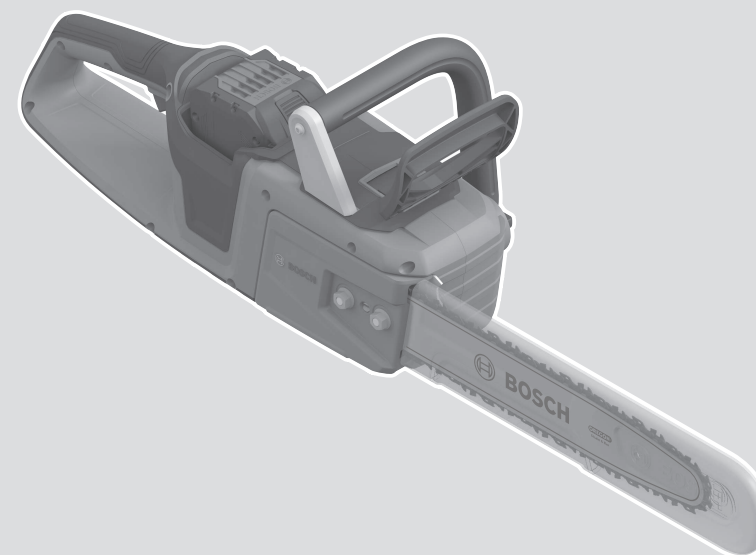




BOSCH

GKE 18V-40



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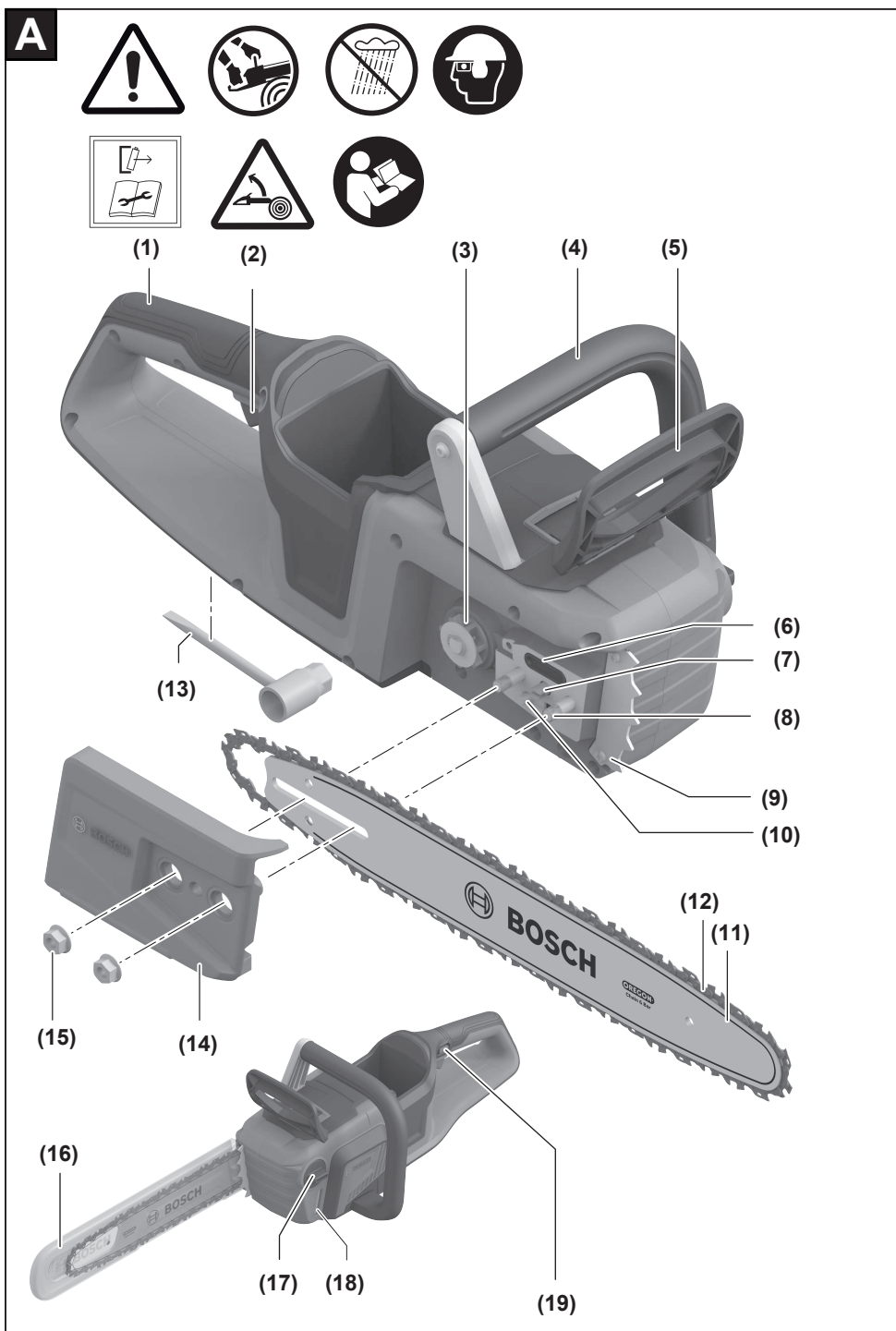


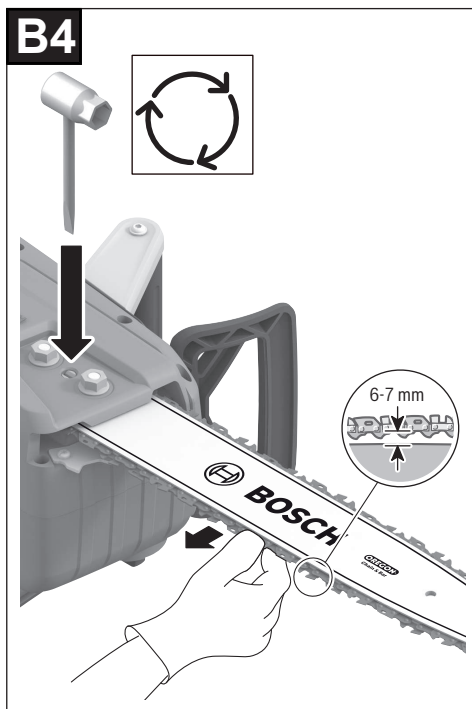
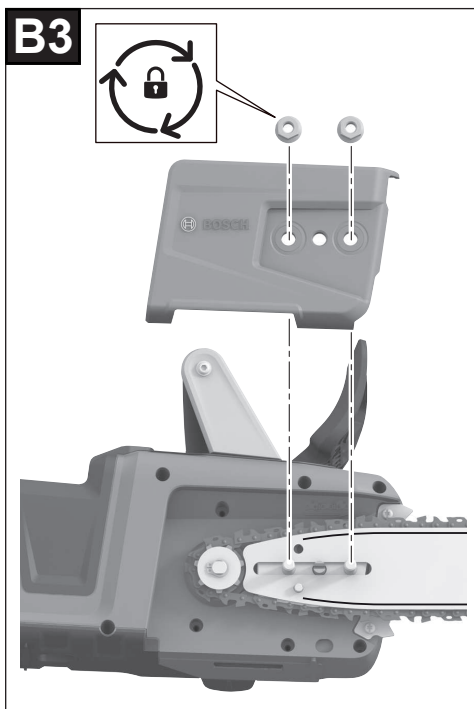
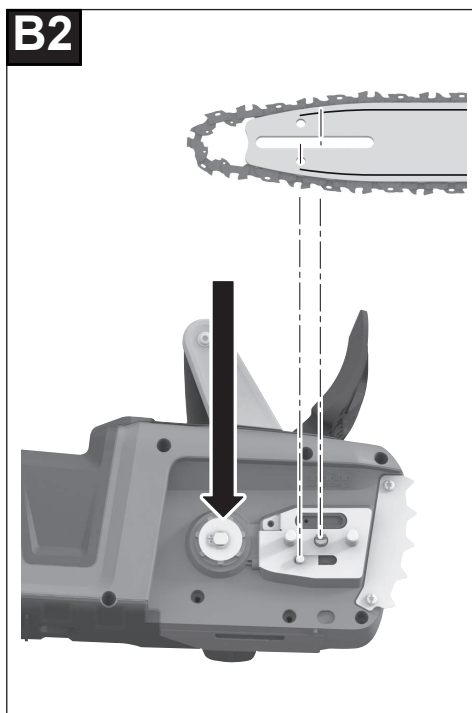
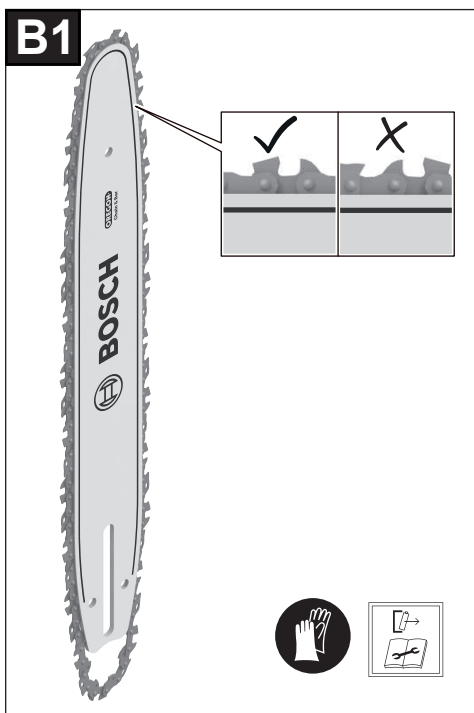
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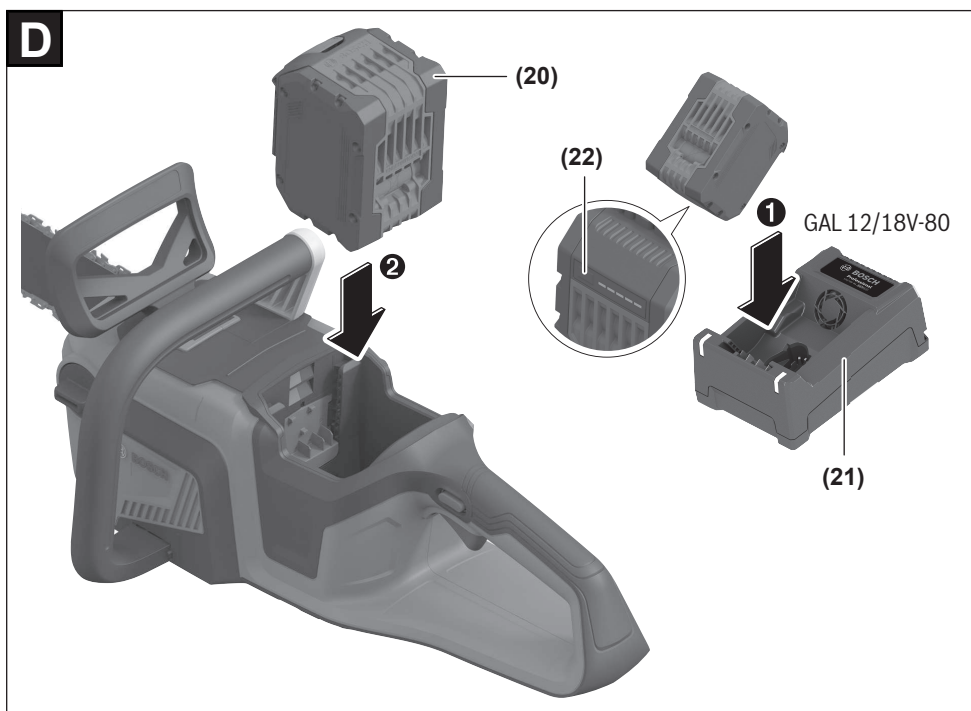
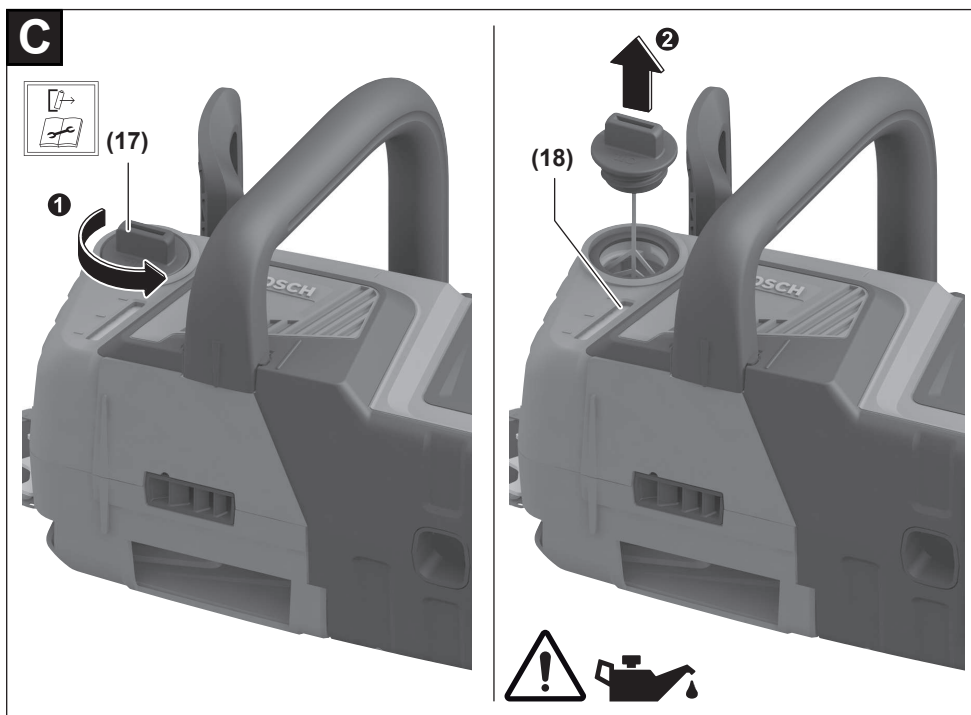
- en Original instructions
- zh 正本使用说明书
- zh 原始使用說明書
- ko 사용 설명서 원본
- th หนังสือคู่มือการใช้งานฉบับต้นแบบ
- id Petunjuk-Petunjuk untuk Penggunaan Orisinal
- vi Bản gốc hướng dẫn sử dụng

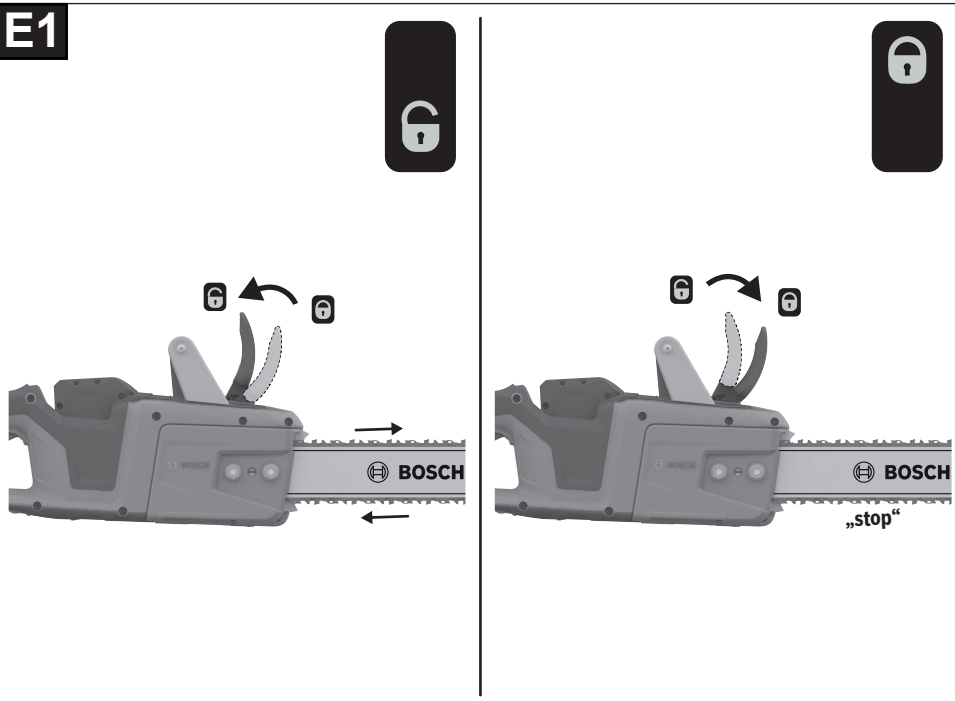
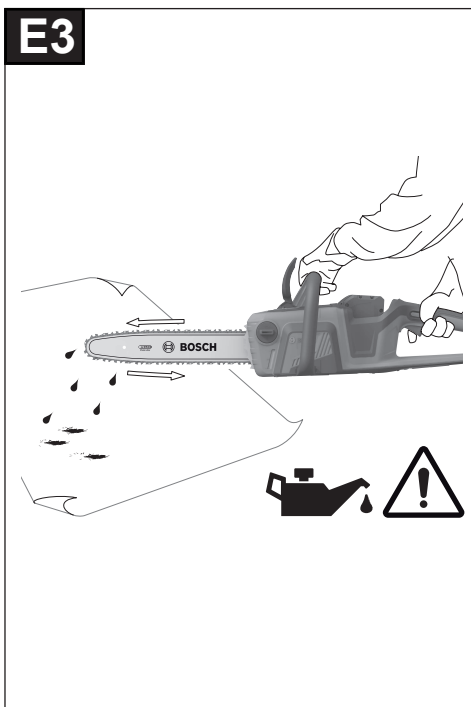


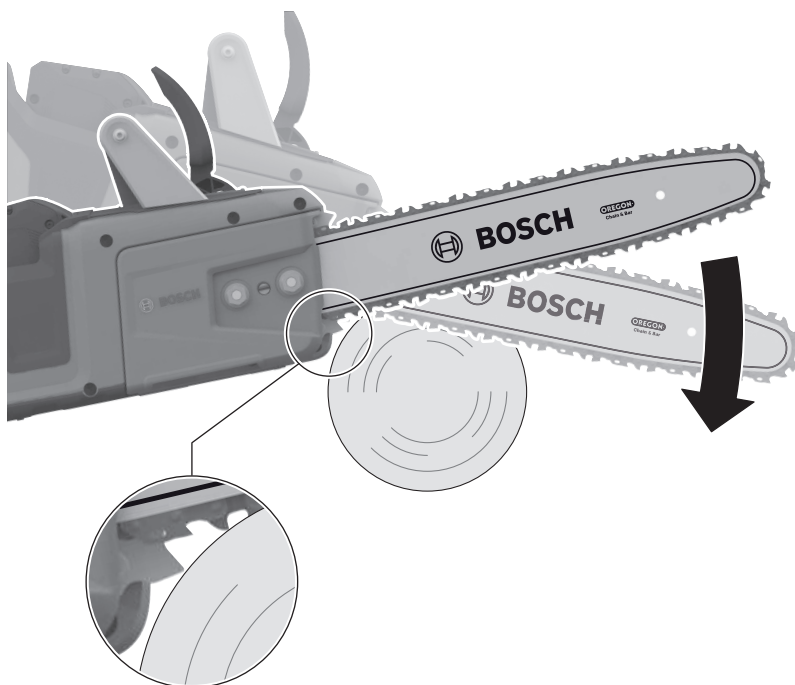
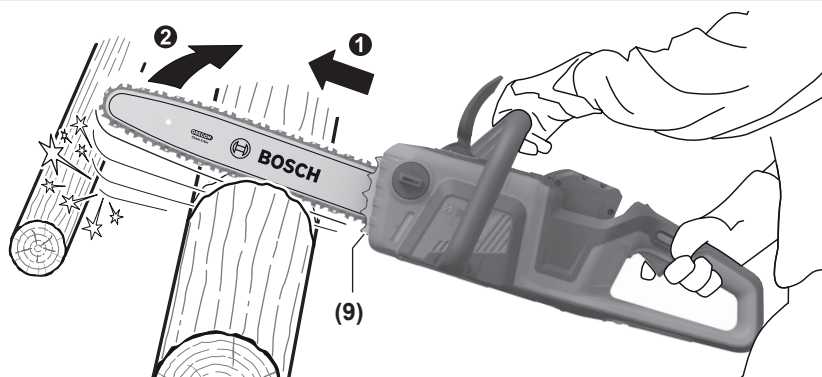
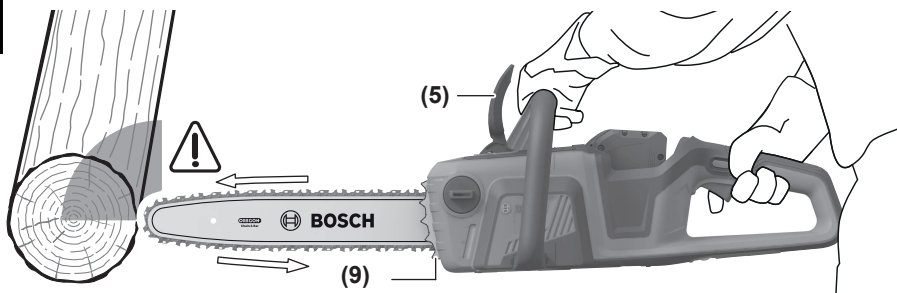
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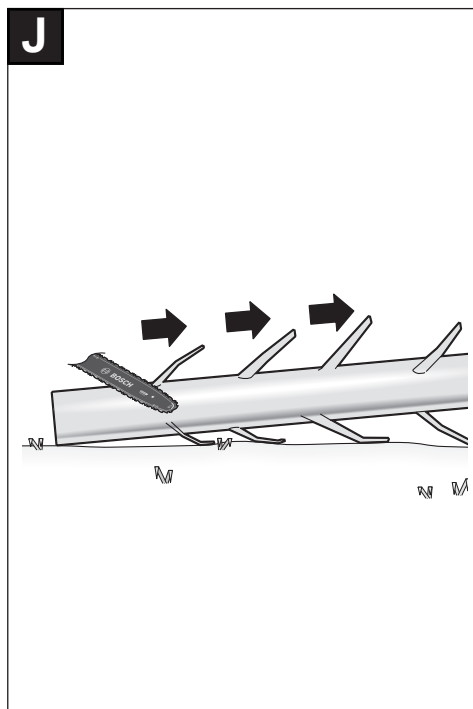
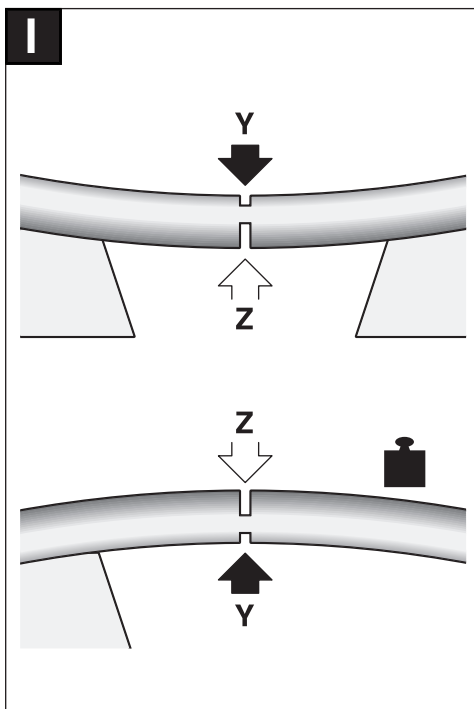
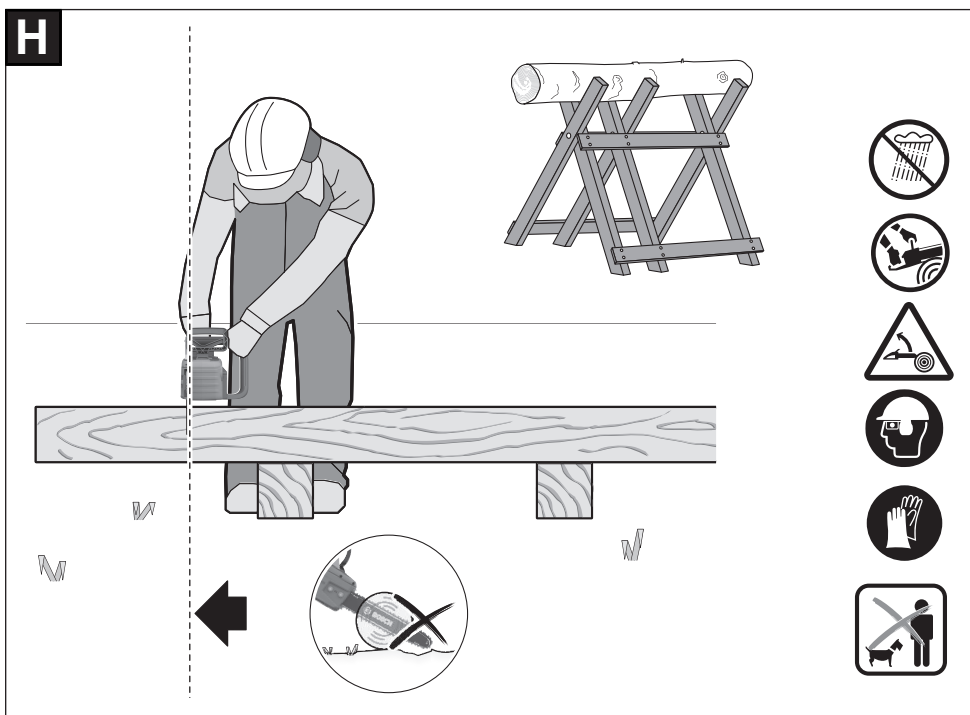






E1**E2****E3**

F**G**



K

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F 016 800 647



F 016 800 642

English

Safety Notes

Explanation of symbols



Read instruction manual.



General hazard safety alert.



Do not expose to rain.



Always hold a chain saw firmly with both hands.



Pay attention to the kickback of the chainsaw and avoid contact with the tip of the chain bar.



Wear personal protective equipment (PPE) before maintaining, use wear eye, ear and head protection.



Wear hand protection.



WARNING: Disconnect battery before maintenance.

General Power Tool Safety Warnings

⚠ WARNING Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

Work area safety

- ▶ **Keep 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

- ▶ **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

Personal safety

- ▶ **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.
- ▶ **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
- ▶ **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, 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.
- ▶ **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.
- ▶ **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- ▶ **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- ▶ **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.
- ▶ **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

Power tool use and care

- ▶ **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.
- ▶ **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.
- ▶ **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.

- ▶ **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- ▶ **Maintain power tools and accessories. 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.
- ▶ **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- ▶ **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account 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.
- ▶ **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

Battery tool use and care

- ▶ **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- ▶ **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- ▶ **When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another.** Shorting the battery terminals together may cause burns or a fire.
- ▶ **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.
- ▶ **Do not use a battery pack or tool that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
- ▶ **Do not expose a battery pack or tool to fire or excessive temperature.** Exposure to fire or temperature above 130 °C may cause explosion.
- ▶ **Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

Service

- ▶ **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.
- ▶ **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorized service providers.

General Chain Saw Safety Warnings

- ▶ **Keep all parts of the body away from the saw chain when the chain saw is operating. Before you start the chain saw, make sure the saw chain is not contacting anything.** A moment of inattention while operating chain saws may cause entanglement of your clothing or body with the saw chain.
- ▶ **Always hold the chain saw with your right hand on the rear handle and your left hand on the front handle.** Holding the chain saw with a reversed hand configuration increases the risk of personal injury and should never be done.
- ▶ **Hold the chain saw by insulated gripping surfaces only, because the saw chain may contact hidden wiring.** Saw chains contacting a "live" wire may make exposed metal parts of the chain saw "live" and could give the operator an electric shock.
- ▶ **Wear eye protection. Further protective equipment for hearing, head, hands, legs and feet is recommended.** Adequate protective equipment will reduce personal injury from flying debris or accidental contact with the saw chain.
- ▶ **Do not operate a chain saw in a tree, on a ladder, from a rooftop, or any unstable support.** Operation of a chain saw in this manner could result in serious personal injury.
- ▶ **Always keep proper footing and operate the chain saw only when standing on fixed, secure and level surface.** Slippery or unstable surfaces may cause a loss of balance or control of the chain saw.
- ▶ **When cutting a limb that is under tension be alert for spring back.** When the tension in the wood fibres is released the spring loaded limb may strike the operator and/or throw the chain saw out of control.
- ▶ **Use extreme caution when cutting brush and saplings.** The slender material may catch the saw chain and be whipped toward you or pull you off balance.
- ▶ **Carry the chain saw by the front handle with the chain saw switched off and away from your body. When transporting or storing the chain saw, always fit the guide bar cover.** Proper handling of the chain saw will reduce the likelihood of accidental contact with the moving saw chain.
- ▶ **Follow instructions for lubricating, chain tensioning and changing the bar and chain.** Improperly tensioned or lubricated chain may either break or increase the chance for kickback.
- ▶ **Cut wood only. Do not use chain saw for purposes not intended. For example: do not use chain saw for cut-**

ting metal, plastic, masonry or non-wood building materials. Use of the chain saw for operations different than intended could result in a hazardous situation.

- ▶ **This chain saw is not intended for tree felling.** Use of the chain saw for operations different than intended could result in serious injury to the operator or bystanders.
- ▶ **Follow all instructions when clearing jammed material, storing or servicing the chain saw. Make sure the switch is off and the battery pack is removed.** Unexpected actuation of the chain saw while clearing jammed material or servicing may result in serious personal injury.
- ▶ **Causes and operator prevention of kickback:**
 - Kickback may occur when the nose or tip of the guide bar touches an object, or when the wood closes in and pinches the saw chain in the cut.
 - Tip contact in some cases may cause a sudden reverse reaction, kicking the guide bar up and back towards the operator.
 - Pinching the saw chain along the top of the guide bar may push the guide bar rapidly back towards the operator.
 - Either of these reactions may cause you to lose control of the saw which could result in serious personal injury. Do not rely exclusively upon the safety devices built into your saw. As a chain saw user, you should take several steps to keep your cutting jobs free from accident or injury. Kickback is the result of chain saw misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:
- ▶ **Maintain a firm grip, with thumbs and fingers encircling the chain saw handles, with both hands on the saw and position your body and arm to allow you to resist kickback forces.** Kickback forces can be controlled by the operator, if proper precautions are taken. Do not let go of the chain saw.
- ▶ **Do not overreach and do not cut above shoulder height.** This helps prevent unintended tip contact and enables better control of the chain saw in unexpected situations.
- ▶ **Only use replacement guide bars and saw chains specified by the manufacturer.** Incorrect replacement guide bars and saw chains may cause chain breakage and/or kickback.
- ▶ **Follow the manufacturer's sharpening and maintenance instructions for the saw chain.** Decreasing the depth gauge height can lead to increased kickback.

Additional safety warnings

- ▶ **This tool contains magnets – keep away from implants and other medical devices, e.g. pacemaker or insulin pumps, magnetic storage media and magnetically sensitive devices.** The magnet generates a field that can impair the function of the devices or lead to irreversible data loss.

- ▶ **This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.** Children should be supervised to ensure that they do not play with the appliance.
- ▶ **When working with the tool, always hold it firmly with both hands and provide for a secure stance.** The power tool is guided more secure with both hands.
- ▶ **Always ensure all handles and guards are fitted when using the machine.** Never attempt to use an incomplete machine or one fitted with an unauthorized modification.
- ▶ Always operate the power tool with a properly aligned and tensioned chain. Using the power tool with a misaligned or incorrectly tensioned chain can result in chain breakage, kickback and/or injury.
- ▶ Keep all cooling air inlets clear of debris.

Safety Instructions and Recommendations for Optimal Handling of the Battery

- ▶ **Ensure the product is switched off before inserting the battery.** Inserting the battery into a product that has the switch on can cause accidents.
- ▶ **Use only Bosch batteries intended specifically for this product.** Use of any other batteries may create a risk of injury and fire.
- ▶ **Do not modify or open the battery.** There is a risk of short-circuiting.



Protect the battery against heat (e.g., against continuous intense sunlight), fire, water, and moisture. There is a risk of explosion.



- ▶ **When not using the machine detach the battery away from paper clips, coins, keys, nails, screws, or other small metal objects that could cause bridging of the terminals.** Shorting the battery terminals together may cause burns or a fire.
- ▶ **In case of damage and improper use of the battery pack, vapours may be emitted.** Ventilate the area and seek medical help in case of complaints. The vapours can irritate the respiratory system.
- ▶ **Only use the battery with products from the manufacturer.** This is the only way in which you can protect the battery against dangerous overload.
- ▶ **The battery can be damaged by pointed objects such as nails or screwdrivers or by force applied externally.** An internal short circuit may occur, causing the battery to burn, smoke, explode or overheat.
- ▶ **Do not short-circuit the battery.** There is a risk of explosion.
- ▶ Protect the battery against moisture and water.
- ▶ Store the product and battery only within a temperature range between –20 °C and 50 °C. As an example, do not leave the battery in the car in summer.

- Occasionally clean the air inlet vents of the battery using a soft, clean and dry brush.

Symbols

The following symbols are important for reading and understanding the original instructions. Please take note of the symbols and their meaning. The correct interpretation of the symbols will help you to use the product in a better and safer manner.

Symbol	Meaning
	Keep children, people and pets away.
	Movement direction
	Reaction direction
	Weight
	Activate kickback brake
	Deactivate kickback brake
	Permitted action
	Prohibited action
CLICK!	Audible noise
	Accessories/Spare parts

Product description and specifications



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

Technical Data

Chain saw		GKE 18V-40
Article number		3 600 HD3 0..
Rated voltage ^{A)}	V	18
Chain speed at no load	m/s	12.4
Chain bar length	cm	40
Compatible chain bar		Oregon 164MLEA041 Bosch 1 600 A03 0J6
Chain bar connection type		A041
Saw chain pitch		3/8" low profile

Please observe the illustrations at the beginning of this operating manual.

Intended Use

The power tool is used for sawing trees and tree trunks near the ground. Cuts can be sawed with or across the grain.

This power tool is not suitable for sawing mineral materials.

This power tool is not intended for felling trees.

Product Features (see figure A)

The numbering of the product features refers to the diagram of the power tool on the graphics page.

- (1) Rear handle
- (2) On/Off switch
- (3) Drive sprocket
- (4) Front handle
- (5) Hand guard/Activation lever for kickback brake
- (6) Oil outlet
- (7) Chain tensioning screw
- (8) Fastening bolt
- (9) Metal spiked bumper
- (10) Clamping pin
- (11) Chain bar
- (12) Saw chain
- (13) Assembly tools
- (14) Cover
- (15) Fastening nut
- (16) Chain guard
- (17) Oil filler cap
- (18) Oil viewing window
- (19) Lock-off button for On/Off switch
- (20) Battery
- (21) Charger
- (22) Battery status indicator

Chain saw		GKE 18V-40
Drive link thickness	mm	1.1 (0.043")
Number of drive links		57
Max. cutting diameter	cm	36
Oil tank capacity	ml	150
Automatic chain lubrication		●
Tool clamp		●
Nose sprocket		●
Weight according to EN 62841-4-1 ^{A)}		
- With rechargeable battery	kg	4.66 (5.5 Ah)– 5.05 (12.0 Ah)
- Without rechargeable battery	kg	3.67
- Without rechargeable battery, chain bar or saw chain		3.06
Serial number		See serial number (type plate) on the product
Recommended ambient temperature during charging	°C	–20 to +50
Permitted ambient temperature during storage ^{B)}		
Permitted ambient temperature during operation ^{B)}	°C	0 to +40
Compatible rechargeable batteries		GBA18V... GBA 18V... ProCORE18V... EXPERT18V... EXBA18V... CORE18V...
Recommended rechargeable batteries for maximum performance		GBA 18V... ≥ 4.0 Ah ProCORE18V... ≥ 4.0 Ah EXPERT18V...
Recommended battery chargers		GAL18... GAL 18... GAL 36... GAL12V/18... GAL 12V/18... GAX 18... EXAL18...

A) Depending on battery in use

B) Limited performance at temperatures < 0 °C

Values can vary depending on the product, scope of application and environmental conditions. To find out more, visit www.bosch-professional.com/wac.

Rechargeable battery

Bosch sells some cordless power tools without a rechargeable battery. You can tell whether a rechargeable battery is included with the power tool by looking at the packaging.

Charging the battery

- **Use only the chargers listed in the technical data.** Only these chargers are matched to the lithium-ion battery of your power tool.

Note: Lithium-ion rechargeable batteries are supplied partially charged according to international transport regulations. To ensure full rechargeable battery capacity, fully

charge the rechargeable battery before using your tool for the first time.

Inserting the Battery

Push the charged battery into the battery holder until it clicks into place.

Removing the Battery

To remove the rechargeable battery, press the battery release button and pull the battery out. **Do not use force to do this.**

The rechargeable battery has two locking levels to prevent the battery from falling out if the battery release button is pressed unintentionally. The rechargeable battery is held in place by a spring when fitted in the power tool.

Battery charge indicator

The green LEDs on the battery charge indicator indicate the state of charge of the battery. For safety reasons, it is only possible to check the state of charge when the power tool is not in operation.

Press the button for the battery charge indicator  or  to show the state of charge. This is also possible when the battery is removed.

If no LED lights up after pressing the button for the battery charge indicator, then the battery is defective and must be replaced.

Rechargeable battery type GBA 18V... | GBA18V...



LED	Capacity
3 × continuous green light	60–100 %
2 × continuous green light	30–60 %
1 × continuous green light	5–30 %
1 × flashing green light	0–5 %

Battery model ProCORE18V...



LED	Capacity
5 × continuous green light	80–100 %
4 × continuous green light	60–80 %
3 × continuous green light	40–60 %
2 × continuous green light	20–40 %
1 × continuous green light	5–20 %
1 × flashing green light	0–5 %

Recommendations for Optimal Handling of the Battery

Protect the battery against moisture and water.

Only store the battery within a temperature range of –20 to 50 °C. Do not leave the battery in your car in the summer, for example.

Occasionally clean the ventilation slots on the battery using a soft brush that is clean and dry.

A significantly reduced operating time after charging indicates that the battery has deteriorated and must be replaced. Follow the instructions on correct disposal.

Battery Maintenance

Use the following procedures to enable optimum usage of the battery:

- Protect the battery against moisture and water.
- Store the machine and battery only within a temperature range between –20 °C and 50 °C. As an example, do not leave the battery in the car in summer.

- The battery must not be stored within the product but stored separately.
- Do not leave the battery in the product in direct sunlight.
- The ideal storage condition for the battery is 5 °C.
- Occasionally clean the venting slots of the battery using a soft, clean and dry brush.

A significantly reduced working period after charging indicates that the battery is used and must be replaced.

Assembly

For Your Safety

- ▶ **Warning! Switch off and remove battery from power tool before adjusting or cleaning.**
- ▶ **Caution! The chain is sharp. Always wear protective gloves when working with the chain.**
- ▶ **Do not operate the chain saw near other people, children or animals. Do not operate the chain saw after drinking alcohol or under the influence of intoxicating drugs or medication.**
- ▶ **Only use the chain saw with the cover correctly secured with the fastening bolts (8).**

Mounting the chain bar and tensioning the saw chain (see figures B1 – B4)

- ▶ **Caution! Do not tension the saw chain when it is hot.**
- Place the chain saw on a suitable level surface with the cover (14) facing upwards.
- Remove the cover (14) by removing the two fastening nuts (15) using the assembly tool supplied (13).
- Hold the chain bar (11) with the nose pointing vertically upwards and attach a new or resharpened saw chain (12) in the correct direction (see figure B1).
- Adjust the guide pin for the chain bar (10) to the left by rotating the chain tensioning screw (7) anti-clockwise. Note: the chain bar will not fit to the chain saw unless the guide pin for chain bar (10) is aligned correctly.
- Ensure that the saw chain (12) is correctly positioned in the slot around the entire chain bar.
- Fit the saw chain around the drive sprocket (3) and slide the chain bar (11) over the fastening bolts (8).
- Place the cover (14) over the fastening bolts (8).
- Attach the fastening nuts (15) to the fastening bolts (8) and carefully tighten the fastening nuts (15) by hand to secure the cover (14). (see figure B3).
- Use the assembly tool (13) to turn the chain tensioning screw (7) clockwise until the chain is tensioned around the chain bar. The correct chain tension is achieved when the saw chain (12) can be lifted approx. 6–7 mm from the chain bar (11).
To do so, place the chain saw on a suitable level surface. Wearing gloves, take up the saw chain at the top of the chain bar (11), near the centre of the cutting length, and

lift the saw chain (12) against the weight of the chain saw.

- If the saw chain is tensioned too tightly, turn the chain tensioning screw (7) anti-clockwise using the assembly tool (13) until the correct chain tension is achieved.

Note: Do not over-tension the saw chain – excessive tension leads to excessive wear, reduces the service life of the saw chain and can damage the chain bar.

Note: New saw chains can considerably elongate when used for the first time. Remove the battery and check the tension of the saw chain regularly during the first two hours of operation.

- Tighten the fastening nuts (15) using the assembly tool (13) and attach the cover (14) to the chain saw.
- Always ensure the two fastening nuts (15) are assembled and secured before operation.

Dismantling the saw chain and chain bar

- Place the chain saw on a suitable level surface with the cover (14) facing upwards.
- Remove the cover (14) by removing the fastening nuts (15) using the assembly tool supplied (13).
- Loosen the saw chain (12) by turning the chain tensioning screw (7) anti-clockwise using the assembly tool (13).
- Remove the chain bar (11) from the fastening bolts (8).
- Remove the chain from the drive sprocket.

Filling the oil reservoir (see figure C)

Note: The chain saw is not supplied filled with oil. It is essential to fill with oil before use. Operating the chain saw without chain oil or when the oil level is below the minimum mark will result in damage to the chain bar and saw chain.

To fill the oil reservoir, please proceed as follows:

- Set the chain saw on any suitable surface with the oil filler cap (17) facing upward.
- Clean the area around the oil filler cap (17). Use a clean cloth to remove any dirt.
- Unscrew the oil filler cap (17) anti-clockwise.
- Carefully fill the oil reservoir with chain saw oil.
- When filling with chain saw oil, ensure that no dirt or foreign objects enter the oil reservoir.
- The oil filler cap (17) is attached to the chain saw. When filling, ensure that the oil filler cap does not block the opening of the oil reservoir.
- You can check the oil level through the oil viewing window (18) during operation. When the minimum level is reached, top up with new oil.
- Fit the oil filler cap (17) and tighten it.

Note: Always use the oil intended for the chain saw to achieve the best performance. Use of non-approved oil may impair the performance of the oiling system and invalidate the warranty.

Saw Chain Lubrication (see figure E3)

Saw chain life and cutting capacity depend on optimum lubrication. Therefore, the chain is automatically lubricated with chain oil during operation via the oil outlet (6).

Check regularly whether the saw chain is properly lubricated:

- When the oil reservoir is full, hold the chain saw with the tip of the chain bar pointed at a light-coloured surface.
- Let the power tool run for approx. 1 minute or until oil is visible on the light-coloured surface.
- If no oil is visible, see troubleshooting "Saw chain dry".
- If the lubrication system is still not working properly, contact a Bosch Customer Service centre.

Note: The oil filter is integrated in the oil reservoir. Contact Bosch Customer Service for cleaning or troubleshooting.

Note: Oil becomes denser at lower temperatures which decreases the flow rate of oil.

Operation

- ▶ Always read the operating and safety information before use.
- ▶ Always wear suitable clothing and personal protective equipment.
- ▶ Carry out all required maintenance activities before use.
- ▶ Always check the tool and saw chain condition, the oil level and correct assembly before use. Only use the chain saw if it is in perfect condition.
- ▶ Always make sure that the environment is dry and free from obstacles and persons not involved.
- ▶ Always keep proper footing and operate the chain saw only when standing on fixed, secure and level surface.
- ▶ Never use the chain saw on a ladder or above shoulder height.
- ▶ Never over-reach or work with arms fully extended.
- ▶ Always hold the chain saw firmly with both hands.
- ▶ Do not leave the chain saw on the ground. Risk of stumbling!
- ▶ Do not smoke and do not bring fire or flames into the work area. Chain saw dust can be highly flammable.
- ▶ Do not activate the On/Off switch after the machine has switched off automatically. Otherwise, the battery may be damaged.

Note: The chain saw is not supplied filled with oil. Only use the chainsaw after you have filled the oil reservoir with chain oil.

- ▶ Using the chain saw with a misaligned or improperly tensioned chain may result in chain breakage, kick-back, and/or injury.
- ▶ New saw chains can considerably elongate when used for the first time.
- ▶ Check the chain tension regularly during operation.

For correct installation, (see "Mounting the chain bar and

tioning the saw chain (see figures **B1 – B4**"), page 15).

Correct handling of the chain saw (see figure H)

Always apply the correct handling described in this section:

- Wear suitable, non-slip chain saw gloves for maximum grip and protection.
- Always hold the saw firmly with both hands when the saw is in operation.
- Place your right hand on the rear handle and your left hand on the front handle, with your thumbs and fingers encircling the handles of the chain saw. (see figure **E2**)
- Keep your weight balanced and place both feet on firm ground.
- Keep the left elbow in a "stretched", stiff position to withstand any kickback forces.
- Never over-reach or work with arms fully extended.
- Maintain a firm grip and stiff left arm to keep control of the chain saw if a kickback occurs.
- Hold the chain saw on the right side of your body.
- Ensure that no part of your body crosses the cutting line. Kickback can throw the chain saw back toward your body. (see figure **H**) By kickback, the chain saw can be thrown back onto your body. (see figure **H**)

Switching On and Off (see figure E1)

- ▶ **Wear suitable, non-slip chain saw gloves for maximum grip and protection.**

Before switching on:

- Remove the chain guard (**16**).
- Reinsert the battery.
- Hold the chain saw securely with both handles and keep your body out of the reach of the saw chain. (see figure **H**).

Switching on:

- Pull the activation lever for the kickback brake (**5**) towards the front handle (**4**).
- Press the lock-off button for the On/Off switch (**19**), then press and hold the On/Off switch (**2**)
- Release the lock-off button as soon as the chain saw is running.
- The saw chain must be at full speed before working on wood.

Note: The chain saw cannot be started if the activation lever for the kickback brake (**5**) has not been correctly deactivated before use.

Switching off:

- Release the On/Off switch (**2**). The lock-off button returns to the safety/lock state.
- After use, slide the lever for activating the kickback brake (**5**) away from the front handle (**4**).

General cutting behaviour (see figure F)

- First-time users should practice cutting logs on a saw horse.

