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BNGS-710

Gas Cut-off Saw

BNGS-710

Engine	Air Cooled Two-Cycle Engine
Displacement	71 cc
Engine Power	4.4 hp (3.2 kW)
Weight (without blade)	22.8 lbs. (10.4kg)
Fuel Capacity	0.7L
Blade Diameter	14” (350mm)
Cutting Depth	5” (125mm)
Arbor Size	1” (25.4mm)

General Working Instructions

This information describes basic safety instructions for using the BNGS-710 Gas Cut-Off Saw. Follow these general working instructions, but do not use the gas cut-off saw in a situation where you cannot summon help if needed.

Steps before using a new gas saw

- Read this Operator's Manual carefully.
- Check the assembly and adjustment of the cutting blade, see chapter "Assembly".
- Start the engine and check the carburetor settings. See chapter "Maintenance", section "Carburetor".

WARNING!

A gas cut-off saw is by it's very nature a dangerous tool if used carelessly or incorrectly and can cause serious, even fatal injuries. It is extremely important that you read and understand this manual. The use of products that cut, grind or shape material can generate dust and vapors which may contain harmful chemicals. Under no circumstances should you modify the original design of this tool without approval from the manufacturer.

Always use authorized spare parts; unauthorized modifications or accessories may lead to serious injury or death. The safety distance for the gas saw is 50 feet (15 meters). You are responsible for ensuring that animals and onlookers are not in the working area. Do not start your work with the tool before the work area is clear and you have a firm footing.

Note! Never use the machine when you are tired, under the influence of medicines, drugs or alcohol. Never use any machine beyond your capability. Never use the cut-off saw indoors. Be aware of the dangers of inhaling the engine's exhaust fumes.

Note! Do not lend out the Gas cut-off saw without including this Operator's Manual. Ensure that the person who intends to use the gas saw understands the information in the Operator's Manual. A gas saw is designed to cut hard materials such as concrete, stone, steel and iron. Observe the increased risk of kickback when cutting soft materials. Stop the blade while at idling speed. Never use the gas saw until it has been correctly adjusted. Never use a gas saw with defective safety components.

The gas saw's safety equipment must be checked and maintained as described in this manual. If your gas saw fails any of these checks contact your service workshop to get it repaired.

You will find the following label on your gas saw:

PLEASE READ IT!

PERSONAL PROTECTIVE EQUIPMENT

WARNING!

You must wear protective equipment whenever you use a gas cut-off saw. Personal protective equipment does not eliminate the risk of accidents; however, it can reduce the effects of an injury in the event of an accident. This includes protective helmet, ear protection, protective glasses or full face protection, breathing mask, heavy-duty firm grip protective gloves, snug-fitting, heavy-duty, comfortable clothing that allows full freedom of movements, leg protection (to protect against sparks and cutting fragments) and anti-slip boots with steel toe caps. A first aid kit should always be on hand.

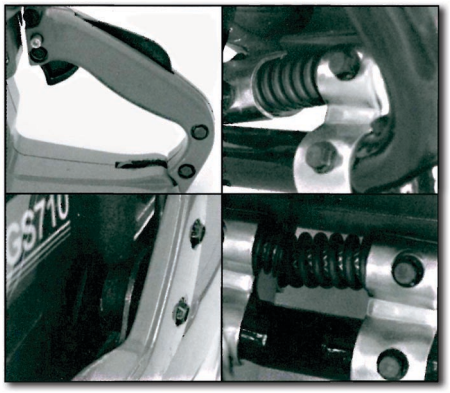
THE GAS CUT-OFF SAW'S SAFETY EQUIPMENT

This section explains the various safety features of the gas saw, how they work and basic inspection and maintenance that you should carry out to ensure safe operation. (See the "specifications" section to find out where these components are on your gas cut-off saw).

Warning! Never use a gas saw with defective safety components. All service and repair work on the gas cut-off saw demands special training. This is especially true of the gas cut-off saw's safety equipment. If your gas saw fails any of the checks described below, take it to your service workshop. When you buy any of our products we guarantee the availability of professional repairs and service.

Anti-Vibration System Note

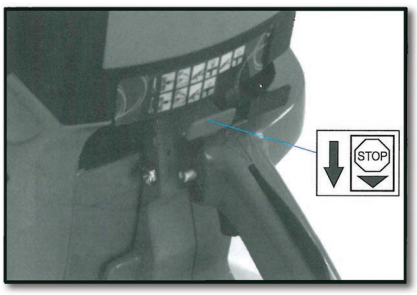
Over exposure to vibrations can result in blood vessel or nerve injury to persons suffering with blood circulation problems. Seek medical attention if you experience physical symptoms that can be related to over exposure to vibrations. Examples of such symptoms are numbness, lack of feeling, "tickling", pricking", lack of pain or a reduction in normal strength and changes in the color of the skin or its surfaces.



These symptoms normally appear in the fingers, hands or wrists. Your gas saw is equipped with a vibration damping system. This is designed to give as low vibration levels and comfortable usage as possible. The vibration damping system reduces the vibrations transmitted from the engine and blade to the handles of the gas saw. The engine body, including the cutting equipment, is suspended in a handle system via anti-vibration elements.

Inspection

Check the anti-vibration elements regularly for material cracks and deformation. Check that the anti-vibration elements are securely mounted between the engine unit and the handle system.



Stop Switch

The stop switch should be used to stop the engine. Start the engine and make sure that the engine stops when the stop switch is moved to the stop position.

Exhaust

Warning! The exhaust gets very hot during use and remains so for a short time afterwards. Do not touch a hot exhaust unit. The exhaust is designed to give the lowest possible noise level and to direct the engine's exhaust fumes away from the user. The engine's exhaust fumes are hot and can contain sparks, which can lead to the outbreak of fire. Never use a gas cut-off saw that has a faulty exhaust. Check regularly that the exhaust unit is secured to the engine body.

Note! It is important that the instructions for checking, maintaining and servicing the exhaust are followed.

Blade Guard For The Cutting Blade

Warning! Always check that the blade guard is correctly fitted before starting the machine. This guard is fitted above the cutting blade and is designed to prevent parts of the blade or cutting fragments from being thrown towards the user. Check that the cutting blade is fitted correctly and does not show signs of damage. A damaged cutting blade can cause personal injury.

Transport and Storage

Store the gas cut-off saw in a lockable area so that it is out of reach of children and unauthorized persons. Do not store or transport the gas cut-off saw with the cutting blade fitted.

Fuel Safety

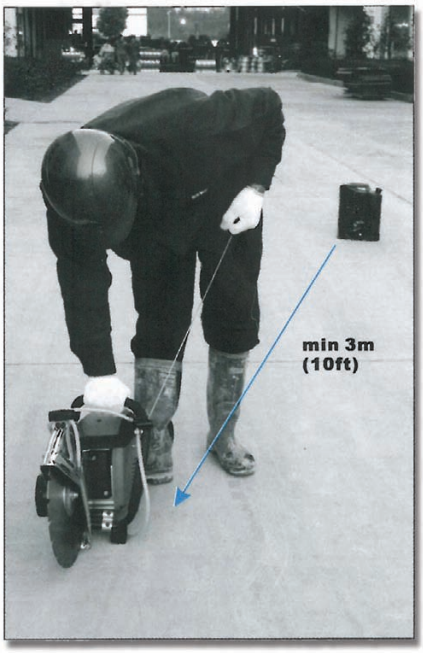
(Filling/fuel mixture/storage)

Warning! Exercise great care when handling fuel. Bear in mind the risk of fire, explosions and inhaling fumes. Never fill the gas cut-off saw while the engine is running. (Gasoline and 2-stroke oil.) Move the gas saw at least 3meters from the refueling point before starting it. Never start the gas cut-off saw if you have split fuel on the saw itself, on yourself or your clothing, or if there is a fuel leak. Make regular checks for leakage from the fuel cap and the fuel supply pipes.

Always store the gas cut-off saw and fuel so that any leakage or vapors do not risk coming into contact with sparks or naked flames. For example, electrical machines, electric motors, relays, switches, boilers, etc. When storing fuel, approved containers intended for this purpose must be used.

The fuel tank should be emptied when storing the gas saw for long periods. Contact your local fuel station to find out how to dispose of excess fuel.

Warning! Fuel and fuel fumes are highly flammable. Think of the risks of fire, explosion and inhaling fumes. Stop the engine before refueling. Do not overfill with fuel. Mop up any spills on the ground or the machine. If you spill fuel or oil on yourself or on your clothing, change your clothes. Move the machine at least 3 meters from the refueling site before starting.



Warning! Only use the machine in areas with good ventilation. Carbon monoxide in the exhaust fumes causes suffocation.

