



Concrete Cut-Off Saw

User Manual

[Revision 2.0 October 2018]

READ THIS MANUAL CAREFULLY BEFORE USE – FAILURE TO DO SO MAY RESULT IN INJURY, PROPERTY DAMAGE AND MAY VOID WARRANTY. • KEEP THIS MANUAL FOR FUTURE REFERENCE. • Products covered by this manual may vary in appearance, assembly, inclusions, specifications, description and packaging.



The product is NOT supplied with engine oil, although traces of oil from the manufacturing process may be present. It is essential to add adequate engine oil of the correct type to the engine before use. **Failure to add engine oil will void the product warranty.**

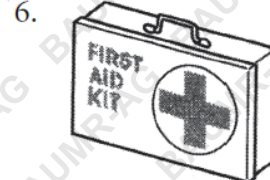
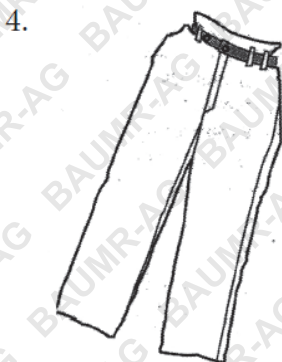
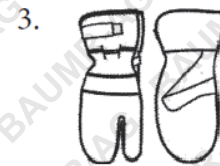
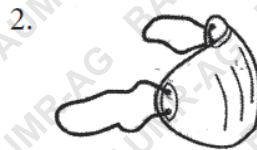
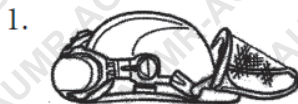
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Safety Precautions

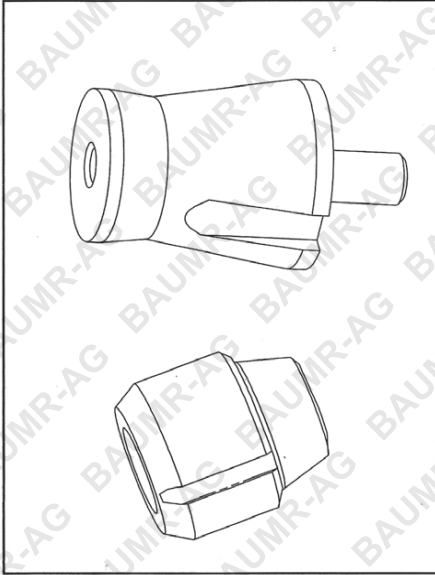
- Under no circumstances should you modify the original design of the cut-off saw without the approval from the manufacturer. Unauthorised modifications and spare parts from other companies may lead to serious injury.
- Cutting material can generate dust and vapours which may contain harmful chemicals. Know the nature of the material being cut before using the cut-off saw. During work, please wear an appropriate dust mask or respirator protection.
- The engine exhaust from the cut-off saw contains chemicals which may cause cancer, birth defects or other reproductive harm.
- A cut-off saw is a very dangerous tool. If it is used carelessly or incorrectly, it can cause serious and even fatal injuries.
- **Never use a cut-off saw with defective safety components.**
- **All service and repair work on the cut-off saw demands special training. This is especially true for all of the safety equipment involved. If your cut-off saw fails any of the checks described below, you should immediately take it to be serviced before using it again.**
- You must wear protective equipment whenever you use a 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.
 - Protective helmet, ear protection, protective glasses, full face protection (Fig. 1).
 - Breathing Mask (Fig. 2).
 - Heavy duty, firm grip protective gloves (Fig. 3).
 - Snug-fitting, heavy duty, comfortable clothing and leg protection that allows full freedom of movement (Fig. 4).
 - Anti-slip boots with steel toe caps. (Fig. 5).
 - First aid kit (Fig. 6).



Equipment

This section explains the various safety features of the cut-off saw, how they work, and the basic inspection and maintenance that you should carry out to ensure safe operation.

Anti-Vibration System



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, lack of or a reduction in normal strength, changes in the colour of the skin or its surfaces. These symptoms normally appear in the fingers, hands or wrists.

Your cut-off saw is equipped with a vibration damping system; this is designed to give low vibration levels and comfortable usage.

The vibration damping system reduces the vibrations transmitted from the engine and blade to the handles of the cut-off saw. The engine's body including the cutting equipment is suspended in a handle system via anti-vibration elements.

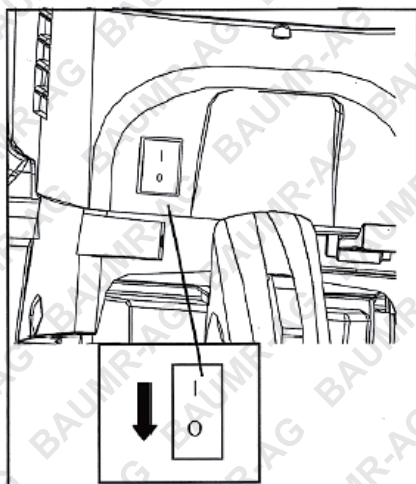
Inspection

Check the anti-vibration elements regularly for material cracks and deformation.

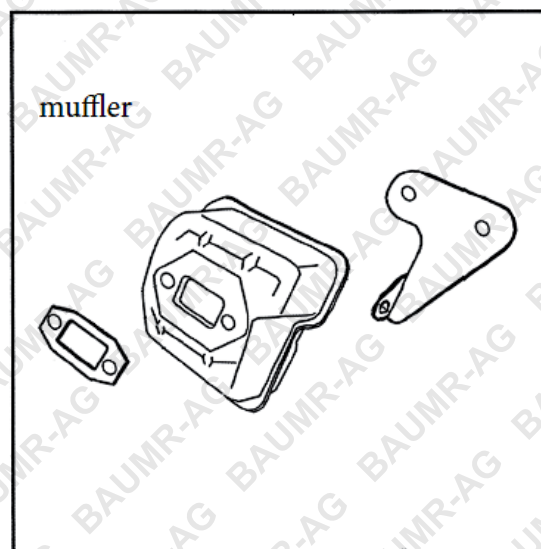
Check that the anti-vibration elements are securely mounted between the engine unit and the handle system.

