

Manual

Gas multi-tool

DES-45M

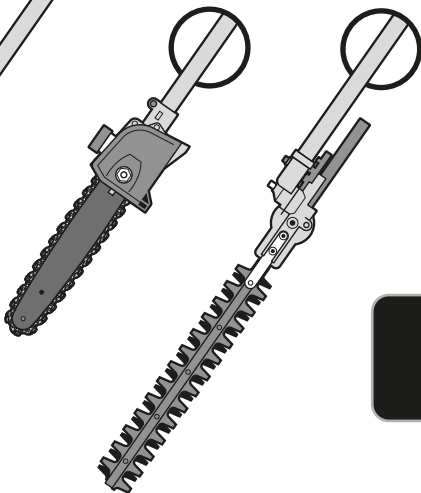
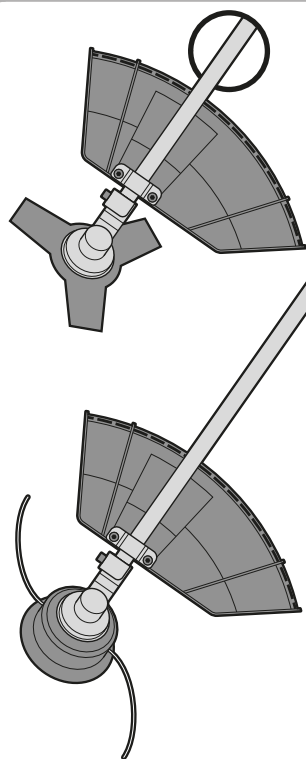
Applies for:

Code

Model

103205

DES-45M



45 (cm³)
Motor

CAUTION



Read this manual thoroughly
before using the tool.



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CAUTION

To gain the best performance of the tool, prolong the duty life, make the **Warranty valid** if necessary, and to **avoid hazards of fatal injuries** please read and understand this **Manual before using the tool.**


Keep this manual for future references.


The illustrations in this manual are for reference only.
They might be different from the real tool.


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Use and care recommendations



 For better performance and durability, use high-octane gasoline. In Mexico, we recommend using **PREMIUM** gasoline mixed with **2-STROKE ENGINE OIL**. Using the wrong mixture can cause serious engine damage.

 +  = **50:1**
4 capfuls oil Gasoline PREMIUM Mix

 **DO NOT** use **GASOLINE MIXTURE** that has been stored for over 15 days.

 Make sure to keep the accessories **LUBRICATED**.

 **ALWAYS** run your machine at **FULL POWER** with the throttle **FULLY** engaged.

 Perform regular **MAINTENANCE** on your machine (page 19)

DES-45M

Code •		103205	
Description •		Gas multi-tool	
Engine power •	2 Hp (1 600 W)	Engine displacement •	45 cm ³ (cc)
Gas tank •	0.185 gal	Engine type •	2 strokes (50:1 mix)
Max Speed •	9 000 RPM	Engine weight •	12.3 lb
Brush Cutter			
Nylon String Spool		Blade	
Cutting capacity •	18"	Cutting capacity •	10"
Speed •	8 000 RPM	Speed •	9 000 RPM
String diameter •	0.080" - 0.145"	Blade diameter •	Outer: 10", inner: 1"
Chain saw		Hedge Trimmer	
Length of the bar •	10"	Cutting length •	16"
Speed •	9 000 RPM	Speed •	8 500 RPM
Chain pitch •	3/8"	Maximum cutting diameter •	1/2"
Chain gauge •	0.05"		
Chain oil tank •	0.033 gal		
Duty cycle •		30 minutes of rest per consumed tank. Maximum 6 hours daily.	

Fuel requirements



For better performance and durability use higher-octane gasoline. In Mexico, we suggest using PREMIUM gasoline.

- The gas brushcutter runs with an air-cooled two-cycle engine and uses a mix of unleaded gasoline and high quality, self-mixing motor oil with fuel stabilizer specified for air-cooled -2 stroke motor.
- The motor is certified to run with unleaded gasoline for vehicles having an octane index of 87 ((R+M)/2) or higher.
- Do not use any type of gasoline and oil mix sold in Service stations, especially, used in motorcycles.
- Do not use motor oil for self-propulsion, or two-cycle oil outboard motor.

- Do not use motor oil for self-propulsion, or two-cycle oil outboard motor.
- The ratio for the mix shall be 50 parts gasoline per 1 part oil (50:1 Ratio). Prepare the mix in an approved fuel container. Always mix thoroughly before pouring it into the motor fuel tank.

CAUTION • Do not use a fuel mix that has been stored longer than 15 days. Mix small quantities.

WARNING • Never smoke near the fuel or where fuel is being supplied, or in the oil-gasoline mix preparing site or when operating the brush trimmer.

WARNING • Trying to start the gas brushcutter without mixing oil into the fuel will cause a faulty motor.



Use TRUPER ACES-2, ACES-5 or ACES-20 oil caps** to measure the mix.
Mix 4 capfuls oil per each gasoline liter.



A wrong mix may cause the motor to throw a rod causing expensive repairs!



4 capfuls oil



Gasoline
PREMIUM



50:1

Mix

To prolong the useful life of the motor use TRUPER two-cycle synthetic motor oil.

* 1 gallon = 3.78 liter

** Not included



General motor tool safety warnings for motor tools



Keep your work area clean, tidy and well lit.

CAUTION Cluttered and dark areas may cause accidents.



Never use the tool in explosive areas or in the presence of flammable liquids.

DANGER Before starting the motor keep the tool at least 9 meters (30 feet) away from the fill up area.



Keep children and passersby at a safe distance while operating the tool.

WARNING Distractions could cause losing control and cause accidents.



Avoid contact with power lines and circuits.

DANGER Find and avoid power lines and circuits, especially hidden wiring as well as any grounded object.



Stay alert, use care and common sense.

CAUTION Familiarity with the tool operation could lead to distractions. It could cause accidents.

Refrain from using the tool if tired or under the influence of drugs, alcohol or medication.

DANGER Being momentarily distracted while using the tool could cause severe personal injury.

Operate the tool with guards and protection devices in place and in good working condition.

WARNING Failure to comply with this warning is a hazard of severe personal injury.

Do not force the tool.

CAUTION Working within the tool's working design assures a better and safer job.



Keep the tool in a safe place and out of the reach of children.

WARNING Motor powered tools are dangerous to inexperienced people.



Wear proper clothes.

WARNING Loose clothes, jewelry or long hair could get caught in the mobile parts.



Keep hands away from rotating and/or mobile parts.

WARNING Failure to comply with this warning is a hazard of severe personal injury.



Do not operate the tool in enclosed areas.

DANGER Avoid breathing accumulated carbon monoxide, a potentially deadly odorless toxic gas.



Wear adequate protective safety accessories.

CAUTION Wear eye protection, dust mask, non-skid safety shoes, helmet and ear plugs. These safety gears reduce the risk of injury.



Turn off the tool before adjusting, changing accessories or storing.

WARNING Double check the tool switch is in the off position.

Refrain from operating the tool if the switch is not working or is not properly assembled.

WARNING Failure to comply with this warning is a hazard of personal injury. Immediately send it to a TRUPER Authorized Service Center.

Do not overreach.

CAUTION Good balance and support lead to better controlling the tool in unexpected situations.

Avoid the tool to unintentionally start.

WARNING Double-check the tool motor is off before maintenance or putting it away.



Remove brackets before turning on the tool.

DANGER Additional tools or vices installed in a rotating part could cause severe personal injury.

Service the tool and double-check it is in good working conditions before operating.

CAUTION Carefully check mobile parts, alignment and assembly. Do it periodically. Look for any damaged element or part not working properly. Repair immediately in a TRUPER Authorized Service Center.



Accessories.

CAUTION Use only accessories or spare parts indicated in this Manual or certified by TRUPER

Never leave a running tool unattended.

DANGER Turn off and disconnect the tool after using. Set it in a safe position to avoid severe injury.

Never smoke in the proximity of fuel.

DANGER Do not smoke in the proximity of the fuelling area or when using the tool.



Do not touch parts with high temperatures.