Cutting

Check that no one is in the immediate vicinity when the machine is started or while working with the machine to ensure that people, animals or other things cannot affect your control of the gas saw. Avoid usage in unfavorable weather conditions; for example, thick fog, heavy rain, strong wind or extreme cold, etc. To work in bad weather conditions is tiring and can create dangerous circumstances, e.g. slippery surfaces. Never start to work with the gas saw before the working area is clear and you have a firm foothold. Look for any obstacles with unexpected movement. Ensure when cutting that no material can become loose and fall, causing operating injury. Take great care when working on sloping ground. Make sure clothing and parts of the body do not come into contact with the cutting blade when the engine is started. Maintain a safe distance from the cutting blade when the engine is running. The blade guard should always be fitted when the engine is running. Ensure that the working area is sufficiently illuminated to create a safe working environment.

Do not move the gas cut-off saw with the blade rotating. Some working positions may create greater stress on the operator. Make sure that no pipes or electrical cables are routed in the area.

Cutting Technique

The technique described below is of a general character. Check information for each blade regarding individual cutting characteristics (for example, a diamond blade requires less feeding pressure than an abrasive disc).

1. Support the work piece in such a way that you can predict what will happen and so it will not pinch.
2. Always cut at full throttle.
3. Start cutting gently. Do not force or squeeze the blade in.
4. Use a high blade speed.
5. Move the blade slowly backwards and forwards.
6. Only use the blade's cutting edge when cutting.
7. Cut with the blade fully vertical - at right angles to the work piece.

Warning! Under all circumstances avoid cutting using the side of the blade; it will almost certainly break and/or cause immense damage.

Warning! Do not pull the gas cut-off saw to one side; this can cause the blade to jam or break, resulting in injury to people.

Water Cooling

Water cooling, which is only used on gas cutters and when cutting concrete, cools the blade and increases its service life as well as reducing dust.

Diamond Blades

Diamond blades can become dull when the wrong feeding pressure is used or when cutting certain materials such as heavily reinforced concrete. Working with a dull blade causes overheating and finally the loss of a segment.

Abrasive Discs

Water is not used for metal abrasive discs. Abrasive discs can become uneven and cause damage if they are stored in moist conditions.

Blade Vibration

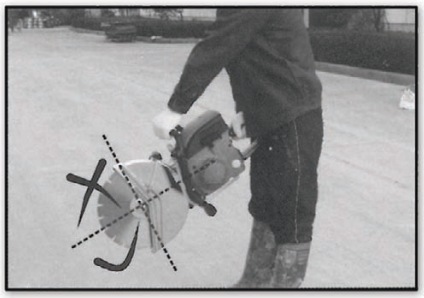
The blade can become out of shape and vibrate if too high feeding pressure is used or if the blade is pressed into the work piece. A lower feeding pressure should stop the vibration. Otherwise, replace the cutting blade.

KICKBACK AND HOW TO AVOID KICKBACK

Kickback can occur very suddenly and with great force. If the following directions are not followed, serious or even fatal injury can occur.

How To Avoid Kickback

1. Never cut with the segment area illustrated in the diagram with an X.



2. Keep a good balance and a firm foothold.
3. Use both hands and take a firm grip with the thumb and fingers around the handle.
4. Stand at a comfortable distance from the work piece.
5. Run the gas at full throttle.
6. Take care when inserting the blade in an existing cut.
7. Never cut above shoulder height.
8. Be alert to movement of the work piece or anything else that can occur which could cause the cut to close.

Pinching/Pull in

Pull in occurs when the lower part of the blade is suddenly stopped or when the cut closes. Pinching occurs when the cut closes. The gas cut-off saw can be pulled down suddenly with a very powerful movement.

How to avoid pinching

Support the work piece in such a way that the cut remains open during the cutting operation and when the cut is finished it does not trap the blade.

Check the speed of the drive shaft

Use a tachometer regularly to check the speed of the drive axle at full throttle and without a load. The maximum speed is stated on the machine.

Warning! The machine must be adjusted by an authorized service workshop before it may be used if the speed is higher than that stated on the tool.

CARE AND STORAGE

Gas Saw

Always handle the gas saw carefully and store it with the blade removed.

Cutting Blades

All blades should be removed from the cutter after use and carefully stored in dry conditions. Special care should be taken with abrasive discs. Abrasive discs must be stored on a flat, level surface. If blades are supplied with a backing pad, a spacer should be used to keep them flat. Remove the blade before the gas cut-off saw is moved or transported. Inspect new blades for transport or storage damage.

Warning! A cutting blade may fail and cause injury to the operator. Never use a cutting blade with a lower speed rating than that of the gas cut-off saw. Never use a cutting blade for any other purpose than it was intended. Cutting blades are available in two standard designs: abrasive discs and diamond blades. Our cutting blades are manufactured for a high-speed portable gas cut-off saw. If blades from other manufacturers are used, ensure that the blades conform to all regulations and demands that concern this type of gas cut-off saw. Always contact local authorities and make sure you are following applicable directives.

Blade Examination

Ensure the blade is packed correctly and safely. Test the abrasive disc by hitting it lightly with a piece of wood. If the blade does not give a full sounding ring then it is damaged. Never use a blade that has fallen on the floor.

NOTE! Plastic reducing bushes may only be used with abrasive discs. Do not use reducing bushes with diamond blades or tungsten carbide blades. We recommend that the spindle is replaced so that it fits the blades to be used rather than using a reducing bush.

DIAMOND BLADES

Diamond blades consist of a steel body with segments that contain industrial diamonds.

Warning! Cool diamond blades continuously with water to prevent overheating that can cause the blade to break and cause injury and damage from debris.

Using Diamond Blades

- Proceed as follows:
- Let the cutting blades rotate in the same direction as the arrow markings indicate
- Cool continually with water
- Keep the cutting blade sharp
- Remove the cutting blade when the machine is transported.

Avoid:

- Running the cutting blade in the wrong direction
- Forcing a dull blade or wedging the blade into a cut
- Transporting the gas saw with the blade fitted
- Letting the blade fall on the work piece.

Diamond Blades for Dry Cutting

Diamond blades for dry cutting are a new generation of blades that do not require water cooling. However, the blades are still damaged by excessive heat. It is good economics to let the blade cool by simply lifting the blade from the cut every 30 – 60 seconds and let it rotate in the air for 10 seconds to cool.

Checking the Drive Shaft and Flanges:

- Check that the drive shaft is undamaged
- Check that the contact surfaces of the cutting blades and flanges are flat, run correctly on the spindle and are free from foreign objects.
- Do not use flanges that are twisted, have damaged edges, are untrue or dirty. Do not use different size flanges.

Fitting the Cutting Blade

The blade is placed between the inner flange hub and the flange hub. The flange hub is turned so that it fits on the axle. The shaft can be locked using a screwdriver, steel pin or other instrument. The blade is tightened clockwise. Tightening torque for the bolt holding the blade is 15-25Nm (130-215 in. lb.)

Blade Guard

Check blade guard for cracks or other damage. Clean inside of guard before installing new wheel. Check that guard can be adjusted and locked.

The Blade Guard should always be fitted on the Gas Cut-off Saw. The guard should be adjusted so that the rear section is close to the work piece. Cutting fragments and sparks are then collected by the guard and led away from the user.

Fuel Mix

For the first 10 hours use ONLY fuel mix of 25:1 to run in the engine, thereafter, 50:1.

Note! The gas cut-off saw is equipped with a two stroke engine and must always be run using a mixture of gas and two-stroke engine oil. It is important to accurately measure the amount of oil to be mixed to ensure that the correct mixture is obtained. When mixing small amounts of fuel, even small inaccuracies can drastically affect the ratio of the mixture.

Warning! Always provide for good ventilation when handling fuel.

Gas

Use good quality unleaded or leaded gas. The lowest octane recommended is 90. If you run the engine on a lower octane grade than 90, so called “knocking” can occur. This gives rise to a high engine temperature, which can result in serious engine damage.

Two-stroke Oil

You can use two-stroke oil of good quality that is intended for air cooled engines. Contact your dealer when selecting an oil. Follow the manufacturer’s recommended mixing ratio. Mixing ratio is 1:50. Never use oil intended for four-stroke engines.

Mixing

Always mix the gas and oil in a clean container intended for fuel. Always start by filing half the amount of the gas to be used, then add the entire amount of oil. Mix (shake) the fuel mixture. Add the remaining amount of gas. Mix the fuel mixture thoroughly before filling the saw’s fuel tank. Do not mix more than a maximum of one month’s supply of fuel at a time. If the gas cut-off saw is not used for some time, the fuel tank should be emptied and cleaned.

Fueling

Warning! The following precautions reduce the risk of fire:

- Do not smoke or place any sources of heat in the vicinity of the fuel.
- Always move the gas cut-off saw away from the fueling area before starting.
- Never refuel when the engine is running.
- Open the fuel cap slowly when fueling so that any over pressure is released slowly.
- Tighten the fuel cap carefully after refueling.
- Keep the handle dry, clean and free from oil and fuel. Clean around the fuel cap after fueling. Clean the fuel tank regularly. The fuel in the tank should be changed at least once per year. Contamination in the tank can disrupt operations. Ensure that the fuel is well mixed by shaking the container before filling the tank.
- Always exercise care when filling the tank. Move the gas cut-off saw at least three meters from the fueling area before it is started. Make sure the fuel cap is tightened.

