ELIET®

MANUAL

E450 ZR
E550 ZR
E650 ZR



This manual contains practical information regarding the use and maintenance of the machine. **Read it carefully and keep the manual in a safe place.**



Please also keep your **purchase invoice** or receipt together with this booklet.



Register your purchase online at **www.eliet.eu.**

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1. Introduction



1.1. Carefully read this user manual

ELIET machines are designed for safe and reliable use if they are operated in accordance with the instructions provided. Carefully read these operating instructions before using the machine. Failure to do so may result in personal injury or damage to the equipment.

1.2. Identification Data – ELIET E450 ZR - E550 ZR - E650 ZR

Copy the identification data of your machine into the text boxes:

Type number:	
Engine:	
Serial number:	
Year of Manufacture:	

2. Warranty



2.1. Machine registration

To be entitled to warranty, the machine has to be registered online within one month after purchase at: **www.eliet.eu**

European customers:
ELIET EUROPE NV
Diesveldstraat 2
8553 Otegem
T (+32)(0)56 77 70 88 - **F** (+32)(0)56 77 52 13
e-mail: info@eliet.eu, www.eliet.eu

US customers:
ELIET USA Inc.
3361 Stafford Street
Pittsburgh, PA 15204
Tel +1 412 367 5185 - **Fax** +1 412 774 1970
e-mail: info@elietusa.com, www.elietusa.com

Check the warranty conditions (voir § 16, page 58)

3. Welcome



Welcome to the family of ELIET users.

We thank you for the trust that you have placed in ELIET and we are convinced that you have purchased the very best machine. The operating life of your ELIET machine depends on how you care for your machine. This manual and the engine manual included will help you on your way. Strict adherence to the instructions and suggestions in these manuals will guarantee optimum performance of your ELIET machine for a very long time.

Read this manual carefully before operating the machine. This will prevent you from operating the device incorrectly.
For your own safety, please observe the safety instructions specified in the relevant chapter. Even if you are familiar with operating similar equipment, it is still advisable to read these pages carefully.

All ELIET equipment and machines are continually updated and improved; as such, we reserve the right that the specifications of your machine may differ slightly in terms of shape, technology and accessories. The descriptions and technical data in this manual are valid at the time of publication. Certain illustrations and descriptions may not apply to your specific machine, but instead relate to a different version of the machine. For this reason, we trust that you appreciate the fact that discrepancies or deviations in the texts and illustrations in this manual cannot give rise to any claims. If you still have questions after you reading this manual, please contact your ELIET dealer. Find an authorised ELIET dealer near you at **www.eliet.eu.**

ELIET AT YOUR SERVICE

During office hours, ELIET's help desk will make every effort to answer all of your questions:

European customers:	US customers:
GMT +1: from 8 AM to 4 PM	GMT -5: 8 AM to 5 PM
Tel: +32 56 77 70 88	Tel +1 412 367 5185
Fax: +32 56 77 52 13	Fax +1 412 774 1970
info@eliet.eu	info@elietusa.com
www.elietmachines.com	www.elietusa.com

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5. Safety symbols

ELIET cannot anticipate every situation in which a risk or danger can occur. As such, the warnings in this operating manual and the labels on the machine are not comprehensive. Although minimal, some risk will always remain. If you apply a working method, operation or technique as the operator of the machine that is not explicitly recommended by ELIET, ensure in any case that this will not present a danger for third parties.







This manual uses certain symbols ("For your information", "Caution", "Warning") to provide additional information and highlight dangers.

5.1. For your information



For your information: This symbol is used to draw your attention to specific information and/or actions, or it is used to indicate where you can find additional information relating to the topic.

5.2. Caution



Caution: This symbol suggests safe practices. The purpose is to prevent incorrect operation that could result in personal injury or damage to the machine.

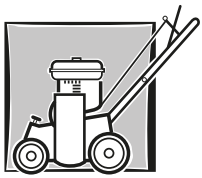
5.3. Warning



Warning: This notice warns you of any extreme dangers which you need to take into account in these specific circumstances. So for the sake of your own safety, remain alert at all times.

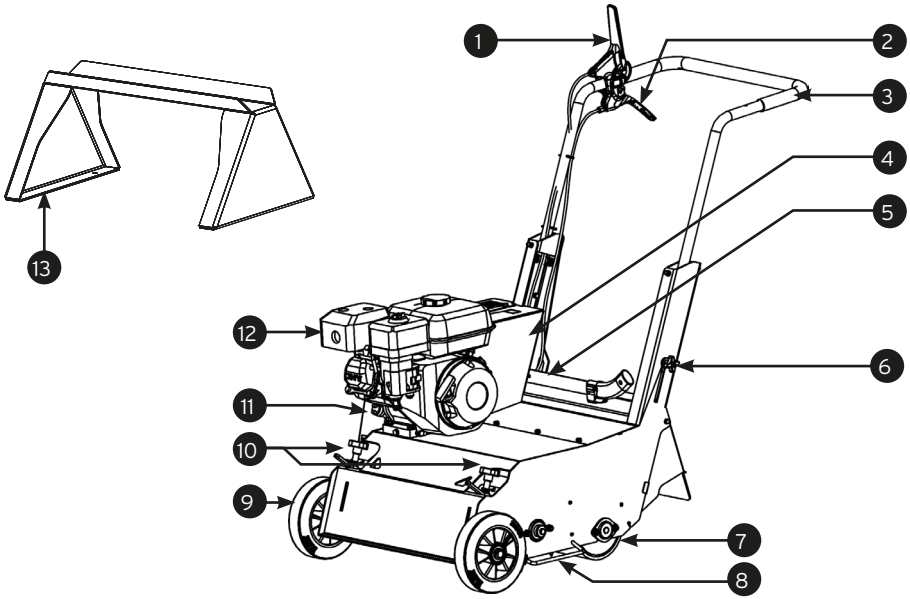
These safety messages can only warn of dangers, but not prevent them. Using common sense and observing the guidelines contained in this manual are essential to prevent accidents.

6. Main machine parts

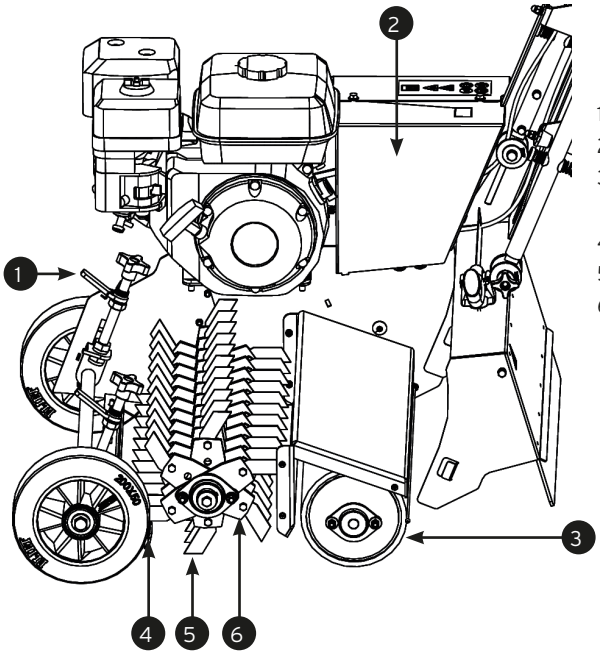


To fully understand the content of this operating manual, you need to be familiar with the terminology used for the descriptions. This chapter refers to a broad range of machine parts and identifies their names. We recommend that you take the time to study the machine prior to use for a better understanding of the descriptions provided in this operating manual.

6.1. Overall view



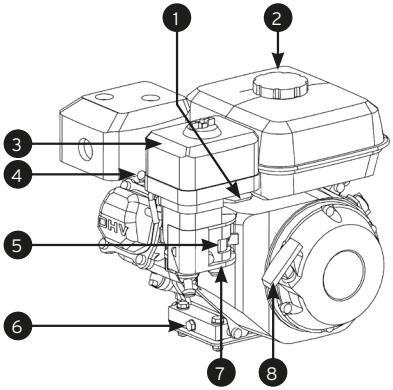
1. Decoupling lever blade drive
2. Operation lever traction
3. Handlebar
4. Small protective cover
5. Cleaning tool
6. Height adjustment handlebar
7. Traction roller
8. Lateral blade guard
9. Running wheels
10. Stepless height control knobs
11. Large protective cover for belt drives
12. Engine
13. Easy Clean™

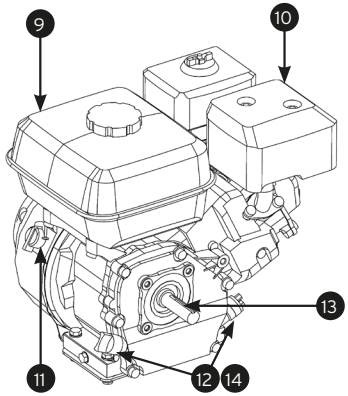


1. Depth control buttons
2. Transmission box
3. Rubber traction roller (150 mm - 6" diameter)
4. Wheel scrapers/roller scraper
5. Double Cut™ Blades
6. Blade holder

6.2. Engine

E450 ZR: 5,5 HP HONDA GX160 - **E550 ZR:** 6,5 HP HONDA GX200 - **E650 ZR:** 9 HP HONDA GX270

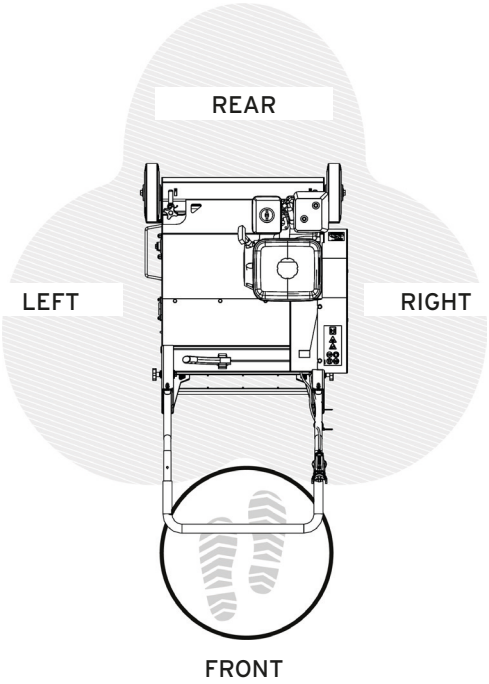




1. Throttle
2. Petrol for UK (gas for US) cap
3. Air filter
4. Spark plug
5. Choke
6. Oil drainage plug
7. Fuel valve
8. Recoil starter handle
9. Petrol for UK (gas for US) tank
10. Exhaust
11. On-off switch
12. Oil dipstick
13. Crankshaft
14. Oil filler cap



For your information: All references to front, rear/back, left and right in this manual are from the viewpoint of the operator behind the steering column in the operating position.



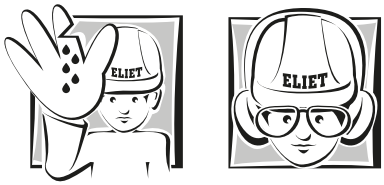


For your information: Your ELIET dealer remains at your service for any maintenance or advice, so that your ELIET machine is always in perfect condition. You can contact the latter for original ELIET replacement parts and lubricants at any time. These machine parts are manufactured according to the same strict rules and craftsmanship as the original equipment.



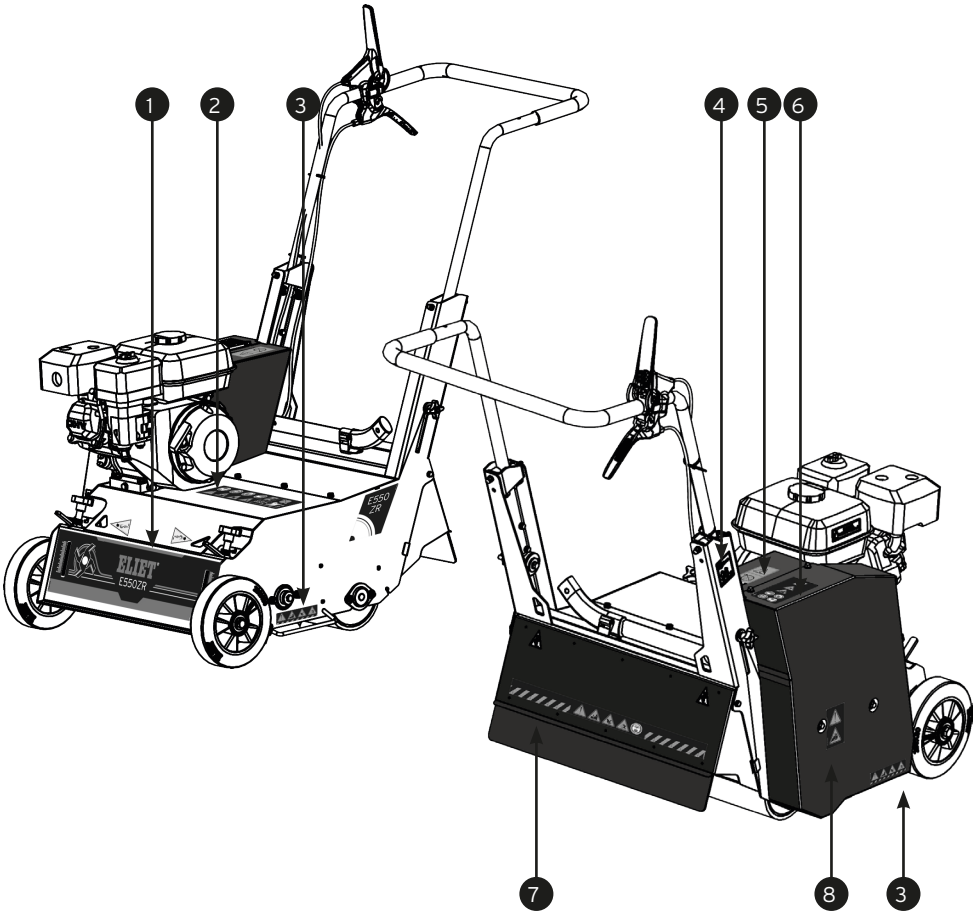
Caution: For your own safety, only original machine parts may be mounted on ELIET machines.