The surface of the engine and the exhaust reach high temperatures during the operation of the tool.

Service and repair.


Always go to a TRUPER Authorized Service Center to use identical spare parts and maintain the security of the tool.


Safety warnings for the use of string trimmers



TRUPER®

Fuel handling

• Never smoke near fuel, or in the gas filling up zone or when preparing the oil mix, nor when operating the gas brushcutter. 

• To reduce fire risk or burns, use care when handling fuel. It is extremely flammable. 

• Do not allow gasoline or oil touching your skin.
• Protect your eyes to prevent gasoline and oil spills. In the event of accidental contact, wash your eyes with clean water. If eye irritation continues consult a physician.

• Mix and store fuel in a designated container.

WARNING • Mix fuel outdoors away from sparks or flames.

• Before filling up the gas brushcutter, turn off the motor, set in on clear ground and wait while the motor cools down.

CAUTION • Wipe clean any amount of fuel that might have spilled in the gas brushcutter before

CAUTION • Look for fuel leakages. If finding any leaks fix them before using the gas brushcutter to prevent fire or burn injuries.

• Set the gas brushcutter at least 30 feet away from the oil filling up site before starting the motor.

• Under no circumstance at all burn spilled fuel to eliminate it.

• For no reason at all use any type of fuel different from the specified in this Manual for the gas brushcutter.

Before operating the gas brushcutter

• Wear suitable clothing to operate the gas brushcutter: tight clothes, sturdy pants, non-skid safety boots, heavy-duty protecting gloves and safety lenses with side protection under ANSI Z87.1. Standard.



WARNING • Remove any loose accessory o clothes which could get caught in the moving blade teeth. Tie long hair to be set above the shoulders' level.

• Double check the gas brushcutter is in perfect conditions. Do not turn it on if is ill adjusted or not totally assembled. Assure it runs properly, the fuel tank is not leaking or there are loose screws.

• Confirm the blade stops moving when releasing the throttle trigger. If it does not stop turn off the gas brushcutter and go to a TRUPER Authorized Service Center to fix the problem.

• Check the gas brushcutter is clean, dry and free of oil or fuel.

• Double check the work area is in an open and well ventilated area.

• Walk over the work area and remove any stone, broken glass, nails, wire or cord. Those elements can shoot out or tangle in the gas brushcutter.

• In extreme weather confirm there is no ice forming and condensation in the gas brushcutter.

• Confirm the visibility and light conditions are adequate to be able to see clearly. Otherwise, do not use the gas brushcutter.

• Do not use the gas brushcutter without its guards or if damaged or with parts missing.

When operating the gas brushcutter

CAUTION • Keep passersby, children and animals no less than 50 feet away.

• Confirm the blade is not making contact with foreign object before starting the motor.

WARNING • Keep both feet firmly set in the ground and use both hands to hold the gas brushcutter by the handles. Never operate single-handedly. Otherwise the operator and people present may be injured.

• Keep all parts of your body away from the cutter head.

• Keep the thread cutter head pointing downwards, below the waist level. Never raise it higher than 30" from the ground.

• Keep all parts of your body away from the muffler. Otherwise you may be severely burned.

• Keep the gas brushcutter from flammable materials.

• The blades are designed to cut brush or fleshy vines with a diameter over 0.5".

• Use the circular saw to cut woody brush.

DANGER • Be aware to risks around you. The gas brushcutter noise might prevent you from noticing the risks.

• When carrying out jobs close to roads with traffic, stop cutting until there are no vehicles in sight. The gas brushcutter could throw particles towards the moving vehicles and cause a severe accident.

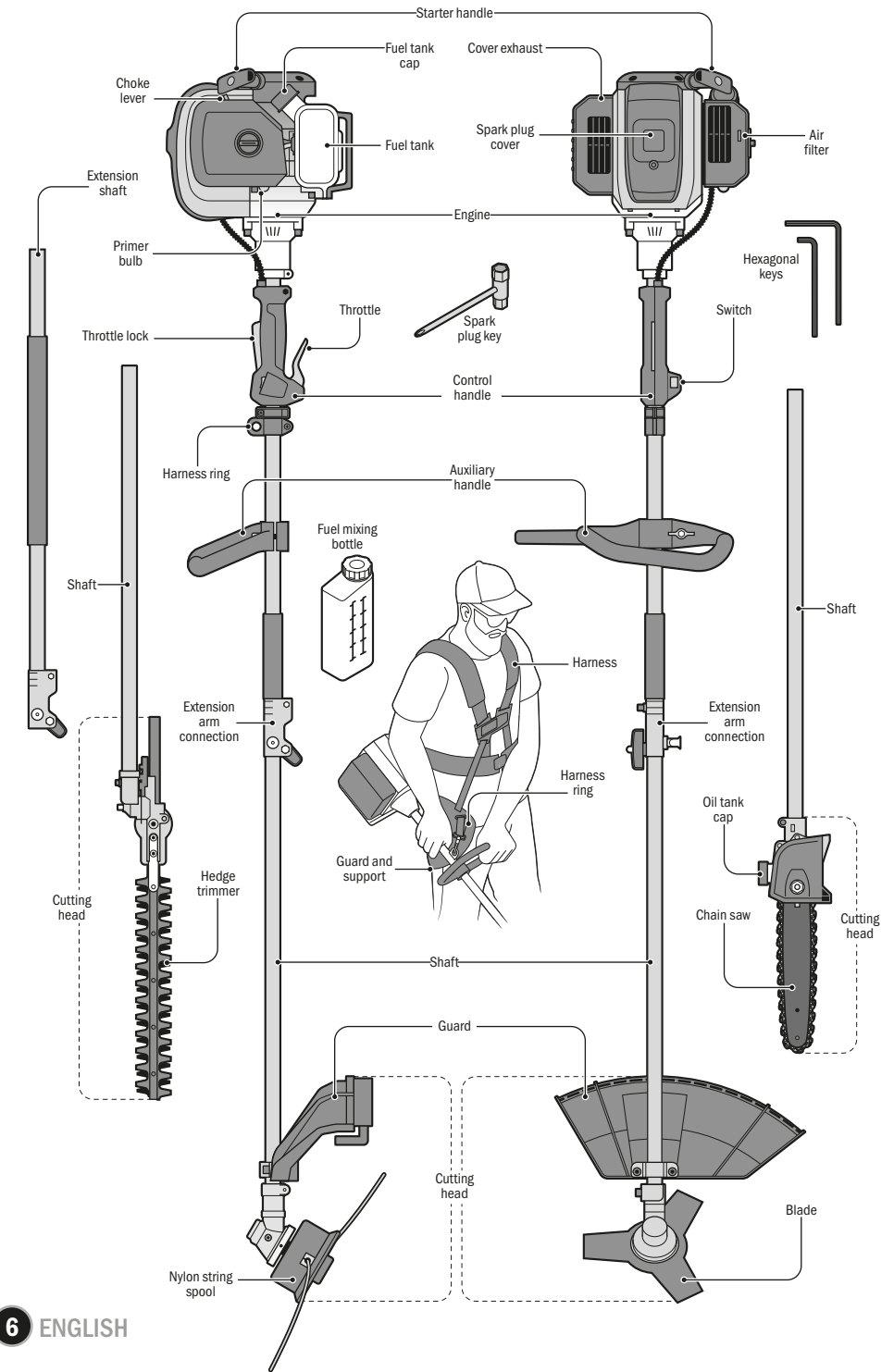
After operating the gas brushcutter

WARNING • Do not try to stop the cutting head movement any other way than releasing the switch. Wait until the cutting head stops by itself after turning off the gas brushcutter. It will take a couple of seconds.

CAUTION • Always carry the gas brushcutter with the motor OFF and the muffler away from your body. Drain empty the fuel tank to place it in a vehicle

WARNING • Turn off the motor before setting the gas brushcutter idle. DO NOT leave the motor running unattended. Let it cool down before storing the gas brushcutter.

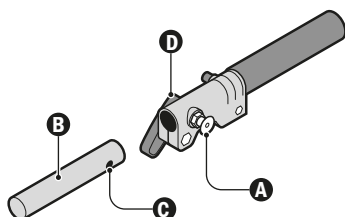
CAUTION • Service and repairs for the gas brushcutter shall only be carried out by highly trained staff.



