ELIET®

OPERATING INSTRUCTIONS

Neo

You will find information about the actual use and maintenance of the machine. **Read it carefully and keep it in a safe place.**

Please also keep your **purchasing invoice** or the proof of receipt together with this booklet.

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

Attention:
When putting a new machine into operation you must check the tension of all blade bolts during the first five working hours. Should this warning not be headed, a blade may become loose. Serious consequential damage may occur in relation to your new machine and the operator may be in grave danger of suffering injuries or death may even be the result. ELIET can, as a consequence, not be held liable for the consequences of this negligence. Any claims on the warranty will also no longer apply.

1. Introduction

1.1 Carefully read this user manual

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

1.2 Identification Data – ELIET NEO

Note the identification data relating to your machine in the boxed areas.

Stock no. :	MA
Serial number :	
Year of Manufacture :	20

2. Warranty

2.1 Warranty card

To be eligible to obtain warranty you must mail the completed warranty card within one month of the date of purchase to the address stated below.
ELIET EUROPE NV, Diesveldstraat 2, B – 8553 Otegem (Belgium)
Tel. +32 56 77 70 88 - Fax +32 56 77 52 13

REGISTER YOUR PRODUCT ONLINE AT WWW.ELIET.EU.
Read the warranty conditions on the attached warranty card.

For your information :
Technical problems or faults due to faulty maintenance mean that the customer will not be entitled in any way to make a claim on the warranty. Chapter 11 shows in a well-organised manner the maintenance intervals and provides advice for the maintenance type for which an official dealer should be consulted.

3. Welcome

Welcome to the family of ELIET users.

We would like to thank you for the confidence 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 to a great extent on how you care for your machine. If you follow the instructions and suggestions in these manuals, your ELIET machine will operate for a very long time in optimal condition.

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

At ELIET all our machines and devices are subjected to a policy of continuous change and therefore, the specification of your machine may differ slightly in terms of shape, technology and accessories. The descriptions and technical data in this manual are accurate at the time of printing. Certain illustrations and descriptions may not be applicable to your specific machine, but instead relate to a different version of the machine. In turn, we trust that you will understand that the texts and illustrations in this manual cannot lead to any claims. If you still have any questions after you have read this manual, please contact your ELIET dealer. Find an official ELIET dealer near you at www.eliet.eu.

ELIET AT YOUR SERVICE

During office hours our help desk will make every effort to answer your questions :

European customers
GMT +1: from 8 AM to 18 PM
Phone : +32 56 77 70 88
Fax : +32 56 77 52 13
Service@eliet.be

4. Table of Contents

5. Operator safety warnings

ELIET cannot foresee every situation in which a risk or danger can occur. The warnings in this user manual, the labels on the machine are therefore, not comprehensive. Even though this will be minimal, a residue risk will always be present. If you apply a working method, action or technique as the user that is not explicitly recommended by ELIET, ensure in any case that this will not represent a danger for bystanders.

A number of symbols (“For your information”, “Caution”, “Warning”) are used in this user manual to provide additional information and to 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 to denote where you can find additional information relating to the subject.

5.2 Caution

Caution :
This notice identifies safe usage habits. This is done to prevent incorrect actions that can result in personal injury or damage to the machine.

5.3 Warning

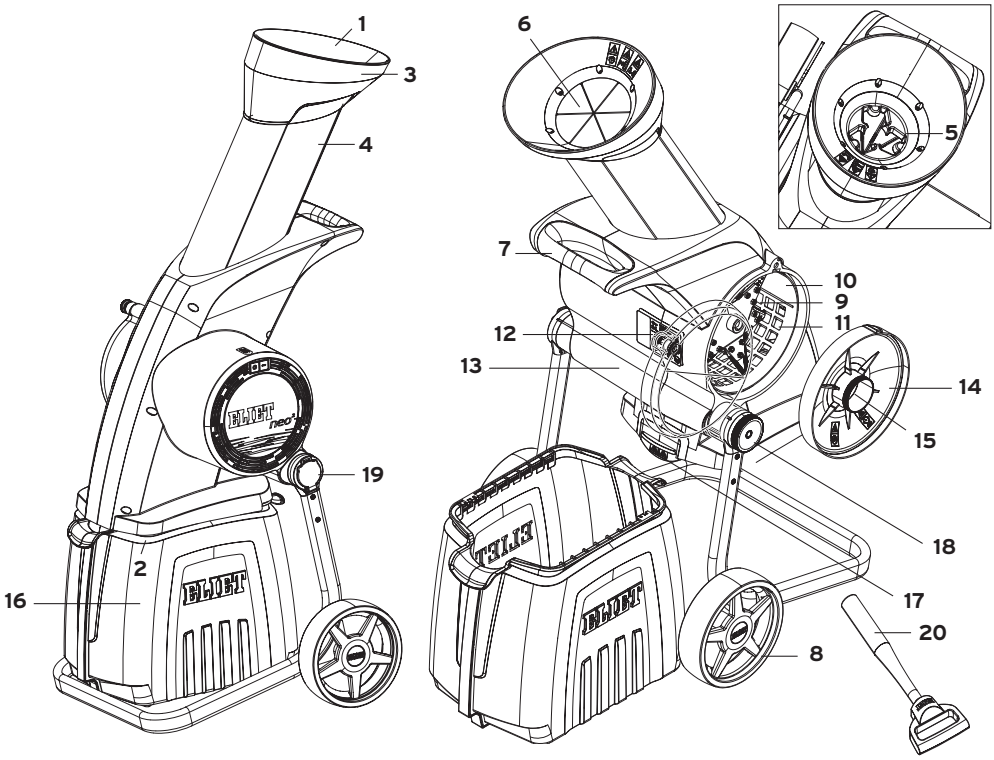
Warning :
This notice is used to warn you about extreme danger that you must be aware of in these specific circumstances. Thus remain alert, in order to ensure your own safety.

These safety measures can only warn and not remove the danger. Using common sense and observing the guidelines contained in this manual are essential to prevent accidents.

6. Main parts

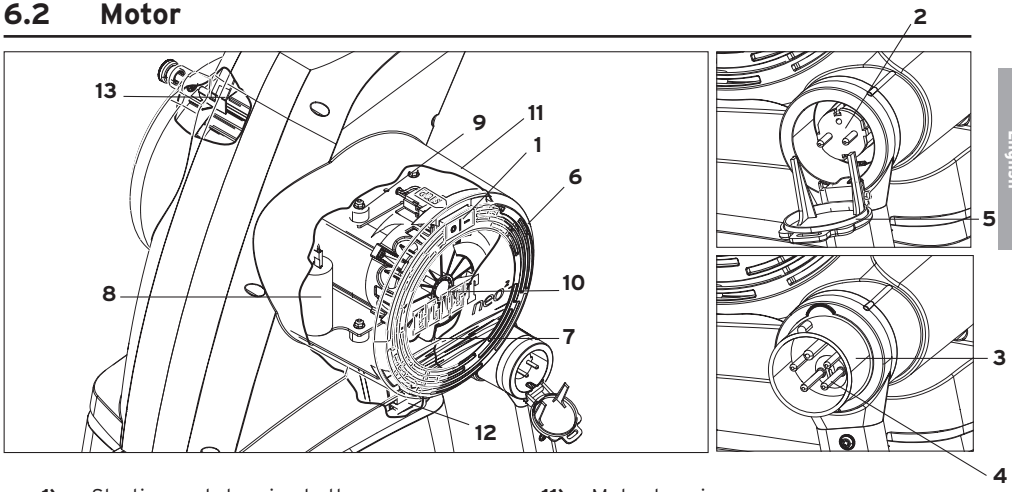
To fully understand the content of this operator's manual you need to be fully conversant with the terminology used for the descriptions. In this chapter you can find a set of parts identified by name. It is a good idea to take time to study the machine beforehand for an improved understanding of the descriptions provided in this user manual.

6.1. Machine Survey



1) Input
2) Output
3) Loading hopper
4) Loading hopper
5) Swivelling feed restriction*
6) Anti-projection flaps
7) Handle for transporting
8) Wheels
9) Blade shaft
10) Chipping chamber
11) Calibrating sieve (aka shredding screen)
12) Rotary knob for see-through window
13) See-through window
14) Chipping chamber cover
15) Nylon bearing
16) Collection bag
17) Collection box sliding lock
18) Rotary knob for pivot hinge
19) Hinge joints
20) Paddle*

6.2 Motor

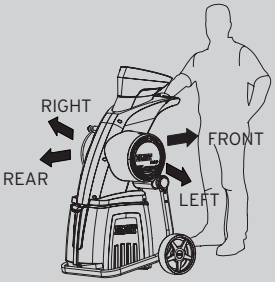


1) Starting and stopping button
2) 230 V plug**
3) 380V plug***
4) Phase reversal function***
5) Plug cover **
6) Suction grid for cooling air
7) Fan
8) Capacitor**
9) Motor suspension
11) Motor housing
12) Collection bag safety switch
13) See-through window safety switch

*(Only applicable to NEO)
**(Only applicable to NEO and NEO²)
***(Only applicable to NEO³)

The machine can be slightly different from the figure.

For your information :
References in this manual to the right- or left-hand side, back or front, are viewed from the position where the chipper/shredder operator is facing on the side of the handle for transporting while looking toward the feed hopper (aka loading hopper).



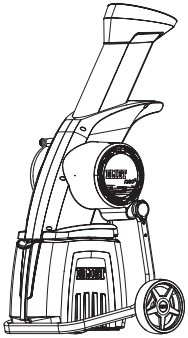
For your information :
Your ELIET dealer is at your service, ready to provide you with maintenance or advice so that your ELIET machine always remains in optimal condition. Original ELIET parts and lubricants can be obtained from your ELIET dealer. These service parts are manufactured to the same stringent accuracy requirements and standard of craftsmanship as the original equipment. (Find your nearest dealer by visiting www.eliet.eu.)

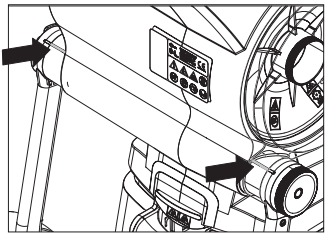
Caution:
For your safety, use only genuine ELIET parts on ELIET machines. The list of original replacement parts and their ordering code can be consulted online by visiting **www. eliet. eu**.

6.3 Set-up

The machine can be found in two set-ups.

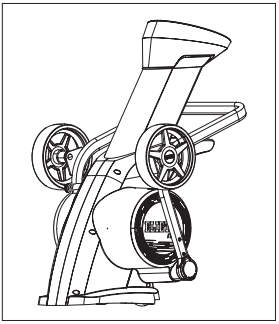
1. Working set-up



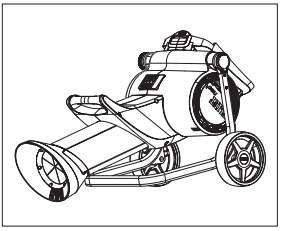


The wheels and the tubular frame rest on the floor. The housing (the upper part) of the machine is positioned straight in the extension of the tubular frame and the line markings on the hinge and the housing match. The collection box has been slid into the housing and can be found within the tubular frame. The sliding lock of the collection box has been pressed down. This is the only set-up with which the machine may be operated to chip or be moved.

2. Storage set-up



A. The housing (upper part of the machine) rests on the ground and the tubular frame with the wheels are turned around the hinged point so that the housing is enclosed by it. The collection box has been removed from the machine.



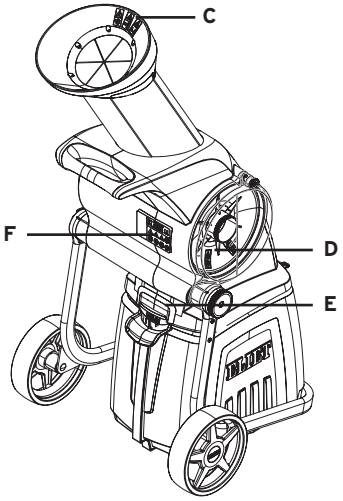
B. The wheels and the tubular frame rest on the ground and the housing (upper part of the machine) has been turned forward so that the loading hopper rests on the ground. The collection box has been removed from the machine.

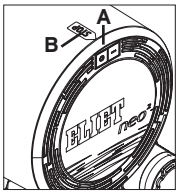
Caution :
These two set-ups **are only for storing or transporting the machine**. Never work with a machine in the storage set-up. **No other set-up is recognised by ELIET whatsoever as being safe.** ELIET prohibit users using, moving, transporting or storing this machine in any other than the set-ups described above.

7. Safety instructions

7.1 Safety messages

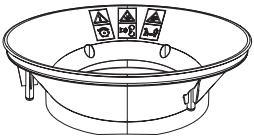
Safety stickers or relief images have been affixed on to visible areas of the machine. Make a note of the icons and warning messages specified on these stickers





A. The starting button is green and provided with the "I" sign that is universally known as representing "on". The stopping button is red and provided with the "O" sign that is universally known as representing "off".

B. There is an arrow on top of the cylinder-shaped housing that contains the word "STOP". The point of the arrow points to the area where the stopping button can be found in the end face of the motor housing. This ensures that the operator can find the location of the button in an emergency even when the operator cannot see the switch from his or her position.

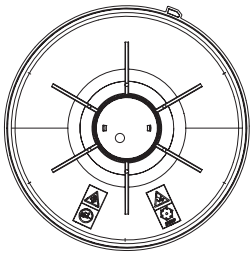


C. Three pairs of icons have been added in relief at the front in the feeding hopper always in the line of vision of the operator whilst working. These icons point to dangers that are real around and at the feeding hopper.

This icon warns about the danger of the turning blades at the end of the feeding hopper.

This icon explicitly warns about the danger of cutting injuries to hands and prohibits grabbing the feeding opening with your hands. Hands may be pulled inside by the blade system.

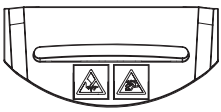
This icon explicitly warns about the danger of projection (by kickback material) and it recommends keeping a safe distance from the feed opening.



D. Two pairs of icons have been added in relief on the chipping chamber. They can be seen through the see-through window of the chipping chamber. If the user wishes to open the chipping chamber, these icons will definitely grab his or her attention.

This icon ensures the operator will always disconnect the machine and will disconnect the electric plug from the machine as precautions when he or she wishes to perform maintenance on the blade system. This is to ensure that the machine cannot start up unexpectedly when the operator is performing maintenance with his or her hands near the blades.

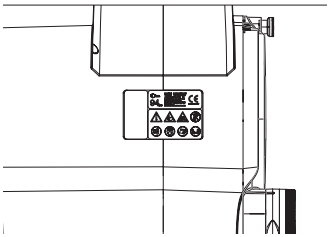
This icon points to the danger of cutting injuries to hands and ensures the user waits until the blades have stopped completely before opening the chipping chamber cover.
Once the motor has been shut off, the blades will continue to turn for a short while due to inertia. This is a dangerous situation that we warn about here.



E. Two icons are shown in relief on the sliding latch of the collection box. These icons can be seen perfectly when the collection box is positioned in the machine or when the sliding latch.

This icon warns of danger of hand injuries. The collection box is the closing and screening off provision for the discharge side of the machine. When this collection box is removed, the user can injure himself or herself through the discharge side of the blades.

This icon warns of danger for kickback material. Chips are ejected from the discharge side of the machine at high speed. The collection box protects the operator and third parties against this projection. When the collection box is removed, this protection is also removed. This is the reason why we advice locking the collection box with the sliding latch to ensure that this cannot happen unintentionally.

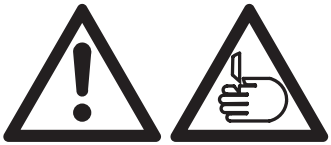


F. This sticker has been stuck on the rear of the machine and can always be seen from the transportation and working position of the operator. It groups a number of important safety messages and information about machine and the manufacturer:
A number of safety instructions are symbolised by icons:

1. Read this user manual carefully in its entirety before attempting to operate this machine.

2. Always wear the appropriate protective garment when operating the machine (protective gloves, safety goggles, hearing protectors).

3. You must always ensure that bystanders are kept at a safe distance (3 m). The sticker also expressly refers to the presence of a number of important dangers through the use of icons:



4. There is a real danger of serious injury with permanent damage to hands. Never insert your hands into the feed opening of the loading hopper.

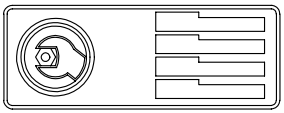
5. There is real danger of serious injury with permanent damage to eyes and/or the face through the projection of chippings. Never, therefore, press the anti-projection flaps open while being above the loading hopper.

6. The machine may never be deployed when the weather is humid and must never be exposed to water that directly falls on to the machine.

This sticker also shows the identity label of the machine that provides the following information:

- year of manufacture
- model
- type number
- serial number
- power rating
- weight
- Guaranteed A-weighted sound power level

Also, this label is used to denote the name and address of the manufacturer. The label carries the EC mark of conformity in EC label format. The sticker specifies what the guaranteed sound level (LwA) is of the machine in dB(A) in accordance with European Directive 2000/14 EC. This important sticker has order number BQ501 220 040 and must be replaced in case it is damaged or becomes illegible.



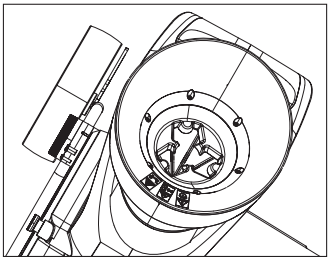
G. This sticker is supplied with the machine and must be stuck by the operator somewhere visible on the machine with the message in the language of the country where the operator lives: This sticker expressly reminds the user to examine the bolts retaining the blades for security of fixings within the 5-hour run-in period of fitting new blades or reversing existing blades. This also applies to the first 5 running hours when the machine is put into operation. The tightening torque is : 10 Nm. (Order Nr. : BQ 505.010.160)

Caution :

Part safety stickers that include safety information that are damaged due to use or cleaning, become illegible or have been removed must be immediately replaced. Stickers and parts can be obtained from your official ELIET dealer.

- Sticker : BQ 501 220 040
- Chipping chamber cap : BR 930 010 050
- Feed hopper : BR 930 010 120
- Sliding lock : BR 930 010 100

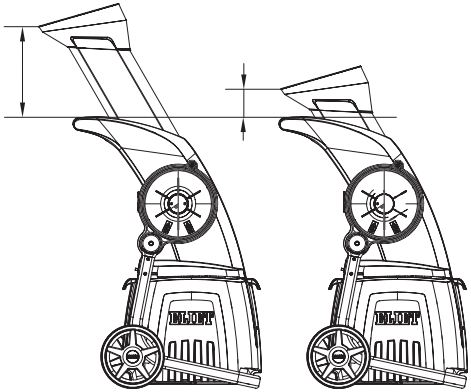
7.2 Safety provisions

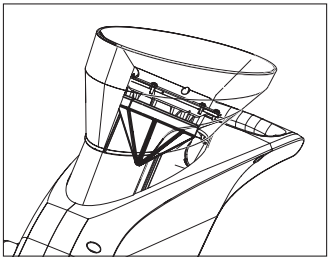


Feed restriction :
An insert has been provided with the NEO model that restricts the feed opening to ensure that the average user cannot come in contact with the chipping mechanism involuntarily. This feed restriction has been designed in accordance with the regulations of the European safety standard. You must never put you hand in this feed opening.