7. Safety instructions



7.1. Safety messages

The safety messages are clearly indicated on the machine with stickers or relief pictograms. Please take note of the symbols and warning messages displayed.







1. On the front of the machine, near the height adjustment, two safety pictograms are displayed:

- This pictogram warns of the risk of foot injuries. This is a serious hazard if your foot comes under the housing. As such, keep your feet or hands well clear of the edge of the housing.
- This pictogram warns of danger for projectile material. Due to the rotation direction of the blades, objects are projected forwards. There is a greater risk of exposure when the machine is lifted. Be alert in this respect.

This sticker bears order code: **E450 ZR:** BQ 501 550 010
E550 ZR: BQ 501 540 010 - **E650 ZR:** BQ 501 560 010.













2. This sticker is attached onto the top plate of the housing. This is a central place on the machine that is always clearly visible to the operator when they want to start the engine. The sticker collects a number of important instructions for the operator:

- The manual should be read and understood before operating the machine.
- Suitable safety clothing (safety goggles, gloves, ear protection) must be worn whenever and wherever it is required.
- Working with or performing maintenance on the machine poses the possible risk of cuts to hands and feet. Be attentive and careful.
- Bystanders must keep a safe distance.
- It is prohibited to clean the machine using a high-pressure cleaner.
- Cleaning is essential after every use. A drawing also explains how to use the special "Easy Clean™" maintenance support.
- The sticker notifies the operator that the engine must be turned off and the spark plug cap removed before performing maintenance.

This sticker bears order code: BQ 505 010 650.





3. This sticker is also affixed to the side of the protective cover and on the other side of the machine, above the lateral blade guard. The sticker hangs on the underside where the blades rotate. The sticker warns of the danger of injuries if someone approaches this area with their hands or feet. A safe distance must be maintained.
This sticker bears order code: BQ 505 010 710.



4. There is a sticker on the right hand side of the handlebar indicating the weighted noise level of the machine. This provides the operator with information about the exposure to noise, and the appropriate hearing protection to be envisaged.
This sticker bears order code: BQ 505 112 098.



5. The sticker located on top of the big protective cover, is a reminder that a high-pressure cleaner must never be used on the sensitive areas of the machine: engine, transmission, bearings, electrical junction box, etc.
Do not clean the machine when it is still warm.
This sticker bears order code: item code: BQ 505 010 465.













6. There are pictograms on the top of the large protective cover. This is a visible spot that can be seen from every angle of the machine. It pertains to a number of significant risks and is a constant reminder for the operator of a number of obligations and responsibilities:

- This pictogram reminds the operator that bystanders must remain at a safe distance of 10 m to ensure their safety.
- This pictogram warns of the general danger of projectiles. The blades rake the ground surface clean, whereby projectiles can fly out at high speed. Wearing suitable protective clothing and keeping a safe distance is therefore advised.
- This pictogram pertains to the risk of foot injuries. This is a serious hazard if the operator's foot comes under the housing of the machine when the blades are rotating. As such, keep your feet at a safe distance from the machine.
- Via recognisable pictograms, the sticker requires that suitable protective clothing is worn: safety goggles to protect the eyes. Hearing protection to avoid hearing damage during prolonged exposure. Wearing gloves is an essential basic protection.
- The final pictogram instructs the operator to read the manual before using the machine, to avoid any incorrect handling which could be dangerous for themselves and for and others.

This sticker bears order code: BQ 505 010 550.







7. This sticker is affixed to the rear cover. The black-yellow shading draws attention to this risk zone. The pictograms warn of a number of dangers in the area behind the anti-projection cover and of the risks associated with lifting it:

- There is a risk of injury from dirt, sand and stones being ejected.
- Sturdy safety shoes must always be worn.
- Eyes must always be protected with safety goggles.

This sticker bears order code: **E450 ZR:** BQ 505 010 740
E550 ZR: BQ 505 010 700 - **E650 ZR:** BQ 505 010 760.

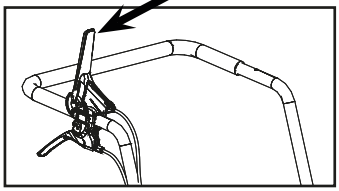


8. This sticker is affixed to the side of the cover near one of the fixing bolts. This sticker warns of the danger of pinching, cutting or bruising fingers if they are caught by the drives shielded by the cover. The engine must always be switched off before the protective cover is removed.
The machine must never be operated if the protective cover has not been fitted correctly.
This sticker bears order code: BQ 505 010 660.

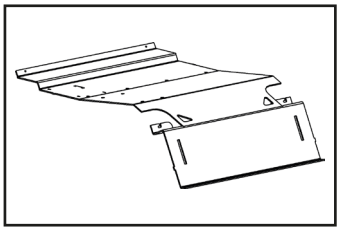


Caution: If due to cleaning or use, safety stickers or parts displaying safety information have been damaged, removed or become illegible, they must be replaced immediately. Stickers and parts can be obtained from your official ELIET dealer.

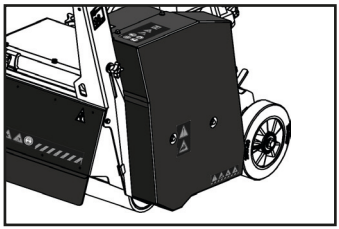
7.2. Safety features



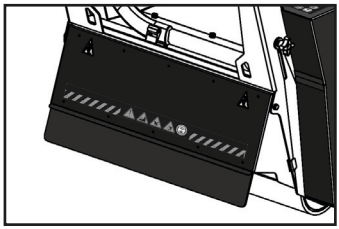
Dead man's lever:
When the dead man's lever is released, the drive of the blades is disconnected from the engine and comes to a standstill after a few seconds.



Steel housing: The blades are enclosed in a sturdy steel housing.



Protective cover: The large protective cover protects the belt drive of the blades, the belt drive for the reduction gearbox and the chain drive between the reduction gearbox and the traction roller. This prevents undesirable contact with these drive components.



Rear cover:
This cover is located at the end of the outlet channel at the rear of the machine. This cover deflects the projection flow to the ground, minimising the risk of injury to operators and bystanders.
The cover must be fully closed during operation.
The rear cover has been developed in such a way that when it is opened, part of it ends up in the projection path, thus partially absorbing the projection. This offers protection for the operator.



Warning: Never attempt to bypass or disable the safety features. The safety measures were designed for your safety. Before using the machine, the operator should check that the safety features work properly. Any defects must be repaired prior to using the machine.

7.3. Safety instructions

7.3.1. General safety instructions



Warning: Most accidents are caused by carelessness or reckless behaviour.

- The owner of the machine must keep this manual during its complete service life. It serves as a reference guide for the user so that he or she can use and maintain the machine in accordance with the correct instructions. Always refer to this instruction manual if you have any doubts regarding an action that you are about to perform.
- If the instructions stated in this manual are not clear to you, do not hesitate to contact your ELIET dealer for further explanation. In addition, the ELIET help desk is at your service during office hours to answer any questions you may have (EU +32 56 77 70 88).



For your information: Please also read the engine manual supplied with your machine. It contains useful tips about proper use and maintenance of the engine.

- Also read the chapter which is intended for the dealer (read § 8; page 19) and verify whether the machine has been supplied in accordance with the instructions.
- Carefully observe all safety instructions when using this ELIET machine. Make sure to read all the instructions about how to operate the machine. All these instructions are for your own safety.
- Get advice from the dealer or another professional when purchasing the machine.
- Read and observe all safety messages indicated on the machine in the form of text or pictograms. (read § 7.1; page 11)
- Always observe the applicable regulations of the Labour Inspectorate to avoid accidents.
- In no event can the original design of the machine be modified without the explicit and written consent of ELIET EUROPE NV (Belgium).

7.3.2. Careful and proper use

- Think about every action you perform with the machine. Do not be tempted to become inattentive out of habit. Never act impulsively or on reflex.
- Despite the extensive safety features, do not seek out hazardous situations.
- This machine serves to rake out and remove the moss and felt growing on the bottom layer of your lawn. The machine must therefore only be used for this purpose.
- Dethatching is a surface operation. The blades should only touch the upper surface. Too deep a blade setting increases the risk of broken blades and increased wear, and creates a risk of projectiles for the operator and bystanders.
- ELIET declines all liability for damage resulting from improper blade settings.
- When dethatching, the blades touch the top surface of the lawn. Before starting work, the lawn must be thoroughly inspected for foreign objects. These must be removed. If this is not possible, they must be clearly demarcated so that it is not possible to drive over them while working.

- Dethatching is only possible in a forward travelling direction.
- Never dethatch when the ground is frozen.
- It is recommended to work a dry lawn. Wet lawns increase the risk of accidents; extra care is necessary in these conditions.
- If the lawn is too dehydrated after a period of drought, dethatching is not recommended. The dust generated from the lawn would increase wear and tear to the machine. In addition, dethatching would have a negative effect on the lawn in this case.
- Never work when light intensity is below 500 Lux.
- The machine must never be used as a means of transport for people or heavy loads.
- Thoroughly inspect the area where the machine is to be used. Remove sticks, stones, wires and debris, but also take account of electric cables, water pipes, sprinkler heads, drain covers, electrical wiring of the demarcated area of robot lawnmowers, etc.
- The blades must be deactivated as soon as the machine is taken off the lawn and pushed across a hard surface. When crossing larger distances on a hard surface, the engine must be turned off as well.
- Use the machine in an environmentally safe manner:
    - Avoid running the machine without actively using it.
    - Avoid spilling petrol while refuelling.
    - Service the engine regularly in order to maintain optimum combustion.

7.3.3. Responsibilities of the operator

- All persons using the machine are assumed to be familiar with the safety instructions. **They are fully liable for the use of the machine with regard to themselves and third parties.**
- The operator of this machine is assumed to be mature enough and with enough common sense to make decisions by him or herself.
- The machine must not be operated by minors. However, this does not apply to people over the age of 16 who are learning to operate the machine under the supervision of an experienced user. This manual must be read before use.
- Children (under 16 years of age) and animals should be kept at a safe distance (10 m) from the machine.
- ELIET advises against lending the machine to others. Should this nonetheless be the case, the machine should be lent only to persons who are familiar with it. **Always make sure that the user is aware of the potential hazards and ensure that he/she reads the manual before using the machine.**
- This machine must only be operated by persons who are not tired and in a good physical condition. Take a rest if you become tired whilst operating the machine. Do not operate the machine after alcohol consumption.



Warning: A moment of inattentiveness or carelessness can lead to lifelong regret.

7.3.4. Personal Protective Equipment (PPE)



For your information: Personal protective equipment helps reduce the risks the operator is exposed to.

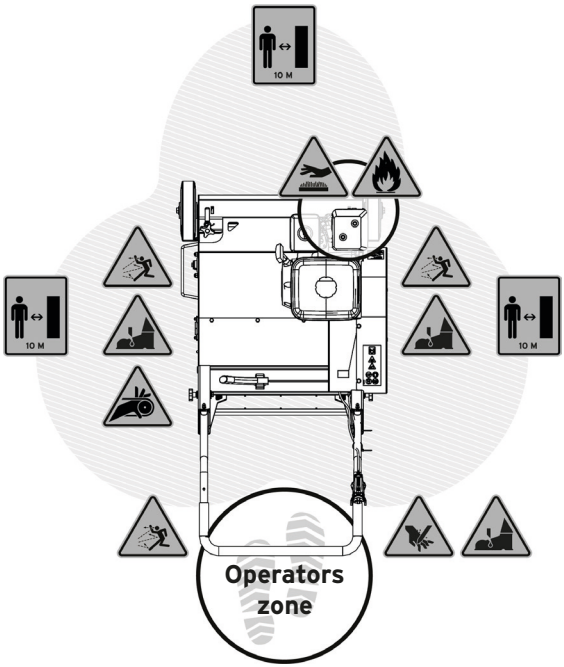
- The person operating this machine must wear suitable clothing. This means clothing covering the entire body, protective gloves and closed footwear.
- Since your feet run a high risk when operating the machine, sturdy, closed shoes with non-slip soles are a must. Shoes with a steel toe cap are highly recommended.
- To protect eyesight and hearing, ELIET recommends hearing protection and safety goggles.
- Dethatching can produce a considerable amount of dust. ELIET recommends using a dust mask if this agitates your respiratory airways (masks should comply with the 89/686/EEC standard).