Shaft Connection

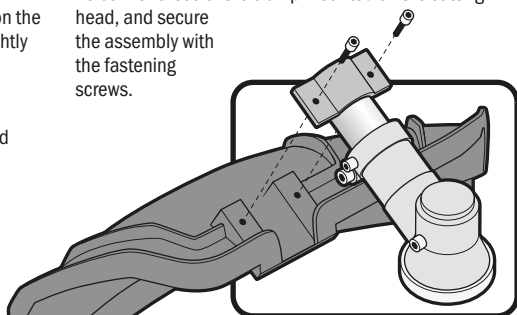
- Remove the retaining pin (A) and insert the end of the shaft (B) from the working head into the clamp.
- Allow the retaining pin to snap into the hole (C) on the shaft by releasing it. If needed, rotate the shaft slightly in both directions to ease the engagement.
- Once inserted, securely tighten the knob (D).

NOTE • This procedure applies to all four shafts: trimmer head/blade, chainsaw, hedge trimmer, and extension.

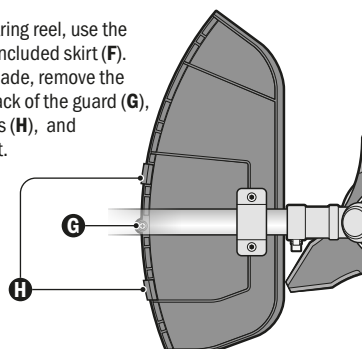


Guard

- Loosen the guard fastening screws, align the guard holes with those of the clamp mounted on the cutting head, and secure the assembly with the fastening screws.

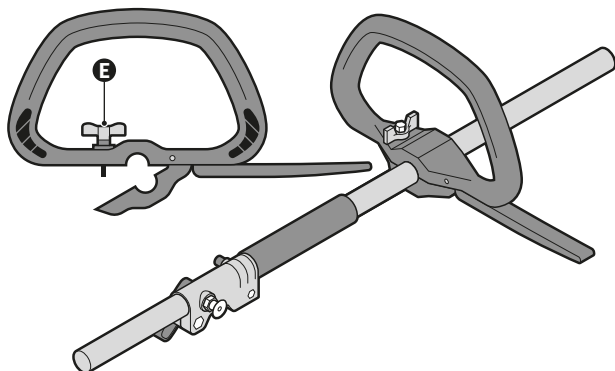


- If using the string reel, use the guard with the included skirt (F).
- If using the blade, remove the safety on the back of the guard (G), press the 2 clips (H), and remove the skirt.



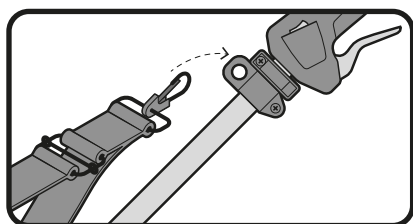
Auxiliary handle

- Loosen the knob (E) to loosen and open the handle clamp. Assemble the handle on the shaft, move it to a comfortable position for work, and tighten the knob.



Harness

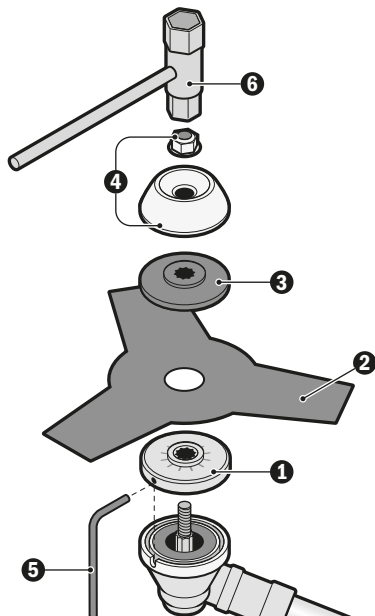
- Place the harness on the handle ring to support the brush cutter with the shoulder.



Blade installation

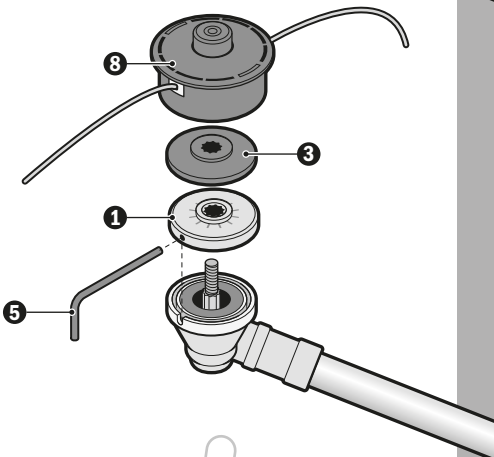
NOTE • Before installing the cutting element, disassemble any previously installed elements.

- Insert the hexagonal wrench (5) on the side of the plate (1), apply pressure to lock the shaft, and turn the safety nut (4) clockwise using the wrench (6) to remove the pre-assembled element.
- Place the plate (1) tightly onto the cutting head.
- Securely place the blade (2) on the plate (1) ensuring that the blade's rotation direction matches the marking on the guard.
- Place the collar (3) over the plate (2).
- Position the cover and the safety nut (4).
- Insert the hexagonal wrench (5) on the side of the plate (1) to lock the shaft, and tighten the safety nut (4) counterclockwise with the included wrench (6).
- Use the guard without the skirt; refer to the guard section for details.



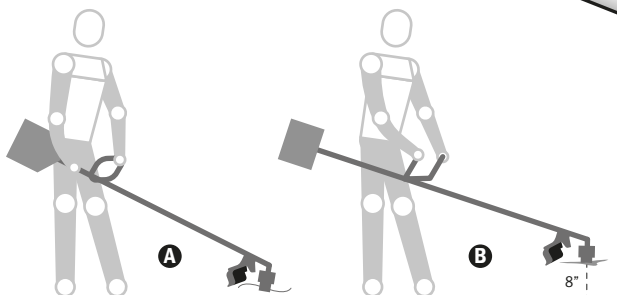
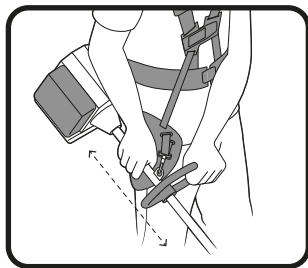
Installation of the string reel

- Firmly place the plate (1) onto the cutting head.
- Place the flange (3) over the plate (1).
- Insert the hexagonal wrench (5) on the side of the plate (1) to lock the shaft.
- Place the threaded reel (8) on the shaft and hand-tighten it counterclockwise.
- Use the guard with the skirt; refer to the guard section for details.



Balance of the brush cutter

- Put on the harness and adjust it to be firm and comfortable.
- Attach the harness to the straight shaft harness ring of the brush cutter.
- Move the ring up and down until the brush cutter is balanced in such a way that the cutting head points downward, below the level of your waist, and no more than 29.5" from the ground.
- When using with a reel, the cutting head should lightly touch the ground (A).
- When using with a blade, the cutting head should be approximately 8" above the ground (B).



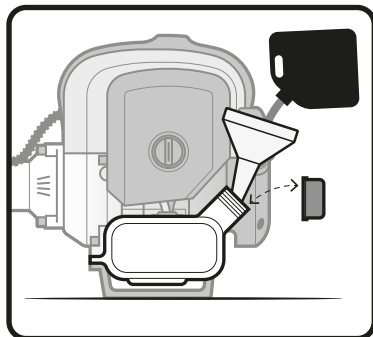


For better performance and durability use higher-octane gasoline. In Mexico, we suggest using PREMIUM gasoline.

- Follow the safety guidelines for fuel handling (page 5).
- Wait for the engine to cool completely before refueling.
- Place the tool on a flat surface, leaning it as indicated in the diagram.
- Clean around the fuel tank cap to prevent contamination.
- Loosen the fuel tank cap slowly.
- Carefully pour the fuel mixture into the tank, avoiding spills.

