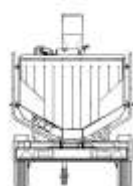




SUPER PREMIUM Kubota 30 ER / 35 DR / 35 DRI



TECHNICAL MANUAL

EXPERT IN MOBILE WOOD CHIPPERS

www.ts-industrie.eu





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BREVET D'INVENTION

Code de la propriété intellectuelle-Livres VI

DECISION DE DELIVRANCE

Le Directeur général de l'Institut national de la propriété industrielle décide que le brevet d'invention n° 95 000 000 dont le texte est ci-annexé est délivré à :
SAELEN S.N.S. Société anonyme - FR

La délivrance produit ses effets pour une période de vingt ans à compter de la date de dépôt de la demande, sous réserve du paiement des redevances annuelles.

Mention de la délivrance est faite au Bulletin officiel de la propriété industrielle n° 95 000 000 (n° de publication 95 000 000).

PATENT FOR INVENTION

Intellectual property law-Books VI

GRANTING DECISION

The General Manager of the National Institute of industrial property has decided that invention patent # 95-000000 the text of which is appended shall be delivered to:
SAELEN S.N.S. Company - FR

The delivery produces its effects for a period of twenty years starting on the date of deposit of the application, under reserve of payment of the annual royalties.

Mention of the delivery is made in the Official Bulletin of industrial property ###/## of ##:##:## (publication # # ### ##).

A handwritten signature in black ink, appearing to be 'D. Hangard', is written over a horizontal line.

D. HANGARD

INSTITUT
NATIONAL DE
LA PROPRIÉTÉ
INDUSTRIELLE

SIEGE

26 bis, rue de Saint Petersburg
75800 PARIS cedex 08
Téléphone : 01 53 04 53 04
Télécopie : 01 42 93 59 30



INTRODUCTION

Thank you for your purchase and your confidence in us.

It is important to read what follows in order for you to fully benefit from your purchase.

Although this machine is simple and easy to use, we recommend reading this manual before starting to use it.

In order to operate your multi-vegetation chipper in a safe, efficient and effortless manner, you need to be familiar with the instructions for operation, maintenance and problem-solving that are described in this manual.

This manual describes all the functions of the **Super PREMIUM** chipper. Keep it within reach for later reference. Please contact your reseller for more information, technical data or if you want to order an additional copy of this manual.

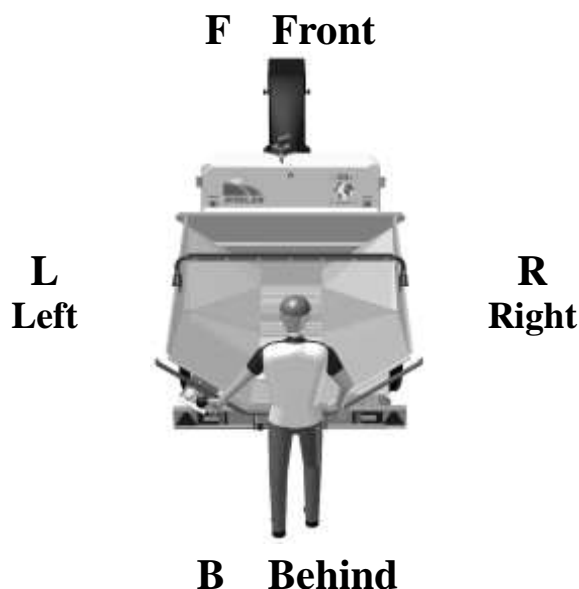
Safety precautions:

This machine is **only suitable** for **chipping vegetable waste**. It may not be operated by persons **younger than 16**.

The machine should only be used by persons who have a **good physical condition and a certain technical knowledge**.

Maintenance must be done by a **qualified technician**. All interventions for assembly, disassembly and/or specific maintenance must be handled by a recognized distributor. Before working on the Super PREMIUM for maintenance or other purposes, **please remove the ignition key**.

Position of the operator: left, right, in front of and behind in this manual are as seen by the operator from his work station, facing the hopper.





INTRODUCTION

Safety instructions



This machine is **only intended for crushing and shredding plants**.
Besides shredding wood and plants, the **Super PREMIUM** shredder cannot be used for any other purpose.
The shredder should only be used by people over **16 years of age**.

This machine can only be used by someone who is **in good physical condition and who has some technical knowledge**.

Maintenance and repair work should be done by a **qualified technician**. Assembling, disassembling and/or specific maintenance work should be performed by an authorized dealer.

Before beginning work or proceeding to maintenance of the Super PREMIUM, **always remove the ignition key**.

Proceed to maintenance by scrupulously following the instructions.

Eliminate pieces of metal, plastic, rubber or any other materials that may have been mixed with the wastes.

Always use protection goggles, work gloves and protection against noise;

The machine can in no case be used to transport equipment, material or people.

The machine cannot be used to push or pull anything.

Battery acid is very corrosive. Avoid any contact with the eyes, skin and garments.

Immediately rinse eventual splashes with water and if the case arises, consult a doctor.

Before touching the electric circuit, always disconnect the cable connected to the battery's + terminal.

Always keep the battery out of reach of children.

When performing maintenance, do it in a sufficiently lit workshop.

Respect the safety standards prescribed in the motor's user and maintenance manual.

Keep children away while the machine is in operation or when performing maintenance work; Do not work in confined space. Do not run the motor in a non ventilated place (risk of CO² intoxication)



LOCATION OF THE SERIAL NUMBER

When you order spare parts or if you need technical information, please always have the serial number of your **Super PREMIUM** shredder.

The manufacturer's nameplate is located on the chassis at the front left.



The serial number is located at the place indicated on the photo, it is always composed of **five figures** sometimes followed by a letter.

Serial number





GUARANTEE

The SAELEN Company guarantees the parts of its **Super PREMIUM** shredders against any defect that could affect their operating. The guarantee applies in all the cases where the damage is not the result of improper use, abuse or negligence, accidental, act of God or any other circumstance beyond the control of SAELEN. This guarantee extends over a period of one year starting on the date of delivery to the customer and is limited to the replacement of defective parts and/or of labour.

GUARANTEE CLAIM

A claim in due form shall be presented to SAELEN, by the origin purchaser for inspection by an authorized representative of the company.

LIMITS OF LIABILITY

This guarantee replaces all other formal or implicit guarantees as well as any alleged obligations or responsibilities. We do not assume nor authorize third parties to take responsibility for the sale of a plant shredder.

This guarantee does not apply to a shredder that has been modified out of our workshops and that, according to SAELEN standards, would be affected in its operation, its safety and its service life.

This guarantee does not cover parts and accessories that are already under their manufacturer's guarantee and the servicing of which is covered by the latter's administration. Service items such as lubricants, belts, paint and similar are not subject to guarantee.

USER MANUAL

The purchaser acknowledges having received instructions concerning the correct operation of the shredder and also acknowledges that SAELEN cannot assume any responsibility resulting from the use of his product other than that described in the user manual supplied at the time of the purchase.

**DO NOT FORGET TO REGISTER YOUR GUARANTEE
OTHERWISE IT WILL BECOME INVALID.**



SAFETY

You are responsible for the safe use and the maintenance of your plant shredder. You should thus make sure that whoever uses, maintains and works with the appliance has knowledge of the operating and maintenance methods as well as the safety measures to apply as described in this manual. The user manual informs you on the security practices to apply when using the plant shredder.

Remember that you are the person in charge of security. Efficient precautions will protect you as well as those around you. Make sure that **ANYONE** working with this appliance knows how to operate and maintain it. It is very important to prevent accidents. to avoid injury, respect the security measures explained in this manual.

- Before using the plant shredder, an owner has the duty of giving the user instructions to operators or eventual employees.

- This equipment's most important safety device is a safe operator. It is an operator's duty to read and understand all the security and operating instructions and to scrupulously follow them. The best way of avoiding accidents.

- No one is supposed to handle the **Super PREMIUM** shredder if they have not read and understood the instructions on the subject. An operator without knowledge exposes himself and others to risks of accidents.

- **It is not allowed to modify the equipment in any way whatever. Any non authorized modification could affect the operation or the security and eventually reduce the equipment's service life.**

THINK CAUTION!
WORK IN COMPLETE SECURITY.



GENERAL SAFETY

1) Read and understand the user manual and all the security symbols before operating, maintaining, un-jamming or adjusting the shredder.



2) Keep a first aid kit in case of accident.
Keep it in a visible place.



3) Keep a fire extinguisher within reach in case of need. Keep it in a visible place.



4) Use appropriate protection equipment. Here are a few suggestions, but do not limit yourself just to this description:

-Helmet and ear protection



-Work shoes with steel non-skid soles



-Protective goggles

-Work gloves and waterproof garments



5) Never operate without the protector.

6) Keep people away and especially children, when you are using the shredder.



GENERAL SAFETY

Meaning of the labels



Attention! Grip wheel.

Never enter the hopper when the engine is running.

Never open or remove the inspection doors and carters of the cutting parts.



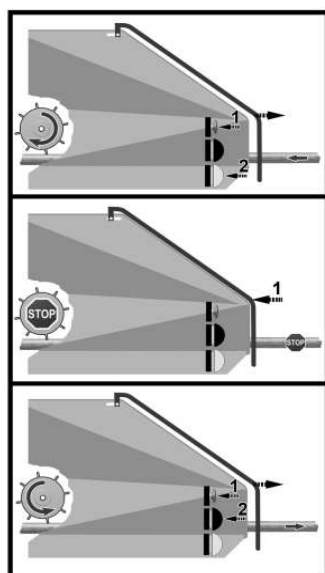
Minimum engine speed



Maximum engine speed



Lubrication point



Rotation commands of the conveyor belt:

0 : Chipping material (forward operation)

1 : Stop the rotation of the feed rolls

2 : Releasing material (backward)



SAFE USE

1) Read and understand the user manual as well as all the security signs before any operating, servicing, adjusting, repairing or un-jamming manoeuvre.



2) Install and make sure that all the protectors and guards are well fixed before starting or working.

3) Keep hands, feet, hair as well as clothing out of reach of parts in movement.

4) Before performing maintenance, adjustments, repairs or un-jamming of the machine, put the engine in idle speed with the accelerator handle, wait till all moving parts have stopped, stop the engine.

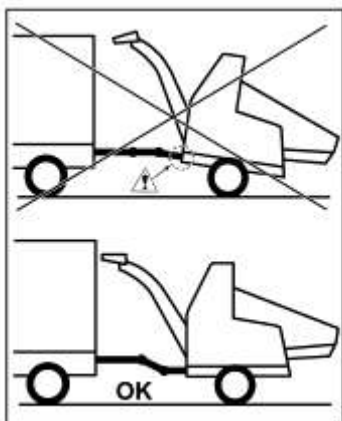
5) Place all controls to neutral before starting the machine.

6) Keep people away, especially children before starting.

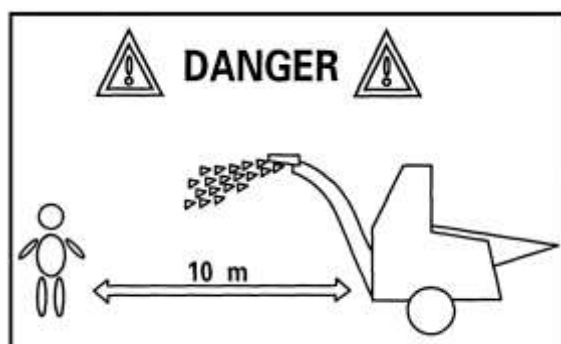
7) Use protections appropriate to the work to undertake.



8) Always couple the machine horizontally.
To avoid making the machine swing, always work in a horizontal position if the machine is unhitched.



9) when shredding, risk of projections of chips within a 10 metres radius.





SAFE MAINTENANCE

- 1) Follow all the indications in the user manual concerning operating, maintenance and security.
- 2) Before performing any maintenance, adjustment, repair or un-jamming of the machine, put the engine in idle speed with the accelerator handle, declutch the machine and wait till all the parts in movement have stopped, stop the engine, remove the ignition key.
- 3) Make sure that all the protectors and guards are efficiently fixed after performing maintenance or servicing the shredder.
- 4) **Warning!** Keep hands, hair and clothing out of reach of moving parts.
- 5) Install and make sure that all the protectors and all the guards are well fixed before starting or working.
- 6) Never wear badly cut, too loose or shredded clothing when working on command system components.

!	ATTENTION	!
Read the operating instructions before use		
The fuel should be exempt of water and impurities.		
Check the tightening of bolts after 30 h, then every 150 h.		
Respect the lubricating periodicity		
Do not un-jam the machine with the starter or the clutch		



SAFE TRANSPORT

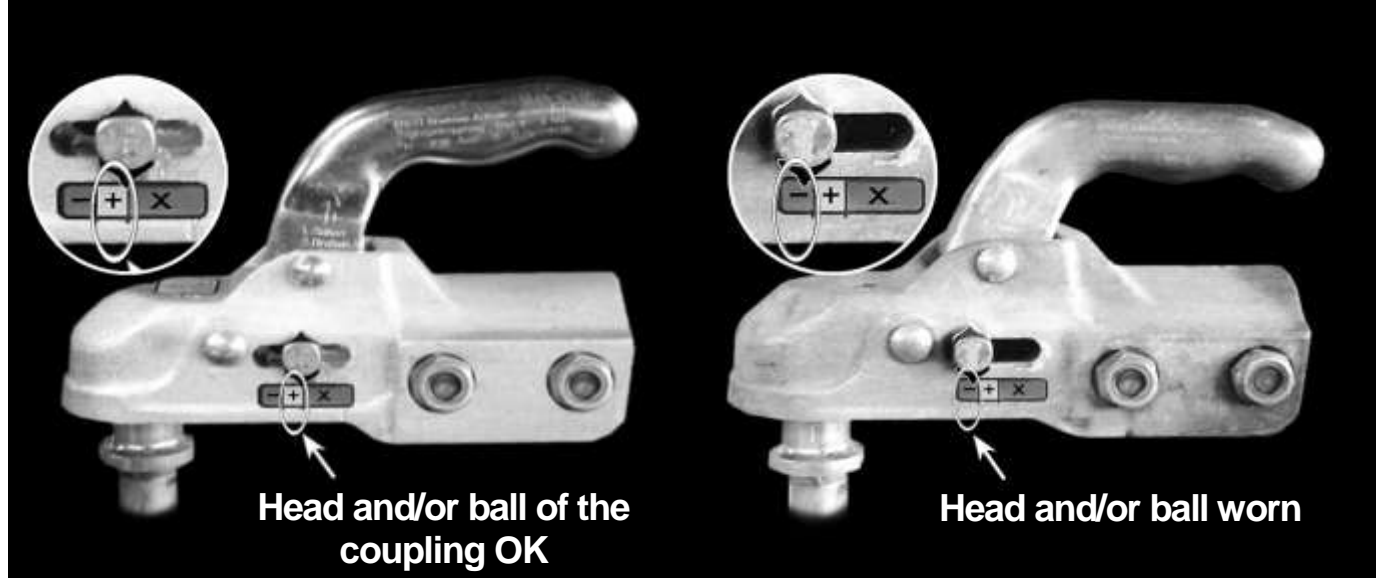
- 1) Comply with the traffic code.
- 2) Check if the signalisation lights of the equipment are appropriate and in working order.
- 3) Lower your speed on uneven roads and surfaces.

Wear of the coupling:

Check the wear indicator when coupling the machine.

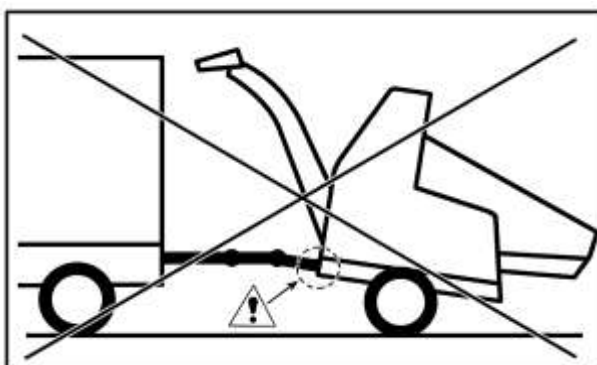
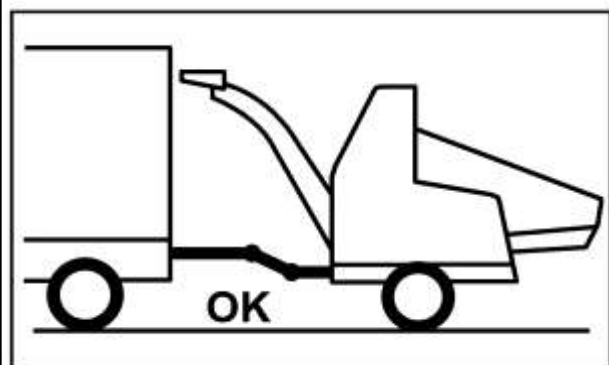
Systematically replace the head and/or the ball of the coupling of the vehicle if the indicator is in the MINUS zone. You might lose the chipper on a bump in the road or against a border.

YOU ARE RESPONSIBLE IN CASE AN ACCIDENT HAPPENS.



Hitching to a vehicle:

Always hitch the shredder in a horizontal position in order to prevent the machine from tipping backwards AND check that the tow bar's nut joints are secure on a daily basis to prevent jolting which would damage the hitch and tow system and reduce its lifespan.





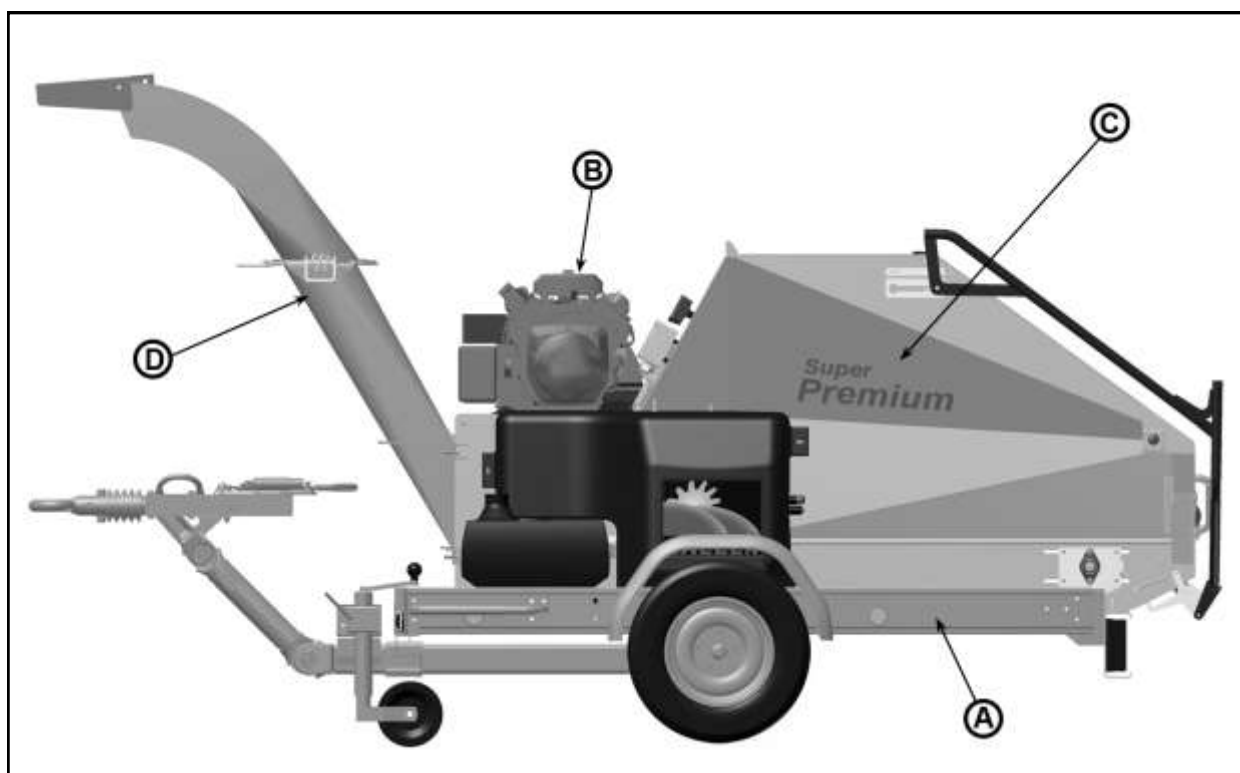
GENERAL DESCRIPTION AND OPERATION

DESCRIPTION

The **saelen Super PREMIUM** multi plant shredder is intended for the shredding of plants and branches up to 150 mm in diameter.

The machine consists of the following main components:

- A**: the chassis
- B**: the shredding unit
- C**: the engine and its various drives
- D**: the evacuation shaft





GENERAL DESCRIPTION AND OPERATION

A. The chassis.

The shredder's chassis serves as support to various PREMIUM components. It allows displacing the machine by itself.

B. The engine and its drives

The petrol or diesel heat engine is located on top of the shredding unit, it supplies the energy needed to drive the rotor and the hydraulic system's oil pump (1).