Warning :
This feed restriction may never be removed. ELIET shall not accept any liability for accidents that may be due to this.

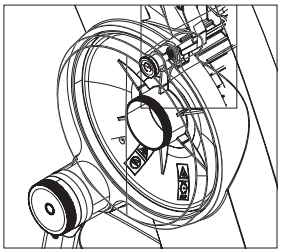
Feed hopper :
The feed height and the length of the feed funnel has been designed in accordance with the European safety regulations for the NEO^2 and NEO^3 models to prevent the average operator coming into involuntary contact with the blades. As a precaution, ELIET prohibits the operator sticking his arm further than up to his or her elbow in the feed opening.



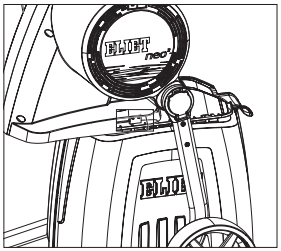


Anti-projection flaps:
The rubber flaps located within the feed opening have been specially designed to protect operating personnel against flying wood chips. Their position and shape ensure that the flaps retain the inserted garden waste as much as possible to minimise the opening along which chips can fly. You must not under any circumstances press this flaps open when the machine is operational.

Choice of material :
ELIET aims at sustainability and also offers a guarantee with regard to user safety regarding unforeseen conditions due to deciding to use high-tech composite plastics to make the machine.

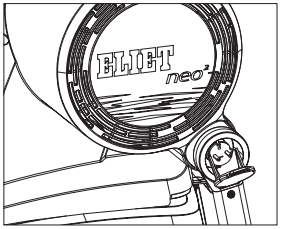


Double-wall window :
A two-part window must be opened to access the chipping chamber. A rotary knob has to be fully loosened in order to open the first window. A switch will be operated when it is being loosened that will already switch off the motor. The operator will only start up the motor when the two window parts are fully and correctly mounted.



Collection box :
The collection box fully screens off the discharge side of the machine. This ensures that you cannot put your hands involuntarily where the blades can be found through the discharge side. The collection box also protects the operator for the danger due to material kickback on the discharge side. The collection box has been equipped with a safety switch that ensures that the motor is switched off when the collection box is removed from the machine.

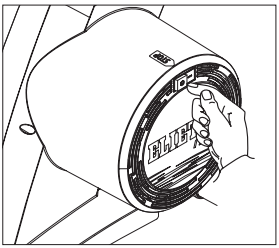
Motor brake :
The motor of the machine is equipped with a motor brake. When the power supply is interrupted, the brake will be activated so that the motor and blade shaft come to a standstill in the shortest time possible.



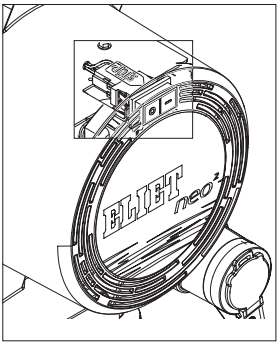
Plug clamp :
The protective cover of the plug is equipped with a plug clamp with the single-phase models NEO and NEO^2 that exerts an additional pressure force on the plug once the plug has been positioned so that the probability is reduced that it can vibrate and come loose automatically when working.

PPE :
For your safety, we strongly recommend using the Personal Protective Equipment supplied as standard. This is why ELIET supplies safety wear with the machine as standard. This safety set consists of safety glasses, ear defenders and a pair of riggers gloves.

Caution :
If parts of this safety wear is worn, faulty or lost, ELIET recommends purchasing new ones that meet the prevention standard before starting the next work session.



Emergency stop function of the switch :
The red switch will come out when the machine is switched on by using the green starting button. This will protrude when compared to the housing so that it can be easily be used as an emergency stop in a reflex movement during an emergency situation.



Thermal overload relay :
This safety contact protects the electric motor windings from overheating when overloaded. The motor will only start again when the user presses the start button after a short cooling down period.

Main switch with no-voltage coil :
The motor will never start up automatically again after a safety provision has been activated or should there be a power outage. The operator must always give the command for this by pressing the starting button.

7.3 Safety instructions

7.3.1 General safety instructions

- The Owner Manual must stay with the unit during its complete service life. It serves as a reference for the user, and enables the machine to be used and maintained in accordance with the correct instructions. Always refer to this instruction manual if you have any doubts about 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 helpdesk is at your service during office hours to answer any queries you may have: (EU +32 56 77 70 88).
- Read the chapter meant for the dealer (see : Chapter 8) and immediately verify whether the machine has been delivered in accordance with the instructions.
- After you purchase the machine, allow the dealer or a professional to give you some instruction regarding the correct use.
- Carefully observe all safety instructions when using the ELIET machine ! Carefully read all the instructions relating to the use of the machine. All these instructions relate to your personal safety.
- Always observe the applicable regulations of the Labour Inspectorate to avoid accidents.
- Read and observe all safety messages posted on the machine in the form of stickers or icons.
- Under no conditions whatsoever may the original design of the machine be modified without written consent of ELIET EUROPE NV (Belgium).

7.3.2 Careful and security-conscious use

- This machine is designed solely for chipping branchy material, prunings, leaves and all kinds of organic garden debris. Any use other than the designated operation is at the risk and responsibility of the operator.
- As chipping involves ongoing considerable physical effort, take regular breaks for food intake, rest and drinking.
- It is unsafe for persons suffering heart problems and/or having balance disturbances to operate the machine.
- Think about what you are doing whenever you operate the machine. Do not be tempted to let routine dull your attention. Never act impulsively or in reflex.
- Despite the extensive safety features, do not seek out dangerous situations. (Annex 7 contains an indicative list of dangers. Please read it.)
- Never work with a machine that has not been fully assembled. Check the finish of the machine to ensure compliance with the instructions provided in this manual.
- You must never use the machine without a feeding hopper, feed restriction (on the NEO) or anti-projection flaps.
- You must never use the machine without the chipping chamber cover fitted.
- You must never use the machine without the collection box.
- You must never use the chipper in another position than its working position. (See § 6.3.)
- Never use the chipper when the wheels have not been mounted.
- Never use a step when feeding garden waste into the machine.
- Do not constantly feed thick branches with a maximum diameter of 30 mm into the machine (35 mm NEO^2 and NEO^3). It applies as a guideline that a maximum of 10% of the material to be processed may have a branch thickness that is larger than 25 mm (30 mm for the NEO^2 and NEO^3).
- Never attempt to shred branches that are frozen.
- Burning objects must never been inserted into the machine (for example, a cigarette or charcoal).
- Do not feed foreign materials. (Strings, stones, metal, plastic, textile, etc.)
- For deontological reasons, Eliet accept no responsibility whatsoever for any accidental injury to pets or persons caused by its machines.
- You must never use metal tools to push garden waste into the loading hopper. A plastic paddle is supplied with every NEO model. This can be ordered separately for the other models, NEO^2 and NEO^3, by quoting article code MA 001 001 032
- Take care to preclude any tools falling into the in-feed funnel.
- Never work in conditions where light intensity is less than 500 Lux.
- Always work on a stable and flat surface.
- Never use the machine when it is on a gradient.
- Never use the machine when it is raining and avoid water directly falling on the machine that is being supplied by power.
- Avoid electrocution : Never perform any actions or work with the machine when your feet are in water or when your hands or feet are wet.
- Never attempt to change a machine setting and never perform maintenance when the motor is running.
- The machine may cause an explosion when you work near flammable products, fumes, etc.

7.3.3 Responsibilities of the Operator

- All persons using the machine are assumed to be fully conversant with the safety instructions. **The operator is fully liable for the use of the machine in regard to himself and to third parties.**
- It is assumed that the operator of this machine is mature enough and has enough common sense to make decisions by himself.
- Underage persons must not operate the machine. However, this does not apply to youths above the age of 16 years, who are learning to operate the machine under the supervision of an experienced operator.
- A disabled person may only operate the machine when under the supervision of an experienced operator.
- Children (younger than 16 years of age) and animals must be kept well away (> 3 m) from the machine.
- ELIET recommend that the machine should not be lent to others. However, if this is done, only lend it to persons who are conversant with the machine. **Always ensure that the user is aware of the potential hazards, and ensure that he reads the manual before he uses the machine.**

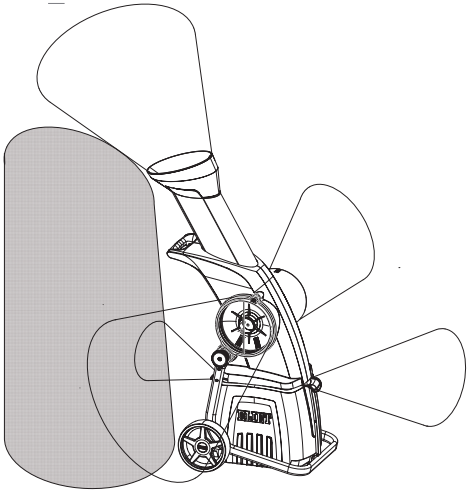
(An indicative list of potential hazards can be found in Annex 7.)

- This machine must only be operated by persons who are in good physical condition. If you become tired during the work, take a rest in due time. Persons consuming alcohol or drugs must not operate this machine.
- The user must draw up a list that registers the number of hours worked. This will ensure that the repetitive maintenance schedule can be followed correctly in relation to the machine.

7.3.4 Personal Protective Equipment (PPE)

- You must wear suitable clothing to operate this machine. That is, clothing covering the whole body, heavy protective gloves and closed non-slip footwear.
- Do not wear loose fitting clothing (a shawl, for instance, should be avoided by all means). Long hair should be contained using a cap or a headband, or worn in a ponytail.
- For the protection of the most sensitive senses, Eliet recommends ear defenders and safety goggles.
- You must pay more attention and be more careful when wearing ear protection because noises that announce a danger (such as shouting, signal sounds) will only be heard to a limited degree.
- ELIET do not recommend using a Walkman or a portable MP3 player whilst working.
- Chipping may result in dust production. If this dust irritates your lungs, we recommend that you wear a dust mask in accordance with the following standard: directive 89/686/EC.

7.3.5 Danger zone



- During the work, do not allow bystanders to enter the risk zone that stretches up to 3 m around the machine.
- By preference, the operator should stand at the back of the hopper if he or she wishes to deposit green waste in the hopper. Do not bend over the feed hopper. This will ensure you remain outside the projection field of chips that may possible fly out through the anti-projection flaps.
- Always work with both window elements closed.
- Never use the machine without the collection box fitted and always make sure to lock it (using the sliding latch) whilst working.
- Contact with moving parts may cause injury or damage. Ensure, therefore, that hands, feet or loose clothing are well away from moving parts.
- You must only operate the machine when it is in its normal working condition : This means the position where both wheels and the tubular frame are robustly resting on the ground and the marking lines of the pivot and housing match. (See § 6.3.)
- The machine must not be tilted to reduce the standard feed-in height when chipping.
- Do not take any risks and immediately stop the machine as soon as anyone enters the danger area. (Read section 9.3.2, Switching off the motor.)
- Children and animals must be kept well away from the machine.
- When leaving the machine, the motor must be switched off and the machine must be disconnected form the electric mains.
- Once the motor is running, focus all your attention on operating the machine.

7.3.6 Periodic maintenance

- Periodic maintenance is essential. For this reason, strictly follow the maintenance schedule in this user manual (see § 11.2.2).
- Draw up a maintenance register in which you keep the performed maintenance updated in detail.
- The blades must be checked to determine their sharpness to ensure the good operation of your machine. Sharpen the blades on time (read § 11.4.2).
- Always check the blade bolts for tightness within a run-in period of 5 hours after installing new blades or reversing used blades. This also applies to the first 5 hours when the machine is put into operation.
- Regularly cleaning the machine is essential. In particular, keep the air supply for ventilation of the motor free from obstructions. This will prevent overheating and consequential damage to the machine.
- When parts must be renewed as a result of wear or failure, you must always request genuine ELIET service parts from your ELIET dealer. This is important in the interests of your own safety. (Find an official ELIET dealer near you by visiting .)
- The list of original replacement parts and their ordering code can be consulted online by visiting www.eliet.eu
- When you find cracks or fractures in the see-through window, it must be immediately replaced. (¨Part Nr. : BG 930,010,050)
- Always ensure the motor is switched off and the plug disconnected before performing repairs or maintenance. Always wait until the blades come to a complete standstill before carrying out any operation.
- Always wear suitable clothing for performing maintenance.

7.3.7 Limits of the machine

- The branch diameter that ELIET prescribes for this model as the maximum is 30 mm (NEO) and 35 mm (NEO^2 en NEO^3). This diameter must not be exceeded in the interest of your own personal safety and to ensure a long life cycle of the machine.
- The chipper must only be loaded up to 70% of its maximum capacity when temperatures are low and when there is frost.
- The net wieght of the NEO is 42 kg (NEO^2 and NEO^3 :45 kg). Bear this in mind when transporting the machine.
- The machine must always be deployed on a flat and even surface.
- For reasons of stability, the machine will never be set up on a slope that exceeds the values below:

Maximum slope forwards :	NEO : 20°	NEO^2/NEO^3: 18°
Maximum slope backwards :	NEO: 12°	NEO^2/NEO^3: 10°
Maximum slope sideways to the left :	NEO: 15°	NEO^2/NEO^3: 13°
Maximum slope sideways to the right :	NEO: 10°	NEO^2/NEO^3: 8°

- The collection box has contents of 50 l. It must never be filled higher than the filler point.
- A full collection box with chips will on average weigh 15 kg.
- Never use the collection box for other goals; its load capacity is limited to 50 kg.

7.3.8 Guidelines related to the electric machines

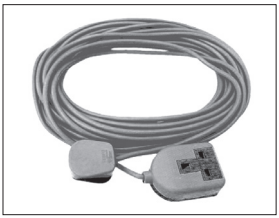
On machines powered by an electric motor, the following guidelines must be observed as well.

A. Related to the NEO and the NEO²

Below we supply the specific features of the motor :

NEO :	230 V	50 Hz	P : 2500 W	In : 12.0 A	cos φ : 0.91	n : 2,770 rpm	Capacitor : 30 µF
NEO²:	230 V	50 Hz	P : 3,000 W	In : 13.6 A	cos φ : 0.96	n : 2,820 rpm	Capacitor : 40 µF
NEO² (UK/CH):	230 V	50 Hz	P : 2,500 W	In : 12.0 A	cos φ : 0.91	n : 2,770 rpm	Capacitor : 30 µF
NEO³:	400 V	50 Hz	P : 3,500 W	In : 6.5 A	cos φ : 0.78	n : 2,800 rpm	

- The motors should be supplied form a one-phase alternating current line (AC) with voltage 230 V and frequency 50 Hz. Check the characteristics of the electrical supply. Consult your energy supplier or an expert should you lack information regarding this issue.
- The overcurrent protection of the mains network will have a fuse of at least 13A (in case of the NEO) and at least 16A (in case of the NEO²). The overcurrent protection must have a response time that is in accordance with the C curve.
- Mains networks with a higher protection (overcurrent fuse < 13A) may disrupt the good operation of the machine because it is tripped too often.
- Ensure that no other high-power devices are connected to the line dedicated to supplying the machine. Switch off any other device or connect them to another circuit.
- Avoid electrocution : Therefore, always use 3-wire extension cords (3 x 2.5 mm² : L1, L2, earthing) of which the plug is fitted with a ground pin.



- Never use an extension cord that is longer than 20 m.
- The plug that is connected to the machine must correspond with the model as described in the specifications below.
- Germany, Belgium, the Netherlands, France, Italy, Spain and Austria : Type E & F CEE 7 (female)
- United Kingdom : Type G BS 1363 (female)
- Switzerland : Type J SEV 1011 (female)

B. Regarding the NEO³

Below we supply the specific features of the motor :

NEO³: P: 3,500 W In : A

- The motors should be supplied form a three-phase alternating current line (AC) with voltage 400 V and frequency 50 Hz. Check the characteristics of the electrical supply. Consult an expert should you lack information regarding this issue.
- The overcurrent protection of the mains network will have a circuit breaker of at least 20A The overcurrent protection must have a response time that is in accordance with the C curve.
- Avoid electrocution : Therefore, always use 5-wire extension cords (5 x 2.5 mm² : L1, L2, L3, PE and earthing) of which the plug is fitted with a ground pin.
- Never use an extension cord that is longer than 20 m.

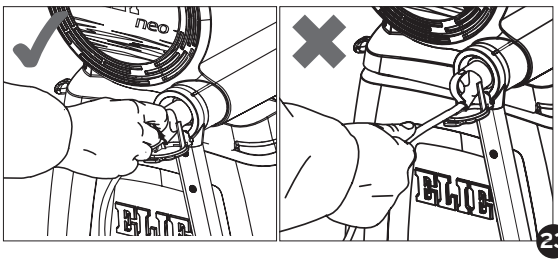
- The plug that is connected to the machine must correspond with the model as described in the specifications below.
- Female CE plug with five pins (L1, L2, L3, PE, earthing) 16 A (380 V)

The direction of rotation of the blade shaft must be checked once the extension cord has been connected. If the direction of rotation is incorrect, reverse phases. (Read Annex 4.)

C. General

Warning :
Using a inappropriate extension cord (gauge, length or plug quality) may lead to serious damage to the machine. Such damage will cancel any claims on the warranty.

- The power circuit to which the machine is connected must be protected by a 30 mA RCD (Residual Current Device).
- The domestic mains supply to which the machine is connected should be properly grounded. Have earth impedance measured out by a certified electrician.
- The power switch on the machine has an integrated thermal protection. If the internal motor temperature exceeds a standard value due to long-term heavy loading, overloading, blockage or faulty cooling, the motor will be automatically switched off. Allow the motor to cool down and restart it according to the described starting procedure (see § 9.3.1).
- We recommend using an extension cord in accordance with the CE standard that meets protection rating IP65.
- Never use an extension cord that shows signs of being damaged. This usually means that there is a real risk of short circuit or electrocution.
- Ensure that the extension cord is not near hot or sharp objects that may perforate the cord while the machine is operational.
- When the connection is made to a socket that is located outside, this socket must conform to protection rating IP65.
- Ensure that the plug always fits the socket and that the plug pins always disappear inside the socket. If this is not the case, there may be a real danger of electrocution. If the plug does not match the socket, ask an electrician to replace the plug or socket.
- Never remove a plug by pulling the extension cord. This may entail a short circuit risk.

