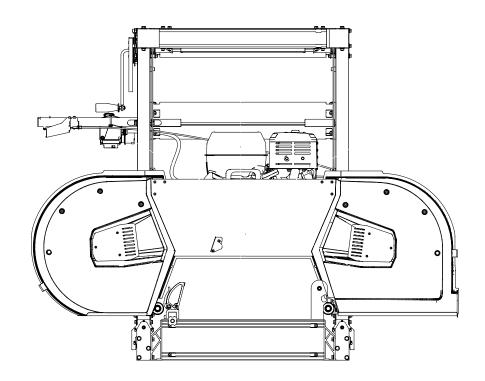
# **IDENTIFY**

# **USER MANUAL**

TRANSLATION OF ORIGINAL USER MANUAL

Ref. no. 0458-395-5641

REV: 0



# **LOGOSOL B701**



Read through the user manual carefully and make sure you understand its contents before you use the machine.



This user manual contains important safety instructions.



**WARNING!** Incorrect use can result in serious or fatal injuries to the operator or others.



#### THANK YOU FOR CHOOSING A LOGOSOL MACHINE!

We are very pleased that you have demonstrated your confidence in us by purchasing this sawmill, and we will do our utmost to meet your expectations.

Logosol has been manufacturing sawmills since 1989. In that time we have supplied approximately 50,000 machines to satisfied customers the world over.

We care about your safety as well as we want you to achieve the best possible results with your sawmill. We therefore recommend that you take the time to carefully read this user manual from cover to cover in peace and quiet before you begin using the saw. Remember that the machine itself is just part of the value of the product. Much of the value is also to be found in the expertise we pass on to you in the user manuals. It would be a pity if that were not utilised.

We hope you get a lot of satisfaction from the use of your new machine.

**Bengt-Olov Byström** 

Bengd-Olar Bystian

Founder,

Logosol in Härnösand, Sweden



LOGOSOL continuously develops its products. For this reason, we must reserve the right to modify the configuration and design of our products.

Document: LOGOSOL B701 User Manual Ref. No. User Manual, English: 0000-0000

Last revised: © 2025 LOGOSOL, Härnösand Sweden

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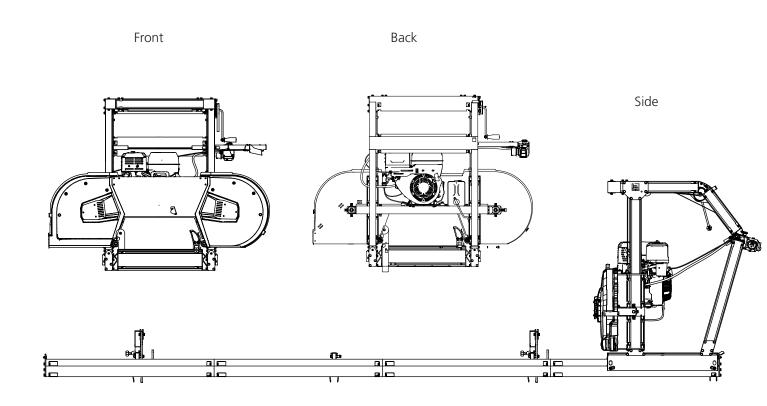
General Information	4
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### **GENERAL INFORMATION**

This user manual, the instructions of the motor, the assembly instructions of the band sawmill and instructions for accessories should be seen as integral parts of the band sawmill and should always be kept together with it. They should also follow the band sawmill if it is sold.