Warning! Before starting, observe the following: Do not start the gas saw without the cutting arm, belt or cutting head fitted: otherwise the clutch can come loose and cause personal injury. Always move the gas saw from the fueling area before starting. Ensure that you and the machine stand firmly and that the cutting blade rotates freely. Make sure no unauthorized persons are within the working area. Disconnect the power to the machine after finishing work.

Starting a Cold Engine

1. Slide the stop switch to the run position.
2. Pull out the choke lever.
3. Press in the throttle control and thereafter the starter throttle catch. Release the throttle control. The throttle is locked in half-throttle position. The catch is released when the throttle control is pressed in all the way.
4. Press in the decompression valve to reduce the pressure in the cylinder. This will assist the starting of the gas cut-off saw. The decompression valve should always be used when starting the gas cut-off saw. When the machine has started, the valve automatically returns to its original position.
5. Take hold of the front handle using your left hand. Put your right foot on the lower section of the rear handle, pressing the gas cut-off saw against the ground.
6. Grip the starter cord with your right hand and slowly pull the starter cord towards you. You will notice some resistance. Pull sharply and repeat, if necessary.

   Note! Do not pull out the starter cord completely and do not release the starter handle from the fully extended position. This can damage the gas cut-off saw.
7. Press forward the choke control immediately when the engine fires and try again.

When the engine starts, quickly apply full throttle and the starter throttle catch will automatically disengage.

Starting a Warm Engine

Use the same procedure as starting a cold engine but do not use the choke.

Warning! The cutting blade can rotate when the engine starts. Make sure it can rotate freely.

Stopping the Engine

The engine is stopped by switching off the ignition (press the stop switch down into the stop position).

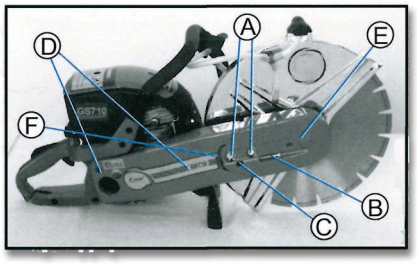
Adjusting the Drive Belt

The drive belt is enclosed and protected from dust, dirt and mechanical damage when cutting. Loosen the two bolts (A). Turn the tensioning screw (B) so that the nut (C) is located directly under the arrow on the cover. Shake the head to ensure the spring can tension the belt. The belt now automatically has the right tension. Tighten the two bolts (A).

Note! A new drive belt should be tensioned after using one or two tanks of fuel.

Changing the Drive Belt

Turn the tensioning screw (B) until the tension has been released. Remove the two bolts (A). Remove the front belt cover (E). Remove the belt from the pulley. Dismantle the cutting head. Loose the bolt (D) and remove the back belt cover (F). Replace the drive belt. To assemble, reverse the procedure for dismantling. Check the blade guard for signs of cracking or other damage, replacing it if damaged.



Warning! Never use the gas cut-off saw without the blade guard fitted over the cutting blade.

Belt Pulley and Clutch

Never start the engine when the belt pulley and clutch are removed for maintenance.

Carburetor

After your unit has run 8-10 tanks of fuel, the engine is broken in. To ensure that your unit is at peak performance and producing the least amount of harmful emissions after break in, have your authorized servicing dealer (who has a revolution counter at his disposal) check your carburetor for optimum operating conditions. The carburetor governs the engine speed via the throttle. Air and fuel are mixed in the carburetor. The carburetor is equipped with fixed jets to ensure the engine always receives the correct fuel/air mixture. If the engine lacks power or accelerates poorly, do the following:

1. Inspector, if necessary, replaces the air filter.
2. If this does not help, contact an authorized service workshop.

Final Setting of the Idling Speed

Adjust the idling speed with the screw (T). Turn (T) clockwise to speed up and counter-clockwise to speed down. A correctly adjusted idle speed setting occurs when the engine runs smoothly in every position. Idling speed should be in a certain range. Recommended idling speed is 2500 rpm.

Warning! Stop the blade while at idling speed. Contact your servicing dealer if the idle speed setting cannot be adjusted so that the blade stops. Never use the gas cut-off saw until it has been correctly adjusted or repaired.

Fuel Filter

The fuel filter sits inside the fuel tank. The fuel tank must be protected from contamination when filling to avoid the blocking of the fuel filter. The filter cannot be cleaned. It must be replaced with a new filter when it is blocked. The filter should be changed at least once per year.

Air Filter

The air filter should be cleaned regularly, removing dust and dirt to avoid:

- Carburetor malfunction
- Starting problems
- Reduced engine power
- Unnecessary wear to engine parts

The air filter system consists of a main filter and a back-up filter. The main filter is an oiled foam rubber filter that is easily accessible under the filter cover. This filter should be inspected/replaced after every other lulling. In order to obtain good filtering effect, the filter must be inspected/replaced regularly, or cleaned.

- Remove the filter. Wash the filter carefully in tepid soapy water. After cleaning, rinse the filter thoroughly in clean water. Squeeze out the filter and let the filter dry.
- Note! Compressed air at a high pressure can damage the foam.
- Oil the filter carefully. It is extremely important that the entire filter is saturated in oil.
- A foam rubber filter that has been washed many times wears. Replace with a new filter if it is not elastic and does not seal well against the filter cover.
- The back-up filter is a paper filter and is accessible under the cover. This filter should be replaced/cleaned when the engine power drops. The filter is cleaned by shaking or carefully using compressed air.

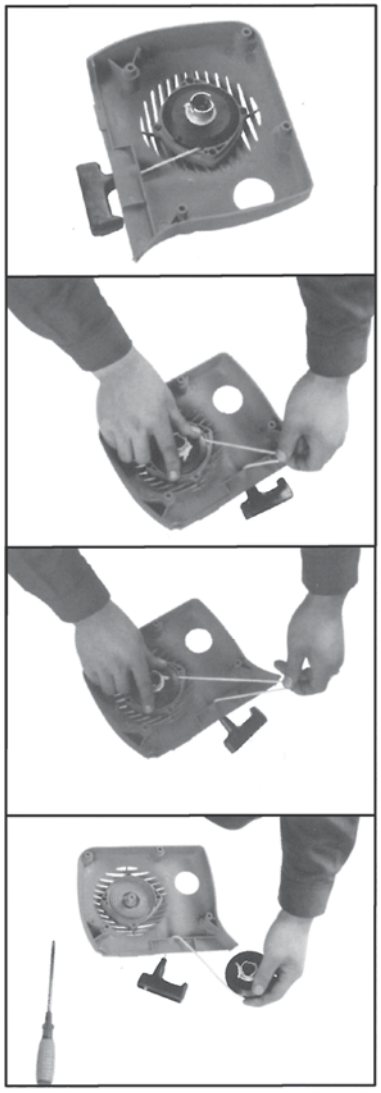
Note! The air filter (5) must not be washed!
Important! When replacing or cleaning the main air filter, make sure it is installed in the proper direction.
(See diagram on page 14)

A filter used for a long period of time can never be completely cleaned; therefore, all air filters must be replaced periodically with a new filter. A damaged air filter must always be replaced.

Warning! The recoil spring sits in its tensioned position in the starter housing and can, with careless handling, fly out and cause personal injury. When replacing the recoil spring or the starter cord, great care should be exercised. Always wear protective glasses.

Replacing a Broken or Worn Starter Cord

Loosen the filter cover and cylinder cover. Loosen the bolts that hold the starter against the crank case and lift off the starter unit. Pull out the cord approximately 30cm and lift it out of the cut-out in the starter pulley's periphery. Reset the recoil spring by allowing the pulley to slowly rotate backwards. Loosen the screw in the center of the starter pulley. Fit the pulley on the recoil spring so that the end of the recoil spring hooks on the pulley. Fit the screw in the center of the pulley. Thread the starter cord through the hole in the starter housing and the starter handle. Tie a good knot on the end of the cord.



Tensioning the Recoil Spring

Lift up the starter cord from the cut-out on the pulley and turn the pulley approximately 2 turns clockwise.

Note! Ensure the starter pulley can be turned at least an inch further when the starter cord is fully extended.

Replacing a Broken Recoil Spring

Lift the starter pulley (see "Changing a Broken or Worn Starter Cord"). Loosen the screws holding the spring cassette. Disassemble the recoil spring by tapping the pulley lightly against a working bench or similar. Lubricate the recoil spring with thin oil. If the spring pops out when assembling, it should be mounted again - out and in towards the center. Assemble the starter pulley, tension and recoil spring.

Fitting the Starter

Fit the starter by first pulling out the starter cord and then placing the starter in position on the crank case. Now slowly release the starter cord so that the pawls grip in the pulley. Tighten the screws that hold the starter.