7.3.5. Danger zone



Warning: never lift up the rubber mud flap while working. This will eliminate the protection against projection and could lead to the risk of damage or injury.

The image below shows the position of the operator and the machine's danger zone:



- The safe position for the operator is behind the machine, with both hands on the handlebar.
- Never allow bystanders within the danger zone - a circle of 10 m around the machine - while working.
- The blades rotate in the opposite direction to the direction of travel. By pushing down on the handlebar to lift the front wheels to perform e.g. a turning movement, the blades may project earth or stones from the ground. Always make sure there are no persons, animals or objects susceptible to damage in this area. If necessary, switch off the drive to the blades beforehand.
- Do not take risks! Stop the blade drive as soon as someone enters the danger zone.
- Shut off the engine when leaving the machine unattended.
- Once the engine is running, the operator's full attention must be on operating the machine.
- Protective covers are intended to shield off dangerous areas to avoid accidents. It is therefore strictly prohibited to operate the machine or to activate the engine or any drive when protective covers are removed.

7.3.6. Periodic maintenance



For your information: Good maintenance is essential for safe, economical and trouble free operation and for your own safety.



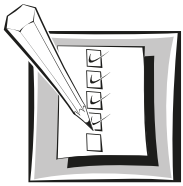
Caution: Wear the appropriate clothing and protection when maintaining - servicing or repairing the equipment.

- Before use, always inspect the machine to check that all machines parts are in good condition. The engine revolution rate must be set correctly.
- The machine must be cleaned after every work session.
- After every work, inspect if there is no damage to the blades. Damage to these components can cause serious injury to the operator or bystanders, as well as damage to property.
- Periodic maintenance is essential. Strictly follow the maintenance schedule included in this operating manual (voir § 11.2, page 41) . An hour counter helps you keep track of the hours of operation of the machine. This can be ordered as an option. (order number: BE 412 410 000)
- If parts require replacement due to wear or failure, always contact your ELIET dealer and request original ELIET replacement parts. This is important for your own safety (find an official ELIET dealer near you at **www.eliet.eu**)
- Repairs and maintenance work may only be carried out with the engine switched off.
- Take the machine for an annual general service to your authorised ELIET service center.
- Maintenance work also requires full attention. All elements that can cause distraction should be avoided:
  - Avoid bystanders in the work area
  - Do not wear headphones with music or radio
  - Avoid TV screens with a moving image
  - Switch off smartphones to avoid being distracted by messages or calls.



Caution: repair, maintenance and cleaning work must only be carried out with the engine turned off and the spark plug cap decoupled.

8. Dealer's responsibilities



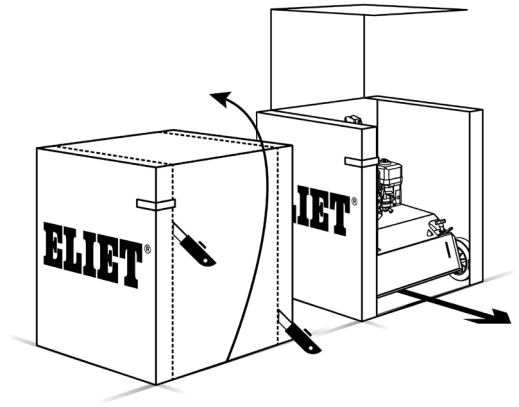
8.1. Unpacking the machine

- ELIET machines are packaged in accordance with standard rules for proper transportation.



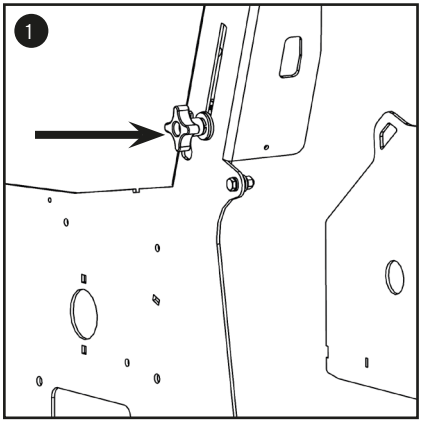
For your information: deliveries are always ex works. Consequently, ELIET cannot be held liable for any damage that occurs during transport.

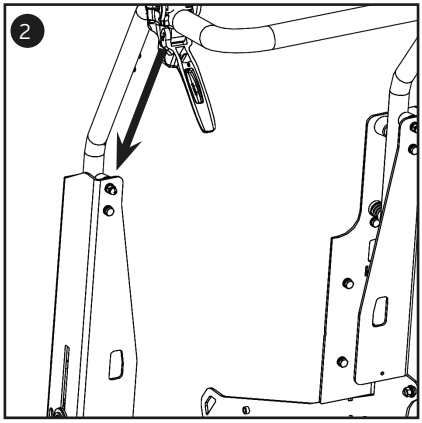
- If the packaging is damaged upon receipt of the goods, check the state of the machine to ensure it is not damaged. Report any irregularities on the delivery slip before signing for receipt.
- In the event of damage to the machine, a complaint to the shipping company must be submitted immediately after delivery.
- Before opening the packaging, check that the information on the label affixed to the box corresponds to what is stated on the delivery slip and to what was ordered.
- In the event of discrepancy, contact the ELIET representative immediately to report this.
- After checking the packaging, the machine should be unpacked:
- The machine is packed in a sealed cardboard box. In order to easily remove the machine from the box, the box should be cut open.
- Use a knife to cut the contours of the small side and the top panel (see drawing). The two parts can be folded open like a cover.
- The box contains the following elements:
  - Machine
  - Handlebars
  - Easy Clean™ maintenance support
  - Cleaning tool
  - Manual
- Carefully take the machine out of the box.



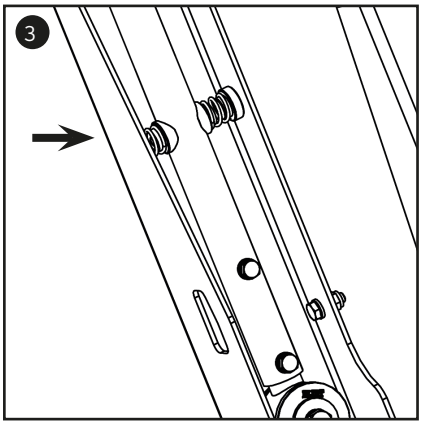
8.2. Structure of the handlebar

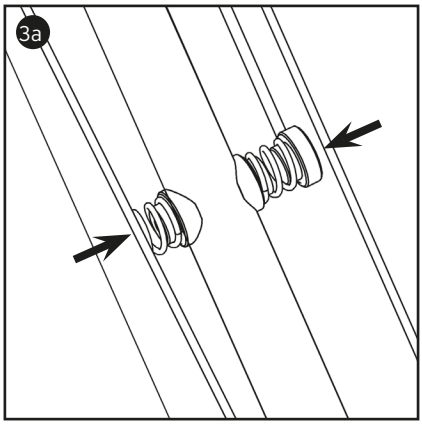
1. Disassemble the two hinge axles on each side of the steering bracket. To do this, completely remove the star knob for the height adjustment.
   Spray some lubricant (PFTE-based) on the inside of the steering bracket along the length of the slot opening. This will make the handlebars easier to adjust in height.
2. Then insert the left-hand steering tube into the cavity of the left-hand steering bracket.



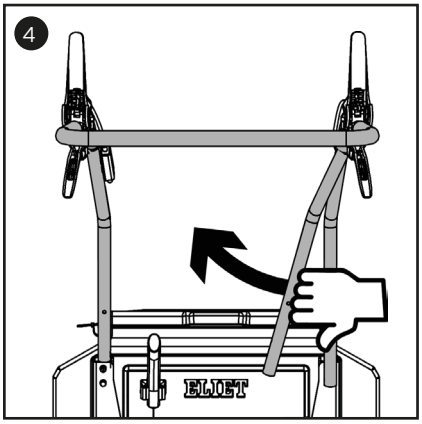


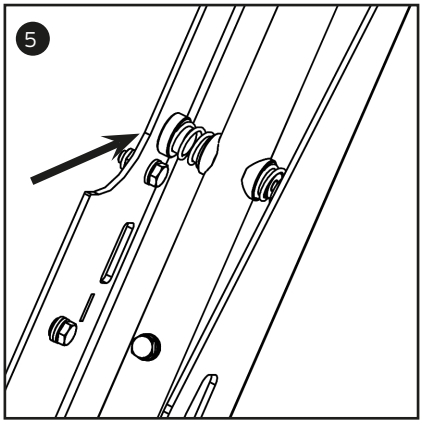
3. Place the two compression springs and inserts for the anti-vibration system on the seat on the steering tube.



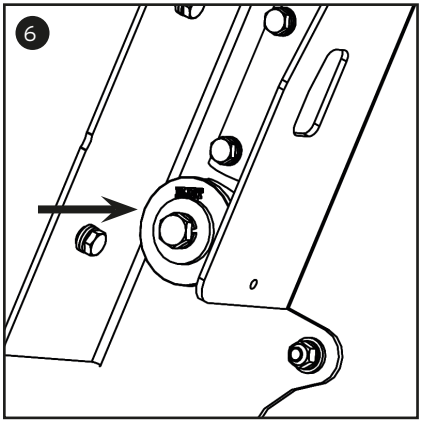


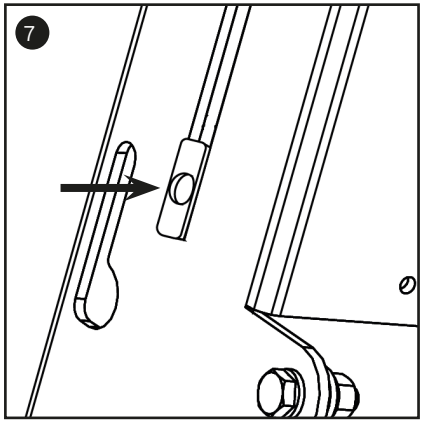
4. Now push the right steering tube to the left. Due to its elasticity, it bends inwards in such a way that it can also be placed in the cavity of the right-hand steering bracket.
5. Also with this second tube, place the compression springs and inserts on the seat around the right-hand steering tube.



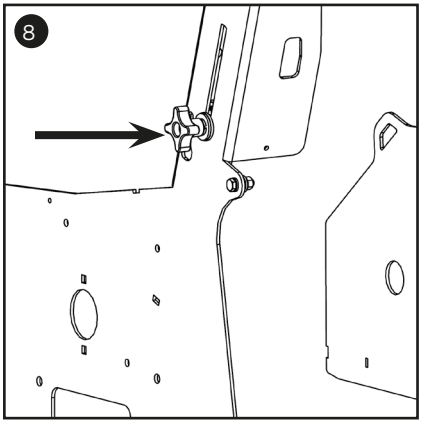


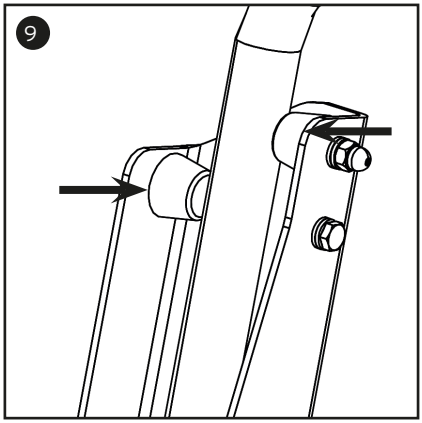
6. Place the hinge axles in the two hinges at the bottom of each tube end.
7. Turn the axle so that the rectangular bulge fits into the long slot of the steering bracket.



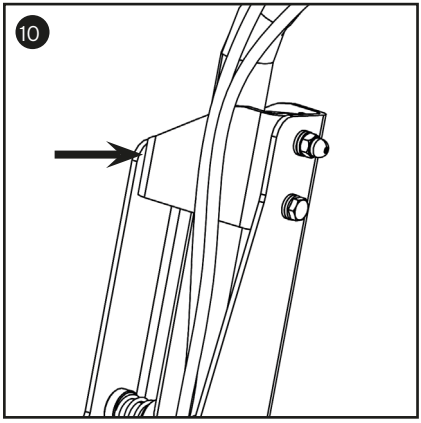


8. Place the nylon washer, metal washer and bolt with the star knob which were disassembled in step 1 and screw them clockwise into the pivot axis to attach the handlebars to the steering bracket.
9. Now unscrew the rubber pads at the top of each steering bracket so that a gap of 5 mm (0.2") is created between the steering bracket and the base of the pad. To do this, use a ring wrench 10 to loosen the M6 fixing nuts in a counter-clockwise direction.





10. The supplied steering plates can now be slid in between the pads and steering bracket at any time. Please note: make sure that all cables are on the outside of the steering plate and are not trapped in the cavity of the steering bracket.



11. Insert the attachment bolt (M6 x 12) in the hole and screw it into the steering plate (ring wrench 10).
12. Then tighten the M6 nuts of the rubber pads again.

8.3. Other responsibilities



Warning: As an ELIET dealer you must familiarize your customers with the **operation of the machine and also point out the possible dangers** while using it. You are expected to carefully go over the maintenance points of the machine together with the new owner. Repeat these instructions until the new owner has fully understood everything.



Warning: As the manufacturer of the machine, ELIET wishes to re-emphasise that the dealer must expressly point out to the customers the necessity of re-tightening all the blade bolts **within the first 5 operating hours**.