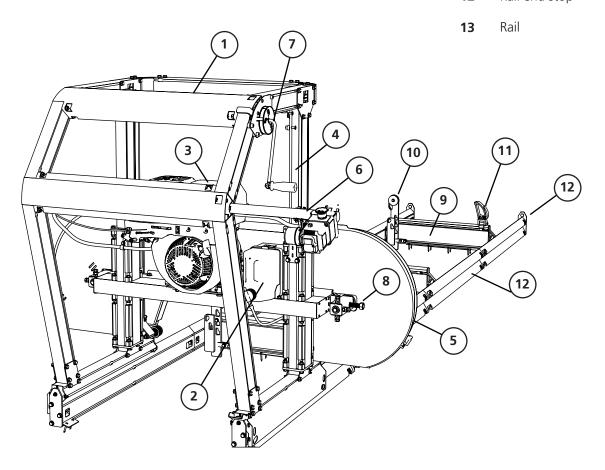
Responsibility for the band sawmill being correctly assembled and put into operation, and being used in a safe way, lies solely with the person(s) who assembles and uses the band sawmill.

### **DESCRIPTION OF THE BAND SAWMILL**



# **DESCRIPTION OF THE BAND SAWMILL**

- 1 Saw carriage
- Blade cooling tank
- Fuel tank
- Depth-of-cut scales
- **5** Band wheel guard
- Push handle/Throttle
- Sawhead height crank
- 8 Blade tension handle
- Cross bunk
- Log support
- Log clamp
- Rail end stop



### **SAFETY INSTRUCTIONS**

#### **KEY TO SYMBOLS**



**WARNING!** This symbol means that you should pay particular attention and is always followed by information about the relevant risk.



This symbol is followed by important information or instructions. Pay particular attention when this symbol appears in the manual text.



For your own safety and the safety of others, do not operate the band sawmill or handle band blades without first having read and understood all the contents of this user manual.



**WARNING!** Cutting tools: Incorrect use can lead to life-threatening injuries. Band blades are extremely sharp and dangerous.



Always use protective gloves (class 1) when working with the band sawmill or handling band blades. Risk of lacerations when handling band blades and some of the plates. Band blades and motor parts may be hot after sawing.



Always use approved hearing protection when working with the machine. Even short exposure to high frequency noise can damage your hearing. Always use closefitting safety goggles when working with the machine or handling band blades. Under certain circumstances the use of respiration protection may be necessary. This would mainly apply if you are sawing dry wood or sawing indoors.



Always wear approved protective footwear with saw protection, steel toe-caps and nonslip soles when working with the machine or handling band blades.



Always wear full-length protective trousers when working with the machine or handling band blades. Never wear loose-fitting clothing, scarves, neck chains, etc., that can get caught in the machine during operation. Secure loose hair before working with the band sawmill.

### SAFETY INSTRUCTIONS

#### THE SAFETY EQUIPMENT OF THE **BAND SAWMILL**



WARNING! Never use the machine if the safety equipment is defective.



The safety equipment must be checked and maintained.

Here is a description of the safety features of the band sawmill together with their functions.

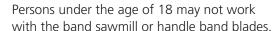
Interlock safety switch on the band wheel guard The machine can not be used without having these guards closed.

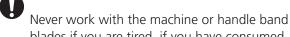
#### Rail end stops

Mechanical stops that prevent the saw carriage from rolling off at the end of the rails.

#### **OPERATOR**

**WARNING!** Whenever the machine is used, approved personal protective equipment must always be used.





blades if you are tired, if you have consumed alcohol or if you are taking medication that can impair your vision, judgement, reaction times, mobility, alertness or otherwise cause negative side effects.

**WARNING!** Never operate a band sawmill with a petrol-powered engine in enclosed or poorly /!\ ventilated areas. This can result in death due to suffocation or carbon monoxide poisoning.

Only operate the band sawmill and handle band blades in full daylight or under adequate lighting.

Keep the work area free from clutter, pets, children, obstacles or other things that can distract the operator.

Choose a worksite where the ground is hardpacked and level, with plenty of space for the band sawmill, a pile of logs and sawn timber. If possible, place the band sawmill so that the sawdust blows away from the operator. Set up the band sawmill on level ground with at least 5 m of free space without any obstacles around the equipment. If the band sawmill is to be set up permanently, we recommend that you support the rail frame with concrete plinths or wooden blocks (15 cm x 15 cm) under each cross bunk.

Always keep a hand-held, ABC type (min. 6 kg) fire extinguisher readily accessible at the worksite.