Spark Plug

Note! Deposits on the spark plug may result in abnormal wear and tear. The condition of the spark plug is affected by:

- An incorrect carburetor setting
- An incorrect fuel mixture (too much oil).

A Dirty Air Filter

These factors cause deposits on the spark plug electrode that may result in manufacture or starting difficulties. If the machine is low on power or difficult to start, always check the spark plug first. If the spark plug is dirty, clean it and at the same time, check that the electrode gap is 0.5mm (.02"). The spark plug should be changed after about one month of operation (or earlier, if necessary).

Note! Always use the recommended type of spark plug (see chapter "Technical Data"). An incorrect spark plug can damage the cylinder/piston.

Exhaust

The exhaust is designed to reduce the noise level and to direct the exhaust gasses away from the operator. The exhaust gasses are hot and can contain sparks which may cause fire if directed against dry and combustible material. Never us a gas cut-off saw with a defective exhaust.

Cooling System

To obtain the lowest possible running temperature, the gas cut-off saw is equipped with a cooling system. The cooling system consists of cooling fins on the cylinder

- An air intake on the starter unit
- Air flow guide
- Cooling fins on the flywheel
- Cooling fins on the cylinder
- Cylinder cover (lead cold air onto the cylinder)

Clean the cooling system using a brush at least once a week or more often in difficult conditions.

Maintenance

Some general maintenance instructions listed below. If you need further information, please contact your service center.

Daily Maintenance

1. Check that throttle components work correctly from a safe viewpoint (throttle and starter throttle catch).
2. Clean the outside of the gas cut-off saw.
3. Check the tension of the drive belt.
4. Check the condition of the cutting blade.
5. Check the condition of the blade guide.
6. Check the starter and the starter cord: clean the outside of the starter's air intake.
7. Check that all nuts and bolts are tightened correctly.
8. Check the function of the stop switch
9. Check and clean the filter.

Weekly Maintenance

1. Check the back-up filter.
2. Check that the handles and the anti-vibration elements are not damaged.
3. Clean the spark plug. Check that the electrode gap is 0.5mm.
4. Clean the cooling fins on the fly wheel. Check the starter and recoil spring.
5. Clean the cooling fins on the cylinder.
6. Check the muffler.
7. Check the carburetor function.

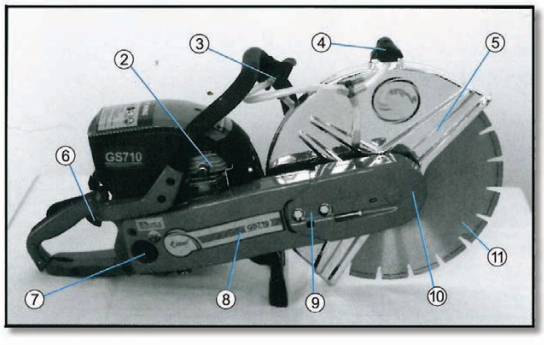
Monthly Maintenance

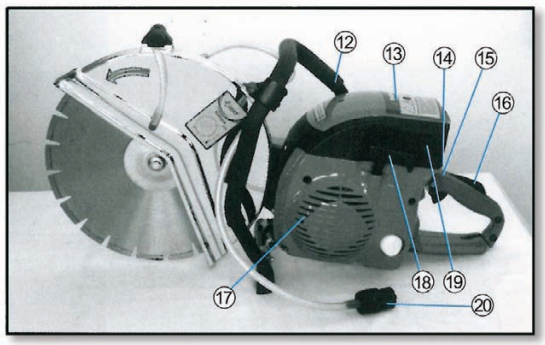
1. Check the clutch drum, drive-pulley and clutch springs for wear.
2. Clean the outside of the carburetor.
3. Clean the fuel filter and fuel hose: change if necessary.
4. Clean the inside of the fuel tank.
5. Check all cables and connections.

Specifications for fitting blades	
Standard blades center hole (spindle)	20 25.4 (mm)
Reducing bush	Max thickness: Blade thickness Min. thickness: 3mm (1/8 inches)
Backing (must be used)	Material: highly compressible, e.g. blotting paper Max. thickness 0.5 mm
Spindle hole / drive shaft	Play 0.2 mm
Flange tightening	The bolt is tightened to 15 – 25Nm
Blade/guard	Check that the blade runs free of the guard.

Abrasive Discs – Types and Uses

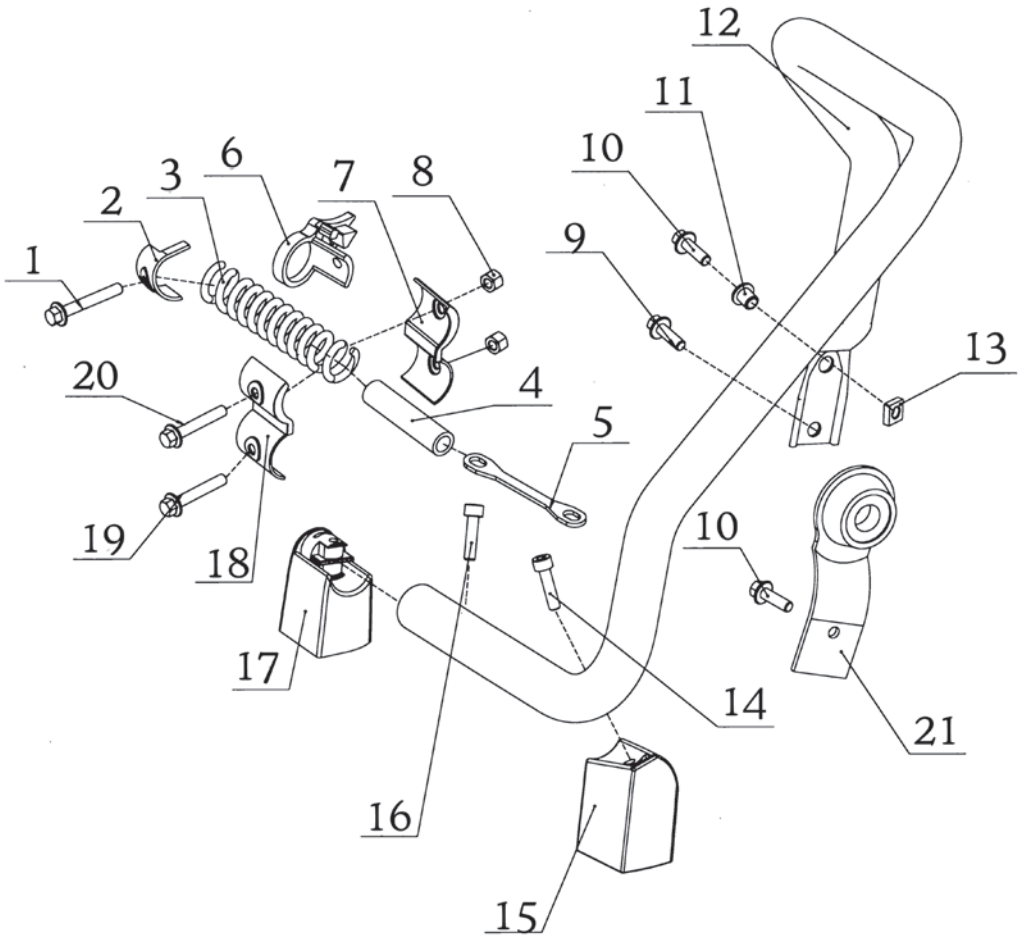
Blade type	USE		
	General Characteristics	Material	Water Cooling
Concrete	Universal usage, economical	Concrete, asphalt, stone, brickwork, cast iron, aluminum, copper, brass, cables, rubber, etc.	Can be used to reduce dust. The disc should not be stored after cutting is complete as water affects the strength of the disc while stored.
Metal	Unbeatable for steel (not suitable for concrete, etc.)	Steel, steel alloys and other hard metals.	NOT recommended
Diamond general characteristics			
Diamond Blade	General Characteristics	Material	Water Cooling
	Low cost per cutting operation. Fewer blade changes. Constant cutting depth. Less dust	All brickwork, reinforces concrete and other composite material. NOT recommended for metal.	Increases the blade's service life.





