

General information

Reading and storing the user manual



This user manual accompanies this GACS16D electric chainsaw (hereinafter referred to only as the “chainsaw”). It contains important information on safety, usage and care.

Please read the user manual carefully before using the chainsaw. Please pay particular attention to the safety instructions and warnings. Failure to follow the instructions in this user manual may result in serious injury or damage to the chainsaw.

Please ensure that you comply with applicable local or national regulations concerning the use of this product. Keep this user manual in a safe place for future reference. If you pass the chainsaw on to third parties, please be absolutely sure to include this user manual.

Explanation of symbols

The following symbols and signal words are used in this user manual, on the chainsaw or on the packaging.



Indicates a hazardous situation that, if not avoided, could result in death or serious injury.



Indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.



Warns against potential damages to property.



This symbol provides you with useful supplementary information about the use.



Declaration of conformity (see chapter “Declaration of conformity”): The product complies with the applicable European directives and the product has been evaluated for conformity with these.



Read the user manual before using the chainsaw.



Wear protective goggles.



Wear ear protection.



Do not expose the chainsaw to rain.



If damage occurs to the mains cable, pull out the mains plug immediately.



Always ensure before starting the chainsaw that the hand guard is locked in the operating and safety position.



Adjust the chain tension.



Refilling the saw chain oil.



Warning! Danger of kickback.



Hold the chainsaw firmly with both hands on the handles.



Do not use the chainsaw with only one hand on the handle.



Avoid contact with the saw tips and cuttings.



Pay attention to the acoustic pressure levels.



The chainsaw complies with protection class II.



Do not dispose of old appliances with your household waste.

Safety

Scope of use

The chainsaw is exclusively designed for private usage in connection with hobby and DIY projects for the purposes of felling trees, removing branches and sawing through wood (cutting to length):

Any other applications are expressly prohibited and are deemed improper use.

Neither the manufacturer nor the retailer can accept any responsibility for injury, loss or damage caused by misuse of this product of any kind. Examples of misuse are given in the following non-exhaustive list:

- using the chainsaw for purposes other than those which are intended;
- failure to observe the safety instructions and warnings as well as the assembly, operating, maintenance and cleaning instructions contained in this user manual;
- failure to comply with any regulations relating to accident prevention, occupational health and safety which specifically and/or generally apply to the use of this chainsaw;
- usage of accessories and spare parts which are not intended for the chainsaw;
- modifications to the chainsaw;
- repairs to the chainsaw by parties other than the manufacturer or a qualified professional;
- use of the chainsaw for commercial or industrial applications or in connection with a trade or business;
- operation or maintenance of the chainsaw by persons not familiar with how to handle the chainsaw and/or who are not aware of or do not understand the associated risks.

Residual risks

Despite proper use, additional residual risks cannot be completely ruled out.

Depending on the type of chainsaw, the following hazards may occur:

- lung damage if a suitable dust mask is not worn;
- hearing loss if suitable ear protection is not worn;
- injury to health attributed to hand and arm vibrations if the chainsaw is used over a prolonged period of time or if the chainsaw is not guided and maintained properly;
- risk of injury if long hair, loose-fitting clothing or jewellery get caught by rotating device parts.

General power tool safety warnings

⚠ WARNING Read all safety instructions and instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term “power tool” used in the safety instructions refers to mains-operated power tools (corded) and battery-powered power tools (cordless).

Work place safety

- Keep the work area clean and well lit.** *Cluttered or dark areas invite accidents.*
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** *Power tools create sparks which may ignite the dust or fumes.*
- Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*

Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** *Unmodified plugs and matching outlets will reduce the risk of electric shock.*
- Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*

- c) **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep the cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** *Use of an RCD reduces the risk of electric shock.*

Safety of persons

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating power tools may result in serious personal injury.*
- b) **Use personal protective equipment. Always wear eye protection.** *Depending on the type of power tool and how it is used, wearing personal protective gear such as a dust mask, non-slip safety shoes, a hard hat or ear protection reduces the risk of injury.*
- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to a power source or picking up or carrying the tool.** *Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.*
- d) **Remove any adjusting key or wrench before turning the power tool on.** *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
- e) **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewellery or long hair can be caught in moving parts.*

- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of dust collection can reduce dust-related hazards.*

Using and handling the power tool

- a) **Do not force the power tool. Use the correct power tool for your application.** *The correct power tool will do the job better and safer at the rate for which it was designed.*
- b) **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
- c) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of the power tool starting accidentally.*
- d) **Keep unused power tools out of the reach of children. Do not let persons use the power tool if they are not familiar with it or have not read these instructions.** *Power tools are dangerous in the hands of untrained users.*
- e) **Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation.** *If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.*
- f) **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- g) **Use the power tool, accessories, insertion tools etc. in accordance with these instructions. At the same time, consider the working conditions and the work to be performed.** *Use of the power tool for operations different from those intended could result in a hazardous situation.*

Service

- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts.** *This will ensure that the safety of the power tool is maintained.*