- The fuel tank must be filled with petrol (read § 9.3; page 25)
- Prior to delivery to the customer, the dealer must check the oil level using the dipstick.
- The dealer must check that the RPM setting is at 3,200 RPM.
- The dealer must make a final test drive and check that all devices are working properly.
- The dealer must check that all safety features work perfectly.
- Every ELIET dealer warrants the long life span of ELIET machines. They will lubricate the hinges before delivering the machine to the client.

Important information for the new owner at the time of delivery:

- The dealer will explain how to adjust the depth setting. The correct setting must not be deeper than 2 mm (0.08") into the ground!
- The dealer must familiarise the new owner with the machine's operation.
- They must also inform the new owner of potential hazards.
- The dealer will explain how to use the Easy Clean™ as maintenance support and the cleaning tool. It is recommended always cleaning the machine after each operation.
- The dealer must stress that the machine should be returned for its first service after 10 hours of operation (belt tightening and first oil change are required).



Caution: The dealer must point out that the new owner should register their machine at **www.eliet.eu** to maintain their right to the warranty. The dealer must ensure that the warranty card is filled out and signed. This is to avoid any warranty disputes. Please read the warranty conditions for more details.

9. Operating instructions

9.1. Preliminary checks



Caution: Before commencing work, it is recommended to get into the habit of checking the following points:

Checklist

- Check the machine's hours of operation and compare this number with the maintenance table (read § 11.2; page 38)
- Check the oil level. Pull out the dipstick and check whether the oil level is below minimum (read § 11.4.2; page 39)
- Check in advance that the fuel tank is full. If not, fill it up (read § 9.3; page 25)
- Check the air filter for excessive dirt (read § 11.4.3; page 40)
- Check that the housing around the blades is clean and not blocked by accumulated earth. Clean first if necessary.
- Check the blades for wear (read § 11.5.9; page 50)
- Check that the blades are not bent. If necessary, straighten the blades again.
- Check that the belt tension is adequate (read § 11.4.5; page 41) . If not, adjust it (read § 11.4.5; page 41)
- Check whether the depth has been set correctly. (read § 9.2.1; page 24)
- Check that all protection covers are present and properly in place.
- Check that all safety features on the machine are still operating properly.
- If the machine is equipped with a maintenance meter, check that it operates at the indicated speed (3,200 rpm). Never attempt to change the default engine settings.
- Once these points have been checked and approved, the work area can be prepared (read § 9.4; page 26) and the machine can be moved onto it.

9.2. Preparing the machine

9.2.1. Machine set-up

CORRECT DEPTH SETTING = MAXIMUM EFFICIENCY



Caution: This maintenance may only be carried out if the engine is switched off and the blades have come to a standstill.



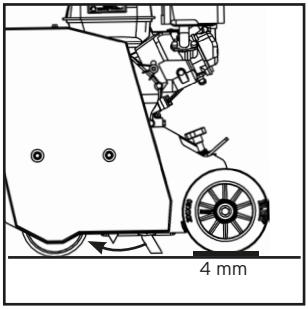
Warning: Make sure to wear gloves while performing this procedure.

Remark: Check beforehand that the machine does not have bent blades. If a bent blade is detected, a pair of pliers can be used to straighten it, so that it is aligned again with the other blades.

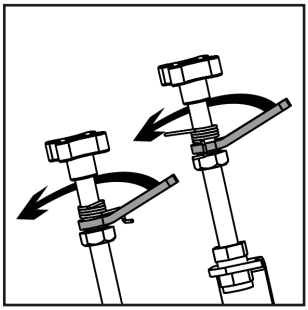
Depth adjustment is done by positioning the front wheels (stepless adjustment) of the scarifier.



Caution: First switch off the engine and check that the blades have come to a standstill before setting the work depth.



- Carefully place the scarifier on an even and hard surface. Make sure that the blades do not get damaged.
- Place a level object of approx. 4 mm (0.16") thick under both front wheels.
- Turn the blades until the tips are as close to the surface as possible.
- If the tips of the blades do not touch the ground, the blades need to be made deeper. If the blades do touch the ground, they need to be lowered.
- First, turn the blocking handles half a turn anti-clockwise to remove the clamping on the adjustment screw.
- To deepen the blades, turn the adjustment screws on each side of the machine clockwise to set the blades deeper.
- To reduce the depth setting of the blades, turn the adjustment screws anti-clockwise.
- Turn each adjustment screw equally so that the depth on each side of the machine is set evenly. The size designator on the front of the machine is a reference to check this.
- The depth setting is correct when the blades are only just above the surface.
- Check that the front side of the scarifier is horizontal; if not, depth adjustment must be carried out again.
- Carefully remove the thick plate from underneath both front wheels.



9.3. Refuelling

When petrol in the machine is running low, it must be refuelled. Using fresh petrol is recommended at all times. Use unleaded petrol, preferably with an octane index of 98 or 99.



Warning: Under certain conditions, petrol is extremely flammable and highly explosive. Fires and petrol explosions can inflict severe burns and cause damage to personal property. As a result, please observe the following points:

- Never refuel with the engine running. Always allow the engine to cool off for several minutes prior to fuelling.
- Use fresh petrol only. ELIET is environmentally conscious and, as such, recommends using unleaded petrol. Additives may be used for extended fuel freshness.

- Store the petrol in an approved tank. Keep out of reach of children.
- Never refuel at the location where the machine is later to be operated Keep a distance of at least 10 m from the selected work area. This is to avoid creating a fire hazard.
- Never refuel in a closed area.
- Clean off the area around the cap of the fuel tank and remove it. Do not fill the tank completely. Fill up to approximately 10 millimetres from the brim. In other words, never fill it to the brim.
- Always use a funnel or a spout for refuelling. Special funnels are available from your ELIET dealer.
- Put the cap back on the tank as quickly as possible. If any petrol is spilled while refilling, then the engine should be immediately cleaned.
- Also make sure that clothing does not come in contact with the petrol. Should this occur, the clothing must be changed immediately.
- It is irresponsible and therefore strictly prohibited to refill the tank in the vicinity of smokers or near naked flames.
- If fuel is swallowed or comes in contact with the eyes, consult a doctor immediately.

9.4. Preparing the work site

- Never work when light intensity is below 500 Lux.
- Besides the machine, the work area must also meet certain conditions which must be verified prior to starting the work:
    - Examine the work area and remove any foreign objects from the lawn. Foreign objects include, among other things, metal, stone, plastic, pvc, bones, rope; but also molehills, branches, water hoses, etc. Some of these can cause severe damage to your machine or result in broken blades.
- Foreign objects that cannot be removed (such as drain covers, built-in power outlets, water sprinklers, tree roots, robot lawnmower wiring, etc.) must be visibly demarcated.
- Always cut the grass before dethatching. The grass should preferably be no longer than 30 millimetres.
- A mowed lawn also reveals any foreign objects.
- Dethatching a wet lawn is not recommended.
- The lawn should not be dethatched if it is soggy. Areas where the machine can sink into the soft ground must be demarcated so that they are not accessible with the machine.
- Using the machine on extremely dry soil is not recommended for the following reasons:
    - The lawn will be badly damaged.
    - The grass will recover much slower than usual.
    - The blades wear faster and require replacement sooner.
    - More dust will be produced, soiling the engine more quickly.
    - Greater dehydration of the soil than was the case already.
- It is strongly recommend treating the grass with an anti-moss herbicide or a weed killer approximately 1 week prior to dethatching, to ensure that the moss is dead and dry. This will help the grass to thicken more easily after dethatching.

9.5. Starting the engine



Caution: Never start the machine when dust has settled on the engine or between its cooling fins. This reduces proper cooling of the engine and can cause a fire.



Warning: The blade axle spins as soon as the engine engages and the red operation handle is pulled towards the handlebar. Make sure that the operation handle is not pressed when starting the engine. If ever control over the machine's operation is lost, the quickest way to stop the blade axle is by releasing the operation handle.

9.5.1. Petrol engine



For your information: The procedure to start the engine can vary per brand. Please check your engine manual. The chapter § 6 'Main machine parts' contains the various models.

If this has not been done when going through the checklist, always check the engine for adequate oil and fuel levels before starting it.

- For details about how to check and refill the oil. (read § 11.4.2; page 39)
- For petrol refuelling (read § 9.3; page 25)
- If the fuel tank is equipped with a fuel tap, open it.
- Depending on the type of engine, put the handle or turn the switch into the ON position.
- Set the choke to "Close".
- Open full throttle, represented by the image of a hare.
- Engage the engine by firmly pulling the starter cord.
- Once the engine is running, set the choke to "Open". This prevents the engine from getting flooded. If you forget to do this, the engine will slow down and start producing a lot of smoke. It will eventually come to a stop. If this happens, restart the engine without opening the choke.
- If the engine fails to restart, this could be due to a greased spark plug, which consequently must be cleaned or replaced (read § 11.5.2; page 44)

9.5.2. Moving the machine

- The machine is fitted with a device that can drive the rear roller. This drive ensures a fixed speed in the forward direction of motion.
- To activate this drive, a black lever is provided on the handlebar. If this lever is squeezed against the handle, the transmission will be engaged.
- To be able to move the machine, the engine must be running, so start the engine first.
- There is limited ground clearance between the blades and the ground. When moving to and from the working area on a flat surface without obstacles (e.g. asphalt, concrete floor), the machine can be moved with the front wheels resting on the floor.
- If the machine has to be moved on an access road with uneven ground, the machine should be moved with the front wheels lifted. For this, push the handlebars around 10 cm down.
- If the operator falls or risks losing control while driving the machine, the decoupling lever should be released immediately.



Caution: The engine must be running in order to move the machine. If the engine is running, there is a risk that the blades will be engaged and cause damage. Do not under any circumstances touch the decoupling lever of the blade drive while driving.

- There is a freewheel on the machine that allows it to be pushed manually.



Caution: If the machine is manually pushed without the engine running, the drive decoupling will not be clamped shut.



Warning: If the machine accelerates when descending a slope, the drive decoupling will not be clamped in order to use it as a brake. This can cause serious damage to the drive mechanism.

- To take a turn or to turn the machine, always lift the front wheels by pushing the handlebars down before making the turn. During the turning movement, keep the clutch lever for the roller drive pushed in.

9.6. Working with the machine



Caution: As long as the dead man's lever is engaged and the engine has not come to a standstill after turning it off, the blades will continue to spin. Do not perform any maintenance work before they have come to a standstill.



Warning: The belt protection cover offer protection against rotating parts. It is therefore prohibited to reach behind these covers with any body parts while the engine is running.

9.6.1. Prior to starting work

Pay attention to the following safety instructions before starting to operate the machine.

- Never run a petrol engine in a closed environment. There is a risk of carbon monoxide poisoning from the exhaust if you do.
- The operator must wear clothing, protective gloves and other protective equipment as prescribed in this manual (read § 7.3; page 15)
- The operator must stay alert while working. As long as they are operating the machine, their full attention must be on the job.
- A good gardener works efficiently and according to a well defined plan. This allows him or her to keep an overview of their work, and prevents accidents or incorrect manoeuvres with the machine.
- Once the engine is running, it is recommended to allow it to warm up. This is to allow the engine to run at maximum efficiency.

9.6.2. Dethatching

For dethatching, the following procedure must be followed:

- Always place the machine on the lawn before engaging the blades.
- Push the handlebar down slightly to lift the blades off the ground. The blades should be lifted approximately 3 to 4 centimetres from the surface.
- Pull the red blade clutch handle against the handlebar to engage the blades.
- Allow the blades to get to full speed.
- Bring the front wheels back to the ground.
- As soon as the front wheels are on the ground, the roller drive can be activated.
- Try to keep straight lines when dethatching. To make a gentle turn, push the handlebar to the left or to the right. Avoid changing course abruptly.

Note:

Tilting the machine backwards to slightly lift the blades while steering is recommended. This is to avoid damaging the lawn.

- When you reach the end of a strip and want to turn around to work the adjoining strip, you push the handlebar down slightly to lift the blades from the surface. The blades should be lifted approximately 3 to 4 centimetres from the surface. Push the machine in the desired direction using the handlebar. Once turned 180°, lower the machine with the front wheels back to the ground.
- With this turning movement, you do not have to switch the blades off each time.



Caution: when lifting the front wheels, with the blades in operation, there may be projectiles. Always make sure that there are no persons, animals or fragile objects in the projectile area in front of the machine.

To cross small distances (paths or terraces), the following procedure must be followed:

- Release the blade clutch.
- Push the handlebar down slightly to lift the blades off the ground. The blades should be lifted approximately 3 to 4 centimetres from the surface.
- Roll the machine to where the dethatching needs to be done.
- Pull the blade clutch against the handlebar to engage the blades.
- Allow the blades to get to full speed.
- Lower the blades by resting the front wheels on the ground.
- Start forward movement by pressing the traction handle.



Caution: Always switch off the engine before performing this cleaning work. Always wear gloves and safety goggles when cleaning.

Tip: Clean the machine immediately after use. Accumulated dirt will not have dried out and will be easier to remove.

- Be advised that dethatching is not the same as cultivating. Both processes have their own specific purpose and are carried out with specific machines.