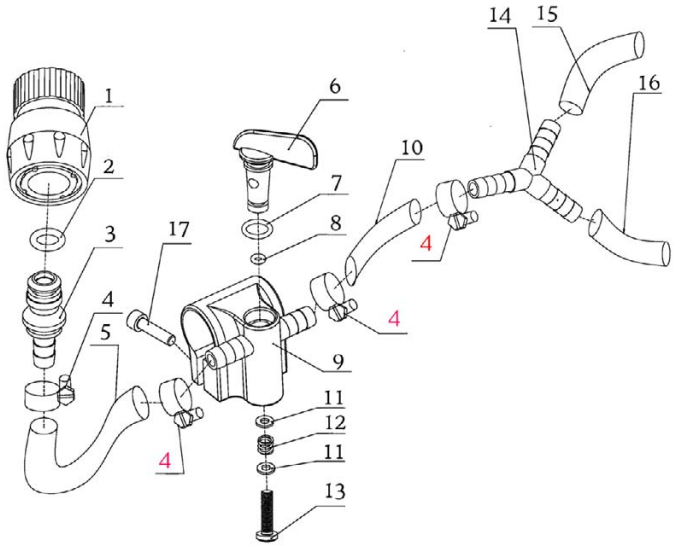
Specifications

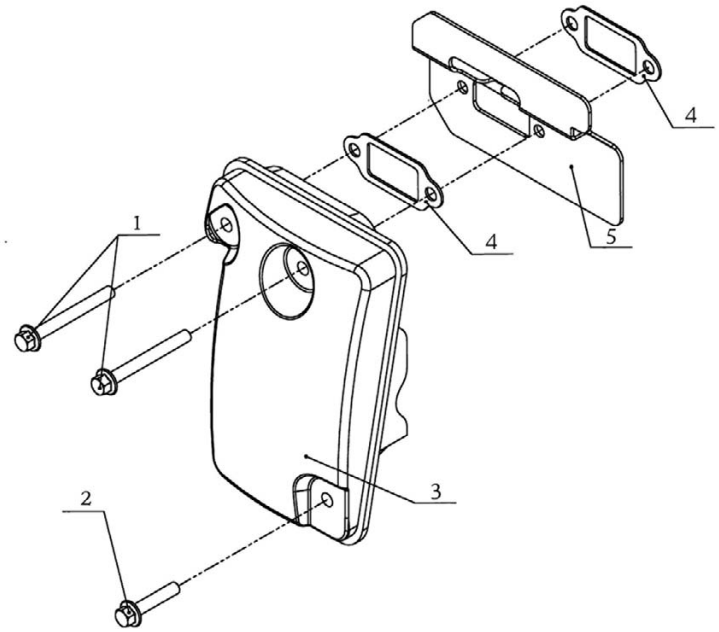
1. Operator's manual
2. Decompression valve
3. Water valve
4. Adjustment Handle
5. Blade guard
6. Throttle control
7. Fuel tank
8. Cutting arm
9. Belt tensioning screw
10. Cutting
11. Cutting blade
12. Front handle
13. Air filter cover
14. Choke
15. Stop switch
16. Throttle trigger lockout
17. Starter
18. Starter handle
19. Cylinder cover
20. Starter throttle catch



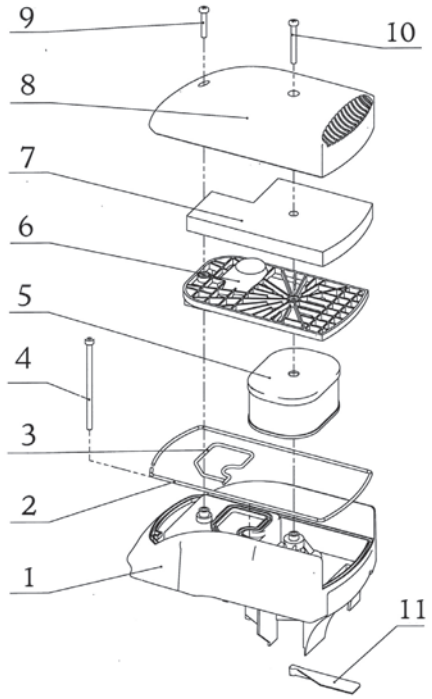
GS710 Handle, Stand and Shock Absorber			
No.	PART No..	NAME	QTY
1	GS710-006	HEX CAP BOLT M5x38	1
2	GS710-03003	SPRINGMOUNT	1
3	GS710-03004	SPRING	1
4	GS710-03005	SPRING PIPE	1
5	GS710-03006	SPRING PIPE INSERT	1
6	GS710-10003	SPRING CAP	1
7	GS710-03007	SPRING MOUNT	1
8	GS710-025	ANTI LOOSE HEX NUT M5	2
9	GS710-002	ANTI LOOSE HEX BOLT M5x20	1
10	GS710-001	ANTI LOOSE-HEX-BOLT M5x16	2
11	GS710-03010	SOCKET WASHER	1
12	GS710-03009	HANDLE	1
13	GS710-024	SQUARE NUT	1
14	GS710-014	HEX SOCKET SCREW ST5.5x40 F	1
15	GS710-03001	HANDLE SUPPORT	1
16	GS710-013	HEX SOCKET SCREW ST5.5x25 F	1
17	GS710-03002	HANDLE SUPPORT	1
18	GS710-03008	SPRING MOUNT	1
19	GS710-036	ANTI LOOSE HEX CAP BOLT M5x32	1
20	GS710-005	ANTILOOSE HEX CAP BOLT M5x30	1
21	GS710-03100	SHOCK ABSORBER	1

GS710 Cooling System			
No.	PART NO.	NAME	QTY
1	GS710-11400	HOSE CONNECTOR OUTER	1
2	GS71 0-038	O-SEAL	1
3	GS710-11007	HOSE CONNECTOR INNER	1
4	GS710-11200	TIGHTENER	4
5	GS710-111006	WATER HOSE (530 LONG)	1
6	GS710-11100.02	SWITCH	1
7	GS710-039	0-SEAL	1
8	GS710-040	O-SEAL	1
9	GS710-11100.01	SWITCH BODY	1
10	GS710-11005	WATER HOSE (320 LONG)	1
11	GS710-030	WASHER 4	2
12	GS710-04006	SWITCH SPRING	1
13	GS710-018	BOLT ST3.5x16	1
14	GS710-11004	TRIANGULAR CONNECTOR	1
15	GS710-11003	WATER HOSE (290 LONG)	1
16	GS710-11001	WATER HOSE (60 LONG)	1
17	GS710-037	HEX SOCKET SCREW	2



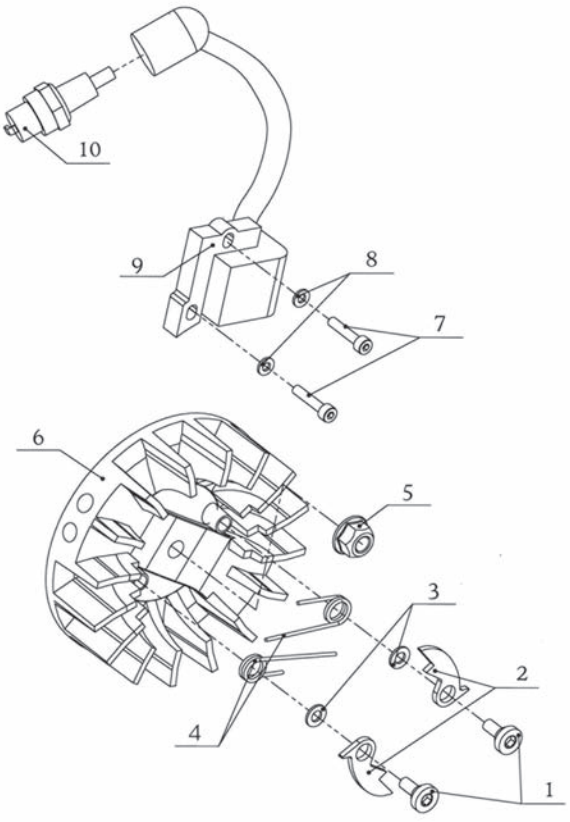


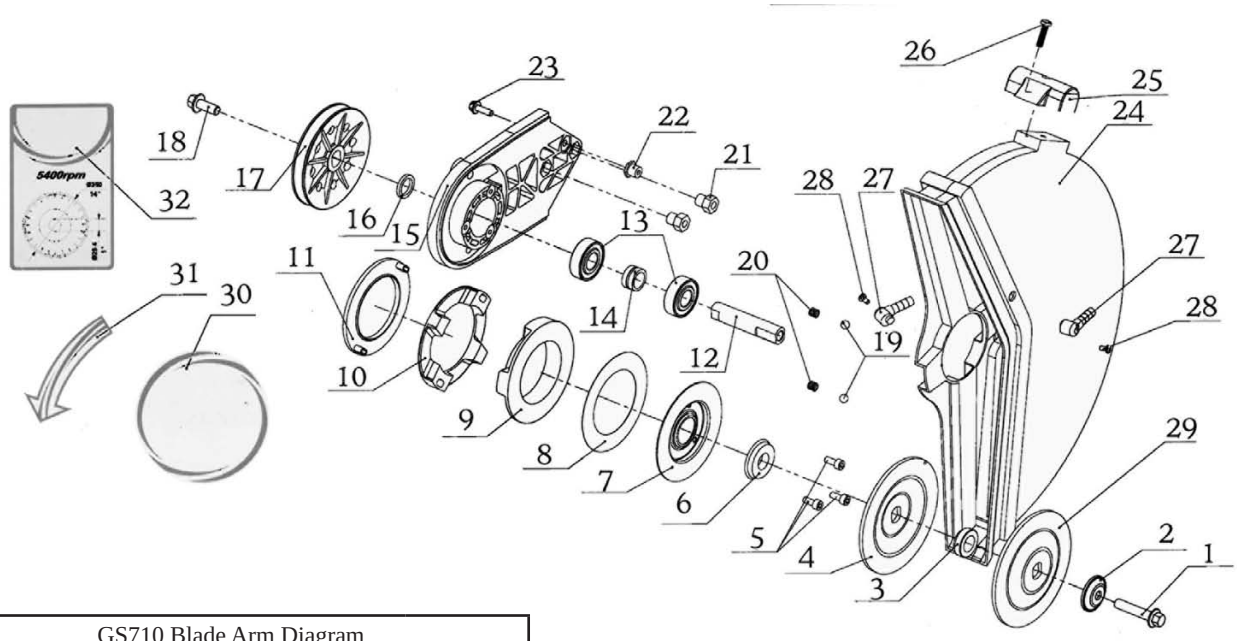
GS710 Exhaust System Diagram 2			
No.	PART No	NAME	QTY
1	E50F-001	HEX CAP BOLT M5*45	2
2	E50F-003	HEX CAP BOLT M5*25	1
3	E50F-09001	SILENCER	1
4	E50F-09002	GASKET	2
5	E50F-09003	DEFLECTOR	1