Always keep a fully-stocked first-aid kit easily accessible at the worksite.

#### THE WORKSITE

# **TECHNICAL DATA**

RAILS/BED	-	
Length of rails, standard	4,6m	
Length of rail extension	1150 mm	
Track width	800 mm	
Total width	856 mm	
Height	165 mm	
Veight	85 kg	
SAW CARRIAGE		
ength	1020 mm	
Vidth	1720 mm	
leight	1305 mm	
Veight	100 kg	
/olume of water tank	5 liter	
eed rate	Manuell	
APACITY		
Max. log diameter	701 mm	
1ax. sawing width	850 mm	
ffective sawing length (standard)	3800 m	
AND BLADE		
ype and size	3843x33 delning 22 mm	
and wheel diameter	500 mm	
and wheel rotation speed	1000 v/min	
lade speed	30 m/s	
AWMILL MOTORS		
Electric motor	4,6 kW, 400 V	
Petrol engine	Briggs & Stratton 13,5 hk	
/olume of fuel tank	5 liter	
OUND LEVELS/VIBRATIONS		
quivalent sound pressure level in the operator's area 1)	88,4 dB(A)	
ound power level (estimated) 2)	109.4 dB(A)	
/ibration level in handle 3)	<2,5 m/s <sup>2</sup>	

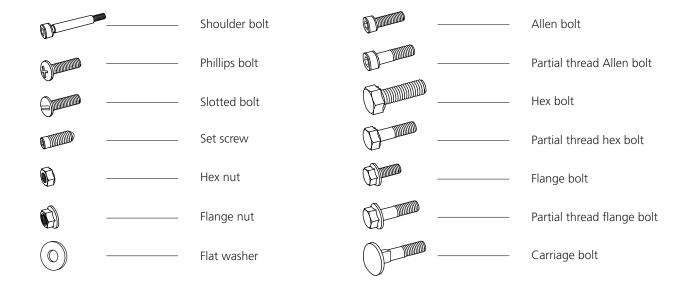
<sup>1)</sup> The typical distribution measurement for equivalent sound pressure level is a standard deviation of 2 dB(A).

<sup>2)</sup> The typical distribution measurement for sound power level is a standard deviation of 3 db(A).

<sup>3)</sup> The typical distribution measurement for the vibration level in the handles is 1 m/s $^{2}$ .

### **BOLTS & NUTS**

Definition of fasteners on following pages.



#### **ADDITIONAL SYMBOLS**

The following symbols are used as supplements to the symbols above to describe the design or function of the fasteners.



#### **DIAMETER & LENGTH**

The size of a fastener is written as a diameter measurement **(M)** ISO 68-1. For bolts, this is followed by a length measurement. The length of the bolt is measured from below the head to the tip of the bolt.

(Diameter)		(Length)	
M8	Х	20	



When this symbol appears during assembly, parts must be lubricated before installation. Lubricate affected parts with universal grease.



This symbol describes the recommended lifting point for heavy lifts.



This symbol describes the sawing direction and reappears during assembly.



Screw the joint finger-tight.