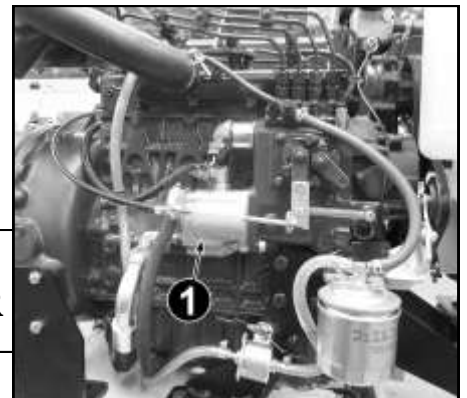
A 30 HP KOHLER twin cylinder petrol engine or a 35 HP KUBOTA four-cylinder diesel engine with liquid cooling, both at 3600 and 3000 rpm. For additional information on the engines, please refer to the manufacturers' manuals.

The outlet shaft is equipped with a pulley (2) activating two belts ensuring the rotation of the shredding rotor. The tension of the belts is adjusted with an idler pulley (3).

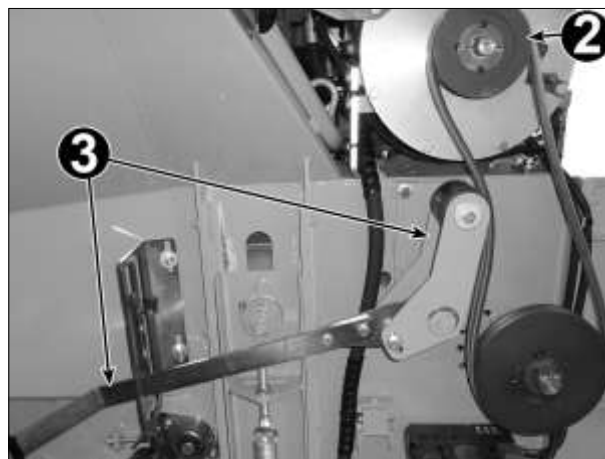
The hydraulic system's oil pump located on the heat engine activates the feeder's hydraulic drive.



**Petrol
model ER**



**Diesel
model DR**





GENERAL DESCRIPTION AND OPERATION

The feeder's hydraulic drive is activated by a handrail (1) located under the rear end of the feed hopper.

C. The shredding unit

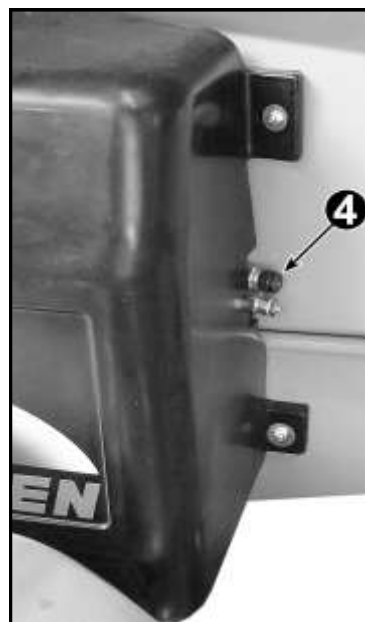
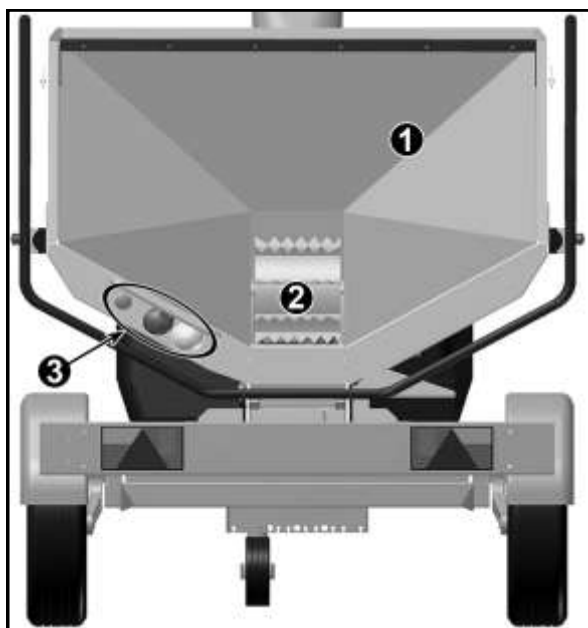
It is made up of a feed hopper (1) a feed roller (2) with serrated bars and a rotor that shreds the matter.

1) Feed cylinder

It leads the matter at constant speed toward the shredding rotor. An anti-jamming system stops the latter when the rotor's speed descends too low (jamming at shredding level), it automatically starts rotating again when the rotor picks up sufficient speed to shred correctly.

It can be activated in both rotation directions (forward and reverse run) with the pushers command (3) .

Its rotation speed is adjustable with the knob (4) located on the distributor



2) Shredding rotor:

Key element of the machine, it shreds the matter brought by the feed roller.

It is put in rotation by progressively activating the clutch



D. The shaft.

Allows the evacuation of chips. Its upper part swivels over + 180°. Its cap is adjustable in vertical inclination.



STARTING

OPERATING OF THE FEEDERS' COMMANDS

SUPER PREMIUM ER et DR

The SUPER PREMIUM is equipped with an electric command hydraulic distributor activated by 'mushroom' pushbuttons for the forward and reverse drives and a red 'hand rail' command bar for stopping the feed roller.

NB: to make the feed roller run in forward drive the engine has to run at maximum speed.

FORWARD RUN COMMAND

- 1: To make the feed roller run in forward drive the red handrail should be pulled backward
- 2: Press the **yellow** pushbutton to make the feed roller run in forward drive.

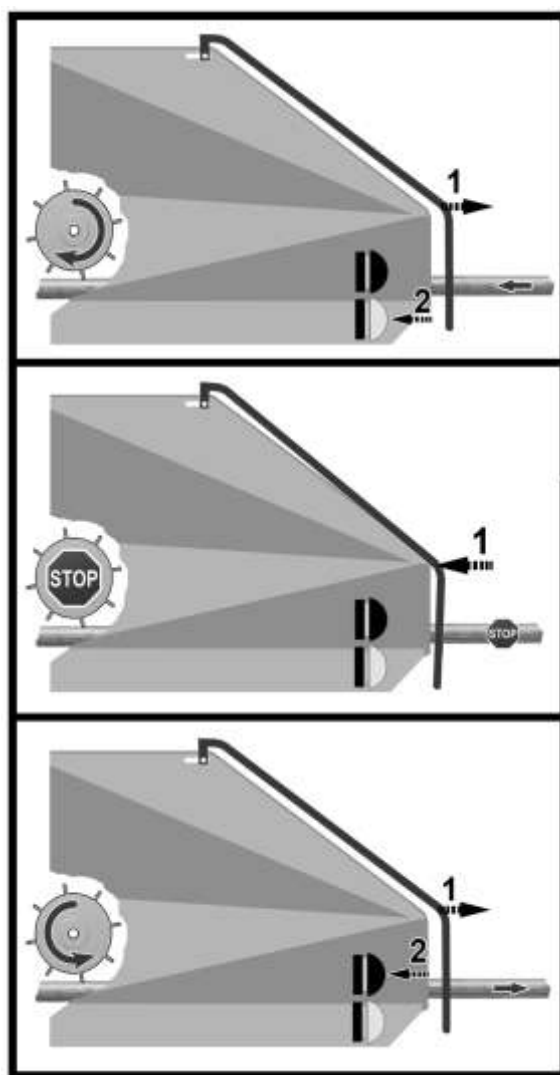
FEEDER STOP COMMAND

- 1: Push the red handrail to stop the feed roller.
(the handrail can be locked in pulled position and in pushed position)

REVERSE RUN COMMAND

- 1: To make the feed roller run in reverse drive, first pull the handrail backward
- 2: And press the **black** pushbutton

NB: The feed rake can be ordered directly from forward to reverse and vice versa without using the handrail





OPERATING OF THE FEEDERS' COMMANDS

SUPER PREMIUM DRI

The SUPER PREMIUM is equipped with an electric command hydraulic distributor activated by 'mushroom' pushbuttons for the forward and reverse drives and a red 'hand rail' command bar for stopping the feed roller.

NB: to make the feed roller run in forward drive the engine has to run at maximum speed.

FORWARD RUN COMMAND

To make the feed roller run in forward drive the red handrail should be pulled backward

- 1:** Press the **green** button, then
- 2:** Press the **yellow** pushbutton to make the feed roller run in forward drive.

FEEDER STOP COMMAND

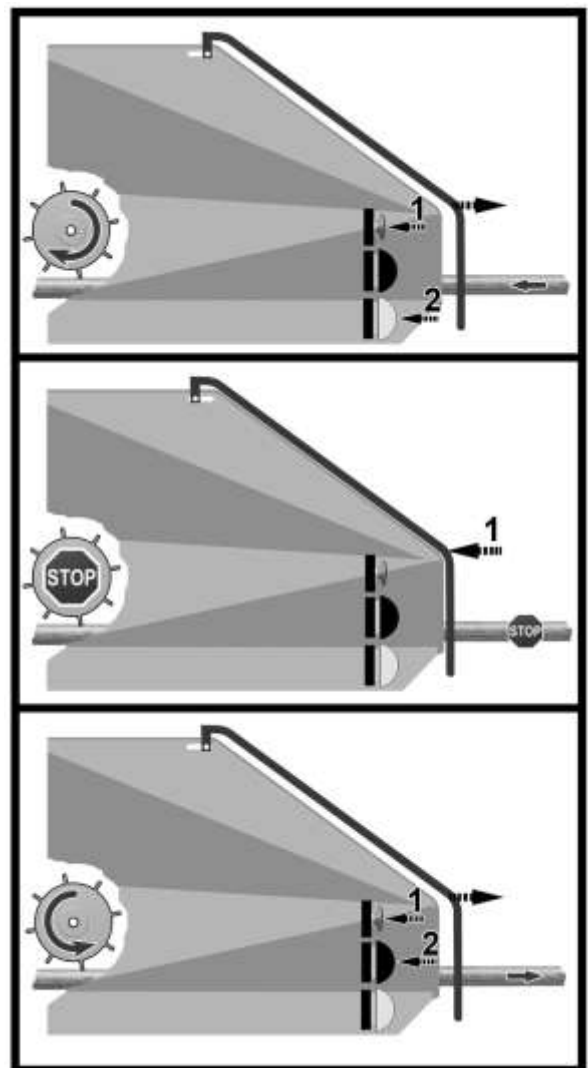
- 1:** Push the red handrail to stop the feed roller.
(the handrail can be locked in pulled position and in pushed position)

REVERSE RUN COMMAND

To make the feed roller run in reverse drive, first pull the handrail backward

- 1:** Press the **green** button, then
- 2:** And press the **black** pushbutton

NB: After activating the green button, the feed roll can be controlled directly from going forward to going backward (and also from backward to forward) while the red bar is not activated





STARTING

CHECK BEFORE STARTING

Every operator should read and understand all the inscriptions and should follow the safety measures described in this section for sure and efficient shredder operating. A checklist prior to use is supplied to the user. It is important to take it into account for the security of all as well as to keep the machine in good condition.

The following points should be checked before using the machine:

- 1) Is the machine sufficiently lubricated according to the lubrication plan indicated in the user's manual.
- 2) Check the different levels for the engine, being:
 - the engine's oil level
 - the radiator's water level
 - the gas oil level
- 3) Check the hydraulic circuit's oil level.
- 4) Make sure the air filter is clean.



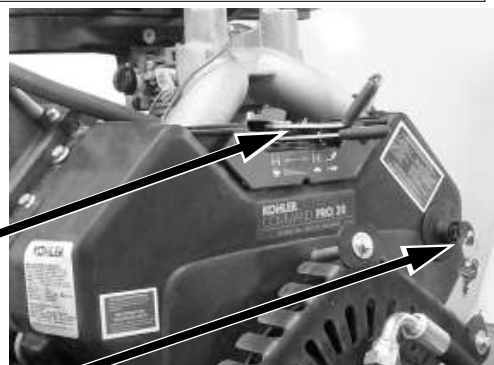
STARTING

WARNING!

If for an unknown reason the shredder has difficulty shredding the matter, and that you have to stop it: **do not start the engine again without having eliminated the cause and cleared the matter out of the shredding rotor!!!**

PUTTING IN SERVICE

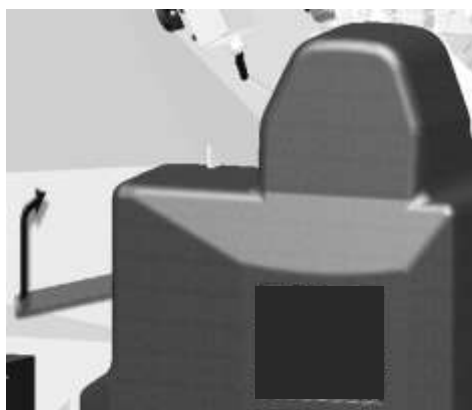
- 1) Check that the cap at the end of the shaft is open.
 - 2) Slightly accelerate the engine's throttle lever
- engage the starter on petrol model
 - 3) Start the engine with the ignition key preheating
on the diesel model
- preheating on the diesel model
- NB:** The starter can only be activated if the preheating light is continuously lit (on rectangular control panel),
or extinction of light (on square control panel).
- remove the starter (petrol)



- 4) Accelerate the engine to mid-speed and let it warm up

⚠ Model and ER DR: see text in black frame page 46

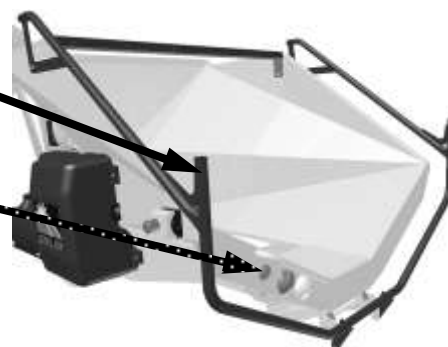
Make sure the cutting rotor is placed in rotation and that it is not jammed by residue of matter that would prematurely damage the centrifugal clutch. (see advice when stopping on next page)



- 5) Engage gradually and lock the clutch:
- lever up to the DR version (see p.33)
- down to the DRI version (see p.34)
- 6) Accelerate the engine's speed to bring it to its maximum speed.

- 7) Put the feed roller in rotation by activating the yellow control pusher located on the rear left of the branches intake hopper.

- 8) Put the feed roller in rotation by activating the **green** then **yellow** control pusher located on the rear left of the branches intake hopper.



- 9) Start the shredding.



STARTING

STOPPING

1) **Let the shredder empty itself for a few minutes to eliminate residue of matter behind the feed roller and inside the shredder, which could jam and prematurely damage the clutch at the next start.**

2) Push the control bar forward to stop the feed roller



3) Progressively bring back the throttle lever to idle.

4) Stop the engine by turning the ignition key on the control panel.



Petrol version



Petrol version

5) **Unlock and pull down the rotor clutch lever**



MAINTENANCE



MAINTENANCE SECURITY



- 1) Put the parking brake on, remove the ignition key and wait till all the moving parts have stopped before performing maintenance or repairs.
- 2) Make sure you put back all the protection screens after servicing.

LUBRICANT quantities:

- Petrol Engine: 1,8 l.
- Diesel Engine: 6 l.
- Fuel: 30 l.
- Hydraulic oil: 20 l.
- Hydraulic coupling oil DRI: 2,4 l.



Organic lubricant

Advised **LUBRICANT**:

- 1) Grease for the rollers and various components:
Use a multi purpose SAE grease, high performance and extreme pressure (EP).
"SAELEN BIOPLEX "
- 2) Hydraulic oil:
Use an oil of grade AFNOR NFE 48600 Types HV iso VG 46
"MINERVA BIO HYDRO 46 "
- Oil for hydraulic coupling
Use oil AFNOR NFE 48600 Types HV iso VG 46
"MINERVA BIO HYDRO 46 "
- 3) Motor oil petrol and diesel
See manual manufacturer recommendations KOHLER et YANMAR



MAINTENANCE

MAINTENANCE PERIODICITY

For further information concerning the maintenance of petrol or diesel engines; please refer to the engine manufacturer's manual that comes with the machine.

# of hours	Servicing
Daily	<ul style="list-style-type: none"> -Check engine's oil level -Check air filter's cleanliness -Check cleanliness of engine's air cooling circuit cylinder's air intake grid (petrol model) -Check cleanliness of engine radiator's honeycomb (diesel model)
Every 10	-Check tension of rotor's transmission belts (ER and DR see p.34)
Every 50	<ul style="list-style-type: none"> -Tightening control of the two nuts of articulation of the coupling head -Check tension of rotor's transmission belts (DRI see p.35) -Check tension of rotor's transmission belts (DRI) -Lubrication of the feed roller bearings -Check of knives and hammers -Check and remove the branches winding around the bearings' axes and the hydraulic motors -Check metallic belt's tension (the first time at 8h)
Every 150	<ul style="list-style-type: none"> -Lubrication guide rails feed roller -Check of counter-blade wear -Lubrication of feed roller's rotation -Lubrication of the metallic belt's forward and reverse rollers -Replacement of hydraulic oil filter the first time and afterward every 500 hours (or every 2 years)
Every 200	-Verification wear rings hammers
Every 300	<ul style="list-style-type: none"> -Check of belt and slide plate wear -Check battery's electrolyte level
Every 500	<ul style="list-style-type: none"> -Replacement wear rings hammers -Change hydraulic oil (or every 2 years) -Change hydraulic return oil filter (or every 2 years) -Change hydraulic oil suction strainer (see page 39)

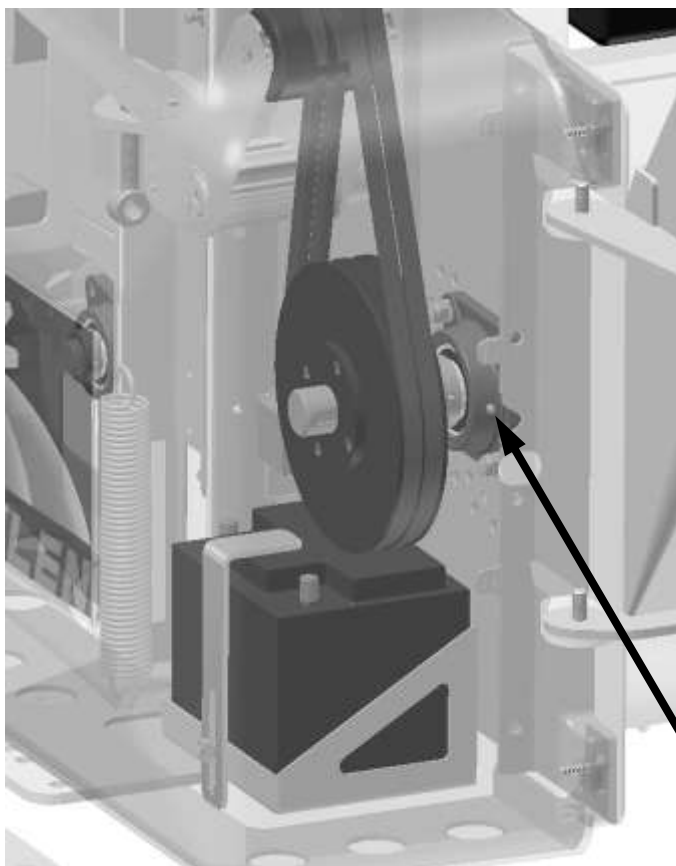


MAINTENANCE

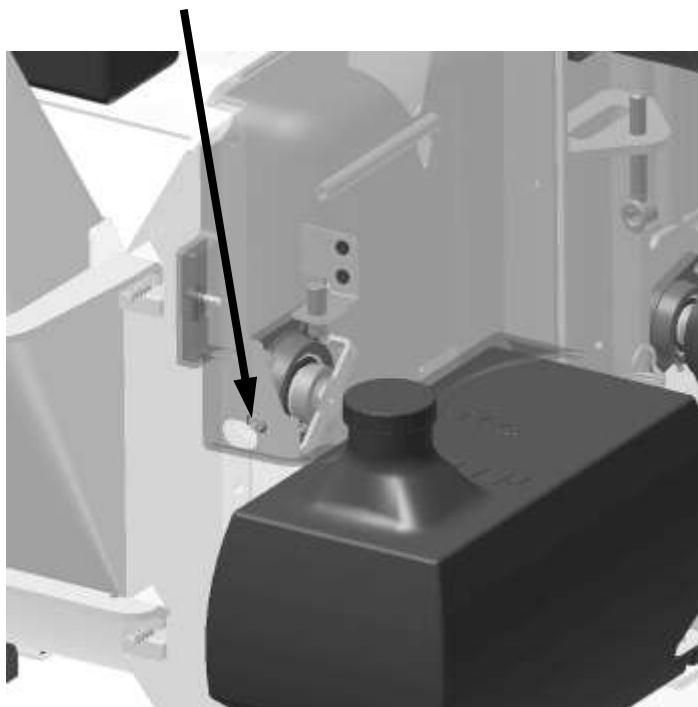
LUBRICATION POINTS



Proceed to the lubrication and maintenance of the machine engine stopped and ignition key removed.



LUBRICATION OF THE ROTOR'S
ROTATION BEARINGS



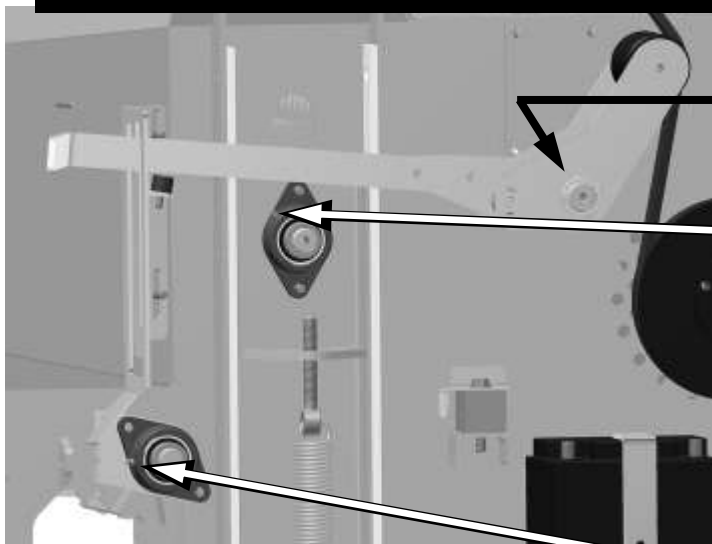


MAINTENANCE

LUBRICATION POINTS



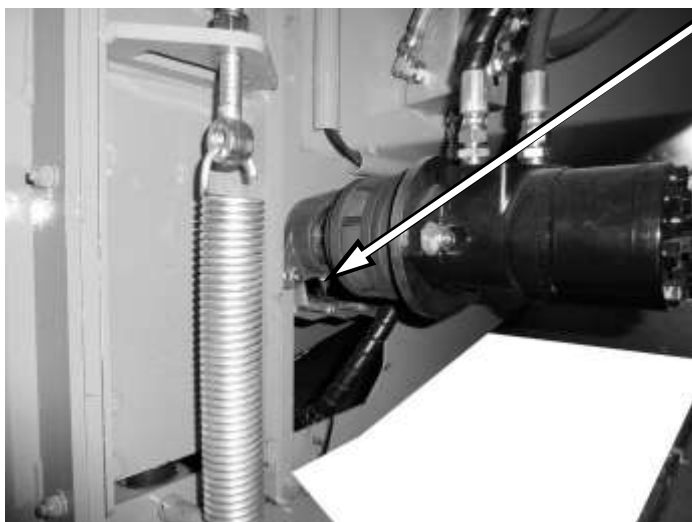
Proceed to the lubrication and maintenance of the machine engine stopped and ignition key removed.



TENSIONER PIVOT

LUBRICATION OF THE FEED ROLLER'S BEARING

LUBRICATION OF THE TWO BEARINGS OF THE BELT'S FRONT ROLLER



LUBRICATION OF THE TWO BEARINGS OF THE BELT'S REAR ROLLER

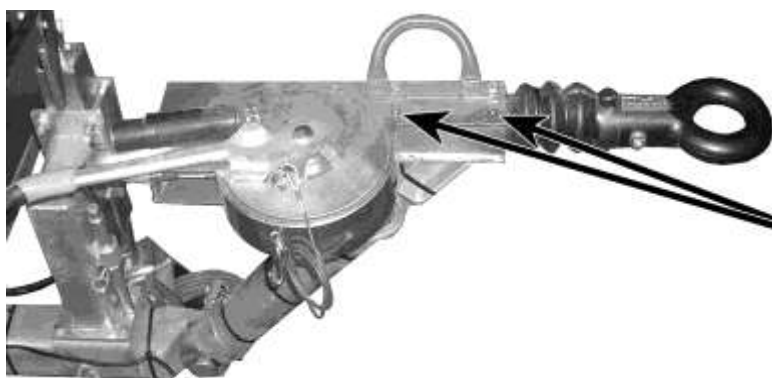
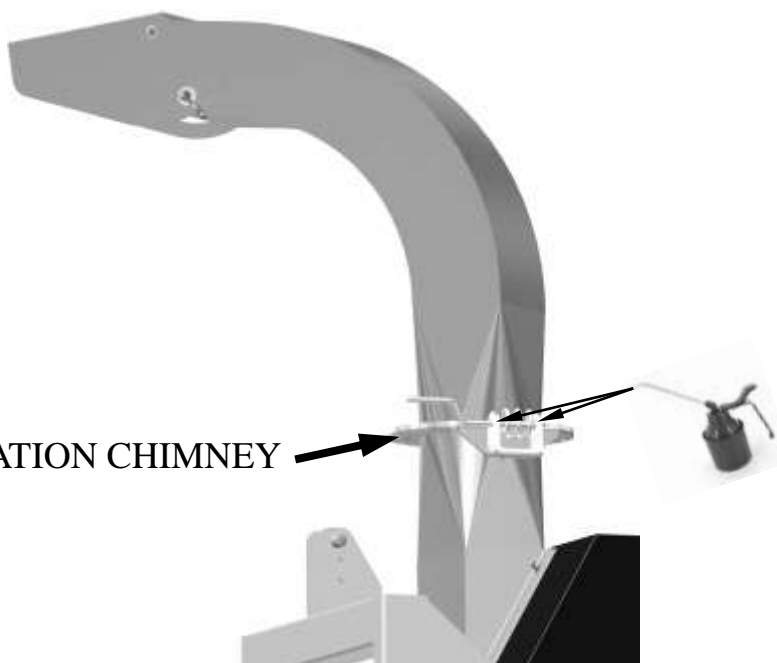


MAINTENANCE

LUBRICATION POINTS



ROTATION CHIMNEY

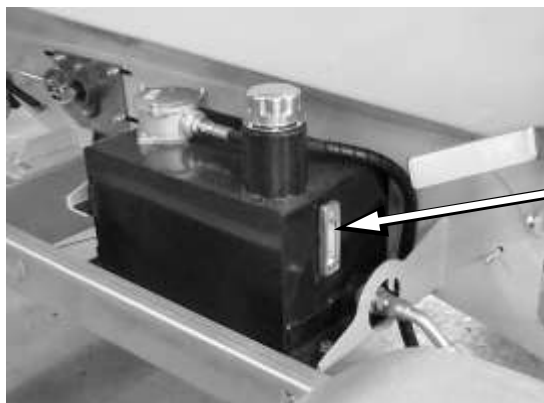


COUPLER HEAD'S BRAKE
LINKAGE



MAINTENANCE

OIL LEVELS



HYDRAULIC TANK LEVEL



ENGINE'S OIL GAUGE PETROL



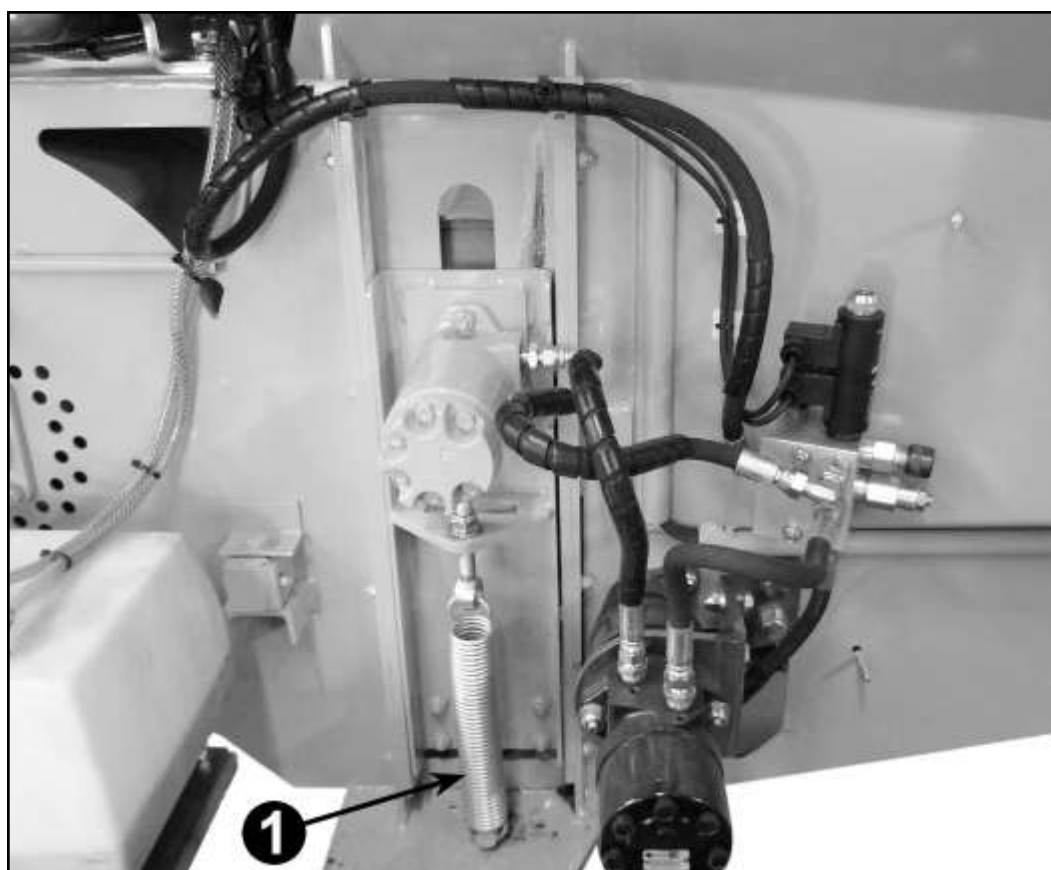
ENGINE'S OIL GAUGE DIESEL



MAINTENANCE

FEEDER'S PRESSURE ON THE MATTER

The feeder exerts pressure on the matter owing to its springs (1).



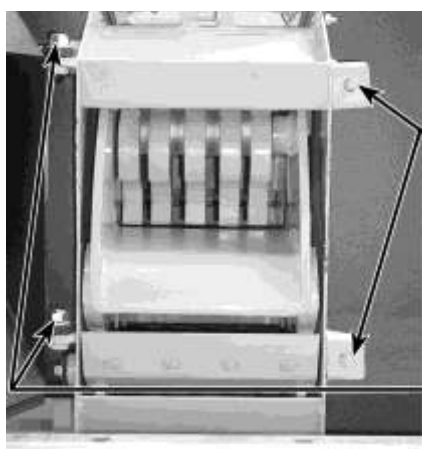


MAINTENANCE

CONTROL BLADES AND HAMMER INSERTS

Remove the ignition key before proceeding.

ACCESS TO ROTOR:



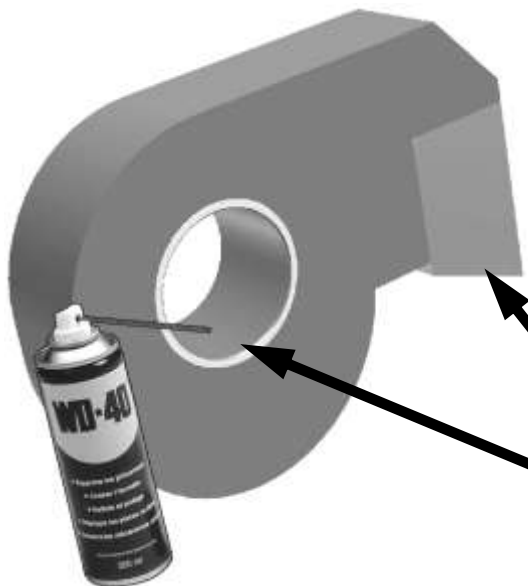
In order to gain access to the rotor:

-Remove the two Nylstop nuts

-Open the chute by rotating it on the two articulations

For easier maintenance, henceforth the hammers are mounted without lubricator but with special wear rings.

The lack of lubricators on the hammers however should not stop you from inspecting the hammer discs and blades on a regular basis.



Upon inspection, check whether the hammers are rotating freely.

In case there is a coarseness, spray penetrating grease onto the axles and tap the hammer(s) using a mallet.

Frequency of inspections:

- control blades and hammer inserts : 50h
- Verification wear rings hammers: 200h

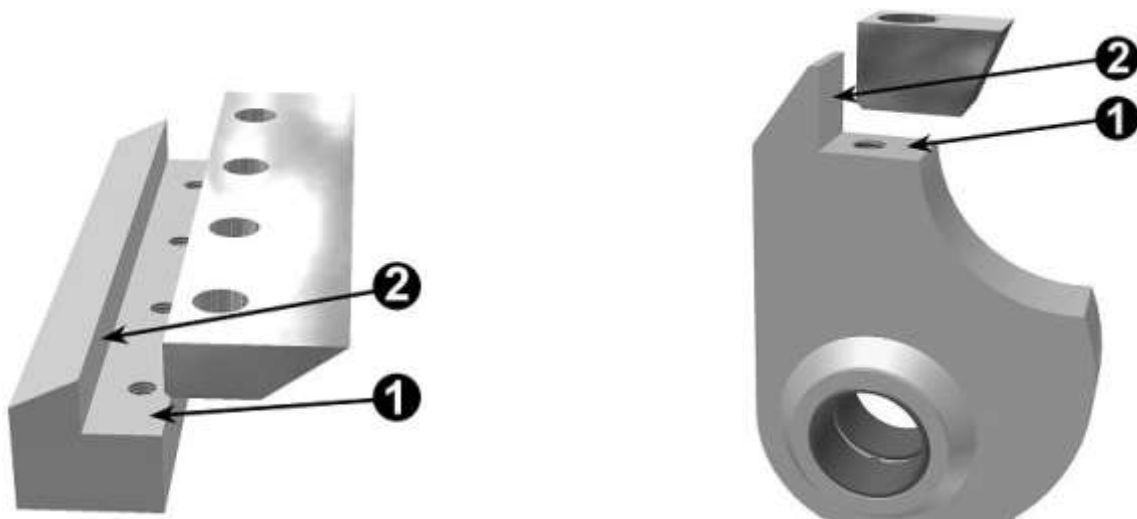


MAINTENANCE

DISASSEMBLY TO REPLACE THE BLADES AND THE HAMMER INSERTS

Remove the ignition key before proceeding.

- The hollow hexagonal screws of the blades and hammer inserts are mounted at the manufacture **without Loctite** at a torque of **16 M. Kg (157 N.m)**. Use the appropriate wrench that is in good condition to remove them.
- Open the chute as described on previous page.
- Remove the screws from blades and inserts. (For the assembly later on, only use the news screws **category 12.9**).
- Clean the contact surfaces of the blades and the inserts clean at the base (1) as well as the wall (2).



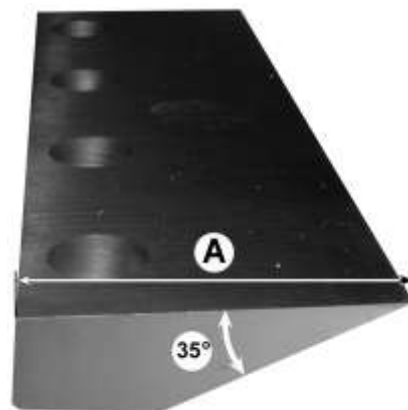
- Install identical or newly ground blades.

IMPORTANT: the blades must be ground by a professional using specific tools, and not with a grinding disc. Make sure the 35° angle of the cutting edge is respected. The minimal length of **A** should not be smaller than 50 mm after grinding. (The length of a new blade is 60 mm).

- Tighten the screws category 12.9 to 16 M.kg torque (157 Nm), and make sure the blades and inserts lean against the wall.**

A torque tightening of the screws is essential to prevent their accidental release.

- Close the chute and the covers.
- Start the engine and warm it during a few minutes.
- Accelerate to maximum speed to make sure no abnormal vibrations disturb the functioning of the machine.



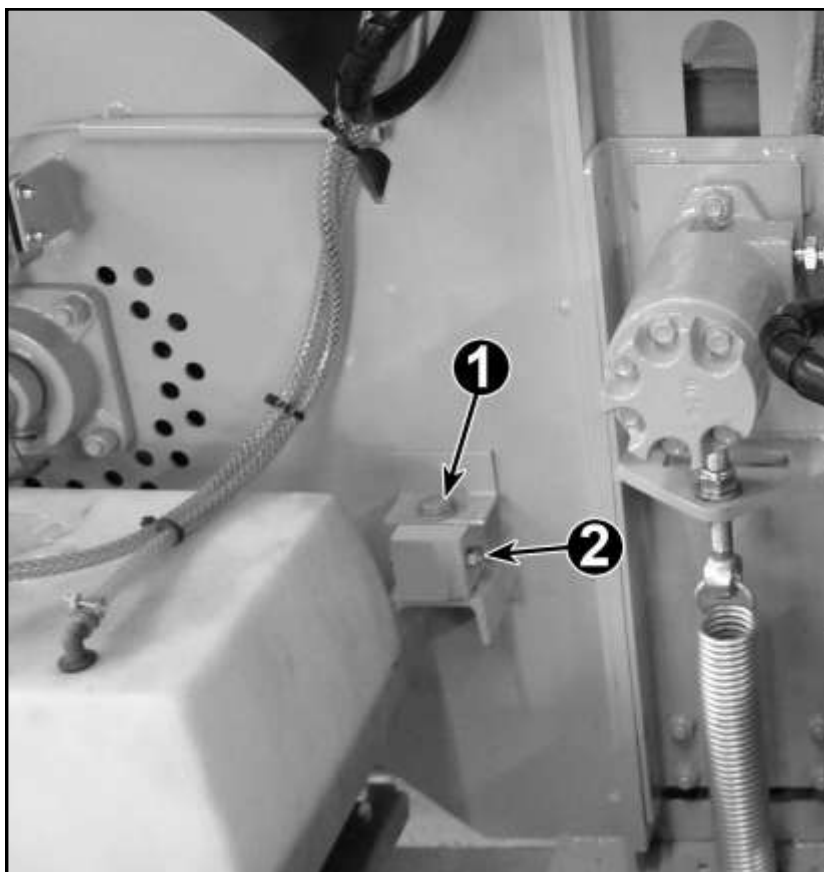


MAINTENANCE

DISMANTLING TO CONTROL THE COUNTER-BLADE

Imperatively remove the ignition key for this type of servicing

- Remove the two attachment bolts diam.12 **(1)** as well as the two safety bolts **(2)** diam.8 at each end of the counter-knife.
- Drive it out by sliding it in its housing on either side. If the edge is worn out; completely remove the counter-knife from its housing, and remount it by shifting it a quarter turn so as to show a new edge facing the knives.
(Each of the counter-blade's four edges can be used)
- Reinsert the two bolts **(1)** and **(2)**.





MAINTENANCE

ADJUSTMENT OF THE ROTOR'S BELTS models ER and DR

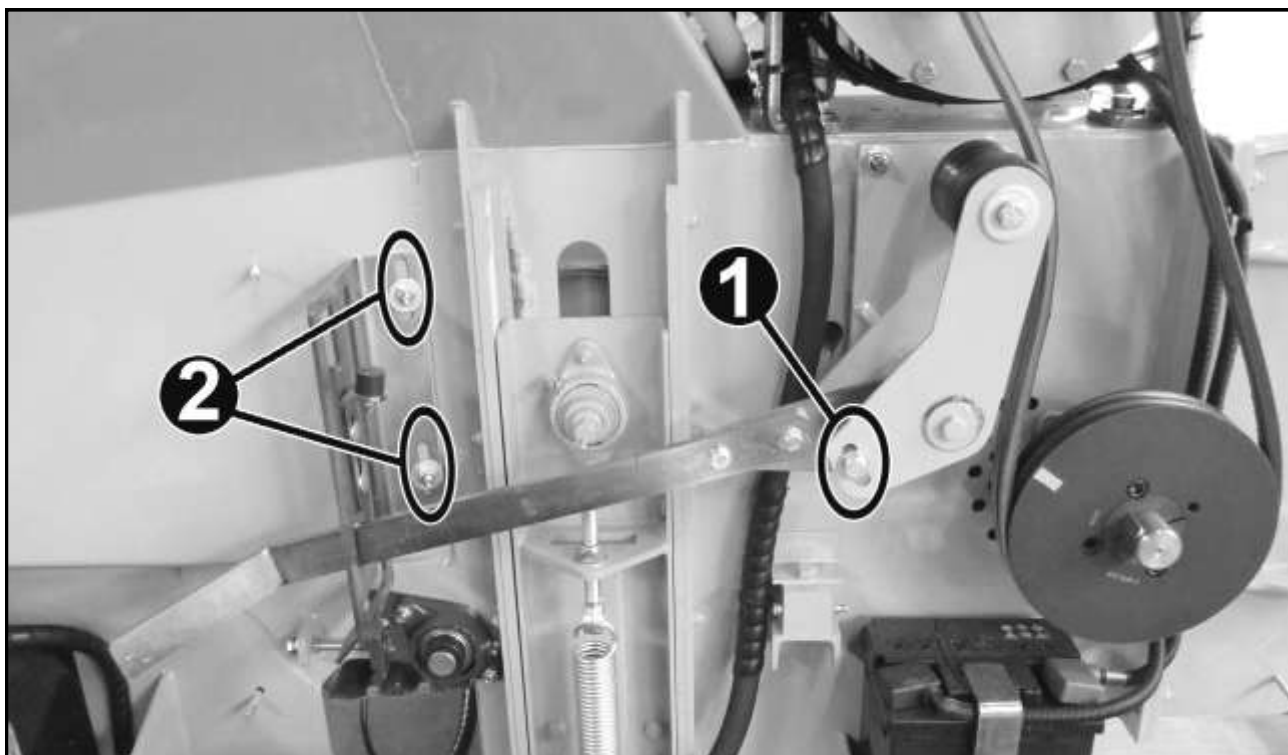
The setup of the belts tension is made by moving :

the clutch lever regarding the roller support inside the flues **(1)**

and / or

the clutch lever to the top of the locking plate inside the flues **(2)**

This procedure should be carried out by a qualified technician.





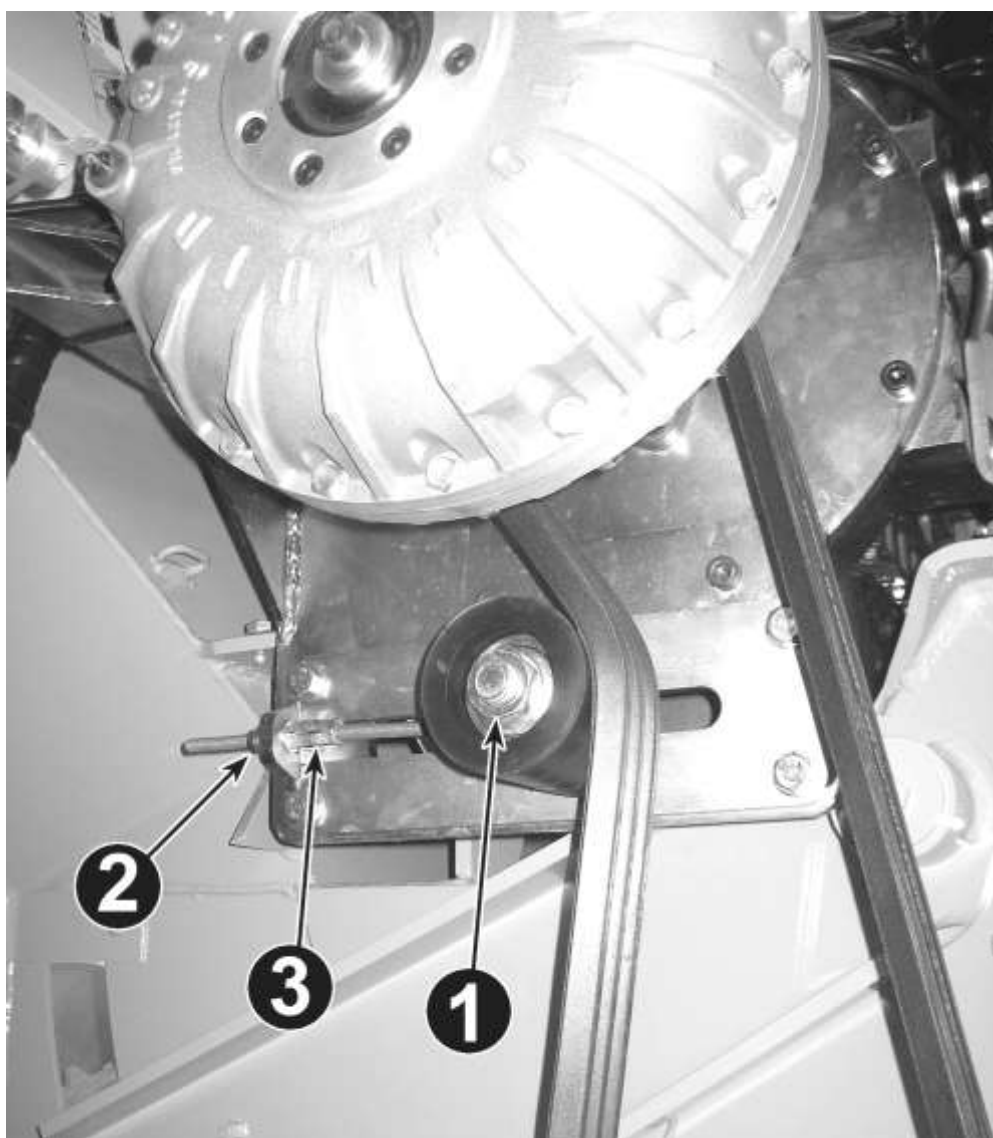
MAINTENANCE

ADJUSTMENT OF THE ROTOR'S BELTS

The rotor's belts are permanently kept extended by an extender.

To tighten the belts, loosen the nut (1) of the tensioner, loosen and remove the nut cons of the tension screw, move forward the tensioner using the nut (3) .
After belt tension, tighten the nuts (1) and (2).

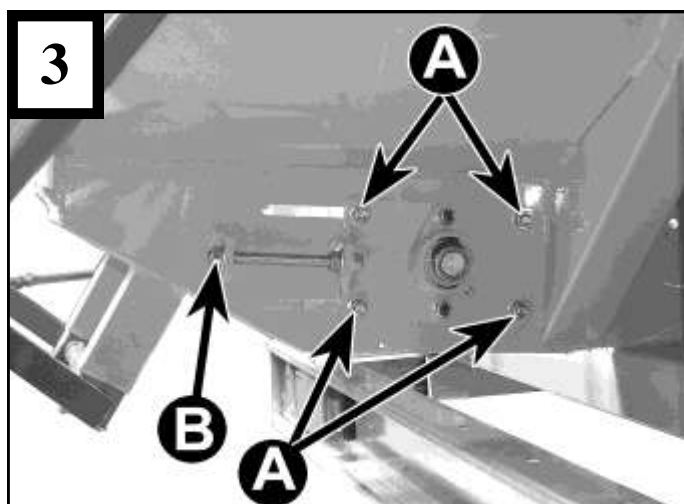
This procedure should be carried out by a qualified technician.





MAINTENANCE

SETTING THE METALLIC BELT'S TENSION



For good belt engagement, check its tension after 8h and regularly afterwards.

1 Belt correctly tightened

2 Belt loose

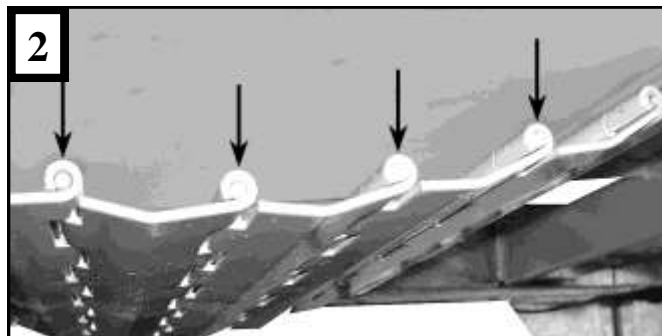
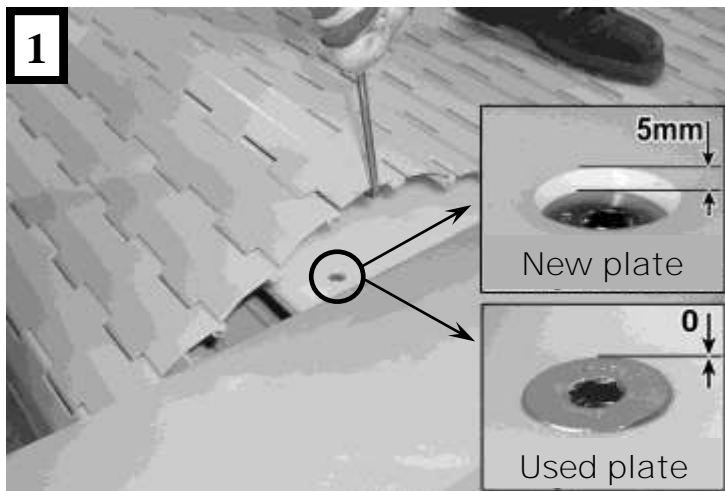
3 To tighten the belt loosen the 4 screws on either side rep. **(A)** and simultaneously tighten the tightener rep. **(B)** so that the belt is parallel to the unit's base (see photo 1). Retighten the screws **(A)**. After tension, run the belt several times in forward and reverse directions to make sure it remains in line. (Before tension make sure the belt is well centred in the hopper)

Rem.: do not tighten too much, a good grip of the feed roll and belt does not require excessive tension.



MAINTENANCE

BELT AND SLIDING PLATE CONTROL



To check the wear of the belt and of the self lubricating polyethylene sliding bearing, completely slacken the belt, lift it with a hook and check:

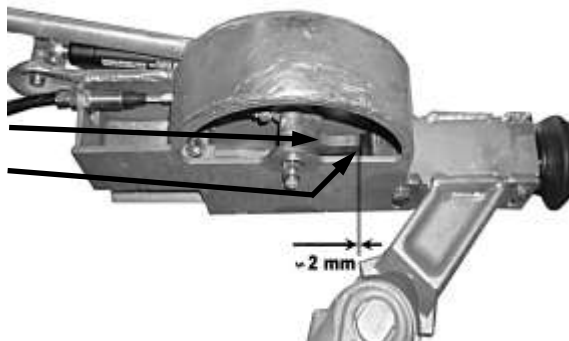
- 1** the bearing's thickness above its four attachment screws
- 2** the wear of the belt's strips

ADJUSTMENT OF BREAKING TRANS

-Place the brake lever in released position.



-Check the clearance between the latch activating the brake cable and the push piston.



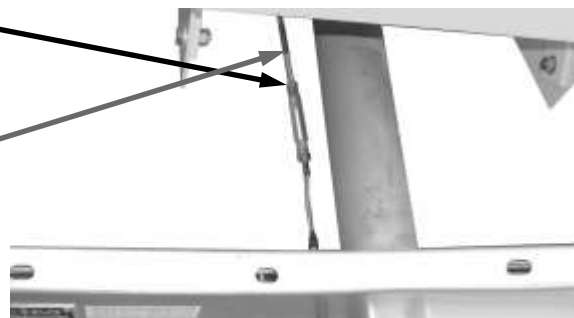
The clearance should be about 2mm.

-To adjust the clearance; act on the tightener:

*loosen the nut. ⚠ (left hand thread)

*turn the rod till you obtain the desired clearance.

*retighten the nut





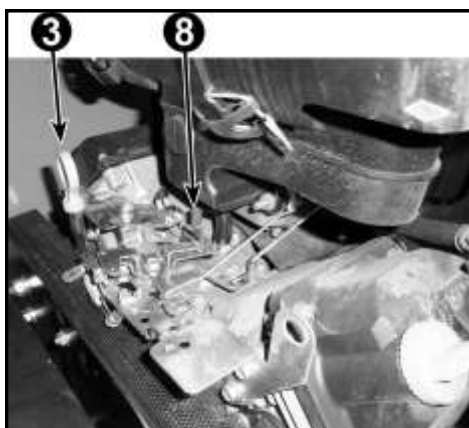
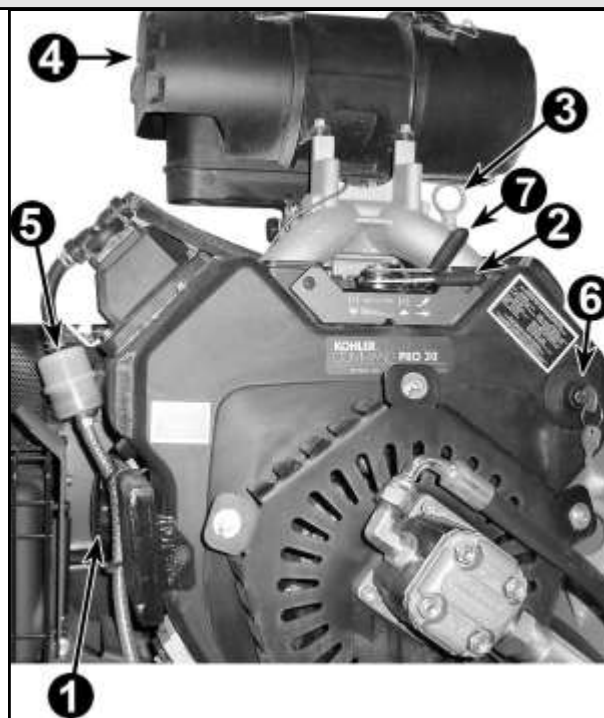
DESCRIPTION AND MANIPULATION

ENGINE AND CONTROL PANEL DESCRIPTION

- (1) Oil filter
- (2) Accelerator lever
- (3) Oil gauge
- (4) Air filter
- (5) Fuel filter(s)
- (6) Ignition key
- (7) Choke lever
- (8) Pressure-contact oil pressure security

ER model: petrol

Engine stop in case of anomaly detected by controller (8)





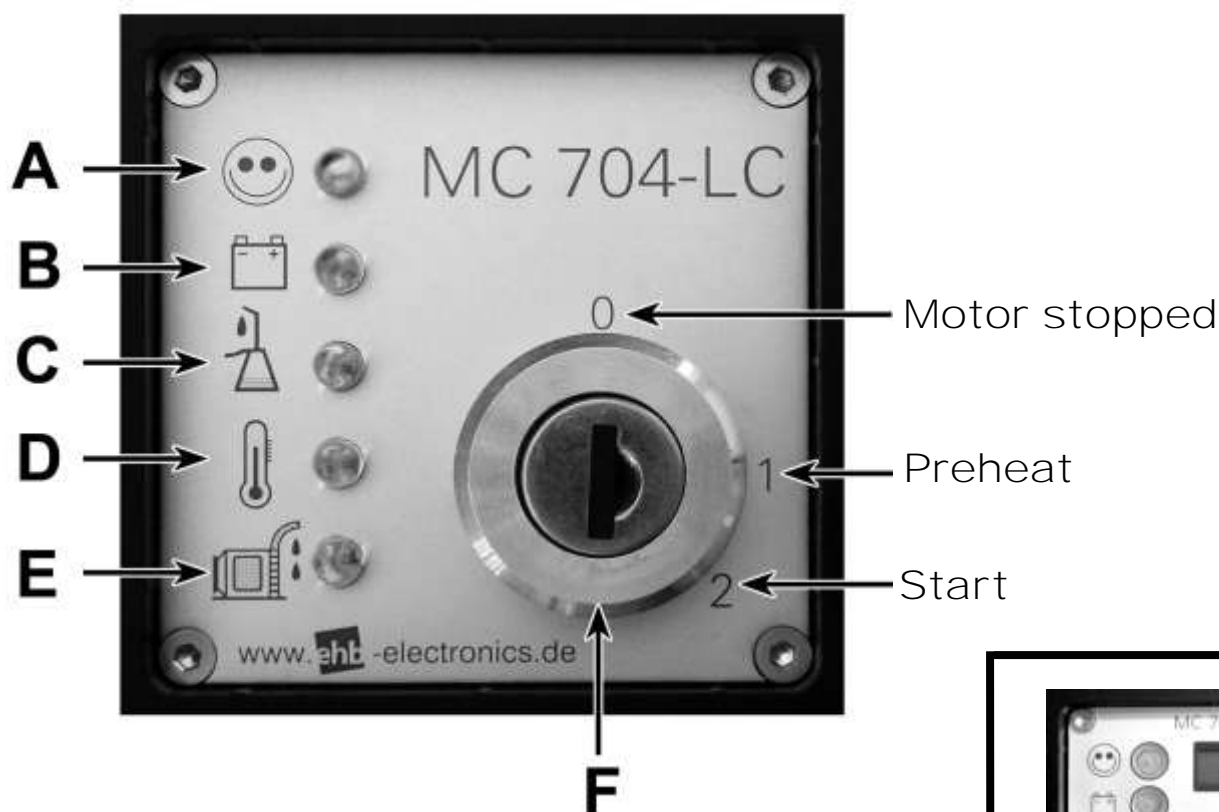
DESCRIPTION AND MANIPULATION

ENGINE DASHBOARD

- A : Green warning light functioning OK
- B: Warning light battery load
- C: Warning light oil pressure
- D: Warning light water temperature
- E: Not used or preheating 8 seconds
- F: Key switch



The engine is stopped automatically if warning light C and D indicate a problem.



Do not add the key of the chipper to a heavy key ring; during functioning this could interrupt the contact. The functioning in F and B direction of the belt/feed can be reset and the power supply to the engine can be interrupted.





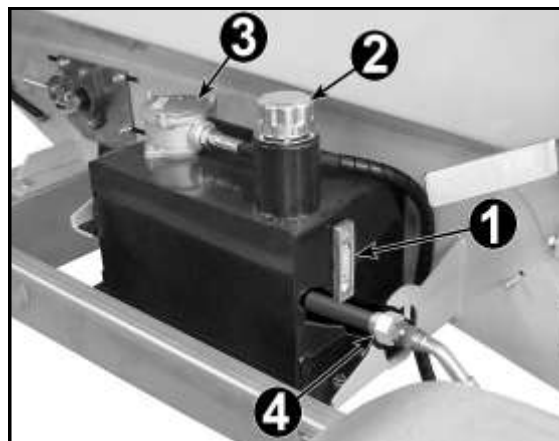
DESCRIPTION AND MANIPULATION

THE RESERVOIRS

The machine has two reservoirs:

-the **hydraulic oil reservoir** including:

- The level gauge (1)
- The filler cap (2)
- The hydraulic return filter (3)
- The suction strainer (4)



-The **gas-oil reservoir** placed on the right side of the shredding unit

Petrol version



Diesel version





DESCRIPTION AND MANIPULATION

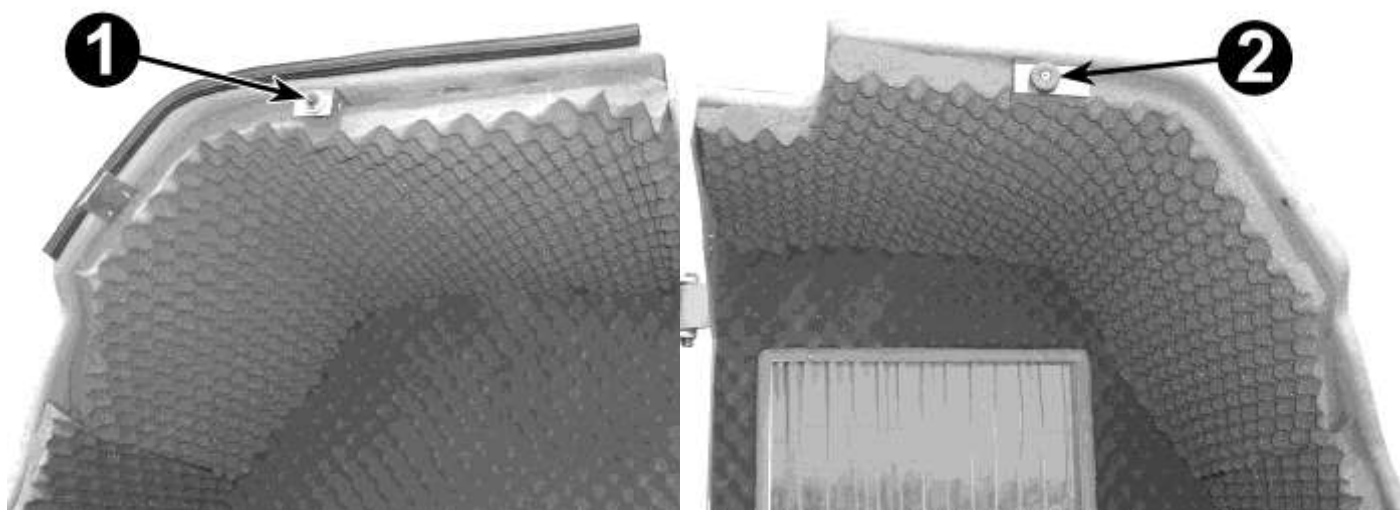
Super PREMIUM DRI BONNET SECURITY

The machine has security devices on the opening of hoods:

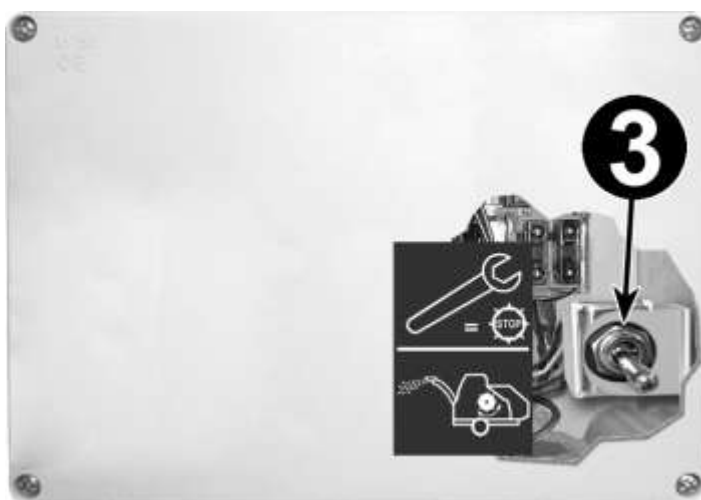
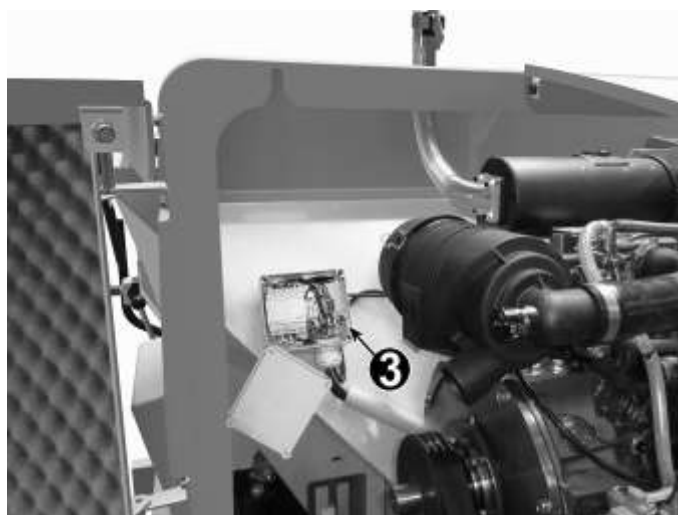
An inductive pick-off (1) placed on the hood's right door. The electric contact is made when the magnet (2) fixed on the left door of the hood is approached.

When you open either one of the doors the security device stops the diesel engine.

There should be no physical contact between the pick-off and its magnet. On the other hand, respect a functional clearance between the two of 5 to 15mm.



To do servicing on the engine and have it run with the hood open (**servicing done only by the technician trained to that purpose**), the device can be neutralized by acting on the contactor (3) housed in the junction box (see operating on next page)



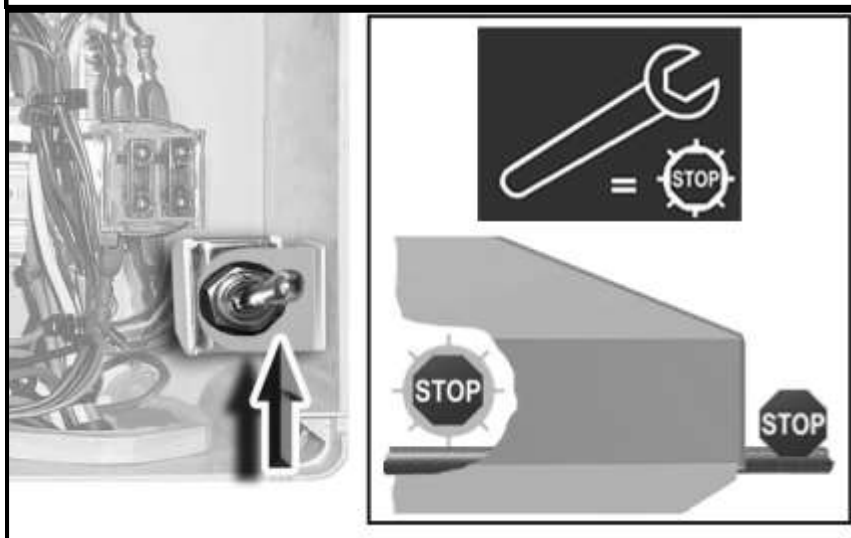


DESCRIPTION AND MANIPULATION

MAINTENANCE/WORK SWITCH



Position: MAINTENANCE

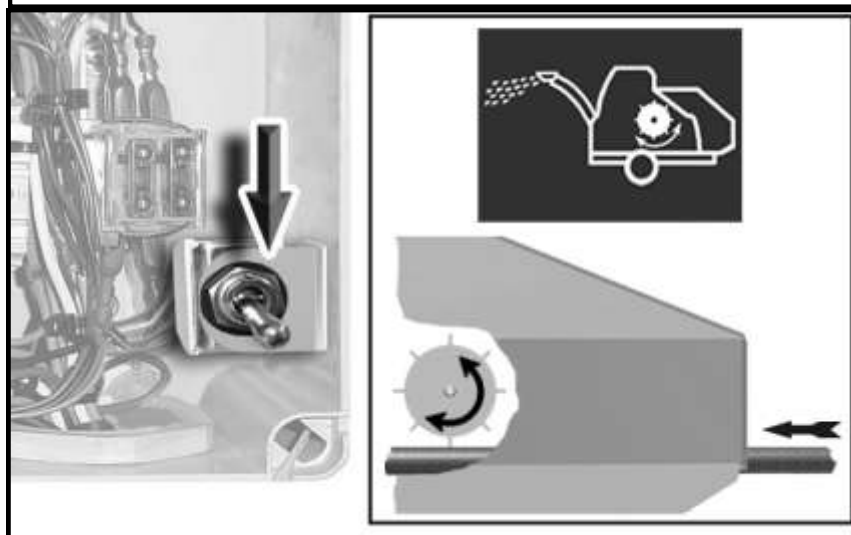


When the engine requires and intervention and it must run with open cover (**only by a trained technician**) it is possible to bypass this device by switching the switch to the top position (**maintenance**).

(the switch is housed in the junction box)

Rem.: In this position, the engine can start with open cover but the feed roll and belt will not turn at any engine speed. Should the technician forget to turn the switch back down again (work), the user will not be able to use his machine. He must put the switch back in working position and close the cover to be able to start the engine.

Position: WORK



In normal operation, the work/maintenance switch is in the bottom position (**work**)

When the cover is opened while the engine is running, the sensor on the left door stops the diesel engine.



Description et manipulation

PILOT SYSTEM

Available Functions

1. Permanent display of the engine RPM
2. Permanent display of the rotor RPM
3. Permanent display of the total daily hours
4. Permanent display of the total machine hours
5. Green LED indicates that the engine and rotor are turning
6. Red LED indicates fault
7. Hydraulic Test: a rapid forward and reverse action to test the correct function of the hydraulic circuit
8. A rapid forward action of the rotor to test intervention of the NoStress facility
9. 3 NoStress (VarioStress) choices relative to the type of material to be processed
10. Maintenance management : intervals for oil change
11. Belt slippage, clutch and hydraulic coupling security system
12. Engine cut-out and starter motor deactivation security system (housing sensors)
13. Default memory settings
14. 21 machine types programmed into memory
15. 4 language options available : English, French, German and Spanish



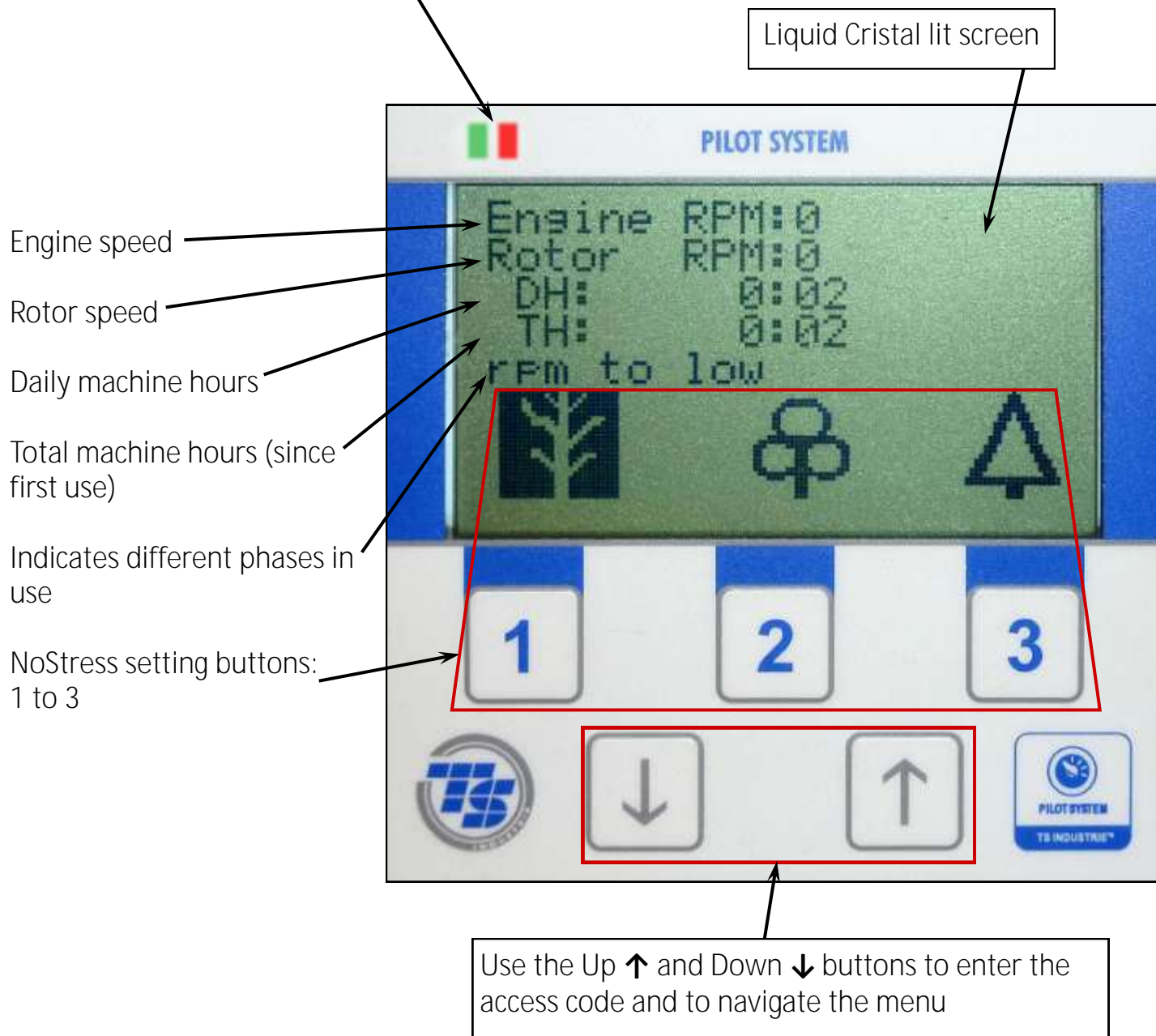


Description et manipulation

Description of box

Led :

- Green - static: on
- Green - flashing: indicates impulsions given by the rotor sensor
- Red - static: indicates that engine and/or rotor housing is open



It is formally forbidden to modify the default factory settings of the Pilot System. Any modification to the security and program parameters made outside of our factories is the entire responsibility of the person having made these changes.



Description et manipulation

Choice of NoStress setting

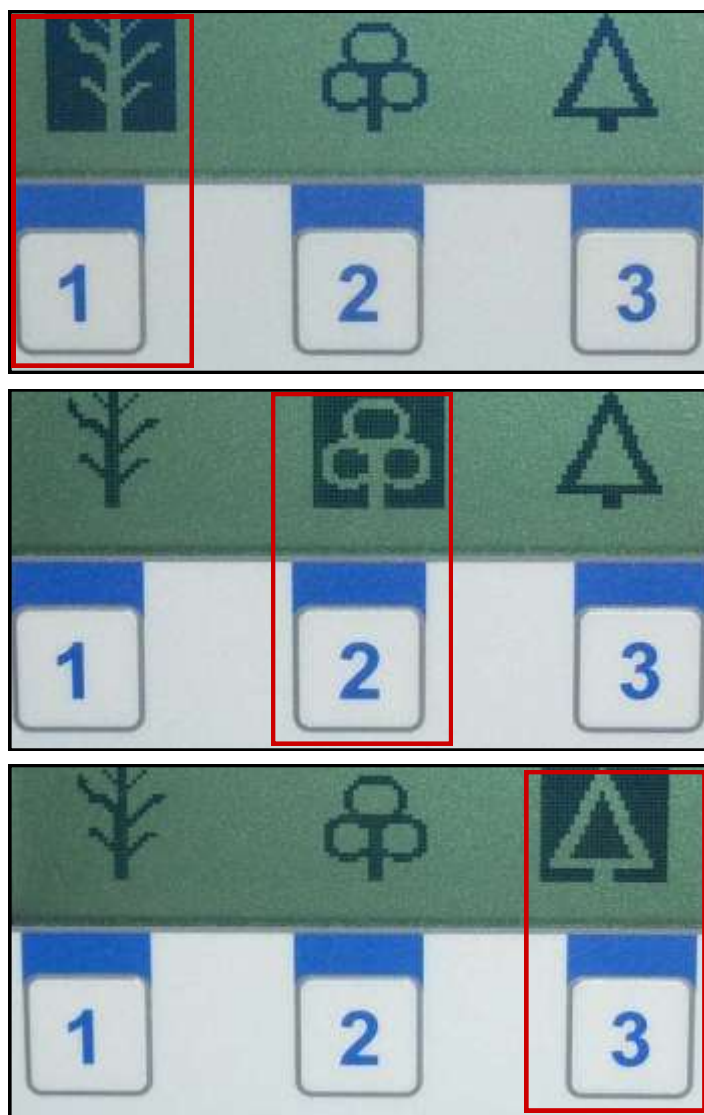
As with the VarioStress, the Pilot System has 3 settings.

Above each button is a liquid crystal pictogram representing the setting.

Button 1 for branch waste:
uses a wider engine RPM.

Button 2 for leafy waste: uses an intermediate RPM. Can be used for branch waste and small amounts of conifer/vegetation.

Button 3 for conifer and large quantities of vegetation (particularly wet and green wood): restricted but high regime for maximum ventilation.



If the programme settings are changed during use, the yellow forward button must be pressed to reengage the feed rollers.

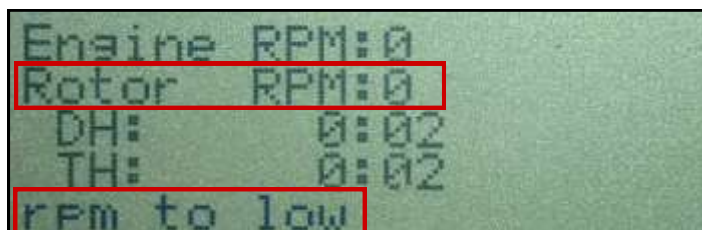


Description et manipulation

Normal and high speed function

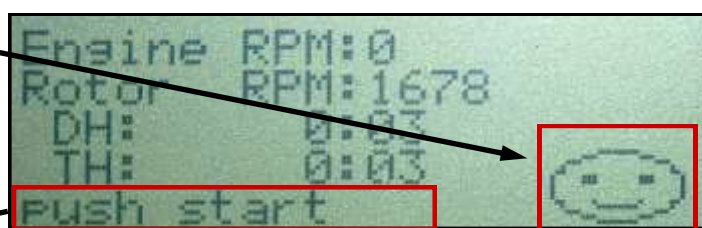
The rotor speed is indicative of the functioning on the machine.

The message RPM too low indicates that the engine RPM, and consequentially, the rotor speed, is not sufficient to allow the forward feed action of the feed rollers.

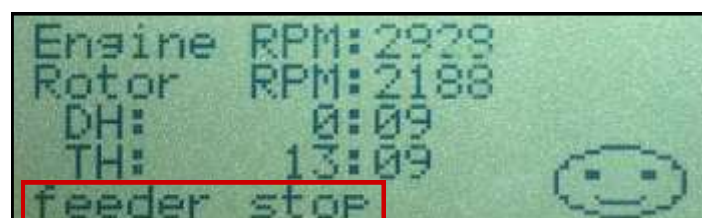


! To avoid the engine stopping after display of the message SLIPPAGE, accelerate in mid-regime without exceeding 1850 rpm (for the ER model) or 2100 rpm (for the DR model) and engage the rotor clutch.

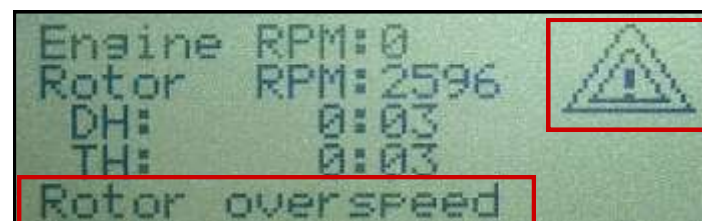
Increase the engine speed to maximum: a smiley indicates when the minimum rotor speed for forward feed action has been reached. The Yellow forward button can now be pressed.



Once the feed rollers are in action, if the red stop bar to the rear of the hopper is pushed, feeder stop is displayed.



If the rotor speed is too high, the feed roller is automatically stopped to prevent use of the machine and a Danger symbol is displayed along with the message Rotor over speed.



To restart the rotation of the feed rollers, the engine must be slowed. It can be returned to maximum only once the cause of the over speed has been rectified.

! To avoid the engine stopping after display of the message SLIPPAGE, reduce the speed to ticking over, then release the clutch.



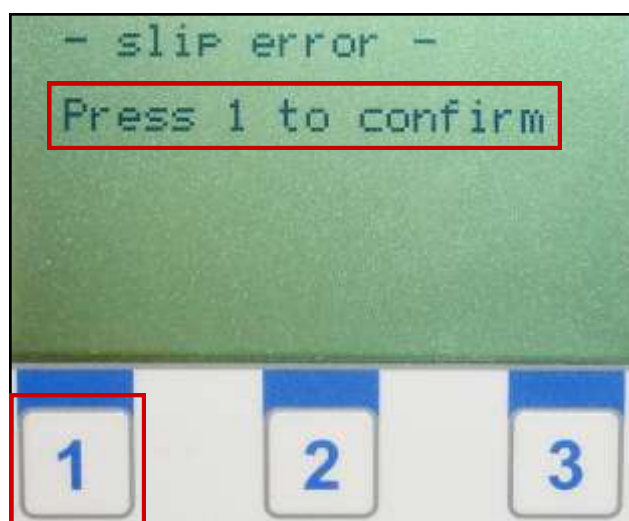
Description et manipulation

SLIPPAGE function

The Pilot system controls any slippage in the rotor transmission by permanently comparing the speed of the engine pulley in relation to the rotor pulley. A percentage slippage is tolerated in order to protect the transmission (belts, centrifugal clutch or hydraulic coupler). If the slippage is greater than the allocated percentage, the engine is stopped and a message is displayed on the screen.

Different causes of slippage:

- rotor blocked at start-up or during operation
- belts loose
- clutch worn



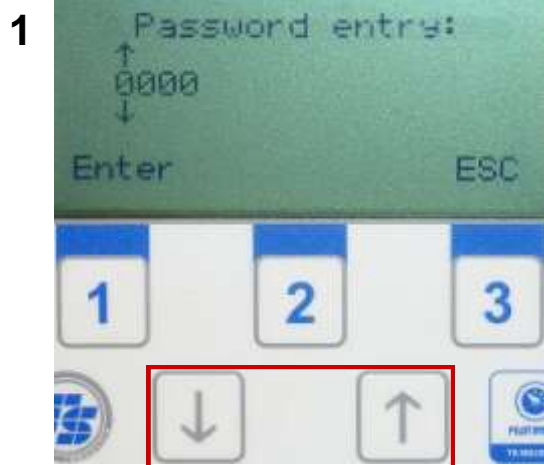
N.B.: Slippage can also occur if the machine is accelerated very slowly from standby.

To bypass the message and continue, press the button 1 after having verified and controlled the transmission.

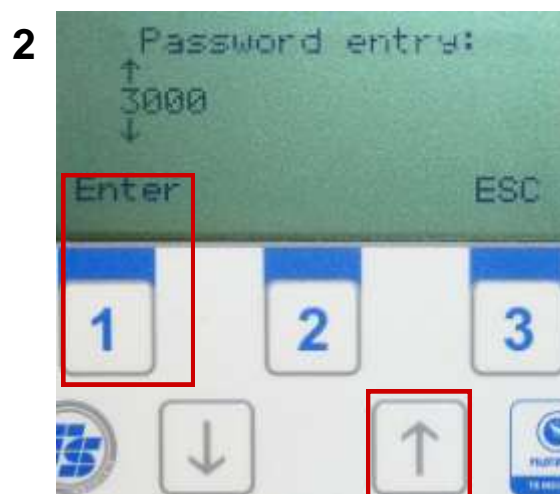
The date and time of this message are recorded and saved in the memory of the Pilot System and can be consulted by the mechanic or dealer.



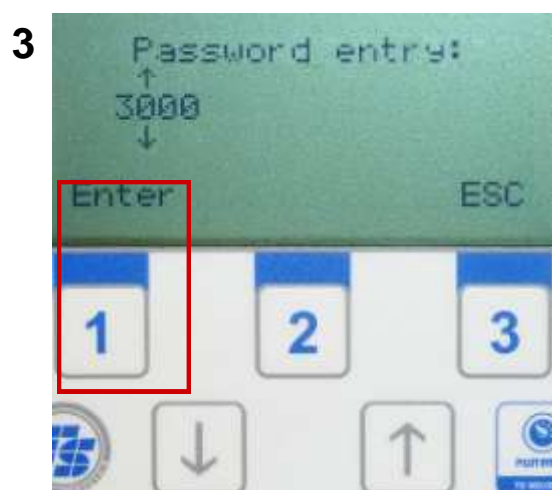
Access to CLIENT parameters



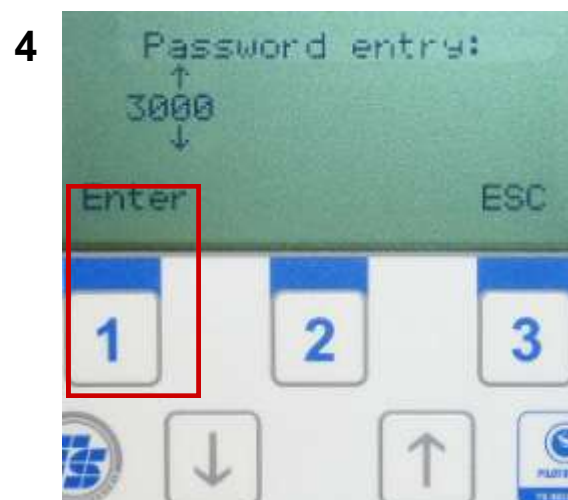
Hold down the ↓ and ↑ buttons for 4 seconds



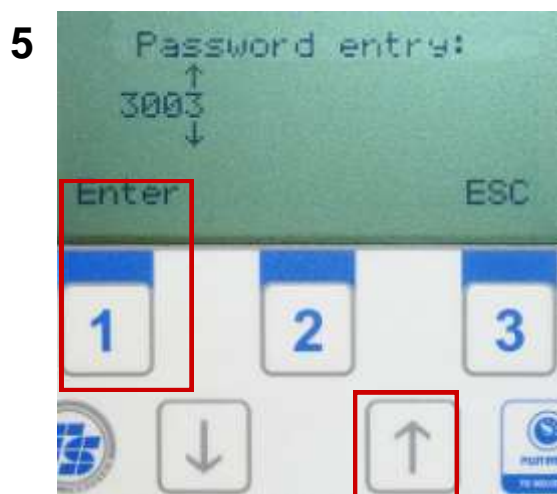
Press the ↑ button 3 times to enter number 3, then validate by pressing 1



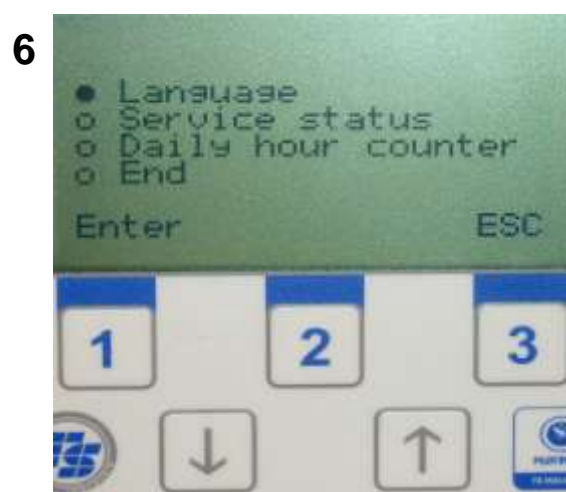
Press the button 1 to validate and bypass the number 0



Press again on the button 1 to validate and bypass the second 0



Appuyer 3 fois sur la touche ↑ pour entrer le chiffre 3 et valider avec la touche 1

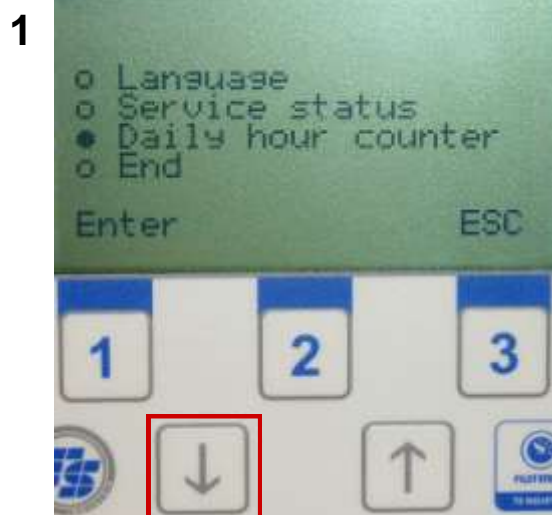


The user can now access the menus Language, Daily Hour counter, Service Status (services and oil change) and END navigation

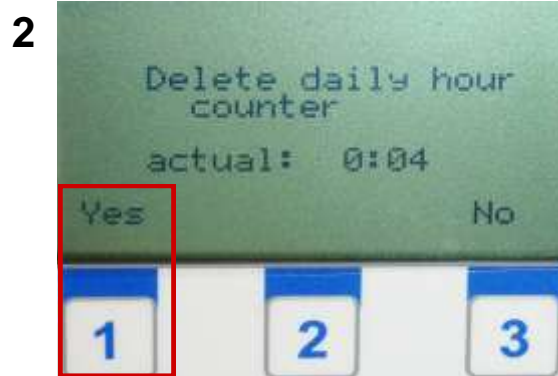


Description et manipulation

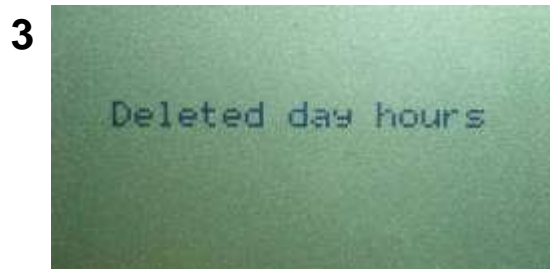
Resetting the Daily Hour counter



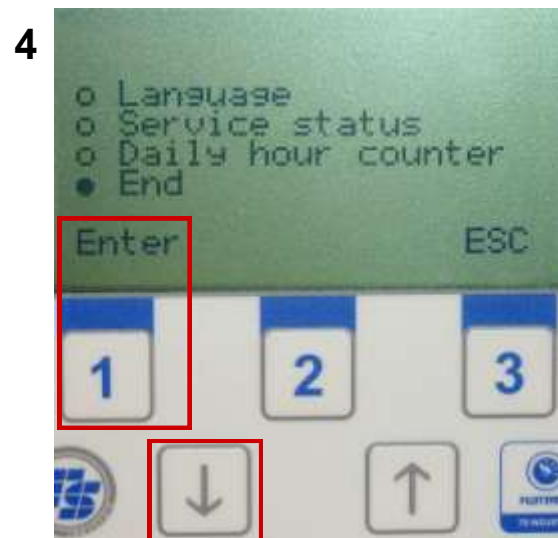
Press ↓ to scroll to the Daily Hour Counter



Press 1 to validate the deleting of existing hours



A message validates the operation



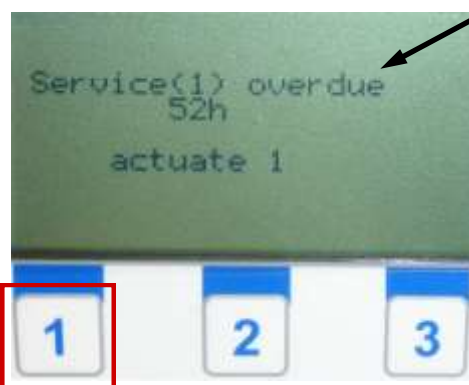
Press ↓ to scroll to END and press 1 Enter



Description et manipulation

Service overdue and next service information (*engine oil change*)

When the service is due or overdue, a warning message and an icon show when the machine is turned on.



Organise a service with your dealer to carry out the oil change. The message is saved in the Pilot System. To bypass the message and continue work, press the button 1.

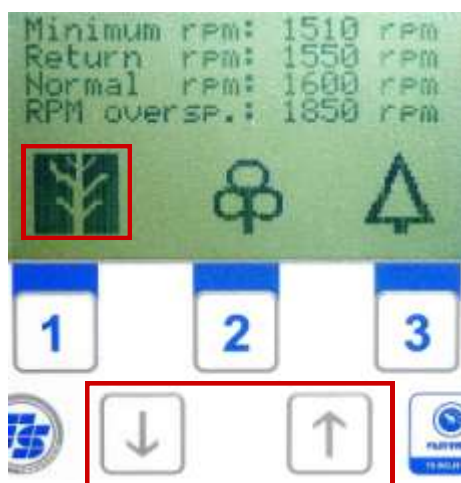


Press once or twice on the ↓ or ↑ buttons at any time to visualise the next oil change or service, then contact your dealer in advance to make a reservation.



Description et manipulation

NoStress rotor settings selected



Press the ↓ or ↑ buttons once or twice at any time to visualise the rotor settings for the selected NoStress option:

Example option 1 below:

Minimum RPM: below 1875 rpm the feed roller stops.

Return RPM: from 2175 rpm, the feed roller starts to turn.

Normal RPM: after over-speed of the engine or rotor (PTO), the rotor must return to less than 2175 rpm in order that the feed roller can function again.

RPM overspeed: feed roller stops.

REMINDER:



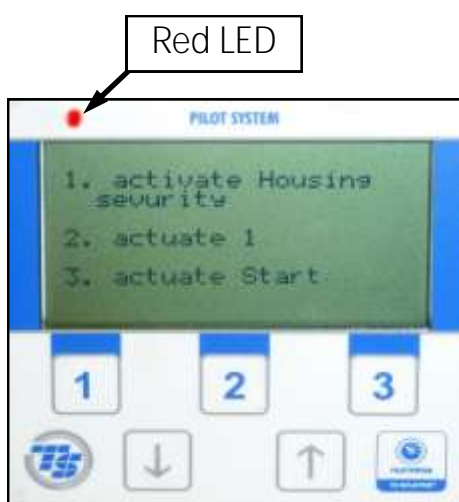
It is formally forbidden to modify the default factory settings of the Pilot System. Any modification to the security and program parameters made outside of our factories is the entire responsibility of the person having made these changes.



Description et manipulation

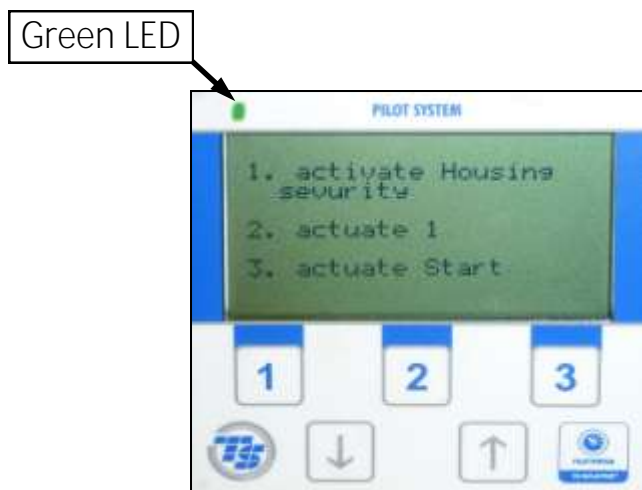
Rotor access security (ER and DR) and engine housing open (DR)

A red LED and a warning message indicate that the rotor access or engine housing is open or has not been correctly closed. The security system stops the engine and prevents restarting (deactivates starter motor). To delete this message, ensure that the housings are closed and press the button 1.



Rotor rotation impulse sensor

A static green LED indicates that the machine and, consequently, the Pilot System, have been turned on. The light begins to flash when it receives a signal from the rotor impulse sensor M18. The frequency of the flash varies with the speed of the rotor.



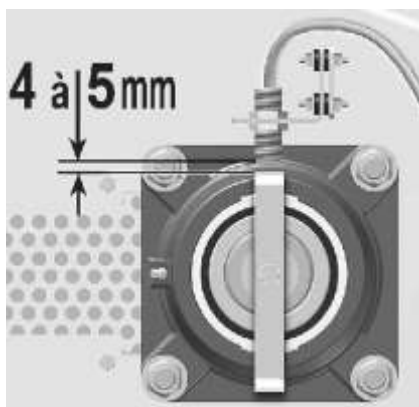


DESCRIPTION AND MANIPULATION

VarioStress ANTI-JAM SYSTEM Super Premium DRI

The Super PREMIUM DRI is equipped with a controller of the rotation of the rotor that is linked to an automat. Hence, we can prevent the machine from being blocked: permanent information about the rotating speed of the rotor is being sent to the VarioStress. When the rotor speed falls below a factory-set threshold, the hydraulic supply of the feed is interrupted. The feed and belt will stop, the machine will no longer be fed material and the engine can reach its working speed again. When the speed exceeds the lower threshold, the feed roll and belt are supplied with oil again and the engine starts running again.

There are three anti-obstruction settings: see the next page

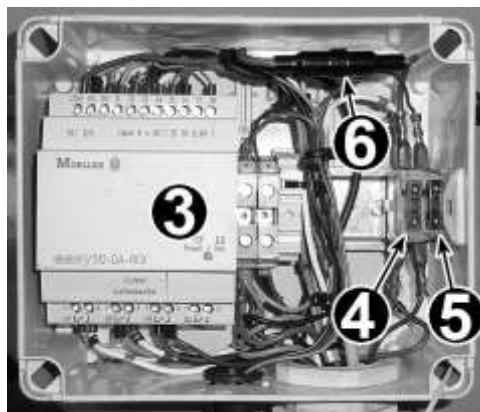


The distance between the speed controller (1) and the pulse device (2) is 0,16 to 0,20 in (4 to 5 mm).



An automat (3) controls the No Stress anti-jam system's solenoid valve. It is located with the protection fuses (6) (1 amp.) and (5) (3 amp.) in the distribution box located on the hopper's right front part.

The primary circuit's protection fuse (4) (10 amp.) is in the watertight fuse-holder on the starter cable.



Voir Utilisation de la machine en mode Manuel page 71



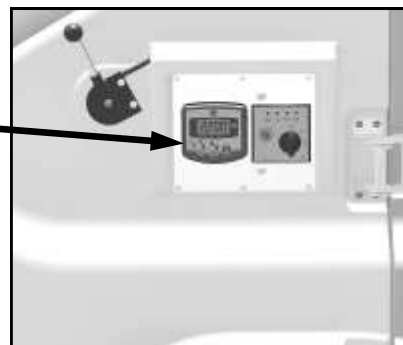
DESCRIPTION AND MANIPULATION

ANTI-OBSTRUCTION SYSTEM VarioStress

Super Premium DRI :

Different settings:

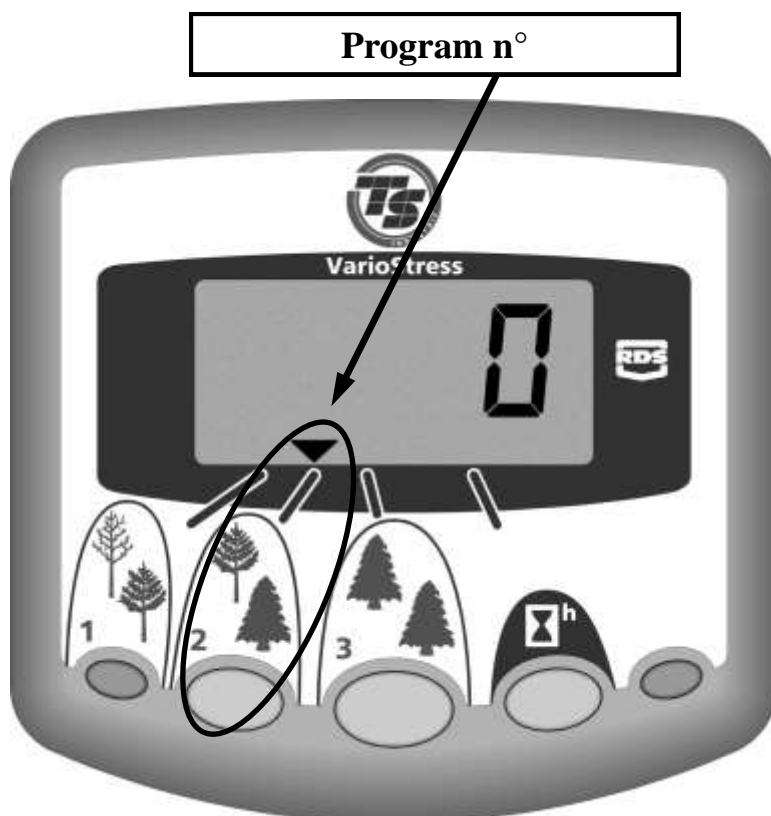
The VarioStress anti-obstruction system has three preset configurations. The user can choose the one that is most appropriate for the material at hand.



Configuration 1: favours functioning at a wide range of motor speeds, mainly suitable for chipping branches and light amterials

Configuration 2: suitable for manipulating mixed materials consisting of branches, vegetation and conifers.

Configuration 3: a higher engine speed to improve ventilation for chipping plants and confers or heavy and dense materials during a long period of time





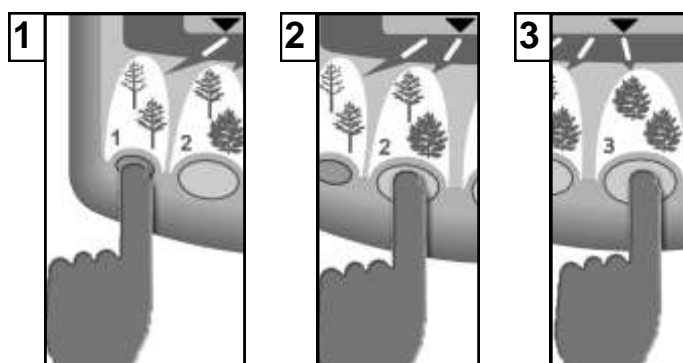
DESCRIPTION AND MANIPULATION

ANTI-OBSTRUCTION SYSTEM VarioStress: cont.

Selecting a setting:

- Engine is on or off, contact is engaged

Use Keys 1,2,3 to display the requested page.



Rem.: push during 1 to 1,5 seconds to change the program.

-Continuous Display of the Engine Rotation/
Operating Speed



-Display of functioning / running hours is
done by pressing the **h** Key of the Motor
(engine off or on)

Functioning/running
time count can only
be performed if the
chipper shredder
rotor is in motion



Press the key for about one second

**See Use of the machine in manual mode on page 71
+ intervention technician page 61**



DESCRIPTION AND MANIPULATION

EMERGENCY STOP BUTTONS

The machine also has two emergency circuit breaker buttons placed at the top of each side of the feed hopper.

When they are activated, these emergency circuit-breakers have two functions:

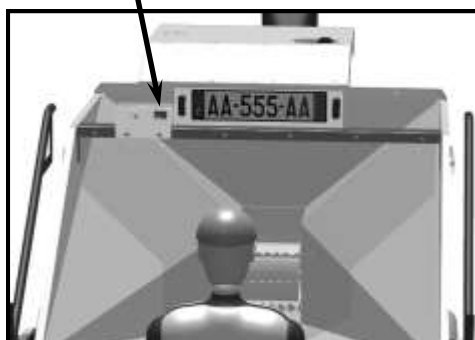
- 1) stopping the heat engine
- 2) instantly stopping the forward run of the feed roller



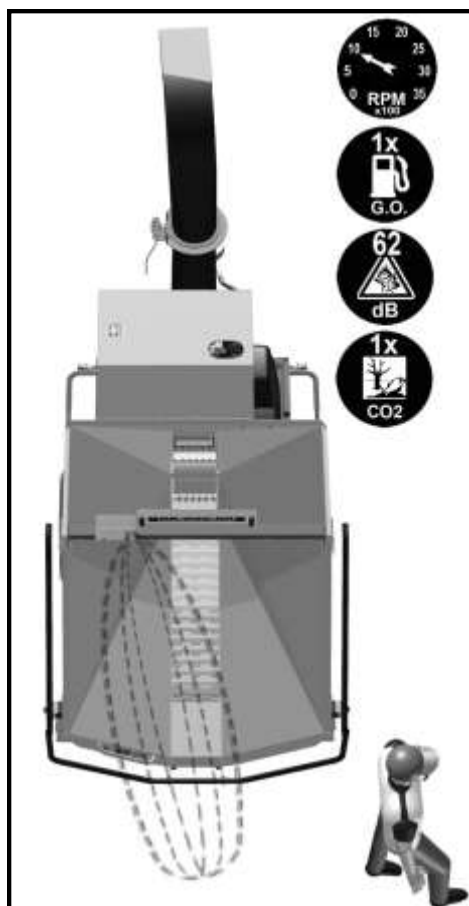
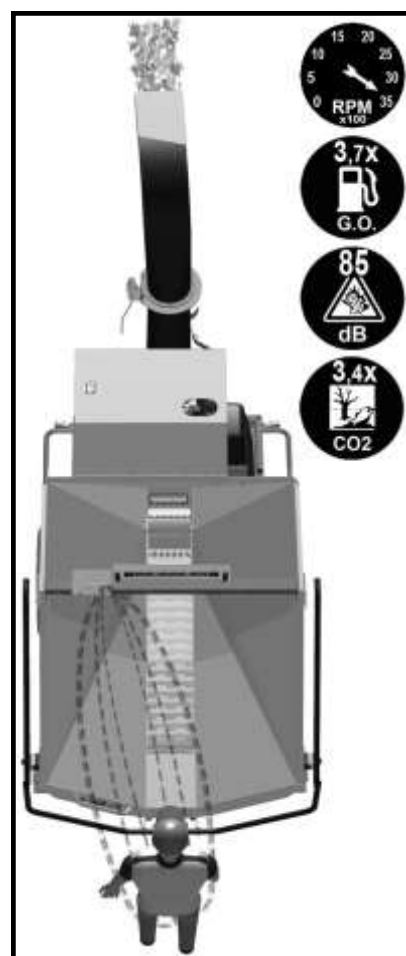


DESCRIPTION AND MANIPULATION

Functioning of the CO₂ REDUCTION system (option)



The chipper is a machine that is permanently working at full engine speed. The periods of chipping are alternated with passive idle moments, the duration of which depends on the configuration of the works. Hence, the noise, the fuel consumption and the emission of CO₂ are at maximum levels.



In order to avoid these inconveniences and in view of the environment, every time the operator leaves the chipper the CO₂ REDUCTION system will automatically switch the engine to idle after a certain amount of time. That will reduce the nuisance considerably. As soon as the CO₂ REDUCTION radar detects that the operator approaches the hopper to put branches in it, the engine returns to its maximum speed. At the same time, the feed belt/roll starts to rotate again after two seconds in order to resume chipping.

In addition to the mentioned environmental advantages, the CO₂ REDUCTION SYSTEM also makes it possible to increase the life span of all moving parts of the machine: diesel engine, transmission, feed belt, feed roll, engines and hydraulic circuits.

See use on the following pages



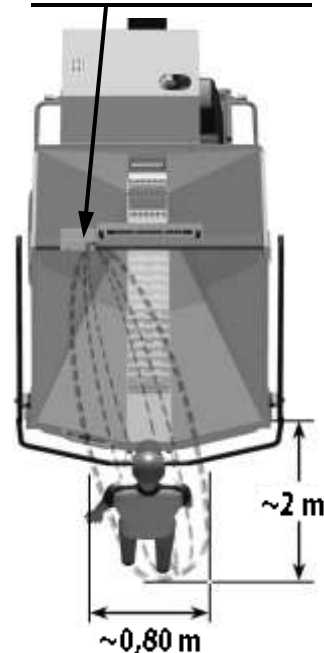
DESCRIPTION AND MANIPULATION

The presence detector at the back of the housing detects the operator up to 2 m (6,5 foot) behind the hopper with a width of approximately 0,80 m (2,6 foot). The hopper area is a dead zone that is not taken into consideration by the detector. Objects in this area will not accelerate the diesel engine or the rotation of the feed belt/roll.



All objects, even inert ones, e.g. a wall or a vehicle at less than 2 m behind the chipper will generate the automatic acceleration of the engine.

Presence detector



Using the machine with the CO² reduction:

-Start the engine and heat

-Gear handle high, idle

-**Remain push 1 second on the yellow button** (forward feed roller), engine accelerate, **CO² reduction system and feed roller advance are now activate**, you could release the button & start to work.

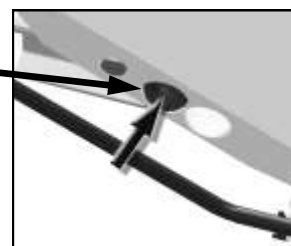
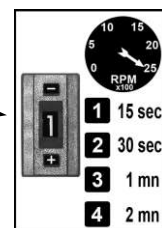
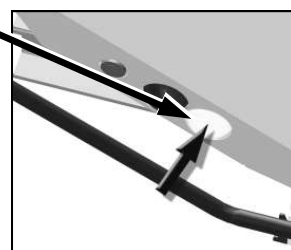
-The engine will remain accelerate until the worker being at the back the feeding hopper.

-If it's move away from the machine, the engine will return to the idle after a laps time defined by the coil coder button position.

-The engine will accelerate automatically when the worker will be detected again at the back the feeding hopper.

To switch off the CO² Reduction system, push 1 second on the black button (backward feed roller).

The engine will return to the idle.



Using the machine without the CO² reduction:

-Start the engine and heat few minutes.

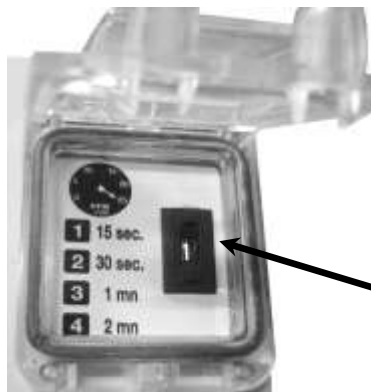
- Accelerate the engine to maximum speed with the gear handle.

- Order the forward & backward operations (feed roller & belt) to push normaly & briefly on the yellow & black button.



DESCRIPTION AND

Access to the setting wheel:



The wheel numeric is protected from the weather by a waterproof cover

Setting wheel

The duration of the maximum speed must be determined by the operator. (The modification is valid as of the next start)

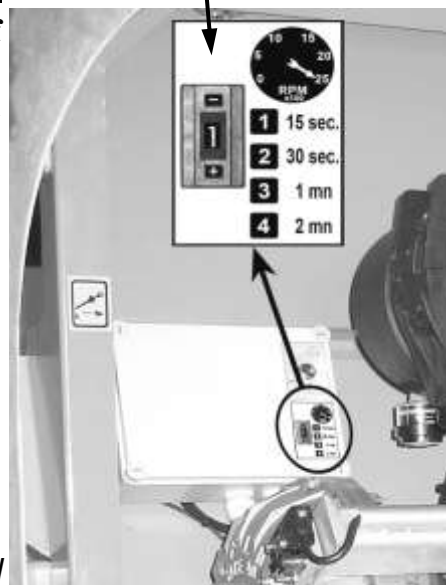
Four different configurations are possible, set by means of the numbers on the setting wheel.

-Shut down contact and choose the working time with the + and—keys of the setting wheel:

- **1** = 15 seconds at maximum speed
- **2** = 30 seconds at maximum speed
- **3** = 1 minute at maximum speed
- **4** = 2 minutes at maximum speed

(Do not use n° 0 and 5 to 9)

Example: The figure shows program **1**, the diesel engine will idle until 15 seconds after the user has left.



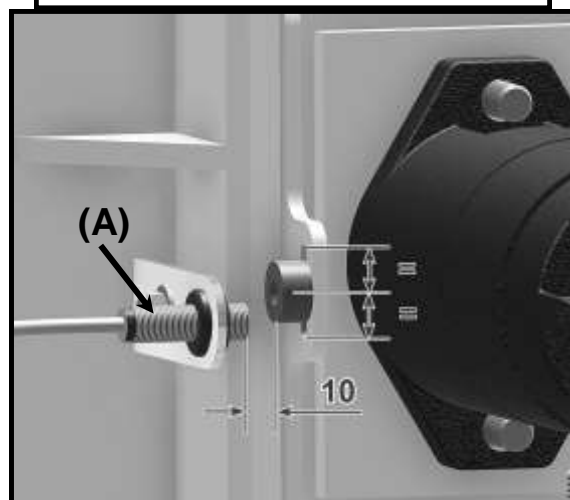
Sensor opening feed for end of chipping

If the user has left the chipper and the time delay ends while there is still material being fed by the belt/roll, a sensor (A) is activated for the opening of the feed equipment. It prolongs the time delay with the same amount of time as the setting wheel.

Example: Delay at **1** = 15sec.: ***the user leaves after 14 seconds while there is still chipping material on the feed belt. After 15 sec, the sensor will prolong the maximum speed during another 15 seconds.***

Rem: this system comes into action as branches of at least 10 to 15 mm in diameter.

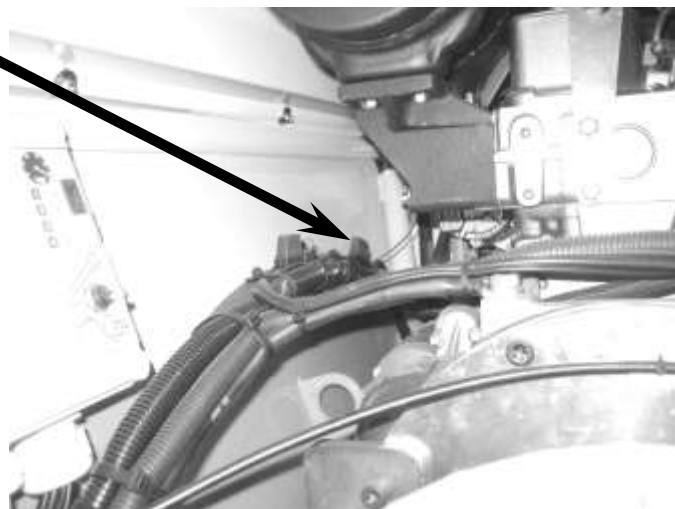
Setting sensor (A), inlet at the bottom: 0,40 inch





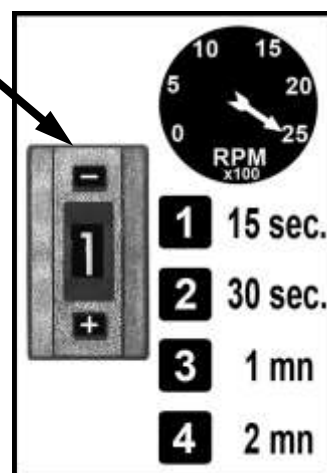
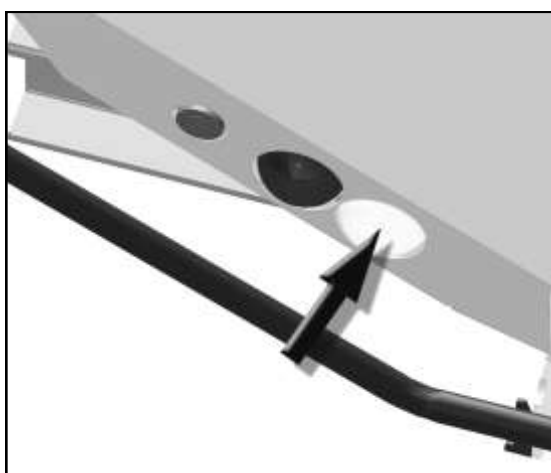
DESCRIPTION AND MANIPULATION

The 15 Amp fuse of the gear equipment is in the enclosed fuse holder next to the alternator.



Temporary interruption of the presence detector:

The atmosphere contains an impressive number of waves and magnetic fields that sometimes interfere with the presence detector and thus prevent the automatic restart of the engine. To prevent that, the operator can force the activation of the acceleration for a duration that is determined by the setting wheel. The operator must support 1 second on the **yellow button** to start the acceleration.



Interference with the presence detector:

- Never modify the height of the containing lips
- Never modify the inclination of the radar holder
- Never put branches on the holder of the lips
- Automatic acceleration of the engine in case of **very heavy rainfall**



PROBLEM-SOLVING

In this section, we provide a list of problems, their causes as well as possible Solutions. If you experience a problem that is not mentioned here, please contact your reseller. Keep your user manual and the serial number of your chipper at hand.

INTERVENTION BY A TECHNICIAN ON THE ELECTRICAL CIRCUIT:

Since 2008 all TS chippers offer the possibility to shunt rotation controller M18 of the rotor. The technician can then investigate an electrical fault on the machine without starting the engine. The shunt will stop automatically when the contact is broken. Check the Saelen technical customer service in your area or the Saelen after sales department. They will explain how to shunt controller M18.

PROBLEM	CAUSE	SOLUTION
The engine will not start.	<ul style="list-style-type: none"> -Safety of the emergency button activated. -The cover is open. -The safety sensor of the cover is defect. -Fuse melted in the branch box. -The battery is low. -The power cables have been damaged. -The electrical valve that stops the engine is broken. 	<ul style="list-style-type: none"> -Turn off the safety. -Check if the covers are closed -Check them (see p.41) -Replace the fuse. -Load or replace the battery -Check the electrical circuits. -Check the valve.
Reduced engine power	<ul style="list-style-type: none"> -Filter blocked -Blades and hammers blunt 	<ul style="list-style-type: none"> -Replace the filter -Grind or replace the blades. Replace the hammer inserts.



PROBLEM-SOLVING

PROBLEM	CAUSE	SOLUTION
The engine stops early and will not start again	<ul style="list-style-type: none"> -The cover is not properly closed. -The red light of the water temperature is on. -The safety sensor of the cover is defect. -There is no fuel left. 	<ul style="list-style-type: none"> -Check if the covers are closed properly. -The radiator is dirty: clean -Check it (see p.41) -Add fuel
The belt/roll will not rotate forward or backward	<ul style="list-style-type: none"> - The switch <i>work/maintenance</i> is in the maintenance position -Fuse melted in the branch box or the fuse holder on the large starter cable (see p.42) -Speed wheel feeding equipment completely tightened -Hydraulic engine or pump defect -Not enough oil in the tank 	<ul style="list-style-type: none"> -Set the switch to the work position (see p.42) -Replace the fuse -Loosen the setting wheel on the distributor -Check or replace the defect part -Check the oil level
The rotor will not rotate while the engine is working	<ul style="list-style-type: none"> -No oil left in the coupling -Belts defect or insufficiently tightened -Rotor blocked 	<ul style="list-style-type: none"> -Check the oil level -Replace and/or tighten the belts -See page 22
The machine has problems chipping	<ul style="list-style-type: none"> -Blades and hammers blunt -Coupling oil level too low -Belts defect or insufficiently tightened -Anti-obstruction system out of service 	<ul style="list-style-type: none"> -Grind the blades or replace them. Replace the hammer inserts. -Supplement the oil level. -Replace and/or tighten the belts. -Check the fuses p.50
Feeding in forward operation is not regulated, not even below the VarioStress intervention threshold	<ul style="list-style-type: none"> -electrical or hydraulic problem 	<ul style="list-style-type: none"> -Please contact the seller



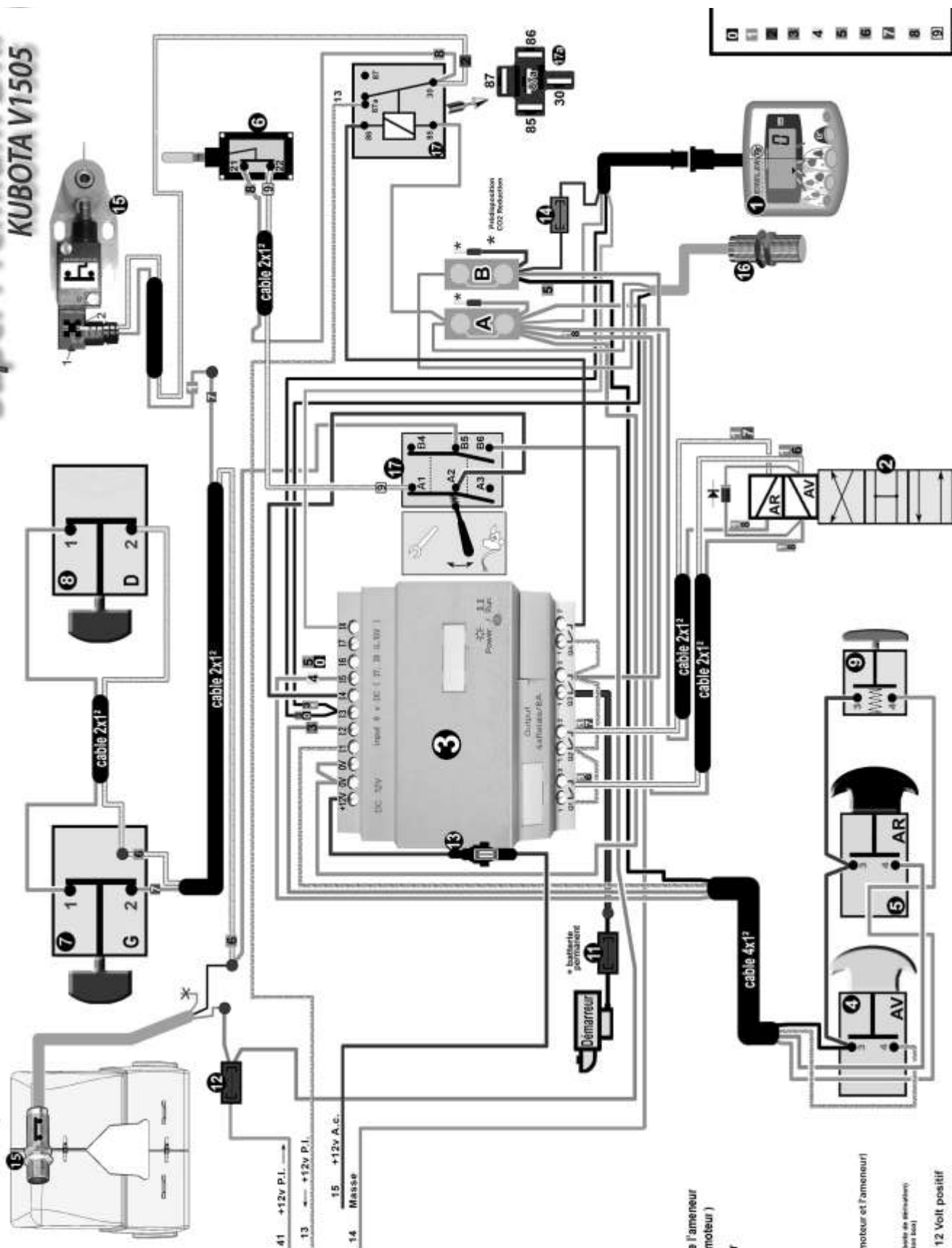
SPECIFICATIONS

	<i>Super PREMIUM ER</i>	<i>Super PREMIUM DR</i>	<i>Super PREMIUM DRI</i>
Capacity:	15 cm	15 cm	15 cm
Hourly output:	22 m3	22 m3	22 m3
Length:	4,10 m	4,10 m	4,10 m
Largeur:	1,65 m	1,65 m	1,65 m
Height:	2,30 m	2,30 m	2,30 m
Weight without belt:	1060 Kg	1237 Kg	1300 Kg
Number of hammers:	10	10	10
Number of knives:	2	2	2
Rotor's diameter:	560 mm	560 mm	560 mm
Rotor's weight:	80 Kg	80 Kg	80 Kg
Rotor's width:	250 mm	250 mm	250 mm
Engine's power:	30 Cv essence	35 Cv diesel	35 Cv diesel
Gas-oil capacity:	25L	25L	25L
Engine speed:	3600 Tmn	3150 Tmn	3150 Tmn
Rotor's speed:	1907 T/mn	2180 T/mn	2180 T/mn
Anti-jamming:	OUI	OUI	OUI
Hydraulic supply:	OUI	OUI	OUI
Hydraulic capacity:	20 L	20 L	20 L
Hydraulic pressure:	120 bars	120 bars	120 bars
Road axle:	YES	YES	YES
Soundproofing:	NO	NO	YES
Number of wheels:	2	2	2
Tyre dimensions:	175R14	175R14	175R14
Tyre air pressure:	4,5 bars	4,5 bars	4,5 bars
Option CO2 Reduction:	NO	NO	YES





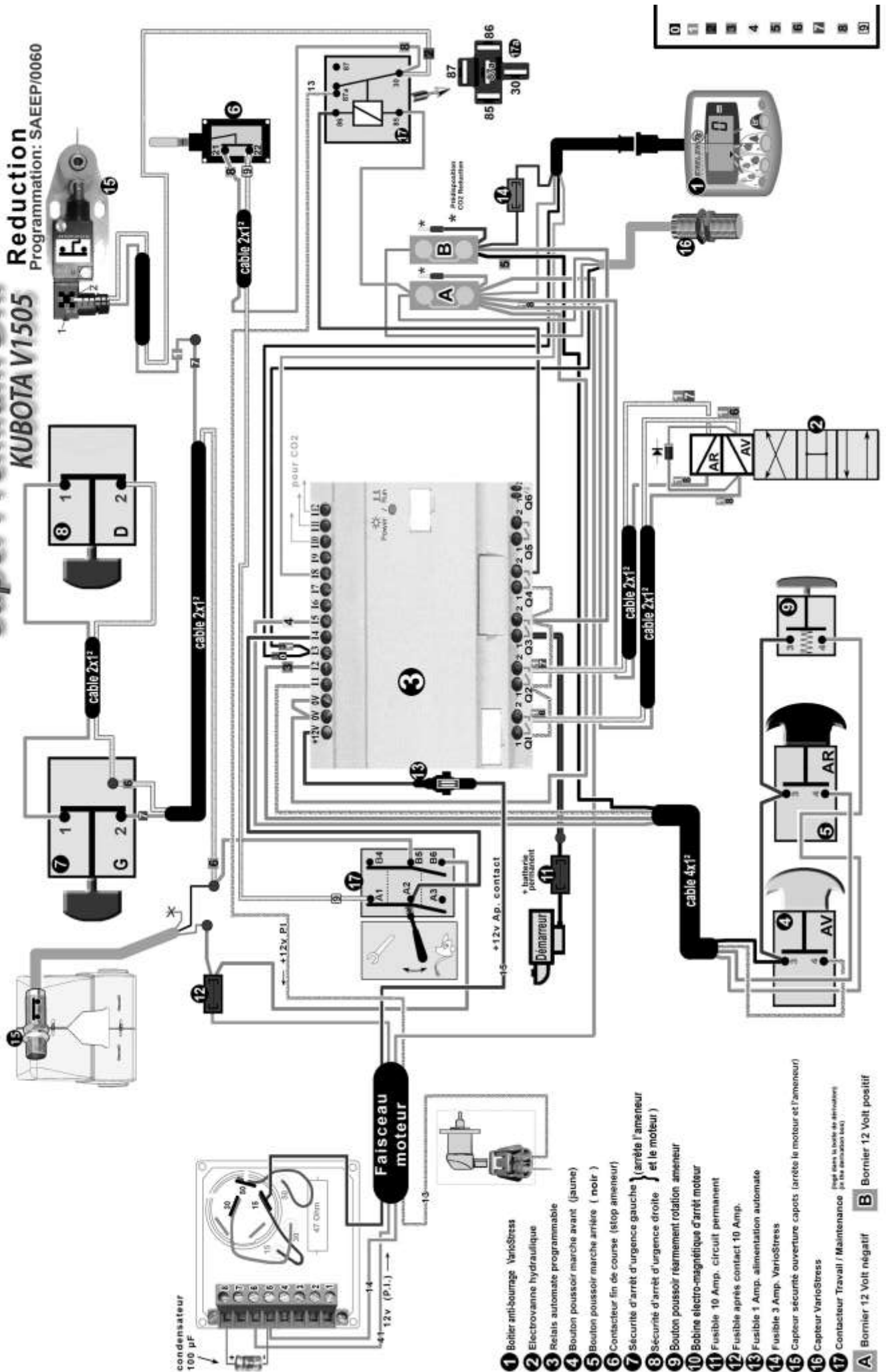
SCHEMA ELECTRIQUE COMMANDES AMENEUR ET ARRETS D'URGENCE

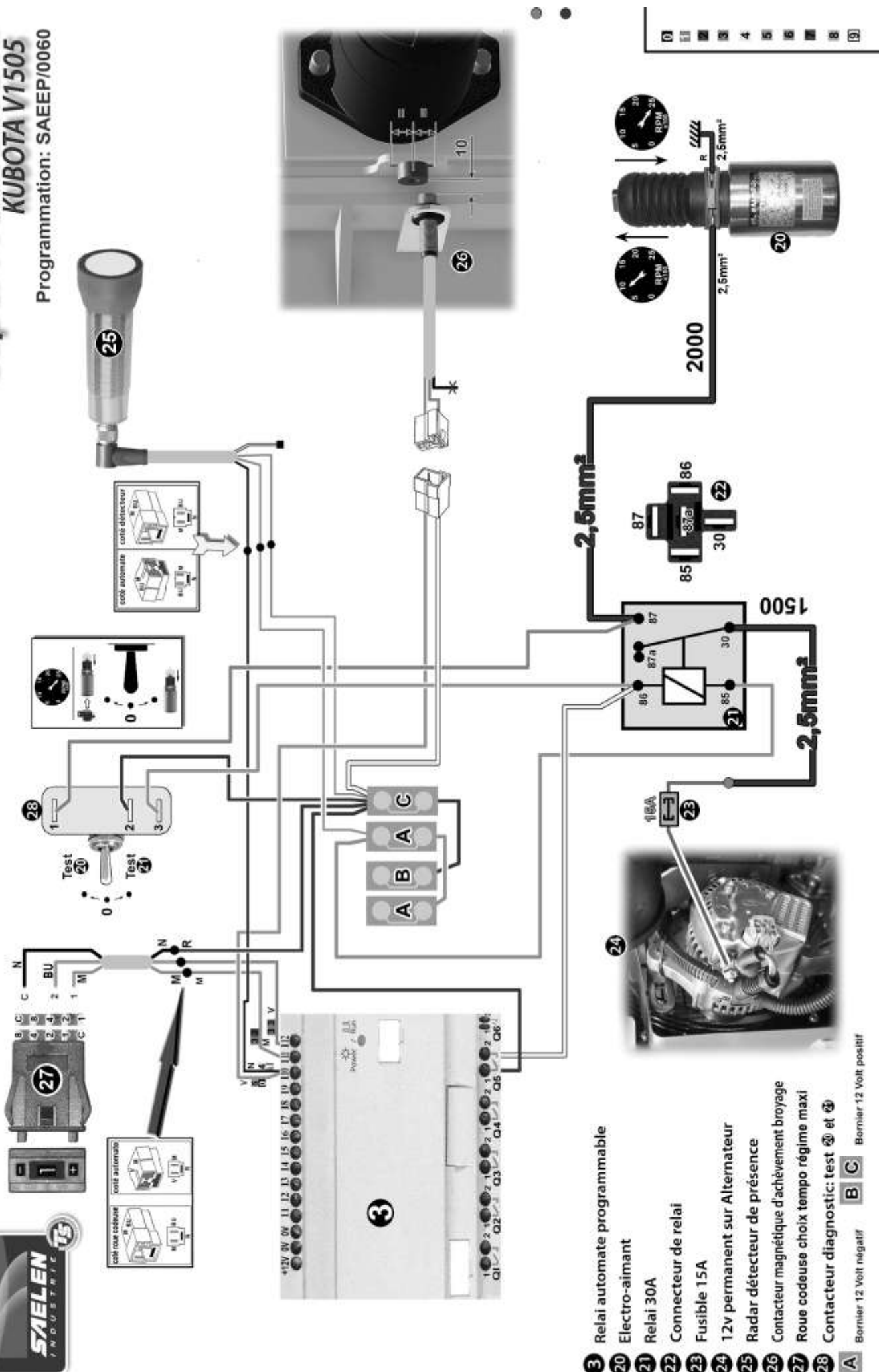


- 1 Boîtier anti-sourage VarioStress
 - 2 Electrovanne hydraulique
 - 3 Relais automate programmable
 - 4 Bouton poussoir marche avant (jaune)
 - 5 Bouton poussoir marche arrière (noir)
 - 6 Contacteur fin de course (stop ameneur)
 - 7 Sécurité d'arrêt d'urgence gauche (arrête l'ameneur et le moteur)
 - 8 Sécurité d'arrêt d'urgence droite (arrête l'ameneur et le moteur)
 - 9 Bouton poussoir réarmement rotation ameneur
 - 10 Bobine électro-magnétique d'arrêt moteur
 - 11 Fusible 10 Amp. circuit permanent
 - 12 Fusible après contact 10 Amp.
 - 13 Fusible 1 Amp. alimentation automate
 - 14 Fusible 3 Amp. VarioStress
 - 15 Capteur sécurité ouverture capots (arrête le moteur et l'ameneur)
 - 16 Capteur VarioStress
 - 17 Contacteur Travail / Maintenance (voir la notice de maintenance)
- A Bornier 12 Volt négatif B Bornier 12 Volt positif

Super Premium DRI avec CO2 Reduction

Programation: SAEEP/0060

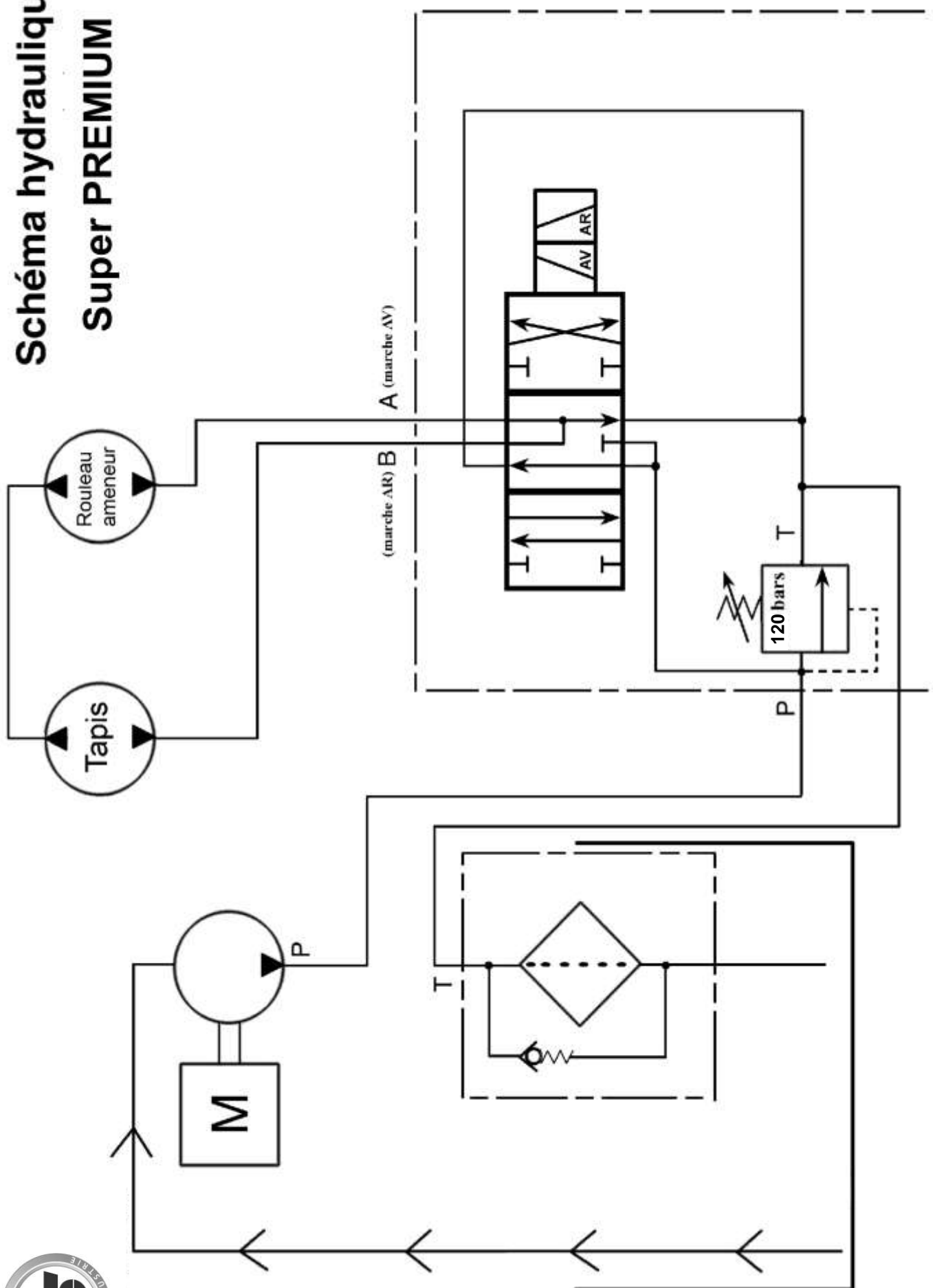




- 3** Relai automate programmable
- 20** Electro-aimant
- 21** Relai 30A
- 22** Connecteur de relai
- 23** Fusible 15A
- 24** 12v permanent sur Alternateur
- 25** Radar détecteur de présence
- 26** Contacteur magnétique d'achèvement broyage
- 27** Roue codeuse choix tempo régime maxi
- 28** Contacteur diagnostic: test 20 et 21

A Bornier 12 Volt négatif **B** **C** Bornier 12 Volt positif

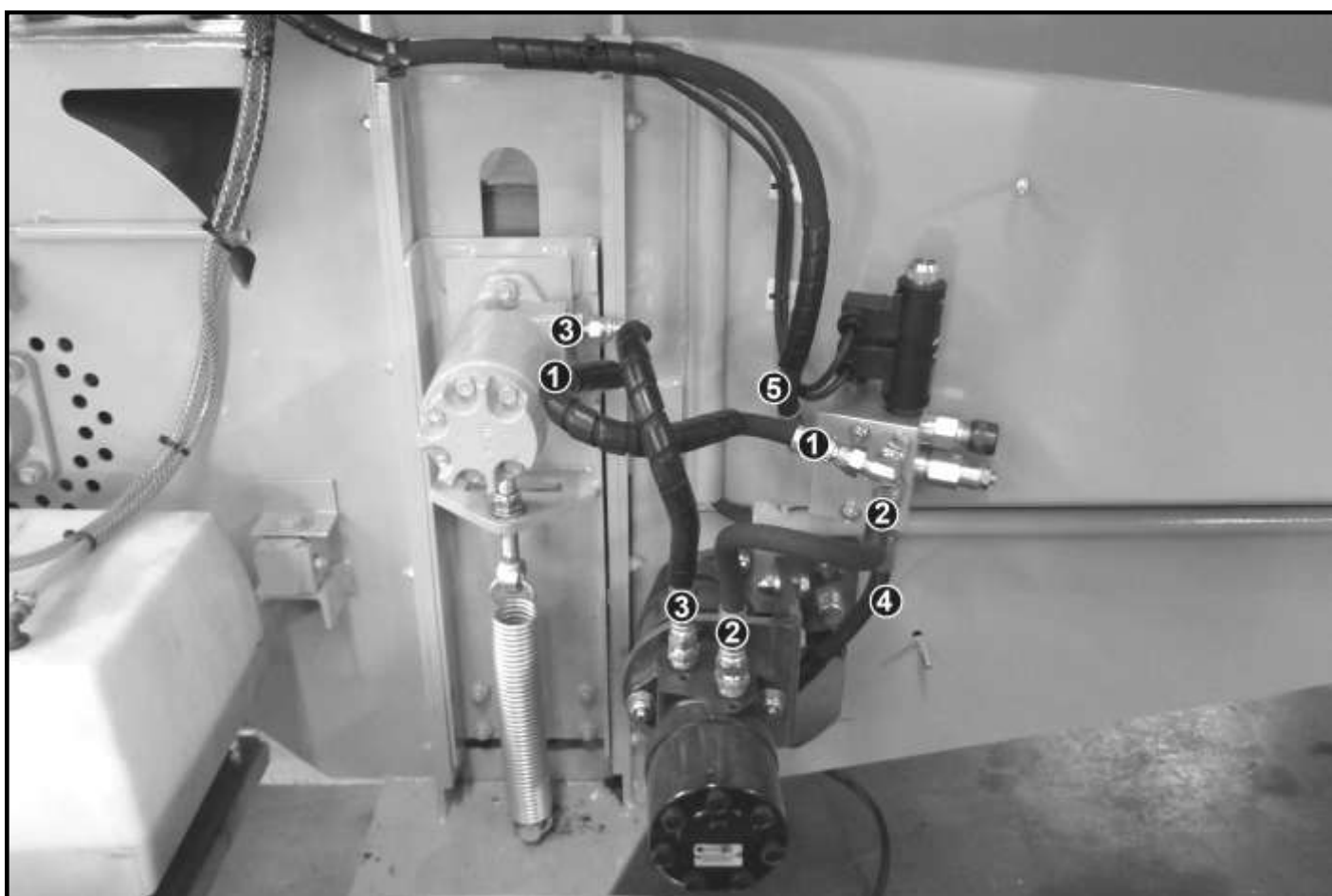
Schéma hydraulique Super PREMIUM





HYDRAULIC COUPLING

Super PREMIUM ER / DR / DRI





SPECIFIC FUNCTIONING

USE OF THE MACHINE IN MANUAL MODE

The sensor of the rotation of the rotor and shunting the VarioStress

On the Super Premium **DRI** as well as on the models VIPER and COBRA **DRI** it is possible (since 2008) to shunt the electronics in the machine by switching to **manual mode** in case of problems on sensor M18 that monitors the rotation of the rotor or on the VarioStress anti-obstruction equipment. Using a simple procedure (**not described in this manual**) the operator can continue to use the machine while he waits for a technician to come and solve the problem.

Contact your reseller for this procedure.

In case of problems on the M18 or VarioStress :

The M18 sensor has a double function:

- give the VarioStress that manages the anti-obstruction system of the rotor rotary speed
- give the atuomaton that stops the engine in case the rotor is blocked at the start rotary speed.
- *In case the sensor is defect, the engine will stop*
- *In case the VarioStress is defect, the feed roll will provide forward rotation, in spite of the engine speed.*

Solution:

The user can shunt this sensor and the VarioStress by working in **manual mode** but he **must remain vigilant** and check if the **rotor is free** and starts to rotate **as soon as the engine is started**.

If the anti-obstruction system is not working, the **manual mode** also allows the operator to make the belt/roll work by using the yellow and black buttons. Even at low speeds the feeding equipment can continue to work, **so the user must remain vigilant if he handles the feeding of the branches in the rotor himself in function of the engine speed**.

Take care not to let the engine speed drop too low while chipping in order not to overload the belts or to block the rotor at the discharge.

Breaking the contact when the machine is stopped, resets the manual mode.

If the technician has not replaced the faulty part by the next start, the user must repeat the shunting procedure.



DECLARATION OF CONFORMITY

THE **TS Industrie** Company

3 rue Jules Verne
L'Orée du Golf
59790 RONCHIN FRANCE
Tel : 0.820.201.880 - Fax : 0.820.201.990

HEREBY DECLARES THAT THE MACHINE :

Trademark: *TS industrie*TM

Type : **Super PREMIUM 30 ER**

Engine power: **22 kW at 3600 Tr/mn**

Technical documentation detained by Mathieu WILLERVAL

that the product is in conformity with the following European directives:

- **2006/42/CE** "EG-Maschinenrichtlinie" Norm
- **2004/108/CEE** "Elektromagnet" Norm
- **97/68/CE** "Vergiftung" Norm
- **2000/14/CE** "Schall" Norm

Conformity appraisal process concerning directive 2000/14/CE
Appendix V.

<i>Puissance installée à 3600 Tr/Min</i>	<i>Niveau de puissance Acoustique mesurée</i>	<i>Niveau de puissance Acoustique garantie (Lwa)</i>
22 Kw	124 dBA	126 dBA

References of harmonized standards used:

- EN 13525

Made in RONCHIN, on 2 September 2012

Mathieu WILLERVAL (Manufacturing Director **TS-industrie**)



DECLARATION OF CONFORMITY

THE **TS Industrie** Company

3 rue Jules Verne
L'Orée du Golf
59790 RONCHIN FRANCE
Tel : 0.820.201.880 - Fax : 0.820.201.990

HEREBY DECLARES THAT THE MACHINE :

Trademark: *TS industrie*TM

Type : **Super PREMIUM 35 DR**

Engine power: **22 kW at 3000 Tr/mn**

Technical documentation detained by Mathieu WILLERVAL

that the product is in conformity with the following European directives:

- **2006/42/CE** “EG-Maschinenrichtlinie” Norm
- **2004/108/CEE** “Elektromagnet” Norm
- **97/68/CE** “Vergiftung” Norm
- **2000/14/CE** “Schall” Norm

Conformity appraisal process concerning directive 2000/14/CE
Appendix V.

<i>Puissance installée à 3000 Tr/Min</i>	<i>Niveau de puissance Acoustique mesurée</i>	<i>Niveau de puissance Acoustique garantie (Lwa)</i>
22 Kw	124 dBA	126 dBA

References of harmonized standards used:

- EN 13525

Made in RONCHIN, on September 10th 2009

Mathieu WILLERVAL (Manufacturing Director **TS-industrie**)



DECLARATION OF CONFORMITY

THE **TS industrie** Company

3 rue Jules Verne
L'Orée du Golf
59790 RONCHIN FRANCE
Tel : 0.820.201.880 - Fax : 0.820.201.990

HEREBY DECLARES THAT THE MACHINE :

Trademark: *TS industrie*TM

Type : **Super PREMIUM 35 DRI**

Engine power: **22 kW at 3000 Tr/mn**

Technical documentation detained by Mathieu WILLERVAL

that the product is in conformity with the following European directives:

- **2006/42/CE** “EG-Maschinenrichtlinie” Norm
- **2004/108/CEE** “Elektromagnet” Norm
- **97/68/CE** “Vergiftung” Norm
- **2000/14/CE** “Schall” Norm

Conformity appraisal process concerning directive 2000/14/CE
Appendix V.

<i>Puissance installée à 3000 Tr/Min</i>	<i>Niveau de puissance Acoustique mesurée</i>	<i>Niveau de puissance Acoustique garantie (Lwa)</i>
22 Kw	123 dBA	124 dBA

References of harmonized standards used:

- EN 13525

Made in RONCHIN, on September 10th 2009

Mathieu WILLERVAL (Manufacturing Director **TS-industrie**)



EXPERT IN MOBILE WOOD CHIPPERS

TS Industrie GmbH
Weserstrasse 2
47506 NEUKIRCHEN-VLUYN - DEUTSCHLAND

Telefon +49(0)2845 9292-0
Telefax +49(0)2845 9292-28
kontakt@ts-industrie.eu

TS Industrie France
3 rue Jules Verne - L'Orée du Golf - BP 17
59790 RONCHIN - FRANCE

Tél : +33 (0)3 20 43 24 80
Fax : +33 (0)3 20 43 24 90
contact@ts-industrie.eu

www.ts-industrie.eu