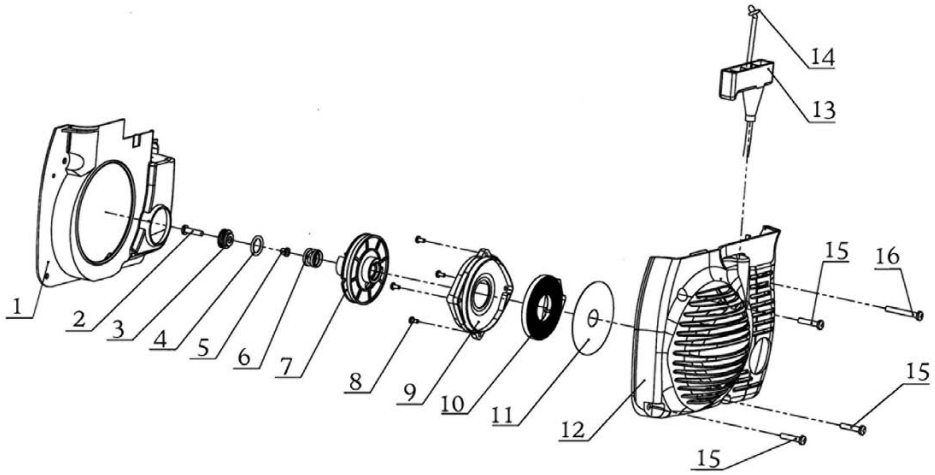
GS710 Air Filter System			
No.	PART No	NAME	QTY
1	GS710-05008	AIR FILTER BODY	1
2	GS71 0-05005	SEAL	1
3	GS71 0-05006	SEAL	1
4	GS710-011	HEX SOCKET SCREW M5x100	1
5	GS710-05100	PAPER AIR FILTER	1
6	GS710-05004	FILTER GUARD	1
7	GS710-05003	SPONGE-FILTER	1
8	GS710-05002	AIR FILTER COVER	1
9	GS710-022	ANTI LOOSE CROSS HEAD SCREW M5x 30	1
10	GS710-021	ANTI LOOSE CROSS HEAD SCREW M5x 40	1
11	GS710-10010	SPACER	1
12	GS710-05001	WARNING LABLE	1
13	GS710-05007	OPERATING LABLE	1
14	GS710-05010	DECOMPRESSION VALVE LABLE	1
15	GS710-05011	BRAND LABLE ON AIR FILTER BODY	1
16	GS690-05012	MODEL LABLE ON AIR FILTER BODY	1
16	GS710-05012	MODEL LABLE ON AIR FILTER BODY	1

GS710 Exhaust System Diagram 1			
No.	PART No	NAME	QTY
1	IE5OF-09011	HEX SOCKET BOLT	2
2	OE5OF-09010	REVERSE LOCK CLAMP	2
3	IE5OF-008	WASHER 5	2
4	IE5OF-09009	TORSION SPRING	2
5	IE5OF-007	COLLAR NUT M8*1	1
6	IE5OF-09008	FLYWHEEL	1
7	IE5OF-012	HEX SOCKET SCREW	2
8	IE5OF-011	WASHER 4	2
9	IE5OF-09019	COIL (LIMITED 9000-9200 RPM)	1
10	IE5OF-09018	SPARK PLUG BPMR7A (NGK)	1

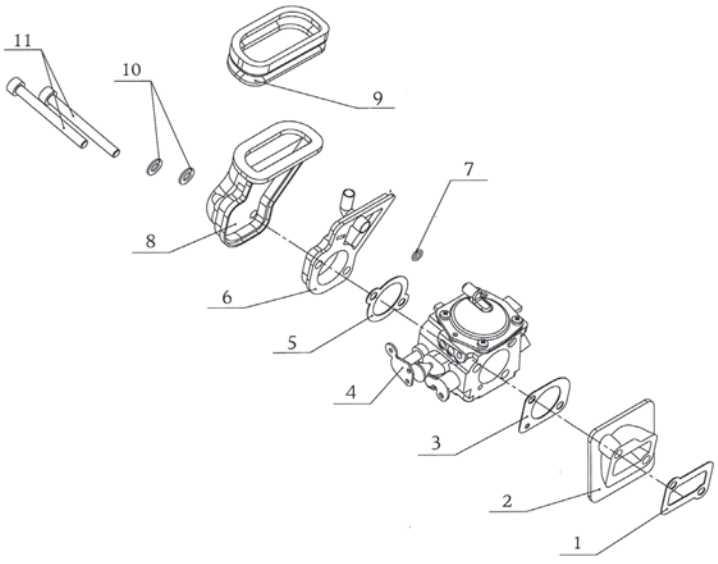




GS710 Blade Arm Diagram			
No.	PART No	NAME	QTY
1	GS710-009	HEX CAP BOLT M8x40	1
2	GS710-01020	CUP WASHER	1
3	GS710-01019.01	BLADE CENTER BUSHING	CHOOSE
3	GS710-01019.02	BLADE CENER BUSHING	CHOOSE
4	GS710-01018.02	BLADE HOLDER INNER	1
5	GS710-010	HEX SOCKET SCREW M5x12	3
6	GS710-01200	WATER SPRAY RING	1
7	GS710-01017	CAP	1
8	GS710-01016	STAINLESS STEEL RING	1
9	GS710-01015	FRONT WASHER	1
10	GS710-01014	REAR WASHER	1
11	GS710-01013	CAP	1
12	GS710-01010	DRIVING AXLE	1
13	GS710-028	BEARING	2
14	GS710-01009	SOCKET	1
15	GS710-01006	MAIN AXLE AS-SEMBLY	1
16	GS710-01008	WASHER	1
17	GS710-01100	PULLEY	1
18	GS710-008	HEX CAP BOLT M8x20	1
19	GS710-031	BALL 7	2
20	GS710-04006	SPRING	2
21	GS710-01004	NUT M8	2
22	GS710-01005	NUT M5	1
23	GS710-001	ANTI LOOSE HEX CAP BOLT	1
24	GS710-01011	BLADE GUARD	1
24	GS690-01011	BLADE GUARD	CHOOSE
24	GS730-01011	BLADE GUARD	CHOOSE
25	GS710-01003	BLADE GUARD ADJUSTER	1
26	GS710-020	ANTI LOOSE CROSS HEAD SCREW	1
27	GS710-11002	NOZEL SPRAY	2
28	GS710-015	CROSS HEAD SCREW ST2.9x10	2
29	GS710-01018.0	BLADE HOLDER OUTER	1
30	GS710-01021	BRAND LABLE	1
31	GS710-01022	ROTATION LABLE	1
32	GS710-01023	RPM LABLE	1
32	GS690-01023	RPM LABLE	CHOOSE

