

TOLSEN X20

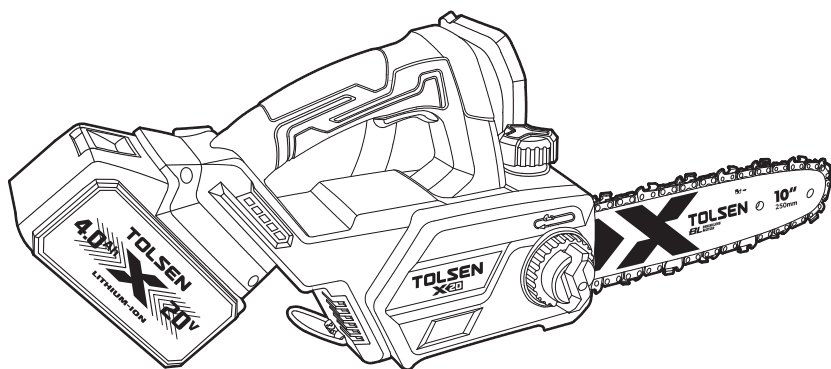
97154

LI-ION CORDLESS CHAIN SAW

INSTRUCTION MANUAL

20V LITHIUM-ION

BL BRUSHLESS MOTOR [INDUSTRIAL]



SAVE THIS MANUAL !

You will need this manual for safety instructions, operating procedures and warranty.
Put it and the original sales receipt in a safe dry place for future reference.

IMPORTANT SAFETY INFORMATION

General Power Tool Safety Warnings

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

WARNING: This appliance is not intended for use by persons (including children) with reduced, physical or mental capabilities or lack of experience or knowledge unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children must be supervised to ensure that they do not play with the appliance.

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

1. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
2. 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.
3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

Electrical safety

1. Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
2. Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.
There is an increased risk of electric shock if your body is earthed or grounded.
3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
4. Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool.
Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
5. When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
6. If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) or ground fault circuit interrupter (GFCI) protected supply. Use of an RCD or GFCI reduces the risk of electric shock.
7. Power tools can produce electromagnetic fields [EMF] that are not harmful to the user. However, users of pacemakers and other similar medical devices should contact the maker of their device and/or doctor for advice before operating this power tool.

Personal safety

1. 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.
2. Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
3. 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.
4. 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.
5. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations
6. Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
7. 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.
8. 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

1. 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.
2. Do not use the power tool if the switch could not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
3. Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
4. 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.
5. Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
6. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. 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.
8. 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

1. 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.
2. Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
3. 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.
4. Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
5. 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.
6. Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 130 °C may cause explosion.
7. 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

1. 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.
2. Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorized service providers.
3. Follow instruction for lubricating and changing accessories.

Chainsaw safety warnings

1. Keep all parts of the body away from the saw chain when the chainsaw is operating. Before you start the chainsaw, make sure the saw chain is not in contact with anything. A moment of inattention while operating chainsaws may cause entanglement of your clothing or body with the saw chain.
2. Always hold the chainsaw with your right hand at the rear handle and your left hand at the front handle. Holding the chainsaw with a reversed hand configuration increases the risk of personal injury and should never be done.
3. 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.
4. 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.
5. Do not operate a chain saw in a tree, on a ladder, from a rooftop, or any unstable support.
6. 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.
7. 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.
8. Carry the chainsaw by the front handle with the chainsaw switched off and away from your body. When transporting or storing the chainsaw, always fit the guide bar cover. Proper handling of the chainsaw will reduce the likelihood of accidental contact with the moving saw chain.

9. 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.
10. Cut wood only. Do not use chain saw for purposes not intended. For example: do not use chain saw for cutting metal, plastic, masonry or non-wood building materials. Use of the chain saw for operations different than intended could result in a hazardous situation.
11. Do not attempt to fell a tree until you have an understanding of the risks and how to avoid them. Serious injury could occur to the operator or bystanders while felling a tree. 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.
12. 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.