Safety notes for chainsaws

- a) **Keep all parts of your body clear of the saw chain while the saw is running. Before starting the saw, make sure that the saw chain does not touch any objects.** *When working with a chainsaw, even a short moment of inattentiveness may result in clothes or parts of the body being caught by the saw chain.*
- b) **Always hold the chainsaw with your right hand at the rear handle and your left hand at the front handle.** *Holding the chainsaw in the opposite working posture will increase the risk of injury and is not permitted.*
- c) **Only hold the chainsaw on the insulated handle surfaces as the saw chain may come into contact with hidden cables.** *If a saw chain comes into contact with a live wire, it will make the metal parts of the chainsaw live and may give the operator an electric shock.*
- d) **Wear protective goggles and ear protection. Other personal protection equipment for the head, hands, legs and feet is highly recommended.** *Proper protective clothing reduces the risk of injury caused by thrown-about wood chips and accidental contact with the saw chain.*
- e) **Do not operate the chainsaw whilst up a tree..** *There is a risk of injury if the chainsaw is operated up a tree.*
- f) **Make sure to have a safe stand at any time, and only use the chainsaw when standing on solid, safe and level ground.** *Slippery ground or unstable surfaces, e.g. on a ladder, may lead to losing balance and control over the chainsaw.*
- g) **When cutting a branch that is under tension, take into account that it will spring back.** *When the tension of the wood fibres is released, the tensioned branch may hit the operator and/or result in loss of control over the chainsaw.*
- h) **Be particularly cautious when cutting brush and young trees.** *The thin material may get caught in the saw chain and hit you or cause you lose your balance.*
- i) **Carry the switched-off chainsaw using the front handle with the saw chain pointing away from your body. Always fit the protective cover when transporting or storing the chainsaw.** *The careful handling of the chainsaw reduces the risk of accidentally*

touching the running saw chain.

- j) **Follow the instructions for lubrication, chain tension and changing accessories.** *An improperly tensioned or lubricated saw chain may break or increase the risk of a kickback.*
- k) **Keep the handles dry, clean and free of oil and grease. Fatty, oily handles are slippery and may lead to loss of control.**
- l) **Use the chainsaw for cutting wood only. Do not use the chainsaw for work it is not designed for. Example: Do not use the chainsaw for cutting plastics, brickwork or construction materials that are not made of wood.** *The use of the chainsaw for applications, for which it is not designed, may result in dangerous situations.*

Causes of kickbacks and how to avoid them

A kickback can occur if the tip of the guide bar touches an object or the wood to be cut bends and pinches the chainsaw chain inside the cut.

Touching an object with the tip of the guide bar may in some cases lead to an unexpected, sudden backward reaction of the chainsaw, in the course of which the guide bar is kicked upwards and in the direction of the operator.

The pinching of the saw chain at the upper edge of the guide bar may fiercely throw the guide bar back in the direction of the operator.

In both cases, you may lose the control over the saw and get seriously injured. Do not exclusively rely on the chainsaw's built-in safety features. As a user of a chainsaw you should take several precautions to continuously work without having accidents or suffering injuries.

A kickback is the result of wrong or improper use of the power tool. It may be avoided by taking appropriate precautions as described below:

- a) **Hold the chainsaw with both hands with the thumbs and fingers embracing the handles of the chainsaw. Position your body and arms such that you can withstand the power of a kickback.** *If proper precautions are taken, the operator will be able to control the power of a kickback. Never let go of the chainsaw.*
- b) **Avoid unusual postures and do not cut above shoulder height.** *This avoids accidentally touching objects with the tip of the guide bar and allows for better control of the chainsaw in unexpected situations.*

- c) **Always use the replacement bars and saw chains prescribed by the manufacturer.** *The use of wrong replacement guide bars and saw chains may lead to breaks of the chain and/or kickbacks.*
- d) **Adhere to the manufacturer's instructions to sharpen and maintain the saw chain.** *Depth limiters that are too low increase the risk of a kickback.*

Notes for the safe use of the chainsaw

- The chainsaw may only be used by persons who have sufficient experience.
- Children and young persons under 18 must not operate electric chainsaws. Exception: Apprentices older than 16 under the supervision of an expert.
- Read the user manual carefully before you use the chainsaw for the first time.
- Before each use, check the mains cable and plug for damage, e.g. for cracks. A damaged mains cable and plug must be replaced.
- The chainsaw may only be used in a completely assembled state. No protective devices may be missing.
- The chainsaw may only be connected to socket outlets with earthing contact and tested installations. An upstream residual current device with a release current of 30 mA or less should be used to provide additional protection against electric shocks. The fuse must have a value of 16 A and must not be used by other consumers while working with the chainsaw.
- The cable must be completely unwound when you use a cable drum.
- Always position the extension cable towards the rear and keep it outside the range of the chainsaw and offcuts.
- Ensure that the mains cable has no kinks, that it has not been laid over sharp edges and that it is not damaged.
- When you switch the chainsaw on, it should be securely supported and held in position. The chain and blade must be unobstructed.
- You should have a person with experience using chainsaws instruct you on the practical use of the chainsaw and the protection equipment before you use it for the first time. First practice cutting round wood or logs on a sawhorse or similar rack-type device.

- The chainsaw must be disconnected from the power supply before you tighten the chain, replace the saw chain or resolve any faults. Pull the mains plug out of the socket.
- During work breaks, always put the chainsaw down in such a manner that nobody is at risk. Pull the mains plug out of the socket.
- Disconnect the mains plug immediately if the extension cable is damaged or cut.
- Use a sawhorse when cutting wood to length.
- Always keep your eye on the blade tip.
- Only place a running chainsaw on the object to be cut. Never switch the chainsaw on when the saw chain is resting on something.
- Only remove the chainsaw from a cut when the saw chain is running.
- So called piercing cuts with the blade tip may only be carried out by trained personnel.
- Do not work when standing on ladders, scaffolding or trees.
- Switch the chainsaw off immediately if you notice any changes in the behaviour of the chainsaw, for example if the saw chain is caught in the cut.
- Ensure that the wood to be cut is free of stones, nails or other foreign objects.
- Do not touch wire fences or the ground with the chainsaw when it is running.
- If the chainsaw comes into contact with earth, stones, nails or other foreign objects, immediately turn the chainsaw off. Pull the mains plug out of the socket and check the blade as well as the saw chain for damage.
- Avoid using the chainsaw in poor weather conditions, especially if a thunderstorm is coming up.
- Do not expose the chainsaw to rain.
- Ensure that the wood cannot twist while it is being cut.
- Watch out for splintering wood. While you are sawing you may be injured by flying wood chips.
- Never use the chainsaw to lever or move the wood.
- Never operate the chainsaw with extended arms.
- Only cut with the bottom side of the blade. The saw will be repulsed towards the operator if you try and cut with the upper side of the blade.
- Ensure that no biodegradable saw chain oil penetrates into the earth or flows down the drain. Always place the chainsaw on a base that will absorb any oil dripping from the blade and chain.