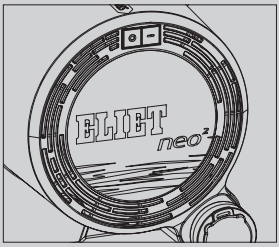


Warning :
Electrocution can occur should you connect a plug to the electric mains while your hands are wet.

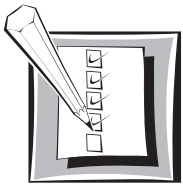
- It is forbidden to operate the machine during rainy weather. Never expose the machine to water ingress.

Warning :
Electrical equipment may cause short circuits when exposed to water and moisture. Therefore, always ensure electrical components are dry.

Caution :
An electric motor requires sufficient cooling. Here, the electric motor is air-cooled. This air comes in through the air vents on the left of the housing. Always ensure that these air inlets are free to ensure the motor cannot overheat.



8. Dealer preparation



Warning :
As an ELIET dealer you **must** familiarize your customers with the **functioning 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 :
The manufacturer, ELIET wish to re-emphasise that the Dealer must expressly point out to the customers that they must examinethe bolts which retain the chipping blades for security of fixings **within the first 5 operating hours**.

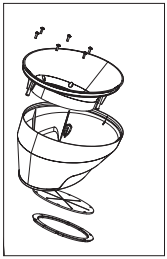
ALL BLADE BOLTS MUST BE TIGHTENED CORRECTLY AFTER THE FIRST 5 OPERATING HOURS DUE TO SAFETY CONSIDERATIONS. (TIGHTENING TORQUE : 10 NM.)

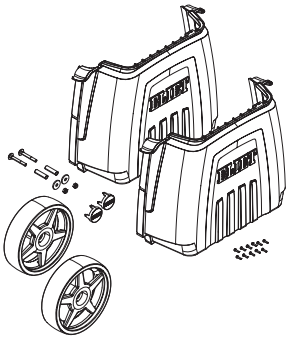
Ignoring this operation may cause serious injury and may even lead to death. In addition to damaging the machine, the client shall loose all entitlement to make a claim on the warranty. See the list with tightening torques in the annex.

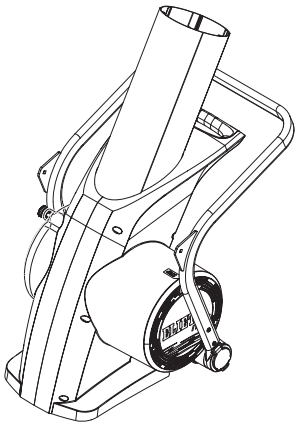
- ELIET machines are packaged in accordance with common rules that apply for such transportation. Deliveries will always be ex factory. ELIET cannot, therefore, be held liable for damages that occur during transportation.
- Should you notice damage to the packaging when goods are accepted, always check the state of the machine to ensure it is not damaged. Report any deviation on the delivery order before signing off for receipt.
- Should the machine be damaged, you should always immediately submit a complaint to the shipping company.

When the machine has been removed from its packaging, it is still not completely assembled. The dealer must finish the assembly. Below we provide a few guidelines :

NEO², NEO³





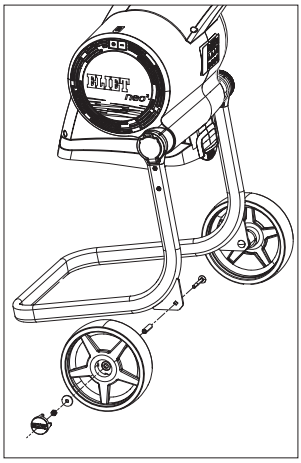


The following parts are found in the packaging on unpacking.

- Machine (NEO, NEO², NEO³)
- 2 wheels (NEO, NEO², NEO³)
- A bag with fasteners for wheels (content : 2 x M8x65 mm bolts, 2 x M8x Ø30 mm flat washers, 2 x M8 locknuts, 2 x wheel axles, 2 x axle caps) (NEO, NEO², NEO³)
- 2 halves of collection box (NEO, NEO², NEO³)
- A bag with screws for the collection box (12x5 mm screws x 20 crosshead screws) (NEO, NEO², NEO³)
- 1 x feed hopper (NEO, NEO², NEO³)
- 1 x anti-projection flap (NEO, NEO², NEO³)
- 2 x supporting plates (NEO, NEO², NEO³)
- A bag with fasteners for the feeding hopper content : 6 x screws (Ø5 x 20 mm Torx® 20)) (NEO², NEO³)
- Personal Safety Equipment kit (NEO, NEO², NEO³)
- User manual and warranty card (NEO, NEO², NEO³)
- Paddle (NEO)
- Accessory for disassembling the blade shaft (NEO, NEO², NEO³)
- Sticker with a message to remind the user to tighten the blades (NEO, NEO², NEO³)

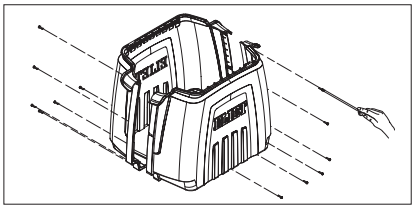
You should start by mounting the wheels :

- The wheels are to be mounted on the outside of the tubular frame.
- Two triangular supports are welded on to the tubular frame that each have a square hole. Put the bolt through the hole so that it fits squarely on to the bolt head in the hole.
- Slide the pipe over the bolt, lubricate the pike and, next, slide the wheel with the hub over the pipe.
- Put the flat washer on the bolt and tighten the bolt using the supplied M8 locknut (SW 13).
- Check whether the wheel turns smoothly. (If required tighten the nut less.)
- Put the decorative cap in the recess of the wheel so that the 4 hooks on the cap slide into the 4 right-angled openings and the decorative cap is clamped.
- Repeat this procedure for the second wheel.



Put the machine upright in its working position (read annex 1).

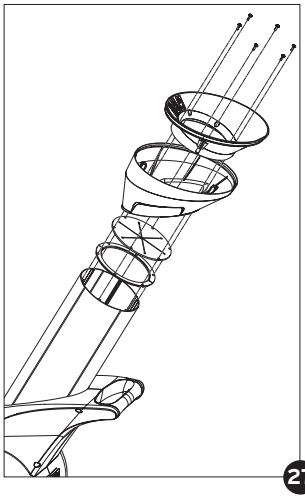
Now the collection box can be mounted :



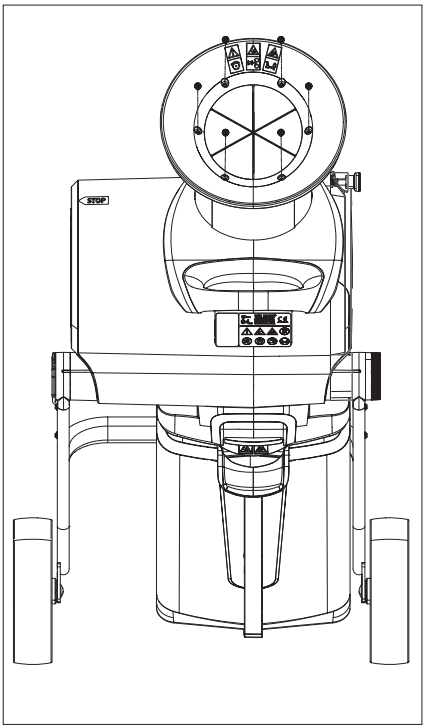
- Put the edges of the two plastic halves against each other. Slide the tooth in to the groove over the full contact area so that the two halves form a box.
- Holes are provided at twelve places with which the two halves can be screwed together by using 12 screws.
- Screw in the 12 screws completely so that the screw head is completely sunken into the recess of the hole (max. tightening torque : 2 Nm). Use a Z2 cross head screw driver.

The NEO^2 and NEO^3 models are supplied with the feeding hopper non-assembled. Proceed as follows :

- Place the two plates (in the shape of a half moon) on the aluminium sleeve of the funnel shaft. These plates can only be made to fit in one way, that is, with the joints in-between the two halves at the front and the back. Press these plates nice and tight so that they fit perfectly into the circumference of the sleeve.
- Next, place the rubber disc on the plates so that the holes correspond.
- Now slide the plastic funnel over the aluminium shaft (with the safety icons facing forward) over the shaft.



- Position the funnel whilst making sure the 6 fixing holes correctly match the ribs in the aluminium shaft.
- Now completely tighten the 6 screws down so that the plastic feeding hopper is firmly fixed on the aluminium shaft. (Screw driver : Torx® 20, tightening torque : 5 Nm)
- Perform a test run on the machine and confirm that everything is functioning properly.
- The dealer will also check the correct operation of the safety provision:
- Safety switch in the collection box
- Safety switch of the see-through window
- Motor brake (the motor will be braked when it is switched off: Stopping time ✣ 5 seconds).



The dealer will also point out to the customer how he or she can change the direction of rotation of the machine in case of the NEO[3]. The machine can, after all, rotate in the opposite direction if the extension cord or the domestic mains supply have changed the cabling connection arrangements. (Read, if required, Annex 4.)

Lastly, make sure that the warranty card is filled in completely and signed. This, in order to avoid any warranty disputes. **Read the aforementioned warranty conditions.**

Also immediately register the purchase online to ensure your warranty entitlement is activated. (www. eliet. eu)

9. Operating instructions

9.1 Preliminary checks

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

Checklist

1. Satisfy yourself that the chipping blades are firmly in place and in good condition. For safety's sake, tighten the blade bolts. (SW 10) (See the list with the tightening torque for bolts in annex 6). If the blades need sharpening, this should be performed first. Check the blades and the blade holder for cracks and nicks and replace immediately as needed (see § 11.4.3, Reversing and replacing blades).
2. Check whether the collection box is a correct fit into the machine and the sliding latch of the box has been pressed down.
3. Check whether the see-through cover is on the chipping chamber (and whether it is in a good condition).
4. Also ensure the chipping chamber is empty.
5. Check whether dirt is not blocking shut the fan grid.
6. Check whether all safety provisions on the machine still operate.

Once these items have been checked and approved, you can prepare the area of operation (see Chapter 9.2) and move the machine to the work site.

9.2 Preparing the work site

- Clear the area first where the machine is to be used.
- In addition, the paths along which the plant trimmings are removed, must be kept clear, thus releasing you from the worries of tripping up over them. Also ensure your safety is not compromised.
- On slopes, never operate the machine (no forward, backward or lateral slope.).
- The material to be chipped is to be sorted beforehand. In this way, you can be sure that no foreign objects will enter the machine with the material to be chipped.
- Foreign objects are defined as : Any non-organic object or branchy material in excess of the stated capacity (such as metal, stone, plastic, PVC, cords,...). Some of this can cause serious damage to your machine or can be ejected, virtually as projectiles towards the user.
- The machine should always be set up in such a way that the wind will blow the produced dust away from the area where the electric motor suctions its cooling air.

9.3 Starting and stopping the motor

9.3.1 Starting the motor

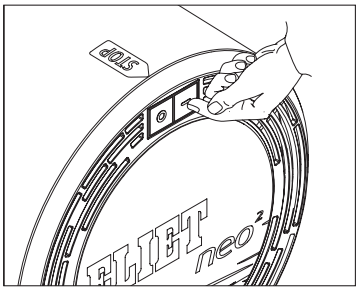
- Always ensure that all chippings have been removed from the chipping chamber before starting the machine. If required, empty the chipping chamber.
- Ensure the feed hopper is empty (no garden waste, no tools, etc).

Caution :
First read the safety instructions given in § 7.3..

- Always use an approved extension cord showing no signs of physical damage. The extension cord capacity should amply be sufficient (NEO en NEO^2 : 3 x 2.5 mm^2, NEO^3 5 x 2.5mm^2: max. 20 m long). The protection rating of the plugs must be IP 65. Such extension cords can be ordered from your authorized ELIET dealer..
- Press the cover down (for the NEO or NEO^2) and place the plug of the extension cord in the machine. First, remove chips or wood residue from the plug house, if required, before connecting the cord.
- Ensure that the plug is pushed completely against the stop so that this is firmly fixed on the machine.
- Ensure that nobody is near the machine and uncoil the extension cord completely until you are at the nearest socket of the mains supply.
- First, insert the extension cord plug into an outlet. Always ensure the outlet is found to comply with protection rating IP65.
- Insert the plug into an outlet nearest the work site in such a way as to make sure the extension cord is as short as possible (max. 20 m). If the extension cord is too long, this will result in a considerable resistance with a corresponding loss in power from the motor.
- If the plug of the cord does not match the one of the machine, you can order a suitable extension cord from your ELIET dealer (find an authorized ELIET dealer near you by visiting www.eliet.eu).

Warning :
Ensure to never expose the machine to water when chipping (such as : rain, a sprinkler irrigation system, etc.). This can result in a short circuit condition. What is more, the user may be subjected to electrocution.

- Fully press in the green switching button (I) and the motor will noiselessly start up.
- If the motor does not start up, check whether the safety provision (collection box, see-through window) is OK. (Read, if required, Troubleshooter in Annex 8.)
- If the machine vibrates abnormally or if it should produce vibration noises when running without a load, you must immediately switch off the machine and determine the cause of the imbalance. (Read the troubleshooter in annex 8.)

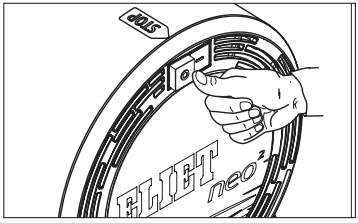


Caution :
When wearing ear protection, extreme caution must be taken with every action, as the motor is hard to hear.

Warning :
The blade shaft is driven directly by the motor. These blades are permanently connected to and driven by the motor. This means that the machine becomes dangerous as soon as the motor starts running. The motor must therefore be switched off immediately if you encounter a situation where you no longer have control over the work.

9.3.2 Stopping the Motor

- The red stop button (O) that slightly protrudes when the machine is operational, can be found next to the green star button (I). There is an arrow (STOP) on the housing that indicates the position of this.
- Press this red button and the power supply will be interrupted and, therefore, the motor will stop and will be braked.



Caution :
The machine is equipped with a motor brake that will bring the motor and blade shaft to a standstill within 5 seconds when the motor is switched off. Always ensure, however, that the blade shaft has indeed stopped before performing maintenance or an intervention on the machine. A fault or wear to the brake may mean that the machine may need a longer braking distance, which may represent an injury risk. Therefore, always be very careful. If required, have the machine checked by your official ELIET dealer.

The machine will also stop if :

- You pull out the plug of the extension cord from the machine.
- You slide the collection box from the machine.
- You loosen the tightening button of the see-through window.

Caution :
Never pull the cord when disconnecting the plug. This would pull the cables from the cord from the connection clamps in the plug. A wire that has become loose represents a real danger of short circuit and electrocution. Therefore, always use the grip of the plug to pull it away.

9.4 Operating the machine

9.4.1 Before starting work

- Wear proper apparel, protective gloves and safety equipment as instructed in this manual (see Chapter 7.3).
- A good gardener is well organised and plans his work. This will enable him to have an overview of the work and to avoid accidents and incorrect actions with the machine.
- The wood is systematically stacked before commencing the work : Thick branches, thin branches, leaves and damp products. Ensure that the material does not contain any foreign objects.
- Ensure the power supply cable is routed so that it does not hinder the feeding of wood to be chipped. And such in order to prevent the operator from stumbling.
- The motor must only be started once arrived at the work site.

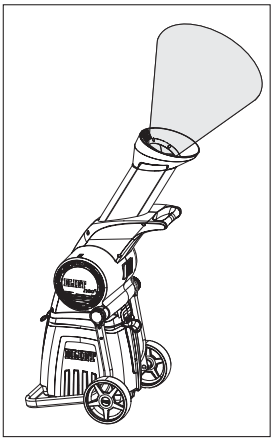
Caution :
Once the motor is running, the chipping blades are rotating, therefore, irrevocably chipping anything that is introduced into the feed hopper.

9.4.2 During the work

Warning :
Remember : When chipping at temperatures around freezing, maximum branch size of branchy material is limited to 20 mm.

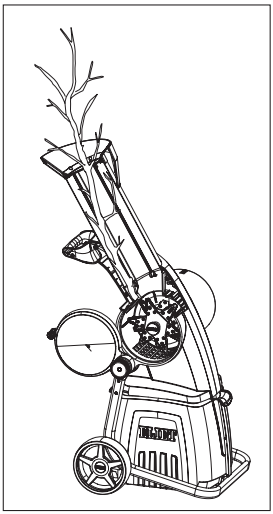
Caution :
Wear your personal protective equipment when the motor is running. This means the following : Gloves, safety goggles and ear defenders.

- Be careful when performing work. While operating the machine, focus your concentration completely on the work.
- To feed garden waste into the feed hopper, stand behind the chipper where the transporting handle can be found. Never bend over the feed opening with your head. In this way, you will not be within the zone of flying chippings that may find their way in-between the anti-projection flaps and are expelled from the feed and may cause personal injury.
- When inserting branches, first the thickest end of the branch will have to be introduced into the feed hopper.
- Since the feed hopper is restricted due to safety reasons, it is useful to keep pruning shears at hand. You can, thus, quickly cut away at branches that are obstructing insertion.



Caution :
Ensure at all times that the pruning shears cannot accidently fall into the feed-in opening. Attach the shears with a short piece of string to the tubular frame of the chipper.

- When inserting the material, always hold it firmly. The rotational direction of the blade shaft makes for steady material feed into the hopper. If the operator does not continue to hold the wood firmly, it will automatically be pulled much too quickly into the chipper which will often lead to the blade shaft jamming.
- The operator himself will thus control the speed at which the wood is fed in (faster or slower). This infeed speed will vary depending on the thickness of the branch or the quantity of garden waste that is being inserted at the same time.
- When inserting branches into the feed hopper, always slide them in the direction of the anvil. This will minimise the probability of kickback (recoil effect).
- With irregular branches (nodes, forked branches), ensure that they are fed in an optimal position into the chipping chamber. If required, pull the branch back and reposition it to ensure that the machine cannot jam.



- Short truncated trunks without foliage (⌖ 10 to 15 cm) represent a certain risk when chipping. When they come into the chipping chamber, they may be pulled into the blade system in an uncontrolled way and without resistance. This may jam the machine. Ensure you leave branches as whole as possible when pruning.
- Always estimate whether the quantity you have inserted can be processed. Take into account that it is not just the newly inserted garden waste that will determine the processing capacity but that also the quantity of chips still to be processed in the chipping chamber takes up part of the chipping power.
- Listen attentively to the characteristics of the motor when feeding in the wood. If you notice that the speed of the machine drops significantly, you should immediately pull the wood back out in order to allow the motor to speed up again.
- Should the blade shaft become blocked anyway, immediately stop the motor so that it cannot overheat.