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 on.



stop switch



muffer

Muffler

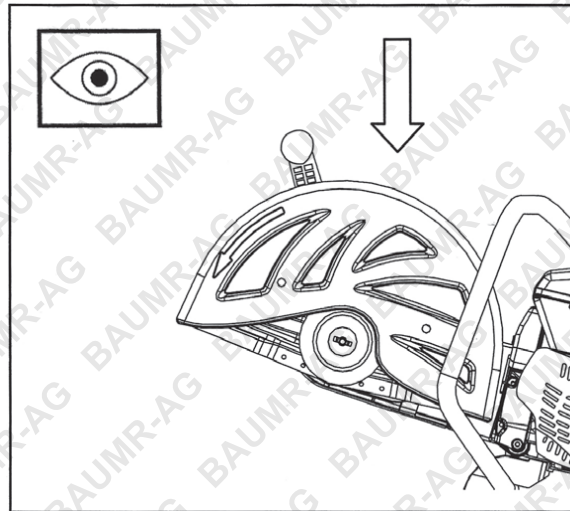


The muffler gets very hot during use and remains so for a short time afterwards. Do not touch the hot muffler. • The muffler is designed to give the lowest possible noise level and to direct the engine's exhaust fumes away from the user. The engine's exhaust fumes are hot and can contain sparks, which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

Blade Guard for the Cutting Blade



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 cut-off saw in a lockable area so that it is out of reach of children and unauthorised persons.

Do not store or transport the cut-off saw with the cutting blade still fitted in.

Fuel Safety

Exercise great care when handling fuel. Bear in mind the risk of fire, explosions and inhaling fumes.

Never fill the cut-off saw while the engine is running (Gasoline and 2-stroke oil).

Never start the cut-off saw if:

- If you have spilt the fuel on it. Wipe up all the spillage.
- If you have spilt fuel on yourself or your clothes, change your clothes.
- If there is a fuel leak. Make regular check for leakage from the fuel cap and the fuel supply pipes.

Concrete Cut-Off Saw

Always store the cut-off saw and fuel so that any leakage or vapours is not in risk coming into contact with sparks or flames. For example, electrical machines, electric motors, relays, switches or boilers.

When storing fuel, only approved containers must be used. The fuel tank should be emptied when storing the cut-off saw for long periods.



Move the cut-off saw at least 3 metres from the refuelling site before starting.

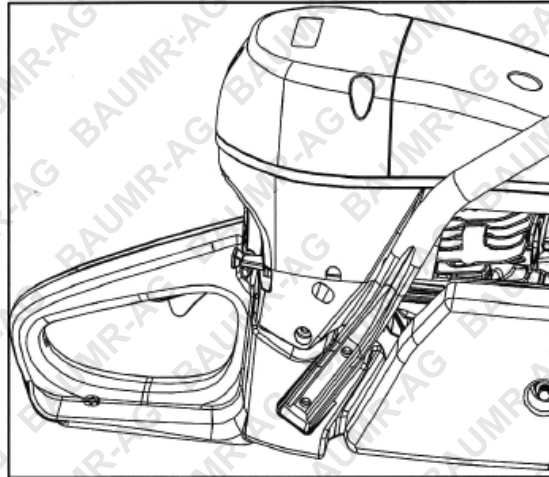
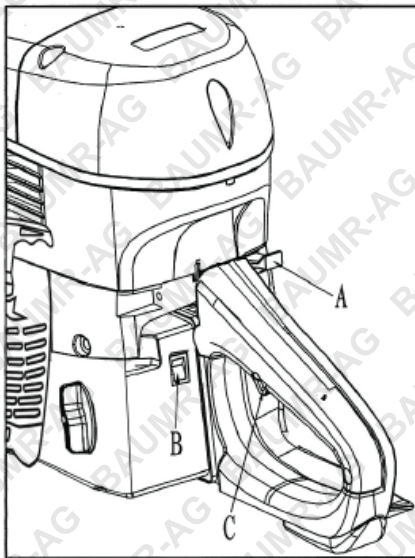
Starting and Stopping the Saw

Before starting observe the following:

- Do not start the cut-off saw without the cutting arm, belt or cutting head fitted. Otherwise, the clutch can come loose and cause personal injuries.
- Always move the cut-off saw from the fuelling area before starting.
- Ensure that you stand firmly and that the cutting blade rotates freely.

Starting a Cold Engine

1. Set the stop switch (B) to the run position.
2. Pull the choke lever out (A) Press the choke lever in after it begins to run. In summer and in high temperatures, press the choke lever in when you hear a combustion sound (engine attempts to run) and then restart the saw.



Starting a Warm Engine

Use the same procedures as 'starting a cold engine' but without the choke.

Starting the Saw

1. Put the cut-off saw on the ground.
2. Take hold the front handle by your left hand. Put your right foot on the lower part of the rear handle.
3. Grip the starter with your right hand, and slowly pull the starter cord out until you feel some resistance from the grip.
4. Then pull quickly.

Do not pull the starter cord completely and do not release the starter from a fully extended position as this will damage the cut-off saw.

Utilise the choke function until the engine starts up.

Stopping the Saw

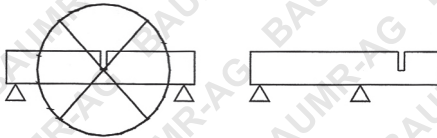
The engine can be stopped by switching off the ignition/stop switch.