First use

Checking the chainsaw and package contents

1. Lift the chainsaw out of the packaging using both hands.
2. Place the saw on a level, stable base, e.g. on a workbench.
3. Check whether the chainsaw or the individual parts show signs of damage. If this is the case, do not use the chainsaw. Contact the manufacturer at the service address specified on the warranty card.
4. Check whether the delivery is complete (see **Fig. A** and **B**).

Checking the hand guard

- Always make sure that the hand guard **2** is locked in the operating position before you start the chainsaw. Pull the hand guard backwards in the direction of the front handle **1**.

Refilling the saw chain oil

The chainsaw must never be operated without biodegradable saw chain oil **21** as doing so could damage the saw chain, blade and motor. No warranty claims against the manufacturer/seller can be accepted if damage occurs due to operating the device without biodegradable saw chain oil.

In order to allow you to operate your chainsaw immediately after purchase, one 200 ml bottle of biodegradable saw chain oil is included. After the biodegradable saw chain oil has been poured in, the chainsaw is ready for use. The oil levels must be regularly checked while the work is being done.

Please only use saw chain oil that is 100 % biodegradable.

Proceed as follows to fill the oil tank:

1. Pull the mains plug out of the socket.
2. Open the oil tank cap **13** by turning it counterclockwise.
Place the oil tank cap aside so that the sealing in the oil tank cap does not get lost.
3. Fill approx. 200 ml of biodegradable saw chain oil into the oil tank using a funnel (see **Fig. C**).
4. Close the oil tank cap by turning it clockwise.
Make sure that the sealing is fitted in the cap, that you have put the oil tank cap on in a level position and turned it into the closed position.
Do not in any case use a tool such as pliers to open or close the oil tank cap.
5. Check the chainsaw oil level regularly through the oil inspection window **8** and fill the oil tank with fresh biodegradable saw chain oil each time before using the chainsaw.

6. Always check correct functioning of the chain lubrication before commencing work:
 - To do so, switch on the chainsaw and hold it over a bright background such as paper.
A track of oil will show you that the chain is sufficiently lubricated.
 - Make sure that the saw chain does not in any case come in contact with the ground or other obstacles.
7. After use, lay the chainsaw horizontally on an absorbing base.
In the process of lubricating the chain, some oil drips may escape onto the blade **3**, saw chain **4** and drive.



If you plan not to use the chainsaw for a longer period, you should remove the biodegradable saw chain oil from the oil tank completely. The oil tank should also be emptied before the chainsaw is transported or shipped.

Adjust the chain tension



Risk of accident and injury!

The chainsaw is delivered in a fully assembled state, including the blade and saw chain. A saw chain which is not sufficiently tensioned or a saw chain which is too heavily tensioned may snap and cause severe injury and damage to property.

- Before use, check the chain tension and adjust it if necessary.

Adjust the chain tension as follows (see **Fig. D**):

- To increase the chain tension turn the adjusting wheel **5** clockwise.
- To reduce the chain tension turn the adjusting wheel in a counterclockwise direction.

The saw chain must be adjusted in such a way that it can be lifted by about 3 mm in the middle of the blade (see **Fig. H**).



- The tension of the chain must be adjusted regularly during the run-in. Immediately adjust the chain tension if the saw chain wobbles or comes out of the guide groove.
- The tension in the chain has a major effect on the service life of the saw chain and blade. It must therefore be checked regularly. When the saw chain warms up to operating temperature, the chain tension will change and must be readjusted. A new saw chain will have to be retightened more frequently until it has reached its operating length.

Operating the chainsaw

Connecting the chainsaw



Risk of electric shock!

A faulty electrical installation or excessive mains voltage may result in an electric shock.

- Only connect the chainsaw if the mains voltage of the socket corresponds to the specification on the rating plate.
- Only connect the extension cord to an easily accessible socket so that you can quickly disconnect the chainsaw and the extension cord from the mains supply in the event of a fault.
- Do not use the chainsaw and the extension cord if the chainsaw exhibits visible damage or if the extension cord or mains plug is defective.
- If the mains cord of the chainsaw is damaged, it must be replaced by the manufacturer, its After Sales Support or a person with similar qualifications.
- Do not open the housing; instead, have a qualified professional perform the repairs. Contact a qualified workshop for this. Liability and warranty claims are waived in the event of repairs performed by the user, improper connection of the device or incorrect operation.
- Only parts that comply with the original device data may be used for repairs. Electrical and mechanical parts, which are essential for providing protection against sources of danger, are located in this chainsaw.
- Do not immerse the chainsaw, its components or the mains cord or the mains plug in water or other liquids.