TIP : Do not exaggerate about the quantity of material that you insert. You will work faster if you introduce two branches one after the other into the machine than simultaneously.

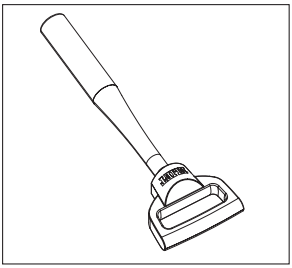
Caution :
Never introduce your hands into the feed-in opening. Even if you notice that a ball of garden waste is blocking the entrance of the chipping chamber at the bottom of the feed funnel, never put your hands in to press the ball through. Pull the garden waste back, reposition it and insert it again. Use the paddle or a branch to push the ball through if required.

Caution :
Never open the feed-in opening mounted rubber flaps. You would be removing your own protection against flying wood chips.

- Inserting a large quantity of leafy garden waste in one go demands the necessary time to ensure it is processed by the machine. Therefore, ensure that the new material that you are inserting does not demand too high a chipping power. When you hear that the motor again operates at full speed, can you again have the motor run at full power.
- When you wish to shred a lot of damp garden waste in one go, regularly check whether sticky chips are not mounting up in the chipping chamber. This may continue to stack up and, therefore, parts of the calibrating sieve may become blocked. This will reduce the surface area along which the chippings can exit the chipping chamber. The machine will, therefore, require more time to process a volume of chips and, thus, the machine performance will decrease. Immediately stop the machine and remove the blockage when you have determined that unusually few chips are being produced by the machine despite inserting new garden waste and that the speed of the motor is decreasing considerably.

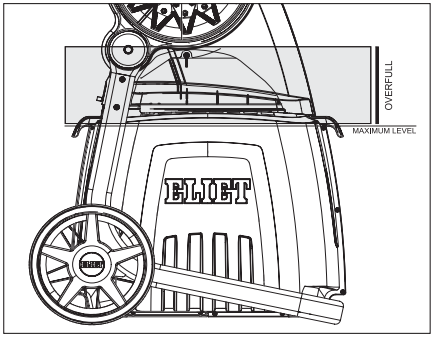
Caution :
If the chipping chamber gets clogged up, switch off the machine to remove the blockage. Ensure that you do, however, wait for the blades to come to a complete standstill before carrying out any operation on the machine. Always disconnect the plug from the mains as a safety precaution.

- Exchange the insertion of woody material by inserting leafy material to avoid the blockage of the calibrating sieve when chipping damp and leafy material. The chips ensure that all the leaf pulp that has become a whole by the chipper is loosened and is pressed through the sieve.
- When processing more leafy material, you can use the supplied paddle to press the garden waste through the feed restriction. Never use other objects to press through the garden waste. (Stock no. : MA 001 001 032)
- Never use a step for feeding the hopper with garden waste.



Warning :
In order to avoid personal serious injury or damage to properties, never operate the machine without a collection box fitted.

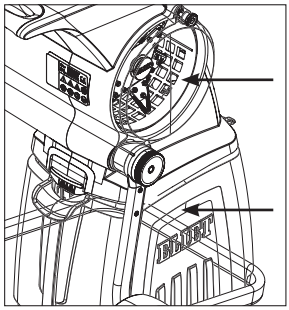
- As the waste chippings fall in the collection box at the bottom of the machine, care must be taken in making sure at regular intervals that the chips will not block the discharge. You can follow the chipping level through the transparent box. When the chips are at the top of the box, it must be emptied.



TIP : We recommend placing the machine on tarpaulin to ensure easy clearing of the chippings that have fallen on to the floor through the ventilation openings of the box.

- If you should notice that, despite all of the preparation, a foreign object still finds its way into the machine, the motor must be immediately shut off. Remove the foreign object first and then examine the machine for damage. If damaged, have the damage repaired promptly.

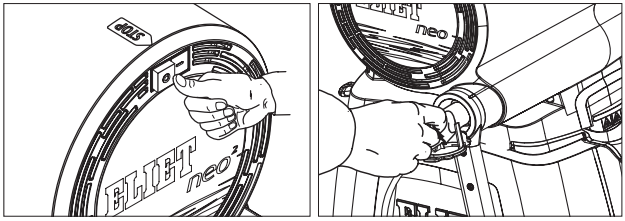
9.5 Emptying the collection box



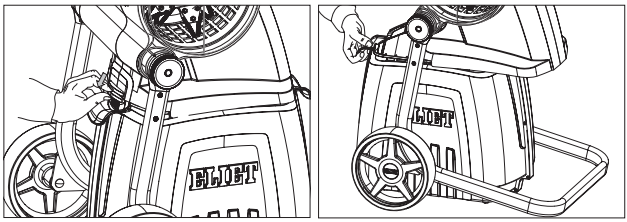
- The collection box can fill up completely in less than 6 minutes when continuously chipping average sized wood. When the level of chippings reach the top of the collection box, it must be emptied. This can be easily checked in two ways :
- The collection box is transparent and, therefore, you can see the level of chippings through the box's wall.
- When the collection box is full, you can see inside in the chipping chamber through the see-through window and see the chippings through the calibrating sieve. This is a sign that the box should be emptied.

Caution :
If you forget to empty the collection box on time, the chippings will close the discharge openings of the sieve screen and the chipping chamber will be full to capacity. Ultimately, the motor will be shut down due to the increasing resistance. Try to avoid this situation because your motor may overheat. Check, therefore, the collection box if you hear the motor continuously slowing down.

- Next, wait until the chipping chamber has been emptied. This can be followed through the see-through window of the machine.
- Now, switch off the motor. (Read § 9.3.2.)
- Pull the plug of the extension cord out from the machine.



- Slide the lock of the collection box fully upwards.
- Now, remove the collection box from the machine.



Caution :
As a rule, the safety provision will shut off the motor automatically on removing the collection box. If not, possibly as the result of an electrical defect, immediately turn the motor off manually and refrain from using it until repaired. Consult your official ELIET dealer.

REMOVING THE COLLECTION BOX = MOTOR SHUT OFF

- A collection box contains a volume of around 50 l. A full collection box weighs on average 15 kg.

Warning :
Once full, the collection box can be pretty heavy. Which means - make sure to hold the collection box close in towards your body as close as possible first and then lift using your leg muscles. (Lift keeping your back straight and bend your legs at the knees.) Know your own capability. The simple fact of lifting things beyond your personal capacity for a few centimeters may do serious damage. Seek assistance when lifting things that are too heavy for you.

- Either you can empty the contents of the collection box into a wheel barrow, or you can take the full box to the dumping area using the wheel barrow.
- The collection box has been designed symmetrically. It does not matter from which side you slide it back into the machine as first.
- Slide the collection box back into the machine at the top on the two slideways until it has completely disappeared under the machine.
- Press the sliding latch again so that the collection box cannot slide out of the machine whilst working and to ensure the motor will not switch off unexpectedly.

If the plastic collection box is broken, you can order a new one from your official ELIET dealer: 2 x stock no. : BR 930 010 110 (Find an authorized ELIET dealer near you by visiting www.eliet.eu.)

9.6 What to do about motor stalling

Motor stalling can be traced to overloading, overfeeding, discharge blockage or the power supply being down. You can very simply restart the chipper in these cases. Proceed as follows :

1. Check that the extension cord has not become loose. Both at the machine and the connection to the electric mains.
2. Remove all branches from the feed-in opening.
3. Check whether the chipping chamber is already full and whether wood residue may not be blocking the blade shaft.
4. Empty, if required, the chipping chamber to make restarting easier. Open the chipping chamber in accordance with the procedure described in annex 2.

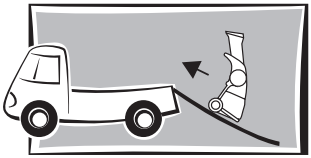
Caution :
Always wear gloves when performing maintenance. You will be near the blades when emptying the chipping chamber. They are razor-sharp and, therefore, represent a real risk of leading to cutting injuries. Take care and try to avoid all contact.

5. Check whether the motor protection relay on the machine or the mains fuse has tripped. When the motor is overloaded, the overload protection will automatically push out the green start button.
6. The red stop button may have been pressed unintentionally.
7. Just try to push the green start button again. Check through the window to see whether the blade shaft is not again starting up.
8. Should the motor make an abnormal humming noise, this may point to a blockage and the issue must be further investigated or an official ELIET dealer must be consulted.
9. Should the green start button immediately protrude again, this may mean that the motor is still overheated and that you should allow it to cool down.
10. Should there be no reaction when you press the star button and the motor does not seem to want to get started, this may mean that one of the safety switches has been deactivated. Check whether the collection box has been correctly positioned and whether the window elements have been correctly mounted. If the machine does not want to start up after checking these two points, consult your official ELIET dealer. (Find an authorized ELIET dealer near you by visiting www.eliet.eu.)

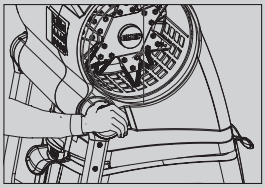
Perform the work more carefully in the future in order to avoid jamming of the machine.

Should you notice a strange noise after the machine starts up, immediately stop the machine to prevent consequential damage. Stop the motor, disconnect the plug and investigate the cause of the defect. Before proceeding, have the necessary repairs performed.

10. Transporting the machine



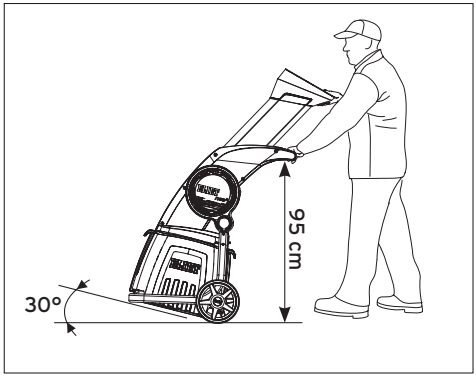
Caution :
Before transporting the machine, check whether the hinge joint for the wheel undercarriage has been firmly tightened.



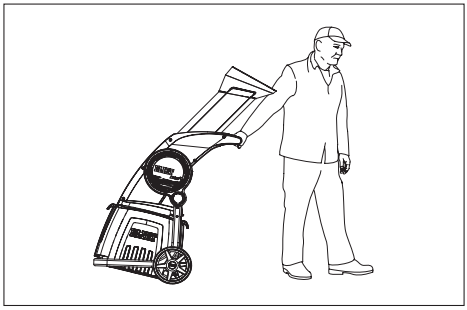
- Do allow only responsible adults move or transport the machine.
- In addition, do make sure children, persons untrained in the use of the machine or animals do not enter within 3 m radius when transporting the machine.
- If you wish to move the machine, always wait until the content of the chipping chamber has disappeared regardless of the quantity this may entail. Ensure the feed-in opening is free of branchy material.

Caution :
In order to move the machine, slightly tilt it so that feed-in opening will be pointing towards you. This will increase the risk that chippings are projected. Therefore, ensure the chipping chamber empties completely and switch off the machine as a precaution. Always wear safety goggles.

- When moving the machine over greater distances (over 1 m), always take care to turn off the motor.
- When chipping, the machine should be resting on its wheels and the tubular frame (its working set-up). Grab the handle on the hopper and tilt the machine backwards so that it is only resting on the wheels when you wish to transport the machine.
- Tilt the machine by approximately 30° or until the handle is more or less 95 cm from the ground. There will be an excellent distribution of weight in this position on the wheels and you will not really feel the weight of the machine.



- If you wish to move the machine over a large distance, always first empty the collection box before moving the machine. (See § 9.5.)
- You can push the machine forward but the preferred option is to pull the machine behind you.
- If you need to move the machine over a raised bit or a threshold, that is, when the height difference is less than the radius of the wheel, pull it uniformly over the threshold. Always be

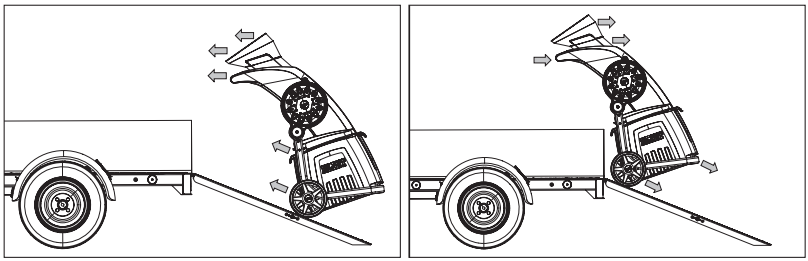


carefully to ensure that the wheel frame cannot be damaged. If the threshold is higher than half the wheel diameter, lift the machine over the threshold.

Warning :
The machine weighs a good 40 kg. Which means that you should make sure to hold the machine as close to your body as possible first and then you must lift using your leg muscles. (Lift keeping your back straight and bend your legs at the knees.) Know your own capability. The simple fact of lifting things beyond your personal capacity for a few centimetres may do serious damage to your back. Seek assistance when lifting things that are too heavy for you.

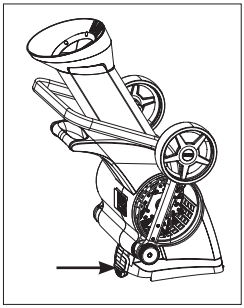
- If you need to take the machine down from a threshold, never allow it to move freely and in an uncontrolled way from this height. This may deform the wheelbase or cause damage.
- Never use the machine for transporting objects or people.
- It is critical to judiciously select the traffic route in such a way as to release yourself from the worries of tripping up over some obstacles. Preferably, the transportation route is flat and even-surfaced.
- Never drive or put the machine on a surface that cannot support the machine and the person. (For your information : Take into account a net weight of 45 kg for the machine.)
- Use slip resistant ramps to load the machine into a van or a trailer each with a width of at least 250 mm. Place the ramps at approximately 200 mm apart from each other.
- Ensure that the ramps are securely attached to the vehicle or trailer.
- Ensure there is a sufficiently large run-out distance behind the ramps (4 m).
- Ensure the parking brake of the vehicle is on.
- The angle of the ramp may never exceed 15°.

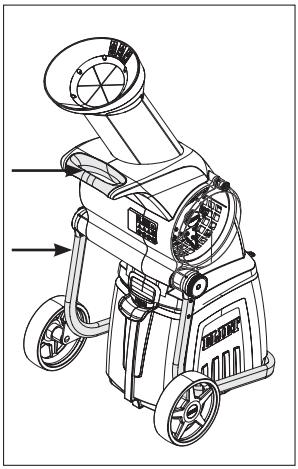
- Be careful and composed when loading and unloading the chipper so that the machine does not tip over and give rise to an accident.



- When walking up a slope push the chipper out in front of you facing uphill.

- When going down a slope, push the machine in front of you.
- The maximum allowable lateral slope angle amounts to 10°.
- Make sure to properly secure the machine to the vehicle during transportation. Use the tubular frame or the handle to secure ropes.
- Remember that the machine has a high centre-of-gravity when securing the machine in a van or on a trailer. Ensure the chipper cannot tilt over when taking a bend.
- The machine can be folded to its storage set-up for moving it. (Read Annex 1.)
- Always add a protective layer under the housing so that it cannot be damaged when setting up the machine in its position to be moved. (Mainly pay attention to the sliding latch of the collection box.)





- Do not overload the vehicle. The chipper weighs approximately 45 kg net.
- The chipper can also be transported in the boot of your car. Also secure the machine appropriately in this case to ensure it cannot be damaged or that it cannot cause damage when braking or taking a bend.

Caution :
Never try to lift the machine on your own (max. lifting weight per person = 30% of the body weight). You should ensure you hold the machine as close to your body as possible and then you must lift using your leg muscles. (Lift keeping your back straight and bend your legs at the knees.)

11. Maintenance

11.1 General

ELIET recommend that the machine should be brought to an official ELIET dealer for a major overhaul each year. (Find an authorized ELIET dealer near you by visiting www.eliet.eu.) Your ELIET dealer is always at your service for maintenance and advice. Your dealer will stock genuine ELIET service parts and lubricants. Your dealer's staff can always obtain advice and service from ELIET's helpdesk so that they can provide you with an impeccable after-sales service.

Caution :
Only use genuine ELIET replacement parts. These service parts are manufactured to the same strict quality control requirements and degree of craftsmanship as the original equipment. The list of original replacement parts and their ordering code can be consulted online by visiting www.eliet.eu

Perform maintenance in a room intended for this purpose. This room must be

- Spacious
- Dust-free
- Easy access
- Clean and tidy
- Well lit
- Quiet

These characteristics are important to enable maintenance to be performed in an optimal manner.

Warning :
Maintenance performed in an incorrect manner can subsequently compromise the safety of the operator. Damage or consequential damage that arises from a lack of or from faulty maintenance will mean that the warranty shall no longer apply. Therefore, have maintenance performed by engineers with experience and who know what they are doing.

Caution :
Always ensure that the motor is switched off before performing maintenance work. The extension cord must also always be disconnected from the power supply.

Caution :
When performing maintenance, always wear gloves, and also safety glasses for some operations. These are supplied as standard with the machine.

11.2 Maintenance schedules

11.2.1 Special maintenance

A Special maintenance of the blades

The blades will take up their final position once they have been mounted on the blade shaft after a short break-in period. This can cause the tension on the bolts to decrease, with the risk that the blades may become dislodged between the blade plates. This can cause irrevocable fatigue failure of the blade shaft. This must be prevented by scheduling extra maintenance after the brief bedding-in period.

WHEN :
Within the first five operating hours after commissioning the new machine
Within the first 5 hours after reversing the blades
Within the first 5 hours after replacing the blades.

WHAT : Check the tightening torque of the 36 bolt connections securing the blades and tighten them where required (torque loading : 10 Nm).

Caution :
Use a calibrated torque wrench.

Warning :
Should this special maintenance not be performed, the blades may become loose while working. This will heavily damage your machine and represents a great risk involving permanent injury or even death with regard to the user and/or bystanders. Every damage and/or consequential damage as a result of this negligence will fall outside the scope of the warranty.

TIP : We recommend disassembling the blade shaft to ensure you can do this quickly and efficiently. Read annex 3 : Blade shaft disassembly.

11.2.2 Periodic maintenance schedule

Caution :
Before performing any maintenance, stop the motor and disconnect the extension cord from the machine. Wear suitable clothing.

A. Daily maintenance

- Clean the machine (§ 11.3).
- Clean the cooling system (§ 11.3.).
- Inspect the blades and grind them if required (see § 11.4.2).
- Check the machine for signs of abnormal wear or fractures.
- Check the bolts for looseness (blades, wheels, bearings, motor, etc.).

B. Maintenance after 10 hours

- Daily maintenance (see § 11.2.2.A).
- Grind the blades (see § 11.4.2).
- Lubricate the sleeve bearing (see § 11.4.4).