Prevent operator 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.⁴

Tip contact in some cases may cause a sudden reverse reaction, kicking the guide bar up and back towards the operator.

Always keep proper footing and operate the chainsaw only when standing on fixed, secure and level surface.

Slippery or unstable surfaces such as ladders may cause loss of balance or control of the chainsaw.

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 chainsaw 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:

1. 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.
2. Do not overreach and do not cut above shoulder height. This helps prevent unintended tip contact and enables better control of the chainsaw in unexpected situations.
3. 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.
4. Follow the manufacturer's sharpening and maintenance instructions for the saw chain. Decreasing the depth gauge height can lead to increased kickback.

Battery Safety



WARNING

This battery can only be used in the machines included in the TOLSEN X20V lithium-ion power platform system. This battery can only be used cooperatively with the designated battery charger.

Li-Ion batteries, if incorrectly used, stored or charged will cause a fire, burn and explosion hazard.

Failure to follow these instructions may cause overheating or fire.

1. Keep the battery out of reach of children.
2. The battery should be charged at ambient temperatures between 5 and 40°C (ideally around 20°C) . After charging, allow 15 minutes for the battery to cool before use.
3. The Battery Charger monitors battery temperature and voltage while charging. DO NOT leave batteries on charge for extended periods and NEVER store batteries on charge. Ensure that the charger is disconnected from the mains supply after use.
4. When not in use batteries should be stored at room temperature. Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 40°C (ideally around 20°C).
5. Ensure that battery contacts cannot accidentally short in storage. Keep batteries clean; foreign objects or dirt may cause a short. Keep away from other metal objects, for example, paperclips, coins, keys, nails and screws.
6. **DO NOT** store lithium-ion battery packs in a discharged state over a long period as this can damage the lithium-ion cells. For long-term storage, store batteries in a high charge state disconnected from the power tool.
7. Batteries can become faulty over time, individual cells in the battery can fail and the battery could short. The charger will not charge faulty batteries. Use another battery, if possible, to check correct functionality of the charger and purchase a replacement battery if a faulty battery is indicated.
8. **DO NOT** open, disassemble, crush, heat or incinerate. Do not dispose of in fire or similar.

Battery Charger Safety



WARNING

This charger can only be used to charge the batteries which has TOLSEN X20V symbol. If it is used to charge other kinds of batteries, there is a risk of explosion. **DO NOT** attempt to recharge non-rechargeable batteries.

1. If the shape of the plug does not fit the power outlet, use an attachment plug adaptor of the proper configuration for the power outlet.
2. This is class 2 power supply. It is suitable for indoor use only.
3. Before use, the input and output technical data must be checked to secure correct use.
4. Do not use the Battery Charger in the circumstances that the output polarity does not match the load polarity.
5. Do not attempt to use the charger with any batteries other than those supplied. Keep your battery charger clean; foreign objects or dirt may cause a short or block air vents. Failure to follow these instructions may cause overheating or fire
6. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Save these instructions