- CAUTION** • Follow the fuel specifications (page 3).
- Before closing the fuel tank, check and clean the gaskets.
 - Immediately replace the fuel tank cap and tighten it by hand.
 - Clean any fuel spills.

CAUTION • In a new engine, it is normal for there to be smoke emissions during and after the first use

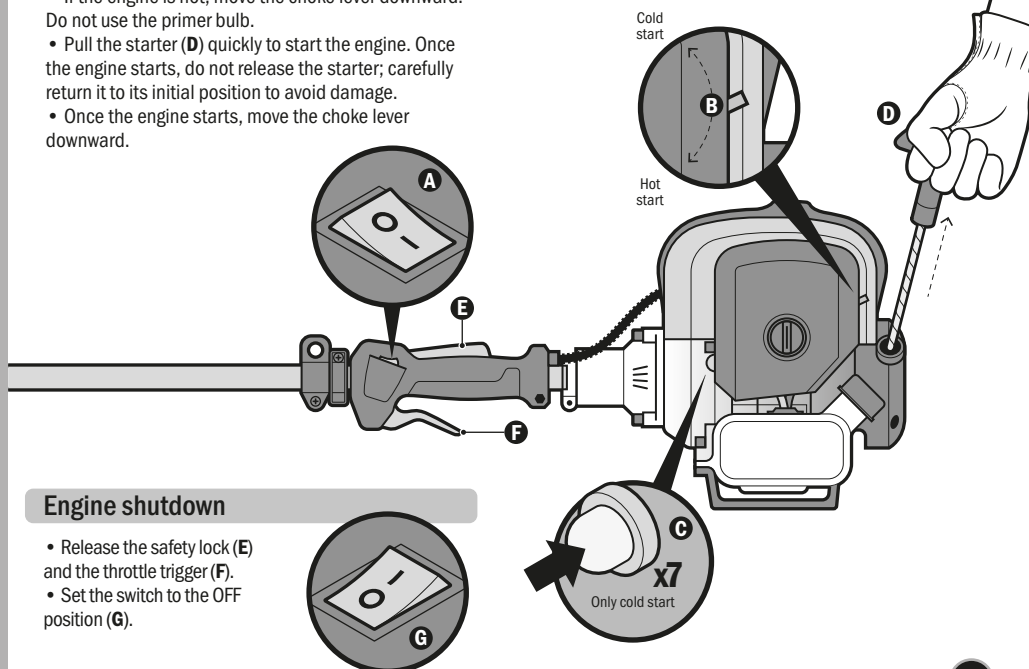


Start up

Starting the engine

- Place the trimmer on level ground where the cutting head does not contact any obstacles.
- Set the switch to the ON position (A).
- If the engine is cold, move the choke lever (B) upward. Press and release the primer bulb 7 times (C).
- If the engine is hot, move the choke lever downward. Do not use the primer bulb.
- Pull the starter (D) quickly to start the engine. Once the engine starts, do not release the starter; carefully return it to its initial position to avoid damage.
- Once the engine starts, move the choke lever downward.

- Allow the engine to idle for a few seconds.
- Hold the tool by both handles with both hands and lift it to place it in the harness to begin work.
- Press the safety lock (E) and the throttle trigger (F) to operate the cutting device.



Engine shutdown

- Release the safety lock (E) and the throttle trigger (F).
- Set the switch to the OFF position (G).

Cutting line reel and blade

⚠ CAUTION • Remember that as the operator of the trimmer, you are responsible for your safety and that of those near the work area. Follow all safety guidelines (pages 4 and 5) before operating the brush cutter.

- Maintain a balanced posture with both feet firmly on the ground.

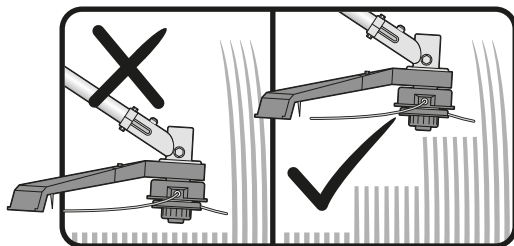
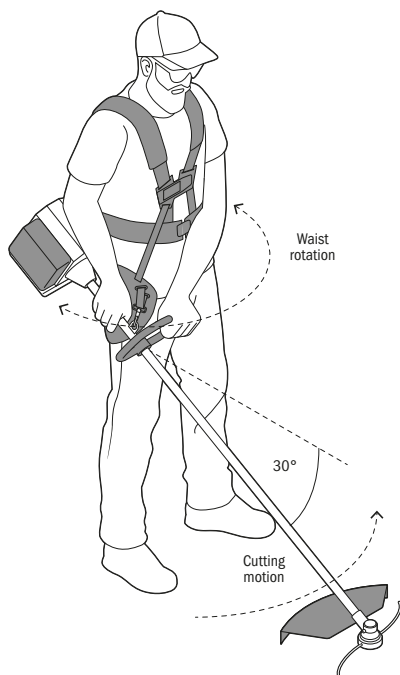
- Use the harness to support the weight of the brush cutter. Hold it firmly in front of you with one hand on the handle and the other on the auxiliary handle so that the brush cutter is aligned with your body, pointing the cutting head 30° downward, away from your feet.

⚠ DANGER • Do not start or operate the trimmer in any other position.

- Start the tool and make cuts from left to right, rotating your waist while maintaining the position of the brush cutter.

- As you cut grass, the cutting line will wear out and eventually break. To release more line from the reel, press the tool slightly downward so that the ground presses the retaining cap against the reel, releasing more line. The excess line will be cut by the guard's blade; at that moment, stop pushing the tool against the ground to avoid wasting line.

- To cut tall weeds or grass, do it gradually. Do not attempt to cut it all at once from the base, as the debris may clog the cutting head or cause you to lose control of the brush cutter.



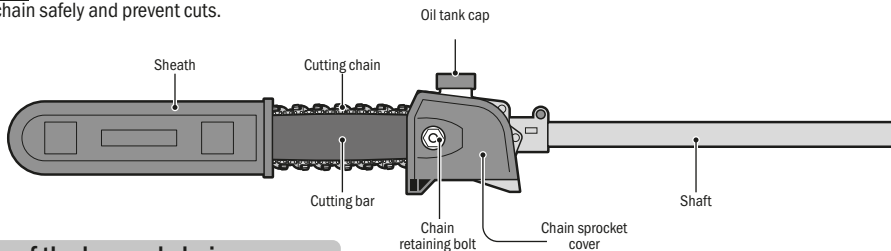
Maintenance

Lubrication of the trimmer cutting head gearbox

- The inside of the trimmer cutting head gearbox is lubricated with multi-purpose lithium-based grease. Replace the grease every 25 hours of use.

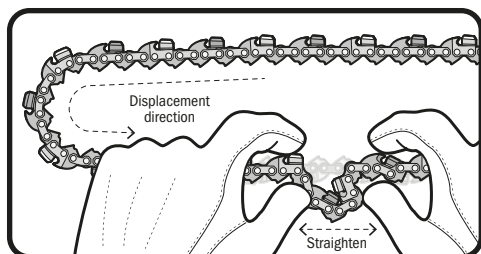
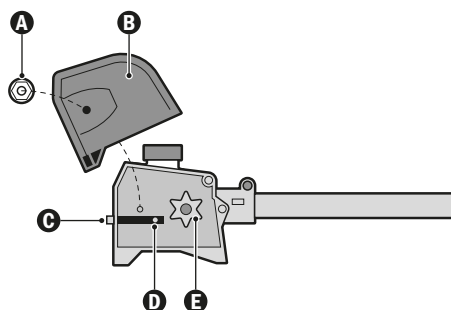
- Remove the bolts on the sides of the gearbox to introduce the new grease through one of the holes while the used grease can exit through the other.

⚠ CAUTION • Use heavy-duty protective gloves to handle the chain safely and prevent cuts.