C. Maintenance after 50 hours

- Perform the "Maintenance after 10 hours" if relevant (see § 11.2.2.B).
- Reverse the RESIST/6™ blades (see § 11.4.3).
- Replace the sleeve bearing (see § 11.4.4).

D. Maintenance after 100 hours

- Perform the "Maintenance after 50 hours" if relevant (see § 11.2.2.C).
- Replace the RESIST/6™ blades (see § 11.4.3.1).
- Replace the chipping chamber window cover (see § 11.4.4).

11.3 Cleaning the machine

11.3.1 The importance of cleaning

ELIET recommend cleaning the machine after each use. We recommend using every cleaning event to perform an inspection where you check component and machine integrity. You can, thus, intervene on time to prevent faults and failures. This will ensure that the service life of your machine is improved.

Not cleaning the machine will lead to :

- Increased wear rate
- Increased risk of fire
- Reduced motor cooling
- Increased risk of short circuit
- Reduced performance
- Safety stickers becoming illegible
- Not noticing breaks or wear at an early stage

NOTE : You will no longer be entitled to any warranty should you fail to perform proper care and maintenance on a daily basis.

Warning :
If the machine does not operate optimally, this can compromise the safety of the user.

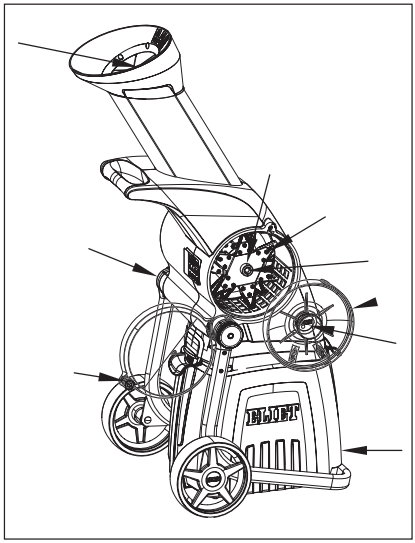
Warning :
Wood residue, chippings and fine dust can accumulate under the guards and cause a fire due to being heated. Avoid such dirt near electric components or the motor. Clean the machine thoroughly on a daily basis.

Caution :
Wear suitable clothing for cleaning. Gloves are required.

11.3.2 What does cleaning mean ?

Check the whole of the machine when cleaning and subject it to an inspection if required. Check that the parts are not deformed, welded seams are not cracked, and that parts do not exhibit excess play.
Important items :

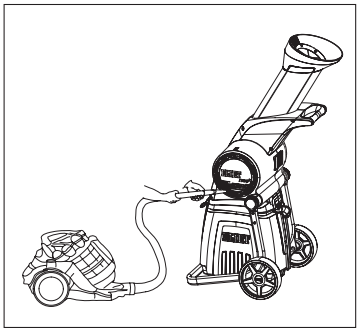
- Blade shaft welding seams
- Bolts for blade attachment
- Blade shaft retaining bolt
- Condition of the nylon bearing
- Condition of the chipping chamber cover
- Thread of the rotary knob for the see-through window
- Anti-projection flaps in feed hopper
- Condition of the collection box
- Condition of the plug



If any problems are found, first conduct the necessary replacements and/or repairs. Visit your official ELIET dealer. (Find an authorized ELIET dealer near you by visiting www.eliet.eu.)

Cleaning the machine means more than just cleaning the outside. Open all protections so that you can also clean the concealed areas.

Special attention must be paid to the following items :



- The cooling air intake of the motor must be spotless at all times. Ensure that none of the air intakes are obstructed. Vacuum clean particles, if required, that can be found behind the intakes.
- Check whether fine wood dust has deposited itself in the circulation of the cooling air of the motor.
- Check for any damage to visible electric wiring and connections and switching components.
- The accumulation of dirt (chippings, wood residue, dust, sand, stuck on garden waste, etc.) inside the machine must be removed. Use a soft brush or a vacuum cleaner to remove this dirt.
- Dirt build-up around the blade shaft should be removed to make sure it can not hamper motor bearing sealing. To find out how to open and close the chipping chamber, read annex 2.
- Remove all dirt that has become stuck to the inside of the chipping chamber.
- Clean the see-through window and lubricate the nylon bearing.
- Using a dry cloth, remove any dirt from the frame. Pay special attention to places where stickers with safety messages are displayed. (Do not use any cleaning products that affect paint or stickers.)

- Stickers used to indicate safety messages that are no longer legible, must be immediately replaced. Obtain these original stickers from your ELIET dealer. (Part numbers can be found in section 7.1.)
- Compressed air is a handy tool to easily blow out and, thus, clean a number of parts.

Caution :
Compressed air may damage the watertightness of specific electric components!

- Using a vacuum cleaner is efficient for removing dirt at locations that are not always easy to access.
- It is categorically prohibited to pressure-wash the machine. An electric motor driven chipper must never be cleaned with water. There is a serious danger of short circuit and electrocution.

Caution :
The motor must always be switched off and the extension cord must be disconnected from the electric mains when cleaning the machine. Wear suitable clothing when cleaning. Gloves are required.

Warning :
If safety guards need to be removed to perform maintenance work, refit them correctly once the maintenance has been performed. Guards are provided to ensure your safety.

11.4 Maintenance procedures

11.4.1 Routine check of the blades

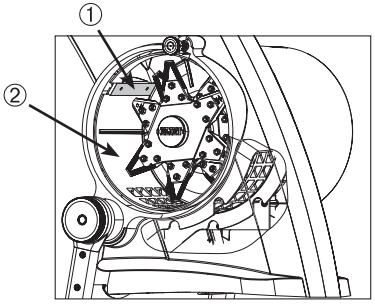
Sharp chipping blades will give the machine optimum performance and provide maximum operating speed. Enhance your own work comfort by taking some time to check the blades, and if necessary, sharpen them.

SHARP BLADES = MAXIMUM OUTPUT

• Before performing any maintenance, stop the machine and unplug the extension cord from the machine.

Warning :
The blades may continue to rotate for a few seconds after the motor is switched off. Always check whether the blade shaft has come to a complete standstill.

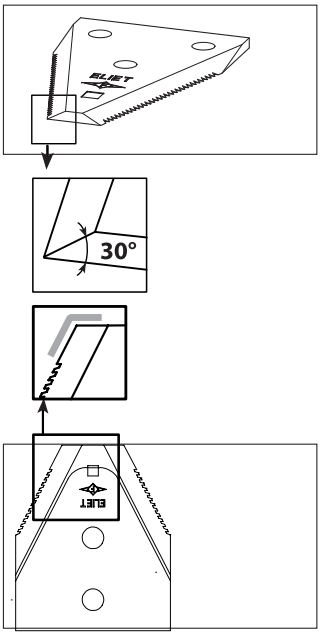
Caution :
Always wear gloves since blades can be razor-sharp.



• Open the chipping chamber (read annex 2).

Pay particular attention to the following :
Garden waste chipping with the ELIET chipping system takes place in two steps. We first have the contact of the blades with the garden waste when chopping takes place where the cutting block can be found. The wood and garden waste is cut in large, rough and irregular chippings during this **primary chipping (1)**. These large chippings will, subsequently, end up in the chipping chamber where they are finely chopped to produce small chippings. This **secondary chipping (2)** will continue until the chippings are considered to be small enough to pass through the openings of the calibrating sieve.

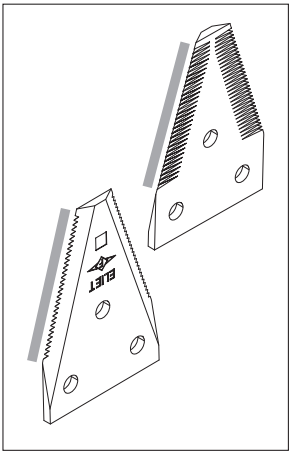
Each of these chipping actions set certain criteria that the blades must meet for optimal chipping efficiency:



A) The top of the blade, in particular, is important with regard to the primary chipping. Since the blades act as splitting blades, the cutting angle is essential because this forms the key that will cleave through the wood. The **cutting angle** of the cutting edge of the blade is by preference 30°. The sharper the blade edge, the less resistance when splitting and the smaller the cutting impact on the structure. This will ensure considerably fewer vibrations and noise. This will also benefit the load on the blade shaft and the bearings. The blades must be regularly ground to guarantee the optimum cutting angle. (See 11.4.2 Grinding the blades.)

On the other hand, the form of the top of the blade is of essential importance for the performance and the speed of this primary chipping. The angle of the **top of the blade** will determine the angle at which the wood is pulled inside the chipping chamber. If this angle is rounded due to wear, the blades must be reversed and/or replaced. (See 11.4.3.2 Reversing and replacing the blades.)

B) The issue is to have the chippings leave the chipping chamber as quickly as possible with regard to the secondary chipping. The chippings, therefore, must be quickly reduced until they are small enough to pass through the openings of the calibrating sieve. Every contact with the cutting area of one of the blades must, therefore, ensure that the chippings become smaller. Therefore, **the sharper the full active cutting edge** of the blades is, the more efficient chipping will be. Regular grinding of the cutting edge is, therefore, required.



Cutting edge toothing ensures that the cutting power of the blades increases and the cutting edge remains sharp for a longer period of time. It is very important to never grind away the teeth when performing maintenance on the blades. (See 11.4.2 Grinding the blades.)

The position of the blades on the blade shaft has been selected very specifically to obtain an alternative chopping configuration with regard to primary chipping and the correct circulation of the chippings in the chipping chamber with regard to secondary chipping. You must, therefore, always ensure that you respect the original set-up when reversing or replacing blades. (See § 11.4.3.2 where the rules are explained.)

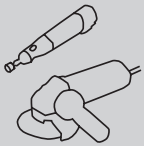
11.4.2 Grinding the blades.

Correct and timely grinding of the chipping blades will extend blade life. (ELIET recommend the following : Grind after at least every 10 working hours.)

Preparatory warnings

- Always wear safety glasses and hearing protection when grinding blades. Wearing gloves is also mandatory when performing any maintenance.
- NEVER rotate the blade shaft by grabbing the blades. Grab the protruding part of the blade shaft to rotate.
- The blade has two cutting edges (reversible blade). This means that you must take into account when grinding that there is another razor-sharp blade side.
- Disconnect the extension cord from the machine for your own safety.
- Open the chipping chamber (see Annex 2).
- Remove the blade shaft from the machine to grind blades (see annex 3).
- For safety's sake, firmly clamp the blade shaft (i.e. in-between a bench vice) and ensure that this cannot twist, move or fall unexpectedly during maintenance and, thus, injure someone.

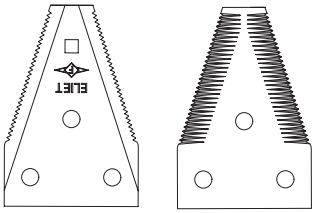
For your information :
The blades do not have to be disassembled for grinding. Use for this a small angle grinder equipped with a grinding disc suitable for steel.



Caution :
Lit sparks will fly around when grinding the blades. They may start a fire. Bear this in mind when selecting the work site. Never grind blades near fuel or lightly flammable products. Always have available a fire extinguishing resource in the immediate vicinity.

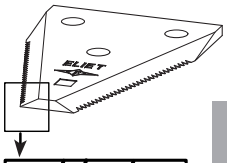
A blade has two sides.

- The front of the blade has the two chamfered cutting edges. **(F)**
- The rear clearly shows the tooth profiling of the cutting area. **(R)**

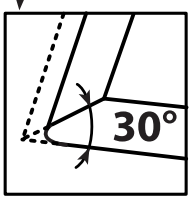


(F) **(R)**

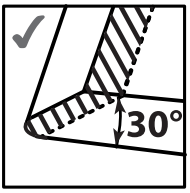
As described in § 11.4.1, Checking the blades, a sharp blade edge and a correct cutting angle are essential for efficient chipping. Blades must be correctly ground to ensure these two features can be realised.



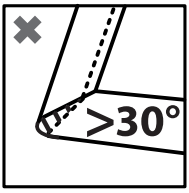
- If blades become blunt, the sharp cutting edge will become worn and will be upset to form a wider rib. **(1)**
- By grinding a little metal from the cutting edge, you can again obtain a sharp cutting edge from this wide rib. **(2)**
- Grinding is performed by moving the grinding disc along the angled cutting edge.
- Note : By regularly grinding, you will only have to grind away a small adjustment of the metal each time to again obtain a sharp cutting edge. This will ensure for very short grinding times and you will always have the best possible cutting edge. (ELIET recommend the following : Every 10 working hours.)
- Avoid grinding at the same location for a longer period of time. This will prevent local discoloration of the blades, which would indicate heating and, therefore, the material structure at these places will change and the hardness will decrease.
- It is extremely important that the existing cutting angle be respected when grinding. **(3 : Incorrectly ground blade)**
- If the cutting angle is not maintained, blades will be stopped in the wood due to a blunt angle **(4)** of an interrupted cutting angle **(5)** and a lot of power will be lost. Too sharp a cutting angle **(6, 7)** will give rise to a weakened cutting edge and, therefore, blade life will be considerably shortened (see figures 4, 5, 6 and 7).



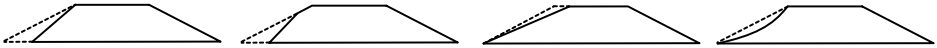
(1)



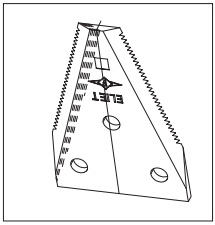
(2)



(3)

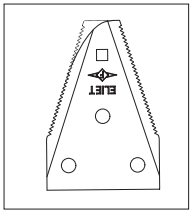


(4) **(5)** **(6)** **(7)**



- Never grind the rear side of a blade. The profiling is on the rear with regard to RESIST/6™ blades. If you grind away the teeth, the blade will lose a great deal of its cutting force.
- The top of the blade is subjected to the heaviest loads during chipping. You should, therefore, grind them as little as possible to avoid weakening.
- After all, a little of the material is removed every time they are ground and, therefore, the active cutting edge becomes smaller. You can continue grinding up to halfway the width of the blade tip. If you exceed this limit, you will be compromising blade life of the unused cutting edge. We recommend reversing the blades at this point (see § 11.4.3 Reversing and replacing chipper blades).
- If the tip of the blade is rounded-off, chipping efficiency will be reduced. In this event, further grinding of the blade serves no purpose. This is the time to reverse or replace the blades. (See

§ 11.4.3 Reversing and changing blades.)
- After grinding, refit the blade shaft into the machine. (See Annex 3.)
- Carefully close the chipping chamber after grinding. (See Annex 2.)



11.4.3 Reversing and changing chipper blades

If the blades are regularly ground, a blade life of more than 50 hours can be guaranteed per cutting edge. When one cutting edge is totally used, you can reverse the blade and you will have another 50 hours. If both blade edges are worn, replace the blade as a whole.

Caution :
Any entitlement to claim on the guarantee will be excluded in case of damage or consequential damage that occurs due to faulty maintenance of the blades. Consult your official ELIET dealer for advice if required.

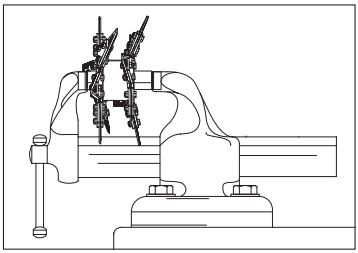
11.4.3.1 Work method for reversing the blades

Warning :
Wear protective gloves as the blades are razor sharp!

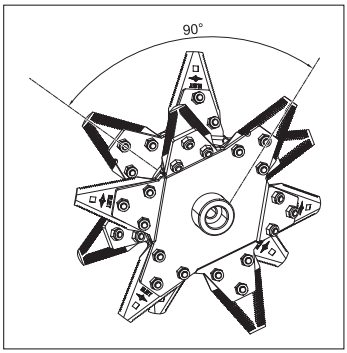
- Stop the machine and disconnect the power supply extension cable from the machine.

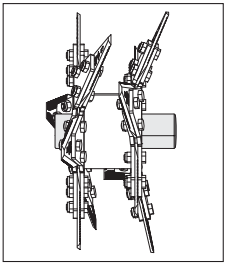
Warning :
The blades may continue to rotate for a few seconds after the motor is switched off. Always check whether the blade shaft has come to a complete standstill.

- Open the chipping chamber (see Annex 2).
- Remove the blade shaft from the machine to reverse the blades (see annex 3).
- For safety's sake, firmly clamp the blade shaft (i.e. in-between a bench vice) and ensure that this cannot twist, move or fall unexpectedly during maintenance and, thus, injure someone.
- There are a few rules that must be respected for reversing or replacing the blades. First we will examine in detail the construction of the blade shaft to understand the logic behind the rules:
- A NEO blade shaft has been constructed from two identical blade discs that each contain 6 blades.
- Although the blade discs are identical, they are offset 90 degrees from each other around the central shaft.



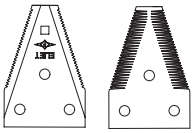
- The two blade discs have been welded on the central shaft. This shaft is not symmetrically positioned with regard to the volume of the two blade discs:



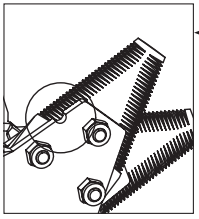


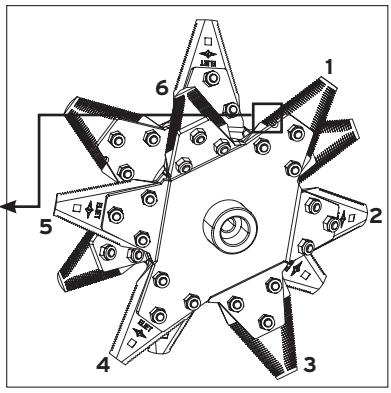
- On one side, there is a long protruding shaft section in which a large bore is provided that is meant for sliding on the motor shaft: This side will be referred to as follows from now on : The **motor side (M)**" of the blade shaft.
- On the other side, there is a short protruding shaft section. A cylindrical chamfer has been provided at the end with a small M10 threaded hole in the centre (10 mm diameter). We refer to this side as : The **tightening side (O)** of the blade shaft.

- Take note that each blade has two sides.
  Front (F) : The side with the chamfered cutting edge.
  Back (R) : Side with the clearly visible tooth profile.



- It catches our attention that the orientation of each blade is different on the blade disc. A special order is involved when positioning blades. We recommend numbering the blade positions to ensure the order is respected when the blades are reversed.
- Blade discs can occupy six different positions. Therefore, the **blades** and the **matching positions** must be numbered from 1 to 6 on the blade holder using a pen.