Working Instructions

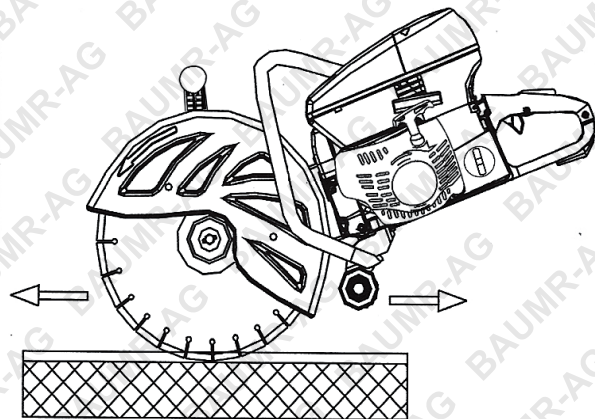
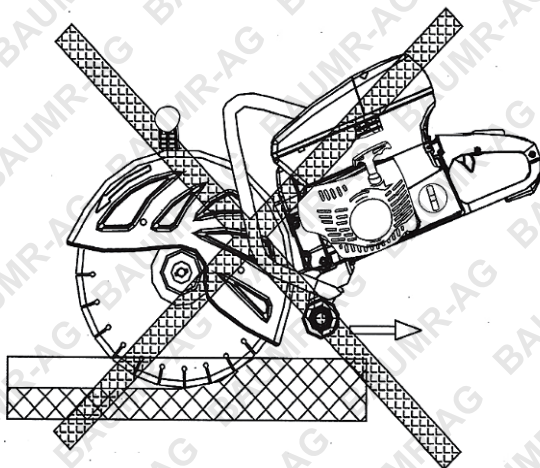
Only use the machine in areas with good ventilation. Carbon monoxide in the exhaust fumes causes suffocation.

Cutting Technique

1. Place the cutting materials according to the illustration:



2. Always cut at full throttle.
3. Start cutting gently, do not force or squeeze the blade in.
4. Move the blade slowly backwards and forwards.
5. Only use the blade's cutting edge when cutting.
6. Cut with the blade fully vertical – and at a right angle to the work piece.





Under all circumstances, avoid cutting using the side of the blade; the blade will break and become damaged. • Do not pull the cut-off saw to one side, this can cause the blade to jam or break, resulting in injury.

Diamond Blades

Diamond blades can become dull when the wrong feeding pressure is used. Working with a dull blade will cause overheating. Sharpen diamond blades against a soft material such as sandstone or brick.

Blade Vibration

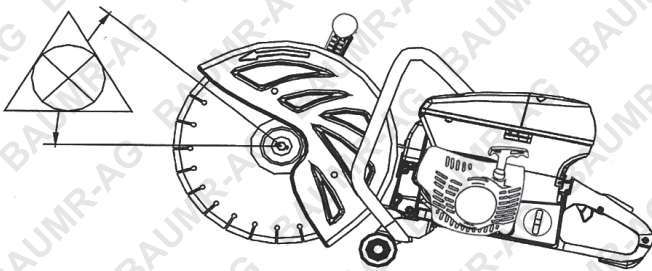
The blade can become out of shape and vibrate if the feeding pressure is too high or if the blade is pressed into the work piece. A lower feeding pressure should stop the vibration. Otherwise, replace the cutting blade.

Kickbacks and How to Avoid Them

Kickbacks can occur very suddenly and with great force, if the following directives are not followed, it can result in serious or even fatal injury.

How to avoid kickbacks

- Never cut with the segment illustrated in the diagram.



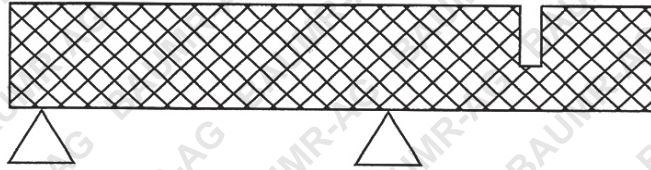
- Keep a good balance and a firm foothold.
- Use both hands and take a firm grip with the thumb and fingers around the handle.
- Stand at a comfortable distance from the work piece.
- Run the cut-off saw at full throttle.
- Take care when inserting the blade in an existing cut.
- Never cut above shoulder height.

Pinching/Pull-In

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

How to avoid pinching

Support the work piece in such a way to avoid closing the cut.



Abrasive Discs

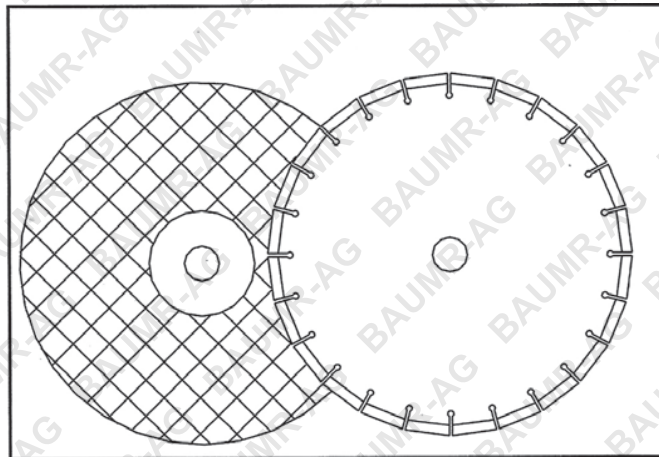
Abrasive discs are not intended for use with water. If an abrasive disc is stored in humid conditions, this can cause an imbalance of the disc.



Always handle the cut-off saw carefully and store it with the blade removed.

Cutting Blades

Cutting blades are available in two standard designs; abrasive discs and diamond blades.



- Never use a cutting blade at a lower speed rating than that of the cut-off saw.
- Never use a cutting blade for any other purpose than that it was intended for.

Abrasive Discs

The cutting material in abrasive discs consists of grit bonded using an organic binder. 'Reinforced Blades' are made up of a fabric or fibre base that prevents total breakage at maximum working speed if the blade should be cracked or damaged (the term reinforced does not refer to those cutting blades that are only reinforced around the flange).

A cutting blade's performance is determined by the type and size of the abrasive corn, and the type and hardness of the bonding agent.