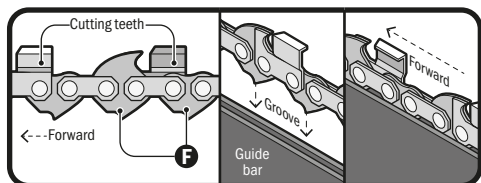


Assembly of the bar and chain

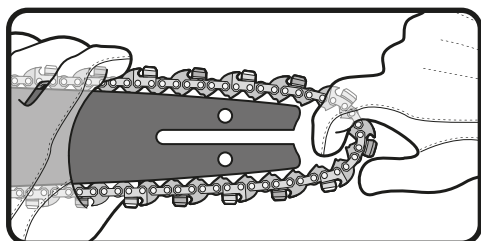
1. Unscrew the nut (A) and remove the cover (B).
2. Turn the tension screw (C) counterclockwise until the tension pin (D) is as close as possible to the sprocket (E).
3. Lay the chain on a flat, clean surface, forming an oval next to the guide bar, and straighten any twisted links. The cutting teeth should face in the direction of chain movement; otherwise, reverse the chain's position.



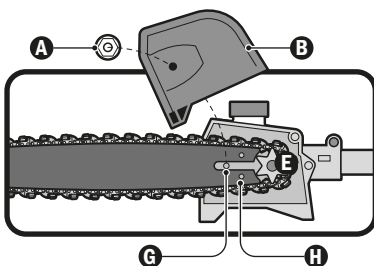
4. Place the drive links (F) of the chain into the groove of the bar, starting from the tip of the bar.



5. Arrange the chain so that it is loose on the back of the bar.



6. Place the guide bar over the stud (G). Insert the tension pin into the locating hole (H) while placing the chain over the sprocket (E).



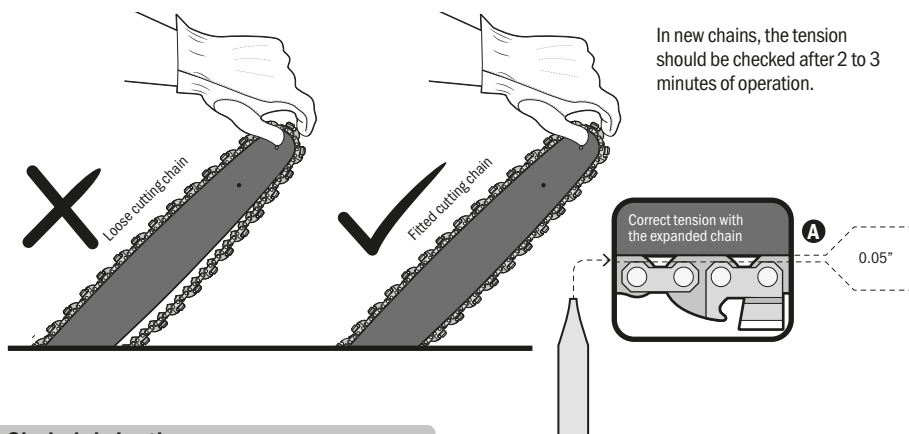
7. Turn the tension screw (C) clockwise until there is very little clearance at the bottom of the bar, and the drive links (F) are inside the groove of the bar.
8. Reinstall the cover (B) and tighten the nut (A) sufficiently.

Chain tensioning

- Turn the chain tension screw until it is snug against the bar with no slack and the drive links inserted into the bar groove.
- Lift the tip of the guide bar to check for any slack in the chain. If there is any, turn the tension screw 1/2 turn again. Repeat the process until there is no slack between the chain and the bar.
- Keep the tip of the guide bar lifted while tightening the nuts with the wrench.
- To check that the chain is not too tight, try moving it by

hand. If the chain jams or is difficult to move, slightly loosen the mounting nut and turn the tension screw only 1/4 turn. Lift the tip of the bar and tighten the mounting nuts before checking the chain tension again.

- To check the tension of the chain expanded by the heat generated during cutting, the flat tip of the combination wrench should be inserted between the bottom of the bar and one of the chain links to verify that the clearance is 0.05" (A).



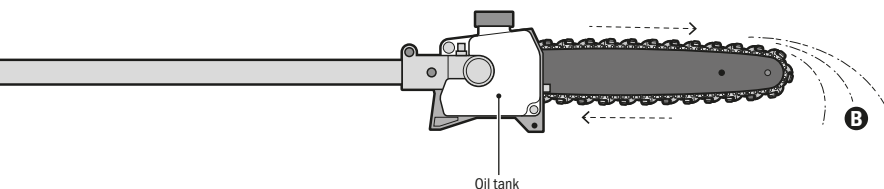
In new chains, the tension should be checked after 2 to 3 minutes of operation.

Chain lubrication

- The lifespan of the chain and guide bar depends on the quality of the lubricant. Therefore, it is essential to use only a specially formulated chain lubricant like SAE 15W-40 or SAE 10W-30.
- Do not use used oil.
- Position the unit so that the fill cap is facing upward.
- Clean the fill cap and the surrounding area to prevent dirt from falling into the tank.
- Fill the oil tank completely. Two oil tank refills are required for every fuel tank consumed. Regularly check the oil level during cutting work. Never let the oil tank run out of oil.

- Always check the chain lubrication and oil level in the tank before and during work.

- To check lubrication, always ensure that the chain throws a small amount of oil during its travel (B).
- If the oil level in the tank does not decrease or the chain does not throw oil, it may be due to a problem in the oil supply system: clean the oil channels or contact your service dealer for assistance if necessary.



Preparation

CAUTION • Use appropriate protective clothing and equipment.

- Start the engine.
- Put on the harness.
- Never position yourself under the branch you are cutting; be cautious of falling branches.

Note that a branch can swing back toward you after hitting the ground!

Working position

- Hold the control handle with your right hand and the auxiliary handle with your left hand. Your left arm should be extended to the most comfortable position.
- The shaft should be kept at an angle of 60° or less.
- Wait for the chain to reach its maximum speed before contacting the branch and starting the cut.

Cutting sequence

- To allow branches to fall freely, always cut the lower branches first. Prune heavy branches (large diameter) into several manageable pieces.

Crosscut

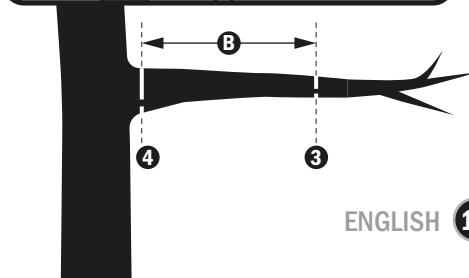
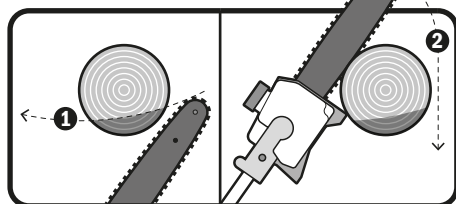
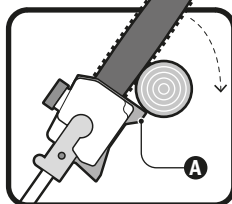
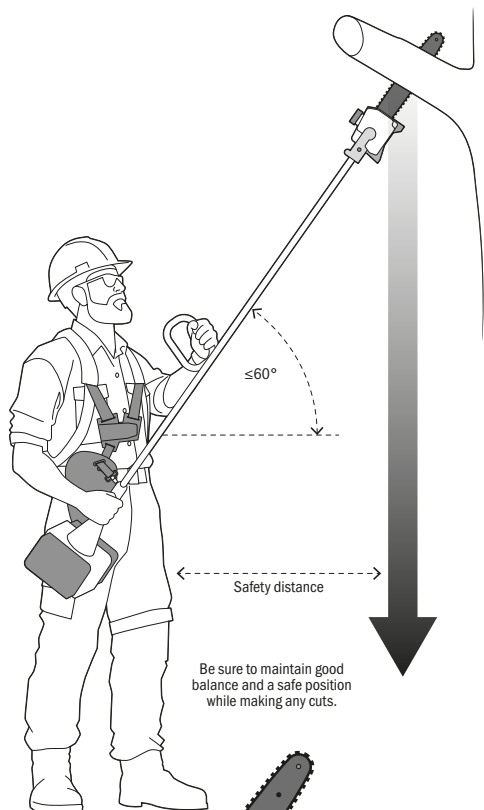
- To prevent the bar from getting stuck in the cut, place the chainsaw bumper (A) against the branch and then make the crosscut from top to bottom.