- With the saw switched off, adopt the correct stance in front of the timber.
- Start the chain saw and ensure that the saw chain is running at full speed before it comes into contact with the wood.
- Start cutting by pressing the metal spiked bumper (**9**) against the wood to stabilise the cut.
- When cutting thicker logs or tree trunks, use the metal spiked bumper as a lever by gradually resetting the metal spiked bumper to a lower point. To do so, pull the chain saw slightly backwards until the metal spiked bumper is released and reinsert the chain saw at a lower level to continue sawing. Do not pull the chain saw completely out of the cut.
- Keep the chain saw running throughout the entire cut, maintaining a steady speed.
- Do not force the saw chain while cutting, let the chain do the work.
- Always remove the chain saw from the wood cut while the saw chain is running.
- Beware when reaching the end of the cut. The weight of the chain saw changes unexpectedly as it cuts free from the wood. Danger of injury to the legs and feet.
- Release the On/Off switch as soon as the cut is complete so that the chain comes to a standstill and slide the lever for activating the kickback brake (**5**) away from the front handle (see figure **E1**).

Kickback (see figure G)

With a basic understanding of kickback, you can reduce or eliminate the possibility of kickback forces. Suddenly occurring kickbacks can lead to accidents.

Always ensure that you are standing on the ground steadily and keep your balance.

Kickback is the sudden backward/upward motion of the chain saw, occurring when the chain (at the tip of the chain bar) comes in contact with a log or wood, or when the chain becomes jammed.

When kickback occurs, the chain saw reacts unpredictable and can cause heavy injuries to the operator or bystanders.

Pay particular attention when sawing in lateral and diagonal directions and when making longitudinal cuts. The metal spiked bumper (**9**) cannot normally be used for these cuts.

Observe the following precautions to minimise kickback:

- Always ensure that the chain saw is handled correctly.
- Maintain a firm grip and stiff left arm to keep control of the chain saw if a kickback occurs.
- Ensure that the area in which you are cutting is free of obstacles. Ensure that the nose of the chain bar does not come into contact with a tree trunk, branch, fence or other obstacle that you could hit while working with the saw.

Note: Kickback may occur if the tip of the chain bar comes into contact with an obstacle.

- Always cut at the full speed of the chain saw. Press the On/Off switch **(2)** all the way down and maintain a constant cutting speed.
- Only use the recommended replacement chain bars and low-kickback chains by Bosch.

Kickback brake

The kickback brake is a safety mechanism that is activated by the wrist via the lever for activating the kickback brake **(5)** when kickback occurs. The saw chain stops immediately. This reduces the risk of injury from kickback.

Regularly test to ensure the kickback brake is working:

- Hold the chain saw firmly with both hands.
- Switch on the chain saw.
- When the saw chain is rotating, push the lever forwards with your wrist to activate the kickback brake **(5)**. Do not use the chain saw if the saw chain does not stop immediately during this test.

Note: Do not stop the chain saw during normal use by deliberately activating the lever for the kickback brake **(5)**.

Cutting Logs (see figure H)

- Always secure the logs before cutting.
- Always cut the logs beyond the secured points to prevent the log from closing in and causing the chain to get jammed.
- Never allow the saw chain to make contact with the ground or cutting equipment.
- Be careful not to trip over tree stumps, branches, roots, etc.

Cutting Wood under Tension (see figure I)

- Be extremely careful when sawing wood, branches or trees under tension. Leave saw jobs like these to trained professionals. There is a high risk of accidents.

Limbing a Branch or Tree (see figure J)

- Limbing is removing the small branches from a fallen tree or large branch.
- Leave larger lower limbs to support the log off the ground.
- Remove the smaller limbs in one cut.

Troubleshooting

The following chart lists problem symptoms, possible causes and corrective action, if your power tool does not operate properly. If these do not identify and correct the problem, contact your service agent.

Warning: Switch off and remove the battery prior to any troubleshooting.

Problem	Possible Cause	Corrective Measure
Chain saw fails to operate	Kickback brake is activated	see figure E1
	Battery discharged	Recharge battery; also see "Battery Charging"
	Battery not fully connected	Ensure both locking levels are engaged
	Motor protector has activated	Allow motor to cool
	Battery too hot/cold	Allow to cool/warm
	Power tool defective	Contact Service Agent.
Chain saw operates intermittently	Battery discharged	Recharge battery; also see "Battery Charging"
	Power tool defective	Contact Service Agent.
Saw chain dry	No oil in reservoir	Refill oil, see "Saw chain lubrication"
	Oil outlet (6) clogged	Clean oil outlet (6)
	Oil filter clogged	Clean oil filter / contact customer service
Saw chain/guide bar hot	No oil in reservoir	Refill oil
	Chain tension too high	Tension saw chain.
	Dull saw chain	Replace saw chain
	Oil passage clogged	Contact Service Agent.
Chain saw rips, vibrates, does not saw properly	Saw chain tension too loose	Adjust chain tension
	Dull saw chain	Replace saw chain
	Saw chain worn out	Replace saw chain
	Saw chain teeth are facing in the wrong direction	Reassemble with saw chain in correct direction
	Chain bar damaged or worn	Replace chain bar or contact Bosch Service Centre
Excessive vibrations/noise	Power tool defective	Contact Service Agent.

Problem	Possible Cause	Corrective Measure
	Incorrect chain assembly	Check whether the chain is correctly assembled, see "Mounting the chain bar and tensioning the saw chain".
Sawing time per battery charge too low	Too much friction, due to lack of lubricant	Ensure chain lubrication (see "Saw chain lubrication")
	Saw chain needs cleaning	Clean saw chain
	Poor sawing technique	see "Working with the chain saw"
	Battery not fully charged	Recharge battery; also see "Battery Charging"
	Battery out of the allowable temperature range	Allow battery to warm naturally to room temperature (within battery operating temperature 0–45 °C)
	Chain tension too high	Tension saw chain.
The saw chain is running slow	Dull saw chain	Replace saw chain
	Battery discharged	Recharge battery; also see "Battery Charging"
	Battery out of the allowable temperature range	Allow battery to warm naturally to room temperature (within battery operating temperature 0–45 °C)
	Battery is too hot	Allow to cool

Maintenance and Service

Maintenance, cleaning and transport

- **Warning! Switch off and remove battery from power tool before adjusting or cleaning.**
- **Always wear suitable clothing and personal protective equipment.**
- **Regularly check the chain saw for obvious defects such as loose, dislodged or damaged saw chain and chain bar, loose fixings and worn or damaged components.**
- **Do not modify this product.** Unauthorized modifications may impair the safety of your product and may result in increased noise and vibration and invalidates warranty.

Maintenance and cleaning

- For safe and proper working, always keep the power tool and its air inlet vents clean.
- Do not use water, solvents or polishes to clean the power tool.
- Use a clean cloth or stiff brush to carefully remove any debris from the power tool.
- Use a clean cloth to carefully remove debris from the oil outlet (6). Make sure that no debris enters the oil outlet (6), as this can cause blockages and lubrication problems.

Maintaining the saw chain

- Clean the chain bar and saw chain before storing the product for an extended period of time to prevent the parts from seizing.

How to clean the saw chain:

- Remove the cover (14), the chain bar (11) and the saw chain (12) from the chain saw and clean with a stiff

brush. (see "Dismantling the saw chain and chain bar", page 16).

- Inspect the saw chain for damage and replace or sharpen the saw chain.

Replacing and Sharpening the Saw Chain

- **A sharp saw chain is required for optimum performance and safety.**
- **Never sharpen the saw chain yourself unless you have experience with it.**

The saw chain can become blunt through prolonged use or when coming into contact with objects other than wood.

- Replace the saw chain with the Bosch saw chain accessory or have the saw chain professionally resharpened, see accessories.
- To assemble the saw chain to the tool (see "Mounting the chain bar and tensioning the saw chain (see figures B1 – B4)", page 15).

Maintaining the chain bar

- **Only replace the chain bar if you fully understand the product and the instructions, otherwise please contact the Bosch Service Centre.**
- **Only use the recommended replacement chain bars by Bosch.**

Check the chain bar for cracks or wear. Replace if damaged. For instructions for removing the chain bar, (see "Dismantling the saw chain and chain bar", page 16).

Spare parts and accessories (K)

Visit www.bosch-pt.com for exploded views and information on spare parts.

Transport and storage of the chain saw

Before transporting the chain saw:

- Always remove the battery.
- Always fit the chain guard **(16)** on the chain bar **(11)** when the chain saw is not being used to prevent injury.
- Always lock the chain brake by pushing the hand guard/chain brake forwards.
- It is recommended to carry the chain saw with the chain bar behind you.

In addition to all the steps for transporting the chain saw, carry out the following before putting the chain saw into storage:

- Always empty the oil reservoir before putting it into storage, and refill it before use.
- Always store the chain saw in a safe, dry place, out of the reach of children.
- Never place objects on the chain saw.

After-Sales Service and Application Service

Malaysia

Tel.: (03) 79663194

You can find the link to our service addresses and warranty conditions on the last page.

In all correspondence and spare parts orders, please always include the 10-digit article number given on the nameplate of the product.

Disposal

Power tools, rechargeable batteries, accessories and packaging should be sorted for environmental-friendly recycling.



Do not dispose of power tools and batteries/rechargeable batteries into household waste!

中文

安全规章

图标说明



请阅读使用说明书。



一般性警告。



请勿在雨中使用。



始终用双手握住链锯。



注意链锯的反冲，避免接触导板尖端。



请穿戴您的个人防护状态（PPE），使用护目镜、听力防护装置和头部防护装置。



请戴上安全手套。



警告：在进行保养作业前应拆下充电电池。

电动工具通用安全警告

警告！ 阅读随电动工具提供的所有安全警告、说明、图示和规定。

不遵照以下所列说明会导致电击、着火和/或严重伤害。

保存所有警告和说明书以备查阅。

警告中的术语“电动工具”是指市电驱动（有线）电动工具或电池驱动（无线）电动工具。

工作场地的安全

- ▶ 保持工作场地清洁和明亮。杂乱和黑暗的场地会引发事故。
- ▶ 不要在易爆环境，如有易燃液体、气体或粉尘的环境下操作电动工具。电动工具产生的火花会点燃粉尘或气体。
- ▶ 操作电动工具时，远离儿童和旁观者。注意力不集中会使你失去对工具的控制。

电气安全

- ▶ 电动工具插头必须与插座相配。绝不能以任何方式改装插头。需接地的电动工具不能使用任何转换插头。未经改装的插头和相配的插座将降低电击风险。
- ▶ 避免人体接触接地表面，如管道、散热片和冰箱。如果你身体接触接地表面会增加电击风险。
- ▶ 不得将电动工具暴露在雨中或潮湿环境中。水进入电动工具将增加电击风险。
- ▶ 不得滥用软线。绝不能用软线搬运、拉动电动工具或拔出其插头。使软线远离热源、油、锐边或运动部件。受损或缠绕的软线会增加电击风险。
- ▶ 当在户外使用电动工具时，使用适合户外使用的延长线。适合户外使用的电线将降低电击风险。
- ▶ 如果无法避免在潮湿的环境中操作电动工具，应使用带有剩余电流装置（RCD）保护的电源。RCD的使用可降低电击风险。

人身安全

- ▶ 保持警觉，当操作电动工具时关注所从事的操作并保持清醒。当你感到疲倦，或在有药物、酒精

或治疗反应时，不要操作电动工具。在操作电动工具时瞬间的疏忽会导致严重人身伤害。

- ▶ **使用个人防护装置。始终佩戴护目镜。**防护装置，诸如适当条件下使用防尘面具、防滑安全鞋、安全帽、听力防护等装置能减少人身伤害。
- ▶ **防止意外起动。在连接电源和/或电池包、拿起或搬运工具前确保开关处于关断位置。**手指放在开关上搬运工具或开关处于接通时通电会导致危险。
- ▶ **在电动工具接通之前，拿掉所有调节钥匙或扳手。**遗留在电动工具旋转零件上的扳手或钥匙会导致人身伤害。
- ▶ **手不要过分伸展。时刻注意立足点和身体平衡。**这样能在意外情况下能更好地控制住电动工具。
- ▶ **着装适当。不要穿宽松衣服或佩戴饰品。**让你的头发和衣服远离运动部件。宽松衣服、佩饰或长发可能会卷入运动部件。
- ▶ **如果提供了与排屑、集尘设备连接用的装置，要确保其连接完好且使用得当。**使用集尘装置可降低尘屑引起的危险。
- ▶ **不要因为频繁使用工具而产生的熟悉感而掉以轻心，忽视工具的安全准则。**某个粗心的动作可能在瞬间导致严重的伤害。

电动工具使用和注意事项

- ▶ **不要勉强使用电动工具，根据用途使用合适的电动工具。**选用合适的按照额定值设计的电动工具会使你工作更有效、更安全。
- ▶ **如果开关不能接通或关断电源，则不能使用该电动工具。**不能通过开关来控制的电动工具是危险的且必须进行修理。
- ▶ **在进行任何调节、更换附件或贮存电动工具之前，必须从电源上拔掉插头和/或卸下电池包（如可拆卸）。这种防护性的安全措施降低了电动工具意外起动的风险。**
- ▶ **将闲置不用的电动工具贮存在儿童所及范围之外，并且不允许不熟悉电动工具和不了解这些说明的人操作电动工具。**电动工具在未经培训的使用者手中是危险的。
- ▶ **维护电动工具及其附件。**检查运动部件是否调整到位或卡住，检查零件破损情况和影响电动工具运行的其他状况。如有损坏，应在使用前修理好电动工具。许多事故是由维护不良的电动工具引发的。
- ▶ **保持切削刀具锋利和清洁。**维护良好地有锋利切削刃的刀具不易卡住而且容易控制。
- ▶ **按照使用说明，并考虑作业条件和要进行的作业来选择电动工具、附件和工具的刀头等。**将电动工具用于那些与其用途不符的操作可能会导致危险情况。
- ▶ **保持手柄和握持表面干燥、清洁，不得沾有油脂。**在意外的情况下，湿滑的手柄不能保证握持的安全和对工具的控制。

电池式工具使用和注意事项

- ▶ **仅使用生产者规定的充电器充电。**将适用于某种电池包的充电器用到其他电池包时可能会发生着火危险。

- ▶ **仅使用配有专用电池包的电动工具。**使用其他电池包可能会产生伤害和着火危险
- ▶ **当电池包不用时，将它远离其他金属物体，例如回形针、硬币、钥匙、钉子、螺钉或其他小金属物体，以防电池包一端与另一端连接。**电池组端部短路可能会引起燃烧或着火。
- ▶ **在滥用条件下，液体可能会从电池组中溅出；应避免接触。**如果意外碰到液体，用水冲洗。如果液体碰到了眼睛，还应寻求医疗帮助。从电池中溅出的液体可能会发生腐蚀或燃烧。
- ▶ **不要使用损坏或改装过的电池包或工具。**损坏或改装过的电池组可能呈现无法预测的结果，导致着火、爆炸或伤害。
- ▶ **不要将电池包暴露于火或者高温中。**电池包暴露于火或高于130 °C的高温中可能导致爆炸。
- ▶ **遵守所有充电说明，给电池组或工具充电时不要超出说明中规定的温度范围。**错误充电或温度超出规定的范围可能会损坏电池并提高着火的风险。

维修

- ▶ **由专业维修人员使用相同的备件维修电动工具。**这将保证所维修的电动工具的安全。
- ▶ **决不能维修损坏的电池包。**电池包仅能由生产者或其授权的维修服务商进行维修。

链锯一般安全规章

- ▶ **链锯运行时请保持身体各部位均远离锯链。**启动链锯前请确保锯链未接触任何物体。使用链锯进行操作时任何一点疏忽大意都可能导致衣物或身体部位被锯链夹住。
- ▶ **始终使用右手握住链锯后部手柄并用左手握住前部手柄。**以相反的工作姿势握住链锯会增加受伤的风险，因此禁止使用。
- ▶ **只能通过绝缘握持面来握持链锯，因为锯链可能触及暗线。**锯链碰到带电导线会使工具外露的金属零件带电，从而使操作者受到电击。
- ▶ **请佩戴护目镜。**建议额外佩戴听力、头部、手部、腿部和脚部的防护装备。合适的防护装备可降低飞溅的碎屑和意外接触锯链造成伤害的风险。
- ▶ **不要在树上、梯子上、屋顶上或不稳定的支撑物上使用链锯。**以这种方式操作链锯可能会导致严重伤害。
- ▶ **保持站稳并只在结实、牢固和水平的站立面上使用链锯。**易滑或不稳固的站立面可能会使人失去平衡或无法控制链锯。
- ▶ **锯切受压树枝时，要预料到树枝会回弹。**当木材纤维中的张力释放时，绷紧的树枝可能会击中操作人员或/使链锯脱离控制。
- ▶ **锯切低矮灌木和幼树时要特别小心。**纤细的材料可能会缠在锯链中，打到您或使您失去平衡。
- ▶ **在关机状态下通过前部手柄握持链锯，并保持锯链朝前。**运输或存放树枝修剪器时，请务必插上保护盖。仔细处理树枝修剪器可减少与运行中的锯链意外接触的可能性。

- ▶ **请遵循关于润滑、链条张力以及导板和链条更换的说明。**链条张紧不当或润滑不良可能会导致链条断裂或增加反冲风险。
- ▶ **仅用于锯切木材。请勿将链锯用于非指定用途。**例如：请勿用链锯锯切金属、塑料、砖石或非木材的建筑材料。将链锯用于非指定用途可能会导致危险情况。
- ▶ **本链锯不适用于伐木。**将链锯用于非指定用途可能会导致操作人员或周围人员严重受伤。
- ▶ **清除堵塞材料、存放或保养链锯时，请遵循所有相关说明。**确保起停开关已关闭且充电电池已移除。清除堵塞材料或进行保养时意外操作链锯可能导致人员重伤。
- ▶ **反冲的原因及避免方法：**
 - 当导轨尖端接触物体或木材弯曲导致链锯在切口处卡住时，可能会发生反冲。
 - 在某些情况下，接触导轨尖端可能会导致意外的向后反应，使导轨向上并朝着操作人员的方向弹击。
 - 链锯在导轨上缘卡住可能会导致导轨迅速向操作人员方向回弹。
 - 这些反应中的任何一种都可能导致您失去对锯机的控制，并可能造成严重伤害。请勿仅仅依赖链锯内置的安全装置。作为链锯用户，您应采取各种措施以确保安全操作，避免事故和伤害。反冲是由于错误或不当使用链锯造成的。可以通过以下适当的预防措施来避免：
- ▶ **用双手握持链锯，同时将大拇指和其他手指包围链锯的手柄。请将身体和手臂置于能经受住反弹力的位置。**在采取了合适的措施的情况下，操作人员可以控制住反弹力。切勿松开链锯。
- ▶ **避免不正常的身体姿势；不得在高于肩部的位置进行锯切。**由此可避免意外接触到导轨尖端，并在发生意外情况时更好地控制住链锯。
- ▶ **始终使用制造商规定的备用导轨和锯链。**不合适的备用导轨和锯链可能导致链条断裂或反冲。
- ▶ **遵循制造商关于锯链打磨和保养的说明。**过低的深度限制器会增加反冲的可能性。

其他安全规章

- ▶ **该修剪机含有磁铁 - 请勿将磁铁靠近植入物和其他医疗设备，例如心脏起搏器或胰岛素泵，以及磁性数据载体和磁敏感设备。**磁铁产生的磁场可能会影响医疗设备的功能，或导致数据的不可逆丢失。
- ▶ **本电动工具不适用于身体、感官或精神上有缺陷或缺乏经验与知识的人员（包括儿童），除非在负责其安全的人员的监督下使用或在掌握了如何使用本电动工具的知识后使用。**应照看好儿童，确保其不会使用本电动工具玩耍。
- ▶ **工作时要使用双手握紧电动工具并确保站稳。**使用双手才能够稳定地操作电动工具。
- ▶ **确保使用设备时所有防护装置和手柄都已安装。**切勿尝试操作装配不完整的设备或未经许可可被改装的设备。

- ▶ 操作电动工具时，务必确保链条正确校准并张紧。使用锯链未正确校准或张紧不当的电动工具可能导致链条断裂、反冲和/或伤害。
- ▶ 请保持所有冷风口没有污垢。

如何正确地使用电池的安全须知和注意事项

- ▶ **确保在插入电池之前已关闭了无绳花园锯。**如果将电池插入已开启的无绳花园锯，则可能会导致事故。
- ▶ **请只使用为本无绳花园锯设计的博世电池。**使用其他电池会有受伤的危险并且可能造成火灾。
- ▶ **切勿改装并打开充电电池。**可能造成短路。



保护蓄电池免受高温（例如长期日照），火焰，水和湿气的侵害。否则有爆炸危险。



- ▶ **在不需要使用本设备时，应使闲置的充电电池远离回形针、硬币、钥匙、钉子、螺栓或其它可引起触点跨接的金属小物件。**电池触点之间短路可导致烫伤或火灾。
- ▶ **损坏的和被滥用的蓄电池会冒出蒸气。**确保工作场所空气流通，感觉不适得即刻就医。蒸气会刺激呼吸道。
- ▶ **只能将此充电电池用在制造商的产品中。**这样才能确保充电电池不会过载。
- ▶ **钉子、螺丝刀等尖锐物品或外力作用可能会损坏充电电池。**可能出现内部短路、蓄电池燃烧、发出烟雾、爆炸或过热。
- ▶ **勿造成蓄电池短路。**否则有爆炸危险。
- ▶ 避免让电池受潮或进水。
- ▶ 该无绳花园锯和电池只能存放在 -20°C 至 50°C 的温度范围内，例如夏天不可以把电池放置在汽车里。
- ▶ 不定时地使用柔软、清洁而且干燥的毛刷清洁蓄电池的通气孔。

图标

以下符号可以帮助您阅读和了解本使用说明书。请牢记各符号和它们的代表意思。正确瞭解各符号的含义，可帮助您更有把握更安全地操作本产品。

图标	含义
	远离儿童、人员和宠物。
	移动方向
	反应方向
	重量
	激活反冲制动器

图标	含义
	停用反冲制动器
	允许的行为
	禁止的行为
	可听到的噪音
	附件/备件

产品和性能介绍



请阅读所有安全说明及指令。不遵守安全说明和指令可能会导致触电、着火和/或严重的人身受伤。
请注意本使用说明书开头部分的图示。

正确地使用机器

该电动工具用于在接近地面的高度锯切树木和树干。它可用于顺纹或横纹方向的锯切。

本电动工具不适用于锯切矿物材料。

本电动工具不用于伐木。

插图上的机件（参见插图A）

机件的编号和电动工具详解图上的编号一致。

- (1) 后部手柄
- (2) 起停开关
- (3) 链轮
- (4) 前部手柄
- (5) 护手装置/用于激活反冲制动器的操纵杆
- (6) 油嘴
- (7) 链条张紧螺栓
- (8) 固定螺栓
- (9) 止动爪
- (10) 张紧销
- (11) 导板
- (12) 锯链
- (13) 装配工具
- (14) 盖罩
- (15) 紧固螺母
- (16) 链条防护罩
- (17) 油箱盖
- (18) 油位观察窗
- (19) 起停开关的开机锁
- (20) 充电电池
- (21) 充电器
- (22) 充电电池电量指示灯

技术参数

链锯		GKE 18V-40
物品号		3 600 HD3 0..
额定电压 ^{A)}	伏特	18
空转时的锯链速度	米/秒	12.4
导板长度	厘米	40
兼容导板		Oregon 164MLEA041 Bosch 1 600 A03 0J6
导板接口类型		A041
锯链节距		3/8英寸低剖面
驱动链节厚度	毫米	1.1 (0.043英寸)
驱动链节数量		57
最大切割直径	厘米	36
油箱容量	毫升	150
自动链条润滑		●
工具张紧		●
导向星轮		●
重量符合EN 62841-4-1 ^{A)}		
- 含充电电池	公斤	4.66 (5.5安培小时) - 5.05 (12.0安培小时)
- 不含充电电池	公斤	3.67
- 不含充电电池、导板或锯链		3.06

链锯		GKE 18V-40
序列号		请参阅产品上的序列号 (型号铭牌)
充电时建议的环境温度	摄氏度	-20至+50
存放时允许的环境温度 ^{B)}		
运行时允许的环境温度 ^{B)}	摄氏度	0至+40
兼容的充电电池		GBA18V... GBA 18V... ProCORE18V... EXPERT18V... EXBA18V... CORE18V...
推荐的确全功率的充电电池		GBA 18V... ≥ 4.0 Ah ProCORE18V... ≥ 4.0 Ah EXPERT18V...
推荐使用的充电器		GAL18... GAL 18... GAL 36... GAL12V/18... GAL 12V/18... GAX 18... EXAL18...

A) 视所使用的充电电池而定

B) 温度<0摄氏度时功率受限

数值可能因不同产品而异，并且受到应用和环境条件影响。更多信息请参见www.bosch-professional.com/wac。

充电电池

Bosch也销售不带充电电池的充电式电动工具。您可以在包装上查看电动工具的供货范围内是否包含充电电池。

为充电电池充电

► **请只使用在技术参数中列出的充电器。**只有这些充电器才适用于本电动工具上的锂离子电池。

提示：鉴于国际运输规定，锂离子充电电池在交货时只完成部分充电。首度使用电动工具之前，必须先充足充电电池的电量以确保充电电池的功率。

安装充电电池

将充好电的充电电池推入电池座，直到嵌入。

取出充电电池

如需取下充电电池，则请按压解锁按钮，然后拔出充电电池。**在此过程中请勿过度用力。**

充电电池具备双重锁定功能，即使不小心触动了充电电池的解锁按钮，充电电池也不会从机器中掉落下来。只要充电电池安装在电动工具中，就会被弹簧固定在其位置上。

充电电池电量指示灯

充电电池电量指示灯的绿色LED灯显示充电电池的电量。基于安全原因，只能在电动工具静止时检查充电电池的电量。

按压充电电量指示灯按键或，来显示充电电量。也可以在充电电池取下时操作。

如果按压充电电量指示灯按键后没有LED灯亮起，则说明充电电池损坏，必须进行更换。

充电电池型号GBA 18V... | GBA18V...



LED	电量
3个绿灯长亮	60–100 %
2个绿灯长亮	30–60 %
1个绿灯长亮	5–30 %
1个绿灯闪烁	0–5 %

充电电池型号ProCORE18V...



LED	电量
5个绿灯长亮	80–100 %
4个绿灯长亮	60–80 %
3个绿灯长亮	40–60 %
2个绿灯长亮	20–40 %
1个绿灯长亮	5–20 %
1个绿灯闪烁	0–5 %

如何正确地使用充电电池

保护充电电池，避免湿气和水分渗入。

充电电池必须储存在-20 °C至50 °C的环境中。夏天不得将充电电池搁置在汽车中。

不时地使用柔软、清洁而且干燥的毛刷清洁充电电池的通气孔。

充电后如果充电电池的使用时间明显缩短，代表充电电池已经损坏，必须更换新的充电电池。

请注意有关作废处理的规定。

蓄电池-保养

为确保能够最佳使用电池，请遵循以下注意事项和措施：

- 避免让电池受潮或进水。
- 该电动工具和电池只能存放在 -20 °C 至 50 °C 的温度范围内，例如夏天不可以把电池放置在汽车中。
- 单独存放电池，不可将它存放在该园艺设备中。
- 请勿将电池放在阳光直射下的该园艺设备中。
- 存放电池的最佳温度为 5 °C。
- 不时地使用柔软、干净而且干燥的刷子清洁电池通风孔。

如果电池在充完电后，使用的时间明显地缩短，代表电池寿命已尽，得更换电池。

安装

针对您的安全

- **注意！** 进行维护及清洁工作前，关闭电动工具并取出充电电池。
- **小心！** 链条锋利。使用链条作业时请始终佩戴防护手套。
- **不得在人员、儿童或动物附近操作链锯；也不要**在饮酒、服用药物或麻醉药品后操作链锯。
- 仅当防护罩已通过紧固螺栓(8)正确固定时使用链锯。

安装导板，并张紧锯链（参见图片B1 - B4）

- **小心！** 不要再锯链发烫时将其张紧。
- 使防护罩(14)朝上，将锯链放置在合适的平面上。
- 将两个紧固螺母(15)用随附的装配工具(13)拆下，从而移除防护罩(14)。
- 使导板(11)的凸缘垂直向上，按照导板上的正确方向安装新锯链或磨锐的锯链(12)（参见图片B1）。
- 逆时针方向旋转锯链张紧螺栓(7)，以便向左插入导向销(10)。提示：如果导向销(10)未正确对准，则导板无法安装到锯链上。
- 请确保锯链(12)已正确嵌入导板周围的槽口中。
- 将锯链放到链轮(3)周围，然后将导板(11)套到紧固螺栓(8)上。
- 将防护罩(14)装到紧固螺栓(8)上。

- 将紧固螺母(15)装到紧固螺栓(8)上，然后小心地手动拧紧紧固螺母(15)，以便固定防护罩(14)。（参见图片B3）。
- 使用装配工具(13)，以便沿顺时针方向旋转锯链张紧螺栓(7)，直到锯链绕着导板张紧。如果锯链(12)能从导板(11)上抬起约6-7毫米，则说明已达到正确的锯链张力。为此，将锯链放置在合适的平面上。用戴手套的手握住锯链，位置在导板(11)上方、靠近切割长度中心，并将锯链(12)朝上抬起，以对抗链锯的自重。
- 如果锯链过度张紧，用装配工具(13)沿逆时针方向旋转锯链张紧螺栓(7)，直到达到正确的锯链张力。

提示： 请勿将锯链过度张紧 - 张力过大会导致磨损不均匀，从而缩短锯链的使用寿命，并可能损坏锯链导轨。

提示： 新锯链可能在首次使用时出现明显的伸长。取出充电电池，并在前两个小时的使用过程中定期检查锯链的张紧状态。

- 用装配工具(13)拧紧紧固螺母(15)，然后将防护罩(14)固定在锯链上。
- 确保在运行前已安装并固定住两个紧固螺母(15)。

拆卸锯链和导板

- 使防护罩(14)朝上，将锯链放置在合适的平面上。
- 将紧固螺母(15)用随附的装配工具(13)拆下，从而移除防护罩(14)。
- 用装配工具(13)沿逆时针方向旋转锯链张紧螺栓(7)，以便松开锯链(12)。
- 将导板(11)从紧固螺栓(8)上拆下。
- 将锯链从驱动链轮上拆下。

加注油箱（参见图片C）

提示： 链锯发货时未加注锯链锯链附着油。重要的是，须在使用前加注油。在未加注锯链附着油或油位低于最小标记的情况下运行链锯，会导致导板和锯链损坏。

油箱加注方法如下：

- 将链锯的油箱盖(17)朝上放在合适的衬垫上。
- 清洁油箱盖(17)周围区域。用干净的布清除污垢。
- 沿逆时针方向拧下油箱盖(17)。
- 小心地给油箱加注锯链附着油。
- 加注锯链附着油时，确保没有污垢或异物进入油箱。
- 油箱盖(17)固定在链锯上。注意，加注时油箱盖不得堵住油箱口。
- 运行期间，可通过油位观察窗(18)检查油位。如已达到最小液位，请添加新油。
- 安装油箱盖(17)，然后将其拧紧。

提示： 始终使用链锯指定机油，以获得最佳性能。使用未经认可的机油可能会影响机油系统的性能，并导致保修失效。

锯链润滑 (参见图片E3)

锯链的使用寿命和切割性能取决于最佳润滑。因此，运行期间锯链会通过油嘴(6)自动用锯链附着油润滑。

定期检查锯链是否润滑良好：

- 将油箱加满的链锯的导板尖端对准浅色表面。
- 让电动工具运行约1分钟，或直到浅色表面上能看到机油为止。
- 如果看不到机油，请参见故障查找“锯链干燥”。
- 如果润滑系统仍然不能正常工作，请联系博世客户服务部门。

提示：机油滤清器集成在油箱内。清洁或排除故障时请联系博世客户服务部门。

提示：低温时机油会变稠，从而减少机油流量。

操作

- ▶ 使用前请务必阅读使用说明书和安全说明。
 - ▶ 始终穿着合适的衣物并穿戴个人防护装备。
 - ▶ 在使用前，执行所有必要的保养工作。
 - ▶ 使用前，务必检查工具和锯链的状态、油位以及安装是否正确。仅在链锯状态正常时使用。
 - ▶ 始终确保环境干燥且周围没有障碍物，以及周围没有无关人员。
 - ▶ 始终确保站立稳固，仅在坚实、安全且平坦的地面上操作链锯。
 - ▶ 切勿在梯子上或超过肩高的位置使用链锯。
 - ▶ 切勿大幅度挥动锯机或伸直手臂工作。
 - ▶ 始终用双手牢牢握住链锯。
 - ▶ 请勿将链锯放在地上。有绊倒危险！
 - ▶ 请勿吸烟，也不要将火源或明火带入作业区域。链锯粉尘可能易燃。
 - ▶ 设备自动关闭后，请勿再次按下起停开关。否则可能会损坏充电电池。
- 提示：**链锯发货时未加油。仅当油箱加注了链条油后，才能使用链锯。
- ▶ 使用锯链定位错误或张紧不当的链锯可能导致链条断裂、反冲和/或伤害。
 - ▶ 新锯链可能在首次调试时出现明显的伸长。
 - ▶ 在使用过程中定期检查链条张力。为了正确安装，(参见“安装导板，并张紧锯链 (参见图片B1 – B4)”，页 25)。

正确操作链锯 (参见图片H)

始终按照本章节所述的方法正确操作设备：

- 佩戴合适的防滑链锯专用手套，以确保最大程度的握持力和防护效果。
- 锯机运转时，始终双手牢牢握住链锯。
- 右手握住后部手柄，左手握住前部手柄，此时拇指和手指应紧紧环绕手柄握持链锯。(参见图片E2)
- 保持身体平衡，双脚站在坚实的地面上。
- 左手手肘应保持“伸出”、绷紧的姿势，以抵御可能发生的反冲力。

- 切勿伸直手臂工作或大幅度挥动锯机。
- 始终牢牢握住链锯，并保持左臂绷紧，以在发生反冲时仍能控制链锯。
- 用惯用手将链锯握持在身体右侧。
- 确保身体的任何部位都不会穿过切割线。反冲可能会使链锯向着您的身体抛回。(参见图片H)反冲可能会使链锯向着您的身体弹回。(参见图片H)

接通/关闭 (参见图片E1)

▶ 佩戴合适的防滑链锯专用手套，以确保最大程度的握持力和防护效果。

接通前：

- 拆下链条防护装置(16)。
- 装入充电电池。
- 请双手牢牢握住链锯的两个手柄，并确保身体处于锯链作用范围之外。(参见图片H)。

接通：

- 将用于激活反冲制动器的操作杆(5)沿前部手柄(4)方向拉动。
- 按压起停开关的开机锁(19)，然后按压并按住起停开关(2)。
- 一旦链锯运行，松开开机锁。
- 锯链必须全速运转，然后才能用于锯切木材。

提示：如果用于激活反冲制动器的操作杆(5)未在使用前正确停用，则无法启动链锯。

关闭：

- 松开电源开关(2)。开机锁返回安全/锁定状态。
- 使用后，将用于激活反冲制动器的操作杆(5)向前推动，即朝向远离前部手柄(4)的方向。

一般锯切性能 (参见图片F)

- 新手应在锯木架上练习切割树干。
- 在链锯关闭的状态下，站在木材前方，采取正确的操作姿势。
- 启动链锯，并确保锯链已全速运行后再接触木材。
- 开始切割时，将止动爪(9)抵住木材，以稳定切割过程。
- 在切割较粗的树干或原木时，可将止动爪作为杠杆使用：在锯切过程中逐步回撤止动爪至更低着力点。为此，将链锯稍稍向后拉动，直到止动爪松动，然后在更低的位置重新卡入链锯，以继续切割。不要将链锯完全从切口拉出。
- 在整个切割过程中保持链锯运转，并维持均匀的切割速度。
- 锯切时不要用力按压锯链，让它自然工作。
- 始终在锯链运行时将链锯从切口中取出。
- 切割即将结束时要小心。链锯一旦锯透，重力会突然变化。存在脚部和腿部受伤的风险。
- 切割结束后，请立即松开起停开关，使锯链停止运转，并将反冲制动器(5)向前推动，即朝向远离前部手柄的方向 (参见插图E1)。

锯切反冲（参见图片G）

通过了解反冲远离，您可以减少此类可能导致事故的反冲现象。

始终确保自己站稳在地面上，并保持良好的身体平衡。

锯切反冲是指运行中的链锯在导板尖端接触锯切物或链条卡住时突然向上和向后弹击。

发生锯切反冲时，链锯会产生不可预测的反应，可能对操作人员或锯切区域内的人员造成严重伤害。特别注意侧向切割、斜向切割以及纵切操作。在这些切割方式中，通常无法使用止动爪(9)。

请遵守以下预防措施以最大限度减少反冲风险：

- 务必注意正确操作链锯。
- 始终牢牢握住链锯，并保持左臂绷紧，以在发生反冲时仍能控制链锯。
- 确保切割区域没有障碍物。确保在使用锯机工作期间，导板凸缘不得接触树干、树枝、围栏或其他可能遇到的障碍物。

提示：如果导板尖端接触到障碍物，可能会导致反冲。

- 始终用全速运行的链锯进行锯切。将起停开关(2)按到底，并保持均匀的切割速度。
- 只使用博世推荐的导板和低反冲链锯。

反冲制动器

反冲制动器是一种安全机制，在发生反冲时会通过手腕触动用激活反冲制动器的操纵杆(5)来启动该

机制。锯链将立即停下。由此减少反冲导致的受伤危险。

定期检测反冲制动器是否正常工作：

- 用双手牢牢握住链锯。
- 接通链锯。
- 锯链旋转时，可通过手腕向前推动操纵杆，以便激活反冲制动器(5)。如果在该测试期间，链锯未立即停下，则不要使用链锯。

提示：正常使用时，不要通过故意操作反冲制动器操作杆(5)来停下链锯。

锯切树干（参见图片H）

- 锯切前始终固定好树干。
- 切割原木时，必须确保锯切深度超过稳固支撑点，以防止原木夹紧并导致锯链卡滞。
- 确保锯链不会接触地面或切割装备。
- 注意树桩、树枝、树根等，以免绊倒。

锯切受力状态下的木材（参见图片I）

- 受力状态下的木材、树枝或树木应仅由受过专业培训的人员进行锯切操作。必须格外小心。此类作业具有较高的事故风险。

树枝或树木的修枝作业（参见图片J）

- 修枝指从已伐倒的树木或粗大枝条上切除分枝的作业。
- 暂时保留向下指向的、支撑树木的较大树枝。
- 较小枝条可一次性切除。

故障查找

如果您的电动工具不能正常工作，下表为您列出了故障症状、可能的原因以及解决措施。如果您无法据此识别并排除问题，请联系您的服务维修厂。

注意：在故障查找前，请关闭电动工具并取出充电电池。

症状	可能原因	解决措施
链锯不运行	反冲制动器已触发	参见图片E1
	充电电池电量空	为充电电池充电，另见“充电提示”
	未正确插入充电电池	确保双重锁定装置均已卡入到位
	电机保护装置已触发	让电机冷却
	充电电池过冷/过热	加热/冷却充电电池
链锯工作时断断续续	电动工具故障	联系客服
	充电电池电量空	为充电电池充电，另见“充电提示”
	电动工具故障	联系客服
锯链干燥	油箱空	加油，参见“锯链润滑”
	油嘴(6)堵塞	清洁油嘴(6)
	油滤器堵塞	清洁油滤器/联系客服部门
锯链/导轨发烫	油箱空	加油
	链条张力过高	调节链条张力。
	锯链变钝	更换锯链
	出油通道堵塞	联系客服

症状	可能原因	解决措施
链锯运行不顺畅、 振动或锯切效果不佳	链条张力过低	复紧链条张力
	锯链变钝	更换锯链
	链条磨损	更换锯链
	锯齿朝向错误	正确安装锯链
	导板损坏或磨损	更换导板，或联系博世客户服务部门
强烈的振动/噪音	电动工具故障	联系客服
	链条安装错误	检查链条是否正确安装，参见“安装导板，张紧锯链”。
每次充电电池充电 后的锯切时间过短	因缺乏润滑导致摩擦过多	确保锯链润滑（参见“锯链润滑”）
	必须清洁锯链	清洁锯链
	锯切技巧不佳	参见“使用链锯工作”
	充电电池未充满电	为充电电池充电，另见“充电提示”
	充电电池超出允许的温度范围	让蓄电池升温至室温（在0-45摄氏度的允许温度范围内）
	链条张力过高	调节链条张力。
	锯链变钝	更换锯链
锯链移动缓慢	充电电池电量空	为充电电池充电，另见“充电提示”
	充电电池超出允许的温度范围	让蓄电池升温至室温（在0-45摄氏度的允许温度范围内）
	充电电池温度过高	让充电电池冷却

维修和服务

保养、清洁和运输

- ▶ **注意！进行维护及清洁工作前，关闭电动工具并取出充电电池。**
- ▶ **始终穿着合适的衣物并穿戴个人防护装备。**
- ▶ **定期检查链锯是否有明显缺陷，如锯链松动、脱落或损坏、固定件松动以及部件磨损或损坏。**
- ▶ **请勿对园艺设备进行任何改动。** 未经许可的改动可能会影响您的园艺设备的安全性，并导致噪音和振动加剧，且保修失效。

保养和清洁

- 保持电动工具和通风孔清洁，以确保良好、安全地工作。
- 请勿用水、溶剂和抛光剂清洁电动工具。
- 用干净的布或硬毛刷清除电动工具上的污垢。
- 用干净的布小心地清除油嘴(6)中的杂质。注意不要让杂质进入油嘴(6)，因为这可能会导致堵塞和润滑问题。

锯链保养

- 长时间存放产品前，请清洁导板和锯链，以防部件卡住。

清洁锯链的方法如下：

- 从链锯上取下盖罩(14)、导板(11)和锯链(12)，用硬毛刷清洁。（参见“拆卸锯链和导板”，页 25）。
- 检查锯链是否有损坏，并更换或打磨锯链。

锯链的更换和打磨

- ▶ **为保证最佳性能和安全性，锯链必须锋利。**
- ▶ **除非您有经验，否则切勿自行打磨锯链。**

锯链长期使用或接触非木材物品可能会变钝。

- 请用博世锯链配件更换锯链，或请专业人员对锯链进行重新打磨，参见附件。
- 关于锯链在工具上的安装（参见“安装导板，并张紧锯链（参见图片B1 – B4）”，页 25）。

导板保养

- ▶ **只有当您完全了解产品和使用说明时，才可更换导板，否则请联系博世客户服务部门。**
- ▶ **只使用博世推荐的备用导板。**

检查导板是否有裂缝或磨损。如有损坏，更换导板。导板拆卸指南请参见（参见“拆卸锯链和导板”，页 25）。

备件和附件（参见图片K）

您可以在www.bosch-pt.com上查阅分解图以及备件相关信息。

链锯的运输和存放

运输链锯前：

- 务必取出充电电池。
- 不使用链锯时，务必在导板(11)上安装链条防护罩(16)，以免受伤。
- 始终通过向前推动护手装置/链条制动器的方式锁止链条制动器。
- 建议搬运链锯时让导板朝后。

除了所有运输链锯的步骤外，存放链锯前请执行以下步骤：

- 存放链锯前，请排空油箱，使用前再重新加注。
- 始终将链锯存放在安全、干燥的地方，并要远离儿童。
- 切勿在链锯上放置任何物品。

客户服务和应用咨询

中国大陆

电话：400 826 8484-3-2

制造商地址：

Robert Bosch Power Tools GmbH
罗伯特·博世电动工具有限公司
70538 Stuttgart / GERMANY
70538 斯图加特 / 德国

关于服务地址和保修条件的链接请查看最后一页。
询问和订购备件时，务必提供机器铭牌上标示的10位数物品代码。

处理废弃物

必须以符合环保的方式，回收再利用损坏的电动工具、充电电池、附件和废弃的包装材料。



不可以把电动工具和充电电池/蓄电池丢入一般的家庭垃圾中！

产品中有害物质的名称及含有的信息表

部件名称	有害物质									
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBBs)	多溴二苯 醚 (PBDEs)	邻苯二甲酸二 正丁酯 (DBP)	邻苯二甲酸二 异丁酯 (DIBP)	邻苯二甲酸丁 苄酯 (BBP)	邻苯二甲酸二(2-乙 基)己酯 (DEHP)
外壳的金属部分	○	○	○	○	○	○	○	○	○	○
外壳的非金属部分	○	○	○	○	○	○	○	○	○	○
机械传动机构	○	○	○	○	○	○	○	○	○	○
电机组件	○	○	○	○	○	○	○	○	○	○
控制组件	X	○	○	○	○	○	○	○	○	○
附件	○	○	○	○	○	○	○	○	○	○
配件	○	○	○	○	○	○	○	○	○	○
连接件	○	○	○	○	○	○	○	○	○	○
电源线①	○	○	○	○	○	○	○	○	○	○
电池系统②	X	○	○	○	○	○	○	○	○	○

注1：

○：表示该有害物质在该部件所有均质材料中的含量均不超出电器电子产品有害物质限制使用国家标准要求。

x：表示该有害物质至少在该部件的某一均质材料中的含量超出电器电子产品有害物质限制使用国家标准要求。

注2：

以上未列出的部件，表明其有害物质含量均不超出电器电子产品有害物质限制使用国家标准要求。

①适用于采用电源线连接供电的产品。

②适用于采用充电电池供电的产品。

产品环保使用期限内的使用条件参见产品说明书。

繁體中文

安全注意事項

圖片符號說明



請閱讀使用說明書。



一般性警告。



請勿在雨中使用。



請務必用雙手握住鏈鋸。



請注意鏈鋸可能會反彈，避免接觸到鋸片尖端。



請穿戴個人防護裝備（PSA）和使用眼部、聽力和頭部保護裝置。



請戴上安全手套。



警告：在進行保養作業前應拆下鋰電池。

電動工具一般安全注意事項

警告

請詳讀工作臺及電動工具的所有安全警告與使用說明。若不遵照以下列出的指示，將可能導致電擊、著火和 / 或人員重傷。

保存所有警告和說明書以備查閱。

在所有警告中，「電動工具」此一名詞泛指：以市電驅動的（有線）電動工具或是以電池驅動的（無線）電動工具。

工作場地的安全

- ▶ 保持工作場地清潔和明亮。混亂和黑暗的場地會引發事故。
- ▶ 不要在易爆環境，如有易燃液體、氣體或粉塵的環境下操作電動工具。電動工具產生的火花會點燃粉塵或氣體。
- ▶ 讓兒童和旁觀者離開後操作電動工具。注意力不集中會使您失去對工具的控制。