### **COMPONENTS**



#### 01-01153-skp



16 x - M8x65



8 x - M8x90



26 x - M8



64 x - M8x12



72 x - M8



2 x - M8x20



2 x - M8x70



#### 01-01181-skp



23 x - M6



15 x - M6



6 x - M6x25



2 x - M8



2 x - M8x20



8 x - M6x12



2 x - M6



10 x - M6x12



1 x - M6x16



#### 01-01152-skp



2 x - M10x25



2 x - 11x35x3



1 x - M10x80



1 x - M10



6 x - M10x35



6 x - M10



4 x - M8x14



4 x – M8



1 x - M6x40



1 x - M6x50



1 x - M6



#### 01-01125-skp



10 x – M8



2 x - M8x12



4 x - M8x30



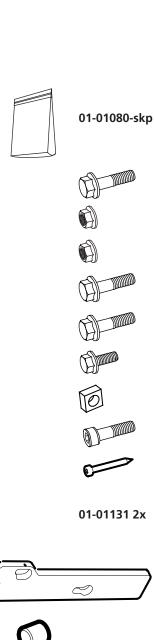
2 x - 11x28x2



2 x - M6x8



4 x - M8x20



18 x - M8x50

30 x - M8

4 x - M6

12 x – M8x35

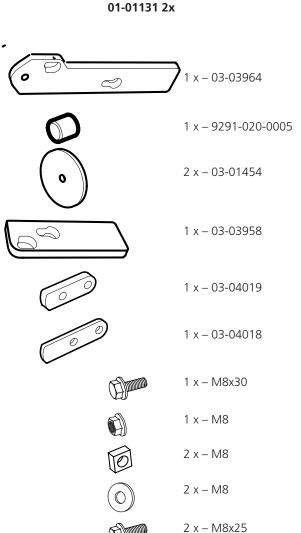
3 x - M8x60

12 x - M8x16

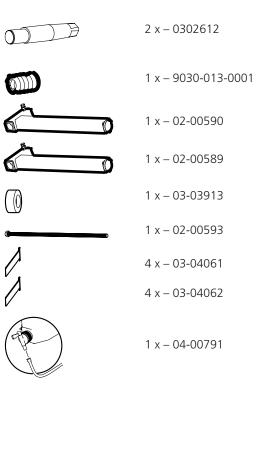
24 x - M8

9 x - M8x40

28 x - 5x40



# 01-00134 8 x - 03-03957 3 x - 03-03947 6 x - 03-03948 3 x - 03-04025 6 x - 03-04064 4 x - 03-03903 4 x - 04-00787 2 x - 4508-001-1027 2 x - 03-04086 2 x - 01-00485-13 2 x - 9025-015-0030 2 x - 03-02610 2 x - 0302612 4 x - 03-04061



01-00134		01-00134	
	1 x – 03-03970		2 x – 03-03896
	1 x – 03-03968		1 x – 03-03895
	1 x – 03-03967		1 x – 03-03872
	2 x – 03-03966	2,	1 x – 03-03871
	2 x – 03-03969		1 x – 04-00423
	2 x – 03-03971	$\mathcal{G}$	1 x - 03-04049
	1 x - 03-03943		6 x – 03-04035
	2 x - 9034-011-0001		2 x - 03-04035
	1 x - 03-03973		2 x - 6600-001-3023
(00)	2 x – 03-03972		2 x – 03-04057
$\square$ ()	1 x – 9037-012-0005		2 x - 04-00813 2 x - 9321-635-1612
	4 x – 03-04055	•	2 x - 03-04088
			2 x - M8x80/80
	4 x – 03-04056		2 x – M8
	4 x - 03-04054		1 x – 03-04011
	1 x - 03-04080		1 x – 01-01148
			2 x - 01-01110



### **ASSEMBLY OF RAIL FRAME**

Start assembling the sawmill by mounting the rails. The sections of rail are place under the saw head in the pallet. Assembly involves heavy lifting and it requires two people to help with the work.



**! WARNING!** Heavy lifting! Risk of injury.



**WARNING!** Risk of crush injuries.



Two people should always help with heavy lifting.



Always wear protective gloves and handle the motor carefully when placed on the motor shelf.