- Make sure that the blades are not set too deeply. (max. 2 mm)
- Cease operation immediately if you hear unusual noises. Stop the engine and examine the cause of the noise/defect. Perform any necessary repairs before continuing.
- Should any foreign objects have ended up under the machine despite proper preparations, immediately switch off the machine. Remove the foreign object and check for damage. Any defects must be repaired before resuming operation.

9.7. Stopping the engine

9.7.1. Petrol engine

- To stop the engine, switch the throttle or turn the knob into the "OFF" position.
- If the machine is equipped with a fuel tap, close it.

9.8. After finishing the work

9.8.1. Cleaning the machine



Caution: maintenance of the machine, such as cleaning, must only be carried out when the engine is switched off.

ELIET recommends cleaning the machine after each use. We recommend performing an inspection each time you clean the machine to check component and machine integrity. This allows timely intervention and prevention of any defects. This will ensure a longer service life for your machine.

Failure to clean the machine can cause:
- Increased wear of the bearings.
- Accelerated wear and tear of drive belts/chains
- Increased wear and tear of covers.
- Reduced engine cooling.
- Increased risk of fire.
- Inability to notice cracks or tears.
- Damage to the paint.
- Illegibility of safety stickers.

Remark: Failure to perform the daily cleaning will result in loss of warranty.



Caution: Wear suitable clothing when cleaning. Utility gloves are necessary.

The following points require special attention:

- Remove all accumulated dirt inside the housing around the blade axis. For this, place the machine with the rear roller on its Easy Clean™ cleaning base. Push the handlebar down so that the machine tilts backwards. Let the handlebar rest on the ground. Now you can safely carry out the cleaning work on the underside of the machine. With the included cleaning tool, scrape away any dirt and debris that adheres to the walls of the housing. Also clean any soil and dirt which is stuck to the traction roller.
- The engine must be free dust and dirt. The cooling fins in particular as well as the area around the exhaust must be clean. The area around the fuel cap must be kept clean to avoid dirt entering the fuel tank.
- Accumulation of dust and moss under the protective cover of the transmission box for roller drive and belt and chain drives. Regularly remove this box for inspection and cleaning if necessary. By regularly removing the protective boxes, you can also check, lubricate and tighten the drives.
- The bushings must be cleaned of sand and dirt that has become stuck in the lubricating grease. Reapply lubricating grease after wiping the bushings. (read § 11.3; page 38)
- Remove dirt from the chassis and more specifically from the stickers with safety instructions.
- Use a dry cloth or soft brush for any cleaning. Use penetrating oil with MoS2 to remove grease and lubricants. The latter is a lubricant and rust solvent at the same time.
- The manufacturer does not recommend steam cleaning the machine. The high-pressure water jet reaches places where water should be avoided. Water is the number one cause of rust and this must be avoided at all times.

Any necessary replacement and/or repair works must be undertaken immediately. Ask your authorised ELIET dealer to carry out repairs (find an authorised ELIET dealer near you at **www.eliet.eu**).

9.9. Lawn treatment after dethatching

- After dethatching, it is essential to thoroughly remove the raked moss to avoid it from reattaching to the soil.
- **Overseeding:** To thicken up the lawn after dethatching, new grass must be sown in the open spaces. Working the seed into the soil is preferable to sowing on top of the existing grass. This allows faster germination of the seed and quicker thickening of the lawn. Watering the lawn at regular intervals is required. The overseeder from ELIET's product range is ideal for renovating your lawn.
- **Fertilising**: To help recovery of the existing lawn, a balanced fertilising treatment is recommended. This also stimulates growth of the sown grass. The choice of fertiliser depends on the soil, acidity and type of grass. Ask advice from a supplier of fertilising products.
- **Aeration:** The soil under the lawn has often been compressed from walking or driving on it. The grass does not get enough air as a result. This also prevents easy drainage of rain water and fertilisers. These are some of the causes of slow growth of the grass and increased growth of surface parasites, such as moss. Opening up the soil requires aeration at a deeper level.
- **Sanding:** Sanding the lawn can help provide air to the top layer. Sanding can best be done after dethatching or aeration. Sharp sand is the best choice.
- **Irrigation:** To protect itself from drought, grass will slow down its own growth during continuous sunny weather and high temperatures. Regular watering is recommended if a period of drought starts after dethatching. A humid soil below the grass is crucial for the absorption of fertilisers, continued growth and recovery of the lawn.

9.10. Fault diagnosis

9.10.1. The engine fails to start after idle periods.

If the machine fails to start up after periods of inactivity, then this could be the result of any of the following causes:

a. Lack of petrol

b. Petrol is stale

c. Bad spark plug

d. Lack of oil



Caution: Before examining possible reasons for the fault, make sure the ON/OFF switch for the engine is turned to the OFF position.

a. Lack of petrol

First check that the fuel tap (if any) is open.

Then § 12 'Storing the machine' it is advisable to remove any residual petrol before long term storage of the machine. It may be the case that you forgot to refuel the machine. Check that the tank is adequately filled and refuel if necessary A few attempts to start will be necessary to pump the petrol into the carburettor. Close the choke - the petrol will now be sucked into the line. The engine will start running as soon as the carburettor has filled.

b. Petrol is stale

Petrol has a limited shelf life. Petrol that has been sitting in petrol tank for more than a few months can cause starter problems. It also smells totally different than fresh petrol.

Pump out the contents of the fuel tank and refuel with fresh petrol.



Caution: be careful, even stale petrol can still be extremely flammable.

c. Bad spark plug

Without proper ignition, it will be impossible to get the engine up and running. As such, check the spark plug. (read § 11.5.2; page 44)

d. Lack of oil

The engine's crankcase is filled with engine oil to lubricate and cool the pistons. Lack of oil can lead to increased wear of the engine. To protect the engine, the machine has been equipped with a control switch. This will disengage the engine if the machine is low on oil. Check the oil level and refill if necessary. (read § 11.4.2; page 39)

9.10.2. Engine stalls during operation

If the engine suddenly shuts off during operation, this could be the result of a number of factors:

a. Lack of petrol

b. Lack of oil in the engine

c. Machine is on a slope

d. Overload

e. Technical defect



Caution: Before examining possible reasons for the fault, make sure the ON/OFF switch for the engine is turned to the OFF position.

Take the following steps to restart the machine in any of the cases below:

a. Lack of petrol

If you fail to monitor the petrol level and do not notice that the tank is running empty, the machine may suddenly switch off. If this occurs, simply refuel.
Check that the fuel tap is closed.
Repeat the starting procedure to pump fuel.
Let the starter engine run for a while after refuelling. Close the choke - the petrol will now be sucked into the line. The engine will start running as soon as the carburettor has filled.

b. Lack of oil in the engine

(read § 9.10.1; page 32)

c. Machine is on a slope

Whilst working on a slope in the lengthwise direction, the engine may suddenly stop. The oil protection is the cause of this. Since the oil alarm works on the basis of level measurement; it detects a false oil level when the machine is in a slanted position. This is enough reason for the system to switch off the engine.
The solution is to wait a few moments before restarting the engine on a level surface. The problem will reoccur if you continue to do work on a slope. After checking the oil level on an even surface (read § 11.4.2; page 39) , the oil safety system may be disengaged temporarily. Do not forget to switch it back on afterwards.
Neither ELIET, nor the engine manufacturer, shall accept warranty claims based on a lack of oil in the machine.
If slopes are a recurring factor in a particular area, adding 0.2 litres of extra oil to the tank will resolve the problem.

d. Overload

By impacting a foreign object in the ground (e.g. tree root), the blades can get stuck on it and the engine can block. Even an excessively large object that gets into the discharge and blocks it will cause the engine to cut out. Check the housing and discharge system for foreign objects.

e. Technical defect

If neither of the aforementioned checks identifies the cause, the problem could be more technical in nature. A defect in the engine or a problem with the carburettor could be the issue. For assistance with these problems, please visit your authorised ELIET dealer or an authorised service centre for the engine brand.

9.10.3. A trail of damage to the lawn

An abnormal trail of damage to the lawn may be detected on a strip while dethatching. This could have the following causes:

- Since the blades do the ground work, they should be the first to be examined. An obstacle under the surface may have caused a deformation of one or more blades, resulting in broad unaesthetic cuts. (read § 11.5.9; page 50)
- It is possible that an object has become wrapped around the blade axle and causes a damage trail apart from the blades themselves.

10. Transporting the machine



- To move the machine, push the handlebar down slightly to lift the blades from the surface.
- The machine can be moved over a short distance with the engine switched off, by pushing it down. This is the safest method.
- If the machine has to be moved over a longer distance, uneven terrain or on a slope, you can use the support of the drive unit.



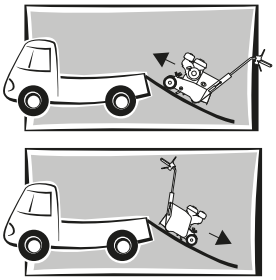
Caution: Never touch the decoupling lever while driving, as this may cause the blades to come into operation and cause damage.

- When moving the machine with the aid of the drive unit, it is recommended lightly pressing down the handlebar as a precaution, so that the front wheels come off the ground. This prevents the blades from touching the ground in the event of unintentional operation.
- Only adults are permitted to move or transport the machine.
- During transport, children, unauthorised people or animals must not be allowed within a 3 m radius of the machine.
- Carefully choose a clear and free transport path, preferably one with as few obstructions as possible. The transport route should preferably be flat, with an even surface.
- If the machine topples over for some reason, set it upright as quickly as possible. This prevents oil from the crankcase entering the air filter.
- Use non-slip planks for loading the machine into a van or onto a trailer. Ensure that the planks are properly fastened to the vehicle or trailer. Under no circumstances should the upwards slope exceed 25°.
- Attention and care while loading and offloading the machine can prevent it from tipping over and causing an accident.



Caution: Never run the machine for more than 30 seconds in a closed environment where animals or people are present. Exhaust fumes from petrol engines contain harmful substances that can cause poisoning or suffocation.

When going up a slope, move the machine forwards.
When going down a slope, still move the machine forwards.

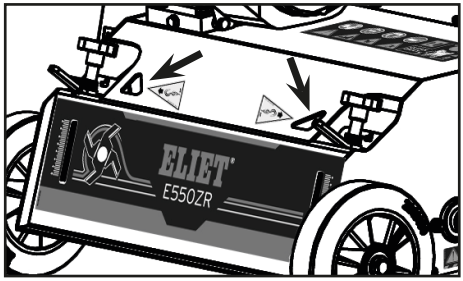


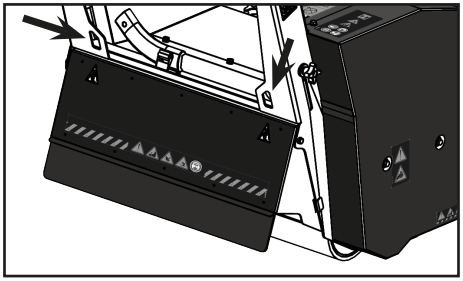
- The machine's ground clearance is 40 mm, excluding the blades.
- When crossing differences in height between 40-60 mm, it is recommended going backwards over them with the machine.
- A ramp must be provided to cross differences in height higher than 60 mm. (steps, kerbs, etc.)



For your information: Machine breakage or defects resulting from incompetent operation are excluded from the warranty conditions.

- Make sure the machine is securely tied down to the vehicle during transport. Attach ropes to the fixed chassis parts to secure the machine.
- Several attachment points have been provided. These are indicated with a pictogram.







For your information: Always close the petrol tap on the machine before transport. Failure to do so may result in excessive amounts of petrol being fed into the engine, causing starter problems and the risk of having to change the spark plug.

11. Maintenance



11.1. General

ELIET recommends bringing the machine to an official ELIET dealer for a full service every year (find an authorised ELIET dealer near you at **www.eliet.eu).** Your ELIET dealer is at your service for maintenance and advice at all times. They stock original ELIET replacement parts and lubricants. Their staff can always obtain advice and service from ELIET's help desk in order to provide you with an impeccable after-sales service.



Caution: Use only original ELIET replacement parts when carrying out repairs. These machine parts are manufactured according to the same strict quality requirements and craftsmanship as the original equipment. For a list of original spare parts and their ordering codes please visit **www.eliet.eu**.

Maintenance must always be carried out in a designated area. The area must meet the following criteria:

- Spacious
- Dust-free
- Easily accessible
- Clean and tidy
- Well lit
- Quiet

These characteristics are important for the correct performance of the maintenance.



Caution: Incorrectly-performed maintenance may compromise the operator's safety. Maintenance must always be carried out with the engine turned off. As a precaution, the spark plug should also be removed. Always wear safety gloves when performing maintenance. Additionally, safety goggles may be required for certain operations.

11.2. Periodic maintenance schedule

a. Routine check before each operation

- Visual check of the state of the machine
- Oil level check
- Clean the air filter
- Check and set the depth control
- Clean the machine. (read § 9.8.1; page 30)

b. Maintenance after every 20 hours of operation

- Daily maintenance
- Change the oil.
- General lubrication treatment.
- Check and adjust the belt tension.
- Lubricate chains and chain wheels, adjust if necessary.

c. Maintenance after every 150 hours of operation

- Change the air filter
- Check and/or change the spark plug
- General lubrication treatment.
- Change the blades.