電氣安全

- ▶ 不得將電動工具暴露在雨中或潮濕環境中。水進入電動工具將增加電擊危險。

人身安全

- ▶ 保持警覺，當操作電動工具時關注所從事的操作並保持清醒。當您感到疲倦，或在有藥物、酒精或治療反應時，不要操作電動工具。在操作電動工具時瞬間的疏忽會導致嚴重人身傷害。
- ▶ 使用個人防護裝置。始終佩戴護目鏡。安全裝置，諸如適當條件下使用防塵面具、防滑安全鞋、安全帽、聽力防護等裝置能減少人身傷害。
- ▶ 防止意外起動。確保開關在連接電源和 / 或電池盒、拿起或搬運工具時處於關閉位置。手指放在已接通電源的開關上或開關處於接通時插入插頭可能會導致危險。
- ▶ 在電動工具接通之前，拿掉所有調節鑰匙或扳手。遺留在電動工具旋轉零件上的扳手或鑰匙會導致人身傷害。
- ▶ 手不要伸展得太長。時刻注意立足點和身體平衡。這樣在意外情況下能很好地控制電動工具。
- ▶ 著裝適當。不要穿寬鬆衣服或佩戴飾品。讓您的衣物及頭髮遠離運動部件。寬鬆衣服、佩戴或長髮可能會捲入運動部件中。
- ▶ 如果提供了與排屑、集塵設備連接用的裝置，要確保他們連接完好且使用得當。使用這些裝置可減少塵屑引起的危險。
- ▶ 切勿因經常使用工具所累積的熟練感而過度自信，輕忽工具的安全守則。任何一個魯莽的舉動都可能瞬間造成人員重傷。

電動工具使用和注意事項

- ▶ 不要濫用電動工具，根據用途使用適當的電動工具。選用適當設計的電動工具會使您工作更有效、更安全。
- ▶ 如果開關不能開啟或關閉工具電源，則不能使用該電動工具。不能用開關來控制的電動工具是危險的且必須進行修理。
- ▶ 在進行任何調整、更換配件或儲存電動工具之前，必須從電源上拔掉插頭並 / 或取出電池盒。這種防護性措施將減少工具意外起動的危險。
- ▶ 將閒置不用的電動工具貯存在兒童所及範圍之外，並且不要讓不熟悉電動工具或對這些說明不瞭解的人操作電動工具。電動工具在未經培訓的用戶手中是危險的。
- ▶ 保養電動工具與配備。檢查運動件是否調整到位或卡住，檢查零件破損情況和影響電動工具運行的其他狀況。如有損壞，電動工具應在使用前修理好。許多事故由維護不良的電動工具引發。
- ▶ 保持切削刀具鋒利和清潔。保養良好的有鋒利切削刃的刀具不易卡住而且容易控制。
- ▶ 按照使用說明書，考慮作業條件和進行的作業來使用電動工具、配件和工具的刀頭等。將電動工具用於那些與其用途不符的操作可能會導致危險。
- ▶ 把手及握持區應保持乾燥、潔淨，且不得沾染任何油液或油脂。易滑脫的把手及握持區將無法讓您在發生意外狀況時安全地抓緊並控制工具。

電池式工具使用和注意事項

- ▶ 只用製造商規定的充電器充電。將適用於某種電池盒的充電器用到其他電池盒時會發生著火危險。
- ▶ 只有在配有專用電池盒的情況下才使用電動工具。使用其他電池盒會發生損壞和著火危險。
- ▶ 當電池盒不用時，將它遠離其他金屬物體，例如回形針、硬幣、鑰匙、釘子、螺絲或其他小金屬物體，以防一端與另一端連接。電池端部短路會引起燃燒或火災。
- ▶ 在濫用條件下，液體會從電池中濺出；避免接觸。如果意外碰到了，用水沖洗。如果液體碰到了眼睛，還要求醫療幫助。從電池中濺出的液體會發生腐蝕或燃燒。
- ▶ 請勿使用已受損或經改裝的電池盒。已受損或經改裝的電池組可能出現無法預期的反應，進而導致著火、爆炸或造成人員受傷。
- ▶ 勿讓電池盒或工具靠近火源或暴露於異常溫度環境中。若是靠近火源或暴露在超過130 °C的環境中可能造成爆炸。
- ▶ 請完全遵照所有的充電說明，電池盒或工具的溫度若是超出指示的規定範圍，請勿進行充電。不當充電或是未在規定的溫度範圍內進行充電，皆可能造成電池損壞並面臨更高的著火風險。

檢修

- ▶ 將您的電動工具送交專業維修人員，必須使用同樣的備件進行更換。這樣將確保所維修的電動工具的安全性。
- ▶ 請勿自行檢修受損的電池盒。電池組應交由製造商或是獲得授權的服務供應商來進行檢修。

鏈鋸一般性安全注意事項

- ▶ 電鋸運行時，所有身體部位請遠離鋸鏈。啟動電鋸前請確認，鋸鏈未接觸到任何物品。使用電鋸作業時，一不注意衣服或身體部位可能會被鋸鏈接觸及而導致危險。
- ▶ 請務必用右手握住後方把手，左手握住前方把手，確實握緊電鋸。嚴禁以相反的工作姿勢握緊電鋸，否則會增加受傷的風險。
- ▶ 請緊握電鋸上有絕緣處理的握面，因為鋸鏈可能會接觸到隱藏的電線。鋸鏈若接觸到帶電導線可能導致裝置上的金屬部件帶電，進而導致人員觸電。
- ▶ 請配戴護目鏡。建議為聽力、頭部、手部、腿部和腳部配戴額外的防護裝備。合適的防護衣可降低因飛濺碎屑和意外接觸鋸鏈而受傷的危險。
- ▶ 請勿在樹上、梯子、屋頂或不牢固的支撐物上使用鏈鋸進行作業。在上述條件下操作鏈鋸可能導致嚴重傷害。
- ▶ 請務必隨時注意作業環境是否穩固，請務必只能在安全、平坦且堅固的地面上使用本電鋸。濕滑的地面或不穩固的支撐面可能導致重心不穩或無法確實掌控電鋸的情況發生。
- ▶ 當修剪承受張力的樹枝時，須預期其彈回的可能性。如果木材纖維中的張力被釋放，繃緊的樹枝可能會擊中操作人員和/或使鏈鋸失去控制。

- ▶ 修剪矮木叢和幼樹時請特別小心。細薄材質可能會捲入鋸鏈並擊中您，或使您失去平衡。
- ▶ 電鋸關閉時，請緊握前方把手，並使鋸鏈朝向前方。搬運或存放電鋸時，請務必套上防護蓋罩。小心操作電鋸可降低不慎觸及運行中的鋸鏈的可能性。
- ▶ 請遵循潤滑、鋸鏈張緊以及更換鋸片和鋸鏈的指示。鋸鏈的張緊或潤滑不當，可能會導致斷裂或增加反彈風險。
- ▶ 限用於木材鋸切。請勿將本鏈鋸用於不適用於其應用的作業上。舉例來說：請勿將本鏈鋸用於鋸切金屬、塑膠、砌牆或非木製建材。不當使用本鏈鋸，可能導致危險情況。
- ▶ 本鏈鋸不適用於砍伐樹木。將本鏈鋸用於非指定的操作可能會對操作人員或旁人造成嚴重傷害。
- ▶ 清除堆積異物、存放或維護鏈鋸時，請遵循所有指示操作。請確保電源開關已關閉且充電電池已拆下。清除堆積異物或進行維護時不慎操作鏈鋸，可能導致嚴重傷害。
- ▶ 反彈原因和如何避免反彈：
 - 當導軌尖端碰觸到其他物件、木材彎曲及鋸鏈在鋸切時卡住時，可能發生反彈現象。
 - 在某些情況下，導軌尖端碰觸到物件可能導致意外往後的反應，因而使導軌向上甩以及甩向操作人員方向。
 - 鋸鏈卡在導軌上緣可能導致導軌迅速朝操作人員方向回推。
 - 上述任一現象皆可能導致操作人員失去對電鋸的控制，因而產生嚴重傷害。請勿完全僅依賴安裝在鏈鋸內的安全裝置。鏈鋸使用者應採取各種措施，確保安全作業。
- ▶ 反彈是鏈鋸使用錯誤及/或不正確操作所造成的後果。透過後續說明的適當預防措施，可避免反彈。
- ▶ 用雙手的大拇指和手指環握電鋸把手，以確實緊握電鋸。讓身體和手臂保持可抵抗反彈力的姿勢。操作人員若能採取合適的措施，即可掌控反彈力。請勿鬆開電鋸。
- ▶ 請避免不正常的身體姿勢，請勿將電鋸持於高過肩膀高度進行作業。藉此即可避免不慎碰觸到導軌尖端，在發生意外情況下也能提高自身對電鋸的掌控。
- ▶ 務必使用製造商指定的替換導軌和鋸鏈。錯誤的替換導軌和鋸鏈可能導致鋸鏈斷裂或反彈。
- ▶ 請依照製造商說明來磨銳和維護鋸鏈。深度限制器太低會增加反彈趨勢。

其他安全注意事項

- ▶ 該線籬修剪機含有磁鐵 - 請勿將磁鐵靠近植入物和其他醫療設備，例如心臟起搏器或胰島素泵，以及磁性數據載體和磁敏感設備。磁鐵產生的磁場可能會影響醫療設備的功能，或導致數據的不可逆丟失。
- ▶ 本電動工具不適用於身體、感官或精神能力受限或缺乏經驗和/或知識的人士（包括兒童）使用，除非他們在負責其安全的人員的監督下使用，或已獲得該人員關於如何使用該電動工具的

指導。請監督兒童，確保他們不會拿電動工具玩耍。

- ▶ **作業期間請用雙手牢牢握緊電動工具並保持穩固。**使用雙手才能夠更穩定地操作電動工具。
- ▶ **使用本裝置時，請確保所有防護裝置和握把均已安裝到位。**切勿嘗試操作未完全組裝或未經授權改裝的裝置。
- ▶ 操作時，請務必使用鏈條正確對齊且張緊良好的電動工具。若使用鋸鏈未正確對齊或張緊的電動工具，可能會導致鋸鏈斷裂、反彈和/或受傷。
- ▶ 請保持所有冷卻風口不受髒污。

如何正確地使用電池的安全須知和注意事項

- ▶ **確保在插入電池之前已關閉了無繩花園鋸。**如果將電池插入已開啟的無繩花園鋸，則可能會導致事故。
- ▶ **請只使用為本無繩花園鋸設計的博世電池。**使用其他電池會有受傷的危險並且可能造成火災。
- ▶ **切勿改裝拆開充電電池。**可能造成短路。



保護蓄電池免受高溫（例如長期日照），火焰，水和濕氣的侵害。否則有爆炸危險。



- ▶ **在不需要使用本設備時，應使閒置的鋰電池遠離回形針、硬幣、鑰匙、釘子、螺栓或其它可引起觸點跨接的金屬小物件。**電池觸點之間短路可導致燙傷或火災。
- ▶ **損壞的和被濫用的蓄電池會冒出蒸氣。**確保工作場所空氣流通，感覺不適得即刻就醫。蒸氣會刺激呼吸道。
- ▶ **僅可使用產品的原廠充電電池。**如此才可依照產品提供過載保護。
- ▶ **尖銳物品（例如釘子或螺絲起子）或是外力皆有可能造成充電電池損壞。**進而導致內部短路而發生電池起火、冒煙、爆炸或過熱等事故。
- ▶ **勿造成蓄電池短路。**否則有爆炸危險。
- ▶ **避免讓電池受潮或進水。**
- ▶ **該無繩花園鋸和電池只能存放在 -20 °C 至 50 °C 的溫度範圍內，**例如夏天不可以把電池放置在汽車裡。
- ▶ **不定時地使用柔軟，清潔而且乾燥的毛刷清潔蓄電池的通氣孔。**

符號

以下符號可以幫助您閱讀和了解本使用說明書。請牢記各符號和它們的代表意思。正確瞭解各符號的含義，可幫助您更有把握更安全地操作本產品。

符號	意義
	讓兒童、人員和寵物保持距離。
	移動方向

符號	意義
	反應方向
	重量
	啟用反彈制動裝置
	停用反彈制動裝置
	允許的行為
	禁止的行為
CLICK!	可聽到的噪音
	配件/備件

產品和性能介紹



請閱讀所有安全說明及指示。不遵守安全說明和指令可能會導致觸電、著火和/或嚴重的人身受傷。

請留意操作說明書中最前面的圖示。

正確地使用機器

本電動工具適用於樹木和樹幹靠近地面的鋸切。它可用於木紋的縱向和交叉方向的鋸切。

本電動工具不適用於鋸切礦物材料。

本電動工具不適用於砍伐樹木。

圖示中的組件（請參考圖 A）

機件的編號和電動工具詳解圖上的編號一致。

- (1) 後方握把
- (2) 電源開關
- (3) 鏈輪
- (4) 前把手
- (5) 用於啟動反彈制動裝置的護手板/扳片
- (6) 油嘴
- (7) 鏈條張緊螺栓
- (8) 固定銷
- (9) 爪式擋件
- (10) 張緊插銷
- (11) 鋸片
- (12) 鋸鏈
- (13) 安裝工具
- (14) 護蓋
- (15) 固定螺母
- (16) 鏈條保護裝置
- (17) 油箱蓋
- (18) 鏈條油檢視窗

(19) 電源開關的作動安全鎖

(21) 充電器

(20) 充電電池

(22) 電池電量指示燈

技術性數據

鏈鋸		GKE 18V-40
產品機號		3 600 HD3 0..
額定電壓 ^{A)}	V	18
空轉時鏈條速度	m/s	12.4
鋸片長度	cm	40
相容鋸片		Oregon 164MLEA041 Bosch 1 600 A03 0J6
鋸片連接類型		A041
鋸鏈節距		3/8" 低型材
驅動鏈接厚度	mm	1.1 (0.043")
驅動鏈接數		57
最大鋸切直徑	cm	36
油箱容量	ml	150
自動鏈條潤滑		●
工具夾		●
轉向輪		●
依據 EN 62841-4-1 標準之重量 ^{A)}		
- 含充電電池	kg	4.66 (5.5 Ah) - 5.05 (12.0 Ah)
- 不含充電電池	kg	3.67
- 不含充電電池、鋸片或鋸鏈		3.06
序號		詳見產品上的序號 (銘牌)
充電狀態下的建議環境溫度	°C	-20 ... +50
存放狀態下的容許環境溫度 ^{B)}		
運作時的容許環境溫度 ^{B)}	°C	0 ... +40
兼容的充電電池		GBA18V... GBA 18V... ProCORE18V... EXPERT18V... EXBA18V... CORE18V...
為確保最大效能而建議使用的充電電池		GBA 18V... ≥ 4.0 Ah ProCORE18V... ≥ 4.0 Ah EXPERT18V...
建議使用的充電器		GAL18... GAL 18... GAL 36... GAL12V/18... GAL 12V/18... GAX 18... EXAL18...

A) 視所使用的充電蓄電池而定

B) 溫度 <0 °C 時，性能受限

數值可能因產品而異，並受使用條件以及環境條件影響。進一步資訊請見 www.bosch-professional.com/wac。

充電電池

Bosch 亦販售不含充電電池的充電式電動工具。可以從外包裝看出電動工具的供貨範圍是否包括電池。

為充電電池進行充電

► **只能選用技術性數據裡所列出的充電器。**僅有這些充電器適用於電動工具所使用的鋰離子充電電池。

提示：由於國際運輸規定，出貨時鋰離子充電電池已部分充電。初次使用電動工具之前，請先將充電電池充飽電以確保充電電池蓄滿電力。

安裝充電電池

將已充飽電的充電電池推至充電電池固定座內，直到卡緊。

取出充電電池

若要取出充電電池，請按解鎖鈕，然後將充電電池抽出。**不可以強行拉出充電電池。**

本充電電池具備了雙重鎖定功能，即使不小心按壓了充電電池解鎖按鈕，充電電池也不會從機器中掉落出來。固定彈簧會把充電電池夾緊在機器中。

充電電池的電量指示器

充電電池的電量指示器透過綠色 LED 燈告知充電電池的目前電量。基於安全顧慮，務必在電動工具完全靜止時才能檢查充電電池的電量。

按一下電量指示器按鈕  或 ，即可顯示目前的電量。即使已取出充電電池，此項功能仍可正常運作。

按壓電量顯示按鈕後，LED 燈若未亮起，即表示充電電池故障，必須予以更換。

充電電池型號 GBA 18V... | GBA18V...



LED	容量
3 顆綠燈持續亮起	60–100 %
2 顆綠燈持續亮起	30–60 %
1 顆綠燈持續亮起	5–30 %
1 顆綠燈呈閃爍狀態	0–5 %

充電電池型號 ProCORE18V...



LED	容量
5 顆綠燈持續亮起	80–100 %
4 顆綠燈持續亮起	60–80 %
3 顆綠燈持續亮起	40–60 %
2 顆綠燈持續亮起	20–40 %
1 顆綠燈持續亮起	5–20 %

LED

容量

1 顆綠燈呈閃爍狀態

0–5 %

如何正確地使用充電電池

妥善保護充電電池，避免濕氣和水分滲入。

充電電池必須儲存在 -20 °C 至 50 °C 的環境中。夏天不可以把充電電池擱置在汽車中。

偶爾用柔軟、乾淨且乾燥的毛刷清潔充電電池的通氣孔。

充電後如果充電電池的使用時間明顯縮短，代表充電電池已經損壞，必須更換新的充電電池。

請您遵照廢棄物處理相關指示。

蓄電池-保養

為確保能夠最佳使用電池，請遵循以下注意事項和措施：

- 避免讓電池受潮或進水。
- 該電動工具和電池只能存放在 -20 °C 至 50 °C 的溫度範圍內，例如夏天不可以把電池放置在汽車中。
- 單獨存放電池，不可將它存放在該花園機器中。
- 請勿將電池放在陽光直射下的該花園機器中。
- 存放電池的最佳溫度為 5°C。
- 不定時地使用柔軟、乾淨而且乾燥的刷子清潔電池通風孔。

如果電池在充完電後，使用的時間明顯地縮短，代表電池壽命已盡，得更換電池。

安裝

針對您的安全

- **注意！** 進行維護或清潔工作前先關閉電動工具，並取出充電電池。
- **小心！** 鋸鏈甚為鋒利。請務必在使用鋸鏈工作時穿戴防護手套。
- 請勿在人員、兒童或寵物附近以及飲酒、服藥或服用麻醉藥物後操作本電鋸。
- 僅可在使用固定銷 (8) 將護蓋固定後，才可使用鋸鏈。

鋸片安裝和鋸鏈張緊（請參考圖 B1 – B4）

- **小心！** 請勿張緊高溫中的鋸鏈。
- 將鋸鏈以護蓋 (14) 朝上放置在合適的平面上。
- 使用隨附的安裝工具 (13) 取下兩個固定螺母 (15)，以便拆下護蓋 (14)。
- 握住鋸片 (11)，使其端部垂直朝上，並將新的或磨銳的鋸鏈 (12) 以正確方向安裝在鋸片上（請參考圖 B1）。
- 以逆時針方向旋轉鏈條張緊螺栓 (7)，將導向銷 (10) 向左調整。提示：如果導向銷 (10) 未正確對齊，則鋸片無法安裝在鏈鋸上。
- 請確定鋸鏈 (12) 正確定位在整個鋸片周圍的凹槽中。

- 將鋸鏈環繞鏈輪 (3)，然後將鋸片 (11) 推過固定銷 (8)。
- 將護蓋 (14) 安裝到固定銷 (8) 上。
- 將固定螺母 (15) 靠上固定銷 (8)，然後小心地用手旋緊固定螺母 (15)，以便固定護蓋 (14)。(請參考圖 B3)。
- 使用安裝工具 (13) 以順時針方向旋轉鏈條張緊螺栓 (7)，直到鋸片周圍的鋸鏈被張緊。若可將鋸鏈 (12) 從 (11) 抬起約 6–7 mm，即代表已達到正確的鏈條張緊度。
將鏈鋸放置在合適的平面上。
用戴手套的手抓住鋸片 (11) 頂部靠近切割長度中央的鋸鏈，然後逆著鏈鋸的重量將鋸鏈 (12) 抬起。
- 如果鋸鏈過度張緊，請使用安裝工具 (13) 以逆時針方向旋轉鏈條張緊螺栓 (7)，直到達到正確的鏈條張緊度。

提示：請勿將鋸鏈過度張緊 - 過度張緊會導致高度磨損並縮短鋸鏈的使用壽命，並可能損壞鏈軌。

提示：新的鋸鏈可能會在首次使用時明顯增長。在運行的前兩小時內，定時取出充電電池並檢查鋸鏈的張力。

- 將固定螺母 (15) 使用安裝工具 (13) 旋緊，然後將護蓋 (14) 固定在鏈鋸上。
- 在操作前，請注意須將兩個固定螺母 (15) 安裝和固定好。

鋸鏈和鋸片安裝

- 將鏈鋸以護蓋 (14) 朝上放置在合適的平面上。
- 使用隨附的安裝工具 (13) 取下固定螺母 (15)，以便拆下護蓋 (14)。
- 使用安裝工具 (13) 以逆時針方向旋轉鏈條張緊螺栓 (7)，以便鬆開鋸鏈 (12)。
- 將鋸片 (11) 從固定銷 (8) 移下。
- 將鏈條從驅動鏈輪取下。

加注油箱 (請參考圖 C)

提示：本鏈鋸在出貨時並未加注鋸鏈油。在使用前，請務必先注油。使用未上鋸鏈油或油位低於最低標記的鏈鋸會損壞鋸片和鋸鏈。

若要加注油箱，請依下列步驟進行：

- 將鏈鋸放置在合適的底面上，並將油箱蓋 (17) 朝上。
- 清潔油箱蓋 (17) 周圍的區域。使用一塊乾淨的布清除髒污部分。
- 以逆時針方向旋轉油箱蓋 (17)。
- 小心地將鏈條油加注油箱。
- 請在加注鋸鏈油時，注意不可讓髒污或異物侵入油箱內。
- 油箱蓋 (17) 固定安裝在鏈鋸上。填油時，注意不可讓油箱蓋擋住油箱口。
- 您可在運行期間透過鏈條油檢視窗 (18) 檢查油位。如果達到最低油位，請加注新的鏈條油。
- 裝上油箱蓋 (17) 並將其牢固旋緊。

提示：請務必使用適合本鏈鋸的專用油，以達到最佳性能。使用非核可的鏈條油可能會影響注油系統的性能，並喪失保固。

鋸鏈潤滑 (請參考圖 E3)

鋸鏈的使用壽命和切割性能取決於完美的潤滑效果。因此鋸鏈在運行過程中會透過油嘴 (6) 自動注入鋸鏈油，以進行潤滑。

定時檢查鋸鏈是否已正確潤滑：

- 當油箱加滿油時，握住鏈鋸，使鋸片尖端朝向淺色的表面。
- 讓電動工具運作約 1 分鐘，或直到在淺色表面上看到油跡。
- 若看不到油跡，請詳見故障排除「鋸鏈乾掉」。
- 若潤滑系統仍無法正常運作，請聯繫博世客戶服務中心。

提示：油箱中內建了油質濾清器。如需清潔或排除故障，請聯繫博世客戶服務中心。

提示：低溫下的鏈條油會變得黏稠，進而降低其流動性。

操作

- ▶ 在使用前，請務必閱讀操作說明書和安全注意事項。
- ▶ 請一律穿戴合適的服裝和個人防護裝備。
- ▶ 請在使用前進行所有必要的維護作業。
- ▶ 在使用前，務必檢查工具和鏈條的狀態、油位和正確安裝。僅可在良好狀態下使用本鏈鋸。
- ▶ 始終注意環境須乾燥，且不可有障礙物和旁觀者。
- ▶ 請保持穩固站立，並僅可站在堅固、安全且平坦的表面上才可操作鏈鋸。
- ▶ 切勿在梯子上或高於肩膀高度使用鏈鋸。
- ▶ 操作時，切勿擺動過度或伸展手臂。
- ▶ 請務必用雙手穩穩握住鏈鋸。
- ▶ 不可將鏈鋸放置在地面上。絆倒危險！
- ▶ 不可抽菸，且不可把火帶進工作區域。鏈鋸粉塵極具易燃性。
- ▶ 請勿在裝置自動關閉後按下電源開關。否則充電電池可能會損壞。

提示：本鏈鋸在出貨時並未上油。在將鏈條油填入油箱之前，請勿使用鏈鋸。

- ▶ 若使用鋸鏈未正確對齊或張緊的鏈鋸，可能會導致鋸鏈斷裂、反彈和/或受傷。
- ▶ 新的鋸鏈可能會在初次使用時明顯增長。
- ▶ 請在運作時定時檢查鏈條張緊度。為進行正確安裝，(參見「鋸片安裝和鋸鏈張緊 (請參考圖 B1 – B4)」，頁 34)。

鋸鏈的正確操作 (請參考圖 H)

請始終遵循本小節所述的正確操作方式：

- 穿戴合適的防滑鏈鋸手套，以獲得最大程度的抓力和防護。
- 在電鋸運作期間，請務必使用雙手將其緊握。

- 將右手放在後握把、左手放在前握把上，拇指和手指環繞鏈鋸握把。（請參考圖 E2）
- 保持身體重量平衡，雙腳放在堅固的地面上。
- 保持左手肘處於「伸開」和挺直的位置，以承受任何反彈力量。
- 操作時，切勿伸出手臂或伸出太遠。
- 牢牢握住鏈鋸，並保持左臂挺直，以便在發生反彈時保持對鏈鋸的控制。
- 將鏈鋸握持在您身體的右側。
- 請確保身體的任何部位都不會超出切割線。反彈時，可能會將鏈鋸彈回您的身體。（請參考圖 H）鏈鋸可能會因反彈而彈回您的身體。（請參考圖 H）

啟動與關閉（請參考圖 E1）

► 穿戴合適的防滑鏈鋸手套，以獲得最大程度的抓力和防護。

啟動前：

- 請拆除鏈條保護裝置 (16)。
- 裝入充電電池。
- 用兩個握把牢牢握住鏈鋸，並將身體與鋸鏈範圍保持距離。（請參考圖 H）。

啟動：

- 將啟用反彈制動裝置的扳片 (5) 往前握把方向 (4) 拉動。
- 壓下電源開關的作動安全鎖 (19)，然後按下並按住電源開關 (2)。
- 一旦鏈鋸開始運作，即可放開作動安全鎖。
- 鋸鏈必須達到全速，才可在木材上進行操作。

提示：如果在使用前未正確停用反彈制動裝置 (5) 扳片，則鏈鋸將無法啟動。

關閉：

- 放開電源開關 (2)。作動安全鎖返回安全/鎖定狀態。
- 在使用後，將啟用反彈制動裝置的扳片 (5) 向前推動，使其離開前方握把 (4)。

一般性鋸切特性（請參考圖 F）

- 初次使用者應在鋸木架上練習鋸切樹幹。
- 電鋸關閉時，在木材前採取正確的位置。
- 啟動鏈鋸，並確保鋸鏈在碰觸木材之前以全速運轉。
- 開始鋸切時，將爪式擋件 (9) 壓在木材上，以穩定鋸切。
- 鋸切較厚的樹幹時，利用爪式擋件作為槓桿，在鋸切過程中逐步將爪式擋件置回較低的位置。為此請將鏈鋸略微向後拉動，直到爪式擋件鬆開，然後將鏈鋸在更低的平面上重新插入，以繼續鋸切。請勿將鏈鋸完全從鋸切處拉出。
- 讓鏈鋸在整個鋸切過程中運轉，並保持速度一致。
- 鋸切時請勿對鋸鏈施力，而是讓其自行作業。
- 鋸鏈運轉時，請務必將鏈鋸從木材鋸切處移開。

- 切鋸結束時請務必小心。一旦鏈鋸完成鋸切空轉時，重力會突然改變。可能對操作人員的四肢造成傷害。
- 請在鋸切完成後立即鬆開電源開關，使鏈條停止，並將反彈制動裝置 (5) 向前推動，使其離開前方握把（請參考圖 E1）。

電鋸反彈（請參考圖 G）

透過對反彈的基本了解，您可減少在此可能導致事故的反彈發生。

請始終確保您穩穩地站在地面上並保持平衡。

所謂鋸反彈係指運轉的鏈鋸突然往上移和回彈，這是鋸片尖端與切鋸物件接觸或鏈條卡住時可能發生的現象。

發生電鋸反彈時，鏈鋸會以不可預測的方式進行反應，可能導致操作人員或位於切鋸範圍內之人員的嚴重傷害。

請特別注意側向和斜向的鋸切，以及縱向鋸切。在這些鋸切方式通常無法使用爪式擋件 (9)。

為能將反彈降至最低，請遵循以下預防措施：

- 請始終遵循鏈鋸的正確操作方式。
- 牢牢握住鏈鋸，並保持左臂挺直，以便在發生反彈時保持對鏈鋸的控制。
- 確保鋸切區域沒有障礙物。注意不可使鋸片的前端碰觸到樹幹、樹枝、柵欄或其他在使用電鋸時可能碰到的障礙物。

提示：如果鋸片尖端碰觸到障礙物，可能會發生反彈。

- 一律以鏈鋸的最大速度進行鋸切。將電源開關 (2) 按到底，並保持均勻的鋸切速度。
- 僅可使用博世建議使用的替換鋸片和低反彈鏈條。

反彈制動裝置

反彈制動裝置是一種安全機制，當發生反彈時，透過手腕由反彈制動裝置扳片 (5) 啟動。鋸鏈立即停止。如此可降低反彈造成傷害的風險。

請定期測試反彈制動裝置是否運作正常：

- 請用雙手握住鏈鋸。
- 啟動鏈鋸。
- 當鋸鏈開始旋轉，從手腕向前推動扳片以啟動反彈制動裝置 (5)。如果鋸鏈在此測試過程中未立即停止，請勿使用此鏈鋸。

提示：在正常使用過程中，請勿故意操作反彈制動裝置扳片 (5) 來停止鏈鋸。

鋸切樹幹（請參考圖 H）

- 鋸切前，請務必將樹幹固定好。
- 鋸切樹幹時，請一律鋸切在固定點之外，以防止樹幹卡住和鏈條卡住。
- 確保鋸鏈不會接觸地面或任何切格設備。
- 注意樹樁、樹枝、樹根等，因可能有絆倒危險。

鋸切處於張力下的木材（請參考圖 I）

- 鋸切處於張力下的木材、樹枝或樹木僅能由受過訓練的專業人員進行。必須保持高度謹慎。事故的發生風險提高。

修鋸樹枝或樹木（請參考圖 J）

- 修鋸樹枝是從砍伐的樹木或大樹枝上鋸除樹枝的過程。
- 先保留較大的朝下樹枝來支撐樹木。
- 一次鋸除較小的樹枝。

故障排除

如果您的電動工具運作不正常，以下為您列出錯誤徵狀、可能原因和修正措施。若您無法識別和排除問題，請聯繫您的服務維修廠。

注意：請在故障排除前關閉電動工具並取出充電電池。

徵狀	可能原因	解決方式
鏈鋸不運轉	反彈制動裝置被觸發	請參考圖 E1
	充電電池耗盡	將充電電池充電，亦詳見「充電注意事項」
	未正確裝入充電電池	確保已卡入雙重鎖定功能
	馬達保護裝置已觸發	讓馬達冷卻
	充電電池溫度過低/過高	升溫/冷卻電池
鏈鋸的運行斷斷續續	電動工具故障	聯繫客戶服務中心
	充電電池耗盡	將充電電池充電，亦詳見「充電注意事項」
鋸鏈乾掉	電動工具故障	聯繫客戶服務中心
	油箱內無油	填充油液，亦詳見「鋸鏈潤滑」
	油嘴 (6) 堵塞	清潔油嘴 (6)
鋸鏈/導軌溫度太高	油質濾清器堵塞	清潔油質濾清器/洽詢客戶服務中心
	油箱內無油	填充鏈條油
	鏈條太緊繃	調整鏈條張緊度。
	鋸鏈鈍化	更換鋸鏈
鏈鋸發出異聲、震動或無法正確進行切鋸作業	出油通道堵塞	聯繫客戶服務中心
	鏈條張緊不足	重新調整鏈條張緊度
	鋸鏈鈍化	更換鋸鏈
	鋸鏈磨損	更換鋸鏈
	鋸齒方向錯誤	請正確安裝鋸鏈
強烈震動/噪音	鋸片受損或磨損	更換鋸片或連繫博世客戶服務中心
	電動工具故障	聯繫客戶服務中心
每次充電後的鋸切運行時間過短	鏈條安裝錯誤	檢查鏈條是否安裝正確，詳見「安裝鋸片和張緊鋸鏈」。
	缺乏潤滑導致摩擦過高	確保已進行鏈條潤滑（詳見「鋸鏈潤滑」）
	鋸鏈需進行清潔	清潔鋸鏈
	鋸切操作方式不正確	詳見「使用鏈鋸作業」
	充電電池未充滿	將充電電池充電，亦詳見「充電注意事項」
	充電電池超出容許的溫度範圍	讓充電電池升至室溫（在 0–45 °C 的容許溫度範圍內）
	鏈條太緊繃	調整鏈條張緊度。
	鋸鏈鈍化	更換鋸鏈

徵狀	可能原因	解決方式
鋸鏈動作緩慢	充電電池耗盡	將充電電池充電，亦詳見「充電注意事項」
	充電電池超出容許的溫度範圍	讓充電電池升至室溫（在 0–45 °C 的容許溫度範圍內）
	充電電池溫度過高	將充電電池冷卻

維修和服務

保養、清潔和搬運

- ▶ **注意！** 進行維護或清潔工作前先關閉電動工具，並取出充電電池。
- ▶ 請一律穿戴合適的服裝和個人防護裝備。
- ▶ 請定期檢查鏈鋸是否有明顯的瑕疵，例如：鋸鏈鬆動、鬆脫或受損、固定裝置鬆脫以及零組件磨損或受損等。
- ▶ 請勿擅改本庭院裝置。未經許可的變更可能損及本庭院裝置的安全性，導致其出現明顯噪音和振動。

保養和清潔

- 電動工具和通氣孔都必須保持清潔，這樣才能夠提高工作品質和安全性。
- 清潔本電動工具時，請勿使用水、溶劑和拋光劑。
- 使用一塊乾淨的布或硬刷來清除髒污部分。
- 使用一塊乾淨的布，小心地從油嘴 (6) 清除髒污部分。確保無污染物進入油嘴 (6)，因為這會導致堵塞和潤滑問題。

鋸鏈保養

- 長期存放本產品前，請先清潔鋸片和鋸鏈，以防止部件卡住。

鋸鏈清潔方式：

- 將護蓋 (14)、鋸片 (11) 和鋸鏈 (12) 從鋸鏈取下，然後使用硬刷將其清潔。（參見「鋸鏈和鋸片安裝」，頁 35）。
- 檢查鋸鍊是否損壞，並更換或磨銳鋸鏈。

更換和磨銳鋸鏈

- ▶ 為得到最佳性能和安全性，須使用鋒利的鋸鏈。
- ▶ 如未具相關經驗，請勿自行磨銳鋸鏈。

鋸鏈可能會因長期使用或接觸非木材物體而變鈍。

- 使用博世鋸鏈配件更換鋸鍊，或委託專業人員為鋸鏈進行磨銳，詳見配件。
- 關於鋸鏈在工具上的安裝（參見「鋸片安裝和鋸鏈張緊（請參考圖 B1 – B4）」，頁 34）。

鋸片保養

- ▶ 只有當您詳細了解產品和說明的情況下，才可更換鋸片，否則請聯繫博世客戶服務中心。

- ▶ 僅可使用博世建議使用的替換鋸片。

檢查鋸片是否出現裂痕或磨損。更換損壞的鋸片。關於如何取下鋸片的說明，請參閱（參見「鋸鏈和鋸片安裝」，頁 35）。

備件和配件（請參考圖 K）

您可在 www.bosch-pt.com 找到關於備件的分解圖和資訊。

鏈鋸的搬運和存放

在您搬運鏈鋸之前：

- 請務必取下充電電池。
- 在不使用鏈鋸時，請務必在鋸片 (11) 上裝上鏈條保護裝置 (16)，以避免受傷。
- 請一律透過向前滑動護手板/鏈條制動器來鎖定鏈條制動器。
- 搬運鏈鋸時，建議將鋸片朝後。

除了搬運鏈鋸的所有步驟外，在存放鏈鋸前仍要執行以下步驟：

- 請在存放鏈鋸前清空油箱，並在使用前再填滿。
- 始終將鏈鋸存放在安全、乾燥且兒童接觸不到之處。
- 切勿在鏈鋸上放置物品。

顧客服務處和顧客諮詢中心

台灣進口商

電話：(02) 7734 2588

製造商地址：

Robert Bosch Power Tools GmbH

羅伯特·博世電動工具有限公司

70538 Stuttgart / GERMANY

70538 斯圖加特/德國

我們的服務地址和保固條件連結可在最後一頁找到。

當您需要諮詢或訂購備用零件時，請務必提供本產品型號銘牌上 10 位數的產品機號。

廢棄物處理

必須以符合環保的方式，將損壞的電動工具、充電電池、配件和包裝材料進行回收再利用。



不可以把電動工具和充電電池 / 拋棄式電池丟入一般家庭垃圾中！

한국어

안전 수칙

이미지 기호 설명



사용 설명서를 읽으십시오.



일반적인 위험 경고.



비가 올 때 사용하지 마십시오.



전기톱은 항상 양손으로 잡으십시오.



전기톱의 반동에 유의하고 체인 바 끝부분을 접촉하지 마십시오.



개인 보호장비(PPE)를 착용하고 눈, 청력, 머리 보호장치를 사용하십시오.



안전 장갑을 착용하십시오.



경고: 유지 관리 작업을 하기 전에 배터리를 분리하십시오.

전동공구 일반 안전 수칙

⚠ 경고 본 전동공구와 함께 제공된 모든 안전경고, 지시사항, 그림 및 사양을 숙지하십시오. 다음의 지시 사항을 준수하지 않으면 감전, 화재, 또는 심각한 부상을 초래할 수 있습니다.

앞으로 참고할 수 있도록 이 안전수칙과 사용 설명서를 잘 보관하십시오.

다음에서 사용되는 "전동공구"라는 개념은 전원에 연결하여 사용하는 (전선이 있는) 전동 기기나 배터리를 사용하는 (전선이 없는) 전동 기기를 의미합니다.

작업장 안전

- ▶ 작업장을 항상 깨끗이 하고 조명을 밝게 하십시오. 작업장 환경이 어수선하거나 어두우면 사고를 초래할 수 있습니다.
- ▶ 가연성 유체, 가스 또는 분진이 있어 폭발 위험이 있는 환경에서 전동공구를 사용하지 마십시오. 전동공구는 분진이나 증기에 점화하는 스파크를 일으킬 수 있습니다.

- ▶ 전동공구를 사용할 때 구경꾼이나 어린이 혹은 다른 사람이 작업장에 접근하지 못하게 하십시오. 다른 사람이 주의를 산만하게 하면 기기에 대한 통제력을 잃기 쉽습니다.

전기에 관한 안전

- ▶ 전동공구를 비에 맞지 않게 하고 습기 있는 곳에 두지 마십시오. 전동공구에 물이 들어가면 감전될 위험이 높습니다.

사용자 안전

- ▶ 신중하게 작업하며, 전동공구를 사용할 때 경솔하게 행동하지 마십시오. 피로한 상태이거나 약물 복용 및 음주한 후에는 전동공구를 사용하지 마십시오. 전동공구를 사용할 때 잠시라도 주의가 산만해지면 중상을 입을 수 있습니다.
- ▶ 작업자 안전을 위한 장치를 사용하십시오. 항상 보안경을 착용하십시오. 전동공구의 종류와 사용에 따라 먼지 보호 마스크, 미끄러지지 않는 안전화, 안전모 또는 귀마개 등의 안전한 복장을 하면 상해의 위험을 줄일 수 있습니다.
- ▶ 실수로 기기가 작동되지 않도록 주의하십시오. 전동공구를 전원에 연결하거나 배터리를 끼우기 전에, 혹은 기기를 들거나 운반하기 전에, 전원 스위치가 꺼져 있는지 다시 확인하십시오. 전동공구를 운반할 때 전원 스위치가 손가락을 대거나 전원 스위치가 켜진 상태에서 전원을 연결하면 사고 위험이 높습니다.
- ▶ 전동공구를 사용하기 전에 조절하는 톨이나 키 등을 빼 놓으십시오. 회전하는 부위에 있는 톨이나 키로 인해 상처를 입을 수 있습니다.
- ▶ 자신을 과신하지 마십시오. 불안정한 자세를 피하고 항상 평형을 이룬 상태로 작업하십시오. 안정된 자세와 평형한 상태로 작업해야만이 의외의 상황에서도 전동공구를 안전하게 사용할 수 있습니다.
- ▶ 알맞은 작업복을 입으십시오. 헐렁한 복장을 하거나 장신구를 착용하지 마십시오. 머리나 옷이 가동하는 기기 부위에 가까이 닿지 않도록 주의하십시오. 헐렁한 복장, 장신구 혹은 긴 머리는 가동 부위에 걸려 사고를 초래할 수 있습니다.
- ▶ 분진 추출장치나 수거장치의 조립이 가능한 경우, 이 장치가 연결되어 있는지, 제대로 작동이 되는지 확인하십시오. 이러한 분진 추출장치를 사용하면 분진으로 인한 사고 위험을 줄일 수 있습니다.
- ▶ 톨을 자주 사용한다고 해서 안주하는 일이 없게 하고 공구의 안전 수칙을 무시하지 않도록 하십시오. 부주의하게 취급하여 순간적으로 심각한 부상을 입을 수 있습니다.

전동공구의 올바른 사용과 취급

- ▶ 기기를 과부하 상태에서 사용하지 마십시오. 작업할 때 이에 적당한 전동공구를 사용하십시오. 알맞은 전동공구를 사용하면 지정된 성능 한도 내에서 더 효율적으로 안전하게 작업할 수 있습니다.

- ▶ 전원 스위치가 고장 난 전동공구를 사용하지 마십시오. 전원 스위치가 작동되지 않는 전동공구는 위험하므로, 반드시 수리를 해야 합니다.
- ▶ 전동공구를 조정하거나 액세서리 부품 교환 혹은 공구를 보관할 때, 항상 전원 콘센트에서 플러그를 미리 빼어 놓거나 배터리를 분리하십시오. 이러한 조치는 실수로 전동공구가 작동하게 되는 것을 예방합니다.
- ▶ 사용하지 않는 전동공구는 어린이 손이 닿지 않는 곳에 보관하고, 전동공구 사용에 익숙지 않거나 이 사용 설명서를 읽지 않은 사람은 기기를 사용해서는 안됩니다. 경험이 없는 사람이 전동공구를 사용하면 위험합니다.
- ▶ 전동공구 및 액세서리를 조심스럽게 관리하십시오. 가동 부위가 하자 없이 정상적인 기능을 하는지, 걸리는 부위가 있는지, 혹은 전동공구의 기능에 중요한 부품이 손상되지 않았는지 확인하십시오. 손상된 기기의 부품은 전동공구를 다시 사용하기 전에 반드시 수리를 맡기십시오. 제대로 관리하지 않은 전동공구의 경우 많은 사고를 유발합니다.
- ▶ 절단 공구를 날카롭고 깨끗하게 관리하십시오. 날카로운 절단면이 있고 잘 관리된 절단공구는 걸리는 경우가 드물고 조절하기도 쉽습니다.
- ▶ 전동공구, 액세서리, 장착하는 공구 등을 사용할 때, 이 지시 사항과 특별히 기종 별로 나와있는 사용 방법을 준수하십시오. 이때 작업 조건과 실시하려는 작업 내용을 고려하십시오. 원래 사용 분야가 아닌 다른 작업에 전동공구를 사용할 경우 위험한 상황을 초래할 수 있습니다.
- ▶ 손잡이 및 잡는 면을 건조하게 유지하고, 오일 및 그리스가 묻어 있지 않도록 깨끗하게 하십시오. 손잡이 또는 잡는 면이 미끄러우면 예상치 못한 상황에서 안전한 취급 및 제어가 어려워집니다.

충전 전동공구의 올바른 사용과 취급

- ▶ 배터리를 충전할 때 제조 회사가 추천하는 충전기만을 사용하여 재충전해야 합니다. 특정 제품의 배터리를 위하여 제조된 충전기에 적합하지 않은 다른 배터리를 충전할 경우 화재 위험이 있습니다.
- ▶ 각 전동공구용으로 나와있는 배터리만을 사용하십시오. 다른 종류의 배터리를 사용하면 상해를 입거나 화재를 초래할 수 있습니다.
- ▶ 배터리를 사용하지 않을 때는, 각 극을 자극할 수 있는 페이퍼 클립, 동전, 열쇠, 못, 나사 등 유사한 금속성 물체와 멀리하여 보관하십시오. 배터리 극 사이에 쇼트가 일어나 화상을 입거나 화재가 야기할 수 있습니다.
- ▶ 배터리를 잘못 사용하면 누수가 생길 수 있습니다. 누수가 생긴 배터리에 닿지 않도록 하십시오. 피부에 접촉하게 되었을 경우 즉시 물로 씻으십시오. 유체가 눈에 닿았을 경우 바로 의사와 상담하십시오. 배터리에서 나오는 유체는 피부에 자극을 주거나 화상을 입힐 수 있습니다.
- ▶ 손상된 배터리 또는 공구를 사용하지 마십시오. 손상되었거나 개조된 배터리는 예기치 못한 특성

으로 인해 화재, 폭발 또는 부상의 위험을 초래할 수 있습니다.

- ▶ 배터리 또는 공구가 화기 또는 지나치게 높은 온도에 노출되지 않도록 하십시오. 화기 또는 130 °C 이상의 온도에 노출되면 폭발할 위험이 있습니다.
- ▶ 충전 지침을 준수하고 지침에 제시된 범위를 벗어난 온도에서 충전하지 마십시오. 제시된 범위를 벗어난 부적절한 온도에서 충전할 경우 배터리가 손상되어 화재 발생의 위험이 증가됩니다.

서비스

- ▶ 전동공구 수리는 반드시 전문 인력에게 맡기고, 수리 정비 시 보쉬 순정 부품만을 사용하십시오. 그렇게 함으로써 기기의 안전성을 오래 유지할 수 있습니다.
- ▶ 손상된 배터리는 절대 수리하지 마십시오. 배터리 수리는 제조사 또는 공인 서비스센터에서만 진행할 수 있습니다.