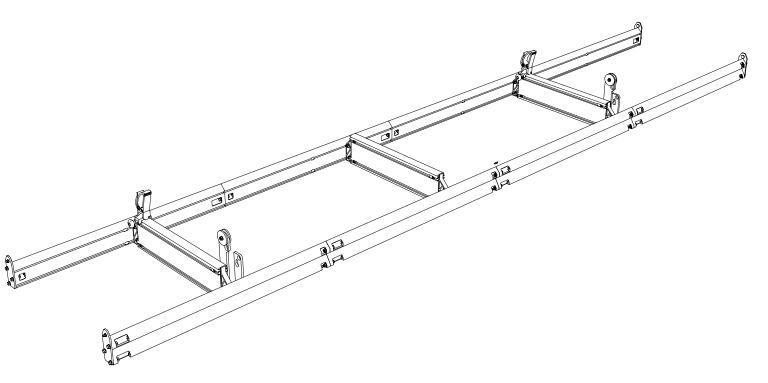
#### **EXTRA EQUIPMENT:**

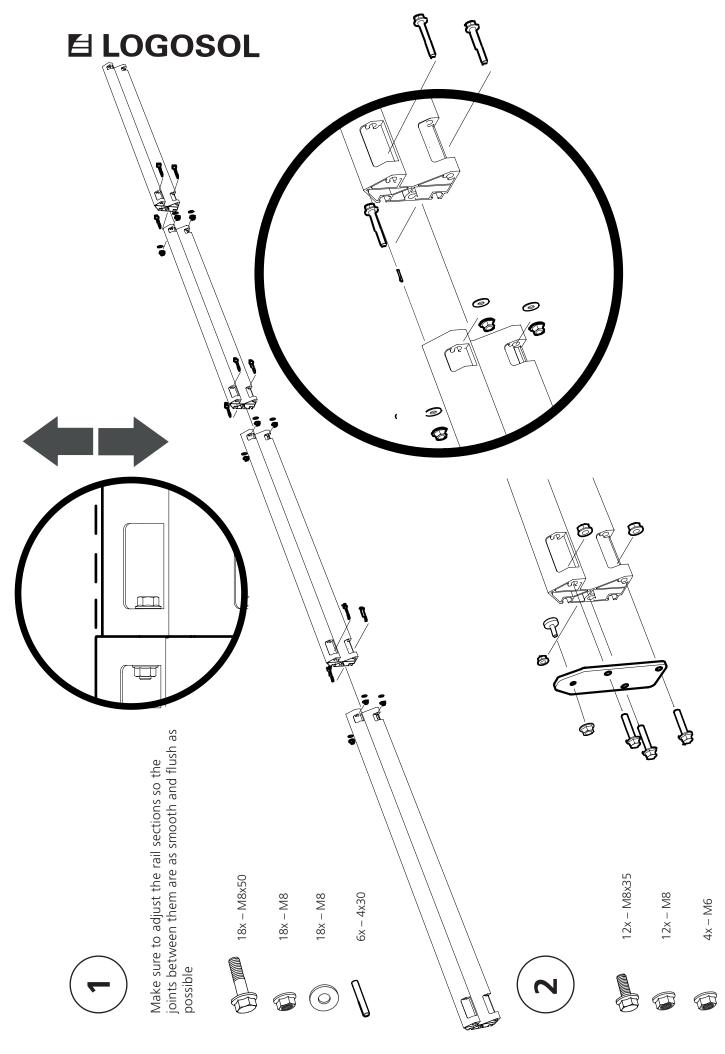
There are accessories for this machine that may affect the sequence of assembly in this manual. Read through the assembly instructions in the various manuals before starting work to get an overview of the different procedures.