Relief cut

- To prevent tearing the bark on thick branches, start by making a relief cut (1) on the underside of the branch. Apply the cutting accessory and pull it in an arc under the branch.
- Then make the crosscut from the top of the branch (2).

Flush cut on thick branches

- If the branch diameter is greater than 4", first make a lower cut (3) and then a crosscut at a distance (B) of approximately 8" from the final cut.
- Then, make the flush cut (4), starting with a relief cut and finishing with a crosscut.



⚠ WARNING • Before doing any maintenance, turn off the tool.

⚠ CAUTION • Make sure to wear heavy-duty protective gloves.

Sharpening the cutting chain

⚠ WARNING • Safe chain sharpening requires specialized knowledge and skills. So, it is highly advised that you get a new chain from your Authorized Service Center to replace a worn or dull one.

- The chain requires sharpening if the wood chips produced by the chainsaw during cutting are small and dusty, if you need to exert force to push the guide bar through the wood for a cut, or if the chain tends to cut unevenly to one side.

- To sharpen the chain, make sure it's mounted and properly tensioned on the guide bar, and ensure the chainsaw engine is turned off.

- Use a round file with a diameter of 3.9 mm (5/32").

⚠ CAUTION • Be careful to file all the teeth to the angles specified in the image being careful to give them the same length. Only uniform teeth get a safe and right cut.

- Sharpen all the teeth, one by one. First those on the right side, then, those on the left side. To travel from one tooth to the other move the chain little by little so each time you file a tooth it should sit in the middle of the bar.

- Keep the file level with the upper top-plate in the tooth. Keep the file from leaning or balancing. Apply slight but firm pressure moving only to the front of the tooth.

Remove the file each time you move back.

- Give each tooth a few passes.

⚠ CAUTION • Remove the steel shavings produced while filing with a wire brush.

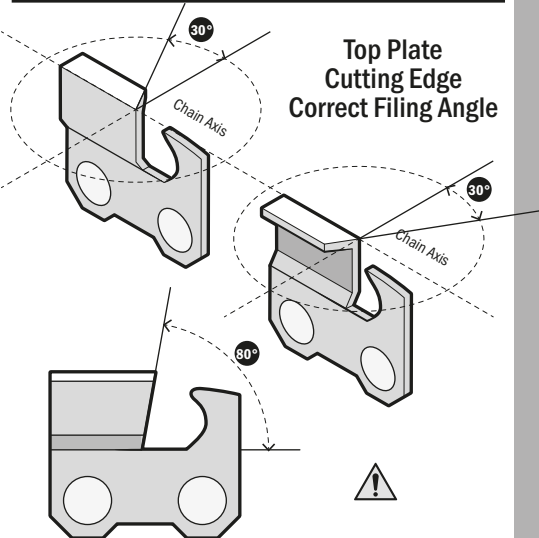
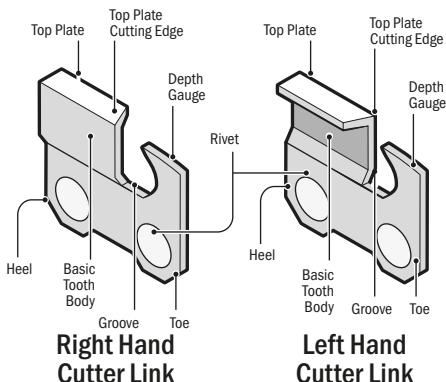
- Using the chain saw with a badly sharpened or dull chain at high speed could damage the motor.

⚠ WARNING • Operating the chain saw with the wrong or blunt chain increases the risk of kickback.

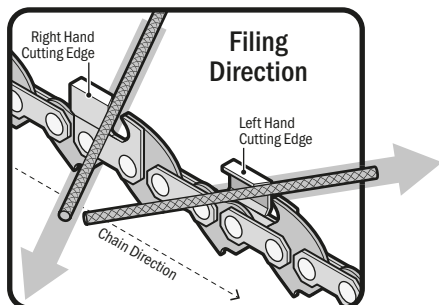
⚠ WARNING • Using the chain saw with a damaged chain may cause severe injury.

⚠ WARNING • The chain is very sharp. Use heavy-duty protective gloves.

⚠ CAUTION • If the cutting chain is dull due to contact with nails, stones or sand and mud present in the wood, have it re-sharpened by a TRUPER Authorized Service Center.

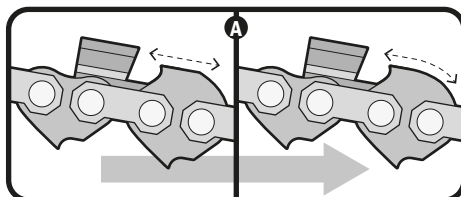
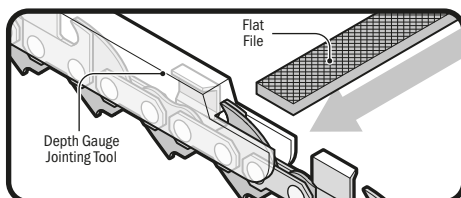
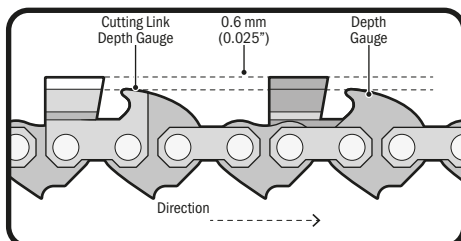


⚠ WARNING • Any angle different from the one specified causes damage to the motor, bar and chain, and increases the risk of violent kickback.



Chain depth gauge

- The chain has cleaning teeth (Depth Gauge) placed in front of each tooth. Their design avoids getting too deep into the wood getting pinched and causing kickback.
- Depth gauges should be checked each time you file the chain in order to get the correct height in the top plate.
- The difference in height on the depth gauge and the top plate should always be 0.025" (0.6 mm).
- If due to normal wear / or filing of the chain the difference is less, use a calibrating instrument and a flat file to even and verify the difference to 0.025" (0.6 mm).
- File only the depth gauges. Do it towards the same direction as of the adjacent tooth being careful not to touch its cutting edge.
- After matching the difference on all the cleaning teeth, file each one and restore the original rounded shape (A).

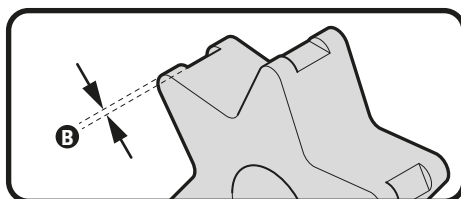
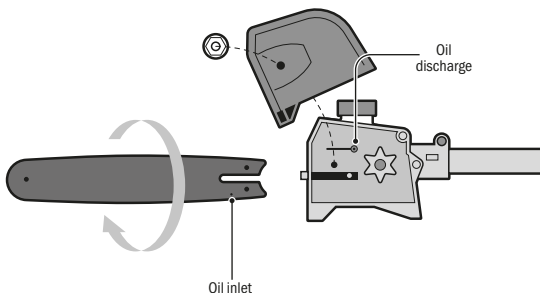


Guide bar maintenance

- The guide bar must be cleaned at the end of the workday and should also be thoroughly inspected for wear or possible damage.
- Flip the guide bar each time you sharpen and replace the chain. This prevents uneven wear, especially on the top and bottom of the bar.

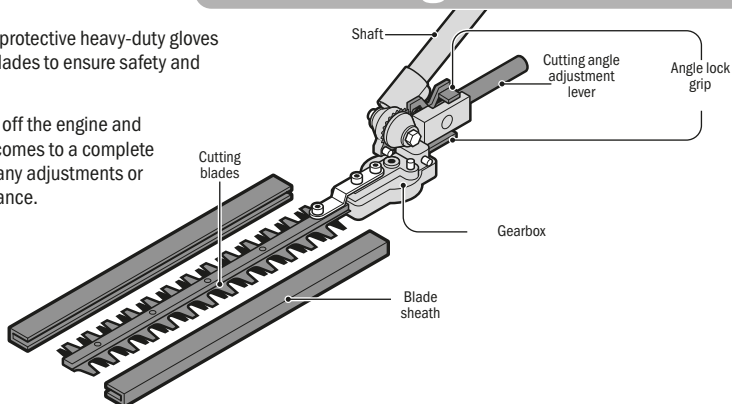
Replacement of the chain sprocket

- Replace the chain sprocket after using two chains or earlier if it shows wear marks of more than 0.02" (B), as otherwise, it will reduce the life of the chain.