전기톱 관련 일반 안전 지침

- ▶ 톱이 작동하는 동안 신체가 톱 체인에 가까이 있지 않도록 멀리 떨어지십시오. 톱을 작동하기 전에 톱 체인에 닿는 것이 아무 것도 없는지 확인하십시오. 체인 톱을 작동하는 동안 잠시 부주의할 경우 못이나 신체 일부가 톱 체인에 걸릴 수 있습니다.
- ▶ 체인 톱은 항상 오른손으로 뒤쪽 손잡이를 잡고 왼손은 앞쪽 손잡이를 잡으십시오. 체인 톱을 반대로 잡고 작업할 경우 부상의 위험이 높아지기 때문에 이 상태로 사용해서는 안 됩니다.
- ▶ 톱 체인이 숨겨진 전선에 닿을 수 있으므로, 톱은 절緣된 손잡이에서만 잡으십시오. 전류가 흐르는 전선에 톱 체인이 닿을 경우 기기의 금속 부위에 전류가 흘러, 감전 위험이 있습니다.
- ▶ 보안경을 착용하십시오. 청각, 머리, 손, 다리, 발에 추가 보호 장비 사용을 권장합니다. 적합한 보호복을 착용하면 주변에 날리는 파편과 톱 체인에 우발적으로 접촉하여 발생하는 상해 위험을 줄일 수 있습니다.
- ▶ 나무, 사다리, 지붕 또는 불안정한 지지대 위에서 전기톱으로 작업하지 마십시오. 이렇게 전기톱을 작동하면 심각한 상해를 초래할 수 있습니다.
- ▶ 항상 고정된 상태에서 단단하고 안전하며 평평한 지면 위에서만 톱을 사용하십시오. 미끄러운 표면이나 불안정한 지면 위에서 작업하면 균형을 잃거나 체인 톱을 제어하기 힘들 수 있습니다.
- ▶ 장력을 받고 있는 가지를 절단할 때는 가지가 다시 튀어 오를 것을 예상하십시오. 목재 섬유는 장력이 풀리면 장력이 가해진 가지가 작업자를 충격하거나 전기톱을 제어하지 못할 수 있습니다.
- ▶ 덩굴과 어린 나무를 절단할 때는 특히 주의하십시오. 얇은 재료가 톱 체인에 걸려 작업자를 치거나 작업자가 균형을 잃을 수 있습니다.
- ▶ 체인 톱이 전원이 꺼져 있는 상태에서 체인 톱이 앞을 향하도록 앞쪽 손잡이를 잡아 체인 톱을 운반하십시오. 지타기를 운반하거나 보관할 때는

항상 보호 커버를 부착하십시오. 지타기를 조심스럽게 다루면 작동 중인 톱 체인과 우발적으로 접촉할 가능성이 줄어듭니다.

- ▶ **윤활, 체인 장력, 바와 체인 교체에 대한 지침을 준수하십시오.** 부적합하게 장력이 가해지거나 윤활된 체인은 부러지거나 반동 위험을 높일 수 있습니다.
- ▶ **목재만 자르십시오. 지정되지 않은 작업에 전기톱을 사용하지 마십시오.** 예시: 금속, 플라스틱, 석조물 또는 목재가 아닌 건축 자재를 절단하는 데 전기톱을 사용하지 마십시오. 규정에 맞지 않는 작업을 위해 전기톱을 사용하면 위험한 상황을 초래할 수 있습니다.
- ▶ **이 전기톱은 나무를 베어 넘어트리는 용도로 사용하려면 안 됩니다.** 지정된 것과 다른 작업에 전기톱을 사용하면 작업자나 주변 사람에게 심각한 상해를 초래할 수 있습니다.
- ▶ **쌓인 재료를 제거하거나 전기톱을 보관 또는 정비할 때는 모든 지침을 준수하십시오.** 전원 스위치가 꺼져 있고 배터리가 제거되었는지 확인하십시오. 쌓인 재료를 제거하거나 정비하는 동안 전기톱을 예기치 않게 작동하면 심각한 상해를 초래할 수 있습니다.
- ▶ **반동의 원인 및 방지:**
 - 가이드 바의 끝부분이 물체에 닿거나 절단 시 목재가 구부러져 톱 체인을 고정하는 경우 반동이 발생할 수 있습니다.
 - 바 끝부분과 접촉하면 대개 후방을 향하는 예기치 못한 반응이 발생하여 가이드 바가 위쪽 작업자 방향으로 뒤흔들 수 있습니다.
 - 가이드 바의 상단 가장자리에 톱 체인이 걸리면 바가 작업자 쪽으로 빠르게 쏠 수 있습니다.
 - 이런 반응으로 인해 톱을 제어하지 못하고 심각한 상해가 발생할 수 있습니다. 전기톱에 내장된 안전장치에만 의존하지 마십시오. 전기톱 사용자는 사고와 상해 없이 작업할 수 있도록 다양한 조치를 취해야 합니다.
- ▶ 반동은 전기톱을 잘못 또는 미숙하게 사용한 결과입니다. 이는 다음에 설명한 적합한 예방 조치를 통해 방지할 수 있습니다.
- ▶ **엄지와 손가락으로 체인 톱 손잡이를 감싸고 양손으로 톱을 단단히 잡으십시오.** 반동력을 견딜 수 있도록 몸과 팔을 적절하게 위치시키십시오. 적절한 조치를 취하면 작업자가 반동력을 제어할 수 있습니다. 체인 톱에서 절대 손을 떼지 마십시오.
- ▶ **비정상적인 자세를 피하고 어깨 높이 위에서 톱 작업을 진행하지 마십시오.** 이렇게 하면 레일 끝 부위와 우발적인 접촉을 방지하고 예상치 못한 상황에서 체인 톱을 더 잘 제어할 수 있습니다.
- ▶ **항상 제조사가 지정한 교체용 바와 톱 체인을 사용하십시오.** 잘못된 교체용 바와 톱 체인을 사용하면 체인이 파손되거나 반동 현상을 초래할 수 있습니다.
- ▶ **톱 체인을 갈고 정비하기 위해 제조사의 지침을 준수하십시오.** 깊이 게이지 높이가 너무 낮으면 반동이 증가할 수 있습니다.

추가 안전 지침

- ▶ 이 기기에는 자석이 포함되어 있습니다. 임플란트 및 심장 박동기 또는 인슐린 펌프, 자기 데이터 저장 매체, 자기에 민감한 장치 등 기타 의료 장치 근처에 자석을 가져가지 마십시오. 자석의 자기장이 생성되어 의료 장치에 영향을 주거나 복구 불가능한 데이터 손실을 야기할 수 있습니다.
- ▶ 이 전동공구는 신체적, 감각적, 정신적 능력이 제한되거나 경험 및/또는 지식이 부족한 사람(어린이 포함)이 사용하는 제품이 아닙니다. 안전을 책임지는 사람이 감독하거나 전동공구 사용법을 지시하는 경우는 예외입니다. 어린이가 전동공구를 가지고 놀지 않도록 감독해야 합니다.
- ▶ **전동공구를 양손으로 꼭 잡고 안전한 자세로 작업하십시오.** 전동공구를 양손으로 잡고 움직이면 더 안전합니다.
- ▶ **기기를 사용할 때 모든 안전장치와 손잡이가 조립되어 있는지 확인하십시오.** 완전히 조립되지 않은 기기나 허용되지 않은 변형품을 조립한 기기를 절대로 사용하지 마십시오.
- ▶ 항상 잘 정렬되고 장력이 가해진 체인을 갖춘 전동공구로 작업하십시오. 체인이 잘못 정렬되고 장력이 잘못 조정된 상태에서 전동공구를 사용하면 체인 파손, 반동 및/또는 상해를 초래할 수 있습니다.
- ▶ 모든 냉각 공기 구멍이 오염되지 않도록 하십시오.

배터리의 올바른 취급을 위한 안전수칙 및 정보

- ▶ **배터리를 장착하기 전에 제품의 스위치가 꺼져 있는지 확인하십시오.** 스위치가 켜져 있는 제품에 배터리를 끼우면 사고가 날 수 있습니다.
- ▶ **반드시 본 정원용 공구용으로 나온 보쉬 배터리만을 사용하십시오.** 다른 배터리를 사용하면 상해를 입거나 화재가 발생할 수 있습니다.
- ▶ **배터리를 개조하거나 분해하지 마십시오.** 단락이 발생할 위험이 있습니다.



충전용 배터리를 지속적인 태양 광선 등 고열에 장시간 노출되지 않도록 하고, 물과 물 그리고 수분이 있는 곳에 두지 마십시오. 폭발 위험이 있습니다.

- ▶ **기기를 사용하지 않을 경우 사용하지 않는 배터리를 점점 브리징을 유발할 수 있는 페이퍼 클립, 동전, 열쇠, 못, 나사 또는 기타 작은 금속 물체에서 멀리 두십시오.** 배터리 극 사이에 쇼트가 일어나 화상을 입거나 화재를 야기할 수 있습니다.
- ▶ **배터리가 손상되었거나 이를 잘못 사용한 경우 증기가 발생할 수 있습니다.** 작업장을 환기시키고 필요한 경우 의사와 상담하십시오. 증기로 인해 호흡기가 자극될 수 있습니다.
- ▶ **제조사의 배터리 제품만 사용하십시오.** 그레야만 배터리 과부하의 위험을 방지할 수 있습니다.
- ▶ **못이나 스크류 드라이버 같은 뾰족한 물체 또는 외부에서 오는 충격 등으로 인해 축전지가 손상**

될 수 있습니다. 내부 단락이 발생하여 배터리가 타거나 연기가 발생하고, 폭발 또는 과열될 수 있습니다.

- ▶ 배터리가 누전되지 않도록 하십시오. 폭발할 위험이 있습니다.
- ▶ 충전용 배터리를 습기와 물로 부터 보호하십시오.
- ▶ 정원용 공구와 배터리를 -20°C와 50°C 온도 범위 내에서만 보관하십시오. 배터리를 예를 들면 여름에 자동차 안에 두지 마십시오.
- ▶ 가끔 배터리의 통풍구를 부드럽고 깨끗한 마른 솔로 청소하십시오.

기호

다음에 나와있는 기호는 사용 설명서를 읽고 이해하는데 중요합니다. 그러므로 기호와 그 의미를 잘 기억하십시오. 기호를 제대로 이해하면 제품을 더욱 쉽고 안전하게 사용할 수 있습니다.

기호	의미
	어린이, 사람, 반려동물이 가까이 오지 않게 하십시오.
	이동 방향
	반응 방향
	중량
	반동 브레이크 활성화
	반동 브레이크 비활성화
	허용 사항
	금지 사항
CLICK!	확실하게 들리는 소리
	액세서리/예비 부품

제품 및 성능 설명



모든 안전수칙과 지시 사항을 상세히 읽고 지켜야 합니다. 다음의 안전수칙과 지시 사항을 준수하지 않으면 화재 위험이 있으며 감전 혹은 중상을 입을 수 있습니다.

사용 설명서 앞 부분에 제시된 그림을 확인하십시오.

규정에 따른 사용

이 전동공구는 바닥에 가까이 있는 나무와 나무줄기를 자르는 데 사용됩니다. 나무의 결을 따라 또는 반대 방향으로 자를 수 있습니다.

이 전동공구는 광물 재료를 절단하는 데 적합하지 않습니다.

이 전동공구는 나무를 베어 넘어트리는 용도로 사용하면 안 됩니다.

제품의 주요 명칭(그림 A 참조)

제품의 주요 명칭에 표기되어 있는 번호는 전동공구의 그림이 나와있는 면을 참고하십시오.

- (1) 뒤 손잡이
- (2) 전원 스위치
- (3) 구동 스프로킷
- (4) 앞 손잡이
- (5) 손 보호장치/킥백 브레이크 활성화 레버
- (6) 오일 노즐
- (7) 체인 텐셔닝 나사
- (8) 고정 볼트
- (9) 금속 스파이크 범퍼
- (10) 클램핑 핀
- (11) 체인 바
- (12) 톱 체인
- (13) 조립 공구
- (14) 커버
- (15) 고정 너트
- (16) 체인 가이드
- (17) 오일 탱크 캡
- (18) 오일 관찰 창
- (19) 전원 스위치용 시동 잠금장치
- (20) 충전 배터리
- (21) 충전기
- (22) 배터리 충전 표시기

제품 사양

체인톱		GKE 18V-40
제품 번호		3 600 HD3 0..
정격 전압 ^{A)}	V	18
공회전 시 체인 속도	m/s	12.4
체인 바 길이	cm	40

체인톱		GKE 18V-40
호환 가능한 체인 바		Oregon 164MLEA041 Bosch 1 600 A03 0J6
체인 바 테일 마운트 타입		A041
톱 체인 피치		3/8" 로우 프로파일
드라이브 링크 두께	mm	1.1 (0.043")
드라이브 링크 수		57
최대 절단 직경	cm	36
오일탱크 주입량	ml	150
자동 체인 윤활		●
공구 클램핑		●
스프로킷		●
EN 62841-4-1에 따른 중량 ^{A)}		
- 배터리 포함	kg	4.66 (5.5 Ah) - 5.05 (12.0 Ah)
- 배터리 제외	kg	3.67
- 배터리, 체인 바 또는 톱 체인 제외		3.06
일련번호		제품에 있는 일련번호(명판) 참조
충전 시 권장되는 주변 온도	°C	-20 ... +50
보관 시 허용되는 주변 온도 ^{B)}		
작동 시 허용되는 주변 온도 ^{B)}	°C	0 ... +40
호환 배터리		GBA18V... GBA 18V... ProCORE18V... EXPERT18V... EXBA18V... CORE18V...
전출력 발휘를 위해 권장하는 배터리		GBA 18V... ≥ 4.0 Ah ProCORE18V... ≥ 4.0 Ah EXPERT18V...
권장하는 충전기		GAL18... GAL 18... GAL 36... GAL12V/18... GAL 12V/18... GAX 18... EXAL18...

A) 사용하는 배터리에 따라 상이

B) 온도 < 0 °C일 때 출력 제한

같은 제품별로 편차가 있을 수 있으며, 진행하는 작업 및 환경 조건에 따라 달라질 수 있습니다. 보다 자세한 정보는 www.bosch-professional.com/wac에서 확인할 수 있습니다.

배터리

Bosch는 배터리 없이도 충전 전동공구를 판매합니다. 전동공구의 공급 사양에 배터리가 포함되어 있는지 여부는 포장에서 확인할 수 있습니다.

배터리 충전하기

- ▶ 기술자료에 기재되어 있는 충전기만 사용하십시오. 귀하의 전동공구에 사용된 리튬이온 배터리에 맞춰진 충전기들입니다.

지침: 리튬 이온 배터리는 국제 운송 규정에 따라 일부만 충전되에 출고됩니다. 배터리의 성능을 완전하게 보장하기 위해서는 처음 사용하기 전에 배터리를 완전히 충전하십시오.

배터리 장착하기

충전한 배터리는 배터리가 맞물려 고정될 때까지 배터리 홀더 쪽으로 미십시오.

배터리 탈착하기

배터리를 분리하려면 배터리 해제 버튼을 누른 상태에서 배터리를 당겨 빼내십시오. **무리하게 힘을 가하지 마십시오.**

배터리는 배터리 해제 버튼이 실수로 눌러져 배터리가 빠지는 것을 방지하기 위해 잠금장치가 이중으로 되어 있습니다. 전동공구에 배터리가 끼워져 있는 동안 배터리는 스프링으로 제 위치에 고정됩니다.

배터리 충전상태 표시기

배터리 충전상태 표시기에 있는 녹색 LED는 배터리의 충전 상태를 나타냅니다. 안전상의 이유로 전동공구가 멈춰 있는 경우에만 잔량상태 확인이 가능합니다.

충전상태 표시기 버튼  또는 을 누르면, 충전상태가 표시됩니다. 배터리가 분리된 상태에서도 표시 가능합니다.

충전상태 표시기 버튼을 눌렀는데도 LED가 켜지지 않으면 배터리가 손상된 것이므로 교환해 주어야 합니다.

배터리 유형 GBA 18V... | GBA18V...



LED	용량
연속등 3× 녹색	60-100 %
연속등 2× 녹색	30-60 %
연속등 1× 녹색	5-30 %
점멸등 1× 녹색	0-5 %

배터리 형식 ProCORE18V...



LED	용량
연속등 5× 녹색	80-100 %
연속등 4× 녹색	60-80 %
연속등 3× 녹색	40-60 %
연속등 2× 녹색	20-40 %
연속등 1× 녹색	5-20 %
점멸등 1× 녹색	0-5 %

올바른 배터리의 취급 방법

배터리를 습기나 물이 있는 곳에 두지 마십시오.

배터리를 -20 °C 에서 50 °C 온도 범위에서만 저장하십시오. 예를 들면 배터리를 여름에 자동차 안에 두지 마십시오.

가끔 배터리의 통풍구를 부드럽고 깨끗한 마른 솔로 청소하십시오.

충전 후 작동 시간이 현저하게 짧아지면 배터리의 수명이 다한 것이므로 배터리를 교환해야 합니다. 폐기처리에 관련된 지시 사항을 준수하십시오.

배터리 관리

배터리의 최적 사용을 보장하기 위해 다음 사항을 준수하십시오:

- 충전용 배터리를 습기와 물로 부터 보호하십시오.
- 전동공구와 배터리는 -20°C~50°C의 온도 범위에서만 보관하십시오. 배터리를 예를 들어 여름에 차 안에 두지 마십시오.
- 배터리를 정원용 공구에서 분리하여 보관하십시오.
- 직사광선의 경우 배터리를 정원용 공구에 두지 마십시오.
- 배터리의 최적 보관 온도는 5°C입니다.
- 가끔 배터리의 통풍구를 부드럽고 깨끗한 마른 솔로 청소하십시오.

충전 후에 작동 시간이 현저히 짧아지면 충전용 배터리가 소모되어 교체해 주어야 한다는 것을 표시합니다.

조립

안전 관련 사항

- ▶ 주의! 정비 또는 청소 작업 전에 전동공구의 전원을 끄고 배터리를 분리하십시오.
- ▶ 주의! 체인이 날카롭습니다. 체인 작업 시 항상 보호 장갑을 착용하십시오.
- ▶ 사람, 어린이, 동물 근처에서 또는 알코올, 약물, 마약을 섭취한 후에는 체인 톱을 절대로 작동하지 마십시오.
- ▶ 커버가 고정 볼트(8)로 올바르게 고정된 경우에만 전기톱을 사용하십시오.

체인 바 조립 및 톱 체인 고정(참조 그림 B1 - B4)

- ▶ 주의! 뜨거운 경우 톱 체인을 고정하지 마십시오.
- 전기톱을 커버(14)가 위를 향하게 하여 적합한 평면에 놓으십시오.
- 커버(14)를 제거하기 위해 양쪽 고정 너트(15)를 함께 공급한 조립 공구(13)로 떼어내십시오.
- 체인 바(11)를 노우즈가 수직으로 위를 향하게 잡고 새 톱 체인이나 다시 날을 세운 톱 체인(12)을 체인 바에서 올바른 방향으로 고정하십시오 (참조 그림 B1).
- 가이드 볼트(10)를 좌측으로 설정하기 위해 체인 텐서링 나사(7)를 시계 반대 방향으로 돌리십시오. 지침: 가이드 볼트(10)가 잘못 정렬되면 체인 바가 전기톱에 맞지 않습니다.
- 톱 체인(12)이 전체 체인 바 주변의 슬롯에 올바르게 위치하는지 확인하십시오.
- 톱 체인을 구동 스프로킷 (3) 주위에 놓고 체인 바(11)를 고정 볼트 (8)위로 미십시오.
- 커버(14)를 고정 볼트(8) 위에 놓으십시오.
- 고정 너트(15)를 고정 볼트(8)에 놓고 고정 너트(15)를 조심스럽게 손으로 조여 커버(14)를 고정하십시오. (참조 그림 B3).

- 조립 공구(13)를 사용하여 체인 텐서닝 나사(7)를 체인 바 주위의 체인이 고정될 때까지 시계 방향으로 돌리십시오. 톱 체인(12)이 체인 바(11)로부터 약 6~7mm 들려지면 체인 장력이 올바른 것입니다.

이를 위해 전기톱을 적합한 평면에 놓으십시오. 장갑을 낀 손으로 절단 길이 중간 근처의 체인 바(11) 상부에서 톱 체인을 잡고 전기톱의 무게를 지탱하며 톱 체인(12)을 들어 올리십시오.

- 톱 체인이 너무 팽팽하게 고정된 경우 조립 공구(13)로 체인 텐서닝 나사(7)를 시계 반대 방향으로 돌려 체인 장력을 올바르게 설정하십시오.

지침: 톱 체인을 너무 강하게 고정하지 마십시오. 너무 강한 장력은 과도한 마모를 초래하고 톱 체인의 수명을 단축하며 체인 바를 손상할 수 있습니다.

지침: 새 톱 체인은 처음 사용 시 상당히 길어질 수 있습니다. 처음 2시간 작동한 후 배터리를 제거한 후 톱 체인의 장력을 일정하게 점검하십시오.

- 고정 너트(15)를 조립 공구(13)로 조이고 전기톱의 커버(14)를 고정하십시오.
- 작동 전에 양쪽 고정 너트(15)가 조립되어 고정되었는지 유의하십시오.

톱 체인 및 체인 바 분해

- 전기톱을 커버(14)가 위를 향하게 하여 적합한 평면에 놓으십시오.
- 커버(14)를 제거하기 위해 고정 너트(15)를 함께 공급한 조립 공구(13)로 제거하십시오.
- 톱 체인(12)을 풀기 위해 체인 텐서닝 나사(7)를 조립 공구(13)를 사용하여 시계 반대 방향으로 돌리십시오.
- 체인 바(11)를 고정 볼트(8)에서 제거하십시오.
- 체인을 구동 스프로킷에서 떼어내십시오.

오일 탱크 주입(참조 그림 C)

지침: 전기톱은 톱 체인 오일이 채워지지 않은 상태로 공급됩니다. 사용 전 오일을 주입하는 것이 중요합니다. 톱 체인 오일 없이 체인 톱을 사용하거나 오일 레벨이 최소 표시선보다 낮을 경우 체인 바와 톱 체인이 손상됩니다.

오일 탱크에 주입하기 위해 다음과 같이 하십시오.

- 전기톱을 오일 탱크 캡(17)이 위를 향하게 하여 적합한 받침대에 놓으십시오.
- 오일 탱크 캡(17) 주변을 청소하십시오. 오염물을 제거하기 위해 깨끗한 헝겊을 사용하십시오.
- 오일 탱크 캡(17)을 시계 반대 방향으로 돌려 주십시오.
- 오일 탱크에 톱 체인 오일을 조심스럽게 주입하십시오.
- 톱 체인 오일을 주입할 때 오염 또는 이물질이 오일 탱크 안으로 유입하지 않도록 유의하십시오.
- 오일 탱크 캡(17)은 전기톱에 고정되어 있습니다. 주입 시 오일 탱크 캡이 오일 탱크 주입구를 막지 않도록 유의하십시오.

- 작동 중 오일 레벨은 오일 관찰 창(18)을 통해 확인할 수 있습니다. 최소 레벨에 도달한 경우 새 오일을 보충하십시오.

- 오일 탱크 캡(17)을 조립한 후 단단히 조이십시오.

지침: 최고의 성능을 달성하기 위해 항상 전기톱용으로 지정된 오일을 사용하십시오. 승인되지 않은 오일의 사용은 오일 시스템의 성능에 영향을 미치고 보증이 소멸될 수 있습니다.

톱 체인 윤활(참조 그림 E3)

톱 체인의 수명과 절단 성능은 최적의 윤활에 달려 있습니다. 따라서 톱 체인은 작동 중 오일 노즐(6)을 통해 톱 체인 오일로 자동으로 윤활됩니다.

톱 체인이 올바르게 윤활되었는지 정기적으로 점검하십시오.

- 오일 탱크가 가득 찬 상태에서 체인 바 끝이 밝은 영역을 향하도록 전기톱을 잡으십시오.
- 전동공구를 약 1분간 또는 밝은 영역에서 오일이 보일 때까지 작동하십시오.
- 오일이 보이지 않는 경우 "톱 체인 건조" 고정 진단을 참조하십시오.
- 윤활 시스템이 계속 올바르게 작동하지 않으면 Bosch 고객 서비스에 연락하십시오.

지침: 오일 필터는 오일 탱크에 내장되어 있습니다. 청소 또는 오류 제거를 위해 Bosch 고객 서비스에 연락하십시오.

지침: 오일은 저온에서 점성을 띠게 되어 유량이 감소됩니다.

조작

- ▶ 사용 전 사용 설명서와 안전 지침을 항상 읽으십시오.
- ▶ 적합한 의복과 개인 보호장비를 항상 착용하십시오.
- ▶ 사용 전 필요한 모든 정비 작업을 실시하십시오.
- ▶ 사용 전 공구와 체인의 상태, 오일 레벨 및 조립이 올바른지 항상 점검하십시오. 전기톱은 하자가 없는 상태에서만 사용하십시오.
- ▶ 주변이 건조하고 장애물이 없으며 주변에 관련 없는 사람이 있는지 항상 유의하십시오.
- ▶ 안전하게 서 있는지 항상 유의하고 단단하고 안전하며 평탄한 지면에서 서 있는 경우에만 전기톱을 조작하십시오.
- ▶ 사다리 또는 어깨 이상의 높이에서 전기톱을 절대 사용하지 마십시오.
- ▶ 너무 멀리 손을 뻗거나 팔을 뻗은 채로 절대 작업하지 마십시오.
- ▶ 전기톱은 항상 양손으로 잡으십시오.
- ▶ 전기톱을 바닥에 두지 마십시오. 걸려 넘어질 위험!
- ▶ 담배를 피우면 안 되고 작업 영역으로 불이나 불꽃을 가져오지 마십시오. 전기톱 분진이 쉽게 발화할 수 있습니다.

- ▶ 장치가 자동으로 꺼진 후에는 전원 스위치를 누르지 마십시오. 이렇게 하면 배터리가 손상될 수 있습니다.

지침: 전기톱은 오일이 채워지지 않은 상태로 공급됩니다. 오일 탱크에 체인 오일을 주입한 경우에만 전기톱을 사용하십시오.

- ▶ 체인이 잘못 정렬되고 장력이 잘못 조정된 상태에서 전기톱을 사용하면 체인 파손, 반동 및/또는 상해를 초래할 수 있습니다.
- ▶ 새 톱 체인은 처음 사용 시 상당히 길어질 수 있습니다.
- ▶ 작동 중 체인 장력을 정기적으로 점검하십시오. 올바르게 조립하려면, („(참조 „체인 바 조립 및 톱 체인 고정(참조 그림 B1 – B4)“, 페이지 44)

전기톱의 올바른 취급(참조 그림 H)

이 섹션에 설명된 올바른 취급을 항상 적용하십시오.

- 최대의 그림감과 보호를 위해 적합한 미끄럼 방지 전기톱 장갑을 착용하십시오.
- 톱이 작동하는 동안 톱을 항상 양손으로 잡으십시오.
- 우측 손은 뒤 손잡이에, 좌측은 앞 손잡이에 놓고 엄지와 손가락으로 전기톱 손잡이를 감싸십시오. (참조 그림 E2)
- 체중의 균형을 유지하고 두 발을 단단한 바닥에 위치합니다.
- 반동력을 견딜 수 있도록 좌측 팔꿈치를 "뽀" 뻗은 자세를 유지하십시오.
- 팔을 뻗거나 너무 멀리 뽀는 채로 절대 작업하지 마십시오.
- 반동이 발생할 경우 전기톱의 손잡이를 단단히 잡고 전기톱을 계속 제어할 수 있도록 좌측 팔을 뽀뽀하게 유지하십시오.
- 전기톱을 신체의 우측으로 잡습니다.
- 신체의 어떤 부위도 절단선을 넘지 않도록 유의하십시오. 반동으로 인해 전기톱이 신체 쪽으로 역으로 밀릴 수 있습니다. (참조 그림 H) 반동으로 인해 전기톱이 조작자의 신체 쪽으로 역으로 밀릴 수 있습니다. (참조 그림 H)

전원 켜기/끄기(그림 E1 참조)

- ▶ 최대의 그림감과 보호를 위해 적합한 미끄럼 방지 전기톱 장갑을 착용하십시오.

전원을 켜기 전:

- 체인 보호대를 제거하십시오 (16).
- 배터리를 삽입하십시오.
- 양쪽 손잡이로 체인톱을 단단히 잡고 신체가 톱 체인에 닿지 않게 하십시오. (그림 H 참조).

전원 켜기:

- 반동 브레이크 활성화를 위한 레버 (5) 를 앞쪽 손잡이 (4) 방향으로 당기십시오.
- 전원 스위치용 시동 잠금장치 (19) 를 누른 다음, 전원 스위치 (2) 를 누르고 누른 상태를 유지하십시오.

- 체인톱이 작동하는 즉시 시동 잠금장치에서 손을 떼십시오.
- 목재 작업을 하기 전에 톱 체인을 최고 속도로 작동해야 합니다.

지침: 사용하기 전에 반동 브레이크 활성화를 위한 레버 (5) 가 올바르게 비활성화되지 않은 경우, 체인톱 작동이 시작되지 않을 수 있습니다.

전원 끄기:

- 전원 스위치 (2) 에서 손을 떼십시오. 시동 잠금 장치가 안전/잠금 상태로 되돌아갑니다.
- 사용 후 반동 브레이크 활성화를 위한 레버 (5) 를 앞쪽 손잡이 (4) 앞쪽 손잡이에서 멀어지도록 앞쪽으로 미십시오.

일반 절단 특성(그림 F 참조)

- 처음 사용자는 톱 작업대에서 나무 줄기 자르는 연습을 해야 합니다.
- 톱의 전원을 끈 상태에서 목재 앞에서 올바른 위치를 잡으십시오.
- 체인톱을 시동하고 톱 체인이 목재에 닿기 전에 최고 속도로 작동하는지 확인하십시오.
- 안정적으로 절단하려면, 목재에 지지 갈고리 (9) 를 걸어 밀착시킨 상태에서 절단을 시작하십시오.
- 더 두꺼운 줄기 또는 나무 줄기를 절단하는 경우 절단 동안 스파이크 범퍼를 단계적으로 낮은 지점으로 재설정하여 스파이크 범퍼를 지렛대로 사용하십시오. 이를 위해 스파이크 범퍼가 풀릴 때까지 체인톱을 뒤로 약간 당긴 후 체인톱을 더 낮은 위치에 다시 삽입하여 계속 절단하십시오. 체인톱을 절단 영역에서 완전히 당겨 빼내지 마십시오.
- 전체 절단 과정 동안 체인톱을 계속 작동시키고 일정한 속도를 유지하십시오.
- 절단 작업할 때 톱 체인을 힘으로 누르지 말고 작동하게 두십시오.
- 톱 체인이 작동하는 동안에는 항상 목재 절단 작업 중 체인톱을 제거하십시오.
- 톱 작업 후반부에 주의하십시오. 체인톱이 절단을 마치면 곧바로 무게가 예기치 않게 변경됩니다. 다리와 발에 부상 위험이 있습니다.
- 절단이 종료되는 대로 정지 상태가 되도록 전원 스위치에서 손을 떼고 반동 브레이크 (5) 를 앞쪽 손잡이에서 멀어지도록 앞쪽으로 미십시오 (그림 E1 참조).

톱 반동(참조 그림 G)

반동을 기본적으로 이해하면 사고를 초래할 수 있는 여기에서 발생하는 반동을 줄일 수 있습니다. 항상 바닥에 단단히 서 있고 균형을 유지하도록 유의하십시오.

톱 반동은 작동 중인 전기톱이 갑자기 위로 올라가거나 뒤로 반동하는 현상인데, 체인 바 끝부분이 톱 절할 재료에 닿거나 체인이 걸렸을 때 발생할 수 있습니다.

톱 반동이 발생하면 전기톱이 예측할 수 없는 유형으로 반응하여 작업자나 절단 영역에 있는 사람에게 심각한 상해를 초래할 수 있습니다.

세로와 측면 방향 톱질 및 대각선 방향 절단에도 특히 유의하십시오. 이 절단에서는 스파이크 범퍼(9)를 일반적으로 사용할 수 없습니다.

반동을 최소화하려면 다음 예방 조치에 유의하십시오.

- 전기톱을 올바르게 취급하도록 항상 유의하십시오.
- 반동이 발생할 경우 전기톱의 손잡이를 단단히 잡고 전기톱을 계속 제어할 수 있도록 좌측 팔을 뻗뻗하게 유지하십시오.
- 절단할 영역에 장애물이 없는지 확인하십시오. 톱으로 작업 중 작업자를 충격할 수 있는 나무줄기, 나뭇가지, 울타리 또는 기타 장애물에 체인의 노우즈가 닿지 않도록 유의하십시오.

지침: 체인 바 끝이 장애물에 닿으면 반동이 발생할 수 있습니다.

- 항상 전기톱의 최대 속도로 절단하십시오. 전원 스위치(2)를 끝까지 완전히 누르고 균일한 절단 속도를 유지하십시오.
- Bosch에서 권장하는 교체용 체인 바와 반동이 적은 체인만 사용하십시오.

반동 브레이크

반동 브레이크는 반동이 발생할 때 반동 브레이크(5) 활성화 레버를 사용하여 손목으로 작동되는 안전 메커니즘입니다. 톱 체인이 즉시 정지합니다. 이렇게 하면 반동으로 인한 상해 위험이 줄어듭니다. 반동 브레이크가 작동하는지 정기적으로 테스트하십시오.

- 전기톱은 항상 양손으로 잡으십시오.
- 전기톱의 전원을 켜십시오.
- 톱 체인이 회전하면 손목으로 레버를 앞으로 밀어 반동 브레이크(5)를 활성화하십시오. 이 테스트 동안 톱 체인이 즉시 정지하지 않으면 전기톱을 사용하지 마십시오.

지침: 정상적인 사용 중에는 반동 브레이크 레버(5)를 의도적으로 작동하여 전기톱을 정지하지 마십시오.

나무줄기 톱질(참조 그림 H)

- 톱질 전에 나무줄기를 항상 고정하십시오.
- 나무줄기가 끼이거나 체인이 끼는 것을 방지하기 위해 나무줄기는 항상 고정된 지점 위를 절단하십시오.
- 톱 체인이 바닥이나 절단 장비에 절대 닿지 않게 유의하십시오.
- 나무 그루터기, 가지, 뿌리 등에 걸려 넘어질 위험이 있으니 유의하십시오.

장력을 받는 목재 톱질(참조 그림 I)

- 장력이 가해진 목재, 가지 또는 나무를 톱질하는 작업은 교육을 받은 전문가가 해야 합니다. 각별히 주의해야 합니다. 사고 위험이 높습니다.

가지 또는 나무에서 가지치기(참조 그림 J)

- 가지치기는 쓰러진 나무에서 가지나 큰 가지를 제거하는 것을 말합니다.
- 나무를 지탱하며 아래를 향하는 큰 가지는 우선 남겨두십시오.
- 작은 가지를 한꺼번에 제거하십시오.

고장 진단

전동공구가 올바르게 작동하지 않을 경우 다음 표에 오류 증상, 가능한 원인 및 해결 조치가 있습니다. 이것으로 문제를 식별하고 제거할 수 없는 경우 서비스 센터에 연락하십시오.

주의: 고장 진단 전에 전동공구를 끄고 배터리를 꺼내십시오.

증상	가능한 원인	조치
전기톱이 작동하지 않음	반동 브레이크가 작동됨	참조 그림 E1
	배터리가 방전됨	배터리를 충전하십시오, “충전에 관한 사항” 참조
	배터리가 제대로 끼워지지 않았습니다	두 잠금 단계가 잘 끼워져 있는지 확인하십시오
	모터 보호장치가 작동함	모터 냉각 필요
	배터리가 너무 차거나 너무 뜨거움	배터리의 온도를 높임/냉각
전동공구 결함	전동공구 결함	서비스 센터를 방문하십시오
	배터리가 방전됨	배터리를 충전하십시오, “충전에 관한 사항” 참조
	전동공구가 고장입니다	서비스 센터를 방문하십시오
톱 체인 건조	오일 탱크에 오일 없음	오일 보충, 아울러 “톱 체인 윤활” 참조
	오일 노즐 (6) 막힘	오일 노즐 (6) 청소
	오일 필터 막힘	오일 필터 청소 / 고객 서비스 연락

증상	가능한 원인	조치
톱 체인/가이드 바 뜨거움	오일 탱크에 오일 없음	오일 보충
	체인 장력 너무 높음	체인 장력 조정.
	톱 체인 무덤	톱 체인 교체
	오일 배출 채널 막힘	서비스 센터 연락
전기톱이 갑자기 움직이고 진동하거나 울바로 절단하지 않음	체인 장력이 너무 낮음	체인 장력 재조정
	톱 체인 무덤	톱 체인 교체
	톱 체인 마모됨	톱 체인 교체
	톱니가 잘못된 방향을 가리킴	톱 체인을 울바로 조립
	체인 바 손상됨 또는 마모됨	체인 바 교환 또는 Bosch 고객 서비스에 연락
심한 진동/소음	전동공구가 고장입니다	서비스 센터를 방문하십시오
	체인 조립 잘못됨	체인이 울바로 조립되었는지 점검, "체인 바 조립 및 톱 체인 고정" 참조.
배터리 충전당 톱질 시간이 너무 짧음	윤활 부재로 마찰이 너무 많음	체인 윤활 보장("톱 체인 윤활" 참조)
	톱 체인을 청소해야 함	톱 체인 청소
	불량한 톱질 기술	"전기톱으로 작업" 참조
	배터리가 완전히 충전되지 않음	배터리를 충전하십시오, "충전에 관한 사항" 참조
	허용 온도 범위를 벗어난 배터리	배터리를 실내 온도로 맞춤(허용 온도 범위 0~45°C 이내)
	체인 장력 너무 높음	체인 장력 조정.
	톱 체인 무덤	톱 체인 교체
톱 체인이 너무 느리게 움직임	배터리가 방전됨	배터리를 충전하십시오, "충전에 관한 사항" 참조
	허용 온도 범위를 벗어난 배터리	배터리를 실내 온도로 맞춤(허용 온도 범위 0~45°C 이내)
	배터리가 너무 뜨거움	배터리의 온도를 냉각

보수 정비 및 서비스

정비, 청소 및 운송

- ▶ 주의! 정비 또는 청소 작업 전에 전동공구의 전원을 끄고 배터리를 분리하십시오.
- ▶ 적합한 의복과 개인 보호장비를 항상 착용하십시오.
- ▶ 톱 체인이 느슨하고 늘어져 있거나 손상 및 부품이 헐겁고 마모되었거나 손상 같은 명백한 하자가 있는지 전기톱을 정기적으로 검사하십시오.
- ▶ 정원용 장치를 변형하지 마십시오. 무단 변경은 정원용 장치의 안전에 영향을 줄 수 있고 심한 소음과 진동을 초래할 수 있으며 보증이 소멸됩니다.

정비 및 세척

- 안전한 작업을 위해 전동공구와 환기 슬롯을 항상 깨끗이 유지하십시오.
- 전동 공구를 청소할 때 물, 용제, 광택제를 사용하지 마십시오.
- 깨끗한 헝겊이나 뿔뿔한 브러시를 사용하여 전동공구의 오염물을 제거하십시오.

- 오일 노즐(6)의 오염물을 조심스럽게 제거하기 위해 깨끗한 헝겊을 사용하십시오. 오일 노즐(6)에 오염물이 들어가지 않도록 유의하십시오. 이로 인해 막힘과 윤활 문제를 초래할 수 있습니다.

톱 체인 정비

- 부품이 고착되는 것을 방지하려면 제품을 장기간 보관하기 전에 체인 바와 톱 체인을 청소하십시오.

톱 체인 청소 방법:

- 커버(14), 체인 바(11) 및 톱 체인(12)을 전기톱에서 제거하고 뿔뿔한 브러시로 청소하십시오. (참조 „톱 체인 및 체인 바 분해“, 페이지 45).
- 톱 체인의 손상 여부를 점검하고 톱 체인을 교체하거나 연마하십시오.

톱 체인 교체 및 연마

- ▶ 최적의 성능과 안전을 위해 날카로운 톱 체인이 필요합니다.
- ▶ 이에 대한 경험이 없는 경우 톱 체인을 절대 직접 연마하지 마십시오.

톱 체인을 장기간 사용하거나 목재 이외의 물체와 접촉하면 무더질 수 있습니다.

- 톱 체인을 Bosch 톱 체인 액세서리로 교체하거나 전문가에게 톱 체인의 연마를 맡기십시오. 액세서리를 참조하십시오.
- 공구에서 톱 체인 조립 관련 사항(참조 „체인 바 조립 및 톱 체인 고정(참조 그림 B1 – B4)“, 페이지 44).

체인 바 정비

- ▶ 제품과 지침을 정확히 이해한 경우에만 체인 바를 교환하십시오. 이외의 경우 Bosch 고객 서비스에 연락하십시오.
- ▶ Bosch가 권장하는 교체용 체인 바를 반드시 사용하십시오.

체인 바에 균열이나 마모가 있는지 점검하십시오. 손상 시 체인 바를 교환하십시오. 체인 바 제거와 관련된 설명서는 (참조 „톱 체인 및 체인 바 분해“, 페이지 45)에 있습니다.

교체 부품 및 액세서리(참조 그림 K)

www.bosch-pt.com에 분해도와 교체 부품에 대한 정보가 있습니다.

전기톱 운송 및 보관

전기톱 운송 전 유의 사항:

- 배터리를 항상 제거하십시오.
- 상해를 방지하기 위해 전기톱을 사용하지 않는 경우 체인 가드(16)를 체인 바(11)에 항상 설치하십시오.
- 손 보호장치/체인 브레이크를 앞으로 밀어 체인 브레이크를 항상 잠그십시오.
- 체인 바를 뒤로 두고 전기톱을 운반하는 것이 좋습니다.

전기톱 운송을 위한 모든 단계에 추가로 전기톱을 보관하기 전에 다음 단계를 실행하십시오.

- 전기톱을 보관하기 전에 오일 탱크를 비우고 사용 전에 다시 채우십시오.
- 전기톱은 어린이의 손이 닿지 않는 안전하고 건조한 곳에 항상 보관하십시오.
- 전기톱 위에 물체를 절대 올려놓지 마십시오.

AS 센터 및 사용 문의

콜센터
080-955-0909

당사의 서비스 센터 주소 및 보증 조건 관련 링크는 마지막 페이지에서 확인할 수 있습니다.

문의나 대체 부품 주문 시에는 반드시 제품 네임 플레이트에 있는 10자리의 부품번호를 알려 주십시오.

처리

전동공구, 배터리, 액세서리 및 포장은 환경 친화적인 방법으로 재활용할 수 있도록 분류하십시오.



전동공구와 충전용 배터리/배터리를 가정용 쓰레기로 처리하지 마십시오!