11.3. Lubricants

Engine	SAE 10 W 30 API sj
Hinges	NOVATIO PTFE OIL
Lubrication nipples	SUNOCO MULTI-PURPOSE GREASE LR - EP2
Cable guides	NOVATIO CLEAR LUBE-S
Chain	NOVATIO CLEAR LUBE-S

11.4. Routine check before each operation

11.4.1. Visual inspection

It is essential before commencing the work that the machine is inspected. This will allow you to anticipate breakage or wear and tear that affects the life span of the machine.

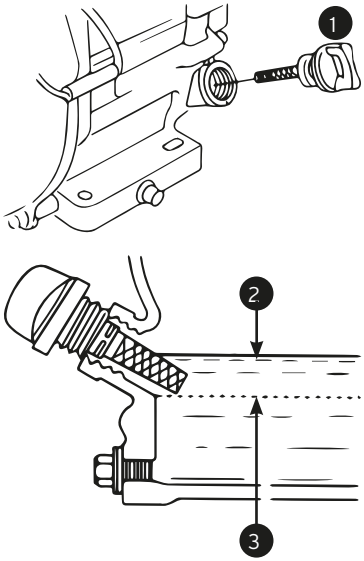
- Check the condition of the blades. Bent blades should be straightened.
- Check whether the machine operates at the proper rotational speed at full throttle (3,200 RPM)
- Never attempt to change the standard settings for the engine.
- Check that the protective covers are securely fastened.
- Check that the housing is clean.
- Check that no parts are deformed, that welded seams are not cracked and that parts are not excessively loose.
- If problems are found, carry out the necessary repairs first.

Consult your authorised ELIET service centre for assistance if necessary or to obtain spare parts. Find an ELIET service centre near you at **www.eliet.eu**.

11.4.2. Checking and topping up the engine's oil level

If the oil level in the engine drops below a certain level, the engine will automatically switch off. At that point, the machine will have been operating with insufficient lubrication for some time. In order to avoid this situation, regular checks on the oil level are essential.

- Place the machine on flat ground so that the engine plate is horizontal.
- Switch off the engine.
- Leave the engine to cool down for about 15 minutes.
- Now remove the filler cap **(1)** from the crankcase.
- The oil should be visible in the opening of the screw plug up to the edge **(2)**.
- If the oil tank is not filled to the brim, this indicates a lack of oil.
- If the oil level is too low **(3)**, top it up via the filler opening. Continue to add oil until the desired level is reached.
- Always use recommended oil (see the list of recommended oils in the engine manual).
- Since the location of the filler opening is tricky to reach, we recommend using a tube or special funnel to avoid oil spills. Always clean the funnel before passing any oil through it.





Caution: Bear in mind that it will take a while for the oil to fully descend into the crankcase. Make sure you leave small intervals when filling the oil so that the dipstick gives the correct oil level reading. Oil shortages cause severe, irreparable engine damage. (This type of defect is not covered under warranty).

11.4.3. Cleaning the air filter

- The type of air filter depends on the engine brand and type.
- The air filter is located under the black protection cover next to the fuel reservoir on the engine.
- Release the black protective cover by loosening the screw on the top side.
- There are two types of filters. In addition to the common sponge filter, there is a paper filter, similar to that on a car.
- Loosen the attachment bolt at the top of the filter cartridge so that you can remove it.



Caution: When removing the air filter, always make sure that no objects can fall into the opening of the carburettor. As a precaution, cover it with a clean piece of paper.

- Sponge filters can be cleaned by rinsing them with some petrol and blowing them with compressed air.
- Paper filters are cleaned by dusting them down or cleaning with compressed air.
- If the air filter is too dirty, it should be replaced. Contact the engine manufacturer's service centre and order the original replacement air filter there.

Please note: Always make sure that the filter cartridge fits nicely in its place. It is important to make sure there is no gap through which unfiltered air can enter the engine. Dirty air in the engine will result in irreversible engine damage!

- After cleaning, return all parts to their original positions.



Caution: In the event the machine has toppled over for some reason, check the air filter immediately. The tilted position of the engine may have caused oil to seep from the crankcase via the carburettor onto the air filter. Oil on the filter paper obstructs the air passage. Soiled filters must be replaced immediately.

11.4.4. Checking and setting the depth control

CORRECT DEPTH SETTING = MAXIMUM EFFICIENCY

(read § 9.2.1; page 24)

11.4.5. Checking the belt tension

The machine has two belts for the blade drive, one belt for the traction roller drive.
After a number of working hours, stretching will occur (only with new belts), causing it to lose its tension. Insufficient tension on these belts means that the belts will slip under loading, increasing wear and tear and reducing the belt's life span. A belt that is insufficiently tensioned will flap around, increasing the chance that it will come off the belt pulley. Belt tension must therefore be checked regularly.



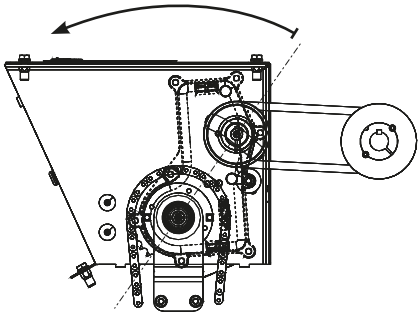
Warning: Only check the belt tension when the engine is turned off. Remove the spark plug cap. Wearing gloves is mandatory.

Belt tension traction roller drive.

- Remove both blade drive protection covers. (read § 15.1; page 55)
- This is the belt between the engine shaft and the reduction gearbox for the traction roller chain drive. This belt transmission is not equipped with a tensioner and cannot be disconnected. Here the belt is permanently tensioned between the two belt pulleys.

Please note: As the reduction gearbox has a large gear ratio, the force required to drive the belt pulley is rather limited. As the input axle of the reduction gearbox has only a limited diameter, it is not advisable and also prohibited by the manufacturer to apply strong belt tension!

- If you suspect there is insufficient traction on the roller during operation, this may indicate that this drive belt is slipping. Then it is recommended to tighten the belt a little.
- Before tightening the belt, tilt the reduction gearbox a little further to the left to increase the distance between the two belt pulleys, thereby increasing the tension on the belt.
- To remove the reduction gearbox, unscrew the M6 nut on the adjustment bolt by one turn (spanner size 10).
- Tilt the transmission box to the left as much as possible and tighten the M6 nut on the adjustment bolt. Check that the tension is adequate. Repeat this procedure until the correct tension is obtained.



Belt drive from the engine to the blade axle



Caution: To adjust the belt tension, the engine must always be switched off. To adjust the belt tension for the drive to the blade axle, remove the large protective cap. (read § 15.1; page 55)

There are 2 belts to drive the blade axle. This drive can be disconnected using a tensioner. This tensioner is pulled by a cable connected to the red handle on the handlebars.
During the run-in period (about 10 hours), the belts will stretch. As the belt stretches, it will not engage sufficiently in the belt pulley when it is switched on and slippage may occur. This slippage will result in loss of drive power and will cause increased wear and tear on the belt. As such, it is essential to adjust the belt tension especially during the run-in period of a new belt.

There are two possibilities to tighten the belt:

a. The cable guide has an adjustable end sleeve.

- If there is insufficient belt tension, it can be tightened at the beginning by adjusting the end sleeve.
- For this, loosen the M6 bolt at the end of the sleeve. (Turn anti-clockwise, spanner size 10)
- Turn the nut above the support anti-clockwise so that the end sleeve does not protrude as far through the holder. (spanner size 10)
- In the meantime, check the belt tension.
- Once the belt is tight again in the belt pulleys, the bolt at the end of the cable sleeve can be tightened again (turn clockwise, spanner size 10).
- If you notice that there is insufficient thread left on the end sleeve of the cable guide, the belt tension must be increased by extending the distance between the two belt pulleys. (see b.)

b. Underlay thickness plate

- The engine can be raised higher by adding underlay plates under the engine base.
- Before unscrewing the engine, the reduction gearbox for the drive unit must be loosened. (read § 15.1; page 55)
- To do this, unscrew the 4 (M8) engine mounting screws 4 mm (0.16") (anti-clockwise). Use two size 13 ring spanners.
- Lift the engine base so that the thickness plate can be added underneath. Do this at the front and the rear.
- Align the two belt pulleys before tightening the engine.
- Then re-tighten the 4 attaching screws (M8) of the engine (turn clockwise, spanner size 13).
- Then adjust the tension correctly by adjusting it on the end sleeve of the cable guide.
- Then adjust the tension from the transmission belt to the reduction gearbox for the drive unit again.

- After adjusting, check whether the drive decouples sufficiently when it is switched off. To do this, let the engine run without the protective cover so that you can see the decoupling.



Warning: For this test, make sure that there are no bystanders in a 10 m radius around the machine. When testing, always place the machine on a lawn so that the blades cannot be damaged when switched on.



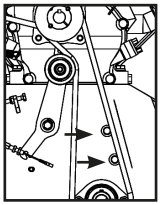
Caution: A belt drive has a number of significant risks. There is a risk of getting entangled in the drive, with the risk of crushed limbs. There is a risk of slicing injuries.

- If you notice that the belt drive does not switch off when you release the decoupling lever, you will have to adjust it again:



Caution: Always switch off the engine before adjusting the drive.

1. If the belt does not decouple, this may be because the belt is too tight. If possible, adjust the belt tension further (see above).
2. If the belt does not decouple, this may be because the belt is not released from the driving belt pulley. This can be altered by adjusting the belt catcher.



- The belt catcher (see picture) is fixed with two M6 attachment bolts. It is possible to adjust at each of these attachment points.
- Loosen the bolts half a turn (anti-clockwise, spanner size 10) so that the belt catcher can just be moved.
- By adjusting the distance from the belt catcher, the belt can be pressed against the belt pulley during disconnection, thus allowing it to be removed from the belt pulley.
- After adjusting the belt catcher, the two bolts must be re-tightened.
- Repeat the test procedure until the correct decoupling is obtained.
- After adjusting the belt tension, replace the large protective cover as it was originally fitted.

11.5. Maintenance after 20 hours of operation

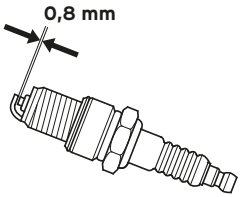
11.5.1. Change the oil

- Ensure that the engine is on an even surface and turned off.
- Place the machine with the rear roller on its Easy Clean™ maintenance support (read § 9.6.2; page 29) so that the machine is tilted forward.
- At the exhaust side of the engine, below the engine base, a plug is screwed into the crankcase. (See the engine manual.)
- Get a one litre container before unscrewing the plug.
- Empty the full contents from the engine.
- Replace the plug on the drain. Wipe away any spilled oil with a clean cloth.
- Remove the machine from its maintenance support and place it on flat ground.
- Refill the engine with fresh 4 stroke oil. For this, ELIET recommends using high-quality oil with a high detergent level: SAE 10 W 30 API sj.
- Fill oil into the oil filler opening. Remove any spilled oil after filling. For an accurate dipstick reading of the oil level, allow sufficient time for the oil to settle in the crankcase.
- Place the dipstick in the filler opening without fastening it. After pulling it out again, the oil attached to the dipstick should reach the maximum mark. If not, more oil must be added.
- Also check the engine manual.

11.5.2. Check and/or change the spark plug

ELIET recommends the following spark plugs:

Honda GX160 - Honda GX200 - Honda GX270	BPR 6 ES (NGK)



- Turn off the engine and pull the cable from the spark plug.
- Clean the area around the spark plug and remove the spark plug from the cylinder head.
- Using a feeler gauge, check whether the distance between the electrodes is 0.8 mm.
- The spark plug must be replaced if it shows heavy deposits or is very dirty.
- Take the following steps to verify ignition quality:
  - Put the spark plug cap back on.
  - Grab the rubber of the spark plug cap and press the outermost electrode against the mass of the engine.
  - Pull the starter cord.
  - Check for sparks between the electrodes.
  - The spark plug is in good condition if the sparks are clear and neatly centred between the electrodes.
  - Weak, irregular and off-centre sparks between the electrodes indicate that the spark plug must be changed.



Caution: Fitting or changing a spark plug must be done with utmost caution so as not to damage the screw thread in the engine. Secure the spark plug with a torque of 20 Nm.

11.5.3. Change the air filter

This procedure is exactly the same as for cleaning the air filter (read § 11.4.3; page 40)
New, suitable air filters are available from your ELIET dealer or an authorised service centre of the relevant engine brand.

11.5.4. General lubrication treatment

ELIET is committed to using high-quality materials that extend the machine's life cycle despite sometimes dusty work circumstances.
For this reason, special lubrication products have already been applied in the factory. ELIET also recommends lubricating all the parts below on a regular basis:

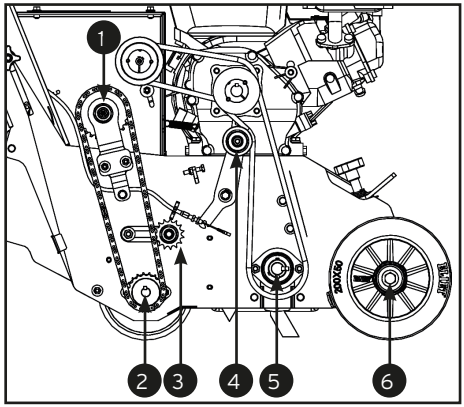
- Bearings
- Hinges
- Lubrication nipples
- Cable guides



Caution: As applies to all maintenance work, the engine must be turned off. Remove the spark plug cap. Utility gloves are essential.

a. Lubricating bearings
Bearings that are used under dusty circumstances benefit from regular cleaning and lubrication.

