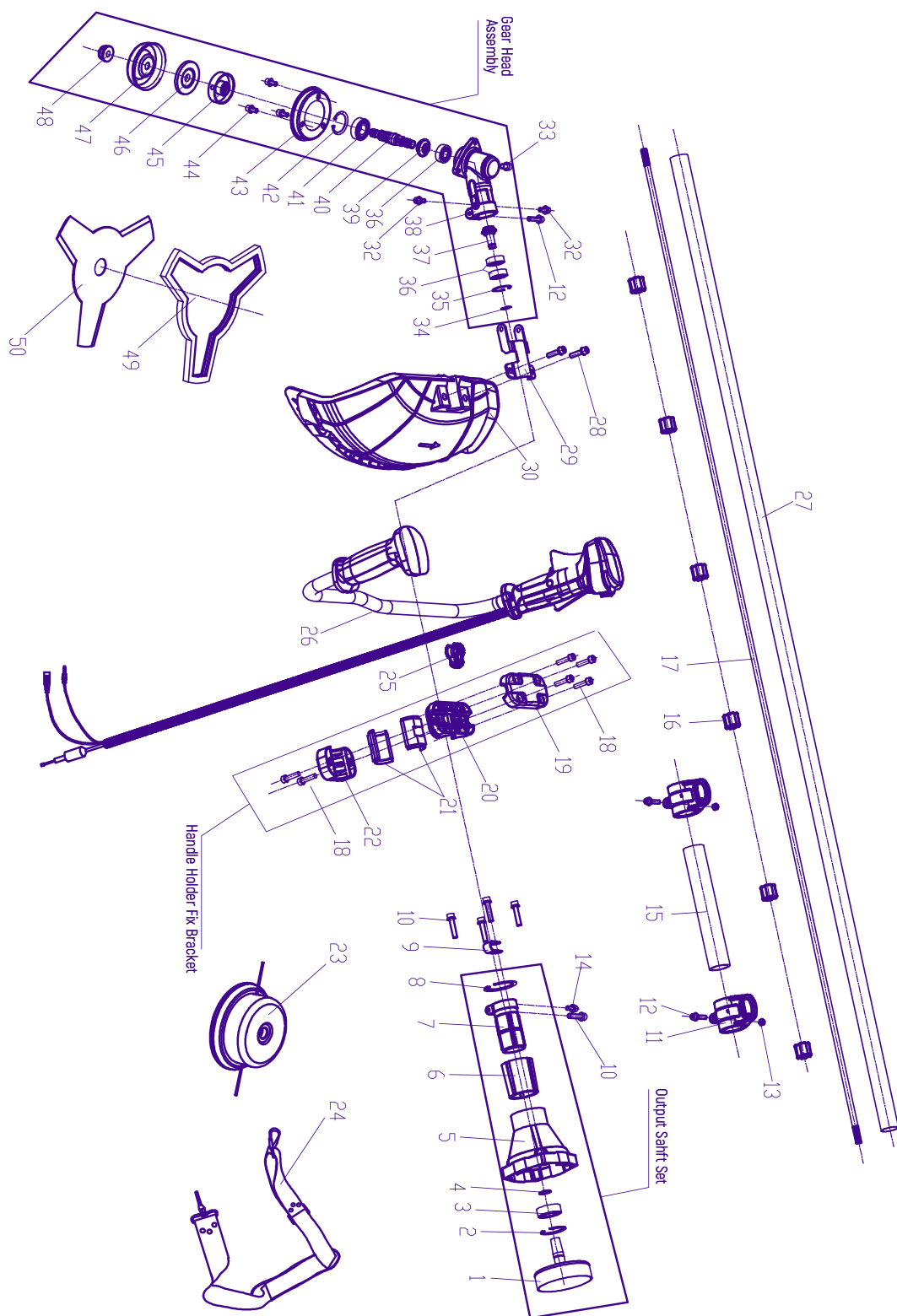
Should you need to make a warranty claim, please contact your place of purchase for instructions. This is in addition to your statutory rights.

XI. ENGINE – EXPLODED DIAGRAM



ENGINE PARTS LIST

S/N	PARTS ENGINE NAME	SPEC.
1	Screw	M5X20
2	Cover	ADC12
3	Pins	Ø5X10
4	Screw	M8XØ10X25
5	Waveform pad	Ø16XØ11X0.4
6	Clutch	
7	Washer	Ø16XØ0.8X1.5
8	Nut	M8
9	Flywheel	
10	Screw	M5X25
11	Ignitor	
12	Screw	M5X30
13	Seal	Ø15XØ30X7
14	Crankcase-a	ADC12
15	Bearing	6202
16	Box gasket	
17	Woodruff key	3X5X13
18	Crankshaff asy	
19	Crankcase-b	ADC12
20	Seal	Ø12XØ22X7
21	Washer	Ø8X16X1
22	Baffle plate	
23	Nut	M8
24	Start gasket	
25	Easy launcher	
26	Fuel pot holder	Q235
27	Screw	M5X55
28	Air filter assembly	
29	Carburetor	
30	Carburetor gasket	
31	Intake pipe	
32	Intake manifold gasket	
33	Spark plug	BM6A
34	Cylinder	ADC12
35	Muffler gasket	
36	Screw	M5X12
37	Silencer	Q235
38	Screw	M6X55
39	Screw	M5X16
40	Cylinder cover	
41	Bulkhead	
42	Piston pins block circle	Ø10
43	Piston ring	
44	Piston	
45	Bearing	10X13X16
46	Piston pin	Ø10X32.8
47	Cylinder seals	
48	Fuel pot	
49	Protection frame	



SHAFT PART

S/N	PART ENGLISH NAME
1	Clutch drum
2	Internal circlip
3	Bearing
4	Outside circlip
5	Output plate
6	Output rubber shock absorber
7	Output seat aluminum connector
8	Internal circlip
10	Hexagon socket cap screws
11	The suspension loop components
12	Hexagon socket cap screws
12	Hexagon socket cap screws
13	Hexagon head self-locking nut
14	Hexagon socket cap screws
15	Sponge sheath
16	Oil bearing
17	Driving shaft
18	Hexagon socket cap screws
19	Fixable base (upper)
20	fixable base (middle)
21	handlebar fixed seat shock absorber
22	Fixable base(down)
23	Nylon cutter
24	Belt
25	The throttle line card
26	Switch starter handle
27	Aluminum shaft
28	Hexagon socket cap screws
29	Straw board connection board
30	Straw board assembly
32	Hexagon socket cap screws
33	Hexagon socket cap screws
34	Outside circlip
35	Internal circlip
36	Bearing
37	Pinion
38	Gear case
39	Rack wheel
40	Spline shaft
41	Bearing
42	Internal circlip
43	The protection cover(upper)
44	hexagon socket cap screws
45	Top board
46	Lower board
47	The protection cover(down)
48	hexagon head flange nut
50	Blade