- Always start numbering in clockwise direction (as viewed from the "tightening side") from the right blade position that has a small recess.
- Do the same for the second blade disc.
- Each blade is held in place with three M6 bolts. Fully loosen the nuts of each blade and remove the bolts.

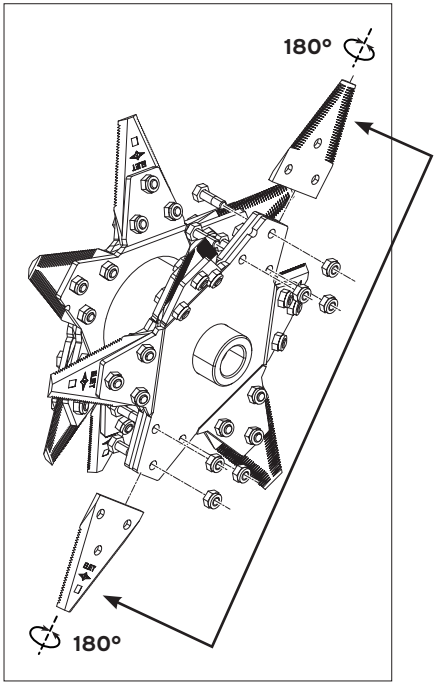
For your information :
Remove and refit one blade at a time. This ensures that reversal is performed in an orderly manner.

TIP : There are 36 bolt connections in each blade shaft. ELIET recommend using a pneumatic ratchet wrench to quickly loosen these. Place a ring spanner on the bolt head and loosen the nut using the ratchet wrench ratchet. (SW 10)

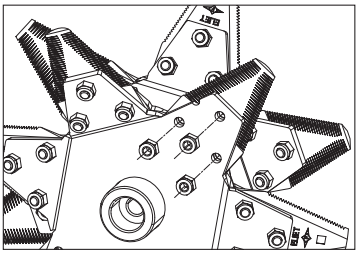
Caution :
If you loosen the bolt connections manually, avoid injuries to hands by using two ring spanners with long handles. (SW 10)

- Replace damaged bolts and nuts immediately. (Part Nr. bolt : BS 511 000 618 ; nut : BS 502 000 600)
- Do not pull away the blades using your hands but use a self-grip wrench.
- It is useful to put a wedge (screwdriver) in-between the blade discs to ensure it is easy to release them.

- Rotate the blade numbered 1 through 180° and fit it into position 4. Rotate the released blade 4 through 180° back into position 1.
- Rotate the blade numbered 2 through 180° and fit it into position 6. Rotate the released blade 6 through 180° back into position 2.
- Rotate the blade numbered 3 through 180° and fit it into position 5. Rotate the released blade 5 through 180° back into position 3.



- Repeat this procedure for the second blade disc.
- Always make sure to refit the bolts in the blade holders in such a way as to ensure the nuts are on the **tightening side**. This will ensure the direction of rotation to secure the blade shaft against loosening.



Caution :
After reversing the chipping blades, always check the bolts for correct tightness after expiry of the first 5 hour run. Ignoring this operation may cause serious injury and may even lead to death. The machine may also be significantly damaged.

11.4.3.2 Work method for replacing the blades

New sets of blades are available form your ELIET dealer under the following part number :
BU 401,100,102

- Stop the machine and disconnect the power supply extension cable from the machine.

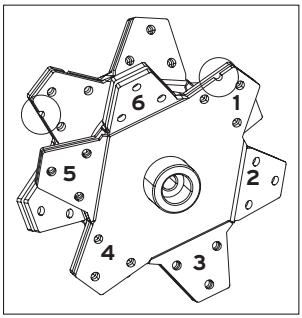
Warning :
The blades may continue to rotate for a few seconds after the motor is switched off. Always check whether the blade shaft has come to a complete standstill before removing the chipping chamber cover.

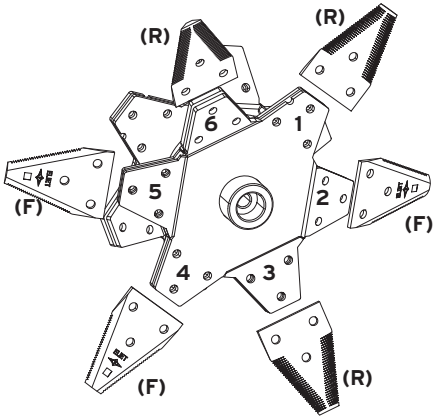
- Open the chipping chamber (see Annex 2).

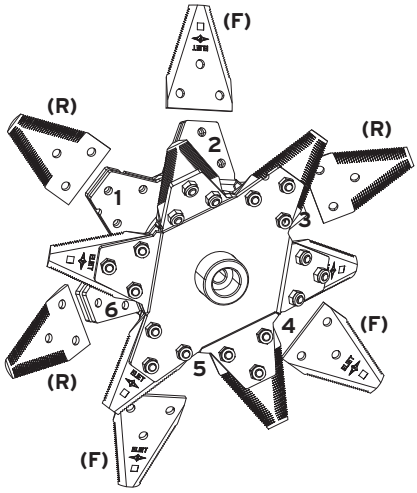
Warning :
Wear protective gloves as the blades are razor sharp!

- Remove the blade shaft from the machine to replace the blades (see annex 3).
- For safety's sake, firmly clamp the blade shaft (i.e. in-between a bench vice) and ensure that this cannot twist, move or fall unexpectedly during maintenance and, thus, injure someone.
- When replacing the chipping blades, simply remove the old ones and replace them with new items.

- You may not simply randomly reinstall the blades. A specific order needs to be respected.
- Number the blade positions on the blade disc from 1 to 6 to ensure mistakes cannot be made. Start numbering with the right blade position that shows a notch and number clockwise (as viewed from the tightening side).
- Next, position the new blades as indicated in the drawing below. Keep the position of sides F and R in mind.



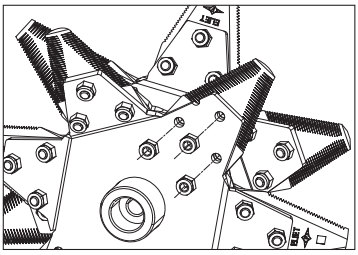




- Before fitting a new blade in between the two blade discs, first remove any dirt that may have built up between both mating discs.

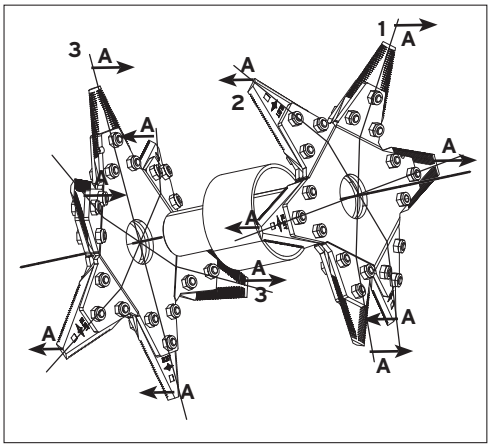
TIP : To do so, use a stripping knife and compressed air.

- Always fit new bolts and nuts when replacing chipping blades. (This will also have been supplied when ordering a blade set.)
- Always make sure to refit the bolts in the blade holders in such a way as to ensure the nuts are on the **tightening side**. This will ensure the direction of rotation to secure the blade shaft against loosening.



Caution :
Incorrectly or poorly installed blades may lead to breakdowns or damage to the machine. Operators and bystanders are also put at risk.

- Follow the same procedure for the second blade plate.
- Perform a check to verify whether the blades have been installed correctly: Apply the following rules :
  1. All blades (2 per blade disc that have been positioned at an angle on the blade disc and are oriented towards the wall of the chipping chamber must always be pointing with their back (R) towards this wall.
  2. The blades (2 per blade disc) that have been positioned at an angle and are oriented towards the adjacent blade disc must always have their backs (R) directed towards the other blade disc.
  3. The blades that are in the straight position (2 per blade disc) must alternate between being oriented towards the left and the right.



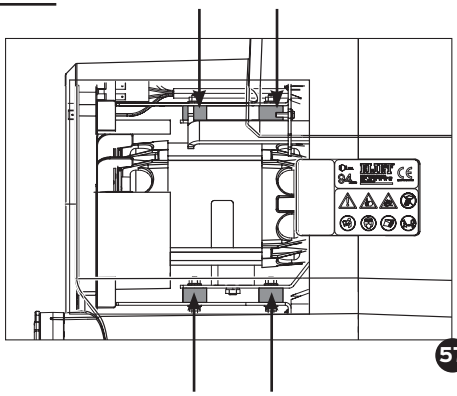
- When refitting the chipping blades check that all bolts are tight. (Read the graph with tightening torques in the annex.)
- Since the large number of retaining bolts, it is a good practice to check the bolts for correct tightness before fitting the blade shaft. Mark a position using a pen on the nut so that you are sure that they have all been tightened.
- The next time you start chipping, consideration should be given that new chipping blades take time to stabilise. This means that the bolts will probably loose tension which, in turn, means that certain blades will again become loose between the plates. **Thus, retighten the blade bolts within the first 5 operating hours of the machine. (Torque loading 10 Nm)**

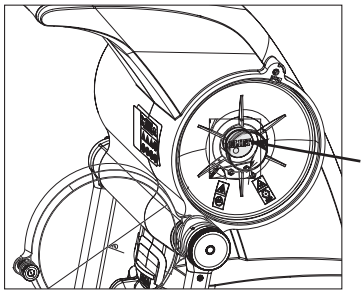
Caution :
After replacing the chipping blades, always check the bolts for correct tightness after expiry of the first 5 hour run. Failing to do this may have serious consequences for the operator and for the machine.

11.4.4 Lubricating or replacing the nylon bearing

The motor has 8 motor mount vibration absorbers to reduce the noise level during chipping. These absorbers ensure that vibrations that occur due to the chopping frequency on the garden waste is absorbed by these absorbers and are not transferred to the machine's housing.

The elasticity of these absorbers allows the motor and the blade shaft to move slightly.

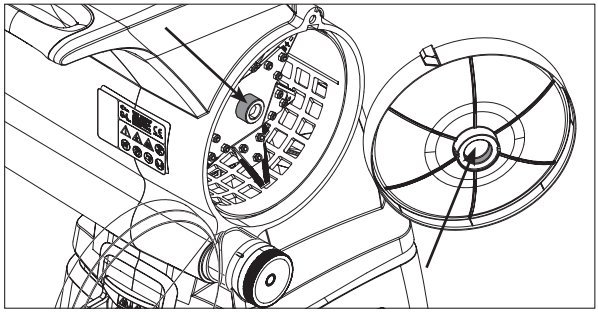


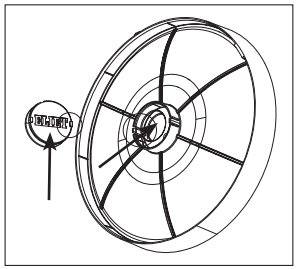


The blade shaft is retained in its position by a nylon sleeve bearing that is mounted in the window cover to limit the blade shaft to move and to ensure that the blades do not touch the chipping chamber.

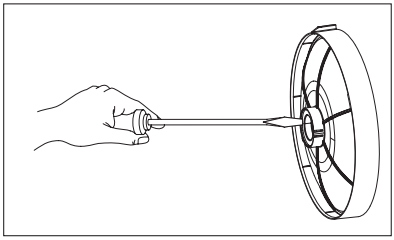
When there is no load, the blade shaft will not come into contact with the sleeve bearing. There is also a small air gap between these two. When thicker branches are inserted, it may drag along the sleeve bearing for a moment due to the pressure on the blade shaft. It is important to apply lubricant on the sleeve bearing on a regular basis to prevent friction and heating of this sleeve bearing:

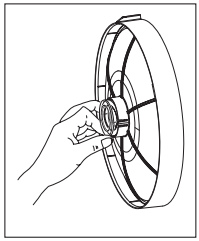
- First, brush away old lubricant and small accumulations of dirt in the sleeve bearing. Use penetrating oil containing molybdenum disulphide to dissolve the lubricant.
- Examine the wear condition of the nylon bearing. Replace the bearing if wear rate is high (> 1 mm).





- Apply new lubricant. (Use a simple sticky grease for this.) This sleeve bearing may be subjected to wear after so many working hours and the clearance between the bearing and the blade shaft may increase. When this wear rate becomes larger than 1 mm locally, the sleeve bearing needs replacing. Failure to do so may give rise to consequential damage: Increased pressure on the motor shaft, increased pressure on bearings and the chipping chamber may become damaged. Proceed as follows to replace the sleeve bearing :
- The sleeve bearing is retained in the ring of the window cover by two hooks. Two recesses have been provided in the window where two square plugs fit on to the nylon bearing to prevent the nylon bearing from turning.





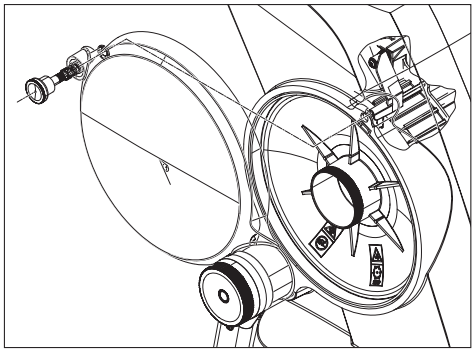
- Press one of the hooks backwards using a flat screw driver. At the same time, press on the matching square plug using a pointy object so that the nylon bearing is released from the ring.
- Now the nylon bearing can be easily removed.

- The nylon bearing can be ordered quoting the following order number : BR 930 010 060.
- Should one of the hooks of the window cover have broken off, replace it. The window cover can be ordered by quoting order number : BR 930 010 050.
- After replacing the nylon bearing, lubricate it slightly.
- Before refitting the window cover, clean the shaft journal of the blade shaft.
- To close the chipping chamber, read Annex 2.

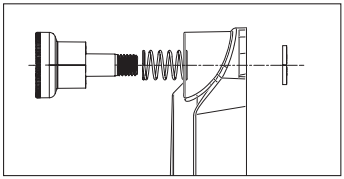
11.4.5 Replacing the screw of the see-through window

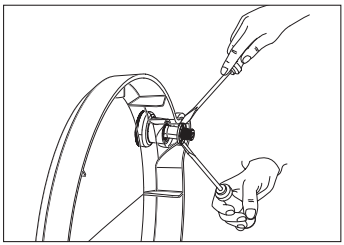
You can look into the chipping chamber of the machine. A two-part see-through window has been provided to protect the operator: Chipping chamber cover + see-through window.
The chipping chamber cover fits seamlessly on the chipping chamber and is kept in place by the see-through window.

The see-through window is, in turn, kept in its position by a plastic bolt. This plastic bolt is very important because it is a safety feature. This bolt ensures that a safety switch is activated when it is fully tightened to ensure that the chipping chamber cannot be opened when the machine is operational. When the bolt is loosened, the safety switch will interrupt the power supply and the machine will be switched off.



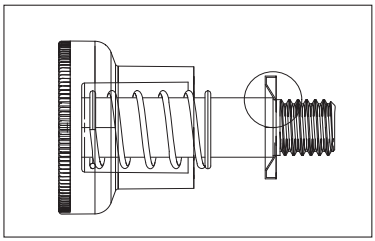
The thread profile of the bolt may be damaged should the plastic bolt be injudiciously tightened. This means that you can no longer tighten the bolt or that you cannot switch on the supply voltage when you tighten it. The bolt must then be replaced:



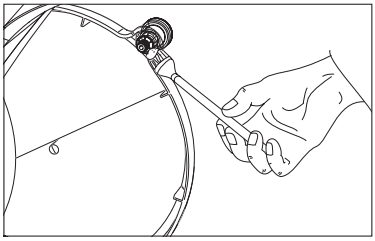


- The screw button will remain secured to the see-through window with a single lock clip and is pushed back by a spring at all times.
- Drive two screw drivers as a wedge between the lock clip and the window. Break the lock clip away from its position and unscrew it completely.
- Ensure you do not lose the spring when you remove the bolt. (Should you lose it, the part Nr is BV 902 030 010.)
- Order the bolt with number BR 930 010 200 and the lock clip with number BD 010 000 100 at your authorized ELIET dealer .

- Refit the bolt in the provided hole of the window. Refit the spring as indicated in the above drawing.
- Screw the lock clip on to the thread all the way. Note : The lips of the lock clip should be facing the bolt.
- If you come to the end of the thread, press the lock clip on to the cylindrical part of the handle until you hit the small stop.



- Lightly lubricate the stud of the bolt after installation of the new bolt so that it can be screwed on smoothly.
- Check the safety switch for correct operation before putting the machine back into operation.



12. Winterizing the machine

Winterizing preparations

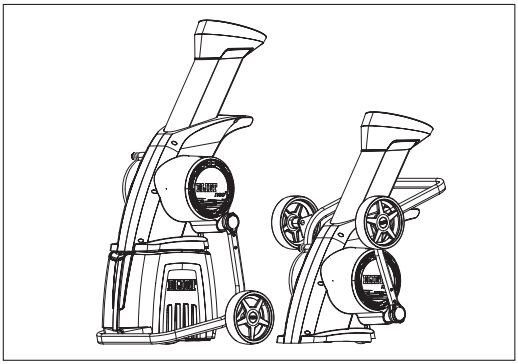
- Clean the machine (see § 11.3 Cleaning the machine).
- Perform the maintenance tasks defined for after 10 hours (see § 11.2.2.B Maintenance after 10 working hours).

Storage place features

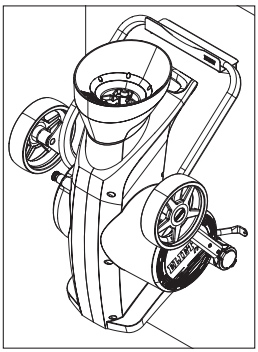
- Only store the machine inside in a dry area protected against the rain.
- The temperature inside the winterization area must be between 5° and 40°C.
- Ensure the machine is not within the reach of children.
- Never leave the machine connected to the electric mains when it is winterized.
- Never position the machine in the immediate environment of a heat source or a naked flame. (Keep at least a 2 m distance.)

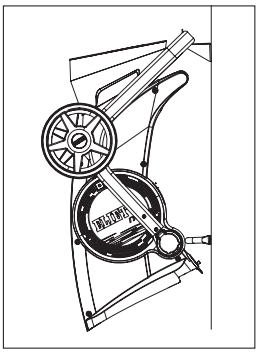
Winterization

- The NEO has been designed in such a way that the use of space when it is stored can be optimised. By folding the wheel undercarriage, you can half the height of the machine, thus, ensuring it can be stored in a compact room/ space. (Read Annex 1.)
- The folded machine can be placed on the ground or hung from a rack.