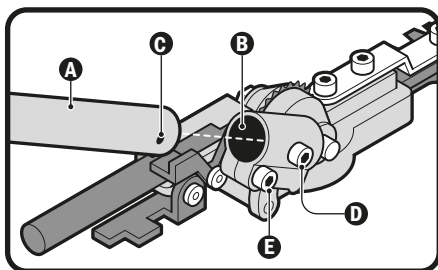
⚠ CAUTION Use protective heavy-duty gloves when handling the blades to ensure safety and prevent cuts.

⚠ CAUTION Turn off the engine and wait until the blade comes to a complete stop before making any adjustments or performing maintenance.



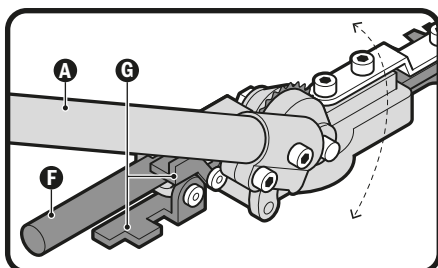
Assembly of the hedge trimmer to the shaft

1. Turn the bolt (D) counterclockwise to remove it.
2. Insert the tube (A) into the socket (B) so that the hole (C) aligns with the bolt hole (D), then insert the bolt (D) through them.
3. Tighten both bolts (D) and (E). Once tightened, ensure that the head of the bolt (D) is flush.



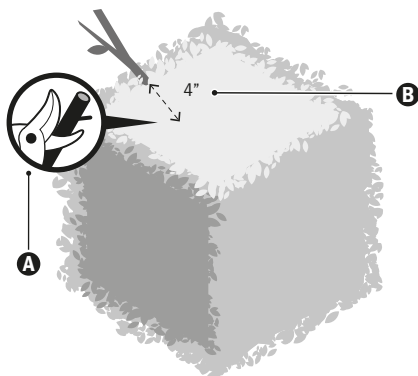
Angle adjustment

- With your left hand, hold the lever (F) and with the right hand, grip the shaft (A). Press the handle to open the locking jaw (G) and adjust the blade position by moving the lever (F).
- When you release the jaw (G), the blade should be locked in the desired position.

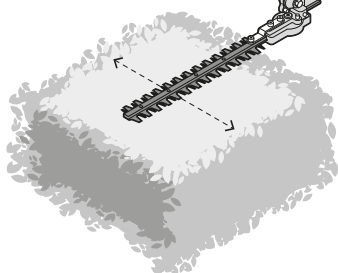


Working conditions

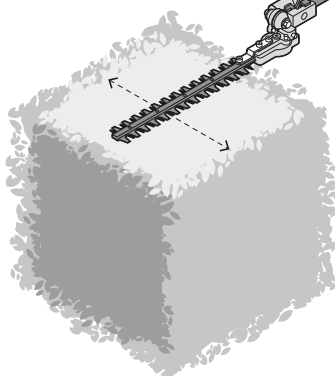
- Do not attempt to cut branches larger than 1/2" in diameter (A) with the tool. Cut branches to 4" below the cutting height using branch cutters before using the tool (B).
- Do not cut dead trees or similar hard objects. Doing so may damage the tool.
- Avoid trimming grass or weeds while using the cutting blades, as they can become entangled in the vegetation.



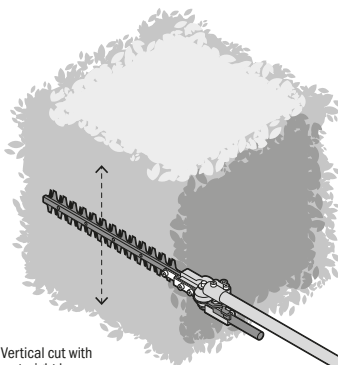
Horizontal cutting with inclined bar. For cuts close to the ground.



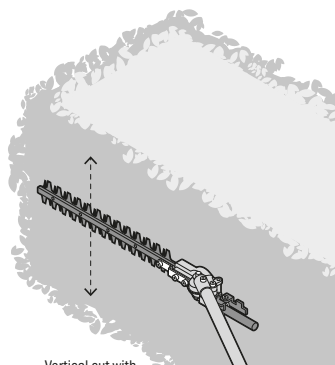
Horizontal cut with straight bar. For cuts at waist height.

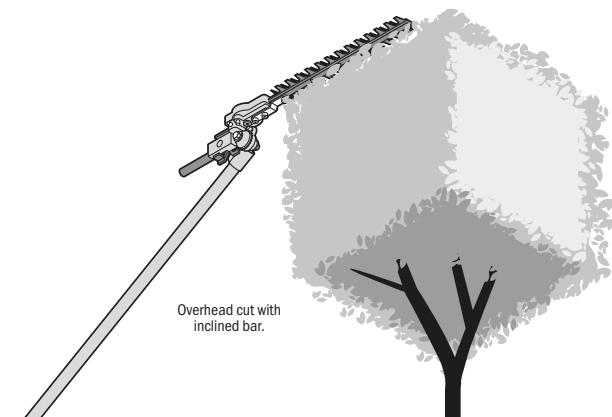


Vertical cut with straight bar. For cuts where the operator is very close to the hedge.



Vertical cut with inclined bar. For cuts where the operator is separated from the hedge.



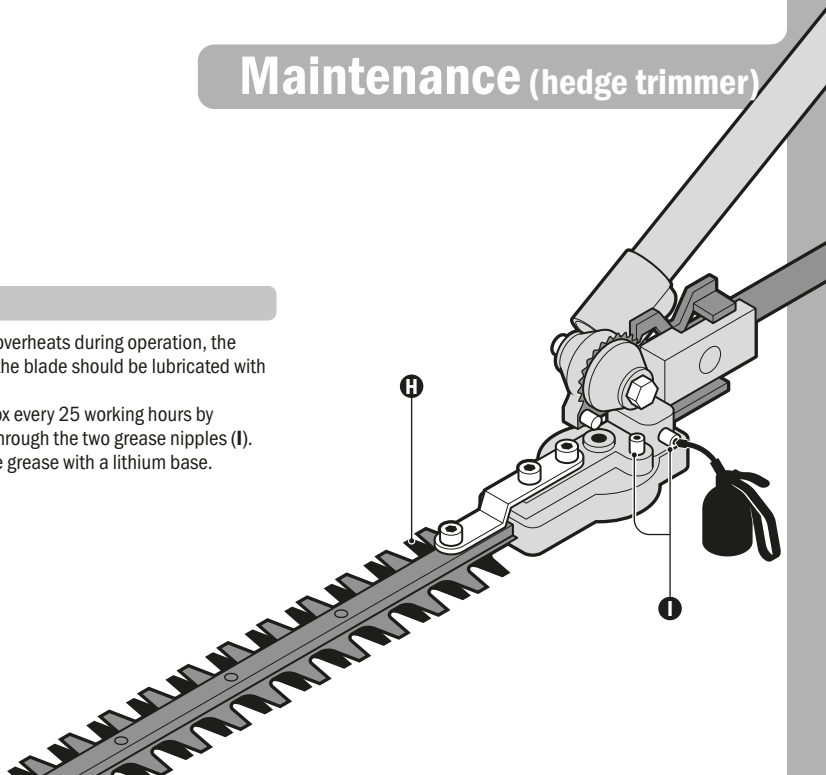


CAUTION • Any working position above head height can be exhausting. To minimize the risk of accidents, work in these positions for short periods. Adjust the angle of the bar to the maximum so that the unit can be held in a lower and less exhausting position (with a harness) while still providing adequate vertical reach.