- Never touch the mains plug with damp hands.
- Never pull the mains plug out of the socket by the extension cord; instead, always do so by taking hold of the mains plug.
- Never use the cable as a carrying handle.
- Keep the chainsaw, mains plug and extension cord away from open flames and hot surfaces.
- Lay the extension cord so that it does not pose a tripping hazard.
- Do not kink the extension cord and do not lay it over sharp edges.
- Never reach to retrieve an electrical device if it has fallen in water. In such a case, immediately disconnect the mains plug.
- Always switch the chainsaw off and pull the mains plug out of the socket when you are not using the chainsaw, cleaning it or in the event of a fault.

NOTICE!

Risk of damage!

Improper handling of the chainsaw may damage it.

- Place the chainsaw on an easily accessible, level, dry, heat-resistant and sufficiently stable surface only. Do not place the chainsaw on the edge or corner of this surface.
- Ensure that the chainsaw and the extension cord do not come into contact with hot parts.
- Never expose the chainsaw to high temperatures (heaters etc.) or to the effects of the weather (rain etc.). Never fill the oil tank with any liquids other than biodegradable saw chain oil.
- Never attempt to clean the chainsaw by immersing it in water and do not use a steam cleaner to clean it. This could lead to damage to the chainsaw.
- Stop using the chainsaw if the plastic parts of the chainsaw exhibit cracks or breaks or are deformed.
- Ensure that there is always sufficient oil in the oil tank so that the saw chain can be lubricated during operation.
- Ensure that the correct level of tension has been applied to the saw chain and that it is sharp enough.



This chainsaw is designed to be operated on a mains supply with a system impedance Z_{\max} of max. 0.322 Ohm at the point of connection (house service connection). The user must ensure that the chainsaw is only operated with a mains supply which meets this requirement. If required, system impedance data may be obtained from the local energy utility.



Use only extension cords that are approved for outdoor use and are not lighter than rubber-sheathed cables of type H07 RN-F according to DIN/VDE 0282 with a diameter of at least 1.5 mm². The extension cable and its components such as the plug and coupling socket must be splash-proof.

This chainsaw is equipped with strain relief **10** to protect the mains cable **9**. Proceed as follows to properly secure the mains cable:

1. Connect the mains plug of the mains cable with the coupler socket of the extension cord (not included in the product contents).
2. Using the mains cable, create a tight cable loop (see **Fig. G**).
3. Pull the cable loop through the opening of the rear handle **12**.
4. Hang the cable loop over the hook of the strain relief.
The plug connection between the mains cable/extension cord is now secured against accidental separation.
5. Insert the mains plug of the extension cord in a properly installed earthed socket.

Switching the chainsaw on and off

1. Check the area where you intend to use the chainsaw for hazards, e.g. caused by persons, dangerous edges and tripping hazards.
2. Check whether the mains cable **9** is correctly connected and secured to the strain relief **10**.
3. Firmly hold the chainsaw with both hands on the handles:
 - Hold the chainsaw with your left hand at the front handle **1** and your right hand at the rear handle **12**.
 - Embrace both handles with your thumbs.
4. Hold the stopping button **15** pressed against the left side of the rear handle using your thumb.
5. Now push the on/off switch **11** with your index finger.
The chainsaw will immediately start at high speed.
The stopping button only serves to unlock the on/off switch and must not be pushed further after the chainsaw is switched on/started.

6. Place the operating chainsaw on the wood you intend to cut.

Never place the chainsaw on the material you intend to cut if the saw chain **4** is idle. This poses a risk of kickback.

7. Release the on/off switch to deactivate and immediately stop the chainsaw.

Safety features of the chainsaw

Chain brake



- **Always ensure before starting the chainsaw that the hand guard **2** is locked in the operating and safety position. To do so, pull back the front hand guard in the direction of the front handle **1**.**
- **When releasing the chain brake (pull the hand guard in the direction of the front handle), pressure must not be applied to the on/off switch **11** and the stopping button **15**.**

This chainsaw is equipped with a mechanical chain brake. This chain brake halts the chain drive, when the chain saw touches a solid object with the blade (wood, rock, nails etc.) and this causes kickback. This does not stop the motor, only the saw chain comes to an immediate stop.

The brake is engaged if the operator's hand bumps against the front hand guard when the blade tip touches a solid object.

After every 10 hours of operation, the chain brake should be checked for proper functioning.

- After the chain brake has been triggered, wait for the motor to come to a stop before you engage the clutch again.
- Do not unnecessarily trigger the chain brake as this results in increased wear and tear.

Rundown brake

The chain brake is equipped with a mechanical rundown brake. This brake is connected to the chain brake and will activate the brake function on the running saw chain **4** after the chainsaw has been switched off. It is activated by releasing the on/off switch **11**. The rundown brake avoids injuries through the coasting of the saw chain.

Chain catch bolt

This chainsaw is fitted with a chain catch bolt **20**. If the chain breaks when the saw is in operation, the chain catch bolt will catch the loose chain end and thus prevent injury to the operator's hand.

Instructions for performing basic tasks with the chainsaw

Using the spiked bumper

The spiked bumper (14) can be used as a lever during the sawing process by repositioning it at a lower point under the cut when halfway through sawing through thicker branches or trunks.

1. In order to do so, pull the chainsaw back a little after cutting in order to release the spiked bumper and reposition it at a lower point. Do not remove the blade (3) from the cut during this process.
2. Do not apply force to the saw chain (4), rather, carry out the work by creating slight lever pressure to the front using the spiked bumper and sawing further into the existing cut.

You will achieve optimal results if the chain speed does not reduce during sawing as a result of overload.

The spiked bumper cannot be used for length-wise cuts.