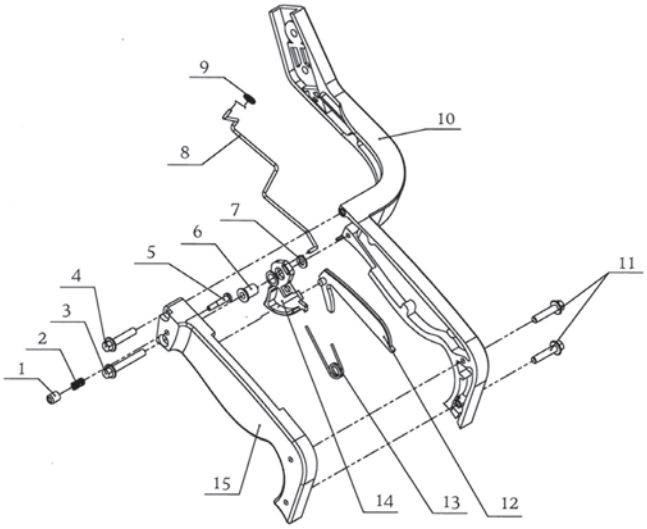


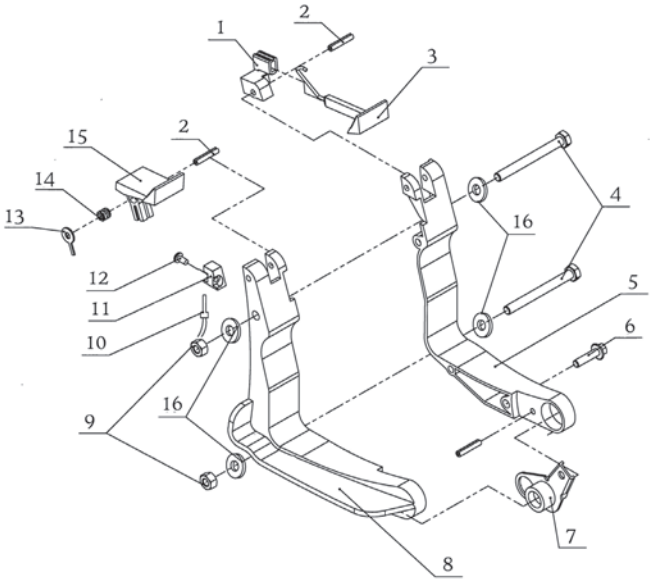
GS710 Starter Diagram			
No.	PART No	NAME	QTY
1	GS710-06001	AIR CONDUCTOR	1
2	GS710-019	CROSS SELF TAPPING SCREW ST4.8x20F	1
3	GS710-06002	WASHER	1
4	GS710-033	O-SEAL	1
5	GS710-06003	AXLE HOUSING	1
6	GS710-06004	SPRING	1
7	GS710-06100	STARTER SPOOL	1
8	GS710-017	CROSS SELF TAPPING SCREW ST3.5x12F	4
9	GS710-06005	STARTER BASE	1
10	GS710-06006	STARTER SPRING	1
11	GS710-06009	SPRING PLATE	1
12	GS710-06200	STARTER COVER	1
13	GS710-06007	STARTER HANDLE	1
14	GS710-06008	STARTER ROPE	1
15	GS710-020	ANTI LOOSE CROSS HEAD SCREW M5x25	3
16	GS710-021	ANTI LOOSE CROSS HEAD SCREW M5x40	1



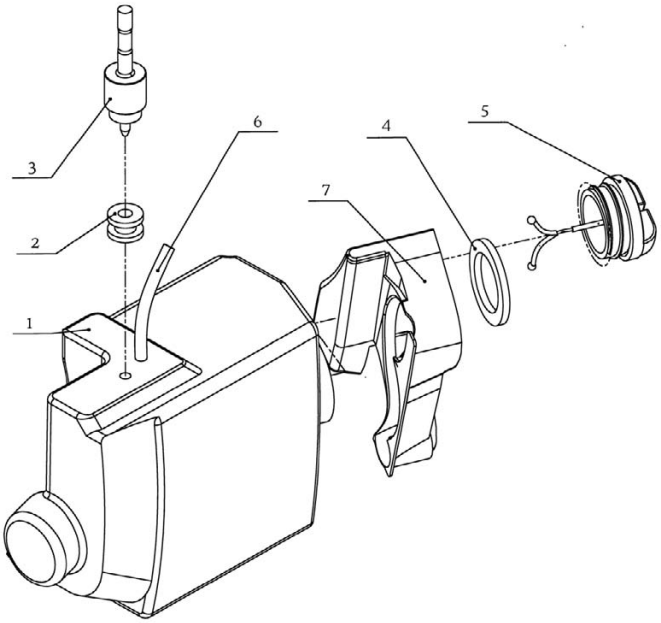
GS710 Carburetor Diagram			
No.	PART No	NAME	QTY
1	IE50F-09021	GASKET	1
2	IE50F-09022	INSULATION FLANGE	1
3	IE50F-09023	CARBURETOR GASKET	1
4	IE50F-09024	CARBURETOR	1
5	IE50F-09025	INTAKE GASKET	1
6	IE50F-09026	INTAKE PIPE BASE	1
7	IE50F-014	O-RING	1
8	IE50F-09027	INTAKE PIPE	1
9	IE50F-08001	INTAKE SEAL	1
10	IE50F-008	WASHER 5	2
11	IE50F-013	HEX SOCKET SCREW	2

GS710 Left, Right Handle Diagram			
No.	PART No	NAME	QTY
1	GS710-04100.02	PIN CAP	1
2	GS710-04100.03	SPRING	1
3	GS710-006	ANTI LOOSE HEX CAP BOLT M5x38	1
4	GS710-036	ANTI LOOSE HEX CAP BOLT M5x32	1
5	GS710-04100.01	START LOCK PIN	1
6	GS710-04008	TRIGGER AXLE HOUSING	1
7	GS710-029	SPACER	1
8	GS710-04011	DRAW BAR	1
9	GS710-04013	LOCK PIN	1
10	GS710-04001	THROTTLE HANDLE (RIGHT)	1
11	GS710-003	ANTI LOOSE HEX CAP BOLT M5x23	2
12	GS710-04003	TRIGGER LEVER LOCK	1
13	GS710-04002	TORSION SPRING	1
14	GS710-04009	TRIGGER	1
15	GS710-04004	THROTTLE HANDLE (LEFT)	1

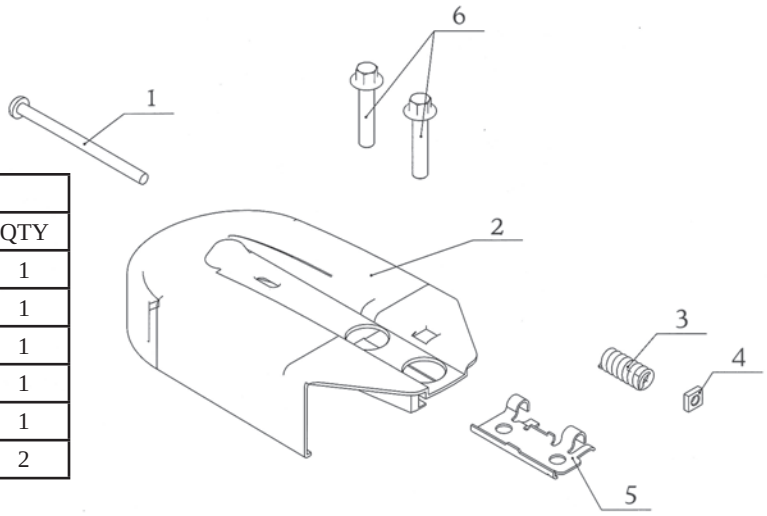




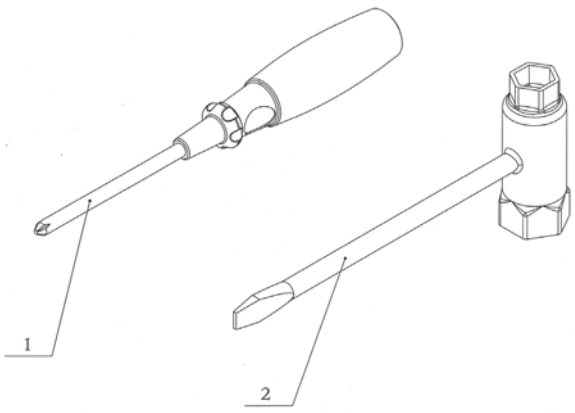
GS710 Left, Right Handle Base Diagram			
No.	PART No	NAME	QTY
1	GS710-04012	CHOKE HOLDER	1
2	GS710-027	PIN 4x24	3
3	GS710-04300	CHOKE LEVER	1
4	GS710-007	HEX BOLT M6x60	2
5	GS710-04010	HANDLE - RIGHT	1
6	GS710-004	ANTI LOOSE HEX BOLT M5x25	1
7	GS710-04200	HANDLE SHOCK ABSORBER	1
8	GS710-04015	HANDLE - LEFT	1
9	GS710-026	ANTI LOOSE NUT M6	2
10	GS710-07100	SHUT OFF WIRE	1
11	GS710-04014	WIRE STAND	1
12	GS710-017	SCREW ST3.5-12	1
13	GS710-04005	SWITCH RELAY	1
14	GS710-04006	SWITCH SPRING	1
15	GS710-04007	SHUT OFF SWITCH	1
16	GS710-012	WASHER 6	4