Concrete Cut-Off Saw

Characteristics that give the blade a shorter service life and greater cutting capacity are said to make the blade 'softer'. A blade with a longer service life and slower cutting capacity is a blade with a 'harder' effect.

Checklist

- Check that the blade is approved for the same or higher speed according to the approval plate of the engine. Never use a cutting blade with a lower speed rating than that of the cut-off saw.
- Ensure the blade is not cracked or damaged in any other way.
- 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.
- All the blades used must pass MPA certification.

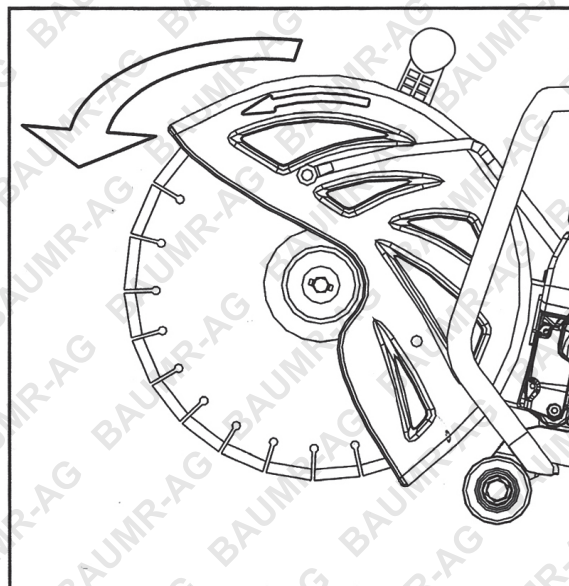
Diamond Blades

Diamond blades for dry cutting are a new generation of blades that do not require water cooling. However, the blades can still be damaged by excessive heat. 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.

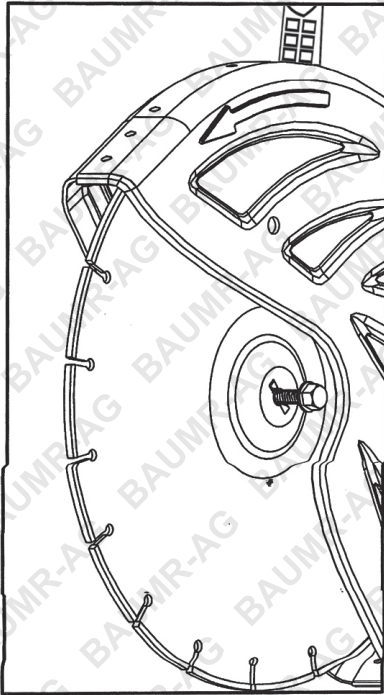
- Cool continually with water.
- Keep the cutting blade sharp.
- Remove the cutting blade when the machine is transported.

Avoid:

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



Blade Set-Up



Check 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 dirty, twisted and have damaged edges.
- Do not use different sized flanges.

Fitting the Blade

The blade is placed between the right flange and the left flange. Tightening torque for the bolt holding the blade is 18~20N.m

Fuel Handling

The cut-off saw is equipped with a two-stroke engine and must always be operated using a mixture of petrol 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.



Always provide good ventilation when handling fuel.

Petrol

Use good quality unleaded or leaded petrol, 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

Use two-stroke oil of good quality that is intended for air-cooled engines. Follow the manufacturer's recommended mixing ratio of 1:25.

Never use oil intended for four-stroke engines.

Mixing

Always mix the petrol and oil in a clean fuel container.

1. Always start by filling half the amount of the petrol to be used.
2. Mix (shake) the fuel mixture.
3. Add the remaining amount of petrol.
4. Mix the fuel mixture thoroughly before filling the fuel tank.

Do not mix more than one month's supply of fuel.

If the cut-off saw is not used for some time the fuel tank should be emptied.

Refuelling

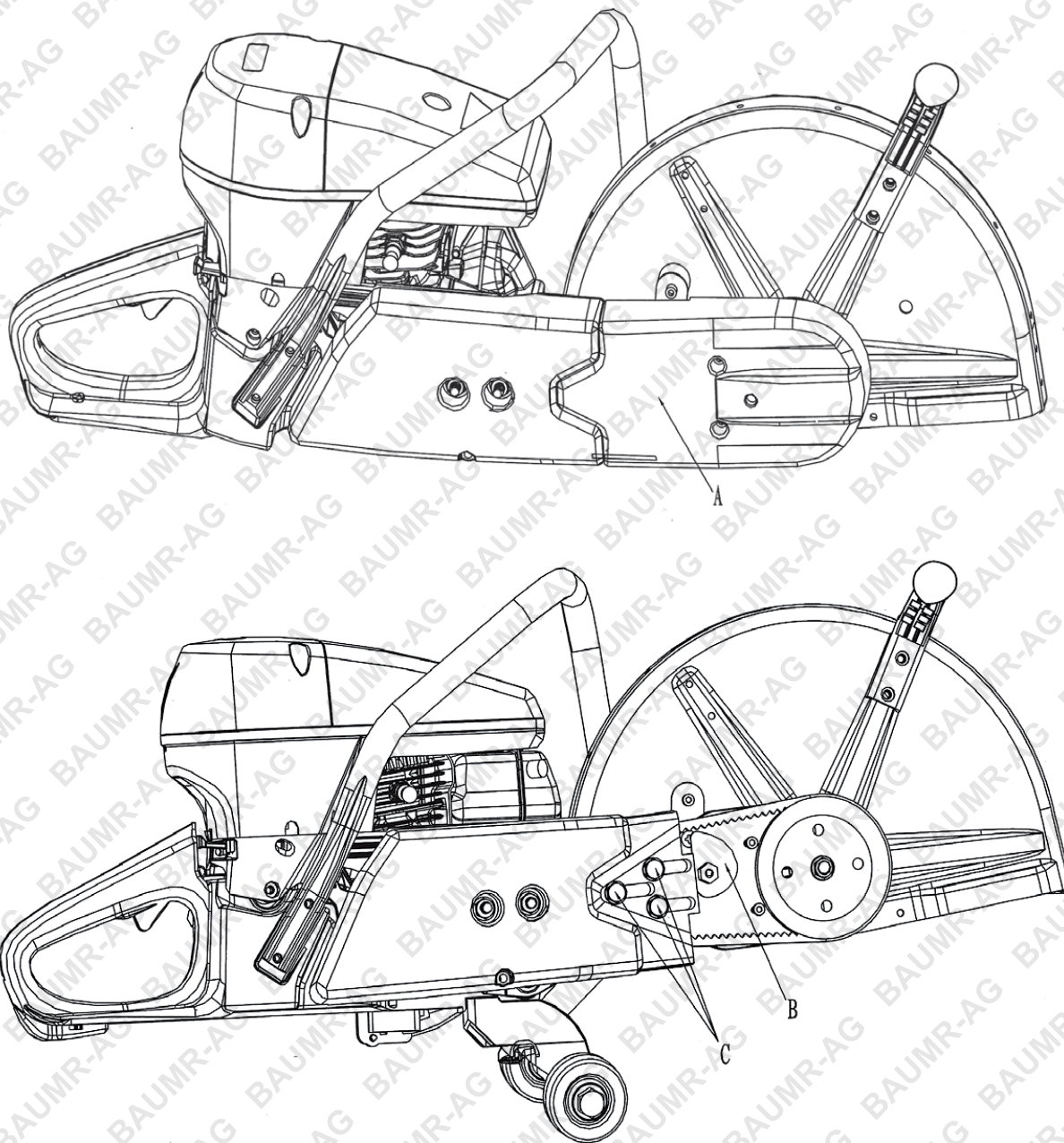
The following precautions will reduce the risk of fire:

- Do not smoke or place any source of heat in the vicinity of the fuel.
- Always move the cut-off saw from the fuelling area before starting.
- Never refuel while the engine is running.
- Open the fuel cap slowly when fuelling so that any pressure is released slowly.
- Tighten the fuel cap carefully after refuelling.
- Always move the cut-off saw from the fuelling area before starting.
- Keep the handle dry, clean and free from oil and fuel.
- Clean around the fuel cap after fuelling.
- Clean the fuel tank regularly.
- 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 fuel.
- Move the cut-off saw at least three metres from the fuelling area before you begin. Make sure the fuel cap is tightened.

Maintenance

Adjusting the Drive Belt

1. Remove the right belt guard (A), loosen three screws (C) and adjust the pulley (B) to tighten the belt.
2. Tighten three screws and fit the right belt guard.



Changing the Drive Belt

1. Remove the right belt guard, loosen the two screws and adjust the pulley to release the belt.
2. Remove the belt from the belt pulley. Dismantle the cutting head. Replace the belt.
3. To assemble, reverse the procedures for dismantling.
4. Check the blade guard for signs of cracking or other damage. Replace it if it is damaged.



Drive belts should be tensioned after every tank of fuel.

Belt Pulley and Clutch

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

Carburettor Adjustment

To ensure that your unit is at its peak performance and producing the least amount of harmful emissions, have your authorised servicing person check your carburettors for optimum operating conditions after running the cut-off saw for 8 to 10 tanks of fuel.

The carburettor is equipped with fixed jets to ensure that the engine always receives the correct fuel mixture.

If the engine lacks power or accelerates poorly, replace the air filter and if this doesn't work, please take the cut-off saw in for service.

Final Setting of the Idling Speed

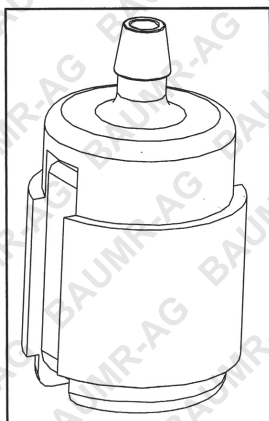
Turn the idling speed adjusting screw clockwise until the blade starts to rotate. Then turn it counter-clockwise until the blade stops.

The recommended idling speed is 2600rpm.



If the idling speed setting cannot be adjusted, do not use the cutter until it has been correctly adjusted or repaired.

Fuel Filter



The fuel filter must be protected from contamination when filling as this will reduce blockages caused by the fuel filter.

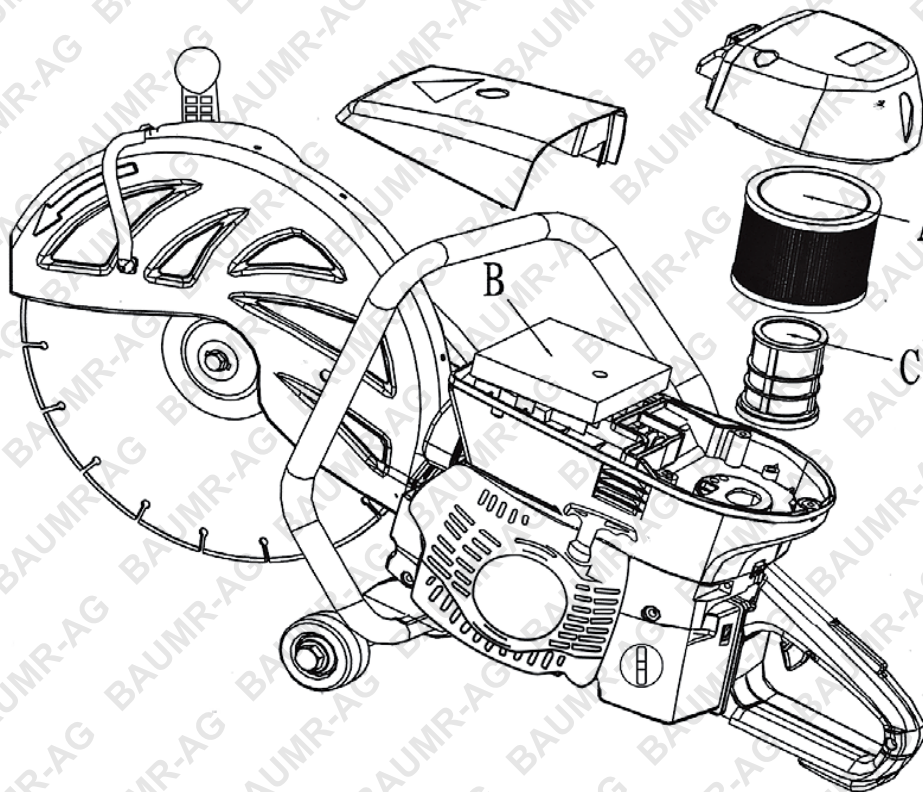
The filter cannot be cleaned but must be replaced when it is blocked. The filter should be changed at least once per year.

Air Filter

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

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

The air filter system consists of a main filter (B), a back-up filter (A) and a reliable filter screen (C).



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 fuelling. In order to obtain a good filtering effect, the filter must be inspected/replaced regularly or cleaned.

1. Remove the front cover, and wash the filter carefully in tepid, soapy water. After cleaning, rinse the filter thoroughly in clean water. Squeeze out the filter and let it dry.
2. Do not compress the air at a high pressure as this can damage the foam.
3. It is extremely important that the entire filter is saturated in oil.
4. A foam rubber filter that has been washed many times wears out. Replace with a new filter.

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. This filter must not be washed.

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 one.



Insufficient care of the air filter will cause deposits on the spark plug resulting in abnormal wear to engine parts.

Starter

Tensioning the Recoil Spring

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

Replacing the Starter Cord

1. Lift the starter pulley
2. Remove the spring cassette (C).
3. Replace the recoil spring (D).
4. Lubricate the recoil spring with thin oil.
5. Assemble the spring cassette.

Fitting the Starter

1. Place the starter in position on the crankcase and slightly press the starter with one hand.
2. The other hand should pull out the starter handle and release the cord immediately so that the pawl grips in the pulley.
3. Tighten the screws that hold the starter.

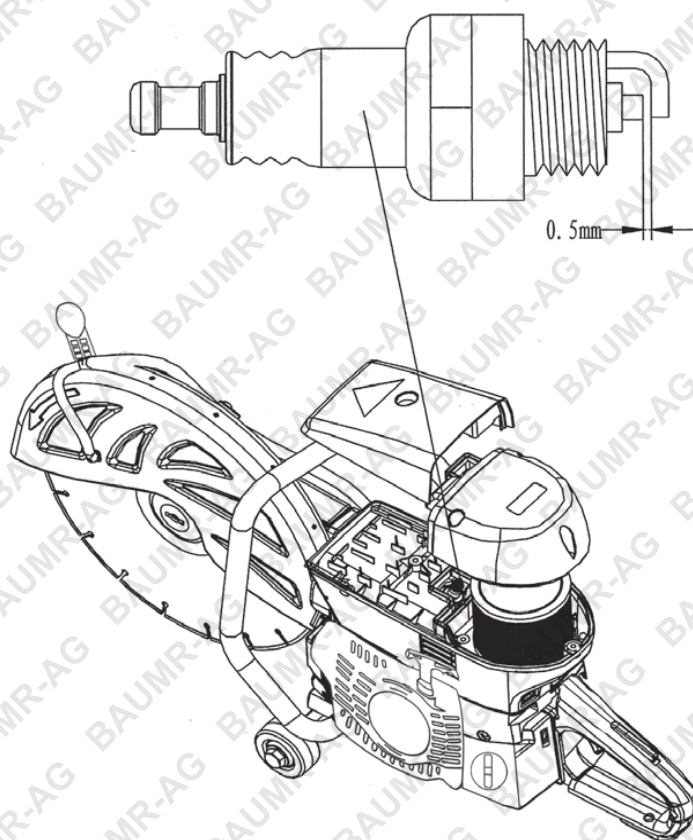
Spark Plug

The condition of the spark plug is affected by:

- An incorrect carburettor 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 malfunction or starting difficulties.

If the cut-off saw is low on power, difficult to start or runs poorly while idling, 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. The spark plug should be replaced after about one month of operation or earlier if necessary.



Mufflers

The muffler is designed in order to reduce the noise level and to direct the exhaust gases away from the operator. The exhaust gases are hot and can contain sparks, which may cause fire if directed against dry and combustible material.



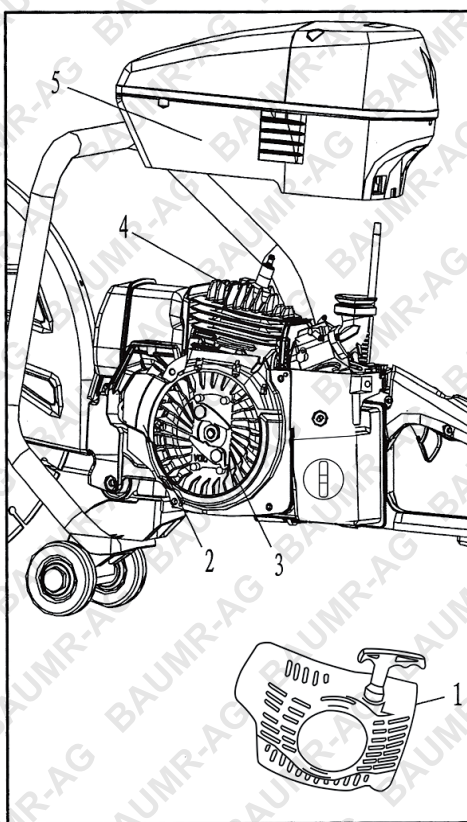
Never use a cut-off saw with a defective muffler.

Cooling System

To obtain the lowest possible running temperature, the 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.



Maintenance Routines

Daily Maintenance

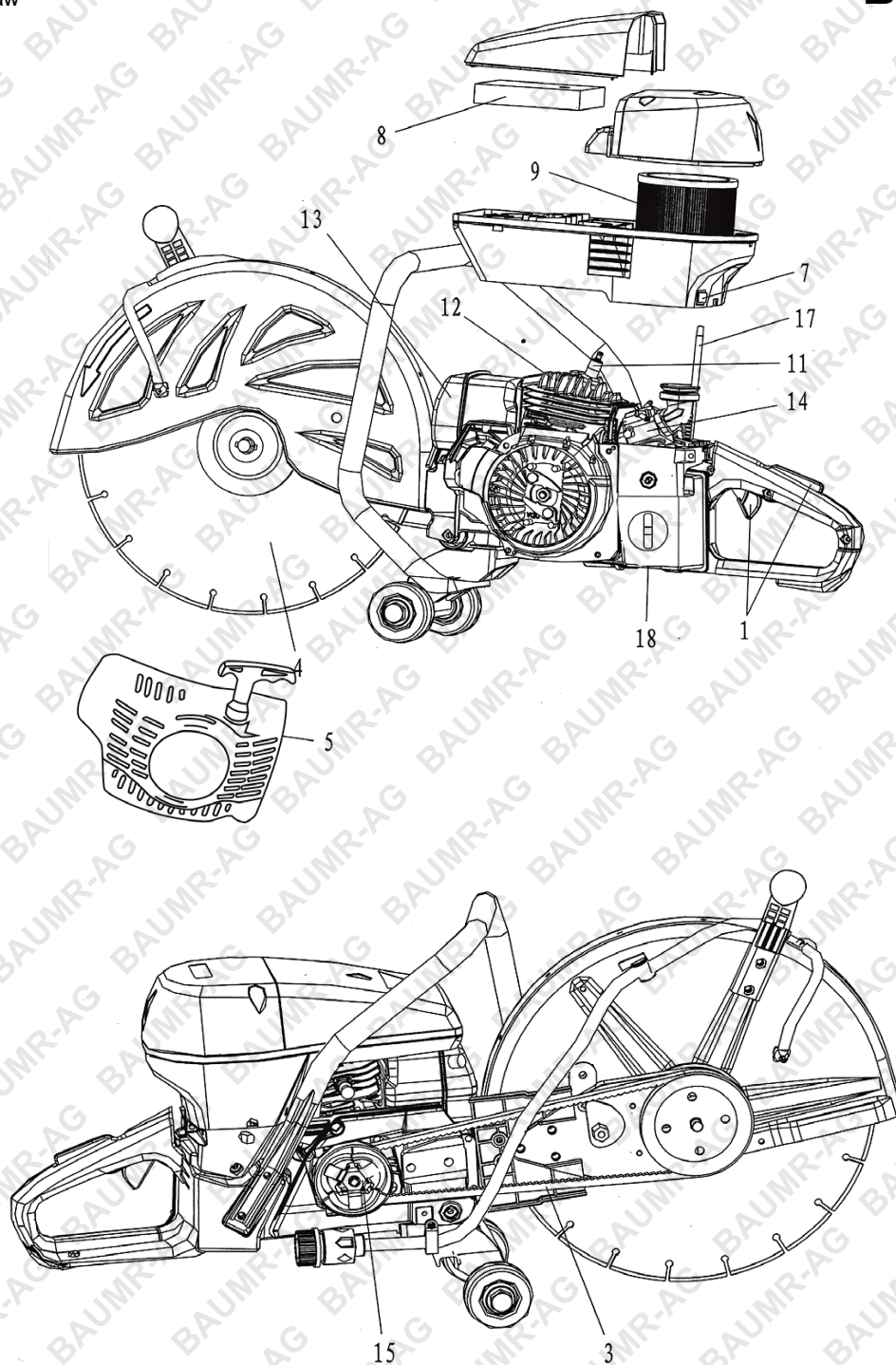
- Check that the throttle components work correctly from a safety view point (throttle and starter throttle catch).
- Clean the outside of the cut-off saw.
- Check the tension of the drive belt.
- Check the condition of the cutting blade.
- Check the condition of the blade guide.
- Check the starter and the starter cord; clean the outside of the starter's air intake.
- Check that all nuts and bolts are tightened correctly.
- Check the function of the stop switch.
- Check and clean the filter.

Weekly Maintenance

- Check the back-up paper filter.
- Check that the handles and the anti-vibration elements are not damaged.
- Clean the spark plug. Check that the electrode gap is 0.5mm.
- Clean the cooling fins on the flywheel. Check the starter and recoil spring.
- Clean the cooling fins on the cylinder.
- Check the muffler.
- Check the carburettor.

Monthly Maintenance

- Check the clutch drum, drive-pulley, clutch springs with regard to wear.
- Clean the outside of the carburettor.
- Clean the fuel filter, fuel hose, change if necessary.
- Clean the inside of the fuel tank.
- Check all cables and connections.



Sound Levels

Sound Level

Equivalent sound power level from the machine, dB (A)	100.7
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Vibration

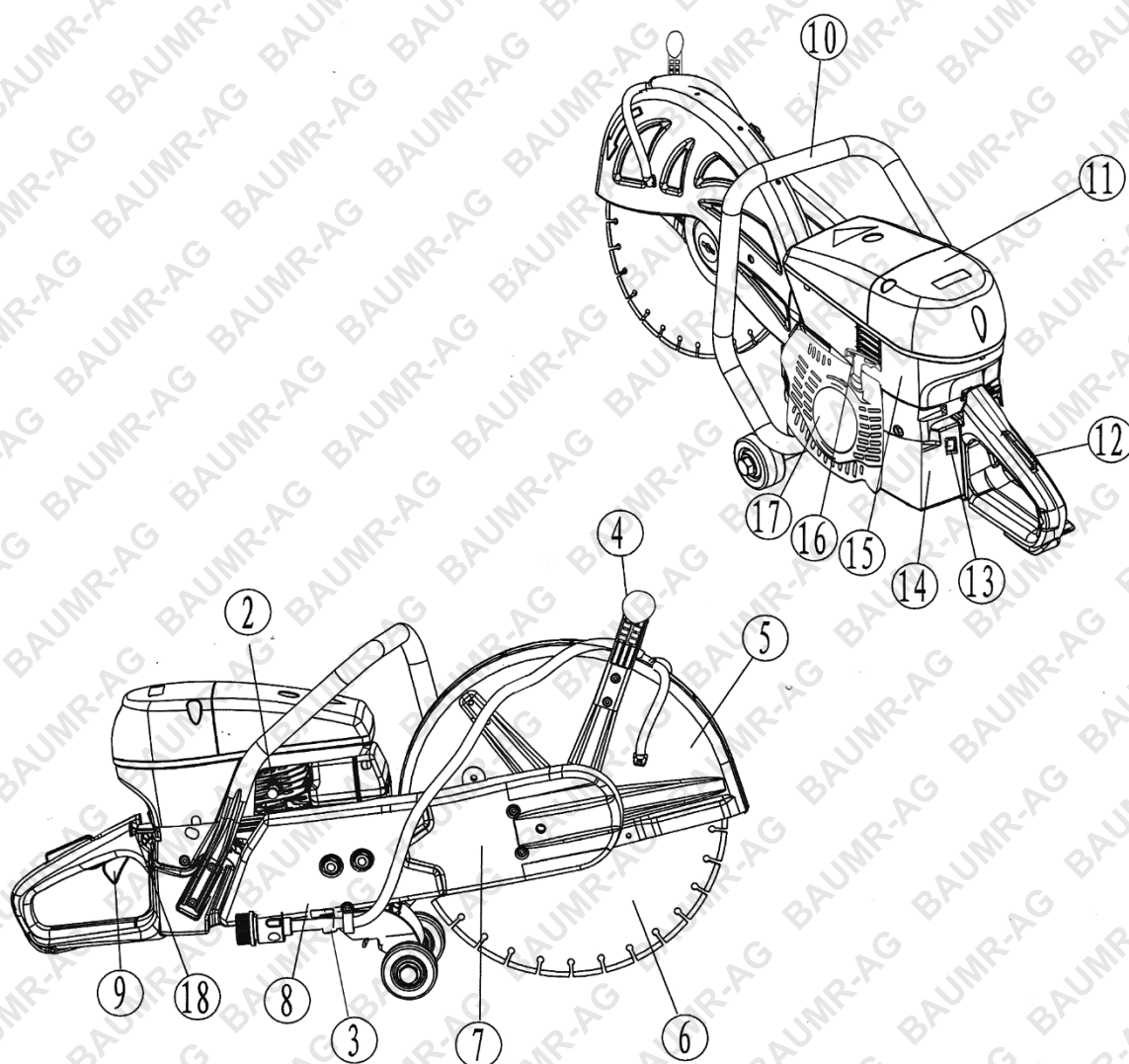
At idling speed, vibration on the front handle, m/s ²	10.48
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At rating speed, vibration on the front handle, m/s ²	11.79
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At idling speed, vibration on the rear handle, m/s ²	7.10
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At rating speed, vibration on the rear handle, m/s ²	13.54
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Parts List



No.	Parts
3.	Water Valve
4.	Adjustment Handle for Blade Guard
5.	Blade Guard
6.	Blade
7.	Belt Guard
8.	Cutting Arm
9.	Throttle Control
10.	Front Handle
11.	Air Filter Cover
12.	Throttle Trigger Lockout
13.	Stop Switch
14.	Fuel Tank
15.	Air Filter Base
16.	Starter Handle
17.	Starter Cover
18.	Choke

Technical Specifications

Engine

Cylinder cc	72
Cylinder Bore, mm	48.5
Stroke	35
Idle Speed, RPM	3000
Max. Speed, unloaded, RPM	9500
Power, kw	3.0

Ignition System

Spark Plug	LD L8RTF
Electrode Gap, mm	0.5

Weight

Without fuel and cutting blade, kg	9.8
Sound Levels	
At idling speed, sound level dB (A) should not exceed	85
At rating speed, sound level dB (A) should not exceed	105

Vibration

Vibration on the handle should not exceed m/s ²	15
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Cutting Equipment

Cutting Blade	Gear Ratio	Max. Peripheral Speed
14"	0.5	90m/s
Rated Spindle Speed, rpm	5100	



Some experts believe that the incorrect or prolonged use of almost any product may cause serious injury or death. To help reduce your risk of serious injury or death, refer to the information below. For more information, see www.datastreamserver.com/safety

- Consult all documentation, packaging and product labelling before use. Note that some products feature documentation available online. It is recommended to print and retain the documentation.
- Before each use, check the product for loose/broken/damaged/missing parts, wear or leaks (if applicable). Never use a product with loose/broken/damaged/missing parts, wear or leaks.
- Products must be inspected and serviced (if applicable) by a qualified technician every 6 months. This is based on average residential use by persons of average size and strength, and on a property of average metropolitan size. Use beyond these recommendations may require more frequent inspections/servicing.
- Ensure that all users of the product have completed a suitable industry recognised training course before being allowed access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or description of application. Be sure to attain third-party approval from a qualified specialist for your application before use, regardless of any assurances from the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (for example, automobile, computer, toaster), there is the possibility of technical issues that may require the repair or replacement of parts, or the product itself. If the possibility of such failure and the associated time it may take to rectify could in any way inconvenience the user, business or employee, or financially affect the user, business or employee, then the product is not suitable for your requirements. This product is not intended for use where incorrect operation or a failure of any kind, including but not limited to, a condition requiring product return, replacement, parts replacement or service by a technician may cause financial loss, loss of employee time or an inconvenience requiring compensation.
- If this product has been purchased in error when considering the information presented here, contact the retailer directly for details of their returns policy, if required.

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