Felling a tree

When bucking and felling operations are being performed by two or more persons at the same time, the felling operation should be separated from the bucking operation by a distance of at least twice the height of the tree being felled. Trees must be felled in a manner that will not endanger any person, or strike any utility line and cause damage to property. If a tree comes in contact with a utility line, the utility company must be notified immediately.

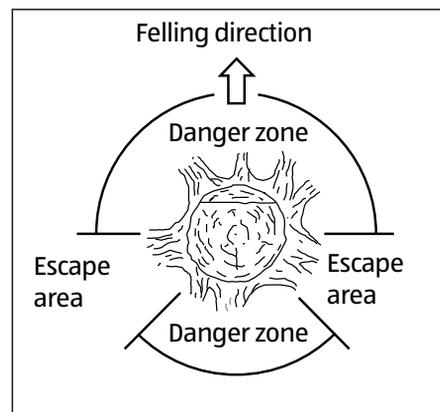


Fig. 1

When cutting on a slope, the chainsaw operator should keep on the uphill side of the terrain as the tree is likely to roll or slide downhill after it is felled.

A retreat path should be planned and cleared as necessary before cuts are started. The retreat path should extend back and diagonally to the rear of the expected line of fall (see **Fig. 1**).

Before felling is started, the natural lean of the tree, the location of larger branches and the wind direction must be considered to judge the felling direction of the tree.

Remove dirt, stones, loose bark, nails, staples, and wire from the tree.

Notching undercut

- Make the notch $\frac{1}{3}$ the diameter of the tree, perpendicular to the felling direction. Make the lower horizontal notching cut first.

This will help to avoid pinching of either the saw chain (4) or the guide bar (blade (3)) when the second notching cut is being made (see Fig. 2).

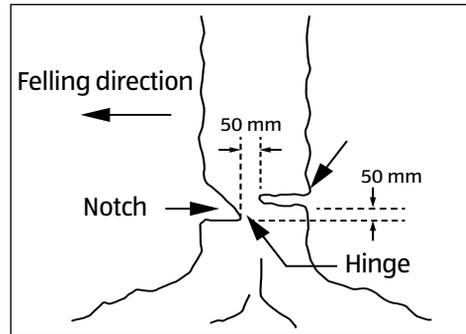


Fig. 2

Felling back cut

- Make the felling back cut at least 50 mm higher than the horizontal notching cut. Make the felling back cut deep enough so that a large enough section is left to act as a hinge.

The hinge wood keeps the tree from twisting and falling in the wrong direction. Do not cut through the hinge (see Fig. 2).

As the felling cut gets close to the hinge the tree should begin to fall.

- If there is any chance that the tree may not fall in the desired direction or it may rock back and bind the saw chain, stop cutting before the felling back cut is complete and use wedges of wood, plastic or aluminium to open the cut and drop the tree along the desired line of fall.
- When the tree begins to fall, remove the chainsaw from the cut, switch it off, put the chainsaw down, then use the retreat path planned to get out of the danger area. Be alert for overhead limbs falling and watch your footing.

Limbing a tree

Limbing means removing the branches from a fallen tree.

- When limbing, first leave larger lower limbs to support the tree.
- Remove smaller limbs in one cut.
Branches under tension should be cut from the bottom up to avoid binding the chainsaw (see Fig. 3).

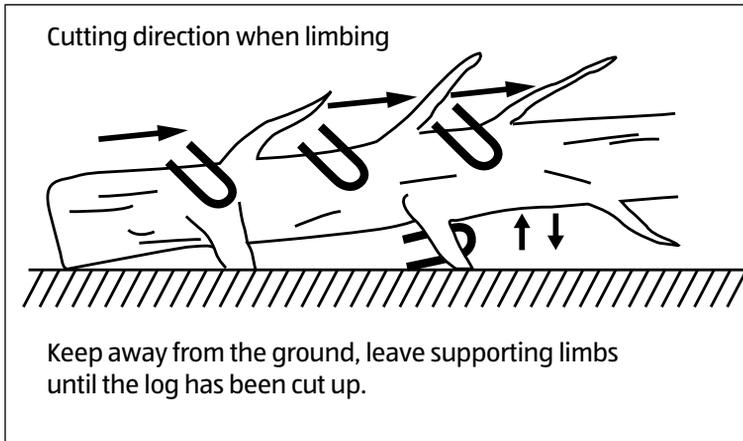


Fig. 3

Cutting a log to length

This means cutting a log into sections.

- It is important to make sure your footing is firm and your body weight is evenly distributed on both feet.
If possible, the log should be raised and supported by branches, beams or wedges. Follow these basic instructions to make cutting easier.

When the log is supported along its entire length, it is cut from the top (see **Fig. 4**).

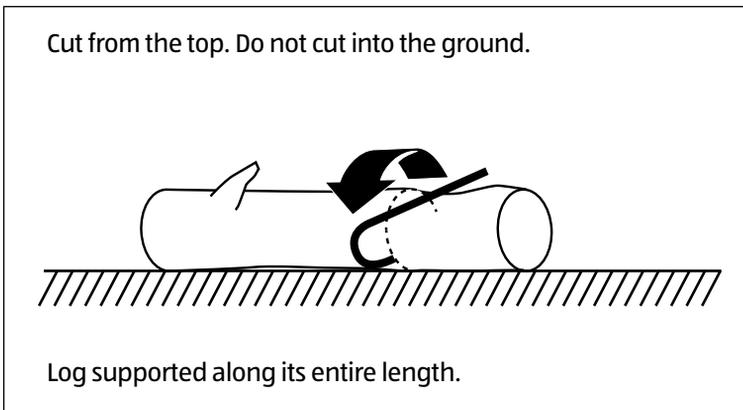


Fig. 4

- When the tree is supported on one end, first cut $\frac{1}{3}$ of the diameter of the log from the bottom side, then $\frac{2}{3}$ from the top side in line with the underbuck (see **Fig. 5**).