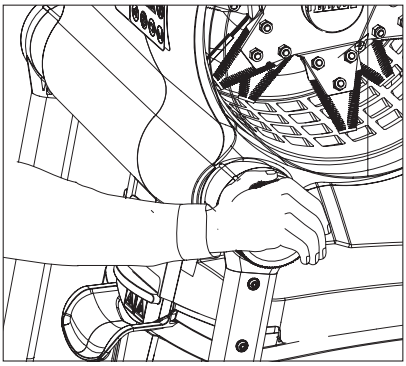


- The machine can even be hung from the wall : To this effect, an optional suspension hook is available (part Nr. MA 001 001 033) at your authorized ELIET dealer.





- Fold the machine to obtain its most compact format to suspend the machine (read Annex 1).
- Ensure that the rotary knob of the hinge joint is firmly tightened before you suspend the machine.
- The machine weighs more than 40 kg. By preference, two persons should lift the machine and hang it from its tubular frame from the NEO wall hook.



Caution :
Never try to lift the machine on your own (max. lifting weight per person = 30 % of the body weight).

Warning :
The machine weighs a good 40 kg. Which means that you should make sure to hold the machine as close to your body as possible first and then you must lift using your leg muscles. (Lift keeping your back straight and bend your legs at the knees.) Know your own capability. The simple fact of lifting things beyond your personal capacity for a few centimetres may do serious damage to your back. Seek assistance when lifting things that are too heavy for you.

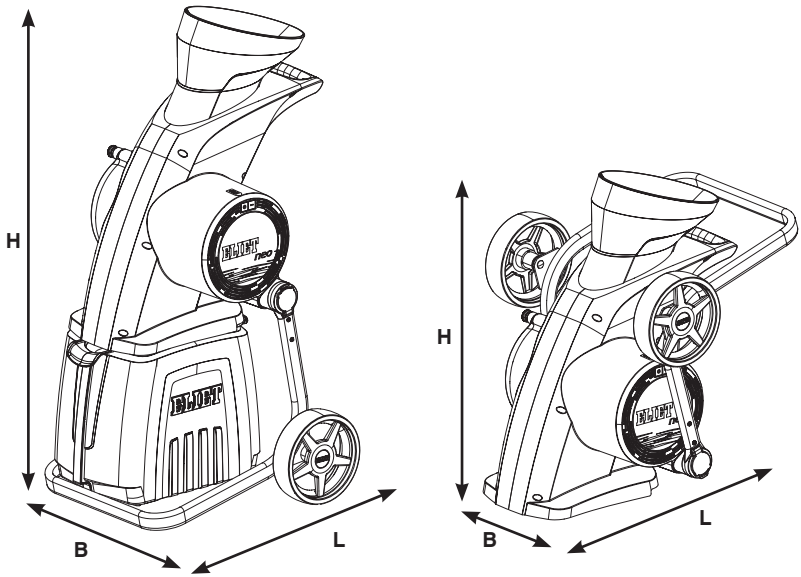
13. Equipment Specifications

	NEO	NEO²	NEO³
Motor	230 V / 1~ / 50Hz	230 V / 1~ / 50Hz	400 V / 3~ / 50Hz
W/PK DIN Power	2500 W / 3.5	3000 W / 4	3500 W / 4.8
Rated current In (A)	10	13	7
Motor brake	Yes	Yes	Yes
Capacity	Max. Ø 30 mm	Max. Ø 35 mm	Max. Ø 35 mm
Chopping speed (chopping movements/min)		36000	36000 36000
Yield (full wheelbarrows/hour)	8	10	12
Blade shaft	Two discs with in total 12 blades		
Blades	12 ELIET RESIST™ blades		
Chipping technology	ELIET patented Chopping Principle™		
Chipping width	130 mm	130 mm	130 mm
Tranmission (rotor)	Direct	Direct	Direct
Feed-in opening	multilobe (4 x 45 mm)	Ø 200 mm	Ø 200 mm
Feed height	1,140 mm	1,390 mm	1,390 mm
Feed-in safety provision	Trap-shaped anti-projection flaps	Anti-projection flaps	Anti-projection flaps
Collection box	50 l	50 l	50 l
Durability	Thermal motor protection		
Nominal dimensions (LxWxH)	700 x 600 x 1,230 mm	800 x 600 x 1,470 mm	800 x 600 x 1,470 mm
Storage dimensions (LxWxH)	700 x 600 x 750 mm	800 x 600 x 1,100 mm	800 x 600 x 1,100 mm
Noise reduction	Anti-vibration motor mounts (AVC™)		
Sound power Lw(A)	94 dB(A) Guaranteed dB(A)		
Weight	40 kg	43 kg	43 kg
Wheels	250 x 65 mm (Alu/EVA)	250 x 65 mm (Alu/EVA)	250 x 65 mm (Alu/EVA)
Accessories	paddle	-	-

Annexes

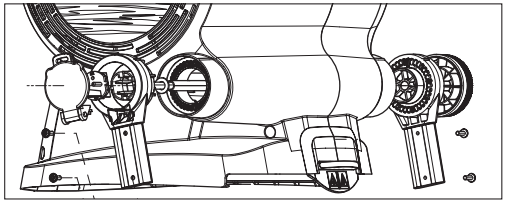
B1 Folding the machine in its storage position

The machine has been designed with a folding undercarriage to compactly store the machine and/or to transport the machine in a boot of a car. This ensures that the machine's dimensions can be significantly reduced:



NEO :	Normal dimensions :	L x W x H :	700 mm x 600 mm x 1,230 mm
	Storage dimensions :	L x W x H :	700 mm x 600 mm x 750 mm
NEO² & NEO³:	Normal dimensions :	L x W x H :	800 mm x 600 mm x 1,470 mm
	Storage dimensions :	L x W x H :	800 mm x 600 mm x 1,100 mm

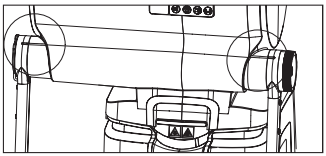
The wheelbase is mounted hinged on the housing to ensure the machine can be folded. At either end of the tubular frame there is a plastic hinge joint that pivots in the housing.



This plastic hinge joints have an external toothed clamp whereas the pivot point in the housing has an internal toothed clamp. To lock the machine in a position, firmly press these two toothed clamps into each other using the rotary knob on the right-hand side of the machine.
For safety's sake,, only two places are provided where the toothed clamps fit into each other perfectly. This ensures that only two set-ups are possible :

1. Working set-up

The wheels and the tubular frame rest on the floor. The housing (upper part) of the machine is positioned straight into the extension of the tubular frame. Line marking has been provided on the housing and on the hinges. In the working set-up, the line markings are in each other's extension.



Caution :

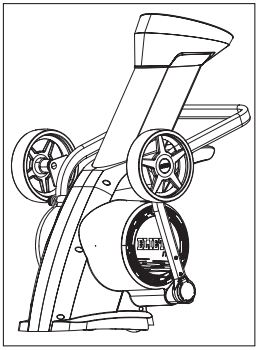
This is the **only** set-up in which the machine may be used to chip.

2. Storage set-ups

There are two ways in which the machine can be stored in a compact way :

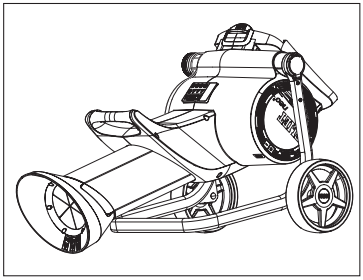
a) The most compact storage formula (lockable)

The folding procedure is slightly more complex but the most compact dimensions can be obtained. This set-up is ideal for transportation or hanging from a wall. The housing will rest on the ground and the tubular frame is turned around the hinge with the wheels so that the housing is enclosed.



b) Fast storage formula

This is a fast and easy procedure but will not put the machine in the most compact format. This set-up is suitable when storing the machine under a table or shelf. The wheelbase will remain on the ground and the upper part of the machine is tilted forward until the hopper is resting on the ground. Depending on the application, you can choose the appropriate storage set-up.

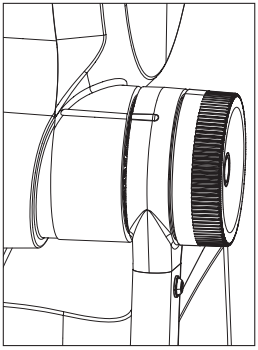


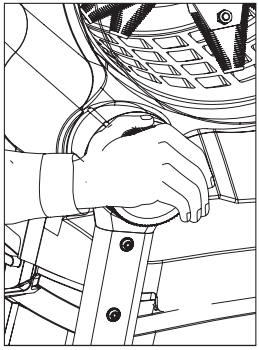
3. Proceed as follows :

Caution :
Always switch off the motor and disconnect the extension cord from the power supply when you fold the machine.

Warning :
The machine weighs a good 40 kg net. The upper part of the machine will no longer be a close fit to the wheel base with the pivot hinge unscrewed and removed. You should therefore, take care and hold it at all times. A machine that falls down may damage the housing. This damage is not covered by the warranty conditions.

- Pull the sliding latch upwards and slide the collection box out of the machine.
- Set up the machine in an area where you have sufficient room (6 m^2).
- Turn the screw button of the pivot hinge anti-clockwise to release it. Unscrew so that a free play of 1 mm is achieved between the screw button.
- Hold the machine from the handle so that it cannot fall over while loosening the pivot hinge.



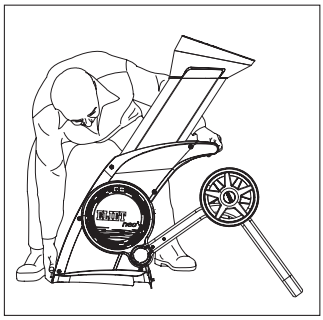


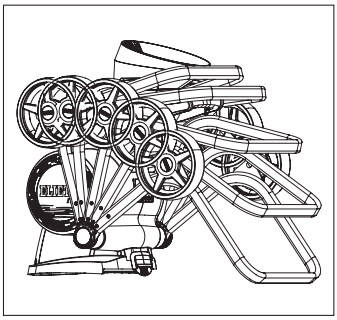
a) Folding the machine to obtain the most compact of storage format

- Place yourself to one side of the machine with your legs slightly open to fold the machine in its most compact of storage formats (a). Place a foot against the front of the wheel frame so that it cannot move forwards during the manipulation.
- Grab the machine with one hand using the handle and use your other hand to grab at the bottom at the front of the machine.

Caution :
You must be able to hold the weight of the machine with regard to the following movement. The machine weighs a good 40 kg. If you do not think you can manage this weight, ask for assistance and perform the movement with two people.

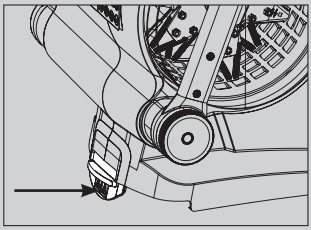
- Lift and move the upper part of the machine approximately half a metre forward so that the wheelbase tilts over the front tube that is pressing against your foot.
- Next, take the upper part to the ground until this is resting near the bottom with its open bottom.



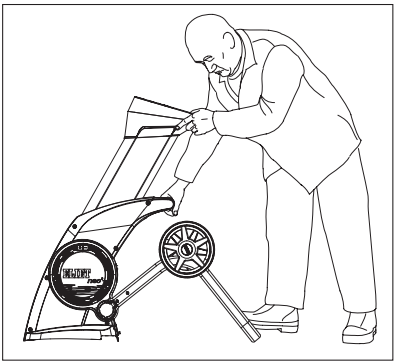


- Next, turn the wheel frame towards the machine until the tube nearly touches the hopper. Here you will notice that there is a point where the toothing inside the pivot hinge clicks into each other.
- Now turn the rotary knob clockwise to tighten the pivot hinge in this position.

Caution :
The machine will partially rest on the sliding latch of the collection box in this position. Do not, therefore, slide the machine on its side to avid breaking off this sliding latch or the sliding guide. Such breaks are not covered by the warranty. Use the wheel frame to lift the machine completely to move it.



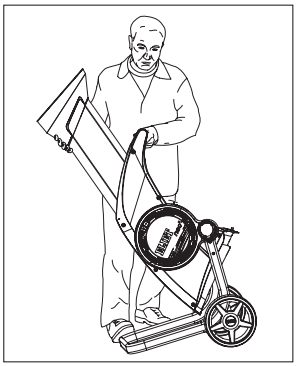
Position this on a soft substrate when you store it (cardboard, cloth, polystyrene, etc.)

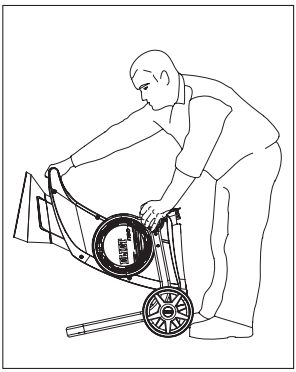


- Loosen (turn anticlockwise) the rotary knob to put the machine in the upright position in its working position.
- Fold the wheel frame to the back until the front tube of the wheelbase is resting on the ground.
- Go and stand behind the machine and place your foot on this front tube.
- Now grab the handle with one hand and pull the upper part of the machine towards you while you take a step back.
- The machine will turn around the front tube until the wheels are again on the ground.
- Pay attention and hold the upper part of the machine with your free hand so that it will not tilt forward.
- Tilt the upper part until the two marking lines on the housing and on the hinge joint are in each other's extension.
- Keep the machine in this position and firmly tighten the rotary knob clockwise.

b) Folding using the fast storage format

- Also position yourself to one side of the machine and place your foot in front of the bottom tube of the wheel base.
- Loosen the rotary knob (anticlockwise) until you obtain a space of approximately 1 mm. Be careful that the upper part of the machine does not tilt out of its position unexpectedly.
- Grab the machine by the handle and tilt the upper part of the machine around the pivot point forward.
- Tilt the machine down for the hopper to rest on the ground (NEO^2 & NEO^3) or against the tubular frame (NEO).
- Slightly tighten the rotary knob (clockwise) ; however, in this position the pivot hinge will not securely lock into the toothed clamp.
- Simply loosen the rotary knob to put the machine in the upright position. (anticlockwise)
- Go and stand behind the machine and position your foot against a wheel of the machine.
- Grab the handle and pull the upper part towards you so that it tilts over the pivot point and is upright.
- Tilt the upper part until the two marking lines on the housing and on the hinge joint are in each other's extension.
- Keep the machine in this position and firmly tighten the rotary knob clockwise.





B2 Opening and closing the chipping chamber

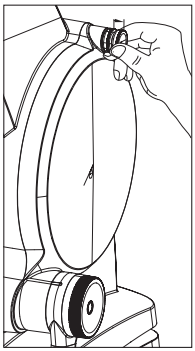
A. Opening the chipping chamber

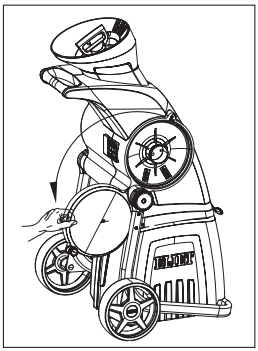
Caution :
Prior to opening the chipping chamber, always make sure to switch off the motor and to disconnect the extension cord.

OPENING THE SEE-THROUGH WINDOW = MOTOR SWITCHED OFF

Warning :
Once the chipping chamber has been opened, there is the likelihood of contact with sharp blades. Always wear gloves when performing maintenance.

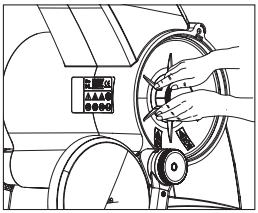
- Completely loosen the rotary knob until it retracts.
- Turn and open the see-through window until it abuts against the housing.

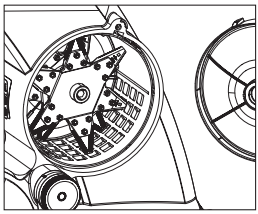




Caution :
Ensure that you do not hit the open see-through window during maintenance. This may cause the pivot point to break.

- Inspect the rotary knob for thread damage. Replace, if required. (Read § 11.4.6.) (Order number BR 930 010 200)
- Pull the central cylinder on the chipping chamber cover backwards and prize it somewhat up and down if it feels tightened.
- After removing the cover, check it for any damage. Replace, if required. (Order Nr. BR930 010 050)
- Also inspect the nylon bearing for excessive wear. Replace, if required. (Read § 11.4.4.) (Order Nr. BR 930 010 060)
- Clean the chipping chamber cover.
- Remove dirt (fine dust and wood residue) that has deposited on the inside of the external ring of the cover.
- Also clean the edge of the chipping chamber on the outside where the cover is slid across.

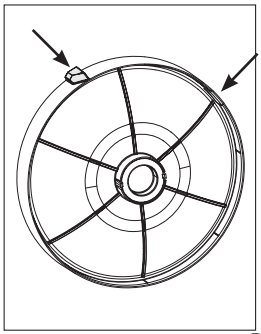




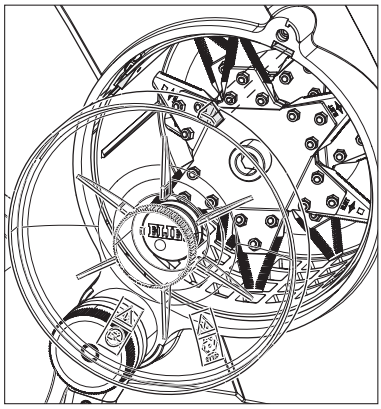
B. Closing the chipping chamber

It is extremely important that a lot of attention is paid to the correct closing of the chipping chamber. The chipping chamber cover and see-through window form a double-wall safety screen for the operator and bystanders. **An incorrect installation may represent a danger of serious injury.**

- The chipping chamber cover is equipped with two thicker areas on the external ring. These two ridges only allow one positioning when refitting this cover on the chipping chamber.
- Position the ring of the cover uniformly over the external edge of the chipping chamber.



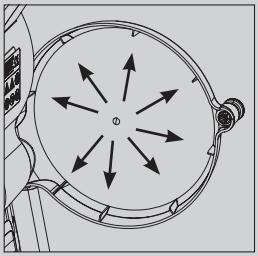
- Make sure the wedge on the external edge of the cover fits in the recess of the housing.
- Firmly but uniformly press the external ring of the cover until it can be felt to abut against the edge of the chipping chamber over the entire circumference. The cover should not protrude beyond the housing].



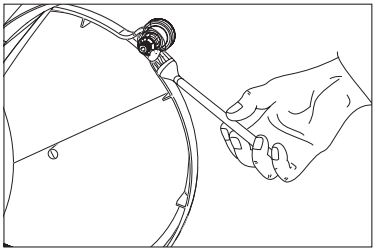
Caution :
If the chipping chambe is not refitted, the safety system will not allow you to start up the machine. Should this fail, immediately stop working and consult your official ELIET dealer.

- Turn and close the window. If this is not possible because it is hitting the cover, firmly press the cover.