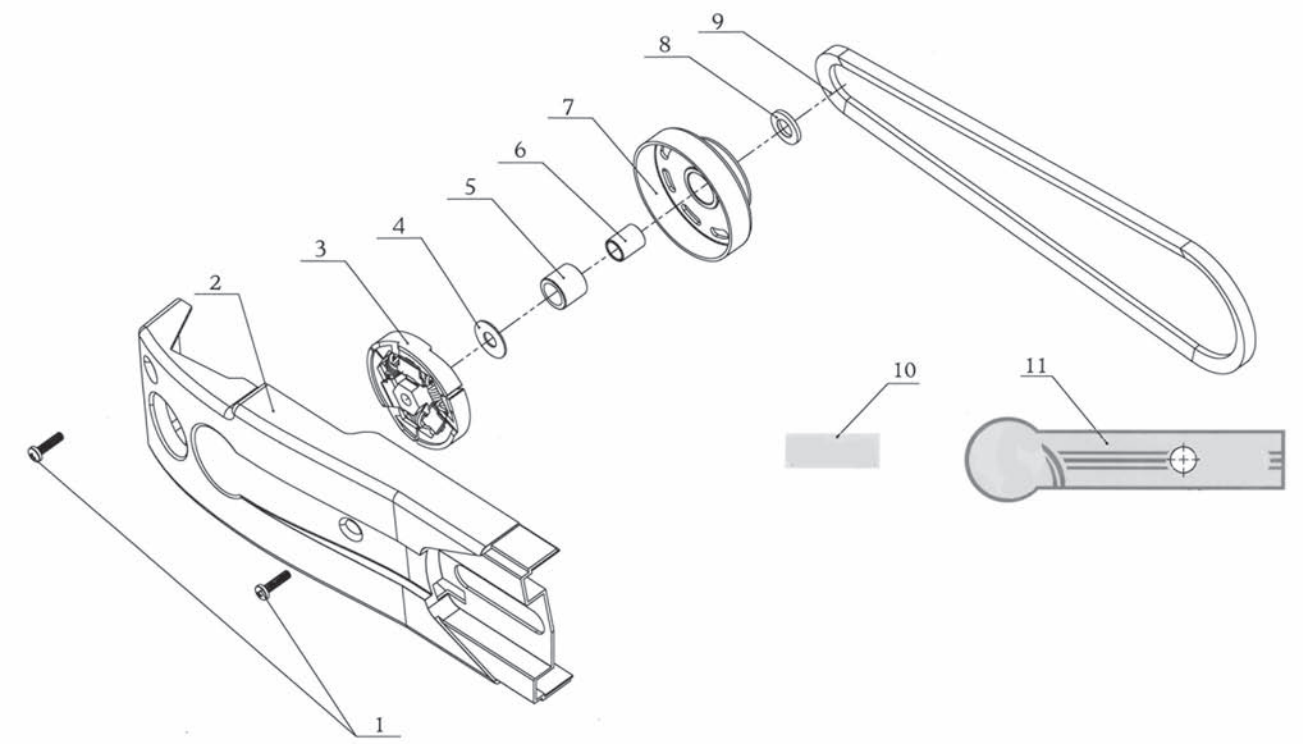
GS71- Fuel Tank Diagram			
No.	PART No	NAME	QTY
1	IE0F-09032	FUEL TANK	1
2	IE50F-09031	AIR INTAKE SEAL	1
3	IE50F-09030	AIR VENT ASSEMBLY	1
4	IE50F-09034	OIL SEAL	1
5	IE50F-09033	FUEL TANK CAP	1
6	IE50F-09035	FUEL PIPE	1
7	GS710-10011	FUEL TANK COVER	1



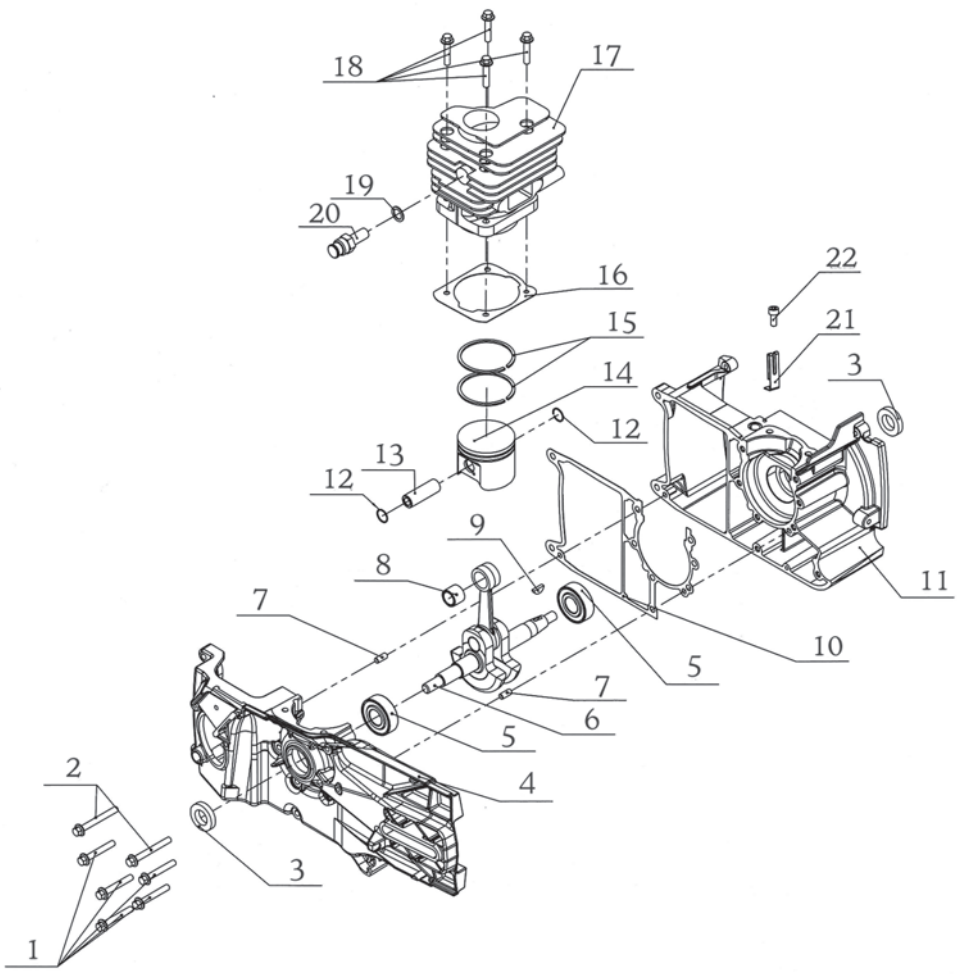
GS710 Belt Cover Diagram			
No.	PART No	NAME	QTY
1	GS710-023	BOLT M6x90Q-8.8	1
2	GS710-01007	BELT COVER (SHORT)	1
3	GS710-01002	EXTENSION SPRING	1
4	GS710-032	SQUARE NUT	1
5	GS710-01001	EXTENSION LOCK	1
6	GS710-009	HEX CAP BOLT M8x40	2



GS710 Enclosed Tools			
No.	PART No	NAME	QTY
1	GS710-12001	CROSS HEAD SCREW DRIVER	1
2	GS710-12002	MULTIPURPOSE SOCKET AND SCREW DRIVER	1



GS710 Belt, Cover and Clutch Diagram			
No.	PART No	NAME	QTY
1	GS710-016	ANTI LOOSE CROSS HEAD SCREW M5x20	1
2	GS710-02003	BELT COVER (LONG)	2
3	GS710-02200	CLUTCH	1
4	GS710-02002	WASHER	1
5	GS710-035	BEARING	1
6	GS710-02004	INNER BEARING SOCK-ET 2R12x15x18.5	1
7	GS710-02100	DRIVE WHEEL	1
8	GS710-02001	SPACER	1
9	GS710-034	BELT LONG	1
10	GS710-02005	FUEL MIX LABLE	1
11	GS710-05006	MODEL LABLE	
11	GS690-05006	MODEL LABLE	
11	GS730-05006	MODEL LABLE	



GS710 Engine Diagram			
No.	PART No	NAME	QTY
1	IE50F-002	HEX CAP BOLT M5x35	5T
2	IE50F-001	HEX CAP BOLT M5x45	2
3	IE50F-004	OIL SEAL	2
4	IE50F-09004	RIGHT HOUSING	1
5	IE50F-005	BEARING	2
6	IE50F-09005	DRIVE SHAFT ASSEMBLY	1
7	IE50F-015	LOCATING PIN	2
8	IE50F-009	NEEDLE BEARING	1
9	IE50F-006	WOODRUFF KEY	1
10	IE50F-09006	GASKET	1
11	IE50F-09007	LEFT HOUSING	1

12	IE50F-09012	PISTON PIN SNAP RING	2
13	IE50F-09013	PISTON PIN	1
14	IE50F-09014	PISTON	1
15	IE50F-09015	PISTON RING	2
16	IE50F-09016	CYLINDER GASKET	1
17	IE50F-09017	CYLINDER	1
18	IE50F-010	ANTI LOOSE HEX BOLT	4
19	IE50F-09020	WASHER	1
20	IE50F-09029	DECOMPRESSION VALVE	1
21	GS710-10012	WIRE CLIP	1
22	GS710-010	HEX SOCKET BOLT M5x12	1