ไทย

กฎระเบียบเพื่อความปลอดภัย

คำอธิบายสัญลักษณ์ภาพ



อ่านคู่มือการใช้งาน



คำเตือนเกี่ยวกับอันตรายทั่วไป



ห้ามใช้งานขณะฝนตก



จับถือเลื่อยโซ่ด้วยมือทั้งสองข้างเสมอ



ระวังการตีกลับของเลื่อยโซ่ และหลีกเลี่ยงการเลื่อยด้วยแป้นตัวเลื่อย



สวมใส่อุปกรณ์ป้องกันส่วนบุคคล (PPE) โดยใช้อุปกรณ์ป้องกันดวงตา เสียงดัง และศีรษะ



สวมถุงมือนิรภัย



คำเตือน: ถอดแบตเตอรี่ออกก่อนบำรุงรักษา

คำเตือนเพื่อความปลอดภัยทั่วไปสำหรับเครื่องมือไฟฟ้า

⚠ คำเตือน อ่านคำเตือนเพื่อความปลอดภัย คำแนะนำ ภาพประกอบ และข้อมูล

จำเพาะทั้งหมดที่จัดส่งมาพร้อมกับเครื่องมือไฟฟ้า การไม่ปฏิบัติตามคำแนะนำทั้งหมดที่ระบุไว้ด้านล่างนี้อาจทำให้ถูกไฟฟ้าดูด เกิดไฟไหม้ และ/หรือได้รับบาดเจ็บอย่างร้ายแรง

เก็บรักษาคำเตือนและคำสั่งทั้งหมดสำหรับเปิดอ่านในภายหลัง

คำว่า "เครื่องมือไฟฟ้า" ในคำเตือนหมายถึง เครื่องมือไฟฟ้าของทานที่ทำงานด้วยพลังงานไฟฟ้าจากแหล่งจ่ายไฟหลัก (มีสายไฟฟ้า) และเครื่องมือไฟฟ้าที่ทำงานด้วยพลังงานไฟฟ้าจากแบตเตอรี่ (ไร้สาย)

ความปลอดภัยในสถานที่ทำงาน

- ▶ รักษาสถานที่ทำงานให้สะอาดและมีไฟส่องสว่างดี สถานที่ที่มีอันตรายหรือสิ่งกีดขวางซึ่งอุบัติเหตุ

- ▶ อย่าใช้เครื่องมือไฟฟ้าทำงานในสภาพบรรยากาศที่จุดติดไฟได้ เช่น ในที่มีช่องเหลวไวไฟ ก๊าซ หรือฝุ่น เมื่อใช้เครื่องมือไฟฟ้าจะเกิดประกายไฟซึ่งอาจจุดฝุ่นหรือไอให้ลุกเป็นไฟได้
- ▶ ขณะใช้เครื่องมือไฟฟ้าทำงาน ต้องกั้นเด็กและผู้ยืนดูให้ออกห่าง การหันเหความสนใจอาจทำให้ท่านขาดการควบคุมเครื่องมือได้

ความปลอดภัยเกี่ยวกับไฟฟ้า

- ▶ อย่าใช้เครื่องมือไฟฟ้าถูกฝนหรืออยู่ในสภาพเปียกชื้น หากน้ำเข้าในเครื่องมือไฟฟ้า จะเพิ่มความเสี่ยงจากการถูกไฟฟ้าดูด

ความปลอดภัยของบุคคล

- ▶ ท่านต้องอยู่ในสภาพเตรียมพร้อม ระมัดระวังในสิ่งที่ท่านกำลังทำอยู่ และมีสติขณะใช้เครื่องมือไฟฟ้าทำงาน อย่าใช้เครื่องมือไฟฟ้าขณะที่ท่านกำลังเหนื่อย หรืออยู่ภายใต้การครอบงำของฤทธิ์ของยาเสพติด แอลกอฮอล์ และยา เมื่อใช้เครื่องมือไฟฟ้าทำงาน ในช่วงเวลาที่ท่านขาดความเอาใจใส่อาจทำให้บุคคลบาดเจ็บอย่างรุนแรงได้
- ▶ ใช้อุปกรณ์ป้องกันร่างกาย สวมแว่นตาป้องกันเสมอ อุปกรณ์ปกป้อง เช่น หน้ากากกันฝุ่น รองเท้านิรภัย หมวกแข็ง หรือประคบหูกันเสียงดังที่ไปตามความเหมาะสมกับสภาพการทำงาน จะลดการบาดเจ็บทางร่างกาย
- ▶ ป้องกันการติดเครื่องโดยไม่ตั้งใจ ตรวจสอบให้แน่ใจว่าสวิตช์อยู่ในตำแหน่งปิดก่อนเชื่อมต่อเข้ากับแหล่งจ่ายไฟ และ/หรือแบตเตอรี่แพ็ค ยกหรือถือเครื่องมือ การถือเครื่องโดยใช้นิ้วหัวชี้สวิตช์ หรือเสียบปลั๊กไฟฟ้าขณะสวิตช์เปิดอยู่ อาจนำไปสู่อุบัติเหตุที่ร้ายแรงได้
- ▶ นำเครื่องมือปรับแต่งหรือประแจปากตายออกก่อนเปิดสวิตช์เครื่องมือไฟฟ้า เครื่องมือหรือประแจปากตายที่วางอยู่กับส่วนของเครื่องที่กำลังหมุนจะทำให้บุคคลบาดเจ็บได้
- ▶ อย่าเอื้อมไกลเกินไป ดังทำขึ้นที่มั่นคงและวางน้ำหนักให้สมดุลตลอดเวลา ในลักษณะนี้ท่านสามารถควบคุมเครื่องมือไฟฟ้าในสถานการณ์ที่ไม่คาดคิดได้ดีกว่า
- ▶ แต่งกายอย่างเหมาะสม อย่าใส่เสื้อผ้าหลวมหรือสวมเครื่องประดับ เอาผมและเสื้อผ้าออกจากชิ้นส่วนที่เคลื่อนที่ เสื้อผ้าหลวม เครื่องประดับ และผมยาวอาจเข้าไปติดในชิ้นส่วนที่เคลื่อนที่
- ▶ หากเครื่องมือไฟฟ้ามีข้อเชื่อมต่อกับเครื่องดูดฝุ่นหรือเครื่องเก็บผง ให้ตรวจสอบให้แน่ใจว่าได้เชื่อมต่อและใช้งานอย่างถูกต้อง การใช้อุปกรณ์ดูดฝุ่นช่วยลดอันตรายที่เกิดจากฝุ่นได้
- ▶ เมื่อใช้งานเครื่องมืออย่างหนึ่งจะเกิดความคุ้นเคย อย่าให้ความคุ้นเคยทำให้ท่านเกิดความชะล่าใจและละเลยกฎเกณฑ์ด้านความปลอดภัยในการใช้งานเครื่อง การทำงานอย่างไม่ระมัดระวังอาจทำให้เกิดการบาดเจ็บอย่างร้ายแรงภายในเสี้ยววินาที

การใช้และการดูแลรักษาเครื่องมือไฟฟ้า

- ▶ อย่างผินกำลังเครื่องมือไฟฟ้า ใช้เครื่องมือไฟฟ้าที่ถูกต้องตรงตามลักษณะงานของท่าน เครื่องมือไฟฟ้าที่ถูกต้องจะทำงานได้ดีกว่าและปลอดภัยกว่าในระดับสมรรถภาพที่ออกแบบไว้
- ▶ อย่าใช้เครื่องมือไฟฟ้าถ้าสวิตช์ไม่สามารถเปิดปิดได้ เครื่องมือไฟฟ้าที่ไม่สามารถควบคุมการเปิดปิดด้วยสวิตช์ได้ เป็นเครื่องมือไฟฟ้าที่ไม่ปลอดภัยและต้องส่งซ่อมแซม
- ▶ ก่อนปรับแต่งเครื่อง เปลี่ยนอุปกรณ์ประกอบ หรือเก็บเครื่องเข้าที่ ต้องถอดปลั๊กออกจากแหล่งจ่ายไฟ และ/หรือถอดแบตเตอรี่แพ็คออกจากเครื่องมือไฟฟ้าหากถอดออกได้ มาตรการป้องกันเพื่อความปลอดภัยนี้ช่วยลดความเสี่ยงจากการติดเครื่องโดยไม่ตั้งใจ
- ▶ เมื่อเลิกใช้งานเครื่องมือไฟฟ้า ให้เก็บเครื่องมือไว้ในที่ที่เด็กหยิบไม่ถึง และไมอนุญาตให้บุคคลที่ไม่คุ้นเคยกับเครื่องหรือบุคคลที่ไม่ได้อ่านคำแนะนำนำเหล่านี้ใช้เครื่อง เครื่องมือไฟฟ้าเป็นของอันตรายหากตกอยู่ในมือของผู้ใช้ที่ไม่ได้รับการฝึกฝน
- ▶ บำรุงรักษาเครื่องมือไฟฟ้าและอุปกรณ์ประกอบ ตรวจสอบชิ้นส่วนที่เคลื่อนที่ว่าว่างไม่ตรงแนวหรือติดขัดหรือไม่ ตรวจหาการแตกหักของชิ้นส่วนและสภาพอื่นใดที่อาจมีผลต่อการทำงานของเครื่องมือไฟฟ้า หากชำรุดต้องส่งเครื่องมือไฟฟ้าไปซ่อมแซมก่อนใช้งาน อุบัติเหตุหลายอย่างเกิดขึ้นเนื่องจากดูแลรักษาเครื่องมือไม่ดีพอ
- ▶ รักษาเครื่องมือตัดให้คมและสะอาด หากบำรุงรักษาเครื่องมือที่มีขอบตัดแหลมคมอย่างถูกต้อง จะสามารถตัดได้สั้นไม่ติดขัดและความคมดังยากกว่า
- ▶ ใช้เครื่องมือไฟฟ้า อุปกรณ์ประกอบ เครื่องมือ และอุปกรณ์อื่นๆ ตรงตามคำแนะนำนำเหล่านี้ โดยคำนึงถึงเงื่อนไขการทำงานและงานที่จะทำ การใช้เครื่องมือไฟฟ้าทำงานที่ต่างไปจากวัตถุประสงค์การใช้งานของเครื่อง อาจนำไปสู่สถานการณ์ที่เป็นอันตรายได้
- ▶ ดูแลตามจับและพื้นผิวจับให้แห้ง สะอาด และปราศจากคราบน้ำมันและจาระบี ตามจับและพื้นผิวจับที่ลื่นทำให้หยิบจับได้ไม่ปลอดภัย และไม่สามารถควบคุมเครื่องมือในสถานการณ์ที่ไม่คาดคิด

การใช้และการดูแลรักษาเครื่องมือใช้แบตเตอรี่

- ▶ ชาร์จไฟใหม่ด้วยเครื่องชาร์จที่มีบริษัทผู้ผลิตระบุไว้เท่านั้น เครื่องชาร์จที่เหมาะสมสำหรับชาร์จแบตเตอรี่แพ็คประเภทหนึ่ง หากนำไปชาร์จแบตเตอรี่แพ็คประเภทอื่น อาจเกิดไฟไหม้ได้
- ▶ ใช้เครื่องมือไฟฟ้าเฉพาะกับแบตเตอรี่แพ็คที่กำหนดไว้เท่านั้น การใช้แบตเตอรี่แพ็คประเภทอื่นเสี่ยงต่อการเกิดไฟไหม้หรือบาดเจ็บ
- ▶ เมื่อไม่ใช้งานแบตเตอรี่แพ็ค ให้เก็บไว้ห่างวัตถุที่เป็นโลหะอื่นๆ เช่น คลิปหนีบกระดาษ เหรียญ ตะปู สกรู หรือวัตถุที่เป็นโลหะขนาดเล็กอื่นๆ ที่สามารถเชื่อมต่อขั้วหนึ่งไปยังอีกขั้วหนึ่งได้ การลัดวงจรของขั้วแบตเตอรี่อาจทำให้เกิดการไหม้หรือไฟลุกได้
- ▶ หากใช้แบตเตอรี่อย่างอาจมีของเหลวไหลออกมาจากแบตเตอรี่ได้ ให้หลีกเลี่ยงการสัมผัส หากสัมผัสโดยบังเอิญให้ใช้น้ำล้าง หากของเหลวเข้าตา ให้ขอความช่วยเหลือ

จากแพทย์ด้วย

ของเหลวที่ไหลออกมาจากแบตเตอรี่อาจทำให้เกิดอาการคันหรือแสบผิวหนึ่งได้

- ▶ **อย่าใช้แบตเตอรี่แพ็คหรือเครื่องมือที่ชำรุดหรือดัดแปลง** แบตเตอรี่ที่ชำรุดหรือดัดแปลงอาจแสดงอาการที่ไม่สามารถคาดเดาได้ ส่งผลให้เกิดไฟไหม้ ระเบิด หรือความเสี่ยงต่อการได้รับบาดเจ็บ
- ▶ **อย่าใช้แบตเตอรี่แพ็คหรือเครื่องมือสัมผัสไฟหรืออุณหภูมิที่สูงเกินไป** หากสัมผัสไฟหรืออุณหภูมิที่สูงกว่า 130 °C อาจทำให้เกิดการระเบิดได้
- ▶ **ปฏิบัติตามคำแนะนำเกี่ยวกับการชาร์จทั้งหมด และต้องไม่ชาร์จแบตเตอรี่แพ็คหรือเครื่องมือ** นอกจากรุ่นอุณหภูมิที่กำหนดในคำแนะนำ การชาร์จแบตเตอรี่อย่างไม่มีกฎวิธีหรือนอกช่วงอุณหภูมิที่กำหนด อาจทำให้แบตเตอรี่เสียหายและเพิ่มความเสี่ยงต่อการเกิดไฟไหม้

การบริการ

- ▶ **ส่งเครื่องมือไฟฟ้าของท่านเข้ารับบริการจากช่างซ่อมที่มีคุณสมบัติเหมาะสม โดยใช้อะไหล่ที่เหมือนกันเท่านั้น** ในลักษณะนี้ท่านจะแน่ใจได้ว่าเครื่องมือไฟฟ้าอยู่ในสภาพที่ปลอดภัย
- ▶ **อย่าบำรุงรักษาแบตเตอรี่แพ็คที่ชำรุดอย่างเด็ดขาด** ต้องส่งไปยังบริษัทผู้ผลิตหรือศูนย์บริการที่ได้ รับอนุญาตทำการบำรุงรักษาแบตเตอรี่แพ็คเท่านั้น

คำแนะนำด้านความปลอดภัยโดยทั่วไปสำหรับเลื่อยโซ่

- ▶ **ป้องกันไม่ให้ส่วนของร่างกายให้ห่างจากโซ่เลื่อยในขณะที่เลื่อยกำลังวิ่ง ก่อนเริ่มเลื่อย ตรวจสอบให้แน่ใจว่าโซ่ไม่ได้สัมผัสโดนสิ่งใด** หากไม่มีสมาธิในขณะที่โซ่เลื่อยยนต์ อาจทำให้เลื่อยผ่าหรือส่วนของร่างกายสัมผัสกับโซ่เลื่อยได้
- ▶ **จับเลื่อยไฟฟ้าด้วยมือขวาที่ค้ำจับด้านหลัง และใช้มือซ้ายที่ค้ำจับด้านหน้าเสมอ** การถือเลื่อยไฟฟ้าในตำแหน่งการทำงานคว่ำลงเพิ่มความเสี่ยงต่อการบาดเจ็บ
- ▶ **จับเลื่อยไฟฟ้าโดยพื้นผิวจับมั่นคงเท่านั้น** เนื่องจากเลื่อยอาจสัมผัสกับสายไฟที่ซ่อนอยู่ การสัมผัสโซ่เลื่อยโดยมีตัวนำไฟฟ้าอาจส่งผลให้ชิ้นส่วนของเครื่องที่เป็นโลหะมีแรงดันไฟฟ้าได้และอาจส่งผลให้เกิดไฟฟ้าช็อตได้
- ▶ **สวมใส่อุปกรณ์ป้องกันดวงตา แนะนำให้สวมใส่อุปกรณ์ป้องกันเพิ่มเติมสำหรับหู ศีรษะ มือ ขา และเท้า** ชุดป้องกันที่เหมาะสมช่วยลดความเสี่ยงต่อการได้รับบาดเจ็บจากเศษวัสดุกระเด็นและการสัมผัสโซ่เลื่อยโดยไม่ตั้งใจ
- ▶ **ห้ามปฏิบัติงานกับเลื่อยโซ่บนต้นไม้ บันได หลังคา หรือส่วนรองรับที่ไม่มั่นคง** การใช้งานเลื่อยโซ่ในลักษณะดังกล่าวอาจทำให้ได้รับบาดเจ็บสาหัส
- ▶ **ตั้งยืนบนพื้นที่ยึดแน่น และใช้เฉพาะเลื่อยไฟฟ้าเมื่อยืนบนพื้นแข็ง ปลอดภัย และราบเรียบเท่านั้น** พื้นผิวที่ลื่นหรือฐานที่ไม่มั่นคงอาจทำให้เสียการทรงตัวหรือเสียการควบคุมเลื่อยไฟฟ้าได้
- ▶ **เมื่อตัดกิ่งไม้ที่มีแรงดึง ควรระวังว่ากิ่งไม้อาจดีดกลับได้** หากแรงดึงในเนื้อไม้ถูกปลดปล่อยออกมา กิ่งไม้ที่มีแรงดึง

อาจพัดใส่ผู้ใช้งาน และ/หรือทำให้เลื่อยโซ่หลุดจากการควบคุมได้

- ▶ **ระมัดระวังเป็นพิเศษเมื่อตัดต้นไม้และต้นไม้เล็ก** วัสดุที่ขวางอาจติดอยู่ในโซ่เลื่อยและดีดกลับหรือทำให้สูญเสียการทรงตัวได้
- ▶ **ถือเลื่อยไฟฟ้าที่ค้ำจับด้านหน้าเมื่อปิดสวิตช์ใช้งานแล้วเท่านั้น** โซ่เลื่อยต้องหันไปทางหน้า ปิดครอบด้วยฝาครอบป้องกันเสมอเมื่อขนย้ายหรือจัดเก็บตัวตัด การจัดการตัวตัดอย่างระมัดระวังช่วยลดโอกาสในการสัมผัสกับโซ่เลื่อยที่ทำงานโดยไม่ตั้งใจ
- ▶ **ปฏิบัติตามคำแนะนำเกี่ยวกับการหล่อน การรับความตึงโซ่ รวมถึงการเปลี่ยนตัวเลื่อยและโซ่** การปรับโซ่หรือการหล่อนโซ่อย่างไม่ถูกต้องอาจทำให้โซ่ขาดหรือเพิ่มความเสียหายจากการดีดกลับ
- ▶ **โซ่เลื่อยไม่เท่านั้น ห้ามใช้เลื่อยโซ่สำหรับงานอื่นที่ไม่เหมาะสม** เช่น ห้ามใช้เลื่อยโซ่ในการเลื่อยโลหะ พลาสติก อิฐ ก่อผนัง หรือวัสดุงานก่อสร้างที่ไม่ได้ทำจากไม้ การใช้เลื่อยโซ่สำหรับงานที่ไม่เหมาะสมอาจก่อให้เกิดสถานการณ์ที่เป็นอันตราย
- ▶ **เลื่อยโซ่รุ่นนี้ไม่ได้ออกแบบมาสำหรับการโค่นต้นไม้** การใช้เลื่อยโซ่สำหรับกระบวนการอื่นที่ไม่ได้กำหนดไว้อาจทำให้ผู้ปฏิบัติงานหรือผู้ที่ยืนอยู่ในบริเวณใกล้เคียงได้รับบาดเจ็บสาหัส
- ▶ **ปฏิบัติตามคำแนะนำทุกข้อหากต้องการนำวัสดุที่ติดออกและจัดเก็บหรือบำรุงรักษาเลื่อยโซ่ ตรวจสอบให้แน่ใจว่าปิดสวิตช์เปิด-ปิดและถอดแบตเตอรี่ออกแล้ว** การใช้งานเลื่อยโซ่โดยไม่ตั้งใจขณะกำลังวัสดุที่ติดอยู่หรือขณะดำเนินการบำรุงรักษาอาจก่อให้เกิดการบาดเจ็บสาหัสได้
- ▶ **สาเหตุและวิธีป้องกันการดีดกลับ:**
 - การดีดกลับอาจเกิดขึ้นเมื่อปลายรางนำสัมผัสกับวัตถุหรือเมื่อไม้โค้งตัวและโซ่เลื่อยดีดค้างอยู่ในรอยตัด
 - ในบางกรณี การสัมผัสกับปลายรางอาจทำให้เกิดการตอบสนองไปทางด้านหลังอย่างไม่คาดคิด ซึ่งทำให้รางนำกระเด็นขึ้นและเข้าหาผู้ปฏิบัติงาน
 - หากโซ่เลื่อยติดค้างที่ขอบด้านบนของรางนำ รางอาจดีดกลับเข้าหาผู้ปฏิบัติงานอย่างรวดเร็ว
 - การตอบสนองในลักษณะนี้อาจทำให้คุณควบคุมเลื่อยไม่ได้และมีโอกาสได้รับบาดเจ็บสาหัส ไม่ควรอาศัยเฉพาะอุปกรณ์ความปลอดภัยที่ติดตั้งในเลื่อยโซ่แต่เพียงอย่างเดียว ในฐานะผู้ใช้งานเลื่อยโซ่ คุณควรดำเนินการตามรายการ เพื่อหลีกเลี่ยงอุบัติเหตุและการบาดเจ็บ
- ▶ **การดีดกลับเป็นผลจากการใช้งานเลื่อยโซ่อย่างผิดวิธีหรือมีข้อผิดพลาด** ซึ่งสามารถป้องกันได้ด้วยมาตรการป้องกันที่เหมาะสมดังที่ระบุไว้ต่อไปนี้:
- ▶ **จับเลื่อยให้แน่นด้วยมือทั้งสองข้าง โดยใช้นิ้วหัวแม่มือและนิ้วมือที่ครอบค้ำจับเลื่อยไฟฟ้า จัดตำแหน่งร่างกายและแขนของคุณให้ตามทวนของเครื่องดีดกลับได้** หากใช้มาตรการที่เหมาะสม ผู้ปฏิบัติงานสามารถควบคุมแรงดีดกลับได้ อย่าปล่อยเลื่อยไฟฟ้าเด็ดขาด
- ▶ **หลีกเลี่ยงท่าทางที่ผิดปกติและอย่าเลื่อยด้วยความสูงเหนือไหล่** เพื่อหลีกเลี่ยงไม่ให้สัมผัสกับปลายรางโดยไม่ตั้งใจ และช่วยให้ควบคุมได้ดีขึ้นในสถานการณ์ที่ไม่คาดหมาย

- ▶ ใช้รางสำรองและไขเลื่อยที่บริษัทผู้ผลิตกำหนดไว้ทุกครั้ง การใช้รางสำรองและไขเลื่อยที่ไม่ถูกต้องอาจทำให้โซ่ขาด หรือเกิดการติดกลับได้
- ▶ ปฏิบัติตามคำแนะนำของบริษัทผู้ผลิตในการลับและบำรุงรักษาไขเลื่อย ตัวจำกัดความลึกที่ต่ำเกินไปอาจทำให้เกิดการติดกลับได้มากขึ้น

คำแนะนำเพื่อความปลอดภัยเพิ่มเติม

- ▶ เครื่องมือนี้มีส่วนประกอบของแม่เหล็ก - ห้ามจัดวางแม่เหล็กไว้ใกล้กับอวัยวะเทียมและอุปกรณ์ทางการแพทย์อื่นๆ เช่น เครื่องกระตุ้นหัวใจหรือปั๊มอินซูลิน รวมถึงอุปกรณ์จัดเก็บข้อมูลที่มีคุณสมบัติแม่เหล็กและอุปกรณ์ที่ไวต่อแม่เหล็ก แม่เหล็กจะสร้างสนามแม่เหล็ก ซึ่งอาจรบกวนการทำงานของอุปกรณ์ทางการแพทย์ หรือทำให้ข้อมูลสูญหายโดยไม่สามารถเรียกคืนได้
- ▶ เครื่องมือไฟฟ้าไม่เหมาะสำหรับใช้งานโดยบุคคล (รวมถึงเด็ก) ที่มีข้อจำกัดทางกายภาพ ทางประสาทสัมผัส หรือทางจิตใจ หรือขาดประสบการณ์และ/หรือความรู้ ยกเว้นในกรณีที่ได้รับการดูแลจากบุคคลที่มีหน้าที่รับผิดชอบด้านความปลอดภัยหรือได้รับคำแนะนำเกี่ยวกับวิธีใช้งาน เครื่องมือไฟฟ้า เด็กควรได้รับการดูแลเพื่อให้อุ่นใจว่าจะไม่เล่นเครื่องมือไฟฟ้า
- ▶ จับเครื่องมือไฟฟ้าให้แน่นด้วยมือทั้งสองข้างและตั้งทำยืนให้มั่นคงขณะทำงาน ท่านจะสามารถนำทางเครื่องมือไฟฟ้าได้ปลอดภัยกว่าเมื่อจับเครื่องมือทั้งสองข้าง
- ▶ ตรวจสอบให้แน่ใจว่าติดตั้งอุปกรณ์ป้องกันและห้ามจับทั้งหมดเรียบร้อยแล้วเมื่อใช้งานเครื่อง ห้ามเปิดใช้งานอุปกรณ์ที่ประกอบไม่สมบูรณ์หรือมีการดัดแปลงที่ไม่ได้รับอนุญาตโดยเด็ดขาด
- ▶ ใช้งานเครื่องมือไฟฟ้าที่ติดตั้งไขและปรับตั้งดีแล้วเสมอ การใช้เครื่องมือไฟฟ้าร่วมกับไขที่ปรับแนวไม่ถูกต้องหรือปรับความตึงไม่เหมาะสมอาจทำให้โซ่ขาด เกิดการติดกลับและ/หรือได้รับบาดเจ็บ
- ▶ ดูแลให้ช่องลมระบายความร้อนทั้งชุดปราศจากสิ่งสกปรก

คำแนะนำด้านความปลอดภัยและข้อมูลสำหรับการใช้งานแบตเตอรี่แบบชาร์จได้อย่างเหมาะสม

- ▶ ตรวจสอบให้แน่ใจว่าผลิตภัณฑ์ปิดใช้งานอยู่ก่อนที่จะใส่แบตเตอรี่แบบชาร์จได้ การใส่แบตเตอรี่เข้าในผลิตภัณฑ์ที่เปิดใช้งานอยู่อาจก่อให้เกิดอุบัติเหตุได้
- ▶ ใช้แบตเตอรี่แบบชาร์จได้เฉพาะรุ่นที่กำหนดให้ไว้กับผลิตภัณฑ์เท่านั้น การใช้งานแบตเตอรี่อื่นอาจก่อให้เกิดการบาดเจ็บและอันตรายจากเปลวไฟได้
- ▶ ห้ามเปลี่ยนแปลงและเปิดแบตเตอรี่แบบชาร์จได้ อันตรายจากการลัดวงจร



ปกป้องแบตเตอรี่แบบชาร์จได้จากความร้อน (รวมถึงแสงแดดที่ส่องอย่างค่อนเนื่อง เป็นต้น) รวมทั้งจากไฟ น้ำ และความชื้น ระมัดระวังอันตรายจากการระเบิด



- ▶ เมื่อไม่มีการใช้งานเครื่อง ให้เก็บรักษาแบตเตอรี่ที่ไม่ได้ใช้งานให้อยู่ห่างจากคลิป์หนีบกระดาษ เหรียญ กุญแจ ตะปู สกรู หรือวัตถุโลหะขนาดเล็กอื่นๆ ที่อาจทำให้เกิดการ

เชื่อมติดกับหน้าสัมผัส การลัดวงจรระหว่างขั้วแบตเตอรี่อาจก่อให้เกิดการลุกไหม้หรือติดไฟได้

- ▶ เมื่อเกิดความชำรุดเสียหายและมีการใช้งานอย่างไม่เหมาะสม โอระเหยจากแบตเตอรี่อาจเล็ดลอดออกมา ควรระบายอากาศในบริเวณนั้นและปรึกษาแพทย์หากพบอาการผิดปกติ โอระเหยอาจก่อให้เกิดการระคายเคืองระบบทางเดินหายใจได้
- ▶ ใช้แบตเตอรี่แพ็คเกจเฉพาะในผลิตภัณฑ์ของผู้ผลิตเท่านั้น ในลักษณะนี้ แบตเตอรี่แพ็คเกจจะได้รับการปกป้องจากการใช้งานเกินกำลังซึ่งเป็นอันตราย
- ▶ วัตถุที่แหลมคม ต. ย. เช่น ตะปูหรือไขควง หรือแรงกระทำภายนอก อาจทำให้แบตเตอรี่เสียหายได้ สิ่งเหล่านี้อาจทำให้เกิดการลัดวงจรภายในและแบตเตอรี่ใหม่ มีควันระเบิด หรือร้อนเกินไป
- ▶ อย่า ลัดวงจร แบตเตอรี่ มีความเสี่ยง ที่จะเกิด การระเบิด
- ▶ ปกป้องแบตเตอรี่จากความชื้นและน้ำ
- ▶ เก็บผลิตภัณฑ์และแบตเตอรี่เฉพาะในช่วงอุณหภูมิระหว่าง -20 °C ถึง 50 °C เท่านั้น เช่น อย่าปล่อยให้แบตเตอรี่ทิ้งไว้ในรถยนต์ในฤดูร้อน
- ▶ ทำความสะอาดช่องระบายอากาศเป็นครั้งคราวโดยใช้แปรงขนอ่อนที่แห้งและสะอาด

สัญลักษณ์

สัญลักษณ์ต่อไปนี้มีความสำคัญต่อการอ่านและการทำความเข้าใจคู่มือการใช้งานเครื่อง กรุณาจดจำสัญลักษณ์และความหมายของสัญลักษณ์ การแปลความสัญลักษณ์ได้ ถูกต้องจะช่วยให้ท่านใช้เครื่องได้ดีและปลอดภัยกว่า

สัญลักษณ์	ความหมาย
	ดูแลให้เด็ก บุคคลอื่น และสัตว์เลี้ยงอยู่ห่างจากเครื่อง
	ทิศทางการเคลื่อนที่
	ทิศทางการตอบสนอง
	น้ำหนักร
	การเปิดใช้งานเบรกป้องกันการติดกลับ
	การปิดใช้งานเบรกป้องกันการติดกลับ
	การใช้งานที่อนุญาต
	การใช้งานที่ไม่อนุญาต
	เสียงที่ได้ยิน
	อุปกรณ์เสริม/ชิ้นส่วนอะไหล่

คำอธิบายผลิตภัณฑ์และบริการ



โปรดอ่านคำแนะนำด้านความปลอดภัยและวิธีการใช้งานทั้งหมดให้ครบถ้วน การไม่ปฏิบัติตามคำแนะนำด้านความปลอดภัยและวิธีการใช้งานอาจเป็นสาเหตุให้เกิดไฟฟ้าดูด ไฟไหม้

และ/หรือการบาดเจ็บร้ายแรงได้

กรุณาดูภาพประกอบในส่วนหน้าของคู่มือการใช้งาน

การใช้งานอย่างตรงตามวัตถุประสงค์

เครื่องมือไฟฟ้านี้ใช้สำหรับการเลื่อยต้นไม้และท่อนไม้ในระดับใกล้เคียงพื้นดิน โดยสามารถใช้ตัดตามยาวและตัดขวางทิศทางของลายไม้

เครื่องมือไฟฟ้านี้ไม่เหมาะสำหรับงานเลื่อยวัสดุอื่น

เครื่องมือไฟฟ้านี้ไม่ได้ออกแบบสำหรับการโค่นต้นไม้

ส่วนประกอบที่แสดงในภาพ (ดูภาพประกอบ A)

ลำดับเลขของส่วนประกอบผลิตภัณฑ์อ้างอิงถึงส่วนประกอบของเครื่องมือไฟฟ้าที่แสดงในหน้าภาพประกอบ

- (1) ด้ามจับด้านหลัง
- (2) สวิตช์เปิด-ปิด
- (3) เฟืองโซ่

- (4) ด้ามจับด้านหน้า
- (5) การ์ดป้องกันมือ/ก้านสำหรับเปิดใช้งานเบรกป้องกันการติดกลับ
- (6) หัวฉีดน้ำมัน
- (7) สกรูปรับความตึงโซ่
- (8) โบลท์ยึด
- (9) เดือยกันชน
- (10) หมุดเดือย
- (11) ตัวเลื่อย
- (12) โซ่เลื่อย
- (13) เครื่องมือติดตั้ง
- (14) ฝาครอบ
- (15) น็อตยึด
- (16) บังโซ่
- (17) ฝาปิดถังน้ำมัน
- (18) ช่องมองระดับน้ำมัน
- (19) ตัวล็อกป้องกันการเปิดใช้งานสำหรับสวิตช์เปิด-ปิด
- (20) แบตเตอรี่แบบชาร์จได้
- (21) เครื่องชาร์จ
- (22) ไฟแสดงสถานะการชาร์จแบตเตอรี่

ข้อมูลทางเทคนิค

เลื่อยโซ่		GKE 18V-40
หมายเลขสินค้า		3 600 HD3 0..
แรงดันไฟฟ้าฟักัด ^{A)}	โวลท์	18
ความเร็วโซ่ในรอบเดินเครื่องเปล่า	เมตร/วินาที	12.4
ความยาวตัวเลื่อย	ซม.	40
ตัวเลื่อยที่รองรับ		Oregon 164MLEA041 Bosch 1 600 A03 0J6
รุ่นตัวต่อใบเลื่อย		A041
ระยะห่างระหว่างข้อโซ่เลื่อย		3/8" โปรไฟล์ต่ำ
ความหนาของข้อโซ่	มม.	1.1 (0.043")
จำนวนข้อโซ่		57
เส้นผ่านศูนย์กลางการตัดสูงสุด	ซม.	36
ปริมาณการเติมน้ำมัน	มล.	150
ระบบหล่อลื่นโซ่อัตโนมัติ		●
การปรับความตึงเครื่องมือ		●
เฟืองหมุนเปลี่ยนทิศทาง		●
น้ำหนักตามมาตรฐาน EN 62841-4-1 ^{A)}		
- มีแบตเตอรี่	กก.	4.66 (5.5 Ah) – 5.05 (12.0 Ah)
- ไม่มีแบตเตอรี่	กก.	3.67
- ไม่มีแบตเตอรี่, ตัวเลื่อย หรือโซ่เลื่อย		3.06

เลือกใช้

GKE 18V-40

หมายเลขลำดับการผลิต		ดูหมายเลขลำดับการผลิต (แผ่นป้ายระบุประเภท) ที่ผลิตภัณฑ์
อุณหภูมิโดยรอบที่แนะนำเมื่อชาร์จ	°C	-20 ... +50
อุณหภูมิโดยรอบที่อนุญาตเมื่อจัดเก็บ ^{B)}		
อุณหภูมิโดยรอบที่อนุญาตเมื่อใช้งาน ^{B)}	°C	0 ... +40
แบตเตอรี่ที่ใช้งานร่วมกันได้		GBA18V... GBA 18V... ProCORE18V... EXPERT18V... EXBA18V... CORE18V...
แบตเตอรี่ที่แนะนำสำหรับการทำงานอย่างเต็มประสิทธิภาพ		GBA 18V... ≥ 4.0 Ah ProCORE18V... ≥ 4.0 Ah EXPERT18V...
เครื่องชาร์จที่แนะนำ		GAL18... GAL 18... GAL 36... GAL12V/18... GAL 12V/18... GAX 18... EXAL18...

A) ขึ้นอยู่กับแบตเตอรี่แพ็คที่ใช้

B) สมรรถภาพจะน้อยลงที่อุณหภูมิ < 0 °C

คำอาจแตกต่างกันไปตามผลิตภัณฑ์และขึ้นอยู่กับเงื่อนไขการใช้งานและสภาพแวดล้อม โปรดดูข้อมูลเพิ่มเติมที่เว็บไซต์ www.bosch-professional.com/wac

แบตเตอรี่

Bosch จำหน่ายเครื่องมือไฟฟ้าไร้สายไม่รวมแบตเตอรี่แพ็คด้วยเช่นกัน คุณสามารถดูได้จากบรรจุภัณฑ์ว่า ขอบเขตการจัดส่งเครื่องมือไฟฟ้าของคุณมีแบตเตอรี่แพ็คหรือไม่

การชาร์จแบตเตอรี่

► **ใช้เฉพาะเครื่องชาร์จแบตเตอรี่ที่ระบุในข้อมูลทางเทคนิคเท่านั้น** เฉพาะเครื่องชาร์จแบตเตอรี่เหล่านี้เท่านั้นที่เข้าชุดกับแบตเตอรี่ลิเธียม ไอออน ของเครื่องมือไฟฟ้าของท่าน

หมายเหตุ: แบตเตอรี่ลิเธียม ไอออนถูกจัดส่งโดยมีการชาร์จไฟบางส่วนตามระเบียบข้อบังคับด้านการขนส่งระหว่างประเทศ เพื่อให้แน่ใจว่าแบตเตอรี่จะทำงานได้อย่างสมบูรณ์แบบ กอนใช้งานครั้งแรกให้ชาร์จแบตเตอรี่จนเต็ม

การใส่แบตเตอรี่

ใส่แบตเตอรี่ที่ชาร์จแล้วเข้าในด้ามจับจนรู้สึกเข้าล็อก

การถอดแบตเตอรี่

เมื่อต้องการถอดแบตเตอรี่แพ็คออก ให้กดปุ่มปลดล็อกแบตเตอรี่และดึงแบตเตอรี่แพ็คออกจากเครื่องมือไฟฟ้าอย่าใช้กำลังดึง

แบตเตอรี่แพ็คมีการล็อก 2 ระดับเพื่อป้องกันไม่ให้แบตเตอรี่แพ็คร่วงหลุดออกมาหากกดปุ่มปลดล็อกแบตเตอรี่โดยไม่ตั้งใจ เมื่อแบตเตอรี่ถูกบรรจุอยู่ในเครื่องมือไฟฟ้า สปริงจะยึดแบตเตอรี่ให้เข้าตำแหน่ง

ไฟแสดงสถานะการชาร์จแบตเตอรี่

ไฟ LED สีเขียวของการแสดงสถานะการชาร์จแบตเตอรี่แสดงสถานะการชาร์จของแบตเตอรี่ ด้วยเหตุผลด้านความปลอดภัยท่านสามารถตรวจสอบสถานะการชาร์จเฉพาะเมื่อเครื่องมือไฟฟ้าหยุดสนิทเท่านั้น

กดปุ่มสำหรับไฟแสดงสถานะการชาร์จแบตเตอรี่  หรือ  เพื่อแสดงสถานะการชาร์จ ท่านสามารถกดได้เมื่อใดก็ได้ถอดแบตเตอรี่ออกแล้ว

หลังจากกดปุ่มสำหรับไฟแสดงสถานะการชาร์จแบตเตอรี่แล้วไฟ LED ไม่ติดขึ้น แสดงว่าแบตเตอรี่พร้อมและต้องเปลี่ยนใหม่

แบตเตอรี่แบบชาร์จได้รุ่น GBA 18V... | GBA18V...



LED	ความจุ
ไฟส่องสว่างต่อเนื่อง 3× สีเขียว	60–100 %
ไฟส่องสว่างต่อเนื่อง 2× สีเขียว	30–60 %

LED	ความจุ
ไฟส่องสว่างต่อเนื่อง 1× สีเขียว	5–30 %
ไฟกะพริบ 1× สีเขียว	0–5 %

แบตเตอรี่ชนิด ProCORE18V...



LED	ความจุ
ไฟส่องสว่างต่อเนื่อง 5× สีเขียว	80–100 %
ไฟส่องสว่างต่อเนื่อง 4× สีเขียว	60–80 %
ไฟส่องสว่างต่อเนื่อง 3× สีเขียว	40–60 %
ไฟส่องสว่างต่อเนื่อง 2× สีเขียว	20–40 %
ไฟส่องสว่างต่อเนื่อง 1× สีเขียว	5–20 %
ไฟกะพริบ 1× สีเขียว	0–5 %

ข้อแนะนำในการปฏิบัติต่อแบตเตอรี่อย่างเหมาะสมที่สุด

ปกป้องแบตเตอรี่จากความชื้นและน้ำ
เก็บรักษาแบตเตอรี่แช่แข็งในช่องอุณหภูมิ -20 °C ถึง 50 °C เท่านั้น อย่าปล่อยให้แบตเตอรี่แช่แข็งไว้ในรถยนต์ในช่วงฤดูร้อน

ทำความสะอาดช่องระบายอากาศเป็นครั้งคราวโดยใช้แปรงขนอ่อนที่แห้งและสะอาด
หลังจากชาร์จแบตเตอรี่แล้ว หากแบตเตอรี่แช่แข็งมีช่วงเวลาทำงานสั้นมาก แสดงว่าแบตเตอรี่แช่แข็งและต้องเปลี่ยนใหม่

อ่านและปฏิบัติตามข้อสังเกตสำหรับการกำจัดขยะ

การบำรุงรักษา แบตเตอรี่

เพื่อให้สามารถใช้งานแบตเตอรี่ได้อย่างเหมาะสมที่สุด ให้ปฏิบัติตามขั้นตอนต่อไปนี้:

- ปกป้องแบตเตอรี่จากความชื้นและน้ำ
- เก็บเครื่องและแบตเตอรี่เฉพาะในช่วงอุณหภูมิระหว่าง -20 °C ถึง 50 °C เท่านั้น เช่น อย่าปล่อยให้แบตเตอรี่ทิ้งไว้ในรถยนต์ในฤดูร้อน
- อย่าเก็บแบตเตอรี่ไว้ในผลิตภัณฑ์ แต่ให้จัดเก็บแยกต่างหาก
- อย่าใส่แบตเตอรี่ทิ้งไว้ในผลิตภัณฑ์ในที่ที่มีแสงแดดส่องถึงโดยตรง
- อุณหภูมิที่เหมาะสมสำหรับจัดเก็บแบตเตอรี่คือ 5 °C
- ทำความสะอาดช่องระบายอากาศเป็นครั้งคราวโดยใช้แปรงขนอ่อนที่แห้งและสะอาด

หากระยะเวลาทำงานลดลงอย่างมากหลังจากชาร์จไฟแล้ว แสดงว่าแบตเตอรี่จะหมดไฟและต้องเปลี่ยนใหม่

การติดตั้ง

เพื่อความปลอดภัยของคุณ

- ▶ โปรดระวัง! ปิดสวิตช์เครื่องมือไฟฟ้าและถอดแบตเตอรี่ออกก่อนงานบำรุงรักษาและทำความสะอาด
- ▶ ระวัง! ไขมีความคม โปรดสวมถุงมือป้องกันเสมอเมื่อใช้งานไข
- ▶ ห้ามเสียบไฟฟ้าใกล้กับคน เด็ก หรือสัตว์ หรือหลังจากดื่มสุราหรือเสพยาเสพติด
- ▶ ไขเสียบไขต้องเมื่อฝาครอบเมื่อมีโบลท์ยึด (8) ล็อคอยู่อย่างถูกต้องเท่านั้น

การติดตั้งตัวเสียบและการปรับความตึงของไขเสียบ (รูปภาพประกอบ B1 – B4)

- ▶ ระวัง! ห้ามปรับความตึงไขเสียบในขณะที่ยังร้อนอยู่
- วางเสียบไขโดยให้ฝาครอบ (14) หายขึ้นบนพื้นราบที่เหมาะสม
- ถอดฝาครอบ (14) โดยการคลายน็อตยึดสองตัว (15) ออกด้วยเครื่องมือติดตั้ง (13) ที่มีให้ในชุด
- จับตัวเสียบ (11) โดยให้แป้นชี้ขึ้นด้านบนตามแนวตั้ง แล้วยึดไขเสียบเส้นใหม่หรือที่ผ่านการลับคม (12) เข้าไปในทิศทางที่ถูกตองบนตัวเสียบ (รูปภาพประกอบ B1)
- ปรับโบลท์หน้า (10) ไปทางด้านซ้ายโดยการหมุนสกรูปรับความตึงไข (7) ทวนเข็มนาฬิกา หมายเหตุ: ตัวเสียบจะไม่ยึดเข้ากับเสียบไข หากปรับแนวโบลท์หน้า (10) ไม่ถูกต้อง
- ตรวจสอบให้แน่ใจว่าไขเสียบ (12) เข้าไปอยู่ในร่องรอบตัวเสียบอย่างถูกต้อง
- วางไขเสียบรอบเฟืองไข (3) แล้วเลื่อนตัวเสียบ (11) ไว้บนโบลท์หน้า (8)
- วางฝาครอบ (14) ไว้บนโบลท์หน้า (8)
- ติดตั้งน็อตยึด (15) เข้ากับโบลท์ยึด (8) แล้วไขมือขันน็อตยึด (15) ให้แน่นด้วยความระมัดระวังเพื่อล็อคฝาครอบ (14) (รูปภาพประกอบ B3)
- ไขเครื่องมือติดตั้ง (13) เพื่อหมุนสกรูปรับความตึงไข (7) ตามเข็มนาฬิกาจนกระทั่งไขตึงรอบตัวเสียบ ความตึงไขจะอยู่ในระยะที่ถูกตอง เมื่อไขเสียบ (12) สามารถยกตัวขึ้นได้ประมาณ 6–7 มม. จากตัวเสียบ (11)
- ตรวจสอบโดยการวางเสียบไขบนพื้นราบที่เหมาะสม จับไขด้วยมือที่สวมถุงมือไว้ทางด้านบนตัวเสียบ (11) โกลด์ตำแหน่งกึ่งกลางความยาวในการตัด แล้วยกไข (12) ขึ้นด้านบนหน้าของเสียบไข
- หากไขตึงเกินไป ให้ไขเครื่องมือติดตั้ง (13) หมุนสกรูปรับความตึงไข (7) ทวนเข็มนาฬิกาจนกระทั่งไขความตึงไขที่ถูกตอง

หมายเหตุ: อย่าปรับไขเสียบให้ตึงเกินไป เนื่องจากไขที่ตึงเกินไปอาจทำให้เกิดการสึกหรอเร็วกว่าปกติ ลดอายุการใช้งานของไขเสียบ และทำให้รางไขเกิดความเสียหายได้

หมายเหตุ: ไขเสียบเส้นใหม่อาจมีความยาวที่ขยายออกเมื่อใช้งานเป็นครั้งแรก ให้ถอดแบตเตอรี่ออก แล้วตรวจสอบความตึงของไขเสียบอย่างสม่ำเสมอในช่วงสองชั่วโมงของการทำงาน

- ขันน็อตยึด (15) ให้แน่นโดยไขเครื่องมือติดตั้ง (13) แล้วยึดฝาครอบ (14) เข้ากับเสียบไข

- ตรวจสอบให้แน่ใจว่าน็อตยึด (15) ทั้งสองตัวติดตั้งและล็อกเข้าที่ก่อนการใช้งาน

การถอดเลื่อยโซ่และตัวเลื่อย

- วางเลื่อยโซ่โดยให้ฝาคีบ (14) หายขึ้นบนพื้นราบที่เหมาะสม
- ถอดฝาคีบ (14) โดยการถอดน็อตยึด (15) ออกด้วยเครื่องมือติดตั้ง (13) ที่มีให้ในชุด
- คลายโซ่เลื่อย (12) โดยการหมุนสกรูปรับความตึงโซ่ (7) ด้วยเครื่องมือติดตั้ง (13) ทวนเข็มนาฬิกา
- ถอดตัวเลื่อย (11) ออกจากโบลท์ยึด (8)
- ถอดโซ่ออกจากเฟืองโซ่ขับ

การเติมน้ำมัน (ดูภาพประกอบ C)

หมายเหตุ: เลื่อยโซ่ไม่มีน้ำมันเติมอยู่เมื่อจัดส่ง คุณจำเป็นต้องเติมน้ำมันก่อนการใช้งาน การใส่เลื่อยโซ่โดยไม่มีน้ำมันโซ่เลื่อยที่มีคุณสมบัติยึดเกาะหรือมีระดับน้ำมันต่ำกว่าเครื่องหมายต่ำสุดอาจทำให้ตัวเลื่อยและโซ่เลื่อยเกิดความเสียหายได้

สำหรับการเติมน้ำมัน ให้ปฏิบัติตามดังต่อไปนี้:

- วางเลื่อยโซ่ลงบนพื้นผิวที่เหมาะสมโดยให้ฝาคีบ (17) อยู่ทางด้านบน
- ทำความสะอาดบริเวณรอบฝาคีบเติมน้ำมัน (17) ให้สะอาด เช็ดคราบสิ่งสกปรกออก
- หมุนฝาคีบเติมน้ำมัน (17) ทวนเข็มนาฬิกา
- เติมน้ำมันโซ่เลื่อยที่มีคุณสมบัติในการยึดเกาะลงในถังน้ำมันอย่างระมัดระวัง
- ขณะเติมน้ำมันที่มีคุณสมบัติยึดเกาะโซ่เลื่อย ให้ตรวจสอบว่าไม่มีสิ่งสกปรกหรือแปลกปลอมหลุดเข้าไปในถังน้ำมัน
- ฝาคีบเติมน้ำมัน (17) ยึดอยู่ที่บริเวณเลื่อยโซ่ โปรดตรวจสอบว่าฝาคีบเติมน้ำมันไม่กีดขวางช่องเปิดขณะเติมน้ำมัน
- ในระหว่างใช้งานเครื่อง คุณสามารถตรวจสอบระดับน้ำมันได้โดยดูจากช่องมองระดับน้ำมัน (18) หากน้ำมันถึงระดับต่ำสุด ให้เติมน้ำมันใหม่เพิ่ม
- ประกอบฝาคีบเติมน้ำมัน (17) แล้วขันให้แน่น

หมายเหตุ: โซ่น้ำมันที่กำหนดให้ใช้กับเลื่อยโซ่เสมอเพื่อประสิทธิภาพการทำงานสูงสุด การใช้น้ำมันที่ไม่ได้รับการรับรองอาจส่งผลต่อประสิทธิภาพของระบบน้ำมันและทำให้หมดการรับประกันได้

การหล่อลื่นโซ่เลื่อย (ดูภาพประกอบ E3)

อายุการใช้งานและประสิทธิภาพในการตัดของโซ่เลื่อยขึ้นอยู่กับวิธีการหล่อลื่นที่เหมาะสม ดังนั้น โซ่เลื่อยจึงได้รับการหล่อลื่นด้วยน้ำมันที่มีคุณสมบัติยึดเกาะสำหรับโซ่เลื่อยโดยอัตโนมัติผ่านหัวฉีดน้ำมัน (6) ในระหว่างการใช้งาน

ตรวจสอบเป็นประจำว่าโซ่เลื่อยได้รับการหล่อลื่นอย่างเหมาะสมแล้วหรือไม่:

- เมื่อถึงน้ำมันเต็ม ให้จับถ้อยเลื่อยโซ่โดยหันแป้นตัวเลื่อยไปยังพื้นผิวที่มีสีอ่อน
- ปลดปล่อยเครื่องมือไฟฟ้าเดินเครื่องประมาณ 1 นาที หรือจนกว่าจะมองเห็นน้ำมันบนพื้นผิวสีอ่อน
- หากมองไม่เห็นน้ำมัน โปรดดูหัวข้อการค้นหาคำความผิดปกติ "โซ่เลื่อยแห้ง"

- หากระบบหล่อลื่นยังทำงานไม่ถูกต้อง โปรดติดต่อฝ่ายบริการลูกค้าของบอช

หมายเหตุ: ตัวกรองน้ำมันติดตั้งรวมอยู่ภายในถังน้ำมัน หากต้องการทำความสะอาดหรือแก้ไขความผิดปกติ โปรดติดต่อฝ่ายบริการลูกค้าของบอช

หมายเหตุ: น้ำมันจะมีความหนืดเมื่ออยู่ในอุณหภูมิต่ำ ซึ่งทำให้การไหลของน้ำมันลดลง

การใช้งาน

- ▶ **โปรดอ่านคู่มือการใช้งานและคำแนะนำด้านความปลอดภัยทุกครั้งก่อนใช้งาน**
- ▶ **สวมใส่เสื้อผ้าและอุปกรณ์ป้องกันส่วนบุคคลที่เหมาะสมเสมอ**
- ▶ **โปรดดำเนินการบำรุงรักษาที่จำเป็นทั้งหมดก่อนการใช้งาน**
- ▶ **ตรวจสอบสภาพของเครื่องมือ โซ่ และระดับน้ำมัน รวมทั้งการติดตั้งที่ถูกต้องก่อนการใช้งานเสมอ โซ่เลื่อยโซ่คอตเมื่ออยู่ในสภาพที่สมบูรณ์เท่านั้น**
- ▶ **ตรวจสอบให้แน่ใจเสมอว่าพื้นที่โดยรอบเป็นที่แห้ง ไม่มีสิ่งกีดขวาง และไม่มีบุคคลที่ไม่เกี่ยวข้องอยู่ในบริเวณ**
- ▶ **ตรวจสอบให้แน่ใจเสมอว่าคุณยืนในท่าที่ปลอดภัย รวมถึงโซ่เลื่อยโซ่คอตเมื่อยืนอยู่บนพื้นผิวที่มั่นคง ปลอดภัย และรวมเสมอ**
- ▶ **ห้ามโซ่เลื่อยโซ่บนบันไดหรือเหนือระดับไหล่โดยเด็ดขาด**
- ▶ **ห้ามเหวี่ยงแขนกวาดเกินไปหรือทำงานโดยเหวี่ยงแขนตรง**
- ▶ **จับถ้อยเลื่อยโซ่ด้วยมือทั้งสองข้างให้แน่นเสมอ**
- ▶ **อย่าปล่อยโซ่เลื่อยโซ่ทิ้งวางบนพื้น ระวังอันตรายจากการสะดุด!**
- ▶ **ห้ามสูบบุหรี่ จุดไฟ หรือก่อไฟเกิดเปลวไฟในพื้นที่ทำงาน**
- ▶ **ห้ามตัดเลื่อยโซ่ที่มีคุณสมบัติตัดไฟฟ้า**
- ▶ **ไม่ควรกดสวิตช์เปิด-ปิดหลังจากการปิดการทำงานโดยอัตโนมัติขณะนั้นแปดเตอร์อาจเกิดความเสียหายได้**

หมายเหตุ: เลื่อยโซ่ไม่มีน้ำมันที่มีคุณสมบัติยึดเกาะเติมอยู่เมื่อจัดส่ง โปรดใส่เลื่อยโซ่หลังจากที่เติมน้ำมันโซ่ลงในถังแล้วเท่านั้น

- ▶ **การใช้เลื่อยโซ่ร่วมกับโซ่ที่ปรับแนวไม่ถูกต้องหรือปรับความตึงไม่เหมาะสมอาจทำให้โซ่ขาด เกิดการติดกลับและ/หรือได้รับบาดเจ็บ**
- ▶ **โซ่เลื่อยใหม่อาจมีความยาวที่ขยายออกเมื่อใช้งานเป็นครั้งแรก**
- ▶ **โปรดตรวจสอบความตึงโซ่อย่างสม่ำเสมอในระหว่างการใช้งาน** สำหรับการติดตั้งที่ถูกต้อง ใหญ่ที่ (ดู "การติดตั้งตัวเลื่อยและการปรับความตึงของโซ่เลื่อย (ดูภาพประกอบ B1 - B4)", หน้า 55)

การใช้งานโซ่เลื่อยอย่างถูกต้อง (ดูภาพประกอบ H)

โปรดปฏิบัติตามวิธีการใช้งานที่ถูกต้องดังที่ระบุไว้ในหัวข้อนี้:

- **สวมถุงมือป้องกันที่เหมาะสมสำหรับใช้งานกับเลื่อยโซ่เพื่อ**
- **ให้การยึดเกาะและการป้องกันสูงสุด**
- **จับถ้อยเลื่อยด้วยมือทั้งสองข้างให้แน่นเสมอในขณะที่เลื่อยทำงาน**

- วางมือข้างขวาไว้บนด้ามจับด้านหลังและมือข้างซ้ายไว้บนด้ามจับด้านหน้า โดยให้หัวแม่มือและนิ้วจับอยู่รอบด้ามของเลื่อยโซ่ (ดูภาพประกอบ E2)
- ถ่ายน้ำหนักตัวให้สมดุลและวางเท้าทั้งสองข้างบนพื้นที่มั่นคง
- วางศอกข้างซ้ายของคุณให้อยู่ในตำแหน่งที่ "ยึดหยุ่น" และแข็งแรง เพื่อรองรับแรงดัดกลับที่อาจเกิดขึ้น
- ห้ามทำงานโดยเหยียดแขนตรงหรือเหยียดแขนกว้างเกินไป
- จับเลื่อยโซ่ที่ด้ามให้มั่นคง โดยให้แขนซ้ายอยู่ในท่าที่แข็งแรงเพื่อควบคุมเลื่อยในกรณีที่เกิดการติดกลับ
- จับถือเลื่อยโซ่ไว้ที่ด้านขวาของลำตัว
- ตรวจสอบให้แน่ใจว่าไม่มีส่วนใดของร่างกายเลยข้ามแนวการตัด แรงดัดกลับอาจทำให้เลื่อยโซ่เหวี่ยงกลับเข้าหาตัวคุณได้ (ดูภาพประกอบ H) เลื่อยโซ่อาจกระดอนกลับเข้าหาตัวคุณจากแรงดัดกลับที่เกิดขึ้น (ดูภาพประกอบ H)

การเปิด-ปิดใช้งาน (ดูภาพประกอบ E1)

►สวมถุงมือกันสั่นที่เหมาะสมสำหรับใช้งานกับเลื่อยโซ่เพื่อการยึดเกาะและการป้องกันสูงสุด

ก่อนการเปิดใช้งาน:

- นำบังโซ่ (16) ออก
- ใส่แบตเตอรี่เข้าไป
- จับเลื่อยโซ่ที่ด้ามให้แน่นทั้งสองข้าง และจัดทำทางร่างกายให้ออกห่างจากระยะการเคลื่อนที่ของโซ่เลื่อย (ดูภาพประกอบ H)

การเปิดใช้งาน:

- ดึงคันสำหรับเปิดใช้งานเบรกป้องกันการติดกลับ (5) ไปทางตามจับด้านหน้า (4)
- กดตัวล็อกป้องกันการเปิดใช้งานสำหรับสวิตช์เปิด-ปิด (19) แล้วกดสวิตช์เปิด-ปิด (2) ค้างไว้
- ปลดปล่อยตัวล็อกป้องกันการเปิดใช้งานทันทีที่เลื่อยโซ่เริ่มทำงาน
- โซ่เลื่อยต้องหมุนด้วยความเร็วที่ก่อนทำงานเลื่อยไม้

หมายเหตุ: เลื่อยโซ่จะไม่เริ่มการทำงาน หากคันเปิดใช้งานเบรกป้องกันการติดกลับ (5) ถูกปิดอย่างไม่ถูกต้องก่อนการใช้งาน

การปิดใช้งาน:

- ปลดปล่อยสวิตช์เปิด-ปิด (2) ตัวล็อกป้องกันการเปิดใช้งานจะกลับสู่ตำแหน่งนิรภัย/ล็อก
- หลังการใช้งานให้ดันคันเปิดใช้งานเบรกป้องกันการติดกลับ (5) ไปทางตามหน้าให้ทางออกจากตามจับด้านหน้า (4)

ลักษณะทั่วไปในการตัด (ดูภาพประกอบ F)

- ผู้ที่ใช้งานเป็นครั้งแรกควรเริ่มจากฝึกตัดท่อนไม้บนโครงรองเลื่อย
- ขณะเลื่อยยังปิดอยู่ ให้ยืนอยู่ในตำแหน่งที่ถูกต้องด้านหน้าไม้
- เริ่มการทำงานของเลื่อยโซ่และตรวจสอบว่าโซ่หมุนด้วยความเร็วเต็มที่กำลังก่อนที่จะสัมผัสไม้
- เริ่มการตัดโดยดันเดียวกันชน (9) เข้าหาไม้เพื่อให้ทำการตัดได้มั่นคง
- เมื่อตัดไม้หรือท่อนไม้ที่หนาขึ้น ให้โซ่เพียงกันชนเป็นคันโยก โดยการปรับเดียวกันชนใหม่ไปยังตำแหน่งที่ต่ำกว่าที่ละน้อยขณะตัด ให้โซ่วีธีดึงเลื่อยโซ่มาทางด้านหลังเล็กน้อย

จนกระทั่งเดือยกันชนคลายออก แล้ววางเลื่อยโซ่กลับที่ตำแหน่งต่ำกว่าเดิมเพื่อเลื่อยต่อ ย้ายดึงเลื่อยโซ่ออกจากรอยตัดจนสุด

- ปลดปล่อยโซ่ให้ทำงานตลอดช่วงการตัดและรักษาความเร็วให้คงที่
- ห้ามออกแรงกดโซ่เลื่อยขณะเลื่อย ควรปล่อยให้โซ่เลื่อยทำงานตามปกติ
- ถอดเลื่อยโซ่ออกจากไม้ในขณะที่โซ่ยังหมุนเสมอ
- ระวังเมื่อถึงช่วงสิ้นสุดแนวเลื่อย เมื่อเลื่อยโซ่ตัดไม้ขาดแล้ว แรงถ่วงจะเปลี่ยนอย่างไม่คาดคิด ซึ่งอาจเกิดอันตรายทำให้ขาและเท้าได้รับบาดเจ็บ
- ปลดปล่อยสวิตช์เปิด-ปิดเมื่อการตัดเสร็จสิ้นเพื่อให้โซ่หยุดนิ่ง แล้วดันเบรกป้องกันการติดกลับ (5) ไปทางตามหน้าให้ทางออกจากตามจับด้านหน้า (ดูภาพประกอบ E1)

การติดกลับของเลื่อย (ดูภาพประกอบ G)

หากเข้าใจถึงแรงดัดกลับอย่างถูกต้อง คุณจะสามารถลดความเสี่ยงต่อการเกิดอุบัติเหตุจากแรงดัดกลับได้

ตรวจสอบให้แน่ใจว่าคุณยืนบนพื้นอย่างมั่นคงและทรงตัวได้ดี การติดกลับของเลื่อยหมายถึงลักษณะที่เลื่อยโซ่ที่ทำงานอยู่สะบัดขึ้นและถอยกลับอย่างรวดเร็ว โดยอาจเกิดขึ้นเมื่อแป้นตัวเลื่อยสัมผัสกับสิ่งที่เลื่อยหรือเมื่อโซ่เกิดการติดขัด

เมื่อเกิดการติดกลับ เลื่อยโซ่จะตอบสนองอย่างไม่คาดคิด และอาจทำให้ผู้ปฏิบัติงานหรือบุคคลที่ยืนอยู่ในบริเวณทำการเลื่อยได้รับบาดเจ็บสาหัส

ให้ระวังเป็นพิเศษเมื่อเลื่อยในทิศทางด้านข้าง เหยียง หรือตัดตามแนวยาว การตัดในลักษณะดังกล่าวจะไม่สามารถใช้ได้อย่างกันชน (9) ได้ตามปกติ

ปฏิบัติตามมาตรการป้องกันต่อไปนี้เพื่อลดแรงดัดกลับ:

- ใช้งานเลื่อยโซ่อย่างถูกวิธีเสมอ
- จับเลื่อยโซ่ที่ด้ามให้มั่นคง โดยให้แขนซ้ายอยู่ในท่าที่แข็งแรงเพื่อควบคุมเลื่อยในกรณีที่เกิดการติดกลับ
- ตรวจสอบให้แน่ใจว่าไม่มีสิ่งกีดขวางในบริเวณที่ทำการตัด

หมายเหตุ: ตรวจสอบให้แน่ใจว่าไม่มีสิ่งกีดขวางอื่น ๆ ที่อาจชนกับเลื่อยขณะทำงาน

- ให้ตัดด้วยความเร็วเต็มที่กำลังของเลื่อยโซ่เสมอ กดสวิตช์เปิด-ปิด (2) จนสุด และรักษาความเร็วในการตัดให้คงที่
- โซ่เฉพาะอะไหล่ตัวเลื่อยและโซ่ที่มีคุณสมบัติลดแรงดัดกลับตามคำแนะนำของบอช

เบรกป้องกันการติดกลับ

เบรกป้องกันการติดกลับเป็นกลไกความปลอดภัยที่เปิดใช้งานได้โดยการดันคันเปิดใช้งานเบรก (5) ในบริเวณข้อมือเมื่อพบว่ามีความเสี่ยงที่จะเกิดอันตรายขึ้น โซ่เลื่อยจะหยุดลงทันที วิธีนี้ช่วยลดอันตรายจากแรงดัดกลับที่อาจก่อให้เกิดการบาดเจ็บ โปรดทดสอบอย่างสม่ำเสมอว่าเบรกป้องกันการติดกลับทำงานเป็นปกติ:

- จับถือเลื่อยโซ่ด้วยมือทั้งสองข้าง
- เปิดใช้งานเลื่อยโซ่
- เมื่อโซ่หมุน ให้ดันคันจากบริเวณข้อมือไปทางด้านหน้าเพื่อเปิดใช้งานเบรกป้องกันการติดกลับ (5) ห้ามใช้งานเลื่อยโซ่ หากโซ่ไม่หยุดลงทันทีเมื่อทำการทดสอบนี้

หมายเหตุ: อย่าหยุดการทำงานของเลื่อยโซ่ด้วยการดันก้านเปิดใช้งานเบรกป้องกันการติดกลับ (5) โดยตั้งใจขณะใช้งานตามปกติ

การเลื่อยท่อนไม้ (รูปภาพประกอบ H)

- ยึดท่อนไม้ให้แน่นก่อนเลื่อยเสมอ
- ตัดท่อนไม้ที่ตำแหน่งนอกจุดที่ยึดไว้เสมอ เพื่อป้องกันไม้ท่อนไม้บิดและโซ่ค้าง
- ระวังคมโซ่ไม่ให้เลื่อยสัมผัสกับพื้นหรืออุปกรณ์การตัด
- ระวังคมโซ่ตอไม้ กิ่งไม้ และรากไม้เนื่องจากอาจทำให้สะดุด

การเลื่อยไม้ที่มีแรงดึง (รูปภาพประกอบ I)

- การเลื่อยไม้ กิ่งไม้ หรือต้นไม้ที่มีแรงดึงควรดำเนินการโดยผู้เชี่ยวชาญที่ผ่านการฝึกอบรมเท่านั้น เนื่องจากคอตงโซ่ความระมัดระวังมากเป็นพิเศษ โดยอาจเสี่ยงต่อการเกิดอุบัติเหตุมากยิ่งขึ้น

การตัดแต่งกิ่งไม้หรือต้นไม้ (รูปภาพประกอบ J)

- การตัดแต่งกิ่งหมายถึงการตัดกิ่งไม้ออกจากต้นไม้ที่โคนแล้วหรือจากกิ่งขนาดใหญ่
- เว้นกิ่งไม้ที่ขีลังด้านล่างและมีขนาดใหญ่กว่าซึ่งช่วยค้ำยันลำต้นไว้ตัดในภายหลัง
- ตัดกิ่งไม้ขนาดเล็กกว่าออกในครั้งเดียว

การค้นหาคำความผิดพลาด

หากเครื่องมือไฟฟ้าของคุณไม่สามารถใช้งานได้อย่างปกติ ตารางต่อไปนี้จะแสดงอาการการผิดพลาด สาเหตุที่เป็นไปได้ และมาตรการแก้ไข หากไม่สามารถระบุและแก้ไขปัญหาได้ โปรดติดต่อศูนย์บริการ

หมายเหตุ: ก่อนดำเนินการค้นหาคำความผิดพลาด โปรดปิดการทำงานของเครื่องมือไฟฟ้าและถอดแบตเตอรี่ออก

อาการ	สาเหตุที่เป็นไปได้	มาตรการแก้ไข
เลื่อยโซ่ไม่ทำงาน	เบรกป้องกันการติดกลับเริ่มการทำงาน	รูปภาพประกอบ E1
	แบตเตอรี่หมดประจุ	ชาร์จแบตเตอรี่ ดูเพิ่มเติมที่ "คำแนะนำเกี่ยวกับการชาร์จ"
	ใส่แบตเตอรี่ไม่ถูกต้อง	ตรวจสอบให้แน่ใจว่าตัวล็อกเข้าล็อกทั้งสองชั้นแล้ว
	ระบบป้องกันมอเตอร์ถูกกระตุ้นให้ทำงาน	ปล่อยให้มอเตอร์เย็นลง
	แบตเตอรี่เย็นเกินไป/ร้อนเกินไป	ปล่อยให้แบตเตอรี่ร้อนขึ้น/เย็นลง
เลื่อยโซ่ทำงานไม่ต่อเนื่อง	เครื่องมือไฟฟ้าชำรุด	ติดต่อศูนย์บริการลูกค้า
	แบตเตอรี่หมดประจุ	ชาร์จแบตเตอรี่ ดูเพิ่มเติมที่ "คำแนะนำเกี่ยวกับการชาร์จ"
โซ่เลื่อยแห้ง	เครื่องมือไฟฟ้าชำรุด	ติดต่อศูนย์บริการลูกค้า
	ไม่มีน้ำมันในถัง	เติมน้ำมัน ดูเพิ่มเติมที่ "การหล่อลื่นโซ่เลื่อย"
	หัวฉีดน้ำมัน (6) อุดตัน	ทำความสะอาดหัวฉีดน้ำมัน (6)
	กรองน้ำมันอุดตัน	ทำความสะอาดกรองน้ำมัน / ติดต่อศูนย์บริการลูกค้า
โซ่เลื่อย/รางนาร้อน	ไม่มีน้ำมันในถัง	เติมน้ำมัน
	โซ่มีความตึงมากเกินไป	ปรับความตึงโซ่
	โซ่เลื่อยทื่อ	เปลี่ยนโซ่เลื่อย
	ช่องน้ำมันไหลอุดตัน	ติดต่อศูนย์บริการลูกค้า
เลื่อยโซ่กระตุก ลั่นหรือเลื่อยอย่างไม่ถูกต้อง	โซ่มีความตึงน้อยเกินไป	ปรับความตึงโซ่เพิ่มเติม
	โซ่เลื่อยทื่อ	เปลี่ยนโซ่เลื่อย
	โซ่เลื่อยเสื่อมสภาพ	เปลี่ยนโซ่เลื่อย
	ฟันเลื่อยหันในทิศทางที่ไม่ถูกต้อง	ติดตั้งโซ่เลื่อยให้ถูกต้อง
	ตัวเลื่อยเสียหายหรือสึกหรอ	เปลี่ยนตัวเลื่อยหรือติดต่อศูนย์บริการของบอช
การสั่นสะเทือน/เสียงดังผิดปกติ	เครื่องมือไฟฟ้าชำรุด	ติดต่อศูนย์บริการลูกค้า
	การติดตั้งโซ่อย่างไม่ถูกต้อง	ตรวจสอบว่าติดตั้งโซ่อย่างถูกต้องหรือไม่ โดยดูที่ "การติดตั้งตัวเลื่อยและการปรับความตึงของโซ่เลื่อย"

อาการ	สาเหตุที่เป็นไปได้	มาตรการแก้ไข
ระยะเวลาการเลื่อยต่อการชาร์จแบตเตอรี่หนึ่งรอบสั้นเกินไป	การเสียดทานมากเกินไปเนื่องจากไม่มีการหล่อลื่น	ตรวจสอบให้แน่ใจว่ามีการหล่อลื่นโซ่ (ดูที่ "การหล่อลื่นโซ่เลื่อย")
	ต้องทำความสะอาดโซ่เลื่อย	ทำความสะอาดโซ่เลื่อย
	เทคนิคการเลื่อยไม่เหมาะสม	ดูที่ "การปฏิบัติงานกับเลื่อยโซ่"
	แบตเตอรี่ไม่ได้รับการชาร์จเต็มประจุ	ชาร์จแบตเตอรี่ ดูเพิ่มเติมที่ "คำแนะนำเกี่ยวกับการชาร์จ"
	แบตเตอรี่อยู่ภายนอกช่วงอุณหภูมิที่ยอมรับได้	ปล่อยให้แบตเตอรี่อุ่นขึ้นจนถึงอุณหภูมิห้อง (ภายในช่วงอุณหภูมิที่อนุญาตระดับ 0–45 °C)
	โซ่มีความตึงมากเกินไป	ปรับความตึงโซ่
โซ่เลื่อยขยับช้า	โซ่เลื่อยทื่อ	เปลี่ยนโซ่เลื่อย
	แบตเตอรี่หมดประจุ	ชาร์จแบตเตอรี่ ดูเพิ่มเติมที่ "คำแนะนำเกี่ยวกับการชาร์จ"
	แบตเตอรี่อยู่ภายนอกช่วงอุณหภูมิที่ยอมรับได้	ปล่อยให้แบตเตอรี่อุ่นขึ้นจนถึงอุณหภูมิห้อง (ภายในช่วงอุณหภูมิที่อนุญาตระดับ 0–45 °C)
	แบตเตอรี่ร้อนเกินไป	ปล่อยให้แบตเตอรี่เย็นลง

การบำรุงรักษาและการบริการ

การบำรุงรักษา ทำความสะอาด และขนย้าย

- ▶ **โปรดระวัง! ปิศาจไฟฟ้า เครื่องมือไฟฟ้าและถอดแบตเตอรี่ที่คอกก่อนงานบำรุงรักษาและทำความสะอาด**
- ▶ **สวมใส่เสื้อผ้าและอุปกรณ์ป้องกันส่วนบุคคลที่เหมาะสมเสมอ**
- ▶ **ตรวจสอบข้อบกพร่องที่เห็นได้ชัดของเลื่อยโซ่อย่างสม่ำเสมอ เช่น โซ่เลื่อยหลวม หลุด หรือเสียหาย รวมถึงจุดยึดที่หลวมและชิ้นส่วนที่เสื่อมสภาพหรือชำรุด**
- ▶ **ห้ามดัดแปลงเครื่องมือสำหรับงานสวน การดัดแปลงที่ไม่ได้รับอนุญาตอาจส่งผลกระทบต่อความปลอดภัยของเครื่องมือสำหรับงานสวน ทำให้เกิดเสียงรบกวนและการสั่นสะเทือนมากขึ้น ตลอดจนทำให้การรับประกันสิ้นสุด**

การบำรุงรักษาและทำความสะอาด

- ดูแลรักษาเครื่องมือไฟฟ้าและตะแกรงระบายอากาศให้สะอาดเพื่อให้อุปกรณ์ปฏิบัติงานได้เป็นอย่างดีและปลอดภัย
- ห้ามใช้น้ำ ตัวทำละลาย และน้ำยาขัดเงาในการทำทำความสะอาดเครื่องมือไฟฟ้า
- ใช้ผ้าสะอาดหรือแปรงขนแข็งกำจัดคราบสกปรกออกจากเครื่องมือไฟฟ้า
- ใช้ผ้าสะอาดเช็ดคราบสกปรกออกจากหัวฉีดน้ำมัน (6) อย่างระมัดระวัง โดยตรวจสอบให้แน่ใจว่าไม่มีสิ่งสกปรกเข้าไปในหัวฉีดน้ำมัน (6) เนื่องจากอาจทำให้เกิดการอุดตันและปัญหาเกี่ยวกับการหล่อลื่น

การบำรุงรักษาโซ่เลื่อย

- ทำความสะอาดตัวเลื่อยและโซ่เลื่อยก่อนที่จะจัดเก็บผลิตภัณฑ์เป็นระยะเวลานาน เพื่อป้องกันไม่ให้ชิ้นส่วนยึดติดแน่น

วิธีทำความสะอาดโซ่เลื่อย:

- ถอดฝาครอบ (14), ตัวเลื่อย (11) และโซ่เลื่อย (12) ออกจากเลื่อยโซ่ แล้วทำความสะอาดด้วยแปรงขนแข็ง (ดู "การถอดเลื่อยโซ่และตัวเลื่อย", หน้า 56).
- ตรวจสอบความเสียหายที่โซ่เลื่อยและทำการเปลี่ยนหรือลับคมโซ่เลื่อย

การเปลี่ยนและการลับคมโซ่เลื่อย

- ▶ **โซ่เลื่อยที่คมมีความจำเป็นต่อประสิทธิภาพและความปลอดภัยสูงสุด**
- ▶ **ห้ามลับคมโซ่เลื่อยด้วยตนเองโดยเด็ดขาด เว้นแต่จะมีประสบการณ์ความรู้ในเรื่องดังกล่าว**

โซ่เลื่อยอาจทื่อเมื่อใช้งานเป็นเวลานานหรือสัมผัสกับวัสดุอื่นนอกเหนือจากไม้

- เปลี่ยนโซ่เลื่อยโดยใช้อุปกรณ์เสริมสำหรับโซ่เลื่อยของบอช หรือให้ผู้ที่มีความเชี่ยวชาญดำเนินการลับคมโซ่เลื่อย โปรดดูที่หัวข้ออุปกรณ์เสริม
- สำหรับการติดตั้งโซ่เลื่อยเข้ากับเครื่องมือ โปรดดูที่ (ดู "การติดตั้งตัวเลื่อยและการปรับความตึงของโซ่เลื่อย (ดูภาพประกอบ B1 – B4)", หน้า 55)

การบำรุงรักษาตัวเลื่อย

- ▶ **เปลี่ยนตัวเลื่อยค้อนเมื่อคุณเข้าใจผลิตภัณฑ์และคำแนะนำเป็นอย่างดี หากไม่แน่ใจ โปรดติดต่อฝ่ายบริการลูกค้าของบอช**

- ▶ **โซ่เฉพาะอะไหล่ตัวเลื่อยตามคำแนะนำของบอช**

ตรวจสอบคู่มือหรือการฝึกอบรมที่ตัวเลื่อย เปลี่ยนตัวเลื่อยหากชำรุดเสียหาย คุณสามารถดูคำแนะนำเกี่ยวกับการถอดตัวเลื่อยได้ใน (ดู "การถอดเลื่อยโซ่และตัวเลื่อย", หน้า 56)

ชิ้นส่วนอะไหล่และอุปกรณ์เสริม (ดูภาพประกอบ K)

คุณสามารถดูภาพประกอบแบบแยกส่วนและข้อมูลเกี่ยวกับชิ้นส่วนอะไหล่ได้ใน www.bosch-pt.com

การขนย้ายและการจัดเก็บเลื่อยโซ่

ก่อนขนย้ายเลื่อยโซ่:

- ถอดแบตเตอรี่ออกทุกครั้ง

- ดัดตั้งบังโซ่ (16) บนตัวเลื่อย (11) ทุกครั้งเมื่อไม่ได้ใช้งานเลื่อยโซ่ เพื่อป้องกันไม่ให้เกิดการบาดเจ็บ
- เช้าล็อกเบรกป้องกันโซ่ไถ้เสมอโดยเลื่อนการดบังกันมือ/ตัวหยุดโซ่ไปทางด้านหน้า
- ขอบแนะนำให้ถือเลื่อยโซ่โดยหันตัวเลื่อยไปทางด้านหลัง นอกเหนือจากขั้นตอนทั้งหมดสำหรับการขนย้ายแล้ว ก่อนจัดเก็บเลื่อยโซ่ ให้ดำเนินการตามขั้นตอนดังต่อไปนี้:
- ถูน้ำมันออกจากถังน้ำมันก่อนจัดเก็บเลื่อยโซ่ แล้วเติมน้ำมันอีกครั้งก่อนการใช้งาน
- จัดเก็บเลื่อยโซ่ไว้ในที่ปลอดภัย ห่าง และห่างจากมือเด็ก
- ห้ามวางสิ่งของลงบนเลื่อยโซ่โดยเด็ดขาด

การบริการหลังการขายและการให้คำปรึกษาการใช้งาน

ไทย

โทร: +66 2012 8888

คุณสามารถดูลิงก์ไปยังที่อยู่ฝ่ายบริการและเงื่อนไขการรับประกันได้ในหน้าสุดท้ายของเอกสาร

เมื่อต้องการสอบถามและสั่งซื้ออะไหล่ กรุณาแจ้งหมายเลขสินค้า 10 หลักบนแผ่นป้ายรุ่นของผลิตภัณฑ์ทุกครั้ง

การกำจัดขยะ

เครื่องมือไฟฟ้า แบตเตอรี่แพ็ค อุปกรณ์ประกอบ และทิปห่อต้องนำไปแยกประเภทวัสดุเพื่อนำกลับมาใช้ใหม่โดยไม่ทำลายสภาพแวดล้อม



อย่าทิ้งเครื่องมือไฟฟ้าและแบตเตอรี่แพ็ค/แบตเตอรี่ที่นำกลับมาใช้ใหม่ได้ ลงในขยะบ้าน!



Berhati-hatilah terhadap kickback gergaji mesin dan hindari menyentuh ujung bilah gergaji.



Kenakan alat pelindung diri (APD) dan gunakan pelindung mata, telinga, dan kepala.



Kenakan sarung tangan pengaman.



PERINGATAN: Pisahkan baterai sebelum pekerjaan perawatan.

Petunjuk keselamatan umum untuk perkakas listrik

⚠ PERINGATAN Baca semua peringatan, petunjuk, ilustrasi, dan spesifikasi

keselamatan yang diberikan bersama perkakas listrik ini. Kesalahan dalam menjalankan petunjuk di bawah ini dapat mengakibatkan sengatan listrik, kebakaran, dan/atau cedera serius.

Simpanlah semua peringatan dan petunjuk untuk penggunaan di masa mendatang.

Istilah "perkakas listrik" dalam peringatan mengacu pada perkakas listrik yang dioperasikan dengan listrik (menggunakan kabel) atau perkakas listrik yang dioperasikan dengan baterai (tanpa kabel).

Keamanan tempat kerja

- **Jaga kebersihan dan pencahayaan area kerja.** Area yang berantakan atau gelap dapat memicu kecelakaan.
- **Jangan mengoperasikan perkakas listrik di lingkungan yang dapat memicu ledakan, seperti adanya cairan, gas, atau debu yang mudah terbakar.** Perkakas listrik dapat memancarkan bunga api yang kemudian mengakibatkan debu atau uap terbakar.
- **Jauhkan dari jangkauan anak-anak dan pengamat saat mengoperasikan perkakas listrik.** Gangguan dapat menyebabkan hilangnya kendali.

Keamanan listrik

- **Perkakas listrik tidak boleh terpapar hujan atau basah.** Air yang masuk ke dalam perkakas listrik menambah risiko terjadinya sengatan listrik.

Keselamatan personel

- **Tetap waspada, perhatikan aktivitas yang sedang dikerjakan dan gunakan akal sehat saat mengoperasikan perkakas listrik.** Jangan gunakan perkakas listrik saat mengalami kelelahan atau di bawah pengaruh narkoba, alkohol, atau obat-obatan. Jika perkakas listrik dioperasikan dengan daya konsentrasi yang rendah, hal tersebut dapat menyebabkan cedera serius.
- **Gunakan peralatan pelindung diri. Selalu kenakan pelindung mata.** Penggunaan perlengkapan pelindung

Bahasa Indonesia

Petunjuk keselamatan

Penjelasan mengenai ikon



Bacalah petunjuk pengoperasian.



Petunjuk umum adanya bahaya.



Jangan gunakan saat hujan.



Selalu pegang gergaji mesin dengan kedua tangan.

seperti penutup telinga, helm, sepatu anti licin, dan masker debu akan mengurangi cedera.

- ▶ **Hindari start yang tidak disengaja.** Pastikan switch berada di posisi off sebelum perkakas listrik dihubungkan ke sumber daya listrik dan/atau baterai, diangkat, atau dibawa. Membawa perkakas listrik dengan jari menempel pada tombol atau perkakas listrik dalam keadaan hidup dapat memicu kecelakaan.
- ▶ **Singkirkan kunci penyetel atau kunci pas sebelum menghidupkan perkakas listrik.** Perkakas atau kunci pas yang masih menempel pada komponen perkakas listrik yang berputar dapat menyebabkan cedera.
- ▶ **Jangan melampaui batas. Berdirilah secara mantap dan selalu jaga keseimbangan.** Hal ini akan memberikan kontrol yang lebih baik terhadap perkakas listrik pada situasi yang tak terduga.
- ▶ **Kenakan pakaian dengan wajar. Jangan mengenakan perhiasan atau pakaian yang longgar. Jauhkan rambut dan pakaian dari komponen yang bergerak.** Pakaian yang longgar, rambut panjang, atau perhiasan dapat tersangkut dalam komponen yang bergerak.
- ▶ **Jika disediakan perangkat untuk sambungan pengisapan debu dan alat pengumpulan, pastikan perangkat tersebut terhubung dan digunakan dengan benar.** Penggunaan alat pengumpulan dapat mengurangi bahaya yang disebabkan oleh debu.
- ▶ **Jangan berpuas diri dan mengabaikan prinsip keselamatan karena terbiasa mengoperasikan perkakas.** Tindakan yang kurang hati-hati dapat mengakibatkan cedera serius dalam waktu sepersekian detik.

Penggunaan dan pemeliharaan perkakas listrik

- ▶ **Jangan memaksakan perkakas listrik. Gunakan perkakas listrik yang sesuai untuk pekerjaan yang dilakukan.** Perkakas listrik yang sesuai akan bekerja dengan lebih baik dan aman sesuai tujuan penggunaan.
- ▶ **Jangan gunakan perkakas listrik dengan switch yang tidak dapat dioperasikan.** Perkakas listrik yang switchnya yang tidak berfungsi dapat menimbulkan bahaya dan harus diperbaiki.
- ▶ **Lepaskan steker dari sumber listrik dan/atau lepas baterai, jika dapat dilepaskan dari perkakas listrik sebelum menyetel, mengganti aksesoris, atau menyimpan perkakas listrik.** Tindakan preventif akan mengurangi risiko menghidupkan perkakas listrik secara tidak disengaja.
- ▶ **Jauhkan dan simpan perkakas listrik dari jangkauan anak-anak dan jangan biarkan orang-orang yang tidak mengetahui cara menggunakan perkakas listrik, mengoperasikan perkakas listrik.** Perkakas listrik dapat membahayakan jika digunakan oleh orang-orang yang tidak terlatih.
- ▶ **Lakukan pemeliharaan perkakas listrik dan aksesoris. Periksa komponen yang bergerak apabila tidak lurus atau terikat, kerusakan komponen, dan kondisi lain yang dapat mengganggu pengoperasian perkakas**

listrik. Apabila rusak, perbaiki perkakas listrik sebelum digunakan. Kecelakaan sering terjadi karena perkakas listrik tidak dirawat dengan baik.

- ▶ **Jaga ketajaman dan kebersihan alat.** Alat pemotong dengan pisau pemotong yang tajam dan dirawat dengan baik tidak akan mudah tersangkut dan lebih mudah dikendalikan.
- ▶ **Gunakan perkakas listrik, aksesoris, dan komponen perkakas dll sesuai dengan petunjuk ini, dengan mempertimbangkan kondisi kerja dan pekerjaan yang akan dilakukan.** Penggunaan perkakas listrik untuk tujuan berbeda dari fungsinya dapat menyebabkan situasi yang berbahaya.
- ▶ **Jaga gagang dan permukaan genggam agar tetap kering, bersih, dan bebas dari minyak dan lemak.** Gagang dan permukaan genggam yang licin tidak menjamin keamanan kerja dan kontrol alat yang baik pada situasi yang tidak terduga.

Penggunaan dan pemeliharaan perkakas baterai

- ▶ **Isi ulang daya hanya dengan pengisi daya yang ditentukan oleh produsen.** Pengisi daya yang sesuai untuk satu jenis set baterai dapat menyebabkan risiko kebakaran apabila digunakan dengan set baterai lain.
- ▶ **Hanya gunakan perkakas listrik dengan set baterai yang dirancang khusus.** Penggunaan set baterai lain dapat menyebabkan risiko cedera dan kebakaran.
- ▶ **Apabila set baterai tidak digunakan, jauhkan dari benda logam lainnya, seperti klip kertas, koin, kunci, paku, sekrup, atau benda logam kecil lainnya yang dapat membuat sambungan dari satu terminal ke terminal lainnya.** Memendekkan terminal baterai dapat menyebabkan kebakaran atau api.
- ▶ **Cairan dapat keluar dari baterai jika baterai tidak digunakan dengan benar; hindari kontak. Jika terjadi kontak secara tidak disengaja, bilas dengan air. Jika cairan mengenai mata, segera hubungi bantuan medis.** Cairan yang keluar dari baterai dapat menyebabkan iritasi atau luka bakar.
- ▶ **Jangan gunakan set baterai atau perkakas yang rusak atau telah dimodifikasi.** Baterai yang rusak atau telah dimodifikasi dapat menimbulkan kejadian yang tak terduga seperti kebakaran, ledakan, atau risiko cedera.
- ▶ **Jangan meletakkan set baterai atau perkakas di dekat api atau suhu tinggi.** Paparan terhadap api atau suhu di atas 130 °C dapat memicu ledakan.
- ▶ **Ikuti semua petunjuk pengisian daya dan jangan mengisi daya set baterai atau perkakas di luar rentang suhu yang ditentukan dalam petunjuk.** Pengisian daya yang tidak tepat atau di luar rentang suhu yang ditentukan dapat merusak baterai dan meningkatkan risiko kebakaran.

Servis

- ▶ **Minta teknisi berkualifikasi untuk menyervis perkakas listrik dengan hanya menggunakan suku cadang yang identik.** Dengan demikian, hal ini akan memastikan keamanan perkakas listrik.

- ▶ **Jangan pernah melakukan servis pada baterai yang telah rusak.** Servis baterai hanya boleh dilakukan oleh produsen atau penyedia servis resmi.

Petunjuk keselamatan umum untuk gergaji mesin

- ▶ **Jangan dekatkan anggota tubuh manapun ke rantai gergaji ketika gergaji sedang beroperasi.** Sebelum mulai menggergaji, pastikan rantai gergaji tidak bersentuhan dengan apa pun. Kehilangan fokus sejenak saat mengoperasikan gergaji mesin dapat menyebabkan pakaian terbelit atau bagian tubuh terkena rantai gergaji.
- ▶ **Selalu pegang gergaji mesin dengan tangan kanan menggenggam handel belakang dan tangan kiri menggenggam handel depan.** Memegang gergaji mesin dengan posisi kerja sebaliknya (kidal) dapat meningkatkan risiko cedera dan sebaiknya tidak dilakukan.
- ▶ **Pegang gergaji mesin hanya pada permukaan genggam berisolator karena rantai gergaji kemungkinan dapat dialiri listrik yang tidak terlihat.** Rantai gergaji yang menyentuh kabel yang dialiri listrik dapat mengakibatkan komponen logam pada alat dialiri listrik sehingga mengakibatkan sengatan listrik.
- ▶ **Kenakan kacamata pelindung.** Disarankan untuk menggunakan alat pelindung tambahan untuk telinga, kepala, tangan, kaki, dan telapak kaki. Pakaian pelindung yang sesuai akan meminimalkan risiko cedera akibat serpihan yang beterbangan dan kontak yang tidak disengaja dengan rantai gergaji.
- ▶ **Jangan menggunakan gergaji mesin saat berada di atas pohon, tangga, atap, atau penopang yang tidak stabil.** Mengoperasikan gergaji mesin dengan cara ini dapat mengakibatkan cedera serius.
- ▶ **Selalu pastikan Anda dapat berpajak dengan aman dan stabil dan hanya operasikan gergaji mesin saat berdiri di atas permukaan yang stabil, aman, dan rata.** Permukaan yang licin atau pijakan yang tidak stabil dapat menyebabkan hilangnya keseimbangan atau hilangnya kendali saat mengoperasikan gergaji mesin.
- ▶ **Saat memotong dahan pohon dengan cara ditekan, berhati-hatilah karena dahan tersebut dapat memental.** Jika tekanan pada serat kayu dilepaskan, cabang dapat memental dan mengenai operator dan/atau gergaji mesin dapat lepas kendali.
- ▶ **Berhati-hatilah terutama saat memotong semak belukar dan pohon muda.** Material yang tipis dapat tersangkut di rantai gergaji dan mengenai Anda atau membuat Anda kehilangan keseimbangan.
- ▶ **Bawalah gergaji mesin pada kondisi telah dimatikan dengan memegang handel depannya dan rantai gergaji diarahkan ke depan.** Saat mengangkat atau menyimpan gergaji mesin, selalu pasang tutup pelindung. Menangani gergaji mesin dengan hati-hati akan mengurangi kemungkinan adanya kontak yang tidak sengaja dengan rantai gergaji yang sedang beroperasi.

- ▶ **Ikuti petunjuk mengenai pelumasan, pengencangan rantai, dan penggantian bilah gergaji dan rantai.** Rantai yang tidak dikencangkan atau dilumasi dengan benar dapat menyebabkan kerusakan atau meningkatkan risiko kickback.
- ▶ **Hanya untuk memotong kayu.** Jangan menggunakan gergaji mesin untuk pekerjaan yang tidak sesuai dengan tujuan penggunaannya. Contoh: Jangan gunakan gergaji mesin untuk menggergaji logam, plastik, batu bata, atau bahan bangunan yang tidak terbuat dari kayu. Menggunakan gergaji mesin untuk pekerjaan yang tidak sesuai dengan tujuan penggunaannya dapat menyebabkan situasi yang berbahaya.
- ▶ **Gergaji mesin ini tidak dimaksudkan untuk menebang pohon.** Menggunakan gergaji mesin untuk pengoperasian selain yang dimaksudkan dapat mengakibatkan cedera serius pada operator atau orang lain.
- ▶ **Ikuti semua petunjuk saat membuang material yang menumpuk, menyimpan atau merawat gergaji mesin.** Pastikan switch on/off sudah dimatikan dan baterai sudah dilepas. Pengoperasian gergaji mesin yang tidak terduga saat membuang material yang menumpuk atau selama perawatan dapat mengakibatkan cedera serius.
- ▶ **Penyebab dan Pencegahan Kickback:**
 - Kickback dapat terjadi jika ujung rel pemandu bersentuhan dengan suatu objek atau jika kayu bengkok dan rantai gergaji macet saat proses memotong.
 - Dalam beberapa kasus, ujung rel yang tersentuh dapat menimbulkan reaksi kickback yang tidak terduga sehingga rel pemandu dapat terpental ke arah atas dan ke arah operator.
 - Rantai gergaji yang macet di tepi atas rel pemandu dapat dengan cepat mendorong rel kembali ke arah operator.
 - Salah satu dari reaksi ini dapat menyebabkan gergaji menjadi tidak terkendali dan dapat menyebabkan cedera parah. Jangan hanya mengandalkan perangkat keselamatan yang terpasang pada gergaji mesin. Sebagai pengguna gergaji mesin, lakukan berbagai tindakan untuk memastikan Anda dapat bekerja tanpa menimbulkan kecelakaan atau cedera. Kickback adalah hasil dari penggunaan gergaji mesin yang tidak benar atau salah. Hal ini dapat dicegah dengan melakukan tindakan pencegahan yang sesuai seperti yang dijelaskan di bawah ini:
- ▶ **Pegang erat-erat gergaji dengan kedua tangan dengan posisi jari-jari tangan menggenggam handel gergaji mesin.** Atur posisi tubuh dan lengan agar Anda dapat menahan gaya kickback. Operator dapat mengendalikan gaya kickback jika tindakan pencegahan yang sesuai dilakukan. Jangan pernah melepaskan gergaji mesin.
- ▶ **Hindari pengoperasian dengan posisi tubuh yang tidak wajar dan jangan pernah mengoperasikan gergaji pada ketinggian di atas bahu.** Dengan demikian, ujung rel yang bersentuhan dengan suatu benda secara tidak sengaja dapat dihindari dan gergaji mesin dapat

dikendalikan dengan lebih baik pada situasi yang tidak terduga.

- ▶ **Selalu gunakan rantai gergaji dan rel cadangan yang ditentukan oleh produsen.** Penggantian rantai gergaji dan rel cadangan yang tidak tepat dapat menyebabkan rantai patah atau mengalami kickback.
- ▶ **Ikuti petunjuk produsen untuk mengasah dan merawat rantai gergaji.** Pembatas kedalaman yang terlalu rendah akan meningkatkan potensi kickback.

Petunjuk keselamatan tambahan

- ▶ **Perangkat ini mengandung magnet - Jangan dekatkan magnet ke implan dan perangkat medis lainnya, seperti alat pacu jantung atau pompa insulin, pembawa data magnetik, dan perangkat yang peka terhadap magnet.** Magnet menghasilkan medan yang dapat mengganggu fungsi perangkat medis atau menyebabkan kehilangan data yang tidak dapat dipulihkan.
- ▶ **Perkakas listrik ini tidak dirancang untuk digunakan oleh orang-orang (termasuk anak-anak) yang memiliki keterbatasan fisik, indera, atau mental, atau tidak cukup berpengalaman dan/atau memiliki pengetahuan yang memadai, kecuali jika mereka berada di bawah pengawasan atau instruksi tentang penggunaan perkakas listrik oleh orang yang bertanggung jawab atas keselamatan mereka.** Anak-anak harus diawasi untuk memastikan mereka tidak bermain dengan alat listrik.
- ▶ **Pegang erat perkakas listrik dengan kedua tangan selama pengoperasian dan pastikan Anda berada di posisi aman.** Perkakas listrik lebih aman digunakan dengan kedua tangan.
- ▶ **Pastikan semua peralatan dan gagang pegaman sudah terpasang saat alat digunakan.** Jangan sekali-kali mencoba mengoperasikan perangkat yang belum dirakit secara lengkap atau perangkat yang dimodifikasi tanpa izin.
- ▶ **Selalu operasikan perkakas listrik dengan rantai yang sejajar dan dikencangkan dengan baik.** Menggunakan perkakas listrik dengan rantai yang tidak sejajar dan tidak dikencangkan dengan benar dapat menyebabkan kerusakan rantai, kickback dan/atau cedera.
- ▶ **Jaga semua lubang udara pendingin tetap bersih.**

Petunjuk keselamatan dan petunjuk mengenai penanganan baterai yang optimal

- ▶ **Pastikan alat mati sebelum memasang baterai.** Memasang baterai pada alat yang dihidupkan dapat menyebabkan kecelakaan.
- ▶ **Hanya gunakan baterai Bosch yang telah disediakan untuk alat ini.** Menggunakan baterai lain dapat menyebabkan cedera dan risiko kebakaran.
- ▶ **Jangan memodifikasi dan membuka baterai.** Terdapat risiko korsleting.



Lindungi baterai isi ulang terhadap panas, misalnya juga terhadap penyinaran matahari untuk waktu yang lama, api, air dan kelembasan. Terdapat bahaya ledakan.



- ▶ **Jika alat tidak digunakan, jauhkan baterai yang tidak digunakan dari klip kertas, koin, kunci, paku, sekrup, atau benda logam kecil lainnya yang dapat menyebabkan bridging saat bersentuhan.** Hubungan arus pendek antarkontak baterai dapat menyebabkan kebakaran atau memercikkan api.
- ▶ **Jika baterai isi ulang rusak atau digunakan secara salah, baterai isi ulang dapat mengeluarkan uap.** Biarkanlah udara segar mengalir masuk dan jika Anda merasa tidak enak badan, pergilah ke dokter. Uap tersebut dapat mengganggu saluran pernafasan.
- ▶ **Hanya gunakan baterai pada produk yang dibuat oleh produsen.** Hanya dengan cara ini, baterai dapat terlindungi dari kelebihan muatan.
- ▶ **Baterai dapat rusak akibat benda-benda lancip, seperti jarum, obeng, atau tekanan keras dari luar.** Hal ini dapat menyebabkan terjadinya hubungan singkat internal dan baterai dapat terbakar, berasap, meledak, atau mengalami panas berlebih.
- ▶ **Jagalah supaya tidak terjadi korsleting pada aki.** Ada bahaya terjadinya ledakan.
- ▶ **Lindungilah baterai isi ulang terhadap kelembaban dan air.**
- ▶ **Simpenlah alat kebun dan baterai hanya di lingkungan suhu dari -20 °C hingga 50 °C.** Jangan membiarkan baterai isi ulang, misalnya, di dalam mobil saat panas.
- ▶ **Bersihkanlah lubang-lubang ventilasi dari baterai dengan kuas yang lunak, bersih dan kering secara berkala.**

Simbol-simbol

Simbol-simbol berikut penting untuk membaca dan mengerti petunjuk-petunjuk untuk penggunaan. Pelajarilah simbol-simbol dan artinya. Pengertian yang betul dari simbol-simbol ini membantu Anda untuk menggunakan perkakas pakai udara bertekanan dengan lebih baik dan selamat.

Simbol	Arti
	Jauhkan dari jangkauan anak-anak, orang lain, dan hewan peliharaan.
	Arah gerakan
	Arah reaksi
	Berat
	Mengaktifkan rem kickback
	Menonaktifkan rem kickback

Simbol	Arti
✓	Tindakan yang diizinkan
✗	Tindakan yang dilarang
CLICK!	Suara bising yang dapat terdengar
	Aksesori/suku cadang

Penjelasan tentang produk dan spesifikasi



Baca semua informasi dan petunjuk keselamatan. Kelalaian dalam mematuhi informasi dan petunjuk keselamatan dapat menyebabkan sengatan listrik, kebakaran, dan/atau cedera serius.

Perhatikan ilustrasi yang terdapat pada bagian depan panduan pengoperasian.

Tujuan penggunaan

Perkakas listrik ini digunakan untuk menggergaji pohon dan batang pohon yang dekat dengan tanah. Pemotongan dapat dilakukan searah dan berlawanan arah serat.

Perkakas listrik ini tidak cocok untuk menggergaji bahan mineral.

Alat listrik ini tidak dimaksudkan untuk menebang pohon.

Ilustrasi komponen (lihat gambar A)

Penomoran ilustrasi komponen mengacu pada gambar perkakas listrik pada halaman grafis.

- (1) Gagang belakang
- (2) Tombol on/off
- (3) Roda rantai
- (4) Gagang depan
- (5) Pelindung tangan/tuas untuk mengaktifkan rem kickback
- (6) Nozel oli
- (7) Sekrup pengencang rantai
- (8) Baut pengencang
- (9) Paku bumper logam
- (10) Pin penjepit
- (11) Bilah gergaji
- (12) Rantai gergaji
- (13) Alat perakitan
- (14) Penutup
- (15) Mur pengencang
- (16) Pelindung rantai
- (17) Tutup tangki oli
- (18) Indikator oli
- (19) Kunci tombol on/off
- (20) Baterai
- (21) Pengisi daya
- (22) Indikator level daya baterai

Data teknis

Gergaji mesin		GKE 18V-40
Nomor barang		3 600 HD3 0..
Tegangan nominal ^(A)	V	18
Kecepatan rantai saat idle	m/s	12,4
Panjang bilah gergaji	cm	40
Bilah gergaji yang kompatibel		Oregon 164MLEA041 Bosch 1 600 A03 0J6
Jenis sambungan bilah gergaji		A041
Jarak mata rantai gergaji		Profil rendah 3/8"
Ketebalan penggerak rantai	mm	1,1 (0,043")
Jumlah penggerak rantai		57
Maks. diameter pemotongan	cm	36
Kapasitas tangki oli	ml	150
Pelumasan rantai otomatis		●
Penjepit alat		●
Roda pemandu rantai		●
Berat menurut EN 62841-4-1 ^(A)		
- dengan baterai	kg	4,66 (5,5 Ah) – 5,05 (12,0 Ah)

Gergaji mesin		GKE 18V-40
- tanpa baterai	kg	3,67
- tanpa baterai, bilah pemandu atau rantai gergaji		3,06
Nomor seri	Lihat nomor seri (label tipe) pada produk	
Rekomendasi suhu lingkungan saat pengisian daya	°C	-20 ... +50
Suhu lingkungan yang diizinkan selama penyimpanan ^{B)}		
Suhu lingkungan yang diizinkan selama pengoperasian ^{B)}	°C	0 ... +40
Baterai yang kompatibel		GBA18V... GBA 18V... ProCORE18V... EXPERT18V... EXBA18V... CORE18V...
Rekomendasi baterai untuk daya penuh		GBA 18V... ≥ 4.0 Ah ProCORE18V... ≥ 4.0 Ah EXPERT18V...
Rekomendasi pengisi daya		GAL18... GAL 18... GAL 36... GAL12V/18... GAL 12V/18... GAX 18... EXAL18...

A) tergantung pada baterai yang digunakan

B) daya terbatas pada suhu < 0 °C

Nilai dapat berbeda-beda bergantung pada produk dan mungkin tunduk pada kondisi lingkungan serta penggunaan. Informasi lebih lanjut pada www.bosch-professional.com/wac.

Baterai

Bosch menjual perkakas listrik berdaya baterai bahkan tanpa baterai yang disertakan. Keterangan apakah lingkup pengiriman perkakas listrik termasuk dengan baterai dapat ditemukan di kemasan.

Mengisi daya baterai

► **Hanya gunakan pengisi daya yang tercantum pada data teknis.** Hanya pengisi daya ini yang sesuai dengan baterai li-ion yang digunakan pada perkakas listrik Anda.

Catatan: Baterai lithium-ion dikirim dalam keadaan terisi daya sebagian berdasarkan peraturan transportasi internasional. Untuk menjamin daya penuh dari baterai, isi daya baterai hingga penuh sebelum menggunakannya untuk pertama kali.

Memasang baterai

Masukkan baterai yang telah terisi daya ke dalam dudukan baterai hingga baterai terkunci.

Melepas baterai

Untuk melepas baterai, tekan tombol pelepas baterai dan keluarkan baterai. **Jangan melepas baterai dengan paksa.** Baterai memiliki 2 level penguncian untuk mencegah baterai terlepas saat tombol pelepas baterai ditekan secara tidak

sengaja. Selama baterai terpasang di dalam perkakas listrik, baterai ditahan posisinya menggunakan pegas.

Indikator level pengisian daya baterai

LED berwarna hijau dari indikator level pengisian daya baterai menampilkan level pengisian daya baterai. Atas dasar keselamatan, permintaan level pengisian daya baterai hanya dapat dilakukan saat perkakas listrik dalam keadaan berhenti.

Tekan tombol indikator level pengisian daya baterai  atau  untuk menampilkan level pengisian baterai. Hal ini juga dapat dilakukan saat baterai dilepas.

Apabila LED tidak menyala setelah menekan tombol indikator level pengisian daya, terdapat kerusakan pada baterai dan baterai harus diganti.

Tipe baterai GBA 18V... | GBA18V...



LED	Kapasitas
Lampu permanen hijau 3×	60–100%
Lampu permanen hijau 2×	30–60%
Lampu permanen hijau 1×	5–30%
Lampu berkedip hijau 1×	0–5%

Tipe baterai ProCORE18V...

LED	Kapasitas
Lampu permanen hijau 5×	80–100%
Lampu permanen hijau 4×	60–80%
Lampu permanen hijau 3×	40–60%
Lampu permanen hijau 2×	20–40%
Lampu permanen hijau 1×	5–20%
Lampu berkedip hijau 1×	0–5%

Petunjuk untuk penanganan baterai yang optimal

Lindungilah baterai dari kelembapan dan air.

Simpan baterai hanya pada rentang suhu antara –20 °C hingga 50 °C. Janganlah meletakkan baterai di dalam mobil, misalnya pada musim panas.

Bersihkan lubang ventilasi baterai dengan kuas yang lunak, bersih dan kering secara berkala.

Waktu pengoperasian yang berkurang secara signifikan setelah pengisian daya menunjukkan bahwa baterai telah habis dan perlu diganti.

Perhatikan petunjuk untuk membuang.

Layanan baterai isi ulang

Perhatikanlah saran dan peraturan untuk menjamin penggunaan baterai isi ulang:

- Lindungilah baterai isi ulang terhadap kelembapan dan air.
- Simpanlah alat kebun dan baterai hanya di lingkungan suhu dari –20 °C hingga 50 °C. Jangan membiarkan baterai isi ulang, misalnya, di dalam mobil saat panas.
- Simpanlah baterai isi ulang terpisah dan jangan bersama dengan alat kebun.
- Jangan membiarkan baterai di dalam alat kebun dibawah sinar matahari langsung.
- Suhu optimal untuk penyimpanan baterai isi ulang adalah 5 °C.
- Bersihkan lubang-lubang ventilasi dari baterai dengan kuas yang lunak, bersih dan kering secara berkala.

Jika setelah diisi, kemampuan baterai isi ulang menjadi sangat lebih pendek, baterai isi ulang aus dan harus digantikan.

Perakitan**Untuk keamanan**

- **Perhatian! Matikan perkakas listrik dan keluarkan baterai sebelum melakukan perawatan atau pembersihan.**

- **Perhatian! Alat memiliki rantai yang tajam. Selalu kenakan sarung tangan pelindung saat bekerja menggunakan rantai.**
- **Jangan pernah mengoperasikan gergaji mesin di dekat seseorang, anak-anak, atau hewan dan jangan mengoperasikan gergaji mesin setelah mengonsumsi alkohol, obat-obatan, atau saat sedang di bawah pengaruh obat bius.**
- **Hanya gunakan gergaji mesin jika penutupnya sudah terpasang dengan benar dengan baut pengencang (8) .**

Memasang bilah gergaji dan mengencangkan rantai gergaji (lihat gambar B1 – B4)

- **Perhatian! Jangan kencangkan rantai gergaji saat masih panas.**
 - Letakkan gergaji mesin di atas permukaan datar yang sesuai dengan penutup (14) menghadap ke atas.
 - Lepaskan penutup (14), dengan melepas kedua mur pengencang (15) menggunakan alat perakitan (13) yang disertakan.
 - Peganglah bilah gergaji (11) dengan hidung mengarah vertikal ke atas dan pasanglah rantai gergaji (12) yang baru atau yang sudah diasah dalam arah yang benar pada bilah gergaji (lihat gambar B1).
 - Atur pin pemandu (10) ke kiri dengan memutar sekrup pengencang rantai (7) berlawanan arah jarum jam. Catatan: Bilah gergaji tidak akan muat pada gergaji jika pin pemandu (10) tidak disejajarkan dengan benar.
 - Pastikan rantai gergaji (12) diposisikan dengan benar pada slot di sekeliling seluruh bilah gergaji.
 - Tempatkan rantai gergaji di sekeliling roda rantai (3) dan geser bilah gergaji (11) di atas baut pengencang (8).
 - Tempatkan penutup (14) di atas baut pengencang (8).
 - Pasang mur pengencang (15) ke baut pengencang (8) dan kencangkan mur pengencang (15) secara hati-hati dengan tangan untuk mengencangkan penutup (14). (lihat gambar B3).
 - Gunakan alat perakitan (13), untuk memutar sekrup pengencang rantai (7) searah jarum jam sampai rantai dikencangkan di sekeliling bilah gergaji. Kekencangan rantai yang tepat dicapai ketika rantai gergaji (12) dapat diangkat kira-kira 6–7 mm dari bilah gergaji (11). Untuk melakukan ini, letakkan gergaji mesin di atas permukaan datar yang sesuai. Pegang rantai gergaji dengan tangan yang telah mengenakan sarung tangan pada bagian atas di bilah gergaji (11), di dekat bagian tengah panjang pemotongan, dan angkat rantai gergaji (12) untuk menahan beban gergaji.
 - Jika rantai gergaji terlalu kencang, gunakan alat perakitan (13) untuk memutar sekrup pengencang rantai (7) berlawanan arah jarum jam hingga kekencangan rantai yang tepat dicapai.

Catatan: Jangan mengencangkan rantai gergaji secara berlebihan - pengencangan yang berlebihan akan

menyebabkan keausan yang berlebihan dan memperpendek usia pakai rantai gergaji dan dapat merusak bar rantai.

Catatan: Rantai gergaji baru dapat menjadi jauh lebih panjang ketika digunakan untuk pertama kalinya. Lepaskan baterai dan periksa kekencangan rantai gergaji secara teratur selama dua jam pertama pengoperasian.

- Kencangkan mur pengencang **(15)** dengan menggunakan alat perakitan **(13)** dan pasang penutup **(14)** ke gergaji mesin.
- Pastikan kedua mur pengencang **(15)** sudah terpasang dan dikencangkan sebelum pengoperasian.

Membongkar rantai gergaji dan bilah gergaji

- Letakkan gergaji mesin di atas permukaan datar yang sesuai dengan penutup **(14)** menghadap ke atas.
- Lepaskan penutup **(14)**, dengan melepas mur pengencang **(15)** dengan alat perakitan yang disertakan **(13)**.
- Longgarkan rantai gergaji **(12)**, dengan memutar sekrup pengencang rantai **(7)** berlawanan arah jarum jam dengan menggunakan alat perakitan **(13)**.
- Lepaskan bilah gergaji **(11)** dari baut pengencang **(8)**.
- Lepaskan rantai dari sproket penggerak.

Mengisi tangki oli (lihat gambar C)

Catatan: Gergaji mesin tidak disertakan bersama pengisian oli rantai gergaji. Gergaji mesin wajib diisi oli sebelum digunakan. Menggunakan gergaji tanpa oli rantai gergaji atau dengan level pengisian oli di bawah batas minimum akan merusak bilah gergaji dan rantai gergaji.

Untuk mengisi tangki oli, lakukan hal berikut:

- Letakkan gergaji mesin di atas permukaan yang sesuai dengan tutup tangki oli **(17)** menghadap ke atas.
- Bersihkan area di sekitar tutup tangki oli **(17)**. Gunakan kain bersih untuk membersihkan kotoran.
- Lepaskan tutup tangki oli **(17)** berlawanan arah jarum jam.
- Isi tangki oli secara hati-hati dengan oli rantai gergaji.
- Ketika mengisi oli rantai gergaji, pastikan tidak ada kotoran atau benda asing yang masuk ke dalam tangki oli.
- Tutup tangki oli **(17)** dipasang ke gergaji mesin. Pastikan tutup tangki oli tidak menghalangi bukaan tangki oli saat mengisi.
- Level pengisian oli dapat diperiksa selama pengoperasian melalui indikator oli **(18)**. Setelah level minimum tercapai, isi ulang dengan oli yang baru.
- Pasang tutup tangki oli **(17)** dan kencangkan dengan kuat.

Catatan: Selalu gunakan oli yang ditujukan untuk gergaji mesin untuk mendapatkan kinerja terbaik. Penggunaan oli yang tidak resmi dapat memengaruhi kinerja sistem oli dan membatalkan garansi.

Pelumasan rantai gergaji (lihat gambar E3)

Masa pakai dan kinerja pemotongan rantai gergaji tergantung pada pelumasan yang optimal. Karena alasan ini, rantai gergaji secara otomatis dilumasi dengan oli rantai gergaji melalui nozel oli **(6)** selama pengoperasian.

Periksa secara berkala apakah rantai gergaji dilumasi dengan benar:

- Saat tangki oli penuh, pegang gergaji mesin dengan ujung bilah gergaji mengarah ke permukaan yang berwarna terang.
- Biarkan perkakas listrik bekerja selama kurang lebih 1 menit, atau hingga oli terlihat pada permukaan yang berwarna terang.
- Jika oli tidak terlihat, lihat pemecahan masalah “Rantai gergaji kering”.
- Jika sistem pelumasan masih tidak berfungsi dengan baik, hubungi pusat layanan pelanggan Bosch.

Catatan: Filter oli terintegrasi di dalam tangki oli. Hubungi Layanan Pelanggan Bosch untuk pembersihan atau pemecahan masalah.

Catatan: Oli menjadi kental pada suhu rendah, sehingga mengurangi laju aliran oli.

Pengoperasian

- ▶ Selalu baca petunjuk pengoperasian dan petunjuk keselamatan sebelum digunakan.
- ▶ Selalu kenakan pakaian dan alat pelindung diri yang sesuai.
- ▶ Lakukan semua pekerjaan perawatan yang diperlukan sebelum digunakan.
- ▶ Selalu periksa kondisi alat dan rantai, level pengisian oli, dan perakitan yang benar sebelum digunakan. Hanya gunakan gergaji mesin jika kondisinya sempurna.
- ▶ Selalu pastikan bahwa area di sekitarnya kering dan bebas dari rintangan serta tidak ada orang yang berada di sekitarnya.
- ▶ Selalu pastikan bahwa area di sekitar kering dan bebas dari penghalang serta tidak ada orang yang berada di sekitar.
- ▶ Jangan sekali-kali menggunakan gergaji mesin di tangga atau melewati batas ketinggian bahu.
- ▶ Jangan pernah menjangkau terlalu jauh atau bekerja dengan tangan terentang.
- ▶ Selalu pegang gergaji mesin dengan kuat dengan kedua tangan.
- ▶ Jangan tinggalkan gergaji mesin di atas tanah. Bahaya tersandung!
- ▶ Jangan merokok dan jangan nyalakan api atau percikan api ke area kerja. Debu gergaji mesin bisa sangat mudah terbakar.
- ▶ Jangan tekan tombol on/off setelah alat mati secara otomatis. Jika tidak, baterai bisa rusak.

Catatan: Gergaji mesin tidak disertakan dengan pengisian oli. Hanya gunakan gergaji mesin setelah wadah oli diisi dengan oli rantai.

- **Menggunakan gergaji mesin dengan rantai yang tidak disejajarkan atau tidak dikencangkan dengan benar dapat menyebabkan kerusakan rantai, kickback dan/atau cedera.**
- **Rantai gergaji baru dapat menjadi jauh lebih panjang saat pertama kali digunakan.**
- **Periksa kekencangan rantai secara teratur selama pengoperasian.** Untuk pemasangan yang benar, (lihat „Memasang bilah gergaji dan mengencangkan rantai gergaji (lihat gambar B1 – B4)“, Halaman 66).

Penanganan gergaji mesin yang benar (lihat gambar H)

Selalu terapkan penanganan yang benar sesuai penjelasan dalam bagian ini:

- Kenakan sarung tangan gergaji yang sesuai dan tidak licin untuk daya genggam dan perlindungan maksimum.
- Selalu pegang gergaji dengan kuat dengan kedua tangan saat gergaji beroperasi.
- Letakkan tangan kanan pada gagang belakang dan tangan kiri pada gagang depan, dengan ibu jari dan jari-jari melingkari gagang gergaji. (lihat gambar E2)
- Jaga keseimbangan berat badan Anda dan letakkan kedua kaki di atas tanah yang kokoh.
- Tahan siku kiri Anda dalam posisi “meregang” yang kokoh untuk menahan gaya mundur.
- Jangan pernah bekerja dengan lengan terentang atau menjangkau terlalu jauh.
- Peganglah gergaji mesin dengan kuat dan jaga agar lengan kiri Anda tetap kaku untuk mempertahankan kendali gergaji mesin jika terjadi kickback.
- Pegang gergaji mesin di sisi kanan tubuh Anda.
- Pastikan tidak ada bagian tubuh Anda yang melewati garis potong. Kickback dapat membuat gergaji mesin tersentak mundur ke arah tubuh Anda. (lihat gambar H) Kickback dapat membuat gergaji mesin tersentak mundur ke arah tubuh Anda. (lihat gambar H)

Menghidupkan/mematikan (lihat gambar E1)

- **Kenakan sarung tangan gergaji yang sesuai dan tidak licin untuk daya genggam dan perlindungan maksimum.**

Sebelum menghidupkan:

- Lepaskan pelindung rantai (16).
- Masukkan baterai.
- Pegang gergaji mesin secara aman melalui kedua gagangnya dan jauhkan badan dari jangkauan rantai gergaji. (lihat gambar H).

Menghidupkan:

- Tarik tuas untuk mengaktifkan rem kickback (5) ke arah depan gagang depan (4).

- Tekan kunci tombol on/off (19), lalu tekan dan tahan kunci tombol on/off (2).
- Lepaskan kunci tombol begitu gergaji mesin beroperasi.
- Rantai gergaji harus berputar dalam kecepatan penuh sebelum mulai memotong kayu.

Catatan: Gergaji mesin tidak dapat dihidupkan jika tuas untuk mengaktifkan rem kickback (5) belum dinonaktifkan dengan benar sebelum digunakan.

Mematikan:

- Lepaskan tombol on/off (2). Kunci tombol kembali ke status pengaman/terkunci.
- Setelah digunakan, dorong tuas untuk mengaktifkan rem kickback (5) ke depan menjauhi gagang depan (4).

Karakteristik pemotongan secara umum (lihat gambar F)

- Pengguna pemula sebaiknya berlatih memotong kayu di atas bangku gergaji.
- Ketika gergaji dimatikan, ambil posisi yang benar di depan kayu.
- Operasikan gergaji mesin dan pastikan rantai gergaji berputar dengan kecepatan penuh sebelum bersentuhan dengan kayu.
- Mulai memotong dengan menekan paku bumper logam (9) pada kayu untuk menstabilkan potongan.
- Saat memotong batang kayu atau batang pohon yang lebih tebal, gunakan paku bumper logam sebagai tuas dengan mengatur ulang paku bumper logam secara bertahap ke titik yang lebih rendah selama pemotongan. Untuk melakukan ini, tarik gergaji rantai sedikit ke belakang hingga paku bumper logam terlepas dan pasang kembali gergaji ke tingkat yang lebih rendah untuk melanjutkan penggergajian. Jangan tarik gergaji mesin sepenuhnya keluar dari potongan.
- Jaga agar gergaji mesin tetap beroperasi selama pemotongan dan pertahankan kecepatan yang stabil.
- Jangan tekan rantai gergaji terlalu kuat saat menggergaji, biarkan rantai gergaji bekerja.
- Selalu lepaskan gergaji mesin dari kayu yang dipotong saat rantai gergaji beroperasi.
- Berhati-hatilah pada bagian akhir potongan gergaji. Begitu gergaji mesin diangkat dari kayu dan masih beroperasi, gaya berat dapat berubah secara tidak terduga. Terdapat risiko cedera pada tungkai dan kaki.
- Lepaskan tombol on/off begitu pemotongan selesai sehingga rantai berhenti dan dorong tuas rem kickback (5) ke depan menjauhi gagang depan (lihat gambar E1).

Kickback gergaji (lihat gambar G)

Berbekal pemahaman dasar tentang kickback, kickback yang dapat menyebabkan kecelakaan dapat dikurangi.

Selalu pastikan Anda berdiri dengan kokoh di atas tanah dan jaga keseimbangan Anda.

Kickback gergaji adalah gerakan ke atas dan ke belakang secara tiba-tiba dari gergaji mesin yang sedang berjalan yang

dapat terjadi ketika ujung bilah gergaji bersentuhan dengan material yang sedang digergaji atau ketika rantai macet.

Jika terjadi kickback gergaji, gergaji mesin akan bereaksi dengan cara yang tidak dapat diprediksi dan dapat menyebabkan cedera serius pada operator atau orang yang berdiri di area penggergajian.

Berhati-hatilah saat menggergaji ke arah lateral dan diagonal dan saat membuat potongan memanjang. Paku bumper logam (9) biasanya tidak dapat digunakan untuk pemotongan ini.

Perhatikan tindakan pencegahan berikut ini untuk memperkecil potensi kickback:

- Selalu pastikan gergaji mesin ditangani dengan benar.
- Peganglah gergaji mesin dengan kuat dan jaga agar lengan kiri Anda tetap kaku untuk mempertahankan kendali gergaji mesin jika terjadi kickback.
- Pastikan area tempat Anda memotong bebas dari penghalang. Pastikan nose bilah gergaji tidak bersentuhan dengan batang pohon, dahan, pagar, atau penghalang lain yang dapat Anda tabrak saat bekerja dengan gergaji.

Catatan: Kickback dapat terjadi jika ujung bilah gergaji bersentuhan dengan suatu penghalang.

- Selalu lakukan pemotongan dengan kecepatan penuh gergaji mesin. Tekan tombol on/off (2) sepenuhnya ke bawah dan pertahankan kecepatan pemotongan yang konstan.
- Hanya gunakan bilah gergaji pengganti dan rantai yang minim terjadi kickback yang direkomendasikan oleh Bosch.

Rem kickback

Rem kickback adalah mekanisme keamanan yang diaktifkan oleh pergelangan tangan melalui tuas untuk mengaktifkan rem kickback (5) saat terjadi kickback. Rantai gergaji langsung berhenti. Hal ini mengurangi risiko cedera akibat kickback.

Periksa secara teratur apakah rem kickback berfungsi dengan baik:

- Pegang gergaji mesin dengan kuat dengan kedua tangan.
- Hidupkan gergaji mesin.
- Saat rantai gergaji berputar, dorong tuas ke depan dengan pergelangan tangan Anda untuk mengaktifkan rem kickback (5). Jangan gunakan gergaji jika rantai gergaji tidak segera berhenti selama pengujian ini.

Catatan: Jangan hentikan gergaji mesin selama penggunaan normal dengan sengaja menggerakkan tuas untuk rem kickback (5).

Menggergaji kayu gelondongan (lihat gambar H)

- Selalu amankan kayu gelondongan sebelum digergaji.
- Selalu potong kayu gelondongan di luar titik-titik yang aman untuk mencegah batang kayu tersangkut dan rantai macet.
- Pastikan rantai gergaji tidak pernah bersentuhan dengan tanah atau peralatan pemotongan.
- Berhati-hatilah terhadap tunggul pohon, dahan, akar, dll. karena berisiko tersandung.

Menggergaji kayu dengan cara ditekan (lihat gambar I)

- Menggergaji kayu, ranting, atau pohon dengan cara ditekan hanya boleh dilakukan oleh spesialis yang terlatih. Sangat disarankan untuk berhati-hati. Terdapat peningkatan risiko kecelakaan.

Pemotongan cabang atau dahan besar (lihat gambar J)

- Pemotongan cabang (limbing) adalah memotong cabang dari pohon yang ditebang atau dahan yang besar.
- Biarkan dahan lebih besar yang mengarah ke bawah untuk menopang pohon untuk sementara waktu.
- Buang cabang-cabang yang lebih kecil dalam satu potongan.

Pemecahan masalah

Jika perkakas listrik tidak berfungsi dengan baik, tabel berikut ini menunjukkan tanda-tanda gangguan, kemungkinan penyebab, dan tindakan perbaikan. Jika masalah/gangguan tidak dapat diidentifikasi dan diperbaiki, hubungi bengkel servis.

Perhatian: Matikan perkakas listrik dan keluarkan baterai sebelum melakukan pemecahan masalah.

Tanda-tanda	Kemungkinan penyebab	Perbaikan
Gergaji mesin tidak dapat berjalan	Rem kickback telah terpicu	lihat gambar E1
	Daya baterai habis	Isilah daya baterai, lihat juga "Catatan tentang pengisian daya"
	Baterai tidak dimasukkan dengan benar	Pastikan kedua tahap penguncian sudah diaktifkan
	Pelindung motor telah diaktifkan	Biarkan motor menjadi dingin
	Baterai terlalu dingin/terlalu panas	Biarkan baterai menjadi hangat/dingin
	Perkakas listrik rusak	Kunjungi layanan pelanggan

Tanda-tanda	Kemungkinan penyebab	Perbaikan
Gergaji mesin beroperasi tersendat-sendat	Daya baterai habis	Isilah daya baterai, lihat juga "Catatan tentang pengisian daya"
	Perkakas listrik rusak	Kunjungi layanan pelanggan
Rantai gergaji kering	Tidak ada oli di dalam tangki oli	Isi ulang dengan oli, lihat juga "Pelumasan rantai gergaji"
	Nozel oli (6) tersumbat	Bersihkan nozel oli (6)
	Filter oli tersumbat	Bersihkan filter oli/kunjungi layanan pelanggan
Rantai gergaji/rel pemandu panas	Tidak ada oli di dalam tangki oli	Isi ulang oli
	Kekencangan rantai terlalu tinggi	Sesuaikan kekencangan rantai.
	Rantai gergaji tumpul	Ganti rantai gergaji
	Saluran keluar oli tersumbat	Kunjungi layanan pelanggan
Gergaji mesin tersendat-sendat, bergetar, atau tidak memotong dengan benar	Kekencangan rantai terlalu rendah	Kencangkan ulang kekencangan rantai
	Rantai gergaji tumpul	Ganti rantai gergaji
	Rantai gergaji mengalami keausan	Ganti rantai gergaji
	Gigi gergaji mengarah ke arah yang salah	Pasang rantai gergaji dengan benar
	Bilah gergaji rusak atau aus	Ganti bilah atau hubungi layanan pelanggan Bosch
Getaran/kebisingan tinggi	Perkakas listrik rusak	Kunjungi layanan pelanggan
	Perakitan rantai yang salah	Periksa apakah rantai sudah terpasang dengan benar, lihat "Perakitan bilah gergaji dan pengencangan rantai gergaji".
Waktu penggergajian per pengisian daya baterai terlalu singkat	Terlalu banyak gesekan karena kurangnya pelumasan	Pastikan rantai dilumasi (lihat "Pelumasan rantai gergaji")
	Rantai gergaji harus dibersihkan	Bersihkan rantai gergaji
	Teknik penggergajian yang buruk	lihat "Bekerja dengan gergaji mesin"
	Daya baterai tidak terisi penuh	Isilah daya baterai, lihat juga "Catatan tentang pengisian daya"
	Baterai di luar kisaran suhu yang diizinkan	Biarkan baterai menghangat hingga mencapai suhu ruangan (dalam kisaran suhu yang diizinkan yaitu 0–45 °C)
	Kekencangan rantai terlalu tinggi	Sesuaikan kekencangan rantai.
	Rantai gergaji tumpul	Ganti rantai gergaji
Rantai gergaji bergerak pelan	Daya baterai habis	Isilah daya baterai, lihat juga "Catatan tentang pengisian daya"
	Baterai di luar kisaran suhu yang diizinkan	Biarkan baterai menghangat hingga mencapai suhu ruangan (dalam kisaran suhu yang diizinkan yaitu 0–45 °C)
	Baterai terlalu panas	Biarkan baterai menjadi dingin

Rawatan dan servis

Pemeliharaan, pembersihan, dan pengangkutan

- **Perhatian! Matikan perkakas listrik dan keluarkan baterai sebelum melakukan perawatan atau pembersihan.**
- **Selalu kenakan pakaian dan alat pelindung diri yang sesuai.**
- **Periksalah gergaji secara berkala untuk mengetahui adanya cacat yang terlihat jelas, seperti rantai gergaji**

yang longgar, terlepas atau rusak, pengencang yang longgar dan komponen yang aus atau rusak.

- **Jangan membuat modifikasi apa pun pada perkakas taman.** Modifikasi yang tidak sah dapat mengganggu keamanan perkakas taman dan menyebabkan peningkatan kebisingan dan getaran, dan dapat membatalkan garansi.

Perawatan dan pembersihan

- Jaga perkakas listrik dan slot ventilasi tetap bersih untuk memastikan kondisi kerja yang baik dan aman.

- Jangan gunakan air, pelarut, atau bahan pemoles untuk membersihkan perkakas listrik.
- Gunakan kain bersih atau sikat kaku untuk membersihkan kotoran dari perkakas listrik.
- Gunakan kain bersih untuk membersihkan kotoran dari nozel oli secara hati-hati **(6)**. Pastikan tidak ada kotoran yang masuk ke dalam nozel oli **(6)** karena hal ini dapat menyebabkan penyumbatan dan masalah pelumasan.

Perawatan rantai gergaji

- Bersihkan bilah gergaji dan rantai gergaji sebelum menyimpan alat dalam jangka waktu yang lama untuk mencegah komponennya macet.

Cara membersihkan rantai gergaji:

- Lepaskan penutup **(14)**, bilah gergaji **(11)** dan rantai gergaji **(12)** dari gergaji rantai dan bersihkan dengan sikat yang keras. (lihat „Membongkar rantai gergaji dan bilah gergaji“, Halaman 67).
- Periksa rantai gergaji apakah ada kerusakan dan ganti atau asah rantai gergaji.

Mengganti dan mengasah rantai gergaji

► **Rantai gergaji yang tajam diperlukan untuk kinerja dan keamanan yang optimal.**

► **Jangan pernah mengasah rantai gergaji sendiri kecuali jika sudah berpengalaman melakukannya.**

Rantai gergaji dapat menjadi tumpul setelah digunakan dalam waktu lama atau bersentuhan dengan benda selain kayu.

- Ganti rantai gergaji dengan aksesori rantai gergaji Bosch atau minta rantai gergaji diasah ulang secara profesional, lihat Aksesori.
- Untuk memasang rantai gergaji pada alat (lihat „Memasang bilah gergaji dan mengencangkan rantai gergaji (lihat gambar B1 – B4)“, Halaman 66).

Pemeliharaan bilah gergaji

► **Hanya ganti bilah gergaji jika Anda benar-benar memahami alat dan petunjuknya, jika tidak, hubungi Layanan Pelanggan Bosch.**

► **Hanya gunakan bilah gergaji pengganti yang direkomendasikan oleh Bosch.**

Periksa bilah apakah ada retakan atau keausan. Ganti bilah gergaji jika rusak. Temukan petunjuk tentang cara melepas bilah gergaji (lihat „Membongkar rantai gergaji dan bilah gergaji“, Halaman 67).

Suku cadang dan aksesori (lihat gambar K)

Temukan ilustrasi rakitan komponen dan informasi mengenai suku cadang di www.bosch-pt.com.

Pengangkutan dan penyimpanan gergaji mesin

Sebelum mengangkut gergaji mesin:

- Selalu keluarkan baterai.
- Selalu pasang pelindung rantai **(16)** pada bilah gergaji **(11)** saat gergaji mesin tidak digunakan untuk menghindari cedera.
- Selalu kunci rem rantai dengan mendorong pelindung tangan/rem rantai ke depan.

- Disarankan untuk membawa gergaji mesin dengan bilah gergaji mengarah ke belakang.

Sebagai tambahan dari semua langkah untuk mengangkut gergaji mesin, lakukan langkah-langkah berikut ini sebelum menyimpan gergaji mesin:

- Kosongkan tangki oli sebelum menyimpan gergaji mesin dan isi ulang sebelum digunakan.
- Selalu simpan gergaji mesin di tempat yang aman dan kering, jauh dari jangkauan anak-anak.
- Jangan sekali-kali meletakkan benda di atas gergaji mesin.

Layanan pelanggan dan konsultasi penggunaan

Indonesia

Tel.: (021) 3005 5800

Tautan ke alamat web layanan dan informasi ketentuan garansi kami dapat ditemukan di halaman terakhir.

Jika Anda hendak menanyakan sesuatu atau memesan suku cadang, selalu sebutkan nomor model yang terdiri dari 10 angka dan tercantum pada label tipe produk.

Cara membuang

Perkakas listrik, baterai, aksesori dan kemasan harus didaur ulang dengan cara yang ramah lingkungan.



Jangan membuang perkakas listrik, aki/baterai ke dalam sampah rumah tangga!

Tiếng Việt

Các cảnh báo an toàn

Giải thích biểu tượng hình ảnh



Đọc hướng dẫn vận hành.



Cảnh báo tổng quát các nguy hiểm vì sự an toàn.



Không sử dụng khi trời mưa.



Luôn giữ cửa xích bằng cả hai tay.



Chú ý sự dội ngược của cửa xích và tránh tiếp xúc với đỉnh lưỡi cắt.



Đeo trang bị bảo vệ cá nhân (PSA), sử dụng kính bảo vệ mắt, dụng cụ bảo vệ tai và mũ bảo vệ.



Hãy đeo găng tay an toàn.



CẢNH BÁO: Tháo pin ra trước khi bảo trì.

Hướng dẫn an toàn chung cho dụng cụ điện

CẢNH BÁO Hãy đọc toàn bộ các cảnh báo an toàn, hướng dẫn, hình ảnh và thông số kỹ thuật được cung cấp cho dụng cụ điện cầm tay này. Không tuân thủ mọi hướng dẫn được liệt kê dưới đây có thể bị điện giật, gây cháy và/hoặc bị thương tật nghiêm trọng. **Hãy giữ tất cả tài liệu về cảnh báo và hướng dẫn để tham khảo về sau.**

Thuật ngữ "dụng cụ điện cầm tay" trong phần cảnh báo là đề cập đến sự sử dụng dụng cụ điện cầm tay của bạn, loại sử dụng điện nguồn (có dây cắm điện) hay vận hành bằng pin (không dây cắm điện).

Khu vực làm việc an toàn

- **Giữ nơi làm việc sạch và đủ ánh sáng.** Nơi làm việc bừa bộn và tối tăm dễ gây ra tai nạn.
- **Không vận hành dụng cụ điện cầm tay trong môi trường dễ gây nổ, chẳng hạn như nơi có chất lỏng dễ cháy, khí đốt hay rác.** Dụng cụ điện cầm tay tạo ra các tia lửa nên có thể làm rác bén cháy hay bốc khói.
- **Không để trẻ em hay người đến xem đứng gần khi vận hành dụng cụ điện cầm tay.** Sự phân tâm có thể gây ra sự mất điều khiển.

An toàn về điện

- **Không được để dụng cụ điện cầm tay ngoài mưa hay ở tình trạng ẩm ướt.** Nước vào máy sẽ làm tăng nguy cơ bị điện giật.

An toàn cá nhân

- **Hãy tỉnh táo, biết rõ mình đang làm gì và hãy sử dụng ý thức khi vận hành dụng cụ điện cầm tay.** Không sử dụng dụng cụ điện cầm tay khi đang mệt mỏi hay đang bị tác động do chất gây nghiện, rượu hay được phẩm gây ra. Một thoáng mất tập trung khi đang vận hành dụng cụ điện cầm tay có thể gây thương tích nghiêm trọng cho bản thân.
- **Sử dụng trang bị bảo hộ cá nhân.** Luôn luôn đeo kính bảo vệ mắt. Trang bị bảo hộ như khẩu trang, giày chống trượt, nón bảo hộ, hay dụng cụ bảo vệ tai khi được sử dụng đúng nơi đúng chỗ sẽ làm giảm nguy cơ thương tật cho bản thân.

- **Phòng tránh máy khởi động bất ngờ.** Bảo đảm công tắc máy ở vị trí tắt trước khi cắm vào nguồn điện và/hay lắp pin vào, khi nhắc máy lên hay khi mang xách máy. Ngáng ngón tay vào công tắc máy để xách hay kích hoạt dụng cụ điện cầm tay khi công tắc ở vị trí mở dễ dẫn đến tai nạn.
- **Lấy mọi chìa hay khóa điều chỉnh ra trước khi mở điện dụng cụ điện cầm tay.** Khóa hay chìa còn gắn dính vào bộ phận quay của dụng cụ điện cầm tay có thể gây thương tích cho bản thân.
- **Không rướn người.** Luôn luôn giữ tư thế đứng thích hợp và thăng bằng. Điều này tạo cho việc điều khiển dụng cụ điện cầm tay tốt hơn trong mọi tình huống bất ngờ.
- **Trang phục thích hợp.** Không mặc quần áo rộng thùng thình hay mang trang sức. Giữ tóc và quần áo xa khỏi các bộ phận chuyển động. Quần áo rộng thùng thình, đồ trang sức hay tóc dài có thể bị cuốn vào các bộ phận chuyển động.
- **Nếu có các thiết bị đi kèm để nối máy hút bụi và các phụ kiện khác, bảo đảm các thiết bị này được nối và sử dụng tốt.** Việc sử dụng các thiết bị gom hút bụi có thể làm giảm các độc hại liên quan đến bụi gây ra.
- **Không để thói quen do sử dụng thường xuyên dụng cụ khiến bạn trở nên chủ quan và bỏ qua các quy định an toàn dụng cụ.** Một hành vi bất cẩn có thể gây ra thương tích nghiêm trọng chỉ trong tích tắc.

Sử dụng và bảo dưỡng dụng cụ điện cầm tay

- **Không được ép máy.** Sử dụng dụng cụ điện cầm tay đúng loại theo đúng ứng dụng của bạn. Dụng cụ điện cầm tay được thiết kế để làm việc tốt và an toàn hơn theo đúng tiến độ mà máy được thiết kế.
- **Không sử dụng dụng cụ điện cầm tay nếu như công tắc không tắt và mở được.** Bất kỳ dụng cụ điện cầm tay nào mà không thể điều khiển được bằng công tắc là nguy hiểm và phải được sửa chữa.
- **Rút phích cắm ra khỏi nguồn điện và/hay pin ra khỏi dụng cụ điện cầm tay nếu có thể tháo được, trước khi tiến hành bất kỳ điều chỉnh nào, thay phụ kiện, hay cất dụng cụ điện cầm tay.** Các biện pháp ngăn ngừa như vậy làm giảm nguy cơ dụng cụ điện cầm tay khởi động bất ngờ.
- **Cất giữ dụng cụ điện cầm tay không dùng tới nơi trẻ em không lấy được và không cho người chưa từng biết dụng cụ điện cầm tay hay các hướng dẫn này sử dụng dụng cụ điện cầm tay.** Dụng cụ điện cầm tay nguy hiểm khi ở trong tay người chưa được chỉ cách sử dụng.

- ▶ **Bảo quản dụng cụ điện cầm tay và các phụ kiện.** Kiểm tra xem các bộ phận chuyển động có bị sai lệch hay kẹt, các bộ phận bị rạn nứt và các tình trạng khác có thể ảnh hưởng đến sự vận hành của máy. Nếu bị hư hỏng, phải sửa chữa máy trước khi sử dụng. Nhiều tai nạn xảy ra do bảo quản dụng cụ điện cầm tay tồi.
- ▶ **Giữ các dụng cụ cất bện và sạch.** Bảo quản đúng cách các dụng cụ cất có cạnh cắt bén làm giảm khả năng bị kẹt và dễ điều khiển hơn.
- ▶ **Sử dụng dụng cụ điện cầm tay, phụ kiện, đầu cài v. v., đúng theo các chỉ dẫn này, hãy lưu ý đến điều kiện làm việc và công việc phải thực hiện.** Sự sử dụng dụng cụ điện cầm tay khác với mục đích thiết kế có thể tạo nên tình huống nguy hiểm.
- ▶ **Giữ tay cầm và bề mặt nắm luôn khô ráo, sạch sẽ và không dính dầu mỡ.** Tay cầm và bề mặt nắm trơn trượt không đem lại thao tác an toàn và kiểm soát dụng cụ trong các tình huống bất ngờ.

Sử dụng và bảo quản dụng cụ dùng pin

- ▶ **Chỉ được sạc pin lại với bộ nạp điện do nhà sản xuất chỉ định.** Bộ nạp điện thích hợp cho một loại pin có thể gây nguy cơ cháy khi sử dụng cho một loại pin khác.
- ▶ **Chỉ sử dụng dụng cụ điện cầm tay với loại pin được thiết kế đặt biệt dành riêng cho máy.** Sử dụng bất cứ loại pin khác có thể dẫn đến thương tật hay cháy.
- ▶ **Khi không sử dụng pin, để cách xa các vật bằng kim loại như kẹp giấy, tiền xu, chìa khoá, đinh, ốc vít hay các đồ vật kim loại nhỏ khác, thứ có thể tạo sự nối tiếp từ một đầu cực với một đầu cực khác.** Sự chập mạch của các đầu cực với nhau có thể gây bỏng hay cháy.
- ▶ **Bảo quản ở tình trạng tối, dung dịch từ pin có thể tưới ra; tránh tiếp xúc.** Nếu vô tình chạm phải, hãy xối nước để rửa. Nếu dung dịch vào mắt, cần thêm sự hỗ trợ của y tế. Dung dịch tiết ra từ pin có thể gây ngứa hay bỏng.
- ▶ **Không được sử dụng bộ pin hoặc dụng cụ đã bị hư hại hoặc bị thay đổi.** Pin hỏng hoặc bị thay đổi có thể gây ra những tác động không lường trước được như cháy nổ hoặc nguy cơ thương tích.
- ▶ **Không đặt bộ pin hoặc dụng cụ ở gần lửa hoặc nơi quá nhiệt.** Tiếp xúc với lửa hoặc nhiệt độ cao trên 130 °C có thể gây nổ.
- ▶ **Tuân thủ tất cả các hướng dẫn nạp và không nạp bộ pin hay dụng cụ ở bên ngoài phạm vi nhiệt độ đã được quy định trong các hướng dẫn.** Nạp không đúng cách hoặc ở nhiệt độ ngoài phạm vi nạp đã quy định có thể làm hư hại pin và gia tăng nguy cơ cháy.

Bảo dưỡng

- ▶ **Đưa dụng cụ điện cầm tay của bạn đến thợ chuyên môn để bảo dưỡng, chỉ sử dụng phụ tùng đúng chủng loại để thay.** Điều này sẽ đảm bảo sự an toàn của máy được giữ nguyên.
- ▶ **Không bao giờ sửa chữa các bộ pin đã hư hại.** Chỉ cho phép nhà sản xuất hoặc các nhà cung cấp dịch vụ có ủy quyền thực hiện dịch vụ sửa chữa cho các bộ pin.

Hướng dẫn an toàn chung cho cửa xích

- ▶ **Giữ tất cả bộ phận cơ thể tránh xa cửa xích khi cửa hoạt động.** Trước khi bắt đầu cửa, đảm bảo rằng xích cửa không chạm vào bất cứ thứ gì. Khi làm việc với cửa xích, một khoảnh khắc không chú ý có thể khiến quần áo hoặc bất kỳ bộ phận nào trên cơ thể bạn bị mắc vào xích cửa.
- ▶ **Luôn giữ cửa xích bằng tay phải trên tay cầm phía sau và bằng tay trái trên tay cầm phía trước.** Giữ cửa xích ở tư thế làm việc ngược lại sẽ làm tăng nguy cơ thương tích và không được áp dụng.
- ▶ **Chỉ giữ cửa xích bằng các bề mặt tay cầm cách điện, vì cửa xích có thể tiếp xúc với đường dây điện ẩn.** Xích cửa chạm phải dây có điện có thể làm cho các bộ phận kim loại mang điện và dẫn đến điện giật.
- ▶ **Hãy đeo kính bảo vệ mắt. Cần sử dụng trang thiết bị bảo vệ bổ sung cho tai, đầu, tay, chân và bàn chân.** Quần áo bảo hộ phù hợp giúp giảm nguy cơ thương tích do vật liệu phoi văng ra và tiếp xúc ngẫu nhiên với xích cửa.
- ▶ **Không làm việc với cửa xích trên cây, trên thang, mái nhà, hoặc trụ đỡ không ổn định.** Vận hành cửa xích theo cách này có thể dẫn đến các thương tích nghiêm trọng.
- ▶ **Luôn đảm bảo bạn đứng vững chắc và chỉ sử dụng cửa xích khi đứng trên nền vững chắc, an toàn và bằng phẳng.** Nền trơn trượt hoặc bề mặt đứng không ổn định có thể gây mất thăng bằng hoặc mất kiểm soát cửa xích.
- ▶ **Khi cắt một cành cây căng, cần lưu ý cành cây sẽ bật trở lại.** Nếu độ căng của các sợi gỗ bị giảm, cành cây căng có thể đập vào người điều khiển và/hoặc khiến cửa xích mất kiểm soát.
- ▶ **Đặc biệt cẩn thận khi cắt tỉa bụi cây và cây non.** Vật liệu mỏng có thể bị kẹt vào xích cửa và đập vào bạn hoặc khiến bạn mất thăng bằng.
- ▶ **Mang cửa xích bằng tay cầm phía trước khi máy tắt, với cửa xích hướng về phía trước.** Luôn gắn nắp bảo vệ khi vận chuyển hoặc cất giữ máy cắt tỉa. Xử lý cẩn thận máy cắt tỉa sẽ làm giảm khả năng vô tình tiếp xúc với cửa xích đang chạy.

- ▶ **Tuân theo chỉ dẫn về bôi trơn, căng xích và thay đổi lưỡi cắt và xích.** Một xích được căng hoặc bôi trơn không đúng cách có thể bị đứt hoặc làm tăng nguy cơ giật ngược.
- ▶ **Chỉ cưa gỗ.** Không sử dụng cưa xích cho những công việc không đúng mục đích. Ví dụ: Không sử dụng cưa xích để cắt kim loại, nhựa, khối xây hoặc vật liệu cây không làm bằng gỗ. Việc sử dụng cưa xích cho những công việc không đúng mục đích có thể dẫn đến những tình huống nguy hiểm.
- ▶ **Cưa xích này không dùng để đốn cây.** Việc sử dụng cưa xích cho các quá trình khác với mục đích dự kiến có thể gây thương tích nghiêm trọng cho người điều khiển hoặc người xung quanh.
- ▶ **Tuân theo tất cả các chỉ dẫn khi dọn vật liệu bị kẹt, bảo quản hoặc bảo dưỡng cưa xích.** Hãy đảm bảo rằng công tác bắt/tắt được tắt và pin được tháo. Bất ngờ kích hoạt cưa xích khi dọn vật liệu bị kẹt hoặc khi bảo dưỡng có thể dẫn đến thương tích nghiêm trọng.
- ▶ **Nguyên nhân và cách phòng tránh đội ngược:**
 - Có thể xảy ra đội ngược khi đỉnh của ray dẫn hướng chạm vào một vật thể hoặc nếu gỗ uốn cong và cưa xích bị kẹt cứng khi cắt.
 - Trong một số trường hợp, sự tiếp xúc với đỉnh ray dẫn hướng dẫn có thể dẫn đến đội ngược về sau không mong muốn, khi đó ray dẫn đập hướng lên trên và về phía người điều khiển.
 - Kẹt xích cưa ở mép trên của ray dẫn hướng có thể nhanh chóng đẩy ray bật về hướng của người điều khiển.
 - Bất kỳ phản ứng nào trong số này đều có thể khiến bạn mất kiểm soát cưa và có thể khiến bản thân bị thương nghiêm trọng. Không tin tưởng hoàn toàn vào thiết bị an toàn được lắp trong cưa xích. Là người dùng cưa xích, có một số phương pháp khác nhau bạn nên thực hiện để giữ cho bản thân khỏi tai nạn và thương tích. Sự đội ngược là hậu quả của việc sử dụng cưa xích không đúng chức năng. Và/hay quy trình thao tác không đúng cách hoặc do điều kiện xấu và có thể tránh được bằng cách tuân theo các cách phòng tránh thích hợp được trình bày dưới đây:
- ▶ **Giữ chặt cưa bằng cả hai tay, với ngón cái và ngón tay của bạn bao quanh tay cầm của cưa xích.** Giữ vị trí của cơ thể và cánh tay của bạn ở vị trí có thể chịu được lực đội ngược. Nếu các biện pháp phù hợp được thực hiện, người điều khiển có thể kiểm soát các lực đội ngược. Không được nhả cưa xích.
- ▶ **Tránh tư thế bất thường và không cưa cao hơn vai.** Nhờ đó, có thể tránh tiếp xúc ngẫu nhiên với đỉnh ray và cho phép kiểm soát cưa xích tốt hơn trong các tình huống bất ngờ.

- ▶ **Luôn sử dụng ray thay thế và xích cưa do nhà sản xuất quy định.** Ray thay thế và xích cưa không chính xác có thể dẫn đến đứt xích hoặc đội ngược.
- ▶ **Tuân theo các chỉ dẫn của nhà sản xuất để mài sắc và bảo dưỡng xích cưa.** Bộ giới hạn độ sâu quá thấp sẽ làm tăng khả năng đội ngược.

Các cảnh báo phụ

- ▶ **Thiết bị này gồm - Không để nam châm ở gần mô cây và các thiết bị y tế khác, ví dụ như máy trợ tim hoặc bơm insulin, thiết bị mang dữ liệu từ tính và thiết bị nhạy từ tính.** Từ tính có thể tạo ra một trường ảnh hưởng xấu đến chức năng của các thiết bị y tế hoặc dẫn đến mất dữ liệu vĩnh viễn.
- ▶ **Dụng cụ điện này không được thiết kế để sử dụng bởi những người (gồm trẻ nhỏ) bị hạn chế về thể chất, cảm giác hoặc tinh thần hoặc người thiếu kinh nghiệm và/hoặc thiếu hiểu biết, trừ khi được giám sát bởi người chịu trách nhiệm về an toàn hoặc nhận được sự chỉ dẫn của họ về cách sử dụng dụng cụ điện.** Trẻ em cần được giám sát để đảm bảo chúng không đùa nghịch với dụng cụ điện.
- ▶ **Giữ máy thật chắc bằng cả hai tay trong khi làm việc và luôn luôn giữ tư thế đứng cho thích hợp và cân bằng.** Dùng hai tay để điều khiển máy thì an toàn hơn.
- ▶ **Đảm bảo tất cả các thiết bị bảo vệ và tay cầm đều được lắp khi sử dụng thiết bị.** Không được cố gắng vận hành một thiết bị chưa lắp ráp hoàn chỉnh hoặc một thiết bị đã được sửa đổi trái phép.
- ▶ **Luôn vận hành dụng cụ điện với xích được căng và căn chỉnh tốt.** Sử dụng dụng cụ điện với xích bị căn chỉnh sai hoặc căng không đúng có thể dẫn đến đứt xích, đội ngược và/hoặc thương tích.
- ▶ **Giữ cho tất cả các lỗ thông gió làm mát không bị bẩn.**

Hướng dẫn an toàn và lưu ý về cách xử lý tối ưu cho pin

- ▶ **Hãy đảm bảo rằng sản phẩm được tắt, trước khi bạn lắp pin.** Việc lắp pin vào sản phẩm đang bật có thể gây ra tai nạn.
- ▶ **Chỉ sử dụng pin Bosch dành cho sản phẩm này.** Sử dụng bất cứ loại pin khác có thể dẫn đến thương tật hay cháy.
- ▶ **Không thay đổi và mở pin.** Nguy cơ bị chập mạch.



Bảo vệ pin không để bị làm nóng, (ví dụ, chống để lâu dài dưới ánh nắng gay gắt), lửa, nước, và sự ẩm ướt. Sự nguy hiểm của nó.

- Nếu bạn không sử dụng thiết bị, hãy giữ pin không sử dụng cách xa kẹp giấy, tiền xu, chìa khoá, đinh, ốc vít hay các đồ vật kim loại nhỏ khác, thứ có thể tạo sự nối tiếp từ một đầu cực với một đầu cực khác. Sự chập mạch của các đầu cực với nhau có thể gây bỏng hay cháy.
- Trong trường hợp pin bị hỏng hay sử dụng sai cách, hơi nước có thể bốc ra. Hãy thông khí vùng và trong trường hợp bị đau phải nhờ ý tế chữa trị. Hơi nước có thể gây ngứa hệ hô hấp.
- Chỉ sử dụng pin trong các sản phẩm của nhà sản xuất. Chỉ bằng cách này, pin sẽ được bảo vệ tránh nguy cơ quá tải.
- Pin có thể bị hư hại bởi các vật dụng nhọn như đinh hay tuốc-nơ-vít hoặc bởi các tác động lực từ bên ngoài. Nó có thể dẫn tới đoản mạch nội bộ và làm pin bị cháy, bốc khói, phát nổ hoặc quá nóng.
- Không làm chập mạch pin. Có nguy cơ gây nổ.
- Bảo vệ pin hợp khối tránh sự ẩm ướt và nước.
- Chỉ bảo quản thiết bị và pin trong phạm vi nhiệt độ từ -20°C đến 50°C. Ví dụ, không để pin hợp khối trong xe ô tô trong mùa hè.
- Thỉnh thoảng làm sạch các khe thông gió của pin bằng cách dùng một cái cọ khô, mềm và sạch.

Các biểu tượng

Các biểu tượng sau đây quan trọng để học và hiểu các hướng dẫn sử dụng. Xin vui lòng lưu ý các biểu tượng và ý nghĩa của chúng. Sự hiểu đúng các biểu tượng sẽ giúp bạn sử dụng sản phẩm một cách tốt và an toàn hơn.

Biểu tượng	Ý nghĩa
	Giữ trẻ em, người và vật nuôi tránh xa.
	Hướng chuyển động
	Hướng phản ứng
	Trọng lượng
	Kích hoạt phanh đạp ngược
	Bỏ kích hoạt phanh đạp ngược
	Hành động được phép
	Hành động bị cấm

Biểu tượng	Ý nghĩa
CLICK!	Tiếng ồn
	Phụ kiện/Phụ tùng thay thế

Mô Tả Sản Phẩm và Đặc Tính Kỹ Thuật



Đọc kỹ mọi cảnh báo an toàn và mọi hướng dẫn. Không tuân thủ mọi cảnh báo và hướng dẫn được liệt kê dưới đây có thể bị điện giật, gây cháy và/hay bị thương tật nghiêm trọng.

Xin lưu ý các hình minh hoạt trong phần trước của hướng dẫn vận hành.

Sử dụng đúng cách

Dụng cụ điện này được sử dụng để cưa cây và thân cây sát mặt đất. Có thể sử dụng để cắt dọc và cắt ngang thớ gỗ.

Dụng cụ điện này không thích hợp để cưa vật liệu khoáng.

Dụng cụ điện này không dùng để đốn cây.

Các bộ phận được minh họa (xem hình A)

Việc đánh số các thành phần đã minh họa liên quan đến mô tả dụng cụ điện trên trang hình ảnh.

- (1) Tay nắm phía sau
- (2) Công tắc Bật/Tắt
- (3) Bánh xích
- (4) Tay nắm phía trước
- (5) Cơ cấu bảo vệ tay/cần gạt kích hoạt phanh đạp ngược
- (6) Vòi phun dầu
- (7) Vít căng xích
- (8) Các bu-lông gắn
- (9) Cờ chặn có răng cưa
- (10) Chốt lò xo
- (11) Lưỡi cắt
- (12) Xích cưa
- (13) Dụng cụ lắp ráp
- (14) Tấm che
- (15) Đai ốc khóa
- (16) Cơ cấu bảo vệ xích
- (17) Nắp bình dầu
- (18) Cửa sổ xem dầu
- (19) Nút nhả khóa của công tắc Bật/Tắt
- (20) Pin
- (21) Thiết bị sạc
- (22) Đèn báo trạng thái nạp pin

Thông số kỹ thuật

Cưa xích		GKE 18V-40
Mã số máy		3 600 HD3 0..
Điện thế danh định ^{A)}	V	18
Tốc độ xích trong chế độ chạy không	m/s	12,4
Chiều dài lưỡi cắt	cm	40
Lưỡi tương thích		Oregon 164MLEA041 Bosch 1 600 A03 0J6
Loại đầu nối lưỡi cắt		A041
Bước xích cưa		Tiết diện nhỏ 3/8"
Độ dày mắt xích truyền động	mm	1,1 (0,043")
Số mắt xích truyền động		57
Đường kính cắt tối đa.	cm	36
Dung tích nạp bình dầu	ml	150
Bôi trơn xích tự động		●
Kẹp dụng cụ		●
Đĩa xích có vấu		●
Trọng lượng theo EN 62841-4-1 ^{A)}		
- có pin	kg	4,66 (5,5 Ah) – 5,05 (12,0 Ah)
- không có pin	kg	3,67
- không có pin, lưỡi cắt hoặc xích cưa		3,06
Số sê-ri		Xem số sê-ri (Nhãn ghi loại thiết bị) trên sản phẩm
Nhiệt độ môi trường được khuyến nghị khi sạc	°C	-20 ... +50
Nhiệt độ môi trường cho phép khi lưu trữ ^{B)}		
Nhiệt độ môi trường cho phép khi vận hành ^{B)}	°C	0 ... +40
Pin tương thích		GBA18V... GBA 18V... ProCORE18V... EXPERT18V... EXBA18V... CORE18V...
Pin được khuyến nghị dùng cho công suất tối đa		GBA 18V... ≥ 4.0 Ah ProCORE18V... ≥ 4.0 Ah EXPERT18V...
Thiết bị nạp được giới thiệu		GAL18... GAL 18... GAL 36... GAL12V/18... GAL 12V/18... GAX 18... EXAL18...

A) tùy vào loại pin lốc đang sử dụng

B) hiệu suất giới hạn ở nhiệt độ < 0 °C

Các giá trị có thể khác nhau tùy thuộc vào sản phẩm và tùy thuộc vào ứng dụng và điều kiện môi trường. Xem thêm thông tin chi tiết trên trang www.bosch-professional.com/wac.

Pin

Bosch mua dụng cụ điện chạy pin không có pin. Dù pin được bao gồm trong phạm vi giao hàng của dụng cụ điện, bạn có thể tháo bao gi.

Sạc pin

► **Chỉ sử dụng bộ sạc được đề cập trong dữ liệu kỹ thuật.** Chỉ những bộ sạc này phù hợp cho dụng cụ điện cầm tay của bạn có sử dụng pin Li-Ion.

Hướng dẫn: Pin Lithium-ion được giao một phần do các quy định vận tải quốc tế. Để bảo đảm đầy đủ điện dung, nạp điện hoàn toàn lại cho pin trước khi sử dụng cho lần đầu tiên.

Lắp pin

Hãy đẩy pin đã sạc vào giá gắn pin cho đến khi nó vào khớp.

Tháo pin ra

Để tháo pin bạn hãy ấn nút mở khóa pin và kéo pin ra. **Không dùng sức.**

Pin có 2 mức khóa, có nhiệm vụ ngăn ngừa pin bị rơi ra do vô ý bấm phải nút tháo pin. Cứ khi nào pin còn được lắp trong dụng cụ điện, nó vẫn được giữ nguyên vị trí nhờ vào một lò xo.

Đèn báo trạng thái nạp pin

Các đèn LED màu xanh của màn hình hiển thị tình trạng sạc pin chỉ ra tình trạng sạc của pin. Vì lý do an toàn, ta chỉ có thể kiểm tra trạng thái của tình trạng nạp điện khi máy đã ngừng hoạt động hoàn toàn.

Để hiển thị tình trạng nạp, bạn hãy nhấn nút để hiển thị mức sạc  hoặc . Điều này cũng có thể thực hiện khi ắc quy được tháo ra.

Đèn LED không sáng sau khi nhấn nút để hiển thị mức sạc có nghĩa là pin bị hỏng và phải được thay thế.

Loại pin GBA 18V... | GBA18V...



LED	Điện dung
Đèn sáng liên tục 3× màu xanh lá	60–100 %
Đèn sáng liên tục 2× màu xanh lá	30–60 %
Đèn sáng liên tục 1× màu xanh lá	5–30 %
Đèn nhấp nháy 1× màu xanh lá	0–5 %

Kiểu pin ProCORE18V...



LED	Điện dung
Đèn sáng liên tục 5× màu xanh lá	80–100 %
Đèn sáng liên tục 4× màu xanh lá	60–80 %
Đèn sáng liên tục 3× màu xanh lá	40–60 %
Đèn sáng liên tục 2× màu xanh lá	20–40 %
Đèn sáng liên tục 1× màu xanh lá	5–20 %
Đèn nhấp nháy 1× màu xanh lá	0–5 %

Các Khuyến Nghị về Cách Bảo Dưỡng Tốt Nhất cho Pin

Bảo vệ pin hợp khối tránh sự ẩm ướt và nước.

Chỉ bảo quản pin trong tầm nhiệt độ nằm giữa –20 °C và 50 °C. Không để pin trong ô tô vào mùa hè.

Thỉnh thoảng làm sạch các khe thông gió của pin bằng cách dùng một cái cọ khô, mềm và sạch.

Sự giám sát đáng kể thời gian hoạt động sau khi nạp điện chỉ rõ rằng pin hợp khối đã hết công dụng và phải được thay.

Quy trình hoạt động được chia ra làm hai giai đoạn.

Bảo dưỡng pin

Sử dụng các quy trình sau để cho phép sử dụng tối ưu pin:

- Bảo vệ pin hợp khối tránh sự ẩm ướt và nước.
- Bảo quản máy và pin chỉ trong phạm vi nhiệt độ giữa –20 °C và 50 °C. Ví dụ, không để pin hợp khối trong xe ô tô trong mùa hè.
- Không được bỏ qua "n pin bảo vệ" để "ch để" trong máy mà "pha" i ba "o qua" n riêng re ".
- Không để pin trong sản phẩm có tiếp xúc trực tiếp với ánh nắng.
- Điều kiện bảo quản lý tưởng pin là 5 °C.
- Thỉnh thoảng làm sạch các khe thông gió của pin bằng cách dùng một cái cọ khô, mềm và sạch.

Sự giám sát đáng kể thời gian hoạt động sau khi nạp điện chỉ rõ rằng pin hợp khối đã hết công dụng và phải được thay.

Sự lắp vào

Vì sự an toàn của bạn

- **LƯU Ý!** Tắt dụng cụ điện và tháo pin trước khi bảo dưỡng hoặc làm sạch.
- **Cẩn thận!** Xích sắc nhọn. Luôn đeo găng tay bảo vệ khi làm việc với xích.
- Không được vận hành cưa xích ở gần nhiều người, trẻ em hoặc động vật, hoặc sau khi uống rượu, ma túy hoặc thuốc gây mê.

- Chỉ sử dụng cửa xích, nếu nắp che được cố định chặt đúng cách bằng các bu-lông gắn (8).

Lắp lưới cửa và căng xích cửa (xem Hình B1 – B4)

- **Cẩn thận! Không căng xích cửa khi còn nóng.**
- Đặt cửa xích trên bề mặt phẳng thích hợp với nắp che (14) hướng lên trên.
- Tháo nắp che (14) bằng cách tháo hai đai ốc khóa (15) bằng dụng cụ lắp ráp (13) được cung cấp.
- Giữ lưới cắt (11) với lấy thẳng đứng hướng lên trên và gắn xích cửa mới hoặc đã mài (12) theo đúng hướng trên lưới (xem hình B1).
- Điều chỉnh bu-lông dẫn hướng (10) sang trái bằng cách xoay vít căng xích (7) ngược chiều kim đồng hồ. Lưu ý: Lưới cắt không vừa với cửa xích nếu bu-lông dẫn hướng (10) không được căn chỉnh chính xác.
- Đảm bảo xích cửa (12) được đặt đúng vị trí trong khe xung quanh toàn bộ lưới cắt.
- Đặt các xích cửa xung quanh bánh xích (3) và đẩy lưới cắt (11) qua bu-lông gắn (8).
- Hãy đặt nắp che (14) qua các bu-lông gắn (8).
- Gắn đai ốc khóa (15) vào bu-lông gắn (8) và siết cẩn thận đai ốc khóa (15) bằng tay, để cố định nắp che (14). (xem Hình B3).
- Sử dụng dụng cụ lắp ráp (13) để vận vít căng xích (7) theo chiều kim đồng hồ cho đến khi xích được căng quanh lưới cắt. Độ căng xích chính xác đạt được nếu xích cửa (12) được nâng lên khoảng 6–7 mm từ lưới cắt (11). Muốn vậy, hãy đặt cửa xích trên bề mặt phẳng phù hợp. Cắm chặt xích cửa bằng tay đeo găng ở phía trên tại lưới cắt (11), gắn giữa chiều dài cắt và nâng xích cửa (12) lên để chống lại trọng lượng của cửa xích.
- Nếu xích cửa quá căng, hãy sử dụng dụng cụ lắp ráp (13) để vận vít căng xích (7) ngược chiều kim đồng hồ cho đến khi đạt được độ căng xích chính xác.

Lưu ý: Không kéo căng xích cửa quá mức - kéo căng quá mức sẽ gây mài mòn quá mức và làm giảm tuổi thọ của xích cửa và có thể làm hỏng ray xích.

Lưu ý: Xích cửa mới có thể dài ra đáng kể khi sử dụng lần đầu. Tháo pin và kiểm tra độ căng của xích cửa thường xuyên trong hai giờ vận hành đầu tiên.

- Siết chặt các đai ốc khóa (15) bằng dụng cụ lắp ráp (13) và gắn nắp che (14) vào cửa xích.
- Đảm bảo hai đai ốc khóa (15) đã được lắp và cố định chắc chắn trước khi vận hành.

Tháo xích cửa và lưới cắt

- Đặt cửa xích trên bề mặt phẳng thích hợp với nắp che (14) hướng lên trên.
- Tháo nắp che (14) bằng cách tháo đai ốc khóa (15) bằng dụng cụ lắp ráp (13) được cung cấp.
- Nới lỏng xích cửa (12) bằng cách vận vít căng xích (7) ngược chiều kim đồng hồ bằng dụng cụ lắp ráp (13).
- Tháo lưới cắt (11) khỏi các bu-lông gắn (8).
- Tháo xích khời bánh xích truyền động

Nạp bình dầu (xem Hình C)

Lưu ý: Cửa xích không được giao kèm dầu xích cửa đã nạp. Điều quan trọng là phải nạp đầy dầu vào trước khi sử dụng. Sử dụng cửa xích mà không có dầu xích hoặc mức dầu thấp hơn mức tối thiểu sẽ làm hỏng lưới cắt và xích cửa.

Để nạp bình dầu, hãy thực hiện như sau:

- Đặt cửa xích trên bề mặt thích hợp với nắp bình dầu (17) hướng lên trên.
- Làm sạch vùng quanh nắp bình dầu (17). Dùng khăn sạch để loại bỏ chất bẩn.
- Vận tháo nắp bình dầu (17) ngược chiều kim đồng hồ.
- Cẩn thận đổ đầy dầu xích cửa vào bình dầu.
- Khi nạp dầu xích cửa, hãy đảm bảo không có bụi bẩn hoặc vật lạ nào lọt vào bình dầu.
- Nạp bình dầu (17) được gắn vào cửa xích. Đảm bảo nắp bình dầu không chặn miệng bình dầu khi nạp dầu.
- Bạn có thể kiểm tra mức dầu trong quá trình vận hành thông qua cửa sổ xem dầu (18). Nếu đạt đến mức tối thiểu, hãy nạp dầu mới.
- Lắp nắp bình dầu (17) và vận chặt lại.

Lưu ý: Luôn sử dụng loại dầu dành riêng cho cửa xích của bạn để đạt công suất tốt nhất. Sử dụng dầu không được phê duyệt có thể làm giảm công suất của hệ thống dầu và mất bảo hành.

Bôi trơn xích cửa (xem hình E3)

Tuổi thọ và công suất cắt của xích cửa phụ thuộc vào việc bôi trơn tối ưu. Do đó, xích cửa được bôi trơn tự động bằng dầu xích cửa thông qua vòi phun dầu (6) trong quá trình vận hành.

Kiểm tra thường xuyên xem xích cửa có được bôi trơn đúng cách không:

- Khi bình dầu đầy, hãy giữ cửa xích sao cho đầu lưới cửa hướng vào một bề mặt sáng màu.
- Để dụng cụ điện chạy trong khoảng 1 phút hoặc cho đến khi nhìn thấy dầu trên bề mặt sáng màu.
- Nếu không thấy dầu, hãy xem phần tìm lỗi "Xích cửa khô".

- Nếu hệ thống bôi trơn vẫn không hoạt động bình thường, hãy liên hệ với trung tâm dịch vụ khách hàng của Bosch.

Lưu ý: Bộ lọc dầu được tích hợp vào bình dầu. Để làm sạch hoặc khắc phục lỗi, hãy liên hệ với Dịch vụ khách hàng của Bosch.

Lưu ý: Dầu trở nên nhớt ở nhiệt độ thấp, làm giảm lưu lượng dầu.

Điều khiển

- ▶ Luôn đọc hướng dẫn điều khiển và lưu ý an toàn trước khi sử dụng.
- ▶ Luôn mặc quần áo và trang thiết bị bảo vệ cá nhân phù hợp.
- ▶ Trước khi sử dụng, hãy tiến hành bất kỳ công việc bảo trì cần thiết.
- ▶ Trước khi sử dụng, luôn kiểm tra tình trạng của dụng cụ và xích, mức dầu và việc lắp ráp chính xác. Chỉ sử dụng cửa xích, nếu nó ở tình trạng tốt.
- ▶ Luôn đảm bảo khu vực xung quanh khô và không có chướng ngại vật và không có người không phận sự ở xung quanh đó.
- ▶ Luôn đảm bảo bạn đứng vững chắc và chỉ điều khiển cửa xích, nếu đứng trên nền vững chắc, an toàn và bằng phẳng.
- ▶ Không bao giờ sử dụng cửa xích trên thang hoặc ở độ cao quá vai.
- ▶ Không bao giờ sử dụng với quá xa hoặc làm việc với cánh tay dang rộng.
- ▶ Luôn giữ chặt cửa xích bằng cả hai tay.
- ▶ Không để cửa xích trên sàn. Nguy cơ vấp ngã!
- ▶ Không hút thuốc hoặc mang lửa hoặc ngọn lửa vào khu vực làm việc. Bụi cửa xích có thể rất dễ cháy.
- ▶ Không nhấn công tắc bật/tắt sau khi ngắt tự động thiết bị. Nếu không, pin có thể bị hỏng.

Lưu ý: Cửa xích không được giao kèm dầu đã nạp. Sử dụng cửa xích sau khi bạn đã nạp dầu xích vào bình dầu.

- ▶ Sử dụng cửa xích với xích bị căn chỉnh sai hoặc căng sai có thể dẫn đến đứt xích, đội ngược và/hoặc thương tích.
- ▶ Xích cửa mới có thể dài ra đáng kể khi vận hành lần đầu tiên.
- ▶ Kiểm tra độ căng xích thường xuyên trong lúc vận hành. Để lắp ráp đúng cách, (xem „Lắp lưỡi cửa và căng xích cửa (xem Hình B1 – B4)“, Trang 78).

Xử lý cửa xích đúng cách (xem hình H)

Luôn tuân theo đúng quy trình xử lý được mô tả trong đoạn này:

- Đeo găng tay cửa xích chống trượt phù hợp để có độ bám và bảo vệ tối đa.
- Luôn giữ chặt cửa bằng cả hai tay nếu cửa đang hoạt động.
- Đặt tay phải vào tay cầm phía sau và tay trái vào tay cầm phía trước, ngón cái và các ngón còn lại nắm quanh tay cầm của cửa xích. (xem Hình E2)
- Giữ trọng lượng cơ thể cân bằng và đặt cả hai chân trên sàn vững chắc.
- Giữ khuỷu tay trái ở tư thế "thẳng", chắc chắn để chịu được mọi lực giật.
- Không bao giờ làm việc với cánh tay dang rộng hoặc với quá xa.
- Giữ chặt cửa xích ở tay cầm và giữ chặt cánh tay trái để kiểm soát cửa xích trong trường hợp giật ngược.
- Giữ cửa xích ở phía bên phải cơ thể.
- Đảm bảo không có bộ phận nào trên cơ thể bạn vượt qua đường cắt. Lực dội ngược có thể hất ngược cửa xích về phía bạn. (xem Hình H) Lực dội ngược có thể khiến cửa xích bật ngược về phía bạn. (xem Hình H)

Bật/tắt (xem Hình E1)

- ▶ Đeo găng tay cửa xích chống trượt phù hợp để có độ bám và bảo vệ tối đa.

Trước khi bật:

- Tháo cơ cấu bảo vệ xích (16).
- Đặt pin vào.
- Giữ chặt cửa xích bằng cả hai tay cầm và giữ cơ thể tránh xa phạm vi xích cửa. (xem Hình H).

Bật:

- Kéo cần để kích hoạt phanh đạp ngược (5) theo hướng tay cầm phía trước (4).
- Hãy nhấn khóa chống bật cho công tắc bật/tắt (19), sau đó nhấn công tắc bật/tắt (2) và giữ.
- Nhả khóa chống bật, ngay khi cửa xích chạy.
- Xích cửa phải đạt tốc độ tối đa trước khi bạn bắt đầu làm việc trên gỗ.

Lưu ý: Cửa xích sẽ không khởi động nếu cần kích hoạt phanh đạp ngược (5) chưa được vô hiệu hóa đúng cách trước khi sử dụng.

Tắt:

- Hãy nhả công tắc bật/tắt (2). Khóa chống bật trở về trạng thái an toàn/khóa.
- Sau khi sử dụng, đẩy cần để kích hoạt phanh đạp ngược (5) về phía trước, ra xa tay cầm phía trước (4).

Đặc tính cắt nói chung (xem hình F)

- Người sử dụng lần đầu nên thực hành cắt gỗ trên giá cửa.
- Khi cửa tắt, hãy đứng đúng tư thế trước gỗ.

- Khởi động cửa xích và đảm bảo xích cửa chạy hết tốc độ trước khi tiếp xúc với gỗ.
- Bắt đầu cắt bằng cách ấn cữ chặn có răng cửa (9) vào gỗ để ổn định đường cắt.
- Khi cắt những khúc gỗ hoặc thân cây dày hơn, hãy sử dụng cữ chặn có răng cửa làm đòn bẩy bằng cách đặt từ chữ chặn có răng cửa xuống điểm thấp hơn trong khi cắt. Muốn vậy, hãy kéo nhẹ cửa xích về phía sau cho đến khi cữ chặn có răng cửa nhả ra, sau đó lắp lại cửa xích ở vị trí thấp hơn để tiếp tục cửa. Không kéo hoàn toàn cửa xích ra khỏi đường cắt.
- Giữ cho cửa xích chạy trong suốt quá trình cắt và duy trì tốc độ ổn định.
- Khi cửa, không ấn mạnh vào xích cửa mà hãy để nó hoạt động.
- Luôn tháo cửa xích ra khỏi vết cắt gỗ khi xích cửa vẫn đang chạy.
- Hãy cẩn thận ở phần cuối của rãnh cửa. Ngay khi cửa xích cắt tự do, lực trọng lượng sẽ thay đổi bất ngờ. Có nguy cơ bị thương cho chân và bàn chân.
- Nhà công tắc bật/tắt ngay khi quá trình cắt hoàn tất để xích dừng lại và đẩy phanh đạp ngược (5) về trước, cách xa tay cầm phía trước (xem hình E1).

Cửa đội ngược (xem hình G)

Với hiểu biết cơ bản về lực giạt ngược, bạn có thể giảm thiểu lực giạt ngược có thể dẫn đến tai nạn. Luôn đảm bảo bạn đứng vững trên sàn và giữ thăng bằng.

Cửa đội ngược là hiện tượng cửa xích đang hoạt động thì đột ngột dâng lên rồi đội ngược, điều này có thể xảy ra nếu dính lưỡi cắt chạm vào vật liệu cửa hoặc nếu xích bị kẹt.

Khi cửa xảy ra hiện tượng đội ngược, cửa sẽ phản ứng một cách bất ngờ và có thể gây thương tích nghiêm trọng cho người điều khiển hoặc người đứng trong vùng cửa.

Đặc biệt chú ý khi cửa theo hướng ngang và chéo cũng như khi cắt dọc. Thông thường, không thể sử dụng cữ chặn có răng cửa (9) cho các đường cắt này.

Để giảm thiểu lực đội ngược, hãy thực hiện các biện pháp phòng ngừa sau:

- Luôn đảm bảo bạn sử dụng cửa xích đúng cách.
- Giữ chặt cửa xích ở tay cầm và giữ chặt cánh tay trái để kiểm soát cửa xích trong trường hợp giạt ngược.
- Đảm bảo vùng bạn đang cắt không có vật cản. Đảm bảo lấy của lưỡi cắt không chạm vào thân

cây, cành cây, hàng rào hoặc bất kỳ chướng ngại vật nào khác mà bạn có thể gặp phải khi sử dụng cửa.

Lưu ý: Có thể xảy ra hiện tượng đội ngược nếu đầu lưỡi cắt chạm vào vật cản.

- Luôn cắt ở tốc độ tối đa của cửa xích. Nhấn công tắc bật/tắt (2) hoàn toàn và duy trì tốc độ cắt ổn định.
- Chỉ sử dụng lưỡi cắt thay thế và xích ít đội ngược do Bosch khuyến nghị.

Phanh đạp ngược

Phanh đạp ngược là cơ chế an toàn được kích hoạt bằng cổ tay thông qua cần gạt kích hoạt phanh đạp ngược (5) khi xảy ra hiện tượng đội ngược. Xích cửa dừng ngay lập tức. Điều này làm giảm nguy cơ thương tích do hiện tượng đội ngược.

Kiểm tra thường xuyên xem phanh đạp ngược có hoạt động không:

- Giữ chặt cửa xích bằng cả hai tay.
- Bật cửa xích.
- Khi xích cửa xoay, hãy đẩy cần gạt về phía trước từ cổ tay của bạn để kích hoạt phanh đạp ngược (5). Không sử dụng cửa xích nếu xích cửa không dừng lại ngay lập tức trong quá trình kiểm tra này.

Lưu ý: Trong quá trình sử dụng bình thường, không dùng cửa xích bằng cách cố ý nhấn cần phanh đạp ngược (5).

Cửa khúc gỗ (xem hình H)

- Luôn cố định chặt khúc gỗ trước khi cửa.
- Luôn cắt khúc gỗ qua các điểm cố định để tránh khúc gỗ kẹp và kẹt vào xích.
- Đảm bảo rằng xích cửa không bao giờ tiếp xúc với sàn hoặc trang thiết bị cắt.
- Hãy chú ý gốc cây, cành cây, rễ cây, v.v. vì có nguy cơ vấp ngã.

Cửa gỗ được căng (xem hình I)

- Việc cửa gỗ, cành cây hoặc cây chịu lực căng chỉ nên được thực hiện bởi các chuyên gia được đào tạo. Cần phải hết sức thận trọng. Có nguy cơ tai nạn cao hơn.

Cắt tỉa cành cây hoặc cây (xem hình J)

- Cắt tỉa là quá trình loại bỏ cành khỏi cây đã đổ hoặc cành lớn.
- Chừa lại các cành lớn hơn hướng xuống dưới để hỗ trợ cho cây đứng vững lúc này.
- Cắt bỏ những cành nhỏ chỉ bằng một lần cắt.

Tìm kiếm lỗi

Nếu dụng cụ điện của bạn không hoạt động bình thường, bảng sau đây sẽ hiển thị các triệu chứng lỗi, nguyên nhân có thể xảy ra và biện pháp khắc phục. Nếu bạn không thể xác định và loại bỏ sự cố này, hãy liên hệ với xưởng dịch vụ của bạn.

Chú ý: Tắt dụng cụ điện trước khi tìm lỗi và tháo pin.

Triệu chứng	Một số nguyên nhân	Biện pháp khắc phục
Cửa xích không hoạt động	Phanh đạp ngược được kích hoạt	xem Hình E1
	Xả cạn pin	Sạc pin, xem thêm "Lưu ý về việc sạc"
	Pin không được lắp đúng cách	Đảm bảo rằng cả hai cấp khóa đều được khớp vào
	Bảo vệ động cơ đã phản ứng	Chờ động cơ nguội bớt
	Pin quá lạnh/nóng	Đề pin nóng lên/nguội đi
	Dụng cụ điện bị lỗi	Tìm đến dịch vụ khách hàng
Cửa xích hoạt động không liên tục	Xả cạn pin	Sạc pin, xem thêm "Lưu ý về việc sạc"
	Dụng cụ điện bị lỗi	Tìm đến dịch vụ khách hàng
Xích cửa khô	Không có dầu trong bình dầu	Nạp thêm dầu, xem thêm "Bôi trơn xích cửa"
	Vòi phun dầu (6) bị tắc	Làm sạch vòi phun dầu (6)
	Vòi phun dầu bị tắc	Làm sạch bộ lọc dầu / Tìm đến dịch vụ khách hàng
Xích cửa/ray dẫn hướng nóng lên	Không có dầu trong bình dầu	Nạp thêm dầu
	Độ căng xích quá cao	Điều chỉnh độ căng xích.
	Xích cửa cũn	Thay xích cửa
	Kênh xả dầu bị tắc	Tìm đến dịch vụ khách hàng
Cửa xích lắc lư, rung lắc hoặc cắt không chính xác	Độ căng xích quá thấp	Căng lại xích
	Xích cửa cũn	Thay xích cửa
	Xích cửa mòn	Thay xích cửa
	Răng cửa đi sai hướng	Lắp xích cửa đúng cách
	Lưỡi cắt bị hư hỏng hoặc mòn	Thay lưỡi cắt hoặc liên hệ với dịch vụ khách hàng của Bosch
Rung động/tiếng ồn mạnh	Dụng cụ điện bị lỗi	Tìm đến dịch vụ khách hàng
	Lắp xích sai cách	Kiểm tra xem xích đã được lắp đúng chưa, xem phần "Lắp lưỡi cắt và căng xích cửa".
Thời gian cửa mỗi lần sạc pin quá ít	Ma sát quá nhiều do thiếu chất bôi trơn	Đảm bảo bôi trơn xích (xem "Bôi trơn xích cửa")
	Xích cửa phải được làm sạch	Làm sạch xích cửa
	Kỹ thuật cửa kém	xem "làm việc với cửa xích"
	Pin không được sạc đầy	Sạc pin, xem thêm "Lưu ý về việc sạc"
	Pin nằm ngoài khoảng nhiệt độ cho phép	Để pin ấm lên đến nhiệt độ phòng (trong khoảng nhiệt độ cho phép là 0–45 °C)
	Độ căng xích quá cao	Điều chỉnh độ căng xích.
	Xích cửa cũn	Thay xích cửa
Xích cửa chuyển động chậm	Xả cạn pin	Sạc pin, xem thêm "Lưu ý về việc sạc"
	Pin nằm ngoài khoảng nhiệt độ cho phép	Để pin ấm lên đến nhiệt độ phòng (trong khoảng nhiệt độ cho phép là 0–45 °C)
	Pin quá nóng	Chờ pin nguội bớt

Bảo Dưỡng và Bảo Quản

Bảo trì, làm sạch và vận chuyển

- ▶ **LƯU Ý!** Tắt dụng cụ điện và tháo pin trước khi bảo dưỡng hoặc làm sạch.
- ▶ Luôn mặc quần áo và trang thiết bị bảo vệ cá nhân phù hợp.
- ▶ Thường xuyên kiểm tra cửa xích để tìm các thiếu sót rõ ràng như xích cửa bị lỏng, bị tháo hoặc bị hỏng, chỗ gắn lỏng lẻo và các bộ phận bị mòn hoặc hư hỏng.
- ▶ Không được thực hiện thay đổi trên thiết bị làm vườn. Những thay đổi không hợp lệ có thể ảnh hưởng đến sự an toàn của thiết bị làm vườn của bạn và dẫn đến tăng tiếng ồn và độ rung.

Bảo Dưỡng Và Làm Sạch

- Để được an toàn và máy hoạt động đúng chức năng, luôn giữ máy và các khe thông gió được sạch.
- Không sử dụng nước, dung môi và chất đánh bóng, để làm sạch dụng cụ điện.
- Dùng khăn sạch hoặc bàn chải cứng để loại bỏ chất bẩn khỏi dụng cụ điện.
- Dùng khăn sạch để loại bỏ tạp chất cẩn thận ra khỏi vòi phun dầu (6). Đảm bảo không có tạp chất nào xâm nhập vào vòi phun dầu (6) vì điều này có thể dẫn đến tắc nghẽn và các vấn đề về bôi trơn.

Bảo trì xích cửa

- Làm sạch lưỡi và xích cửa trước khi bảo quản sản phẩm trong thời gian dài để tránh các bộ phận bị kẹt.

Cách làm sạch xích cửa:

- Tháo nắp (14), lưỡi (11) và xích cửa (12) ra khỏi cửa xích và làm sạch chúng bằng bàn chải cứng. (xem „Tháo xích cửa và lưỡi cắt“, Trang 78).
- Kiểm tra xem xích cửa có bị hỏng không và thay thế hoặc mài lại xích cửa.

Thay thế và mài xích cửa

- ▶ **Cẩn có xích cửa sắc bén để đạt công suất và độ an toàn tối ưu.**
- ▶ **Không bao giờ tự mài xích cửa trừ khi bạn có kinh nghiệm làm việc đó.**

Xích cửa có thể bị cùn sau thời gian sử dụng lâu dài hoặc tiếp xúc với các vật thể khác ngoài gỗ.

- Thay xích cửa bằng phụ kiện xích cửa Bosch hoặc yêu cầu mài lại xích cửa một cách chuyên nghiệp, xem phụ kiện.
- Để lắp xích cửa vào dụng cụ (xem „Lắp lưỡi cửa và căng xích cửa (xem Hình B1 – B4)“, Trang 78).

Bảo dưỡng lưỡi cắt

- ▶ **Chỉ thay lưỡi cắt nếu bạn hiểu rõ sản phẩm và chỉ dẫn. Nếu không, vui lòng liên hệ với Dịch vụ khách hàng của Bosch.**
- ▶ **Chỉ sử dụng lưỡi cắt thay thế do Bosch khuyến nghị.**

Kiểm tra vết rạn nứt hoặc mài mòn trên lưỡi cắt. Đổi lưỡi cắt khi có hư hỏng. Hãy tìm hướng dẫn tháo lưỡi cắt (xem „Tháo xích cửa và lưỡi cắt“, Trang 78).

Phụ tùng thay thế và phụ kiện (xem hình K)

Bản vẽ chi tiết và thông tin về phụ tùng thay thế có thể tìm tại www.bosch-pt.com.

Vận chuyển và bảo quản cửa xích

Trước khi vận chuyển cửa xích:

- Luôn tháo pin ra.
- Luôn lắp cơ cấu bảo vệ xích (16) vào lưỡi (11) nếu không sử dụng cửa xích để tránh thương tích.
- Luôn khóa phanh xích bằng cách đẩy bộ phận bảo vệ tay/phanh xích về phía trước.
- Nên cầm cửa xích với lưỡi cắt hướng về phía sau.

Ngoài các bước vận chuyển cửa xích, hãy thực hiện các bước sau trước khi bảo quản cửa xích:

- Xả sạch bình dầu trước khi bảo quản cửa xích, và nạp đầy lại trước khi sử dụng.
- Luôn bảo quản cửa xích ở nơi an toàn, khô ráo, xa tầm tay trẻ em.
- Không bao giờ đặt bất cứ vật gì lên cửa xích.

Dịch vụ hỗ trợ khách hàng và tư vấn sử dụng

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Bạn có thể tìm liên kết đến địa chỉ dịch vụ và điều kiện bảo hành của chúng tôi ở trang cuối.

Trong tất cả các phản hồi và đơn đặt phụ tùng, xin vui lòng luôn luôn nhập số hàng hóa 10 chữ số theo nhãn của hàng hóa.

Sự thải bỏ

Dụng cụ điện, pin, phụ kiện và bao bì cần được tái sử dụng theo quy định về môi trường.



Bạn không được ném dụng cụ điện và pin vào thùng rác gia đình!

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MFxFixedPoint, v8.0.2

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NanoPb, v0.3.9.9

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(51) From musl src/string/strverscmp.c

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