Caution :
There are short ribs on the inside of the see-through window that ensure the chipping chamber cover does not slide off of the chipping chamber. If a few of these ribs have broken off, replace the see-through window as a precaution. (Consult your authorized ELIET dealer.) (Order Nr. BR930 010 070)



- If the see-through window hits the stop, screw the screw button in to secure it.
- Apply a little lubricant on the plastic thread.
- Ensure that the plastic thread and the thread in the metal insert of the housing are tight fits so that it cannot be damaged when it is screwed in.
- If you notice that screwing in is difficult, stop and first check the condition of the screw thread. Replace the screw button, if required. (Read § 11.4.6.)
- At that point, the machine can again be safely started.

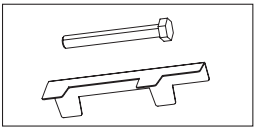


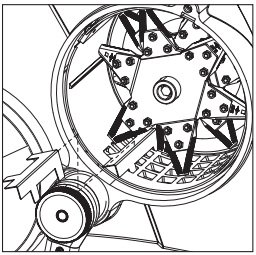
B3 Removing the blade shaft

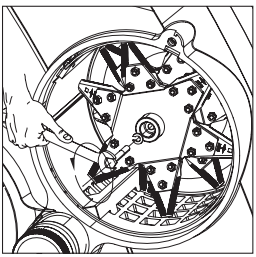
- Always switch off the machine and disconnect the extension cord from the machine prior to removing the blade shaft.

Caution :
You will come in contact with the blades when performing this maintenance. They may be razor sharp and, therefore, there is a real danger of injuring your hands. Wear quality gloves.

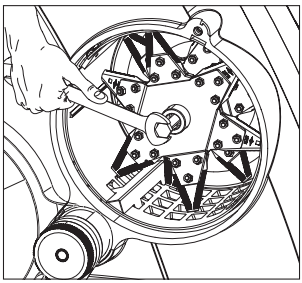
- Open the chipping chamber (see Annex 2).
- It is essential to block the blade shaft safely prior to loosening and removing the central clamping bolt (M8) of the blade shaft. To this effet, the machine comes supplied with an accessory (Part Nr. MA 001 001 034).
- The accessory is a V-shaped plate with four protruding legs. The calibrating sieve can be found where the first two rows of holes can be found. Slide the small plate with the short side first at the bottom of the chipping chamber in-between the blade tips until it can be felt to abut against the back wall of the chipping chamber.
- Press the plate downwards for the legs to fit into 4 of the matching holes of the two first rows of the calibrating sieve.
- An obstacle, this accessory will keep the blade shaft from rotating both in clockwise and anticlockwise directions.
- Place a 13 mm nutdriver (with either a manual or a pneumatic ratchet) on the central bolt head that secures the blade shaft to the motor shaft. Unscrew anticlockwise] the bolt and completely remove it from the blade shaf.

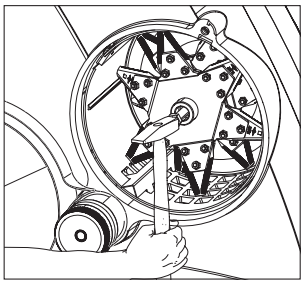


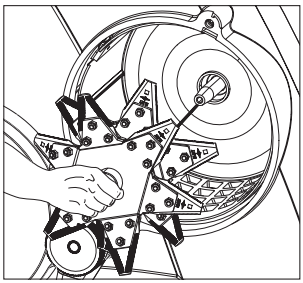




- Insert an M10 bolt, 130 mm in length, into the central hole of the blade shaft (clockwise, SW17) until it can be felt to abut against the motor shaft.







- Tighten the bolt further whilst releasing the conical clamp fixing coupling the blade shaft to the motor shaft. Once some stress is put on the bolt, axially hit the bolt head with a hammer. This impact can be sufficient to loosen the clamping. If this is not the case, repeat this procedure until the is released.
- Once the clamping force has been removed, you can displace the blade shaft from the motor shaft. Do not grab the shaft by the blades but grab the shaft journals to manipulate the blade shaft.
- Always make sure the shaft journals cannot be damaged or deformed when holding a blade shaft in a bench vice bench vice for maintenance. They may cause problems afterwards when refitting the blade shaft to the motor shaft.
- With the blade shaftremoved, inspect and clean the motor shaft. If rust occurs, use fine grained abrasive paper to remove the rusted parts.
- Refit the blade shaft in the machine and fit it as far as possible to the motor shaft. Lightly tap the shaft with a plastic hammer.
- Apply a little lubricant to the clamping bolt (M8) and turn it in the centre shaft bore pre-drilled in the motor shaft. (Clockwise)
- Securely tighten the bolt, using a ratchet wrench, to a torque of 25 Nm.
- Remove the metal accessory from the chipping chambe and close it. (Read Annex 2.)

Caution :
Check the clamping bolt of the blade shaf for correct tightening torque after the first time the machine has been used. Failure to do so can cause the blade shaft to become loose on the motor shaft and this may cause extensive wear.

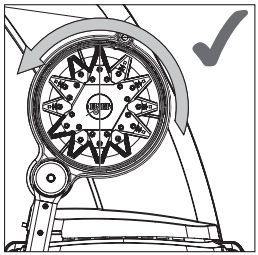
B4 Reversing the supply polarity of the plug

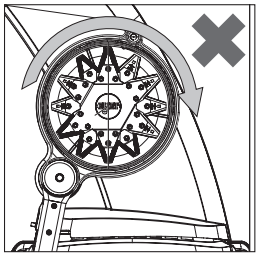
The NEO[3] is equipped with a 3-phase motor. The machine comes with a standard plug (16 amp) fitted on the left and suitable for connection to a 3-phase 380V supply.

This red CEE plug has 5 pins: L1, L2, L3, N, and PE.

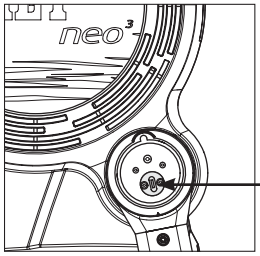
The extension cord connects to this plug that, in turn, connects to the home power supply. Depending on the wiring connection of the lines (of both the extension cord and the mains), motor direction can be reversed.

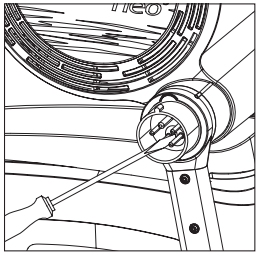
How to check and adjust this?





- Start the motor after connecting the extension cord and check whether the blade shaft is not running in the wrong direction. Check by looking through the see-through window whether the blade shaft is rotating anti-clockwise. If so, you do not need to do anything.
- If the blade shaft rotates in the wrong direction, that is, clockwise, you can easily reverse the motor direction by changing any two of the incoming 3 phase connections.
- To do so, always disconnect the extension cord from the machine.
- The plug on the machine has phase reversing pins. You will notice that the bottom two line pins are mounted on a white disc.
- There is a short groove of 8 mm at the centre in-between the two pins. Insert a flat screw driver under this groove.
- Next, press the screw driver deeper into the groove so that it shifts approximately 2 mm deeper. At the same time, turn the screw driver 180° (anti- or clockwise). This will cause the white disc to turn by a turn and the two pins to change positions.
- Remove the screw driver from the plug and reconnect the extension cord.
- Start the motor and make sure the blade shaft rotates anti-clockwise.





Always perform this test when you change extension cords or main wiring connections.

B5 Maintenance schedule

This list contains the routine maintenance that must at least be performed to ensure the machine is kept in good conditions. Repairs or replacements after a break or becoming faulty of a part must also be performed in addition to this maintenance.

Routinemaintenance	Maintenance after 100 hours	Maintenance after 50 hours	Maintenance after 10 hours	Daily maintenance
Clean the machine.	§ 11.3	§ 11.3	§ 11.3	§ 11.3
Inspect the blades and sharpen them if required.	§ 11.4.1	§ 11.4.1	§ 11.4.1	§ 11.4.1
Check the machine for signs of abnormal wear or fractures.	§ 11.3.2	§ 11.3.2	§ 11.3.2	§ 11.3.2
Grind the blades.		§ 11.4.2		
Lubricate the sleeve bearing		§ 11.4.4		
Reverse the RESIST/6™ blades.			§ 11.4.3.1	
Replace the sleeve bearing.			§ 11.4.4	
Replace the RESIST/6™ blades.				§ 11.4.3.2
Replace the chipping chamber window cover.				§ 11.4.4

Warning :
Failure to perform this routine maintenance may cause the machine not to work as it should. Damage may be caused and the operator and/or third parties will be running increased risks. ELIET EUROPE NV cannot be held liable for the consequences that failure to perform maintenance would entail. You may also loose your entitlement to claim on the warranty.

B6 List with torque values

Bolt head acc. to. DIN 931,912 ed.	Thread	Strength	
		8.8	10.9
Normal thread	M4	3,0	4,4
	M5	5,9	8,7
	M6	10	15
	M8	25	36
	M10	49	72
	M12	85	125
	M14	135	200
	M16	210	310
	M18	300	430
	M20	425	610
	M22	580	820
	M24	730	1050
	M27	1100	1550
	M30	1450	2100
Fine thread	M8 x 1	27	39
	M10 x 1.25	52	76
	M12 x 1.5	89	130
	M14 x 1.5	145	215
	M16 x 1.5	225	330
	M18 x 1.5	340	485
	M20 x 1.5	475	680
	M22 x 1.5	630	900
	M24 x 2	800	1150
	M27 x 2	1150	1650
	M30 x 2	1650	2350

(where friction factor ↔ = 0.14)

B7 Hazard analysis

Below you will find a list of dangers and risks that are linked to storing away, transporting or using the chipper. Take note of these dangers and avoid these risks by following the instructions contained in this manual. Be aware that it is not just the user who runs a risk but also third parties can be exposed to these risks. Ensure that bystanders are always kept at a safe distance.

- Injury to hands due to reaching into the infeed opening past the anti-projection flaps.
- Injury due to the projection of chippings through the feed-in opening because the anti-projection flaps have been pressed open.
- Danger of suffering heavy injuries or death because a machine part (blades, bolts, etc.) have become loose because there has been a lack of checking and maintenance.
- Dander of suffering injuries due to projection along the feed and discharge sides after a foreign object has been introduced (stone, metal, textile, PVC, etc.).
- Injuries caused by chippings flying out from the discharge opening when the machine is in operation.
- Cutting injuries to hands due to injury from the blade shaft coasting to a stop on opening the chipping chamber.
- Cutting injuries to hands when disassembling the blade shaft.
- Cutting injuries due to the blade shaft falling after being disassembled.
- Strangulation or constriction by loose clothing getting caught in moving parts.
- Injuries caused by the machine tipping due to unsafe transport.
- Danger of suffering burns due to chippings and wood residue that is blocking the cooling air ducts.
- Irritation of the airways or lung problems due to inhaling the dust produced.
- Hearing disorder due to insufficient protection of the ears during the work.
- Bruising or injury when feeding materials, due to the power of the blades on the wood.
- Bruising or injury due to the kick-back of wood when being introduced in the feeding hopper.
- Mental disturbance or rheumatic disorder due to shredding for a long time at a time without taking breaks.
- Joint pain due to vibration transfer when continuously inserting thick branches.
- Injuries following contact with the blades for blockage clearance, maintenance or cleaning the machine.
- Back problems caused by lifting the machine in an irresponsible way.
- Danger due to bruising or injury when the machine falls shut when injudiciously folding it.
- Injury due to a fall while driving over a substrate that cannot carry the weight of a person and machine.
- Electrocution danger due to working in rainy weather or under conditions of water shock on the machine.
- Danger of short circuit or electrocution because of using an incorrect or damaged extension cord, the wrong plug, faulty earthing or an electric mains protection that has not been applied.
- Danger of electrocution through contact with damaged wiring within the machine housing.

This is not a comprehensive list and is provided for information purposes only to safeguard the safety of the user.

B8 Troubleshooting :

The motor will not start.

- The blade shaft is blocked.
- Chipping chamber cover is missing.
- The see-through window has not been shut.
- The collection box has not been (or has been incorrectly) slid in.
- The motor is overheated.
- The extension cord is too long.
- The motor is not connected to the mains.
- The mains fuse has tripped.
- The motor is faulty.
- Electric components on the machine are faulty.

The motor stalls while working.

- The stop switch has been pressed unintentionally.
- The plug connected to the mains has become disconnected.
- The rotor has jammed on the wood.
- The chipping chamber is blocked.
- The collection box has slid to the rear.
- The motor is too hot and the safety switch has switched it off.
- The mains fuse has tripped.
- Problem with the motor or an electric component on the machine.

Reduced chipping power

- Extension cord too long (too much loss of power due to resistance).
- Additional electric loads on the same mains network reduce power.
- Blades are blunt.
- Incorrectly mounted blades.
- Blockage of the discharge.
- Collection box is full.

Production of abnormally long fibrous chips.

- Blades are blunt.
- Blades have been incorrectly mounted.
- In-feed is too fast.
- The sieve has not been adjusted to the type of garden waste.
- The blade shaft has broken or is deformed.

Heavy vibrations on the machine

- A machine part is loose.
- Anti-vibration isolator broken off.
- The blade shaft imbalance (check the blades)
- Blade shaft has become loose.

- Irregular wear and tear of the chipping blades.
- One of the motor bearings is faulty.

The rotor does not rotate.

- A piece of wood has blocked the blade shaft.
- The discharge is blocked.

Increased sound level

- There is a foreign object in the machine.
- A machine part is loose.
- The blade shaft has become loose and it has moved.

B9 EC Declaration of Conformity

Machine : **ELIET NEO**

Model Number: **MA 001 011 911**
MA 001 012 911
MA 001 011 912
MA 001 011 913

This machine has been designed and manufactured to comply with the following European CE regulations:

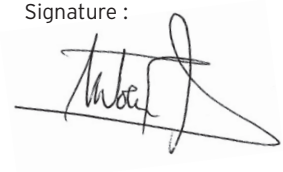
"EN 13683 : Garden Equipment – Integrally powered shredders/chippers – Safety"

ELIET machinefabriek hereby declares that after performing a hazard analysis, it is fully aware of the potential hazards and risks associated with the machine. In this knowledge, the necessary steps have been taken in line with Machine Directive 98/37/EEC in order to ensure absolute operator safety for the operator, when the machine is used correctly.

The assessment of the sound power level and the guaranteed sound power level as determined in European Directive 2000/14/EC, annex III was carried out in accordance with the measurement instructions of EN 13 683.

Measured sound power level : 92.8 dB(A)
Guaranteed sound power level : 94 dB(A)

Date : 01/01/09
Signature :



Frederic LIETAER
Managing director ELIET EUROPE NV

ELIET EUROPE NV
Diesveldstraat 2
B – 8553 Otegem, Belgium

Tel. +32 56 77 70 88 - Fax +32 56 77 52 13
info@eliet.eu - www.eliet.eu

B 10. Warranty conditions

Dear Customer,

We thank you for purchasing an ELIET product. Congratulations on your purchase of this machine which is sure to meet your expectations and needs over the coming years. At Eliet, we do everything to ensure that our products function correctly. That is why your product qualifies for a two year guarantee.

What is warranty ?

At Eliet, we have strict quality rules on designing and manufacturing products. The priorities given by these rules are to guarantee a long service life and permanent safety. That is why at Eliet, we are willing to repair at no charge hidden defects or faults during the whole run-in period (aka the warranty period), provided the prescribed procedure is followed.

Warranty conditions

ELIET's warranty obligations for new machines is 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 of private use.
- after twelve months or 100 running hours of rental use.
- after twelve months or 100 running hours in semi-professional or in professional use.

To be eligible to obtain warranty the customer is invited to register the newly purchased machine with ELIET. You should complete the registration card online on Eliet's webiste : www.eliet.eu.
If you don't have access to the Internet, please complete the attached registration card in its entirety and return it to ELIET.

II. What is covered by the warranty ?

- Wear items are not covered by the warranty conditions : (such as blades, bearings, belts, chains, gearwheels, tyres, bulbs, fuses, etc).
- If failures are found to be caused by improper use, neglect or consequential damages by an external source (fall, chippings, foreign objects, accident).
- If failures are found to be caused by improper maintenance of the machine, that is not in accordance with the prescribed periodic maintenance.
- When a defect is caused by improper repair made by anyone other than an authorized ELIET dealer or after using not genuine Eliet service parts.
- When the defect is caused by making improper changes to the original design of the machine.
- When the fault develops when the machine has been used not in accordance with the instructions contained within this manual.
- When the prescribed warranty procedure has not been adhered to or when the warranty pe-

riod has expired.
- For all problems relating to the motor, please contact an authorized service centre of the engine manufacturer.

III. Procedure

- **Step 1 :** On the date of purchase, the customer should register his/her purchase online by completing the registration card at **www.eliet.eu**. In addition, the enclosed registration card should be completed in its entirety on the day of purchase. The first part of the form should be returned to ELIET within one month. The customer should 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 becoming apparent, the customer shall have this verified by the authorized ELIET dealer. If the dealer feels that there is a factory defect, the dealer may invoke the warranty, under the terms specified.
- **Step 3 :** Every warranty application must be accompanied by a fully completed official application form. Copies of this warranty application are available to dealers at ELIET or even at an importer/agent.
- **Step 4 :**The dealer then orders the parts needed to perform the repairs. Next, the dealer faxes the order form together with the completed warranty form and a copy of the registration card.
- **Step 5 :** The warranty form should be stapled to the purchase invoice and mailed to ELIET or an importer/agent of ELIET.
- **Step 6 :** ELIET will send the parts ordered to the dealer under the regular delivery and payment conditions.
- **Step 7 :** The defective part will be examined by the technical department first prior to approving or rejecting the warranty. ELIET reserve the right to solely decide whether or not the customer has complied with the conditions for the validity of this guarantee, i.e. 1 year or 2 years. Faulty components shall become the property of ELIET.
- **Step 8 :** When a warranty claim is found to be valid, ELIET will credit the warranty parts. Customers shall never be entitled to apply for a refund of labour costs.

IV. In case of damage caused by transport

- All goods are supplied ex factory. Transport risks are borne by the customer. It follows, that ELIET highly recommend to check the goods for damage on arrival.
- Any damage found should be stated on the delivery form before signing. Make sure the driver of the haulage company puts his signature next to the damage on your copy.
- In the absence of a written and signed declaration on the delivery form, the insurance of the haulage company will not accept any liability.
- Damages can be claimed from the hauler using a copy of the delivery form and a covering letter stating your complaint.
- The damaged machine should be kept in its original condition until the hauler's insurer has performed any 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 reg
le mois suiva
Complétez d
gistrement et
partie au Serv
Registrez votre achat au site 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 / Bolte / 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.