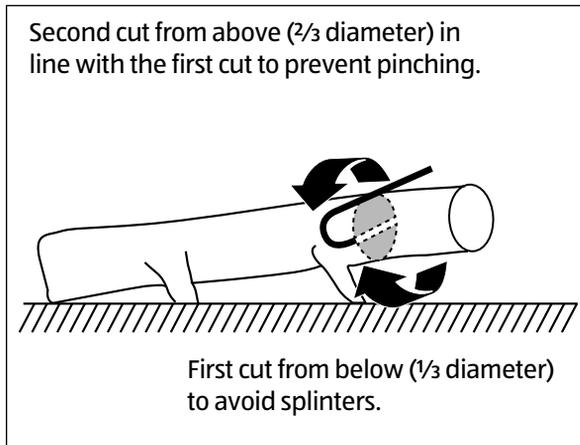


Fig. 5

- When the log is supported on both ends, first cut $\frac{1}{3}$ of the diameter of the log from the top side, then $\frac{2}{3}$ from the bottom side in line with the overbuck (see **Fig. 6**).

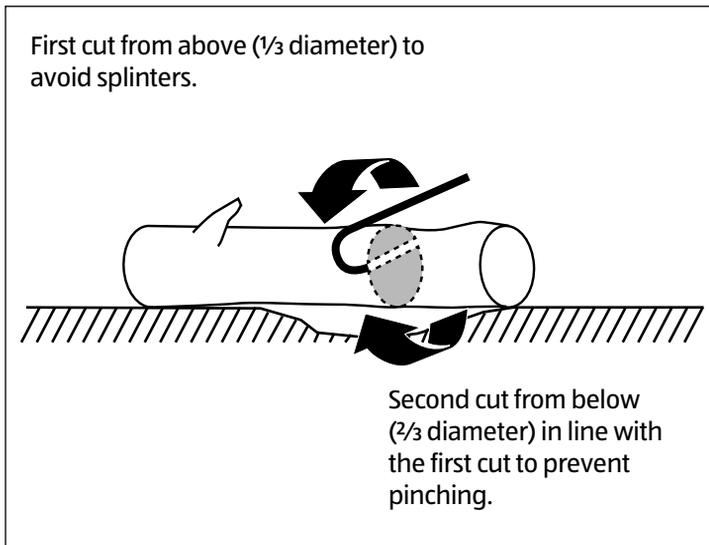


Fig. 6

1. When bucking on a slope, always stand on the uphill side of the log.
2. To maintain complete control when “sawing through”, reduce the cutting pressure near the end of the cut without relaxing your grip on the chainsaw handles **1**, **12**.
3. Don't let the saw chain contact the ground (see **Fig. 7**).

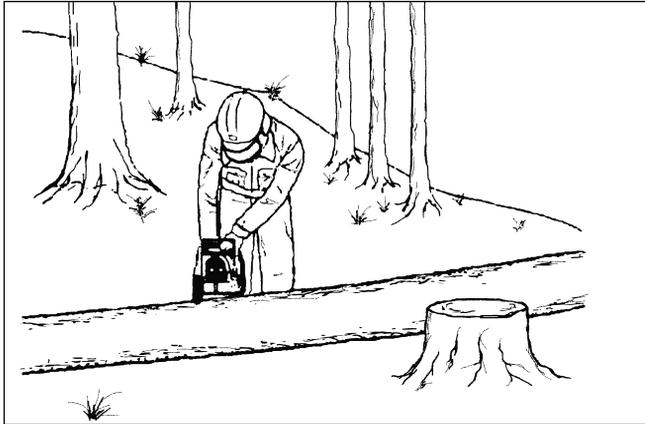


Fig. 7

4. After completing the cut, wait for the saw chain **4** to stop before you remove the chainsaw.
5. Always stop the motor of the chainsaw before moving from tree to tree.

Cleaning and maintenance



Risk of injury!

Improper handling of the chainsaw may result in electric shock or injury caused by the saw chain as it starts up.

- Always remove the mains plug from the socket/coupler socket when performing maintenance and servicing tasks.
- Wear suitable protective gloves.

NOTICE!

Risk of damage!

Water or other liquids that have penetrated the housing may cause a short circuit.

- Never immerse the chainsaw in water or other liquids.
- Make sure that no water or other liquids penetrate the housing.

NOTICE!

Risk of damage!

Improper handling of the chainsaw may damage it.

- Do not use any aggressive cleaners, brushes with metal or nylon bristles, sharp or metallic cleaning utensils such as knives, hard scrapers and the like. They could damage the surfaces.

Cleaning the chainsaw

1. Clean the chainsaw's housing with a moistened cloth. In case of heavier soiling, you may use a bit of a mild dishwashing liquid. Never spray the chainsaw with water.
2. Always remove wood shavings, dust and biodegradable saw chain oil from your chainsaw after each use. Ensure in particular that the motor ventilation slots for cooling the motor in the housing of the chainsaw are free of wood shavings and dust. Otherwise, there is a risk of overheating the motor.

Cleaning the saw chain

If the saw chain **4** is heavily soiled, e.g. in case of gumming with resin, remove the saw chain and clean it.

1. To do so, place the saw chain in a vessel containing chainsaw cleaner for a few hours.
2. Thereafter, clean the saw chain with clear water.
3. Dry the saw chain and treat it with anticorrosion spray.

When using biodegradable saw chain oil incrustation may occur. The lubrication system of the chainsaw should be rinsed with chainsaw cleaner before storing the chainsaw for a longer period.

1. To do so, pour approx. 100 ml of chainsaw cleaner into the empty oil tank and close it as usual.

2. Remove the saw chain and the blade **3** from the chainsaw.
3. Reconnect the chainsaw to the power supply and place the chainsaw on an absorbent base (e.g. cleaning cloths).
4. Switch on the chainsaw and keep it running until the total rinsing liquid (chainsaw cleaner) has passed through the oil passages.
5. Replace the blade and the saw chain (see chapter “Replacing wearable parts”).
6. Before using the chainsaw again, it is absolutely essential to refill the oil tank with biodegradable saw chain oil **21**.

Re-grinding the saw chain

- Have the saw chain **4** reground professionally at an authorised specialist workshop.

Replacing wearable parts



Risk of injury!

The saw chain has very sharp edges and may inflict cuts when being changed (when being fitted/removed).

- Use safety gloves to fit/remove the saw chain.

The saw chain **4** and the blade **3** (guide bar of the saw chain) are subject to wear and tear depending on how they are used and must be replaced in the event of clear signs of wear. The chain teeth of the saw chain must at least be 4 mm in length. You do not need any tools for the following steps. Follow the steps below to replace the saw chain and blade:

1. Lay an absorbent base on the work surface, e.g. cleaning cloths. Lay the chainsaw on the work surface.
2. Loosen the adjusting wheel **5** by turning it counterclockwise.
3. Remove the pinion lid **7**.
4. Push the blade rearwards slightly towards the chain drive wheel **16**.
The saw chain is now loose.
5. Remove the saw chain and the blade carefully (see **Fig. E** and **F**).
6. Clean the blade and chain drive wheel with chainsaw cleaner before you start mounting the new replacement parts.
7. Lay the blade on a flat surface (board, panel etc.).
Make sure that the writing is facing up and can be read from left to right.

8. Fit the new saw chain around the blade.

Make sure that the cutting teeth of the saw chain on the top side of the blade are pointing forward in the direction of the arrow towards the tip of the blade.

9. Insert the saw chain in the guide groove of the blade.

10. Lay the free end of the saw chain over the chain drive wheel.

11. Lay the blade out in such a way that the chain tensioning cam **19** sits precisely on the fixing bolts **17** and the guide bolts **18**.

Check whether all chain links are seated exactly in the blade groove and the saw chain is correctly positioned around the chain wheel.

12. Open the pinion lid again and turn the adjusting wheel tightly in a clockwise direction.

Maintaining the chainsaw

Replacing the carbon brushes

The carbon brushes may only be replaced by a specialist workshop or qualified specialist personnel.

Replacing the mains cable

If the mains cable **9** is damaged, it must be replaced with a specific mains cable which can be obtained from the manufacturer or its After Sales Support. The mains cable may only be replaced by a specialist workshop or by qualified specialist staff.

Checking the chainsaw

Regularly check the condition of the chainsaw. Among other things, check to make sure:

- that the stopping button **15** and the on/off switch **11** show no signs of damage;
- that the accessories are in proper condition;
- that the air vents are unobstructed and clean. If applicable, use a soft brush to clean them;
- that the saw chain **4** is correctly adjusted (tension). If the chain is too loose, it may come off during use and lead to injuries. The saw chain must be replaced immediately if it is damaged. The cutting teeth must be at least 4 mm long;
- regularly check the chain saw housing and the mains cable **9** for damage. If there are any signs of damage, have the chainsaw checked by the factory service centre or a specialist workshop;

- check the oil level and lubrication of the chainsaw prior to every use. Insufficient or lack of lubrication leads to damage to the saw chain, blade **3** and motor;
- check the sharpness of the saw teeth prior to using the chainsaw. A blunt saw chain will cause the motor to overheat. Sharpening a saw chain requires specialised knowledge. Take the chainsaw to a specialist workshop to have the saw chain sharpened;
- after each use, check all the parts of the chainsaw for wear and tear, particularly saw chain, blade and chain drive wheel **16**.

If you identify any damage, you must have it repaired by a specialist workshop to prevent risks.

Repairs

Any maintenance or repair work going beyond that described in this user manual may only be carried out by the factory service centre or by authorised specialist workshops.

- Describe the error you identified when sending in or bringing in the tool for repair.
- Always keep the original packaging for shipping purposes.

Storage

- Clean the chainsaw thoroughly prior to storage (see chapter “Cleaning and maintenance”).
- Store the clean chainsaw and accessories in the original packaging wherever possible and ensure it is not accessible to children.
- Do not store the chainsaw outdoors or in damp and moist areas.

Transport

- Place the blade protection **6** on the blade **3**.
- Hold the chainsaw with one hand at the front handle **1** and one hand on the rear handle **12**. Do not carry the chainsaw by the blade.
- Secure the saw to prevent it from slipping when transporting it in a vehicle.
- If possible, use the original packaging for transport.

Troubleshooting

Problem	Cause	Solution
The chainsaw does not start.	The socket or extension cords have no power.	– Check the power connections and replace the extension cord if applicable.
The saw chain 4 is not running.	The chain brake is engaged.	– Check the position of the hand guard 2 . The saw chain only runs when the chain brake has been released.
Motor produces a large amount of sparks.	The motor and/or the carbon brushes are damaged.	– Turn the chainsaw in to the factory service centre or a specialised workshop.
The biodegradable saw chain oil 21 is not flowing. The chain is not lubricated.	There is no biodegradable saw chain oil in the oil tank or the oil flow openings are blocked.	– Clean the chainsaw as described in the chapter “Cleaning and maintenance”. – If these measures are not effective, turn the chainsaw in to the factory service centre or a specialist workshop.
The mains cable 9 /the extension cable show signs of damage.	The mains cable/the extension cable were not correctly secured or laid out.	– Have the mains cable/extension cable replaced by the factory service centre or a specialist workshop.

Technical data

Model:	GACS16D
Article number:	95103
Nominal voltage:	230–240 V~
Nominal frequency:	50 Hz
Fuse protection (delayed action):	16 A
Idle speed n_0 :	5,000 rpm.
Nominal output:	2,300 W
Nominal current:	11 A
Blade length:	400 mm
Cut length:	380 mm
Saw chain type:	91PX057X Oregon
Chain speed:	approx. 15.5 m/s
Weight:	approx. 5 kg
Oil tank volume:	150 ml
Protection class:	II 

Noise/vibration information



Health hazard!

Working without ear protection and suitable protective clothing poses a health hazard.

- Wear ear protection and suitable protective clothing when working with the device.

Measured in accordance with DIN EN 60745-2-13. The noise at your workplace may exceed 85 dB(A); protective measures are necessary in this case (wear suitable ear protection).

- Sound pressure level L_{pA} : 92 dB(A)
- Sound power level L_{WA} : 103 dB(A)
- Uncertainty K: 3 dB(A)

The aforementioned values are noise emission values and therefore, do not necessarily represent safe values for the workplace at the same time. The correlation between emission and immission levels cannot reliably provide for a conclusion as to whether additional cautionary measures are necessary or not.

Factors that could affect the respective immission level present at the workplace involve the specification of the work area, the surrounding area, the duration of exposure, other noise sources etc.

You must also observe any divergences from national regulations with respect to the permissible workplace levels. The aforementioned information does, however, allow the user to better assess dangers and risks.

- Vibration level a_h : 6,9 m/s²
- Uncertainty K: 1,5 m/s²

WARNING!

The aforementioned vibration emission level (vibration value) has been measured in accordance with a test method standardised in DIN EN 60745-1 and can be used to compare one tool to another. It is also suited for preliminary estimation of exposure to vibration.

The vibration emission value during actual use of the tool can differ from the declared vibration level depending on the way in which the air shears are used, for example:

- Condition of the chainsaw and proper maintenance;
- Type of material and usage of the chainsaw;
- Use of the correct accessories which are in good condition;
- Firm grip of the chainsaw by the operator;
- Proper use of the chainsaw as described in this user manual.

Improper use of the chainsaw can cause vibration-related ailments.

WARNING!

Depending on how the tool is used and the operating conditions, the following safety precautions must be taken to protect the user:

- Avoid exposure to vibrations as much as possible.
- Only use accessories in perfect working order.
- Wear vibration-damped gloves when using the chainsaw.
- Care for and maintain the chainsaw as described in this user manual.
- Avoid using the chainsaw at temperatures below 10 °C.
- Plan your work steps so as not to use strongly vibrating devices over several consecutive days.

Disposal

Disposal of the packaging



Sort the packaging materials according to type and dispose of each separately. Dispose of paperboard and cardboard with wastepaper and plastics with recyclable waste.

Disposing of the chainsaw

- Dispose of the chainsaw in accordance with the regulations in force in your country.



Old appliances must not be disposed of in the household waste!

This symbol indicates that this product must not be disposed of together with domestic waste in compliance with the Directive (2012/19/EU) pertaining to waste electrical and electronic equipment (WEEE). This product must be disposed of at a designated collection point. This can occur, for example, by handing it in at an authorised collecting point for the recycling of waste electrical and electronic equipment. Improper handling of waste equipment may have negative consequences for the environment and human health due to potentially hazardous substances that are often contained in electrical and electronic equipment. By properly disposing of this product, you are also contributing to the effective use of natural resources. You can obtain information on collection points for waste equipment from your municipal administration, public waste disposal authority, an authorised body for the disposal of waste electrical and electronic equipment or your waste disposal company.

Declaration of conformity

EC Declaration of Conformity

We,

MEROTEC GmbH
D-47877 Willich, Hanns-Martin-Schleyer Str. 18a, Germany

herewith declare that our product

Electric Chainsaw
Model No.: GACS16D
Intended use: Sawing wood

is in conformity with the following directives:

MD 2006/42/EC
EMC directive 2014/30/EU
RoHS 2011/65/EU^{*)}
based on EC type-examination of
TÜV Rheinland LGA Products GmbH, Tillystraße 2 D - 90431 Nürnberg, Germany
notified body ID: 0197
Number of the EC type-examination certificate: BM 50379116 0001

Applied harmonized standards:

EN 60745-1: 2009+A11
EN 60745-2-13: 2009+A1
EN 61000-3-2:2014
EN 61000-3-11:2000
EN 55014-1:2006+A1:2009+A2:2011
EN 55014-2:2015

Person authorised to compile the technical file:

Dirk Wohlrab
MEROTEC GmbH
Hanns-Martin-Schleier-Straße 18A
47877 Willich, Germany

Willich, 02.05.2017
Legally valid signature:



Ronald Menken
General Manager MEROTEC GmbH



This declaration of conformity is issued under the sole responsibility of the manufacturer.

^{*)} The object of the declaration described above satisfies the provisions of directive 2011/65/EU of the European Parliament and the Council of 8 June 2011 on limiting the use of certain harmful substances in electrical and electronic appliances.