Maintenance (hedge trimmer)

Blades

- If the cutting unit overheats during operation, the internal surfaces of the blade should be lubricated with a suitable oil (H).
- Grease the gearbox every 25 working hours by introducing grease through the two grease nipples (I).
- Use multi-purpose grease with a lithium base.



• Before inspecting, cleaning, or servicing the tool, turn off the engine, wait for all moving parts to come to a stop, disconnect the spark plug cable, and separate it from the spark plug. Otherwise, serious injuries and/or equipment damage may occur.

General cleaning

- Use a brush or compressed air to clean and clear the ventilation slots of the starter unit whenever necessary.
- Periodically clean the cylinder fins and fan fins to remove any impurities. Failure to do so may cause the engine to overheat and get damaged.

Air filter cleaning

- Remove the air filter cover by loosening the cover knob.
- Take out the sponge air filter.
- Depending on usage time, you can give the filter a superficial cleaning by tapping it lightly on a smooth, flat surface to dislodge most particles.
- Alternatively, blow the sponge filter with compressed air from both sides.
- For a more thorough cleaning, wash the sponge air filter in warm soapy water, rinse it, and let it dry completely before reinstalling it.
- Reinstall the air filter, ensuring it fits securely in place.
- Replace the fabric filter every 50 hours of use.
- Clean the air filter as often as needed to keep it consistently clean; otherwise, the engine's efficiency may decrease.

Fuel filter

- Regularly check the gasoline filter.
- If the filter is dirty, it should be replaced.
- If the inside of the gasoline tank is dirty, rinse it with gasoline.

Carburetor adjustment

- It is recommended to have carburetor adjustments done at a TRUPER Authorized Service Center.
- Incorrect adjustments can damage the engine and void the warranty.

Tool storage

If you plan to store the tool for a month or more, consider the following:

- Drain all fuel from the fuel tank into an approved container for gasoline. Any excess should be reused in another two-stroke engine-powered equipment with a 50:1 ratio.
- Run the engine until it consumes the remaining fuel and shuts off on its own to eliminate residual fuel and prevent the formation of clumps that could damage the fuel system.
- Clean the tool thoroughly.
- Store the unit in a well-ventilated space, away from corrosive agents such as garden chemicals or ice-melting salts, and out of the reach of children.
- Comply with all government safety regulations for handling and storing fuels.

Spark plug replacement

- The engine uses a TORCH L8RTC spark plug with an electrode gap of 0.63 mm (0.025"). Replace the spark plug with an identical one once a year.
- With the engine completely cold, loosen the worn spark plug to the left with a wrench and remove it.
- Insert the new spark plug and hand-tighten it to the right.

⚠ CAUTION • Be careful not to damage the spark plug thread; otherwise, serious damage to the engine may occur.

Exhaust and muffler cleaning

- The exhaust and muffler can become clogged with carbon deposits, depending on the type of fuel, the amount of oil used, and/or usage conditions. If you notice a loss of power, these deposits should be removed to restore performance. Visit a TRUPER Authorized Service Center to perform this service.
- The muffler is equipped with a spark arrester screen inside. After extended use, the screen becomes dirty, and the muffler should be replaced. Visit a TRUPER Authorized Service Center to perform the replacement.





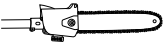



⚠ CAUTION • Constantly check that the muffler has securely fastened clamps and that there are no damages or corrosion. If a leak is found, stop the tool immediately and take it to a TRUPER Authorized Service Center for repair.

Periodic maintenance	After each use	Every 25 hr of use	Every 50 hr of use	Every 150 hr of use	Every 250 hr of use
General cleaning					
Air filter cleaning					
Lubrication of the cutting head gear case					
Carburetor cleaning*					
Spark plug inspection and adjustment*					
Fuel tank cleaning**					
Fuel filter replacement**					
Fuel hose replacement**					
Combustion chamber cleaning**					

*Trained user or TRUPER Service Center.

**Authorized TRUPER Service Center

Accessories and spare parts

	103485	F1-DES-45M	Air filter felt
	103486	F2-DES-45M	Air filter foam
	103487	CB-DES-45M	Carburetor
	103488	DB-DES-45M	Brush cutter trimmer head
	103489	MS-DES-45M	Gasoline chain saw powerhead
	103490	CS-DES-45M	Hedge trimmer attachment
	103612	REP-DES-45M	Trimmer head
	103613	CU-DES-45M	Brush cutter blade

Problem	Cause	Solution
The engine does not start.	<ul style="list-style-type: none"> • No spark. • No fuel. • The engine is flooded. • The starter rope pulls with more difficulty than when new. 	<ul style="list-style-type: none"> • Check the spark. Remove the engine cover. Take out the spark plug from the cylinder. Connect the spark plug cable and place it on the engine cylinder with its metal part touching the cylinder. Pull the starter and observe the spark on the spark plug electrode. If there is none, repeat the test with a new spark plug. • Press the primer bulb until fuel is visible in the bulb. If fuel is not visible, it means that the primary fuel supply system is blocked. Contact a TRUPER Authorized Service Center. If the primer bulb fills with fuel, it is a sign that the engine is flooded • With the ignition switch off, remove the spark plug. Move the choke lever up and pull the starter handle 15 to 20 times to remove excess fuel from the engine. Clean the spark plug and reinstall it. Follow the normal starting procedure (see page 9). If the engine does not start, move the choke lever down and repeat the starting procedure. If the engine still does not start, repeat the procedure with a new spark plug. • Take the tool to a TRUPER Authorized Service Center.
The engine starts but does not accelerate.	<ul style="list-style-type: none"> • The engine requires a few minutes to warm up. 	<ul style="list-style-type: none"> • Allow the engine to warm up completely. If the engine does not accelerate after three minutes, contact your TRUPER Authorized Service Center.
The engine starts but only runs at high speed with half the choke.	<ul style="list-style-type: none"> • The carburetor requires adjustment. 	<ul style="list-style-type: none"> • Take the tool to a TRUPER Authorized Service Center.
The engine does not reach full speed and emits too much smoke.	<ul style="list-style-type: none"> • Check the oil/fuel mixture. • The air filter is dirty. • The spark arrestor screen is dirty. 	<ul style="list-style-type: none"> • Use new fuel and the correct 2-stroke oil mixture. • Clean the air filter. See page 19. • Clean the spark arrestor screen as indicated on page 19.
The engine starts, runs, and accelerates but does not have die.	<ul style="list-style-type: none"> • The idle screw on the carburetor needs adjustment. 	<ul style="list-style-type: none"> • Turn the idle screw clockwise to increase the speed.

In the event of any problem contacting a TRUPER Authorized Service Center, please see our webpage WWW.TRUPER.COM to get an updated list, or call our toll-free numbers 800 690-6990 or 800-018-7873 to get information about the nearest Service Center.

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FLORIDO II, C.P. 22244, TIJUANA, B.C.
TEL.: 664 969 5100

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HIDALGO **FERREPRECIOS S.A. DE C.V.**
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ROBLEDO, COL. CENTRO, C.P. 43600, TULANCINGO,
HGO. TEL.: 775 753 6615 / 775 753 6616

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VALLE, C.P.: 45655, TLAJOMULCO DE ZÚÑIGA, JAL.
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TEL.: 999 912 2451

Code	Model	Brand
103205	DES-45M	TRUPER®

Warranty. Duration: 1 year. Coverage: parts, components and workmanship against manufacturing or operating defects, except if used under conditions other than normal; when it was not operated in accordance with the instructive; was altered or repaired by personnel not authorized by **TRUPER®**. To make the warranty valid, present the product, stamped policy or invoice or receipt or voucher, in the establishment where you bought it or in Corregidora 35, Centro, Cuauhtémoc, CDMX, 06060, where you can also purchase parts, components, consumables and accessories. It includes the costs of transportation of the product that derive from its fulfillment of its service network. Phone number **800-018-7873**. Made in China. Imported by TRUPER, S.A. de C.V. Parque Industrial 1, Parque Industrial Jilotepec, Jilotepec, Edo. de Méx. C.P. 54257, Phone number 761 782 9100.

Stamp of the business. Delivery date:

