

japa 315+

User manual

E – Electrical drive
TR – Tractor drive
TRH – Hydraulic drive
BE – Combustion engine drive
&
ROAD models

TABLE OF CONTENTS

1. Introduction	2
1.1 Customer registration	2
1.2 Declaration of conformity	3
1.3 Purpose of use	4
1.4 Instruction and warning labels on the machine	4
1.5 The machine's type plate	2
1.6 Machine models	2
1.7 Safety instructions	2
1.8 Noise level and vibration	4
1.9 Guarantee terms	4
2. Installation of the machine	6
2.1 Delivery inspection	6
2.2 Main components of the machine	6
2.3 Lifting and transporting the machine	7
2.3.1 Safety instructions for transport on public roads (ROAD models)	8
2.3.2 Installation of the light panel (accessory)	9
2.4 Working position	9
2.5 Connecting the power source	10
2.6 Transport position	11
3. Operating the machine	12
3.1 Acknowledging the hazards and responsibilities involved	12
3.2 Before use	12
3.3 Safety mechanism	12
3.4 Cutting device	13
3.5 Splitting device	14
3.6 In-feed conveyor	15
4. Accessories	16
4.1 Splitting knives	16
4.2 Conveyor turning device	16
4.3 Electric starter	17
4.4 Light panel	17
4.5 Log lifter	17
4.6 Saw dust bag holder	18
4.7 Cup holder	18
4.8 Tool box	19
5. Maintenance and troubleshooting, all models	20
5.1 Maintenance table	20
5.2 First maintenance	21
5.3 Daily maintenance (10 hr)	21
5.3.1 Maintaining the cutting saw	22
5.3.2 Maintaining the splitting knife	23

5.3.3	Adjusting the in-feed conveyor belt.....	23
5.4	Monthly maintenance (200 hrs)	24
5.4.1	Adjustments of the cutting and splitting device and in-feed conveyor	25
5.4.2	Adjustment of the speeding valve	26
5.4.3	Adjusting the conveyor's relief valve.....	26
5.5	Annual maintenance (1,000 hrs).....	27
5.5.1	Extended maintenance interval.....	28
5.5.2	Lubricant table.....	28
5.6	Storage	28
5.7	Maintenance log.....	28
6.	Troubleshooting.....	29
7.	Product disposal.....	30
8.	Technical specifications	31
8.1	Technical specifications of the combustion engine (BE models)	31
8.2	Electric motor connection diagram (E models).....	32
8.3	Hydraulics diagram	33

1. Introduction

TP Silva Oy (JAPA) is a Finnish company that engages in extensive product development. Our goal is to produce simple, reliable and structurally durable machines with a long service life. If you use your JAPA machine correctly and maintain it according to the instructions in this manual, it will serve you efficiently for a long time. If you have questions and would like to discuss them in detail, please contact our retailer or us directly.

CONGRATULATIONS ON PURCHASING A NEW JAPA FIREWOOD PROCESSOR!

This manual is intended for operators with the appropriate expertise. For this reason, operators are expected to have the general knowledge and skills for work with this kind of machinery. Familiarise yourself with the manual before installing the machine and beginning operation.

Carefully study the machine's features and safety equipment before operation. Always keep this manual with the machine. The instructions, descriptions and technical specifications in this manual are based on the latest information with regard to the workings of the machine at the time of printing. However, the manufacturer develops and updates the machine continuously and therefore reserves the right to change the machine's features and safety-related properties without separate notification.

In order to receive quick and efficient assistance when ordering spare parts and encountering any possible fault situations, you must indicate the information on the machine's type plate to the retailer or service technician. Write down the type plate information in the reserved section on this page to ensure that they are readily available at all times. If you cannot find a solution to a problem on your own, please contact the retailer, who will then resolve the matter with the manufacturer.

We at JAPA are confident that you will be satisfied with your new firewood processor. It meets all the safety requirements imposed by the European Union and carries the relevant CE label.

1.1 Customer registration

TP Silva Oy utilises an EXTRANET service where owners and operators can register their machines. The site contains useful information, such as user manuals and spare parts manuals.

<https://info.japa.fi/>



FILL IN THE TYPE PLATE INFORMATION AND THE RETAILER'S CONTACT INFORMATION:

Serial number: _____

Year of manufacture: _____

Retailer: _____

Shop: _____

Address: _____

Telephone: _____

1.2 Declaration of conformity

Manufacturer:

TP Silva Oy
Kusnintie 44
FI-23800 Laitila, Finland
Tel. +358 2857 1200
Fax +358 2857 1201
Web: www.japa.fi

Person responsible for the technical file: Ville Kairus

The declaration applies to the following machines:

JAPA 315 BE PLUS	5.6 t	Combustion engine drive
JAPA 315 E PLUS	5.6 t	Electrical drive
JAPA 315 TR PLUS	5.6 t	Tractor drive
JAPA 315 TRH PLUS	5.6 t	Tractor hydraulics drive
JAPA 315 ROAD PLUS	5.6 t	Road traffic equipment
JAPA 315 OFFROAD PLUS	5.6 t	Off-road equipment

The following directives have been observed in the construction of each machine:

Machinery Safety Directive 2006/42/EC brought into effect through Government Decree 400/2008.

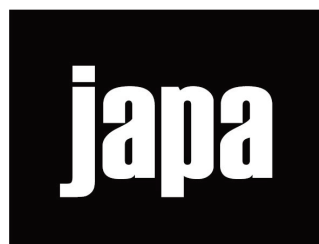
Laitila 1.10.2020

TP Silva Oy



Jori Lammi

Managing Director



1.3 Purpose of use

The JAPA 315 is an efficient, safe and easy-to-use firewood processor for cutting and splitting firewood. The hydraulic 13" chainsaw cuts the logs safely and quickly up to a diameter of 31 cm. The saw chain is lubricated with a separate system for supplying saw chain oil. The saw chain only rotates during sawing, which makes working with the machine safer and quieter. The cutting can be adjusted between 20 and 50 cm. The splitting occurs at the same time as a new log is fed into the machine, and the pusher returns to the inner position during sawing. The machine can be equipped with a 4-way or 6-way splitting knife and many other facilitating accessories. We place great emphasis on the reliability of our products; the JAPA 315 does not contain any V-belts!



ONLY ONE PERSON MAY OPERATE THE MACHINE AT A TIME!

1.4 Instruction and warning labels on the machine



Wear ear protectors and protective goggles.



Wear suitable work clothing, gloves and footwear.



Read the user manual before operation and maintenance. Disconnect the power source before maintenance.



Check the condition and safety equipment of the machine before operation.



Beware of the rotating cutting blade!



Only one user at a time. Ensure that no other persons are in the working area.



Beware of the splitting knife, splitting mechanism and in-feed conveyor.



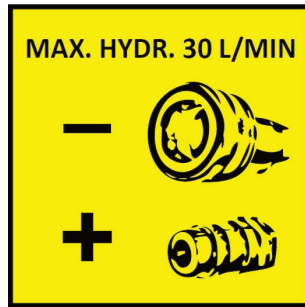
Do not walk under the conveyor! The safety distance is 5 m.



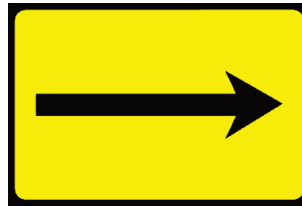
Risk of crushing!



Fork lift point



Maximum allowed tractor hydraulics output.



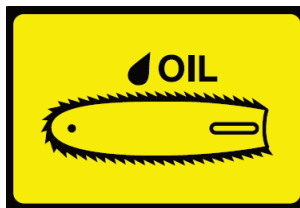
Rotation direction of the electric motor.



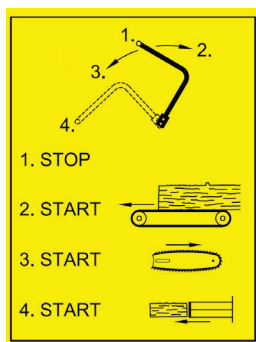
Emergency stop.



Beware of the rotating shaft! The maximum allowed rotation speed and direction of the power take-off shaft.



Tank for saw lubrication oil.



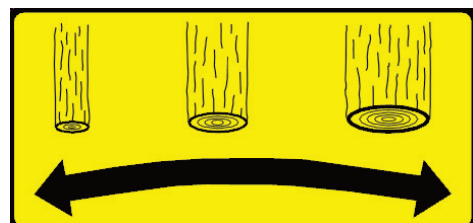
Cutting, in-feed conveyor and splitting control



Lifting point.



Log length measurement scale.



Height adjustment of the splitting knife.

1.5 The machine's type plate

The machine's type plate is located behind the machine, on the right side of the splitting groove.

The machine's type plate (1)

- Serial number
- Machine type
- Production year and date
- Weight of the machine
- Voltage (machine equipped with an electric motor)
- Maximum RPM of the power take-off
- Maximum hydraulic pressure
- Diameter of the cutting blade/blade opening
- Name and address of manufacturer

Sarjanro		CE
Manufact. Nr		
Malli, Model		
Pvm, Date		
Paino, Weight		
Jännite, Voltage		
R,Min		
Hydr.max paine		
Terä, Blade		
JAPA - MACHINE		
LAILILAN RAUTARAKENNE OY		
www.japa.fi, (02) 8571 200, FINLAND		

1

1.6 Machine models

JAPA 315 BE PLUS	5.6 t	Combustion engine drive
JAPA 315 E PLUS	5.6 t	Electrical drive
JAPA 315 TR PLUS	5.6 t	Tractor drive
JAPA 315 TRH PLUS	5.6 t	Tractor hydraulics drive
JAPA 315 ROAD PLUS	5.6 t	Road traffic equipment
JAPA 315 OFFROAD PLUS	5.6 t	Off-road equipment

Standard equipment in all models:

- 13" hydraulic chainsaw and separate chain lubrication system
- In-feed conveyor
- Splitting system with a 4-way knife.
- The available options for log removal are a discharge chute and a 2.3 m or 3.8-m-long hydraulic out-feed conveyor with a winch.

1.7 Safety instructions

These safety instructions are general in nature. When handling the machine, you must take into account all other relevant instructions concerning health and safety, road traffic regulations regarding transportation, as well as the provisions of general legislation. Observing the instructions helps to prevent accidents.

The machine may only be used by persons who have familiarised themselves with the manual and the operation of the machine. The operator must not be under the influence of alcohol or narcotic substances. The requirements placed on the operator, as well as the minimum age of 18 required to operate the machine, must be taken into account.

Study the machine's safety and installation instructions carefully, along with the operation and control functions, before installing and operating the machine.

General provisions:

- The machine has been designed solely for making firewood.
- The machine is intended to be used by one person at a time.
- Ensure that no unauthorised persons are in the working area. The danger zone is 10 m.
- Always check the condition of any possible power cables.
- Always use approved eye and ear protection.
- Clean and maintain the machine on a regular basis.
- Always stop the machine before maintenance and, if the machine is tractor-driven (TR), disconnect the cardan shaft. If the machine features an electrical drive (E), disconnect the power cable.

- Check the operation of the safety equipment. Do not use the machine if part of the mechanism is not functioning properly.
- The machine may only be transported in the transport position. This is the responsibility of the driver.

Working area:

- Select a level and solid working area.
- Keep the area clean and free of obstructions.
- Ensure that the ground or floor is not slippery near the machine.
- Do not use the machine indoors, as the dust will enter your airways or cause a fire hazard.
- Use the machine only with sufficient lighting: daylight is recommended.
- Place the machine in the working position and always check the safety devices before starting the machine.

During operation:

- Take extreme care when cutting knotty or twisted wood.
- When sawing incorrectly, the log may spin, causing risk of injury or machine damage.
- Careless sawing or splitting may cause unexpected hazards.
- Ensure that the PTO shaft is undamaged and attach the shaft guard chain to the machine.
- Avoid unnecessary lifting by using a suitable log rack.
- Do not lift logs directly onto the in-feed conveyor with a loader.



DO NOT LEAVE A RUNNING MACHINE UNSUPERVISED!

1.8 Noise level and vibration

The JAPA 315's A-weighted sound power level, as detailed in standard EN ISO 3744:2009, is 100.5 dB. In the working area, the average sound power level is 89.5 dB. The weighted power value of the acceleration directed at the arms is 1.19 m/s².

If the machine is driven with a tractor, the tractor may be the dominant source of noise in the working area. Always use sufficient ear protection – earmuffs or plugs. We recommend using a logger's helmet.

1.9 Guarantee terms

Roles

Guarantor

Manufacturer of the JAPA product:

TP Silva Oy, Kusnintie 44, FI-23800 LAITILA

Tel.: +358-(0)2-857 1200, Fax: +358-2-857 1201, Email: aftersales@japa.fi.

Retailer

The retailer is a company authorised by TP Silva Oy, which sells and markets JAPA products in its local area. The retailer acts as the recipient in warranty matters regarding JAPA products it has sold to the buyer.

Buyer

The buyer is the person or community that acquires a JAPA product for personal use. The buyer is obliged to report faults within the warranty terms to the retailer and to retain the receipt in order to prove where and when the JAPA product has been purchased. When necessary, the buyer is also obliged to indicate the type plate information to the retailer.

The guarantee is valid for the original buyer for 12 months, starting from the date of purchase, but for no more than 1,000 operating hours. In guarantee matters, always contact the machine's seller before undertaking any procedures.

A guarantee claim must be issued to the seller in writing **immediately** upon discovery of a defect. If the defect concerns a damaged part or component, please send a photograph of the damaged part or component to the seller, if possible, so the fault can be identified. When submitting a guarantee claim, the buyer must always include the type and serial number of the machine in the claim and present a receipt that includes the date of purchase. Guarantee claims must be submitted to an authorised retailer.

The guarantee covers

- Parts damaged in normal use due to faults in the material or workmanship.
- Reasonable repair expenses in accordance with the agreement between the seller or buyer and the manufacturer. Faulty parts will be replaced with new ones.
- A faulty part or parts replaced due to a material fault must be returned to the manufacturer via the retailer.

The guarantee does not cover

- Damage caused by normal wear and tear (such as blades and belts), improper use or use contrary to the instruction manual.
- Damage caused by negligence of maintenance or storage procedures detailed in the instruction manual.
- Damage caused during transport.
- Cutting blades, V-belts and oil as well as normal adjustment, care, maintenance or cleaning procedures.
- Defects in a machine to which the buyer has carried out or commissioned structural or functional changes to the degree that the machine can no longer be considered equivalent to the original machine.
- Other potential costs or financial obligations resulting from the procedures mentioned above.
- Indirect costs.
- Travel costs resulting from guarantee repairs.
- The guarantee for parts replaced during the guarantee period of the machine expires at the same time as the machine's guarantee.
- The guarantee is void if the ownership of the machine is transferred to a third party during the guarantee period.
- The guarantee is void if any of the machine's seals have been broken.

If a fault or defect reported by the customer is found to not be covered by the guarantee, the manufacturer has the right to charge the customer for the identification and possible repair of the fault or defect in accordance with the manufacturer's current price list.

This guarantee certificate indicates our responsibilities and obligations in full and excludes all other responsibilities.

Guarantee terms come into force when you register your customership on the extranet service found on our website.

Product safety

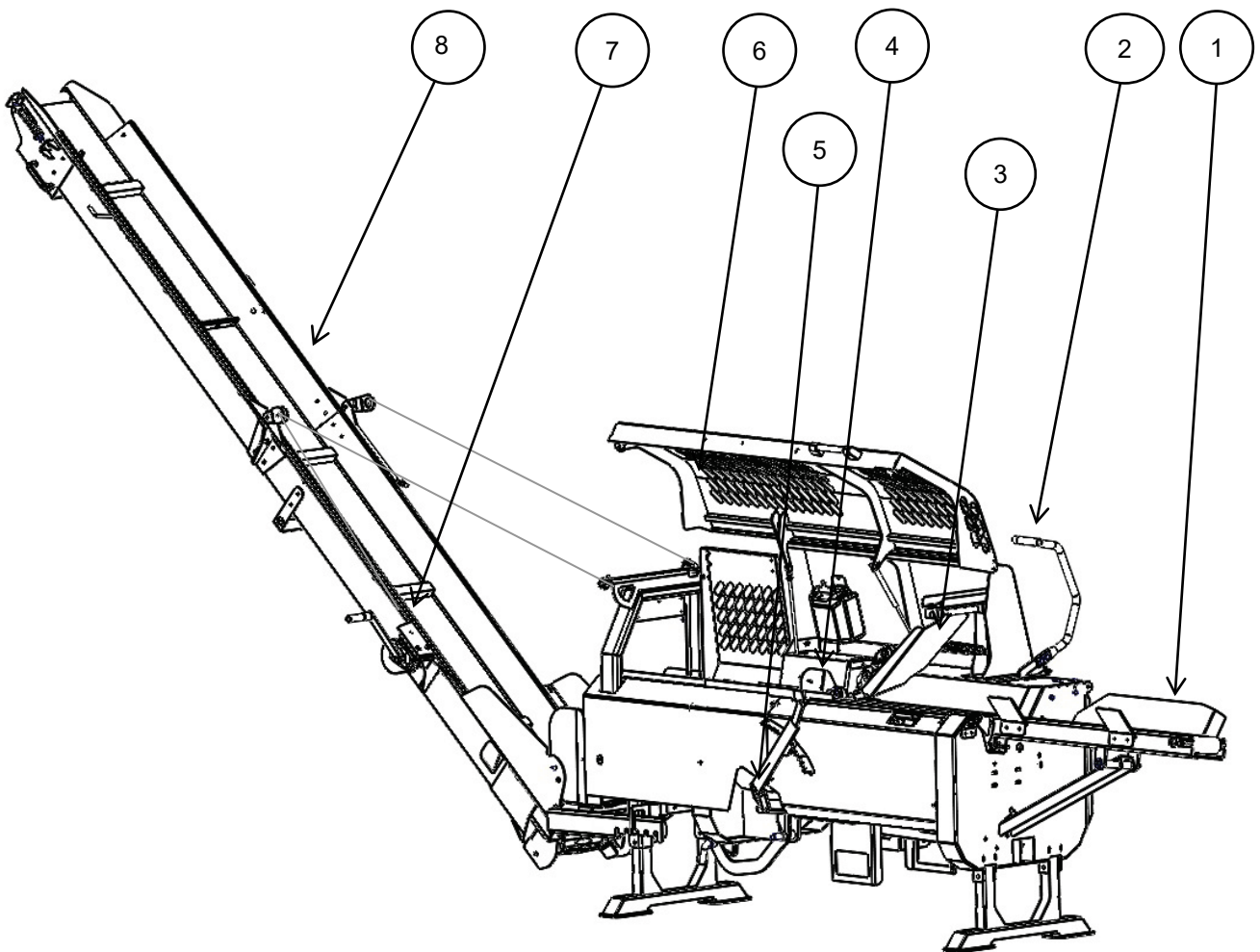
The fastening mechanisms of parts that affect machine safety as well as factory adjustments that are significant in terms of machine safety have been sealed. If you need to break one of the seals, always contact the machine's retailer or manufacturer. Breaking a seal without an agreement renders the party that broke the seal responsible for any possible consequences. Breaking a seal also voids the machine's factory guarantee.

2. Installation of the machine

2.1 Delivery inspection

Inspect the machine immediately upon delivery. If the product has sustained damage in transit or it is missing components, contact the transport company and retailer immediately. Dispose of the packaging material appropriately.

2.2 Main components of the machine

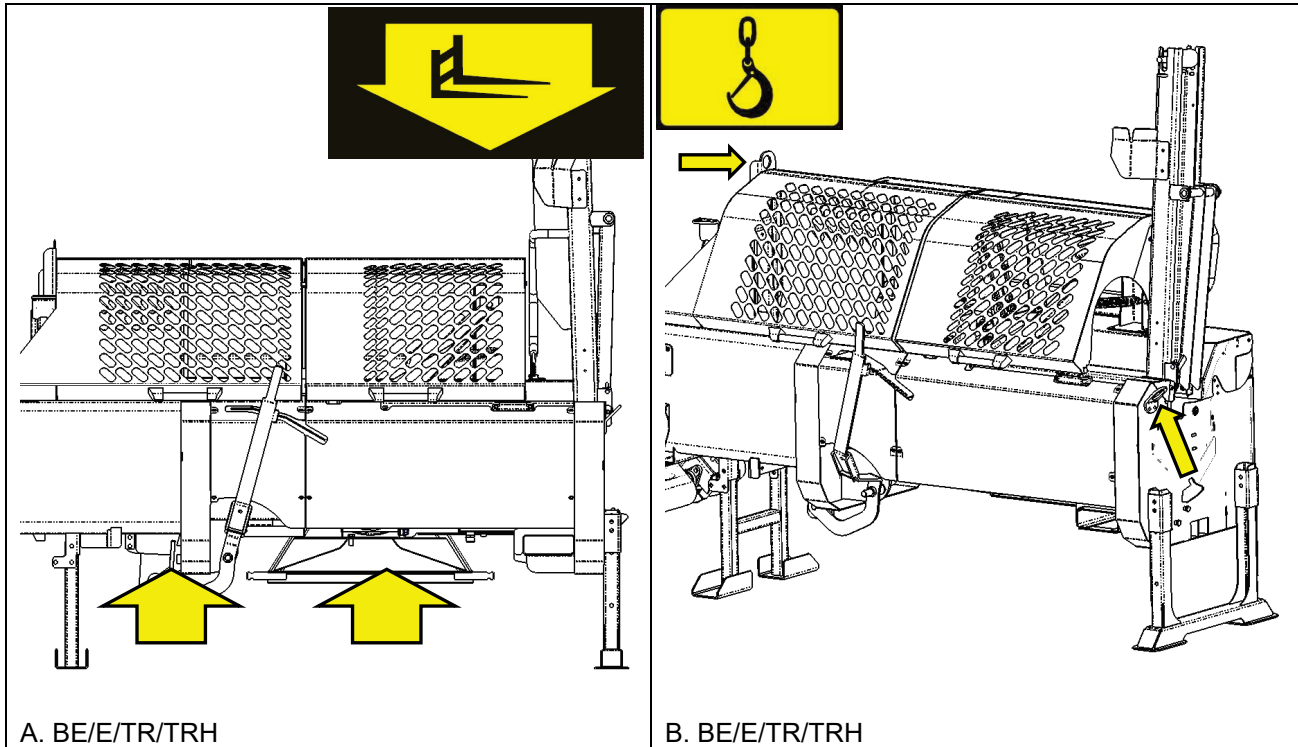


- 1. Feed extension
- 2. Sawing handle
- 3. Wood gripper
- 4. Log length limiter

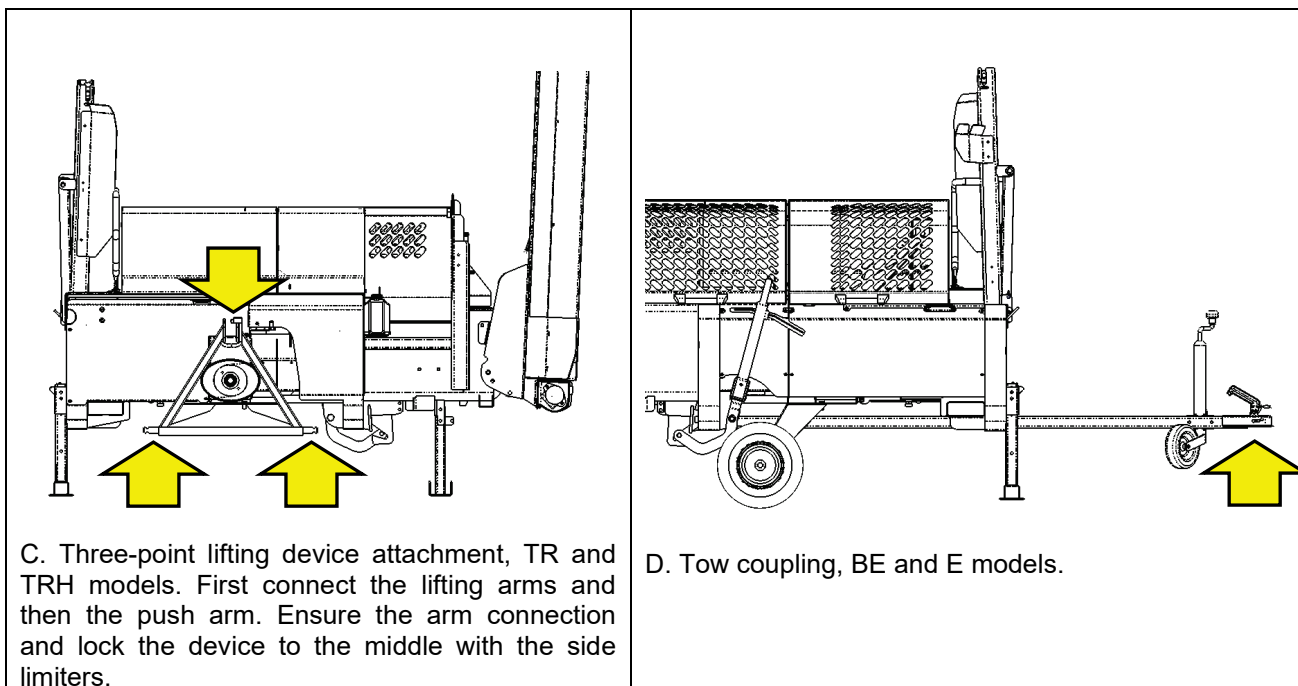
- 5. Knife height adjustment
- 6. Splitting area guard
- 7. Out-feed conveyor winch
- 8. Out-feed conveyor

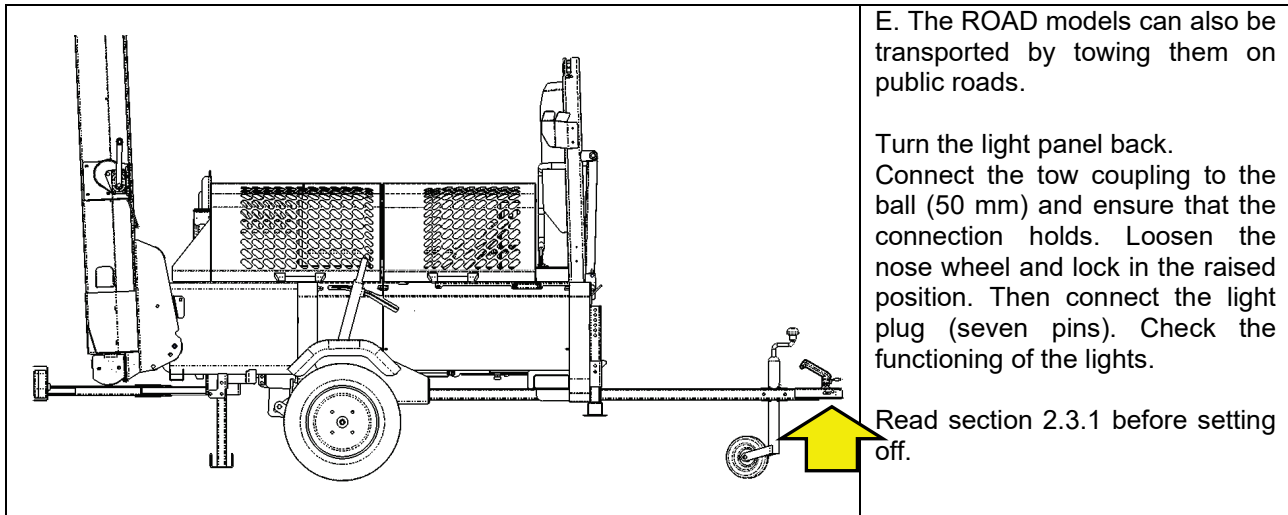
2.3 Lifting and transporting the machine

All JAPA 315 firewood machines are equipped with fork lift points 2.3.A and chain lifting lugs (2.3.B).



The TR and TRH models are equipped with three-point lifting device attachments CAT1 (2.3.C). The BE and E models feature fixed transport wheels and a tow coupling (2.3.D).





2.3.1 Safety instructions for transport on public roads (ROAD models)

JAPA 315 ROAD models have been designed and constructed for use on public roads. Therefore, all ROAD models feature the appropriate equipment for road traffic, such as lights, reflectors and an underrun guard. The machine also comes with a separate appendix for registration. The retailer can instruct you on how to complete the registration.

Always check the following before starting your journey:

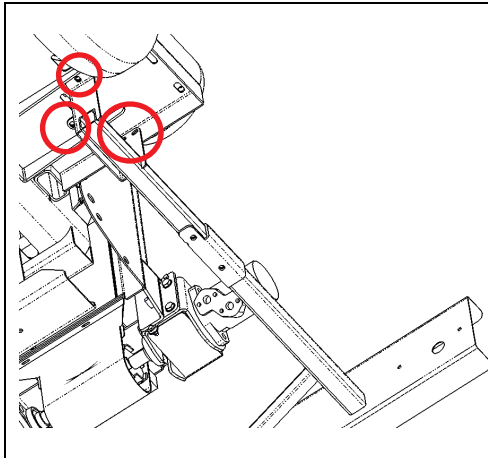
- Ensure that the tow coupling is attached to the ball and the plug is connected.
- Raise the nose wheel and ensure that it is tightened in such a way that it cannot slip back down during driving.
- Ensure that all lights are functioning: turning signals, brake and rear lights.
- Check the tyre pressure (3.0 bar).
- Fold the conveyor to the transport position and use the winch to tighten it to the raised position. Fasten the chain that secures the conveyor in the transport position. Do not transport anything on top of the machine or in the splitting groove, and clean the machine from debris. Nothing must detach from the assembly that may endanger other road users.
- Turn the light panel back.
- If you need to transport the machine on salted roads, we recommend that you wash it immediately after use.
- When the firewood processor is connected to the towing vehicle, a separate warning triangle must be available for the trailer.
- The maximum allowed total mass of a device that does not feature brakes is 730 kg. However, the mass may not exceed half of the mass of the towing vehicle. Note! The car manufacturer may restrict the trailer mass to a lower level. Check the trailer masses of your car from the registration book or user manual.
- The driver must have a class B driving licence if the total weight of the towing vehicle is no higher than 3,500 kg and the total weight of the device being towed is no higher than 750 kg (i.e. the maximum total mass is 4,250 kg), or the total weight of the combination is no higher than 3,500 kg and the total weight of the device (730 kg) does not exceed the net weight of the towing vehicle.
- The driver must have a class BE or ABE driving licence if the combination of the vehicle and trailer/boat trailer exceeds the listed weights.
- Class 01 towable devices (total weight 750 kg or less) do not require periodic inspections concerning eligibility for road traffic.
- Winter tyres do not need to be used on class 01 towable devices.
- The maximum towing speed of a towable device is 80 km/h (60 mph) unless traffic signs impose a lower speed limit.



THE DRIVER OF THE VEHICLE COMBINATION IS ALWAYS RESPONSIBLE FOR THE CONDITION OF THE VEHICLE, PLACING THE TOWED DEVICE IN THE TRANSPORT POSITION, AND THE LAWFUL USE OF THE EQUIPMENT!

2.3.2 Installation of the light panel (accessory)

For transport on roads, the firewood processor must be equipped with a light panel. The light panel pivots, which makes it easy to place in the working position.

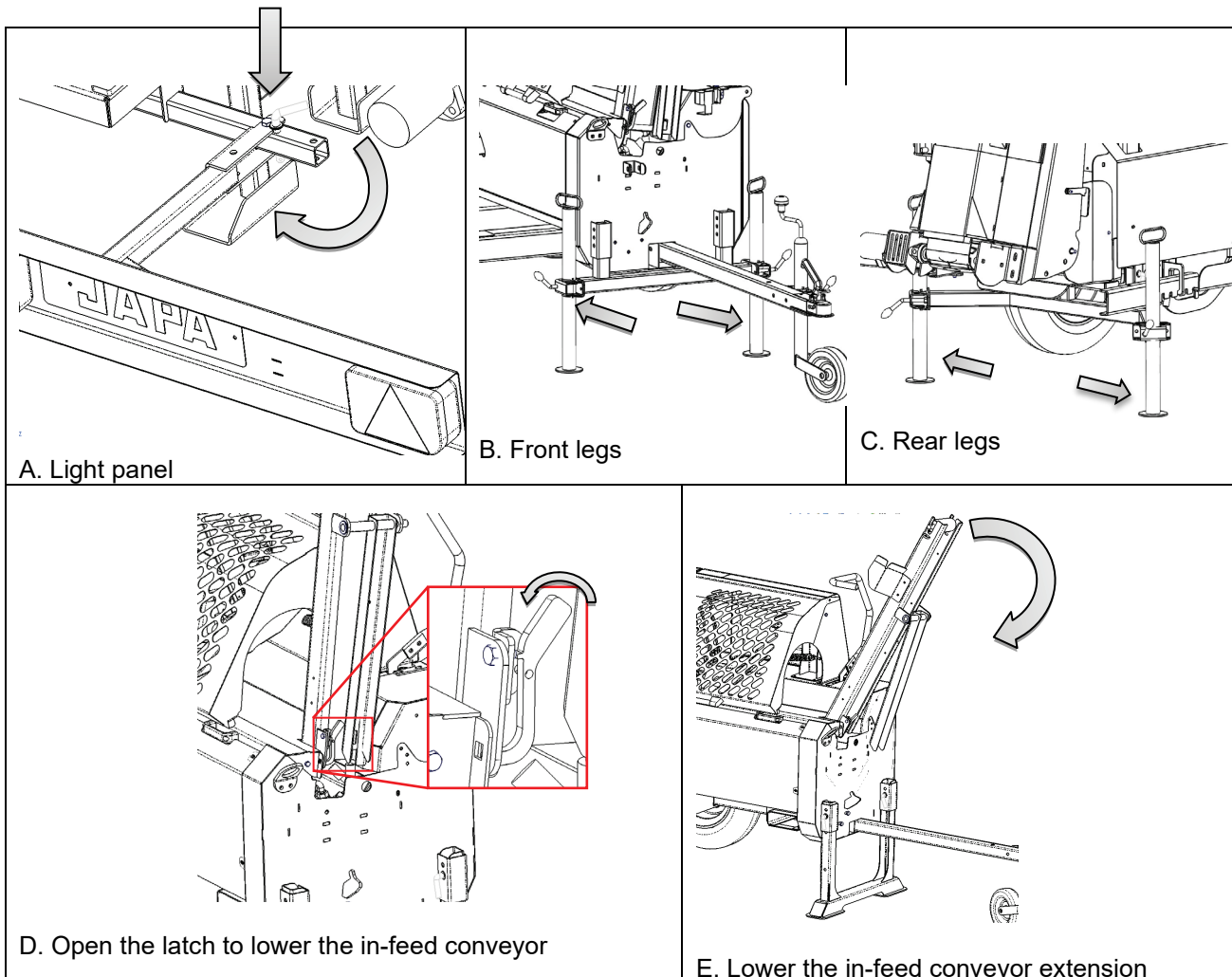


Attach the light panel under the motor bed with two bolts. Insert the wiring harness into the tow bar starting from the tow coupling. Position the wires in such a way that they do not hang too low and the light panel can be turned to its extremes without the wires restricting it.

Ensure that the turning signal lights work for the intended directions. If necessary, swap the wires to the lights to correct the directions.

2.4 Working position

Once you have transported the device to the working location, you can begin placing it in the working position. Ensure that the foundations are level and the support legs stand firmly on the ground. In ROAD models, turn the light panel out from under the conveyor.



A. Light panel

B. Front legs

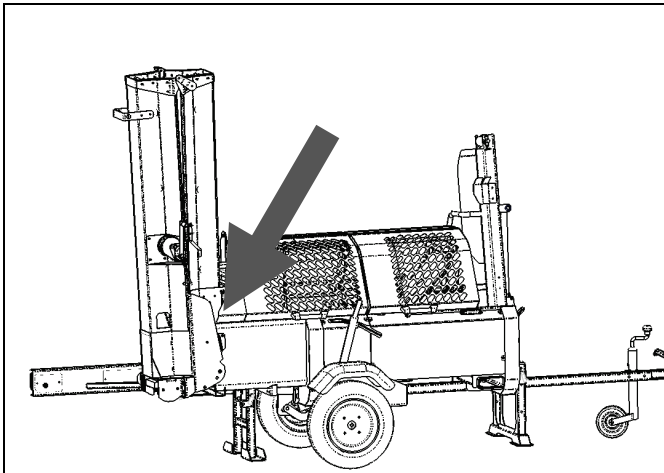
C. Rear legs

D. Open the latch to lower the in-feed conveyor

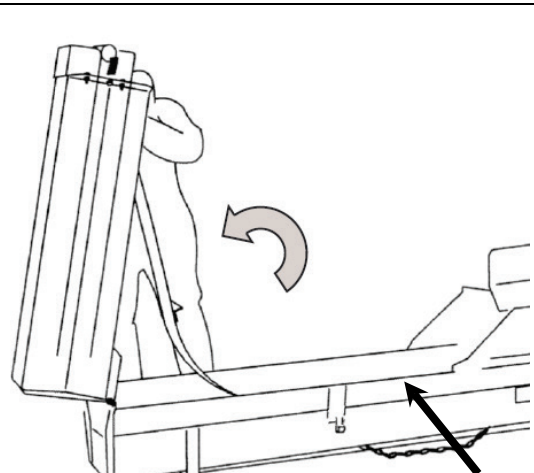
E. Lower the in-feed conveyor extension

The 3.8 m conveyor is installed in two phases. First, lower the conveyor and fold it open. Then, winch it into the working position. The 2.3 m conveyor is installed in the working position by removing the support leg

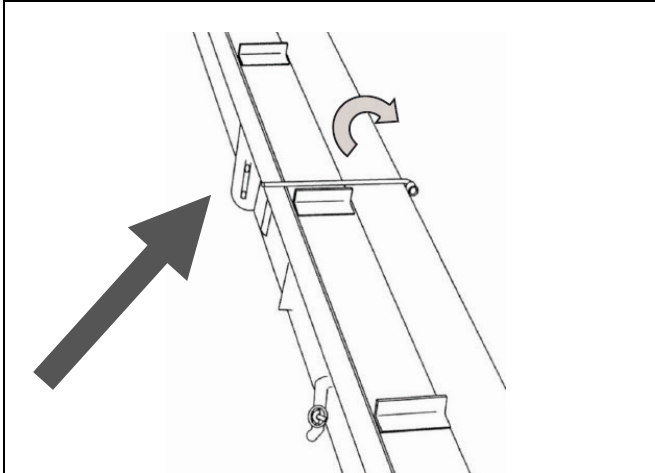
and lowering the conveyor into the working position with the winch. The highest lifting angle for the conveyor is presented in step 2.4.K. The discharge chute is operational when the transport lock latch has been opened and lowered.



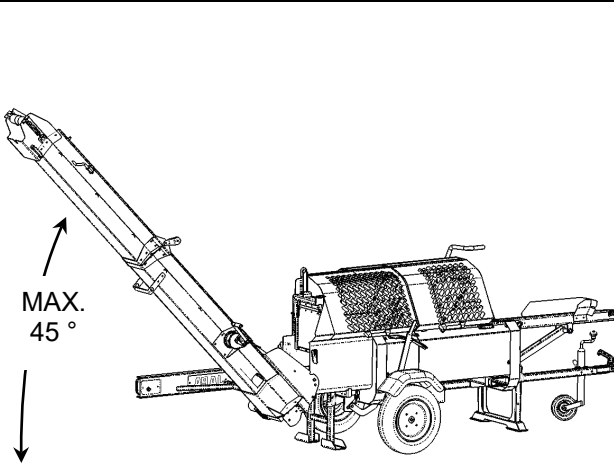
H. Turn the latch out of the transport notch, and lower the conveyor with the winch.



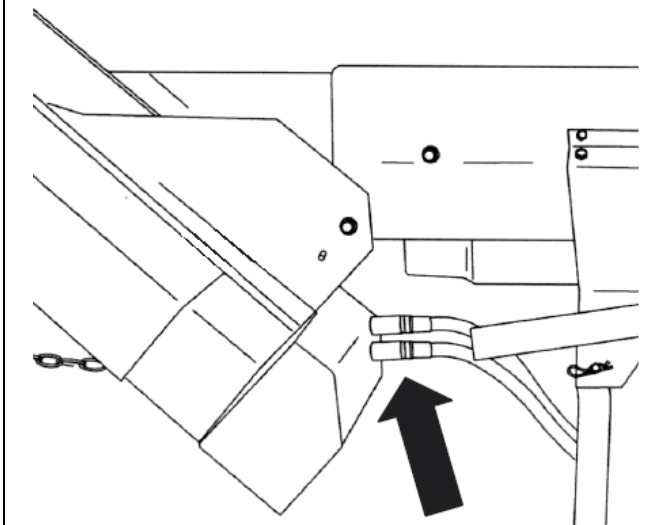
I. Remove the locking pin and fold the conveyor open.



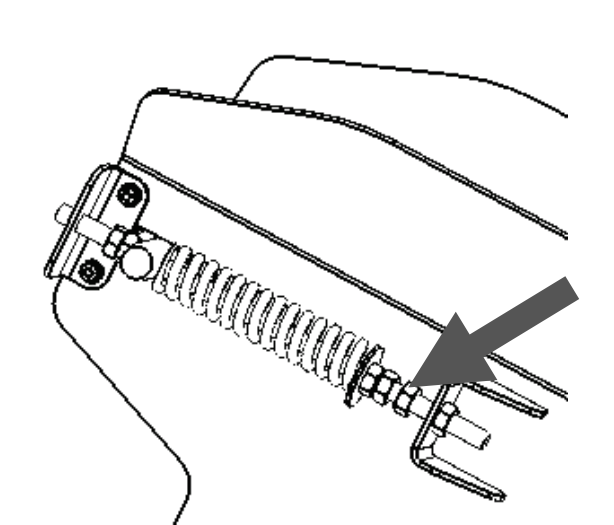
J. Insert the locking pin in the hinge lug and turn the transport support to a longitudinal position.



K. Lift the conveyor to the working position with the winch. Note the highest lifting angle.



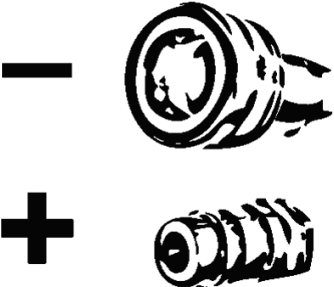
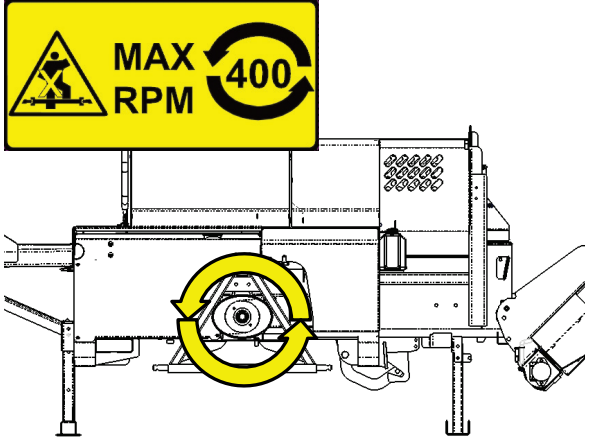
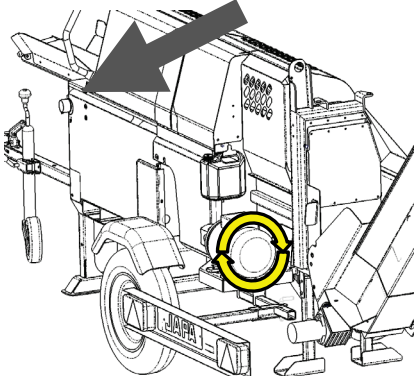
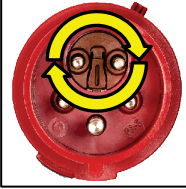
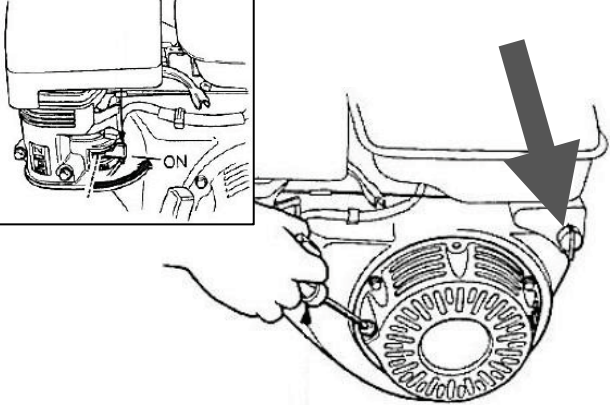
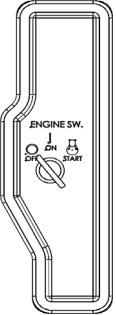
L. Connect the conveyor's hydraulic hoses.



M. If necessary, tighten the conveyor belt (5.4).

2.5 Connecting the power source

The JAPA 315 firewood machine can be equipped with four different power sources. The following presents instructions for preparing them.

<p>MAX. HYDR. 30 L/MIN</p>  <p>A. TRH model: Connect the + connector to the pressure line and the - connector to the available return line. Note the maximum hydraulic output.</p>	 <p>B. TR model: Connect the power take-off shaft. Note the highest rpm 400 1/min.</p>
  <p>C. E model: Electric motor 4kW/400V/16A, connect only to a fault current protected socket. Note the motor's correct rotation direction and the reverser of the socket.</p>	 <p>D. BE model: Open the fuel valve and turn the power switch to the I position. Pull the starter cable. Read the motor operating instructions for cold starts.</p>
 <p>E. A factory-installed electric starter is available for the BE model as an accessory. The electric starter package includes a battery with a mounting rack and the starter with keys. To start the firewood processor with the accessory, open the fuel valve and turn the ignition key to the START position. Read the motor operating instructions for cold starts.</p>	



READ THE USER MANUAL BEFORE ACTIVATING THE MACHINE FOR THE FIRST TIME!

2.6 Transport position

The machine can be placed in the transport position by performing the steps in section 2.4 in reverse.

3. Operating the machine

3.1 Acknowledging the hazards and responsibilities involved

Operators of the machine must familiarise themselves with and observe the instructions in the user manual. Incorrect operation of the machine (for example removing the guards) may compromise the operator's safety. In these cases, the responsibility for the consequences rests with the operator.

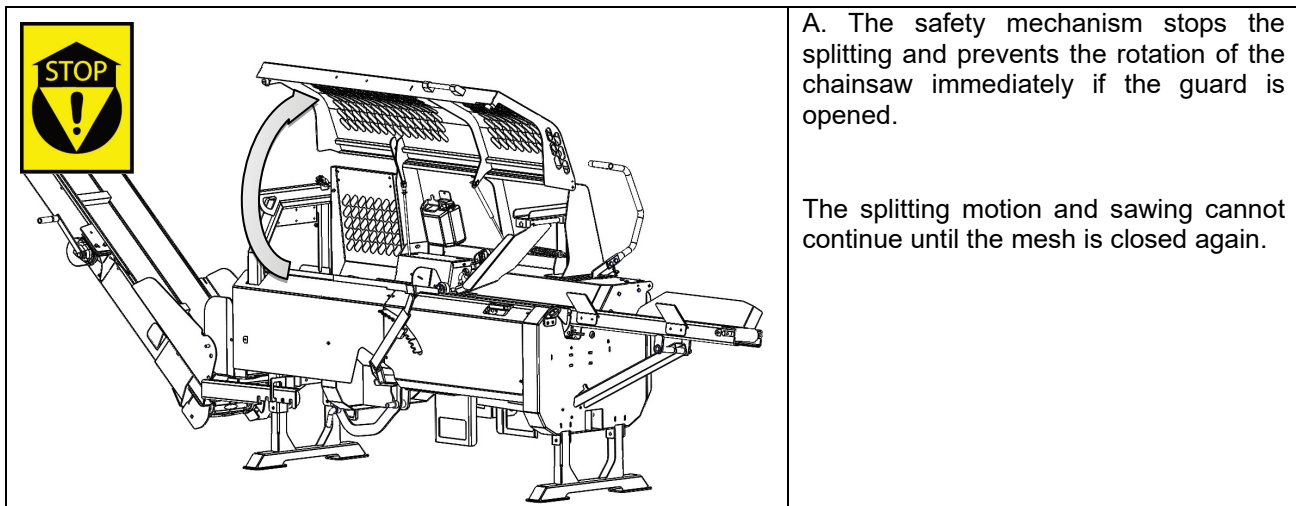
3.2 Before use

Safe use of the machine requires adherence to the instructions provided by the instruction and warning labels. The operator is responsible for the operation and maintenance of the machine and its safety device. Neglecting to maintain the machine or use the safety equipment may void the guarantee. Ensure that you have familiarised yourself with the operation of the machine and its functions.

1. Visually check the machine for damage and oil leaks.
2. Ensure that the machine's power source is correctly connected and firmly in place.
3. Ensure that all of the machine's components and guards are in place.
4. Check the machine's hydraulic and saw oil levels and add oil if necessary.
5. Ensure that no unauthorised persons are in the danger zone and start the machine.
6. Check that the machine's controls work as intended (3.4 and 3.5).
7. Ensure that the cutting and splitting mechanism does not function when the protective mesh is open (3.3).

3.3 Safety mechanism

The machine features a safety mechanism that prevents operation when the guard of the working area is open.



DO NOT USE THE MACHINE IF THE SAFETY MECHANISM DOES NOT FUNCTION!

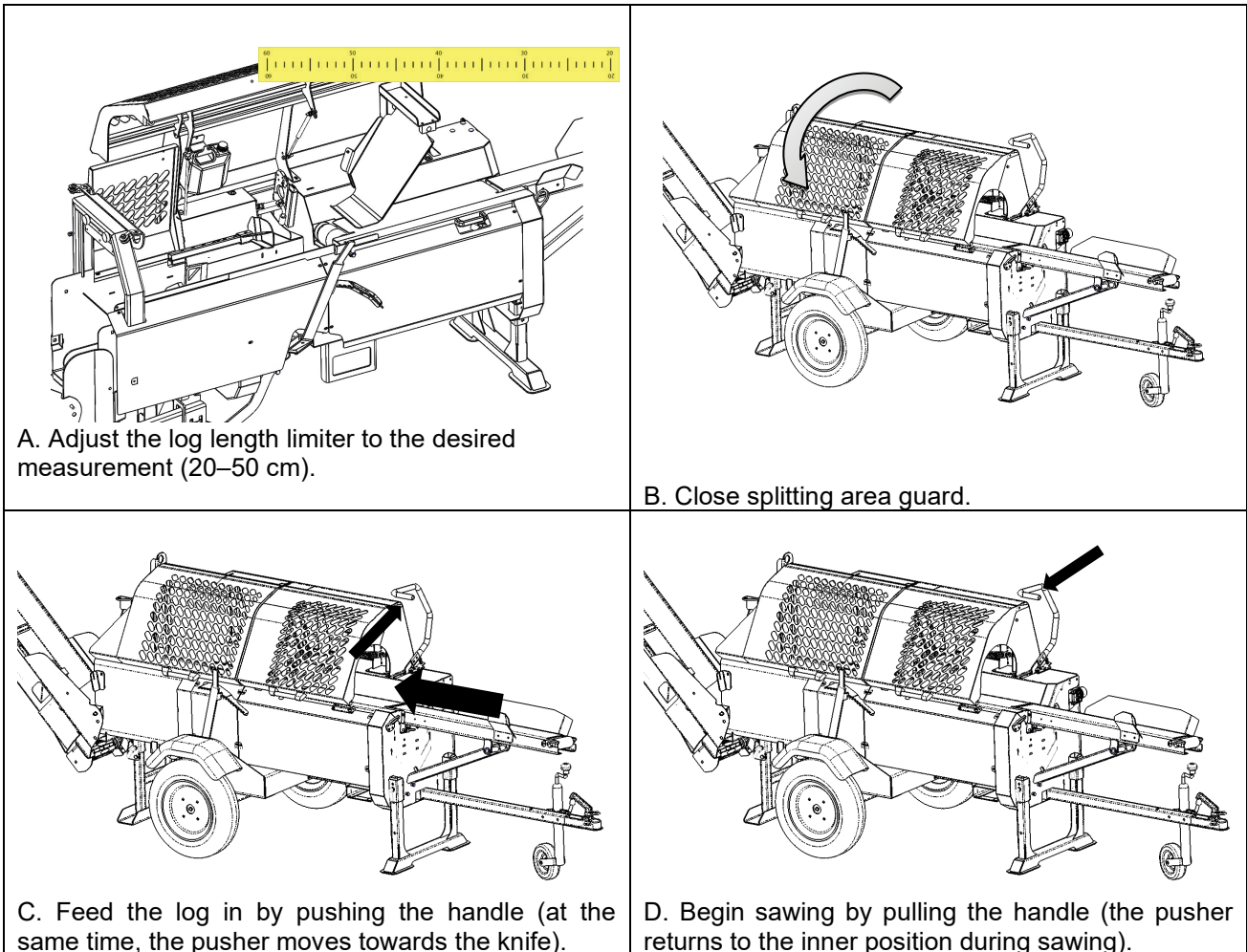


IF YOU NEED TO ADJUST THE SAFETY MECHANISM, SEE SECTION 1.9 (PRODUCT SAFETY).

3.4 Cutting device

The JAPA 315 firewood processor is equipped with a hydraulic chainsaw, which only rotates during sawing. The cutting device is also connected to a safety mechanism, which prevents sawing when the working area guard is open (3.3). The length of the log to be cut can be adjusted between 20 and 50 cm. When a new log is being fed in for sawing, the pusher moves forward and then returns to the inner position during sawing.

In case of problems, see Chapter 6 of the manual. Troubleshooting



DO NOT PLACE YOUR HAND NEAR THE CUTTING SAW WHEN THE MACHINE IS RUNNING!



DO NOT LEAVE THE SAW HANDLE IN THE LOWER POSITION WHERE THE SAW SPINS CONTINUOUSLY!

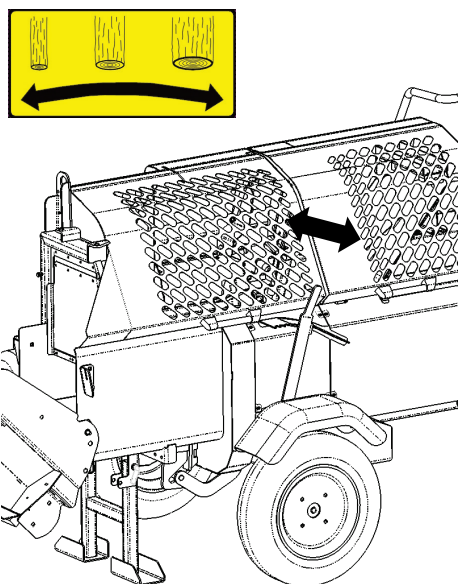
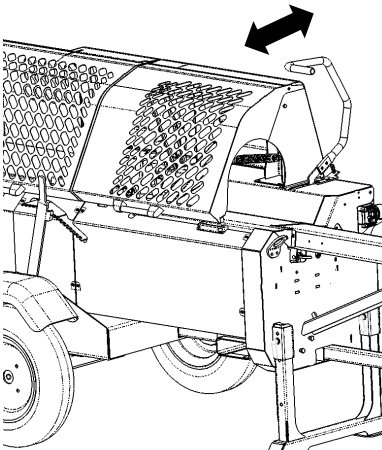
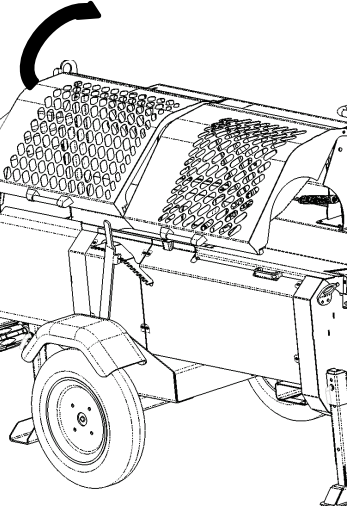


ENSURE THAT THE LOG BEING SAWN IS SUPPORTED BY THE REAR EDGE OF THE TABLE!

3.5 Splitting device

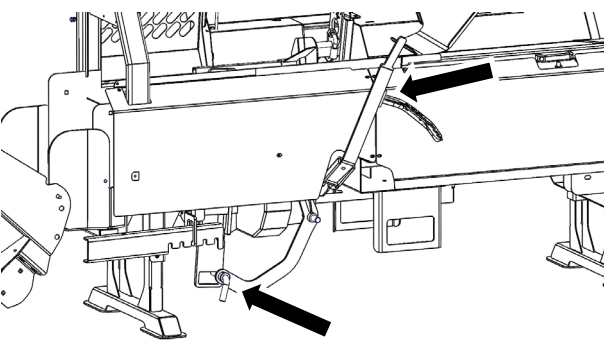
The JAPA 315 firewood processor is equipped with a hydraulic splitting device. The splitting motion (i.e. the pusher moving towards the knife) takes place at the same time as the new log is being fed in by running the in-feed conveyor belt. The pusher returns to its original position during the sawing action. The splitting device will not work when the guard is open.

In case of problems, see Chapter 6 of the manual. Troubleshooting

 <p>A. Use the lever to adjust the splitting knife to the proper height.</p>	 <p>B. The splitting begins when you push the sawing handle (simultaneously as a new log is being fed in), and the pusher returns to the inner position when you activate the sawing action, i.e. pull the sawing handle.</p>	 <p>C. The splitting motion stops when you release the sawing handle or open the guard.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Splitting knife

The firewood processor can also be equipped with a knife that splits the log into multiple pieces.

	<p>D. Replacement (knife in the lower position)</p> <p>Always use work gloves when replacing the splitting knife</p> <ol style="list-style-type: none"> 1. Lower the knife to the bottom position. 2. Remove the pin and stud at the bottom loop of the knife. 3. Lift the knife out from the top and insert the replacement. 4. Reinstall the stud and secure it with the pin.
-------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



DO NOT SPLIT HARD TIMBER INTO MORE THAN TWO PIECES!



IF THE LOG TWISTS AFTER SAWING, STOP THE SPLITTING, OPEN THE GUARD AND REALIGN THE LOG WITH THE PUSHER!

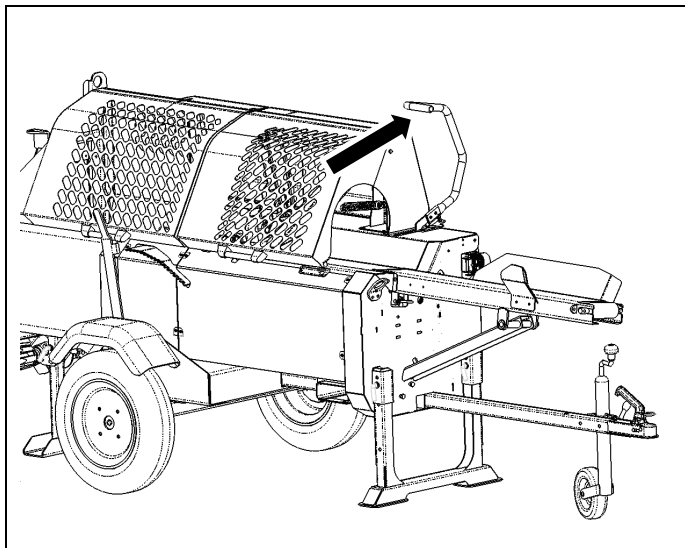


DAMAGE TO THE SPLITTING KNIFE CAUSED BY CARELESS SPLITTING IS NOT COVERED BY THE GUARANTEE!

3.6 In-feed conveyor

The Japa 315 firewood processor comes as standard with an in-feed conveyor. The conveyor is activated by pushing the sawing handle. When the in-feed conveyor is running, the pusher also moves towards the knife.

In case of problems, see Chapter 6 of the manual. Troubleshooting



- A. When the sawing handle is pushed, the in-feed conveyor belt will begin to run and feed logs into the processor. The belt stops when the handle is returned to the original position.



DO NOT PLACE YOUR HAND BETWEEN THE BELT AND FRAME.



DO NOT TOUCH A MOVING BELT.

4.3 Electric starter

The electric starter is an accessory that facilitates the use of the BE models. The starter is factory-installed and includes its own battery. The battery type is 12 V, 60 Ah. The electric starter can be used to start the combustion engine with the turn of a key instead of having to pull the starter cable. Use the electric starter in accordance with section 2.5.E.

PART NUMBER 305300 SÄHKÖSTARTTI

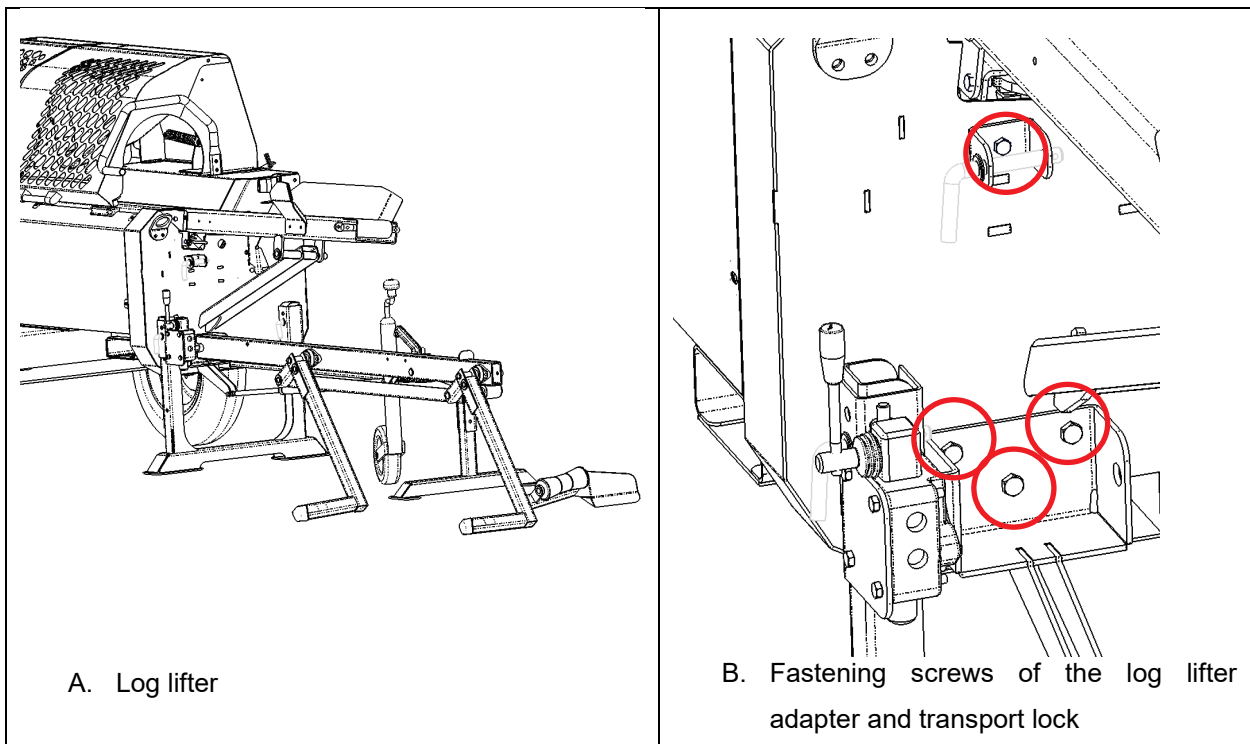
4.4 Light panel

The light panel is available for the ROAD models for registration and transport on roads. The panel includes the necessary lights and wiring harnesses. If the light panel is retrofitted into the frame, observe the instructions in section 2.3.2.

PART NUMBER 315820 LIGHT PANEL

4.5 Log lifter

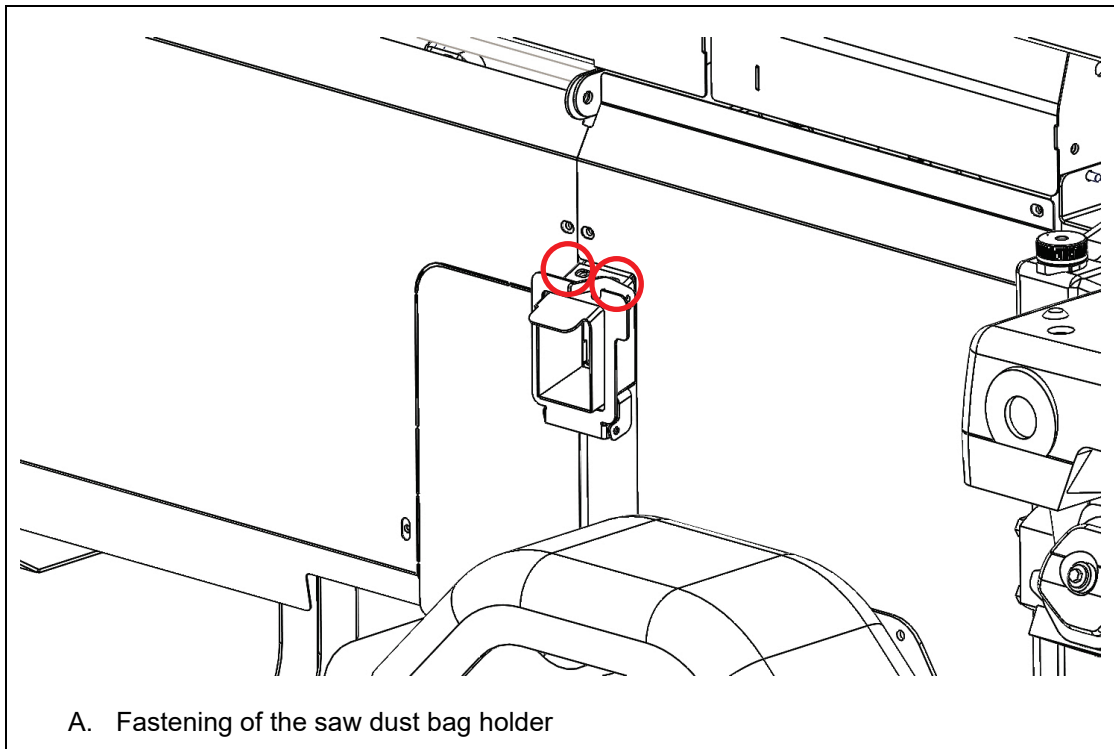
The hydraulic log lifter makes it easier to lift large logs onto the in-feed conveyor when an easily transportable method is needed and the log rack cannot be used. A log lifter can also be retrofitted on the firewood processor. All fastening parts and supplies required for the installation are supplied with the log lifter. The hydraulic diagram 8.3 illustrates the location of the hydraulic system where the log lifter should be placed, and Figure 4.5.B provides instructions on fastening the log lifter to the firewood processor's frame for transport.



PART NUMBER JAPA494 LOG LIFTER

4.6 Saw dust bag holder

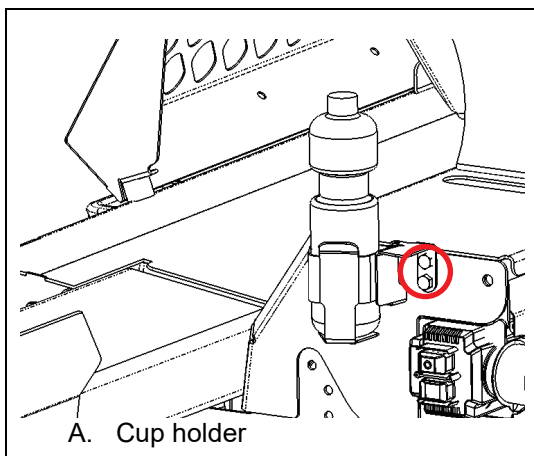
With the saw dust bag holder, you can collect the majority of saw dust directly into a waste bag. This keeps the work site clean! A saw dust bag holder can also be retrofitted on the firewood processor. All fastening parts and supplies required for the installation are supplied with the holder. The holder is fastened to the frame with two M8 bolts.



PART NUMBER 315170 SAW DUST BAG HOLDER

4.7 Cup holder

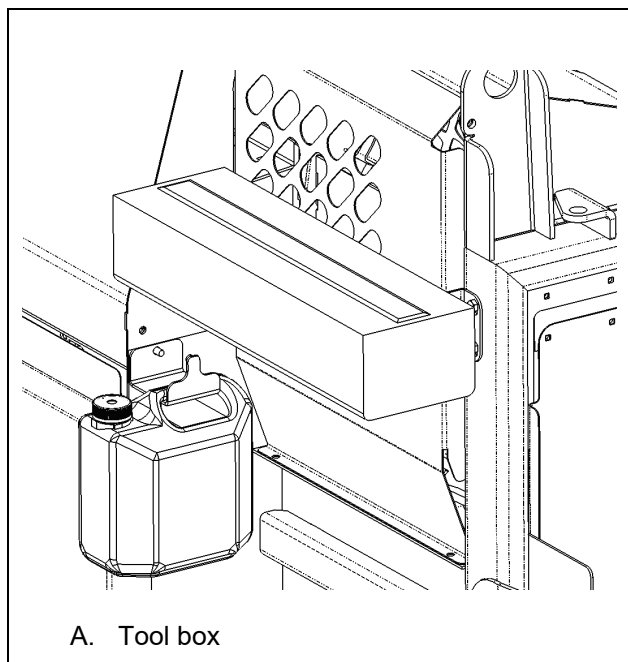
The cup holder ensures that you can have a refreshing beverage on hand when processing firewood. The holder is intended for 0.5 l and 0.33 l bottles and cans. The cup holder can also be retrofitted on the firewood processor, and the delivery includes all fastening parts required for the installation.



PART NUMBER 315950 CUP HOLDER

4.8 Tool box

With the tool box, you can easily keep all the necessary saw chains, saw bars and most frequently required tools with the machine. The tool box can also be retrofitted on the firewood processor, and the delivery includes all fastening parts required for the installation.



PART NUMBER

315994

TOOL BOX

5. Maintenance and troubleshooting, all models

5.1 Maintenance table

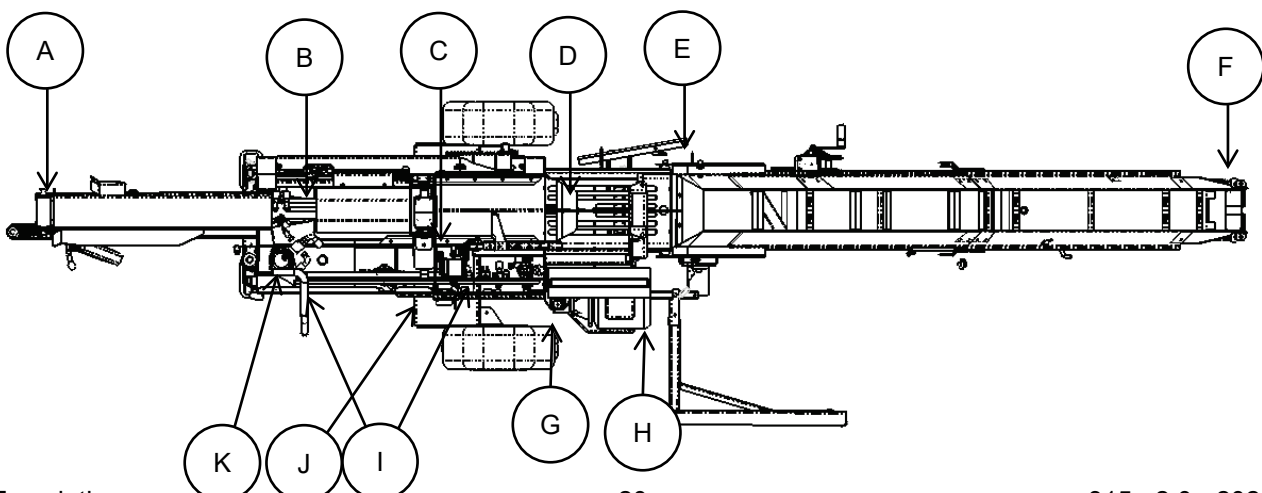
A maintenance programme has been designed for the Japa firewood processor to ensure that its service life is as long as possible. The owner is responsible for maintaining the device. Using the machine carelessly and neglecting maintenance may void the guarantee. The maintenance tasks are itemised as follows:

- 10 hr Daily maintenance, to be conducted before use.
- 200 hr Monthly maintenance, at least once a year.
- 1,000 hr Annual maintenance, at least every other year.

When the machine is used for less than 200 hrs/year, the 200 hr maintenance is performed as the annual maintenance and the 1,000 hr maintenance is performed every other year.

MAINTENANCE TARGET		TASK	INTERVAL 10 h	INTERVAL 200 h	INTERVAL 1000 h	SUBSTANCE/ITEM
A	In-feed conveyor	Tighten		x		As necessary
B	Splitting equipment	Clean		x		
C	Cutting blade	Check Replace	x			As necessary (96040/96043)
D	Splitting knife	Check Sharpen	x			As necessary
E	Out-feed conveyor, bearings	Lubrication		x		Ball bearing grease
F	Out-feed conveyor, belt	Tighten		x		
G	Saw lubrication oil	Fill	x			Saw chain oil (3 l)
H	Electrical equipment	Clean	x			
I	Saw shaft, bearings	Grease		x		Ball bearing grease
J	Transmission, oil (TR)	Check Replace		x		SAE 80W-90 200 ml (0.2 l)
K	Hydraulic oil Normal conditions Oil filter	Check Replace Replace	x			ISO 46 S / 30 l 94134/1 pc
	Battery*	Check			x	
	Machine operation	Check	x			
	Safety equipment	Check	x			

*) accessory

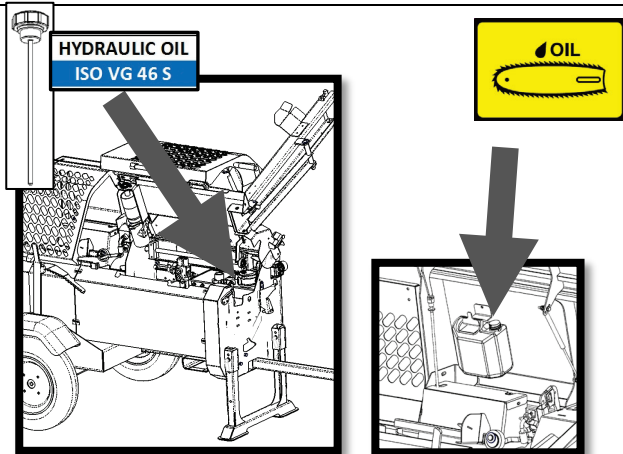
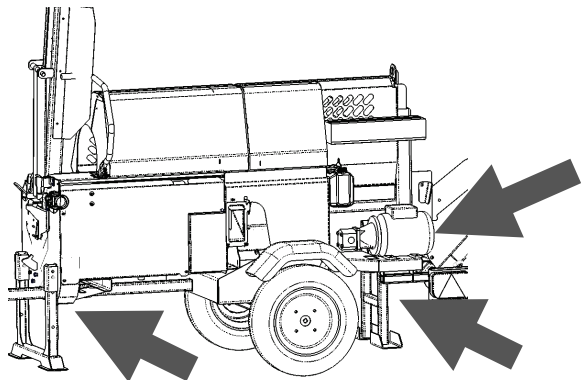
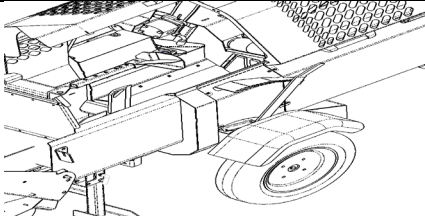
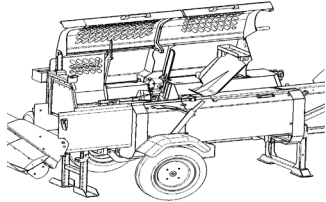
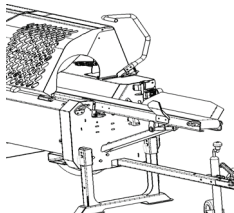


5.2 First maintenance

In order to ensure a long service life for your machine, we recommend replacing the hydraulic oil filter in conjunction with the first 50 hr maintenance. This ensures that impurities are removed from the system.

5.3 Daily maintenance (10 hr)

The daily maintenance is intended to be performed between instances of use. The maintenance consists of checking the fluid levels and the cutting and splitting knives, and testing the operation of the machine and safety equipment. Test the operation of the machine and its safety equipment in accordance with Section 3. Do not use the machine if the safety mechanism does not function (3.3).

 <p>A. Check the fluid levels. Volume of the saw lubrication tank 3 l, hydraulic oil 30 l. NOTE! Hydraulic oil level is indicated by the 10 cm dipstick.</p>	 <p>B. Cleaning. Clear sawdust and debris from the front of the ventilation openings as well as beneath the sawdust removal openings. Keep the battery (accessory) clean and dry, and ensure that the terminals and cable shoes are free of deposits.</p>
 <p>C. Splitting knife. Open the splitting guard and lift the knife to the upper position in order to facilitate inspection. Sharpen the knife if necessary (5.3.2).</p>	 <p>D. Cutting saw. Open the working area guards and sharpen or tension the chain as necessary (5.3.1).</p>
 <p>E. In-feed conveyor Ensure that the in-feed conveyor's belt is properly aligned and tight. Adjust the belt if necessary (5.3.3).</p>	



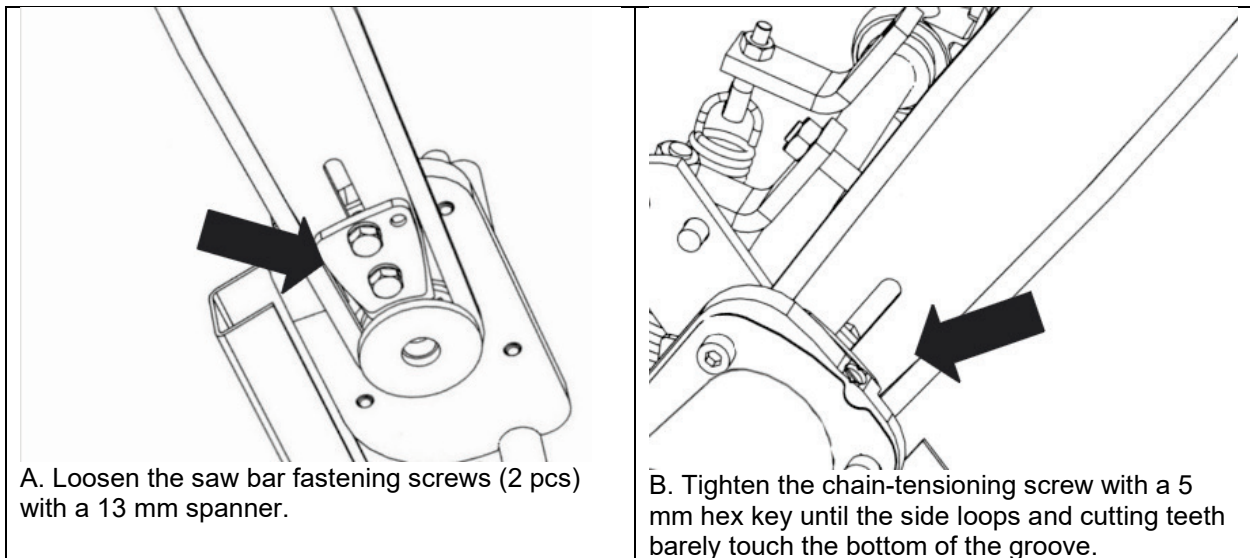
ALWAYS DEACTIVATE THE MACHINE AND DISCONNECT THE POWER SOURCE WHEN CARRYING OUT MAINTENANCE!



THE TRH MODEL DOES NOT FEATURE ITS OWN HYDRAULICS OR HYDRAULIC TANK!

5.3.1 Maintaining the cutting saw

The JAPA 315 firewood machine is equipped with a chainsaw which corresponds to the 13" chain and bar of a traditional chainsaw. The pitch is 0.325 with 56 loops. Check the blade on a daily basis and sharpen or replace it as necessary. We recommend turning the bar every time you replace the chain so that the guide groove, if worn, does not damage the new chain.

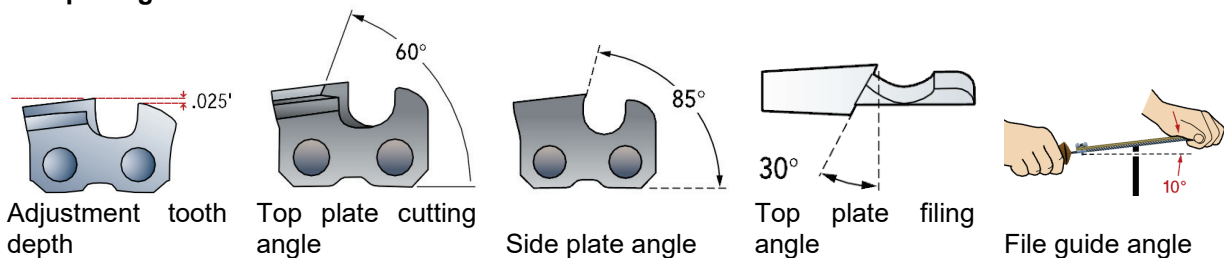


ALWAYS DEACTIVATE THE MACHINE AND DISCONNECT THE POWER SOURCE WHEN CARRYING OUT MAINTENANCE!



AFTER MAINTENANCE, ALWAYS REATTACH ALL THE GUARDS YOU HAVE REMOVED AND CHECK THE OPERATION OF THE SAFETY DEVICES BEFORE BEGINNING OPERATION!

Sharpening the chain



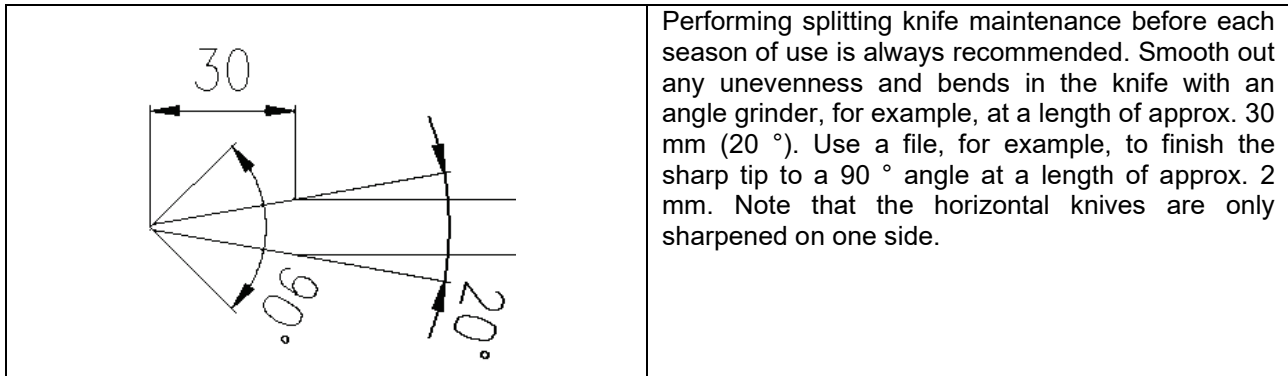
Chain replacement

- When installing a new chain, soak the chain in oil overnight to ensure that the oil penetrates all sections of the chain.
- Do not use a worn drive wheel or saw bar with a new chain. We recommend that you replace the saw bar after every second chain, and the drive sprocket after every third chain.
- Once you have installed the new chain, perform quick pumping motions with the sawing handle before beginning operation, so that sufficient oil is applied to the chain.
- When starting off, check the chain tension frequently. The new chain tends to initially conform to the saw bar.
- Saw lightly at first and avoid excessive pressure.

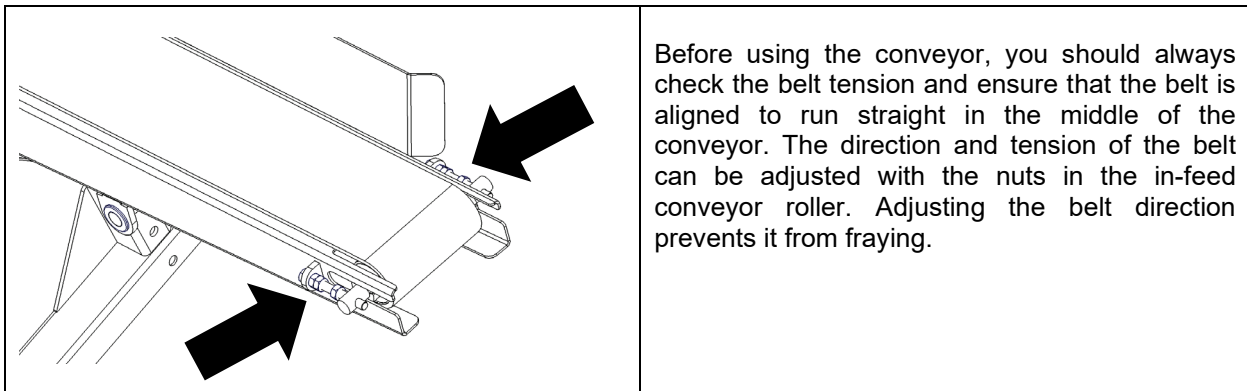


USE PURE MINERAL OILS INTENDED FOR BLADE LUBRICATION ONLY. DO NOT USE BIO OR WASTE OIL!

5.3.2 Maintaining the splitting knife

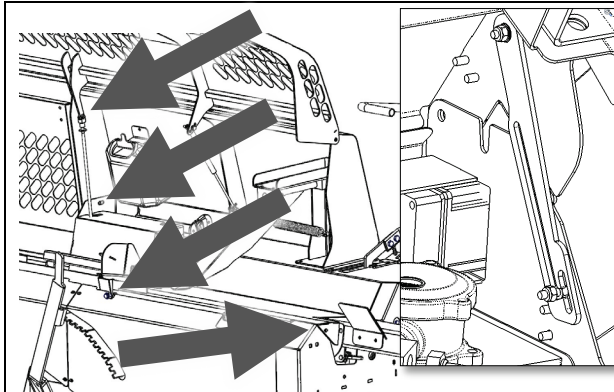


5.3.3 Adjusting the in-feed conveyor belt

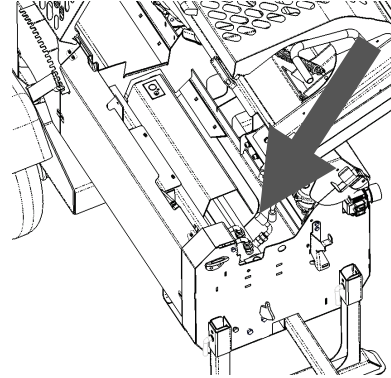


5.4 Monthly maintenance (200 hrs)

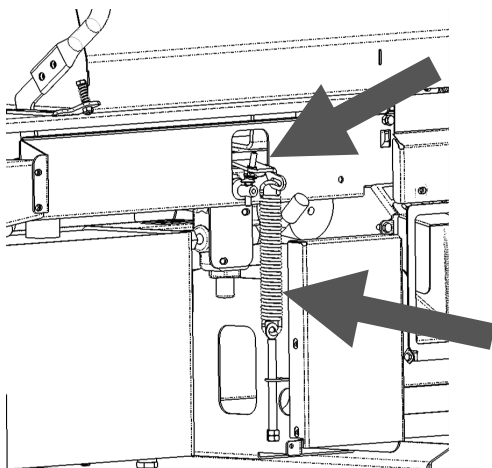
The 200 hr maintenance is intended to be performed between long work periods, roughly after every 20–30 days of use. Clean the machine and check the adjustments to prevent any problems from occurring.



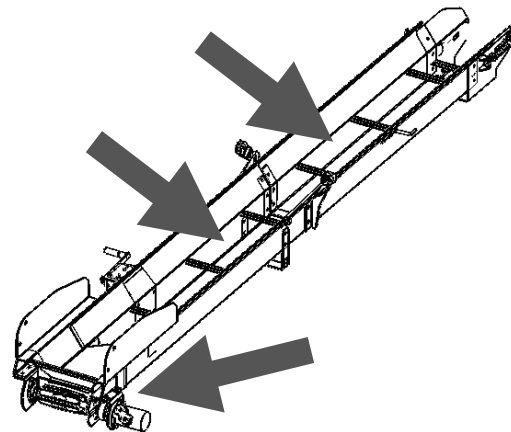
A. Detach safety rod and three 13 mm screws in the cover and lift the cover open. Ensure that the locking plate moves into the locking position.



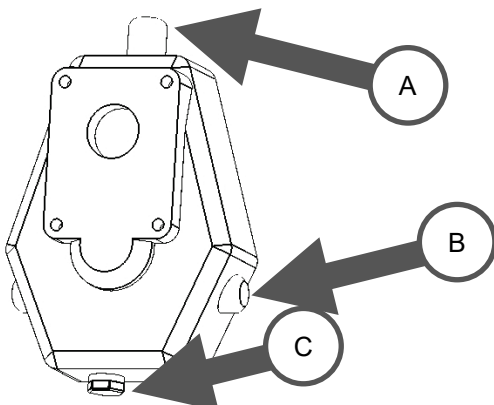
B. Clear debris and other impurities from inside the machine, particularly from the pusher groove.



C. Check the adjustments of the saw valve and return spring. Tighten the return spring and adjust the stop screw as necessary (5.4.1).



D. Remove impurities from the bottom groove of the conveyor and the drive roller at the bottom end. Tighten the conveyor belt if necessary (2.4.M).



F. Check the oil level of the multiplier gear (TR models only) A. breather cap, B. inspection plug, C. draining plug



ALWAYS DEACTIVATE THE MACHINE AND DISCONNECT THE POWER SOURCE WHEN CARRYING OUT MAINTENANCE!



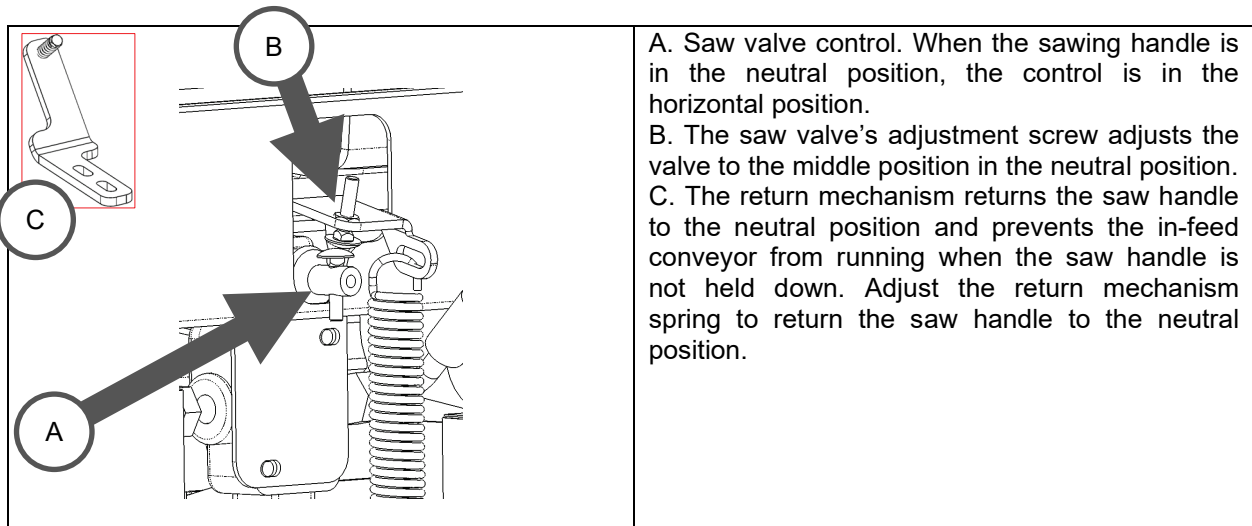
PERFORM THE MAINTENANCE PROCEDURES LISTED IN THE COMBUSTION ENGINE'S MANUAL (BE MODELS ONLY)!



AFTER MAINTENANCE, ALWAYS REATTACH ALL THE GUARDS YOU HAVE REMOVED AND CHECK THE OPERATION OF THE SAFETY DEVICES BEFORE BEGINNING OPERATION!

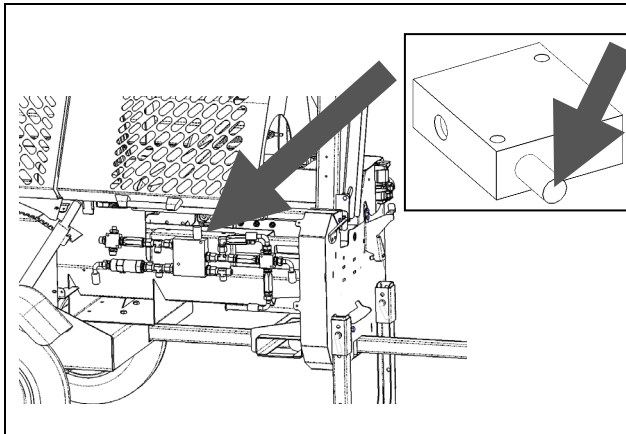
5.4.1 Adjustments of the cutting and splitting device and in-feed conveyor

Incorrectly adjusted saw valve control may cause hazardous situations as the saw or in-feed conveyor may, for example, keep running or heat the hydraulic oil excessively. Always check the following adjustment in conjunction with the monthly maintenance and tighten the return spring.



5.4.2 Adjustment of the speeding valve

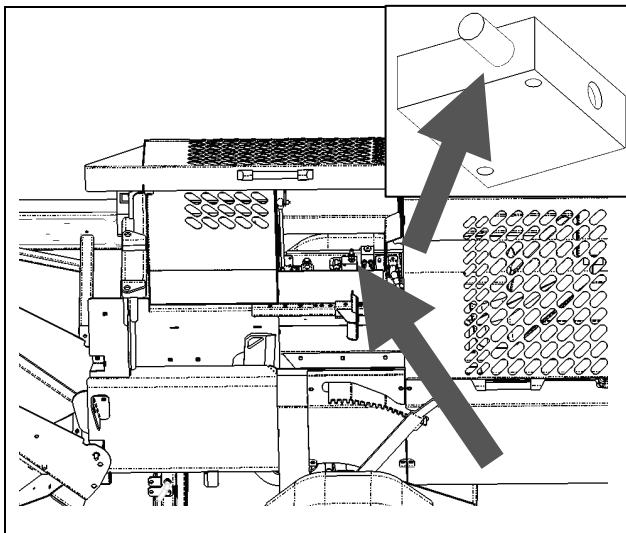
The Japa 315 is equipped with an automatic speeding valve, which can be found under the front cover. The speeding valve adjusts the force and speed of the splitting cylinder. With low resistance, the working motion proceeds at half power and full speed. If resistance increases, the cylinder speed slows down and splits at full power.



1. Remove the protective cup from the tip of the cartridge.
2. Adjust the cartridge by turning it $\frac{1}{4}$ of a rotation with a hex key.
TIGHTEN if the working motion is too slow.
LOOSEN if the motion is consistently too fast.
3. Reattach the protective cup.

5.4.3 Adjusting the conveyor's relief valve

The 315 models with a hydraulic out-feed conveyor also feature a relief valve that prevents the conveyor from being damaged if jammed. If the conveyor is overloaded, the valve engages a bypass.

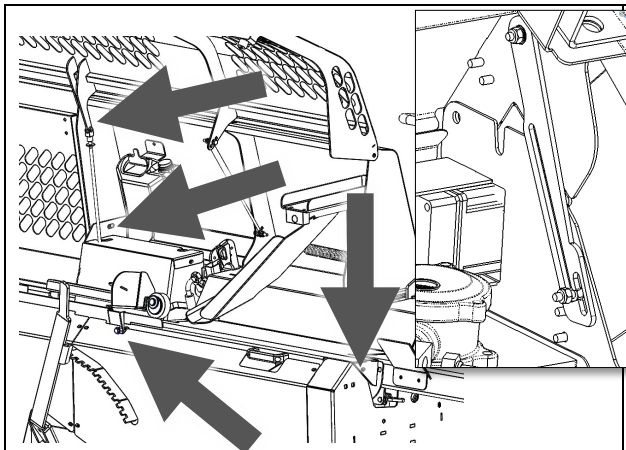


1. Loosen the locking nut.
2. Adjust the cartridge by turning it $\frac{1}{4}$ of a rotation with a hex key.
TIGHTEN if the valve is too sensitive.
LOOSEN if the valve does not trip before the belt slips.
3. Retighten the locking nut.

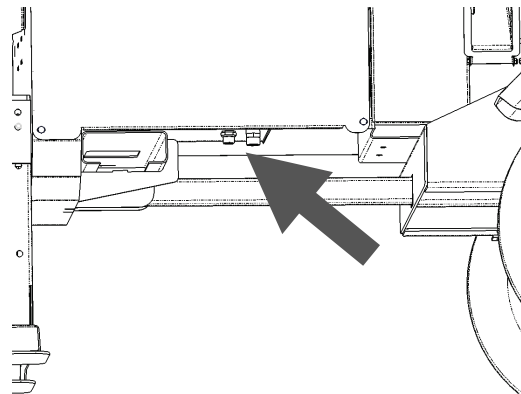
5.5 Annual maintenance (1,000 hrs)

The 1,000 hr maintenance is intended to be performed once or twice a year, after approx. every 100–150 days of use. The aim is to go through the entire machine, replace filters and perform adjustments. The 200 hr maintenance tasks are also performed at the same time (5.4). Check all hydraulic hoses for leaks or damage, and replace damaged hoses immediately! In BE models equipped with the electric starter accessory, the electrolyte level (acid) of the battery must be checked and water added if necessary.

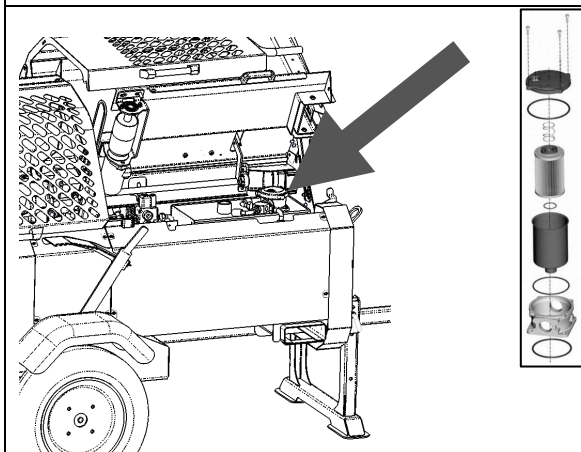
TRH models do not require the 1,000 hr maintenance since they utilise external hydraulics.



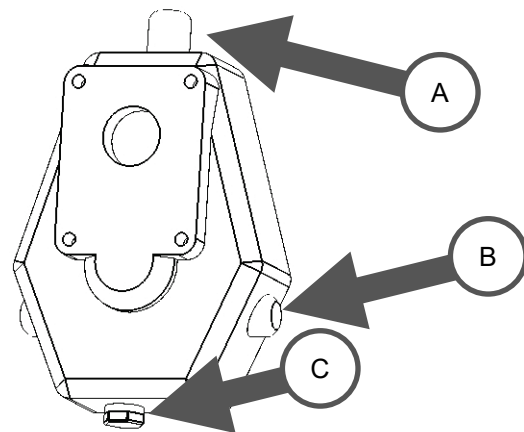
A. Detach safety rod and three 13 mm screws in the cover and lift the cover open. Ensure that the locking plate moves into the locking position.



B. Place a container under the oil tank to collect the discharging oil. The oil tank contains 30 l of oil. Remove the plug in the bottom of the hydraulic oil tank, and allow the oil to flow into the container below. Once the oil has been drained, reinstall the bottom plug.



C. Detach the filter cover and remove the old filter cartridge and casing. You can add oil (30 l) when the cartridge is removed. Install the new filter and replace the cover.



D. Remove bottom plug C and drain the gear. Reinstall the plug and add 0.2 l of transmission oil.



ALWAYS DEACTIVATE THE MACHINE AND DISCONNECT THE POWER SOURCE WHEN CARRYING OUT MAINTENANCE!



THE TRH MODEL DOES NOT FEATURE A HYDRAULIC OIL PUMP OR HYDRAULIC OIL TANK!



AFTER MAINTENANCE, ALWAYS REATTACH ALL THE GUARDS YOU HAVE REMOVED AND CHECK THE OPERATION OF THE SAFETY DEVICES BEFORE BEGINNING OPERATION!

6. Troubleshooting

FAULT	POSSIBLE CAUSE	MEASURE
The device does not start	BE – no fuel BE – power switch in the 0 position E – burnt fuse E – tripped motor protection switch TRH – incorrect hose direction TR – ratchet in the power take-off shaft TR – broken bushing between the gear and pump	Add BE98 or 4T small engine petrol Turn the power switch to the 1 position (2.5 D) Replace the fuse Wait for the motor to cool Reverse the hoses (2.5 A) Replace the shaft (2.5 B) Replace the bushing [94131]
The electric motor runs in the wrong direction	Incorrect rotation direction due to the phase sequence	Switch the direction from the socket (2.5 C)
Cutting does not work	The guard is not properly attached There is either no or too little oil The chain/saw bar is damaged Adjustments/operation of the saw valve Adjustments/operation of the relief valve	Close the working area guards Check the level of hydraulic oil (5.3 A) Perform blade maintenance (5.3.1) Check the saw valve (5.4.1) Check the relief valve. <i>NOTE! product safety (1.9)</i>
The saw cuts poorly	The chain/saw bar is damaged Something is preventing saw shaft rotation	Perform saw maintenance (5.3.1) Remove the blockage
The saw does not stop	The saw shaft does not return to the neutral position The saw valve does not return to the middle position	Tighten/replace the spring (5.4.D) Check the adjustments (5.4.1)
The splitting does not work	There is either no or too little oil There are impurities under/behind the pusher The saw valve's adjustments have changed	Check the level of hydraulic oil (5.3 A) Clean the splitting device (5.3) Adjust the saw valve (5.4.1)
The motion of the pusher lacks speed or power	There is either no or too little hydraulic oil The oil is too cold The saw valve's adjustments have changed The speeding valve does not change the power	Check the level of hydraulic oil (5.3 A) Allow the machine to run for a few minutes before starting work. Adjust the saw valve (5.4.1) Adjust the speeding valve (5.4.2)
The pusher jams at the other end	Something is preventing saw shaft rotation	Remove the blockage and clean the machine (5.3)
The splitting motion does not stop	The saw shaft does not return to the neutral position The saw valve does not return to the middle position	Tighten/replace the spring (5.4.D) Check the adjustments (5.4.1)
The log does not split	The splitting knife is incorrectly adjusted The diameter exceeds 31 cm The log is jammed on the knife There is a knot in the splitting section, the end is crooked or the log is malformed	Adjust the level of the splitting knife (3.5 A) Remove the log Reverse the pusher, place a smaller piece of wood in the groove, and test the splitting function (3.5) Turn and position the end of the log firmly against and perpendicular to the splitting knife If the splitting still does not work, remove the splitting knife from the machine frame for cleaning
The oil heats to over 80 °C	The power take-off speed is too high Too little/too much oil The saw valve does not return to the middle position	MAX RPM 400 (2.5 B) Add/remove oil (5.3 A) Check the adjustments (5.4.1)
The log rises up during splitting	The stroke length is too short, which leaves the previous log attached to the knife	Run the pusher up to the knife
The conveyor belt jams	The belt is loose	Tighten the belt (2.4 M)

	The logs collide with the conveyor belt The belt is crooked	<i>The conveyor angle is too steep (2.4 K) Adjust the top roller of the conveyor</i>
The conveyor does not move	A log has become wedged in the conveyor Wrong rotation direction (E models) The hydraulic hoses of the conveyor are disconnected/loose The relief valve leaks	<i>Remove the wedged log Switch the direction from the socket (2.5 C) Clean and reconnect the quick couplings (2.4 L) Adjust the relief valve (5.4.3)</i>
The cutting and splitting device functions with the guard open	The safety mechanism is damaged	<i>Check and adjust/replace the faulty safety mechanism component (3.3 C)</i>

7. Product disposal

The product must be disposed of appropriately at the end of its service life.

- Drain the oil in the machine into a container
- Take the oil to a recycling point
- Take the machine frame to a metal recycling point
- Observe national legislation
- More information on recycling can be obtained from the national authorities

8. Technical specifications

Cutting	Hydraulic chainsaw
Saw bar 13"/1.3 mm	
Saw chain	56 VL / 0.325"/1.3 mm
Max cutting diameter	310 mm
Max splitting length	500 mm
Number of splitting pushers	1
Built-in hydraulic system	Yes (TRH = No)
Electric motor/fuse	4.0 kW/3 x 16A (E models only)
IP	65
Combustion engine	10 kW (BE models only)
Splitting power/cylinder diameter	5.6 t/60 mm
4-way splitting knife	Standard
6-way splitting knife	Accessory
Hydraulic oil tank	30 litres
Blade lubrication oil tank	3 litres
Conveyor/discharge chute length	3.8 m/2.3 m/(discharge chute) 1.6 m
Out-feed conveyor belt width	200 mm
In-feed conveyor length/width	2.0 m/150 mm
Max lifting height	300 cm (45 degrees)
Max weight	730 kg
Max height in working position	306 cm
Max height in transport position:	
2.3 m conveyor	268 cm
3.8 m conveyor	250 cm
discharge chute	160 cm
Max length in working position	850 cm (log lifter)
Max length in transport position	400 cm (ROAD models)
Max depth	133 cm (ROAD models)
Max log diameter	31 cm
Max log length	50 cm
Machine output	2–6 m ³ /hr (run)

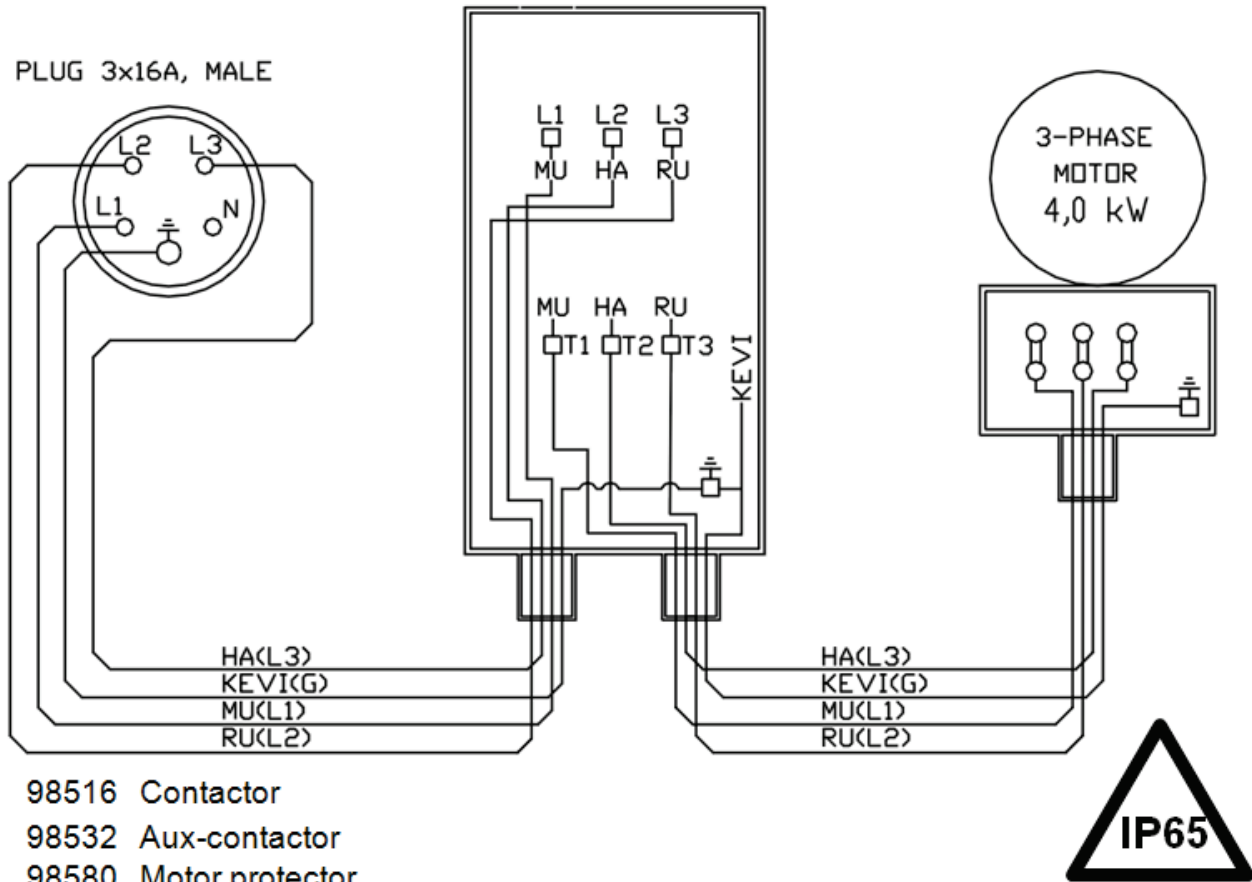
8.1 Technical specifications of the combustion engine (BE models)

Motor type	Honda GX390
Fuel/tank volume	BE95/6.5 l
Motor oil/volume	SAE 10W-40/1.1 l



READ THE MANUAL FOR THE COMBUSTION ENGINE BEFORE USE OR MAINTENANCE!

8.2 Electric motor connection diagram (E models)



Osa	Osan tai kokoonpanoryhmän nimitys			Piirustuksen ja osan n:o	Laatu	Muoto, mitat, malli			Kpl
					Aines				
Osan lajimerkki									
Valmiste	Liittyy	Massa	kg	Toleranssittomat mitat		Suhde (1:2)	Piirt.	JPa	09.05.2012
		Laskettu					Tark.		
		Punnittu					Hyv.		
Laitilan Rautarakenne	JAPA 60E & 100E & 300E				98514				
	ELECTRIC SCHEMA 4kW				Korvaa		Korvattu		



IN THE EVENT OF ELECTRICAL PROBLEMS, CONTACT AN AUTHORISED ELECTRICIAN!

japa