1. Reduction gearbox bearing support (1x)
2. Traction roller bearings (2x)
3. Bearings of the chain tensioner of the traction roller drive (1x)
4. Bearings for the belt tensioner of the blade axle drive (2x)
5. Blade axle bearings (2x)
6. Wheel bearings (4x)



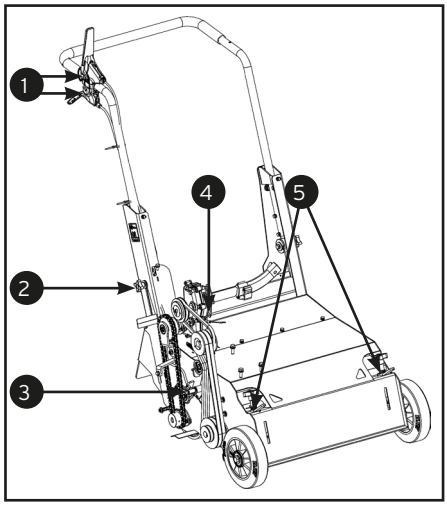
- To reach the points indicated, some protective covers will have to be removed. (read § 15.1; page 55)
- The bearings have dust seals to keep the dirt out. However, the lubricant applied on the bearing at the factory will also become old and dry. To compensate this lack of lubricant, new lubricant must be added from outside.
- To prevent any dirt from penetrating the bearing together with the lubricant, the bearing must be cleaned first.

- For this, spray NOVATIO KLEENSPRAY-S onto the bearing seals and joints. The liquid will soak off any dust attached to the bearing.
- Leave the cleaning liquid to work for a few minutes.
- Remove all the dirt clinging to the bearing with a soft cloth.
- Apply a second round of spray to the bearings, particularly on the joints. The cleaner will dissolve the grease that has dried up in the joint. This is necessary to ensure that new grease can penetrate the joint.
- Blow compressed air into the bearing joints to enable the KLEENSPRAY-S to expel all the dirt.
- Wipe away all the spray and wait 10 minutes to allow any residue to evaporate.
- Now apply a new layer of lubricant. Spray a generous amount of NOVATIO PTFE OIL into the joints of the bearing seals and the bearing bushing.
- This is a thin lubricant with excellent penetrating properties. It is corrosion resistant and moisture and dust repellent and also has great lubricating properties, even at high temperatures.

b. Lubricate hinges and friction zones

Hinges are places where two moving parts are attached to each other. Because this is a turning point, it involves friction. Friction without lubrication leads to wear, excessive play and finally to breakage. Some of these items require specific attention:

1. Hinges of the levers on the handlebar
2. Hinge and height adjustment of handlebar
3. Hinge of the tensioner for belt drive to blade axle
4. Reduction gearbox support
5. Depth adjustment blades



Lubricating hinges:

- To reach the points indicated, some protective covers and shields will have to be removed.
- To avoid wear and subsequent play on hinges, lubricant must be applied to the contact surfaces that undergo friction.
- It is essential to remove all old dirty lubricant and sticking dust before applying fresh lubricant.
- Where possible, the hinging parts must be disassembled for proper cleaning of all elements within.
- To dissolve lubricant, ELIET recommends using NOVATIO KLEENSPRAY-S. Spray the product onto the hinging parts. Leave the product for a few minutes to enable it to perform its degreasing action.
- Wipe the parts clean. Repeat the procedure if necessary to ensure that the parts are completely clean.
- Make sure that all of the cleaning agent is either evaporated or wiped away.

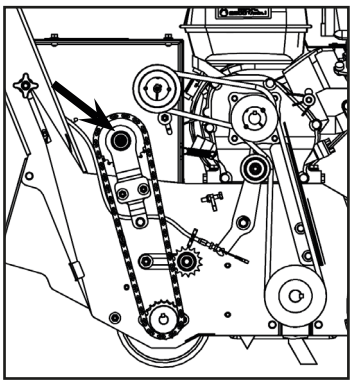


Caution: NOVATIO KLEENSPRAY-S is flammable. Avoid naked flames or heat when applying it.

- Apply new lubricant to the friction areas. Ensure that it covers the entire contact surface.
- ELIET recommends NOVATIO CLEAR LUBE-S in this regard. This is a lubricant with an extremely long operating time, excellent adhesion and resistance to high pressure. It is available in spray cans for easy application.
- Reassemble the hinge and fasten all parts.
- Replace the protective covers as they were originally fitted.

11.5.5. Lubricate via lubrication nipples

One lubrication nipple is fitted on the machine. This is used to lubricate the freewheel bearing in its core.



- In order to reach the freewheel bearing, the large protective cover must be removed.(read § 15.1; page 55)
- The lubrication nipple is fitted at the end of the drive axle for the chain drive to the traction roller. (image)
- ELIET recommends Mobil Mobilux EP2 lubricant (or an equivalent alternative) for the lubrication of this freewheel bearing.
- Place a manual grease pump on the nipple and press one pumping stroke of grease into the lubrication nipple.
- The extra grease that is pumped in can force out old lubricant from the freewheeling bearing through the feed at the edge.
- Wipe away this discharged grease.
- Replace the large protective cover after lubricating. (read § 15.1; page 55)



Caution: Avoid over-pumping the grease in this bearing. As soon as you feel resistance on the pump, stop the lubrication. Excessive pressure may cause damage to the bearing.

11.5.6. Lubricating the cable guides

A lot of dust can be produced during dethatching. This dust settles on the parts of the machine. This dust also ends up on the cables and in the cable guides where it can accumulate and cause the cable to glide less smoothly over time.
This may result in the drive no longer disengaging when the control levers are released, which can create risks.
Regularly lubricating cables is therefore essential maintenance.

- Remove the two protective covers to make the complete cable route accessible. (read § 15.1; page 55)
- When lubricating, the ends of the cable guides should always be wiped clean.
- Then spray MoS4 based penetrating oil into the ends of the cable guide and allow it to penetrate.
- Press the levers repeatedly so that the cable moves back and forth in the guide.
- While moving the levers, spray small amounts of penetrating oil on the highest end of the cable guides.
- Repeat this for a few minutes until the penetrating oil on the underside of the cable guide drains out.
- Now blow with compressed air into the highest end of the cable so that the penetrating oil is forced out and the dirt in the guide is removed.
- Wipe off any dirt that comes out of the guide on the underside.
- Leave the machine for 30 minutes so that all the penetrating oil has drained out of the guide.
- After wiping away the penetrating oil, spray some NOVATIO CLEAR LUBE-S on the cable and in the guide end while again operating the levers.
- Repeat this so that sufficient amounts of new lubricant can penetrate the cable guides.
- After lubricating, replace the protective covers. (read § 15.1; page 55)

11.5.7. Lubricating the chain

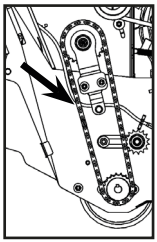


Caution: Chain tightening must be done with the engine switched off. Remove the spark plug cover as a precaution.



Caution: Always wear suitable clothing for performing this type of maintenance.

There is one chain on the machine that transfers the drive from the transmission box to the roller of the machine.
This chain rotates at quite a low speed, so wear and tear is limited and lubricant is not ejected from the chain due to high speed.
However, dethatching is often done in dusty conditions, so it cannot be ruled out that dust will not stick to the chain over time. As such, it is recommended to clean and re-lubricate the chain once a year.



- To clean the chain, use a grease solvent cleaner (e.g. NOVATIO KLEENSPRAY-S) to inject the chain.
- Allow the cleaner to work in for 1 minute so that the grease adhering to the chain will soak off.
- Wipe away the old lubricant from the chain with a rag. Together with the old lubricant, all adhering dirt must be wiped off.
- Repeat this several times until all the old lubricant has been completely removed and the chain is clean again.
- If the chain is clean, new lubricant can be applied.
- Spray with adhesive chain spray. (recommended: NOVATIO CLEAR LUBE-S)
- Make sure that the lubricant reaches all parts of the chain.
- Roll the machine so that the chain starts to move and each part can be lubricated.



Caution: When cleaning or lubricating the chain, make sure that the product does not end up on the belts or belt pulleys. This will cause belts to slip, which can lead to increased wear and tear and drive problems.

- After lubricating the chain, replace the protective covers.
(read § 15.1; page 55)

11.5.8. Tightening the chains



Caution: Chain tightening must be done with the engine switched off. Remove the spark plug cover as a precaution.



Caution: Always wear suitable clothing for performing this type of maintenance.

There is one chain on the machine that transfers the drive from the transmission box to the roller of the machine.

- To reach the chain transmission, the large protective cover will have to be removed.
(read § 15.1; page 55)
- The chain is subject to loss of elasticity after time and it will start to hang loose, with a risk of jumping off the gear under heavy strain. If you notice that the chain is loose when performing maintenance, it must be tightened.
- To tighten the chain, a small sprocket is provided with an adjustable holder.
- To adjust this chain tensioner, loosen the attachment bolt (M8) one turn (anti-clockwise - spanner size 13).
- Now slide the holder to the left so that the sprocket is pushed deeper into the chain.
- The chain should not be too tight. The chain must be able to move back and forth easily by 5 mm (0.2") without much effort.
- Then tighten the attachment bolts firmly so that the chain tensioner does not come loose while driving. (clockwise - spanner size 13)



Caution: Never tighten the chain too tightly. Too much driving capacity would be required as a result, leading to extra wear of the chain and sprockets. Furthermore, a high radial tension can harm the cap seals and bearings of the drive box.



Caution: When checking the chain tension, also check the chain and the sprocket for wear and tear. If the teeth are worn the sprockets and chain must be replaced. Contact your authorised ELIET dealer for assistance.

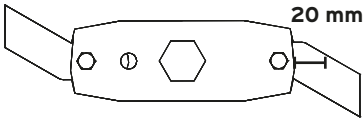


Caution: Use this maintenance to lubricate the chain
(read § 11.5.7; page 48)

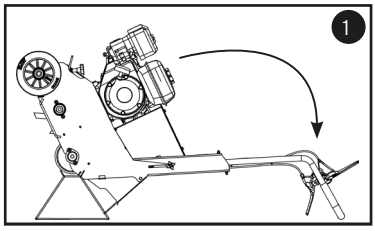
- Carefully replace the protective cover and fasten it.

11.5.9. Replacing the blades

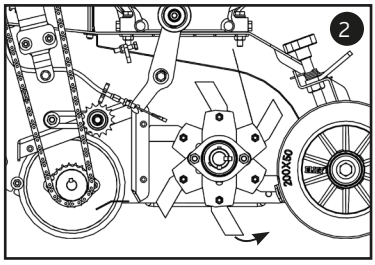
The PPM™ (Permanently Sharp Blades) are self-sharpening; they don't require sharpening. However, during the dethatching, the blades wear down, making them shorter.



- If the blades are worn down by more than 20 mm, the machine will be less efficient and the manufacturer recommends replacing them. (remaining blade length 20 mm)
- To disassemble the blades, the machine needs to be placed on the supplied Easy Clean™ cleaning support.
- Then tilt the machine backwards **(1)** so that it is resting on its handlebar. In this way, the blades can be reached in complete safety.
- Each blade is individually mounted in the blade holder with an M8 bolt.
- Unscrew each bolt (spanner size 13). And then pull each blade out of its blade holder with a pair of pliers.
- Then blow compressed air into each empty blade space so that no dirt is left in it.



- A new blade set can be order at any authorised dealer under number:
- **E450 ZR:** BU 402 100 454 - **E550 ZR:** BU 402 100 400 - **E650 ZR:** BU 402 100 478.
- Place the new blades in the blade holders. Make sure that the blade is pointing the right way **(2)**.
- Screw the bolts back into the holders. Make sure that the bolt is always placed on the discharge side.
- Then re-tighten all bolts firmly (tightening torque 20 Nm). Mark each bolt that has been tightened so that you do not forget a bolt.



- We strongly recommend NOT to replace only one or just a few blades since this interferes with a uniform operation of the machine across the entire width.
- If a bent blade is detected, a pair of pliers can be used to straighten it, so that it is aligned again with the other blades.

Please note: Wearing gloves and safety glasses is mandatory. Replacing blades must always be done with the engine switched off.

12. Storing the machine



Clean the machine (read § 9.8.1; page 30)

When storing the machine for an extended period, it is recommended to follow the steps below:

- Perform comprehensive maintenance(read § 11.5; page 44)
- Check all nuts and bolts and tighten them where necessary. Most bolts require the use of two spanners, size 10, 13 or 17.
- Empty all fuel from the tank. This can be done simply by letting the engine run until the machine hits empty. Use a siphon if necessary, to pump the petrol into a jerrycan (read § 9.3; page 25)
- Remove the spark plug. (read § 11.5.2; page 44) Spray some MoS2-based penetrating oil into the cylinder. Pull the starter cord until the piston is in its uppermost position. Replace the spark plug.
- To avoid rust on the machine, touch up all chipped areas or treat them with anti-rust grease. Original paints/enamels in the appropriate colours are available from your ELIET dealer.
- Store the machine in a cool, dry place, away from possible rain. If necessary, cover it with a tarpaulin.
- Always allow the machine to cool down before storage.
- If the machine is stored outdoors, it must be properly covered with a tarpaulin. Avoid rain/water from splashing on the machine. ELIET highly recommends a sheltered storage place.

13. Equipment specifications



	E450 ZR	E550 ZR	E650 ZR
Engine	5,5 HP Honda GX160	6,5 HP Honda GX200	9 HP Honda GX270
Operating width	450 mm - 18"	550 mm - 22"	650 mm - 26"
Wheel drive	rubber traction roller Ø 150 mm - 6"	rubber traction roller Ø 150 mm - 6"	rubber traction roller Ø 150 mm - 6" differential
Drive speed	2,5 km/h	2,5 km/h	2,5 km/h
Handlebar	Floating	Floating	Floating
Blade selection	Fixed	Fixed	Fixed
Blade interlineation	15 mm	15 mm	15 mm
Direction of rotation blades	overtop - against the direction of travel	overtop - against the direction of travel	overtop - against the direction of travel
Double Cut™ blades (number / thickness)	54 / 1,5 mm	66 / 1,5 mm	78 / 1,5 mm
Permanently Sharp Blades™	yes	yes	yes
Depth adjustment	front: stepless	front: stepless	front: stepless
Wheels (rubber / alu)	Ø200 mm - 8" double ball bearings	Ø200 mm - 8" double ball bearings	Ø250 mm - 9.8" double ball bearings
Drive Reduction gearbox	1x belt SPZ 512	1x belt SPZ 512	1x belt SPZ 562
Drive Blade axle	2x belt 4L 350K	2x belt 4L 350K	2x belt 6837
Drive Traction roller	1x chain 3/8" - 7/32" 39 links	1x chain 3/8" - 7/32" 39 links	1x chain 3/8" - 7/32" 39 links
Dimensions (L x W x H in mm)	1230 x 630 x 1050 mm 48" x 25" x 41"	1230 x 730 x 1050 mm 48" x 29" x 41"	1230 x 820 x 1050 mm 48" x 32" x 41"
Weight	85 kg - 187 lbs	93 kg - 205 lbs	120 kg - 265 lbs

14. CE Declaration of Conformity



Machine..... Scarifier
Type: .....ELIET E450 ZR .....ELIET E550 ZR .....ELIET E650 ZR
Model number: .....MA 037 010 205 .....MA 035 010 206..... MA 038 010 208

These machines have been designed and manufactured to comply with the following European standard:
PrEN 13684 Garden equipment - Pedestrian controlled lawn aerators and scarifiers - Safety
DIN 33402: Body measures

The ELIET machine factory hereby declares that after performing a hazard analysis, it is fully aware of the potential hazards and risks associated with the machine. Based upon this knowledge, the necessary steps have been taken in line with Machine Directive 2006/42/EEC in order to ensure full operator safety when the machine is used correctly.
The value of the measured sound power and the guaranteed sound power were obtained by applying the procedures described in European Directive 2000/14/EC Annex III/B 49 and regulations from EN 13684.

Measured sound levels Lw(A): 96 dB(A)
Guaranteed sound level Lw(A): 98 dB(A)

Date: 15/03/2021
Signature:



Frederic LIETAER
Business Manager ELIET EUROPE NV
born 02/01/1975

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Fax: +32 56 77 52 13
E-mail: info@eliet.eu

15. Appendices

15.1. Removing protective covers



Caution: Removing protective covers is considered to be a maintenance operation. As such, always switch off the engine, remove the spark plug cover and wear appropriate clothing.



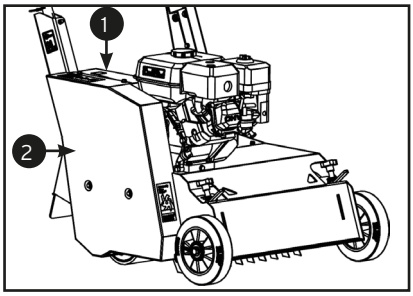
Caution: Protective covers are intended to shield off dangerous areas to avoid accidents. It is therefore strictly prohibited to operate the machine or to switch on the engine or any drive with any protective cover removed.



Caution: Anyone who removes a protective cover should be aware of the fact that they are creating a dangerous situation and are therefore responsible for ensuring safe circumstances in an alternative manner. They must therefore remove the starter key from the lock to avoid other people starting the machine inadvertently.

The machine has 2 protective covers:

1. The small reduction gearbox cover for the drive unit.
2. The large protective cover that protects the belt drive of the blades, the belt drive for the reduction gearbox and the chain drive between the reduction gearbox and the traction roller.



The **small reduction gearbox** is attached with 3 M6 bolts (spanner size 10).

- Completely unscrew the bolts (anti-clockwise). The bolts are screwed to the frame, so one spanner is sufficient.
- Slide the cover horizontally away from the machine.
- When replacing the cover, pay attention to the cables. Make sure that these are pushed into the provided recesses so that they do not get crushed.
- At the top two attachment points, make sure that the edge of the small protective cover is placed underneath that of the large one.

The **large protective cover** is attached with 4 M6 bolts (spanner size 10).

- Here too, the attachment bolts must be unscrewed one by one (anti-clockwise).
- Slide the protective cover horizontally.
- When replacing the protective cover, the bolts must first be placed in their position without completely tightening them. This makes it possible to slide the protective cover a little more so that the holes line up with the bolts.
- Once all the bolts are screwed in, they can be tightened.
- To attach the cover without vibrations, make sure that the rubber strips are placed on the edges of the cover when installing.

16. Warranty conditions

Dear Customer,

We thank you for purchasing an ELIET product. Congratulations on your purchase of this machine which is sure to exceed your expectations and needs over the coming years. At ELIET, we do everything to ensure that our products function properly. That is why your product comes with a warranty.

What is a warranty?

At ELIET, the design and production of our products are subject to strict quality rules. The purpose of these rules is to guarantee a long service life and permanent safety. That is why ELIET is happy to repair any hidden defects or faults during the whole run-in period (i.e. the warranty period) free of charge, provided the prescribed procedure is followed.

Warranty conditions

ELIET's warranty obligations for new machines are governed by the following conditions.

I. Warranty period

The warranty period starts the day the dealer delivers the machine to the customer (maximum one week after the purchase) and expires:

- After two years for private use.
- After twelve months or 100 hours of operation for rental use.
- After twelve months or 100 hours of operation for semi-professional and/or professional use.

To apply for this warranty the customer must register the purchased product with ELIET and complete the registration details on the website:
www.eliet.eu. If you do not have access to the internet, please complete the attached registration card and return it to ELIET.

II. The warranty does not apply in the following cases.

- Parts that are subject to wear and tear (e.g. blades, bearings, belts, chains, cogs, tyres, bulbs, fuses, etc.) are not covered by the warranty conditions.
- Defects caused by improper use, neglect or consequential damage by an external source (fall, chippings, objects, accident).
- Defects caused by improper maintenance of the machine, i.e. contrary to the prescribed periodic maintenance.
- Defects caused by improper repairs carried out by parties other than authorised ELIET dealers or after using non-original ELIET replacement parts.
- Defects caused by making improper changes to the original design of the machine.
- Faults occurring as a result of machine use contrary to the instructions contained in this manual.
- Failure to observe the prescribed warranty procedure or expiry of the warranty period.
- For all problems relating to the engine, please contact an authorised service centre of the

engine manufacturer.
- In no event shall Eliet be liable for incidental or consequential damages (including but not limited to liability for loss of profits) arising from the sale or use of this product.

III. Procedure
- **Step 1:** On the date of purchase, the customer registers his/her purchase online by completing the registration card on **www.eliet.eu**. In addition, the enclosed registration card must be completed on the day of purchase. The first part of the card has to be returned to ELIET within one month. The customer is required to keep all remaining parts of the card along with the purchase invoice for the duration of the warranty period.
- **Step 2:** In the event of a defect, the customer must have it verified by the authorised ELIET dealer. If the dealer finds a manufacturing defect, they may invoke the warranty under the terms specified.
- **Step 3:** Every warranty application must be accompanied by a completed official application form. Dealers may request application forms from ELIET or from an ELIET importer/agent.
- **Step 4:** The dealer orders the parts necessary to perform the repairs. Next, the dealer faxes the order form together with the completed warranty form and a copy of the registration card to ELIET.
- **Step 5:** The warranty form must be stapled to the purchase invoice and sent to ELIET or an ELIET importer/agent.
- **Step 6:** ELIET sends the parts ordered to the dealer under the regular delivery and payment conditions.
- **Step 7:** The defective part will be examined by ELIET's technical department prior to approving or rejecting the warranty. ELIET reserves the right to unilaterally decide whether or not the customer has complied with all the conditions applicable to the one or two-year warranty. Faulty components automatically become the property of ELIET.
- **Step 8:** If a warranty claim is found to be valid, ELIET will credit the parts under warranty. Customers are never entitled to a refund of labour costs.

IV. In the event of damage caused by transport:
- All goods are supplied ex works. Transport risks shall be borne by the customer. ELIET therefore recommends checking the goods for damage on delivery.
- Any damage found must be detailed on the BOL before signing. Make sure the driver of the transport company puts his signature next to the details about the damage on your copy.
- In the absence of a written and signed statement on the BOL, the transport insurance company will not accept any liability.
- Claims for damages must be submitted to the carrier and shall include a copy of the BOL and a covering letter detailing your complaint.
- The damaged machine should be kept in its original condition until the carrier's insurer has performed an examination.



REGISTRATIONCARD
ELIET CUSTOMER SERVICE

To be able to claim the full rights to which you are entitled, it is important to register within a month after the date of purchase. Therefore fill out this registration-form and return the first registrationcard to the ELIET Customer Service. Your purchase should be registered on the ELIET website: www.eliet.be

REGISTRATIEKAART
ELIET KLANTENDIENST

Om als klant, aanspraak te kunnen maken op waarborg dient men zich binnen de maand na aankoop bij ELIET te registreren. Hiervoor vult u onderstaand document volledig in en stuurt het eerste deel van deze registratiekaart naar de ELIET klantendienst terug. Registreer uw aankoop op de ELIET website: www.eliet.be

CARTE
SERVIC

Pour prof
de tous le
vous sont
tant de regi
le mois suiv
Complétez d
gistrement et
partie au Serv
Registrez votre
Internet ELIET: www.eliet.be

Registrationskarte zum ELIET Kundendienst zurück. Registrieren Sie Ihren Kauf ebefalls auf der ELIET Webseite unter: ww.eliet.be

Customer Identity / Klantgegevens / Données du Client / Kundendaten

Name / Naam / Nom / Name

First Name / Voornaam / Prénom / Vorname

Street / Straat / Rue / Strasse

Nr / Nr / N° / Nr

Box / Bus / Boîte / App.

City code / Postnr / Code Postal / Postleitzahl

City / Plaats / Ville / Stadt

Country / Land / Pays / Land

Telephone / Telefoon /Téléphone / Telefon-Nr.

Fax / Fax / Télécopieur / Fax

E-mail

Machine identity / Machinegegevens / Données de machine / Daten Maschine

Model / Model / Modèle / Modell

Year of manufacture / Bouwjaar / L'année de construction / Baujahr

Article Code / Artikel code / Code d'article / Artikel-Nr.

Serialnumber / Serienummer / Numéro de série / Serien-Nr

Date / Datum / Date / Datum

Signature
Handtekening
Signature
Unterschrift

Stamp of dealer
Stempel van handelaar
Cachet de revendeur
Stempel Fachhändler

I declare that all information that was filled in is correct and truthful. I also declare to have read and understood the operations manual and the warranty conditions.
Ik verklaar dat al deze gegevens waarheidsgetrouw werden ingevuld.Hierdoor geef ik te kennen de garantievoorwaarden en handleiding te hebben gelezen en begrepen.
Je déclare que tous les données complétées sont correctes et véridiques. Je déclare également d'avoir lu et compris les notices du mode d'emploi et les conditions de garantie.
Ich erkläre hiermit, dass alle angegebenen Daten korrekt und warheitsgemäss gemacht wurden. Ich erkläre ebenso, dass ich die Garantiebedingungen gelesen und verstanden habe.

Put a crossmark to which application this machine was used
Zet een kruis bij de toepassing waarbij deze machine wordt ingezet
Indiquez avec une croix l'environnement dans lequel la machine a été utilisée.
Kreuzen Sie an, für welche Art von Gebrauch die Maschine bestimmt ist.

- ☐ Home use / Particulier gebruik / Usage particulier / Private Nutzung
- ☐ Profesional Landscaping / Hoverniersbedrijf / Usage Professionel / Gewerbliche Nutzung
- ☐ Forestry / Bosbouw / Forêt / Forstbetrieb
- ☐ Public Groudscare/ Openbare groenvoorziening / Espaces Verts Public / Öffentliche Grünflächenversorgung
- ☐ Rental / Verhuur / Location / Vermietung

Dit document dient binnen de maand na aankoop teruggestuurd te worden naar de ELIET Klantendienst.
This document has to be returned to ELIET Customer Service within a month after purchase.
Renvoyez ce document au Service après-vente ELIET dans le mois suivant à la date d' achat.
Dieses Dokument muss innerhalb eines Monats nach Kaufdatum an den ELIET Kundendienst zurückgeschickt werden.

SPECIMEN

English

BZ 201 490 003 - 10/2021