WARNING

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

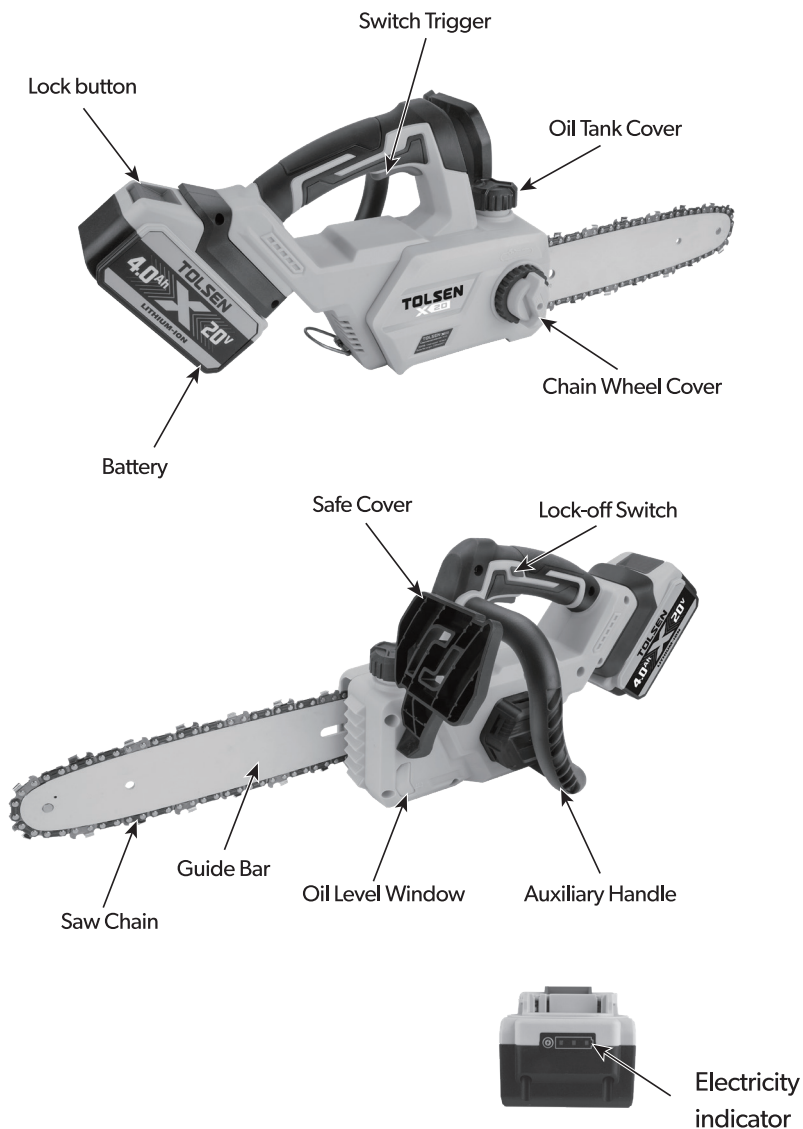
Note: Symbology

	Class II Double insulated for additional protection
	Read the instruction manual before using
 	Wear hearing protection while operating the tool Wear hand protection
 	Always use breathing apparatus when machining materials which generate dust. Wear ear protection.
	Operating environmental temperature
	Do not incinerate battery pack
	Do not expose to water
	Keep all bystanders at least 50 feet away.
	Avoid bar nose contact.
 	Hold with both hands.
	DANGER! Be careful with kickbacks.
	Do not expose the product to rain or moist conditions.
	Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.
	Batteries and rechargeable batteries are not household waste! As a consumer, you are required by law to dispose of all batteries and accumulators, whether or not they contain harmful substances *, at a collection point in your municipality / neighborhood or in commerce so that they can be disposed of in an environmentally sound manner.
	Battery pack is recyclable and should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice
	Safety alert
	If the current of the charger is higher than "x" A, the time-lag fuse will interrupt the power supply

SPECIFICATIONS

Rated voltage	20VDC
Input Power	1000 W
Sprocket Speed	5800 RPM (±10%)
Guide Bar Length	10" (254 mm)
Chain Speed	14.5 m/s
Chain Pitch	1/4" (0.25")
Oil Output Rate	5 ml/min
Net Weight (Tool Only)	1.8 kg
Battery(96154 not include)	
Battery Voltage	20VDC
Battery capacity	4.0Ah
Charger(96154 not include)	
Input Voltage	110-120VAC 60Hz
Output Voltage	21VDC 2.0A
Rated output current	125 minutes fast charging(4.0Ah battery)
Charging TimeProtection class	

FUNCTIONS



INSTALLATION

WARNING

Do not change or make accessories that are not recommended by the manufacturer.

WARNING

Do not install battery pack until you assemble all the parts.

Unpack the machine

WARNING

Make sure that you correctly assemble the machine before use.

WARNING

- If the parts are damaged, do not use the machine.
 - If you do not have all the parts, do not operate the machine.
 - If the parts are damaged or missing, speak to the service center.
- a. Open the package.
 - b. Read the documentation in the box.
 - c. Remove all the unassembled parts from the box.
 - d. Remove the machine from the box.
 - e. Discard the box and package in compliance with local regulations.

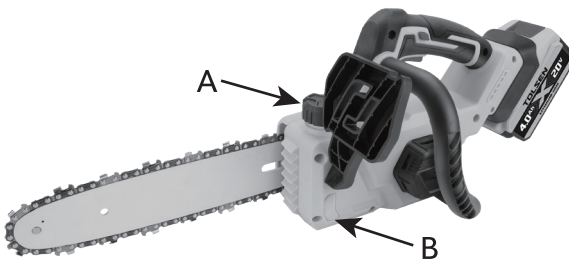
Add the bar and chain oil

Examine the amount of oil in the machine. If the oil level is low, add the bar and chain oil as follows.

IMPORTANT: The machine comes from the factory without bar and chain oil.

NOTE: Use bar and chain oil that is only for chains and chain oilers.

- a. Loosen and remove the cap (A) from the oil tank.
- b. Put the oil into the oil tank.
- c. Monitor the oil indicator (B) to make sure that no dirt gets into the oil tank while you add the oil.
- d. Put the oil cap on.
- e. Tighten the oil cap.
- f. The whole oil tank will last for approximately 10- 15 minutes.



IMPORTANT: Do not use dirty, used or contaminated oil. Damage can occur to the bar or chain.

Install the battery pack

WARNING

- If the battery pack or charger is damaged, replace the battery pack or the charger.
 - Stop the machine and wait until the motor stops before you install or remove the battery pack.
 - Read and understand the instructions in the battery and charger manual.
- a. Align the lift ribs on the battery pack with the grooves in the battery compartment.
 - b. Push the battery pack into the battery compartment until the battery pack locks into place.
 - c. When you hear a click, the battery pack is installed.

REMOVE THE BATTERY PACK

- a. Push and hold the lock button.
- b. Remove the battery pack from the machine.



OPERATION

NOTE: Remove the battery pack and keep hands clear of the lock out button when you move the machine.

IMPORTANT: Examine the chain tension before each use.

Examine the chain oil

NOTE: Use bar and chain oil that is only for chains and chain oilers.

- Examine the oil level of the machine from the oil indicator.
- Add the oil if it is necessary.

Hold The Machine

- Hold the chainsaw with your right hand on the rear handle and left hand on the front handle.
- Hold the handles with the thumbs and the fingers around them.
- Make sure that your left hand holds the front handle and your thumb is below the handle.

WARNING

Make sure that the holding area of the rear handle does not exceed the TPE soft adhesive area to avoid the risk of accidental triggering of the safety button



Power on/off

WARNING! Always insert the battery cartridge fully until it locks in place. Failure to do so may result in the battery cartridge accidentally falling out of the tool, posing a risk of injury to yourself or others nearby.

WARNING! If you want to remove the battery, release the switch trigger after the chain saw completely stop, and then remove the battery.

To turn on the tool: Press lock-off button forward, followed by squeezing the switch trigger. After the tool has started, you can release the lock-off button without turning the tool off.

To turn off the tool: Simply release the switch trigger.

WARNING! Release switch trigger, allow chainsaw to come to a complete stop, and then remove battery.



Operate the chain brake



WARNING

Make sure that your hands are on the handles at all times.

- Start the machine.
- Push the guard forward to to engage the chain brake.
- Pull the handle guard / chain brake backwards to disengage the chain brake.
- Call approved service center for repair before use if
 - The chain brake does not stop the chain immediately.
 - The chain brake does not stay in the disengaged position without aid.



Fell a tree

Recommendation that the first-time user should, as a minimum practice, start cutting logs on a saw-horse or cradle.

Before you start to fell a tree, make sure that

- The minimum distance between the areas of bucking and felling is two times the height of the tree.
- The operation does not cause injury to personnel
- Hit utility lines. If the tree touches utility lines, immediately tell the utility company cause losses in property
- The user is not in the danger area (2), for example, the downhill side of the area.
- The escape paths (3) that extend back and diagonally behind the felling direction (1) are clear. The felling direction is controlled by

- The natural lean of the tree.
- The location of larger branches.
- The wind direction.
- Ensure there is no dirt, stones, loose bark, nails, and staples on the tree.

1. Make a lower level notching cut (5). Make sure that this cut is

- a) 1/3 wide of the diameter of the tree.
- b) Perpendicular to the felling direction.

CAUTION:

The level notching cut helps prevent pinching of the saw chain or the guide bar when you make the second notch.

2. Make the felling cut no less than 2 in. (50 mm) and higher than the level notching cut. Make sure that this cut

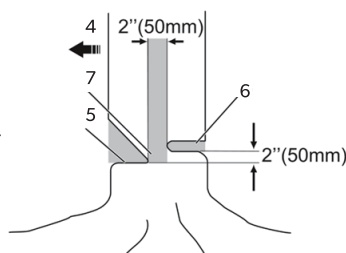
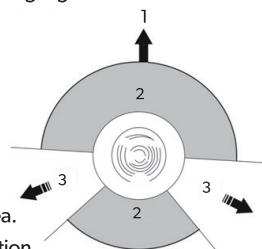
- a) Is parallel to the level notching cut.
- b) Keeps sufficient wood to become a hinge (7) which prevents the tree from twisting and felling in the wrong direction. When the felling cut (6) gets near the hinge (7), the tree falls. Stop the felling cut if the tree

- Does not fall in the correct direction or
- Moves backwards, causing the cutting bar and chain to become stuck in the cut.

3. Use felling wedge to open the cut and let the tree fall in the correct direction.

4. When the tree starts to fall,

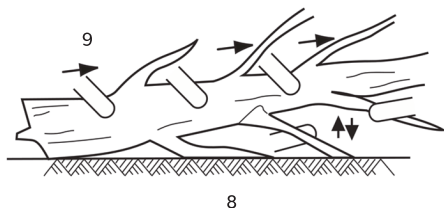
- a) Remove the chainsaw from the cut.
- b) Stop the machine.
- c) Put the machine down.
- d) Move away from the tree via the escape path (3). Always keep watching the tree to see it's direction of fall, be careful with overhead branches and your footing.



Limb a tree

Limbing is the removal of the branches from a fallen tree.

1. Keep the larger lower branches to hold the log off the ground (8).
2. Remove the small limbs (9) in one cut.
3. Limb the branches with tension from the bottom to top.
4. Keep the larger lower branches as a support until the log is limbed.



Buck a log

To buck is to cut a log into lengths.

CAUTION: Do not let the chain saw touch the ground.

It is important to make sure your footing is secure and your weight is evenly distributed. If possible, lift the log and hold it with branches, logs or chock. Obey the instructions below:

When the log is held along the full length (10), cut it from the top (11).

When the log is held on one end (12),

1. Cut the first time $\frac{1}{3}$ of the diameter from the bottom (13).
2. Cut the second time from the top (14) to complete the bucking.

When the log is held on two ends (15),

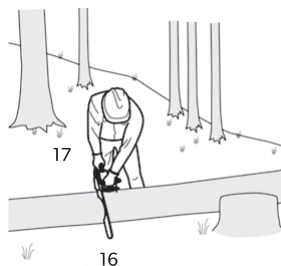
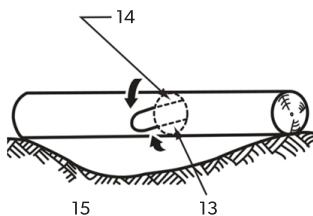
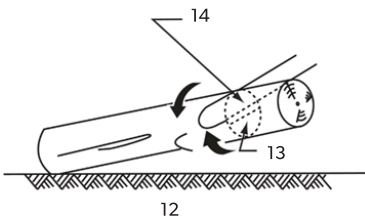
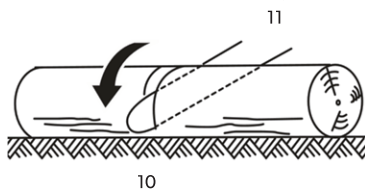
1. Cut the first time $\frac{1}{3}$ of the diameter from the top (14).
2. Cut the second time lower $\frac{2}{3}$ from the bottom to complete the bucking (13).

When the log is on a slope,

1. Stand on the uphill side.
2. Control the chain saw completely.
3. Hold the chain saw handles tightly.
4. Release the cutting pressure near the end of the cut.

When bucking is complete (16),

1. Wait for the chain to stop (17).
2. Ensure the chainsaw is turned off.
3. Check for hazards before you move to another tree.



MAINTENANCE

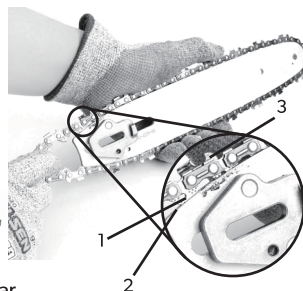
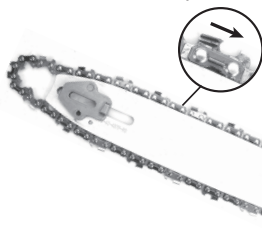
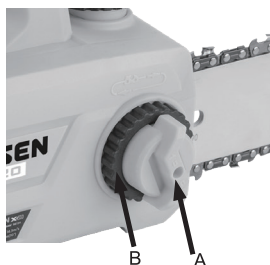
CAUTION: Do not let brake fluids, gasoline, petroleum-based materials touch the plastic parts. Chemicals can cause damage to the plastic, and make the plastic unserviceable.

CAUTION:

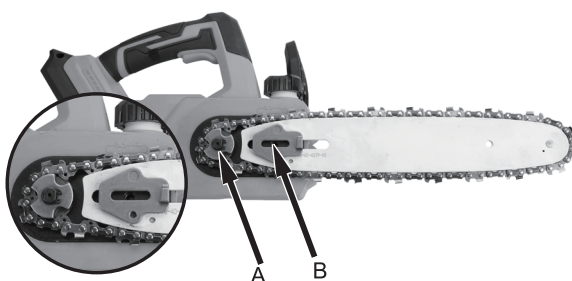
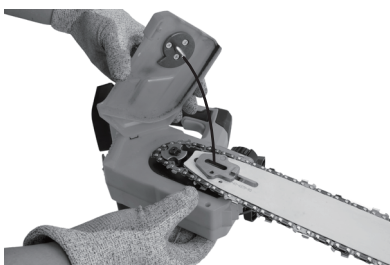
Do not use strong solvents or detergents on the plastic housing or components.
Remove the battery pack from the machine before maintenance.

Replace the guide bar and the chain

1. As shown in the figure below, rotate A until completely detached, then rotate B
2. Remove the chain cover.
3. Put the chain drive links (1) into the bar groove (2).
4. Put the chain cutters (3) in the direction of the chain operation.



5. Put the chain in position and make sure that the loop is behind the guide bar.
6. Hold the chain and bar.
7. Put the chain loop around the sprocket (A).
8. Rotate B clockwise to pretension the chain.



9. Install the chain cover.
10. Tighten the chain. Refer to Adjust the chain tension.
11. Tighten the nuts when the chain is correctly tensioned

NOTE:

If you start the chain saw with a new chain, have a test for 2-3 minutes.
A new chain gets longer after the first use,
examine the tension and tighten the chain if necessary.



Adjust the chain tension

The more you use a chain the longer it becomes. It is therefore important to adjust the chain regularly to take up the slack. Tension the chain so that it can only just be pulled away from the bar at its center point.

⚠ WARNING

A slack chain may jump off and cause serious or even fatal injury.

CAUTION:

Wear protective gloves if you touch the chain, bar or areas around the chain.

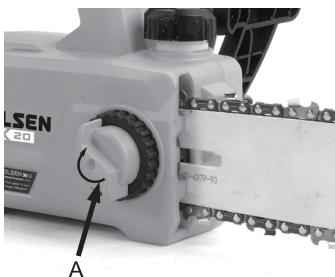
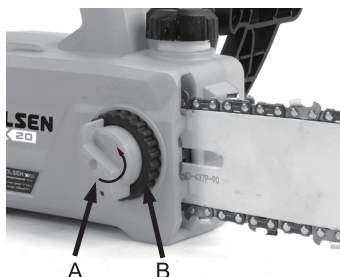
1. Stop the machine.

2. First, turn A counterclockwise for 1-2 turns, and then turn B clockwise to increase the tension of the chain.

3. Turn A clockwise to lock the guide rod

NOTE:

It is not necessary to remove the chain cover to adjust the chain tension.



Sharpen the cutters if it is not easy for the chain to go into the wood.

NOTE:

We recommend that a service center, which has an electric sharpener, perform important sharpening work.

1. Tensioning chain.

2. Sharpen the cutters corner with a 5/32 in. (4 mm) diameter round file.

3. Sharpen the top plate, side plate and depth gauge with a flat file.

4. File all the cutters to the specified angles and the same length.

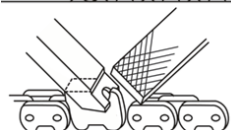
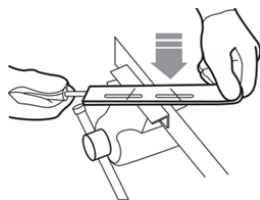
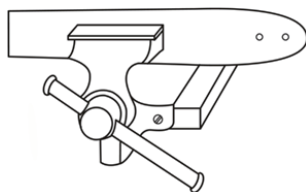
NOTE:

During the process,

- Keep the file flat with the surface to be sharpened.
- Use the midpoint of the file bar.
- Use light but firm pressure when sharpening the surface.
- Lift the file away on each return stroke.
- Sharpen the cutters on one side and then move to the other side.

Replace the chain if:

- The length of the cutting edges is less than 1/5 in. (5 mm).
- There is too much space between the drive links and the rivets.
- The cut speed is slow
- Sharpening the chain many times but it does not increase the cutting speed. The chain is worn.



Guide bar maintenance

NOTE:

Make sure that it is turned over periodically to keep symmetrical wear on the bar.

1. Lubricate the bearings on the nose sprocket (if present) with the syringe (not included).
2. Clean the bar groove with the scraping hook (not included).
3. Clean the lubrication holes.
4. Remove burr from the edges and level the cutters with a flat file.

Replace the bar if:

- the groove does not fit with the height of the drive links (which must never touch the bottom).
- the inside of the guide bar is worn and makes the chain lean to one side.



TRANSPORTATION AND STORAGE

Before you move the machine, always

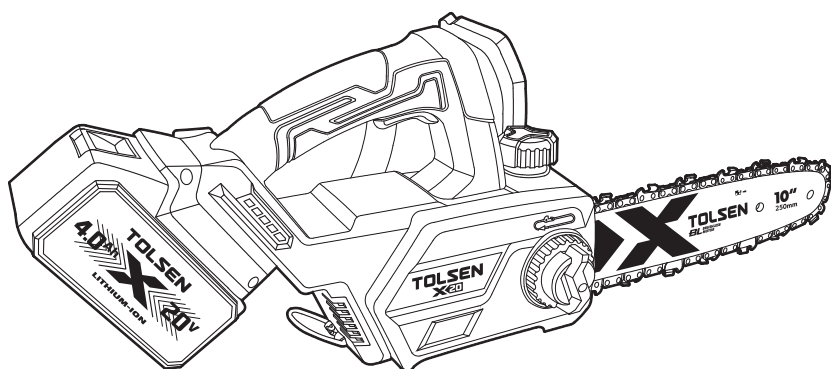
- Remove the battery pack from the machine.
- Keep hands clear of the lock-out button.
- Put the scabbard on the guide bar and the chain.
- Before you put the machine into storage, always Remove all residual oil from the machine.
- Remove the battery pack from the machine.
- Clean all unwanted material from the machine.
- Make sure that the storage area is Not available to children.
- Away from agents which can cause corrosion, such as garden chemicals and de-icing salts.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
The guide bar and the chain become hot and release smoke.	The chain is too tight.	Adjust the chain tension.
	The oil tank is empty.	Add lubricants.
	Contamination causes a blockage of the discharge port.	Remove the guide bar and clean the discharge port.
	Contamination causes a blockage of the oil tank.	Clean the oil tank. Add new lubricant.
	Contamination causes a blockage of the guide bar and the oil tank cap.	Clean the guide bar and the oil tank cap.
	Contamination causes a blockage of the sprocket or guide wheels.	Clean the sprocket and the guide wheels.
The motor runs but the chain does not rotate.	The chain is too tight.	Adjust the chain tension.
	The guide bar and the chain are damaged.	Replace the guide bar and the chain if it is necessary.
	The motor is damaged.	1. Remove the battery pack from the machine. 2. Remove the guide bar cover. 3. Remove the bar and saw chain. 4. Clean the machine. 5. Install battery pack and operate the machine. If the sprocket rotates, it means the motor works properly. If not, call service center.
The motor runs and the chain rotates, but the chain does not cut.	The chain is blunt.	Sharpen or replace the saw chain.
	The chain is in the incorrect direction.	Turn the chain loop to the other direction.
	The chain is tight or loose.	Adjust the chain tension.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Adjust the chain tension.	Adjust the chain tension.	Pull the chain brake in the direction of the user to disengage it.
	The machine and battery are not connected correctly.	Make sure that the battery release button clicks when you install the battery pack.
	The battery level is low.	Charge the battery pack.
	The lock out button and the trigger is not pushed at the same time.	1.Push the lockout button and hold it. 2.Push the trigger to start the machine.
	The battery is too hot or too cold.	Refer to battery and charger manual.
	Operation temperature of the machine is too high.	Cool the machine.
The machine does not start when the battery pack only has one or two lights flash.	The battery pack is in a low capacity.	1.Cool the battery pack or machine to ambient temperature. 2. Charge the battery pack again. 3. Start the machine again.
	The battery pack or control board at high temperature protective state.	
The motor runs, but the chain does not cut correctly, or the motor stops after around 3 seconds.	The machine is in the protection mode to protect the PCB.	Release the trigger and start the machine again. Do not force the machine to cut.
	The battery is not charged.	Charge the battery. Refer to the battery and charger manual for correct charging procedures.
	The chain is not lubricated.	Lubricate the chain to decrease the friction. Do not let the guide bar and the chain operate without sufficient lubricant.
	Incorrect battery storage temperature	Cool the battery pack until it decreases to the ambient temperature.



**SUZHOU TOLSEN
TOOLS CO.,LTD.**

www.tolsentools.com

TOLSEN is a trademark or
registered trademark of TOLSEN
TOOLS. All rights reserved.
MADE IN CHINA



SCAN TO VISIT
PRODUCT LINK