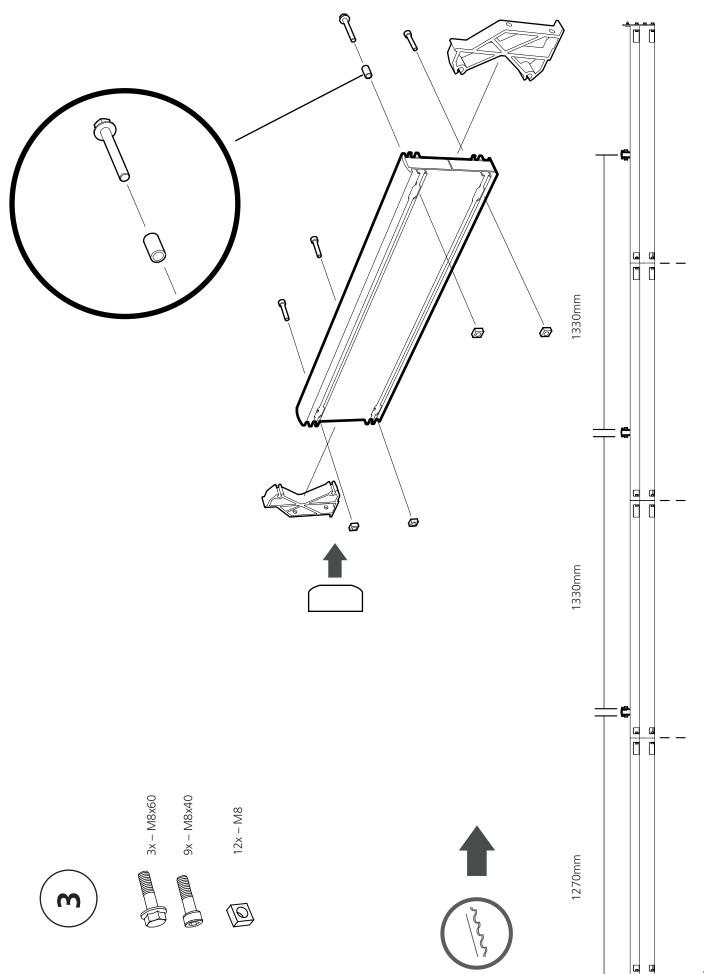
#### **SETUP:**

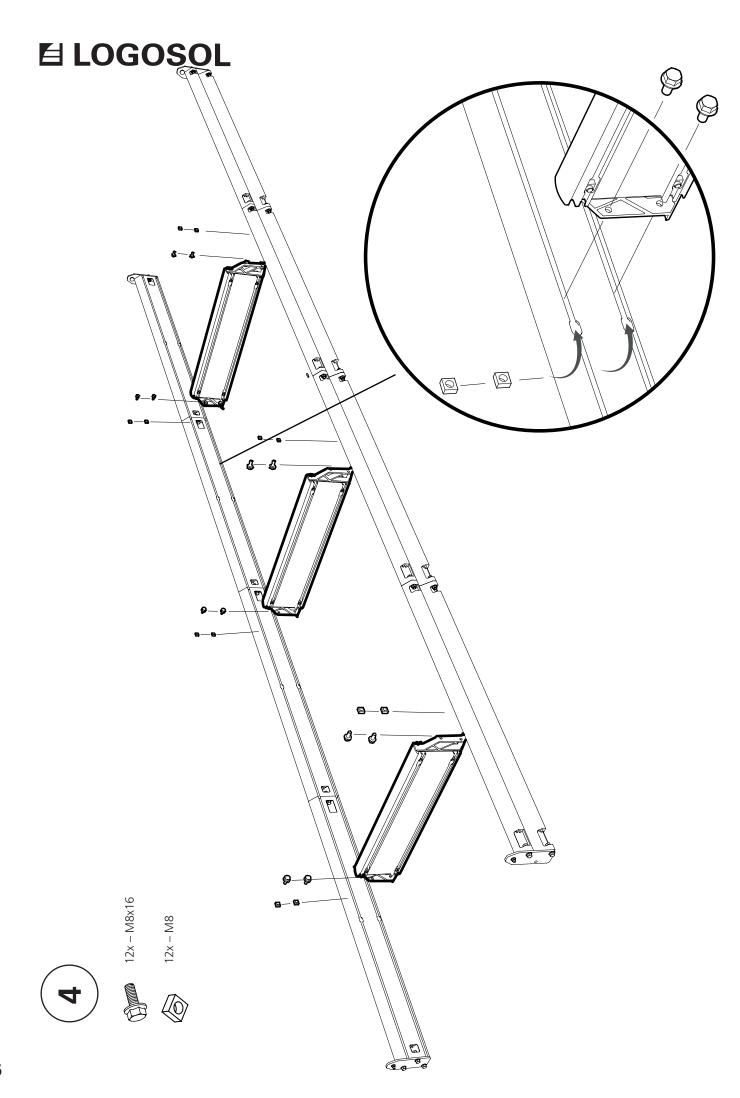
The goal of assembling and adjusting the sawmill rail is to achieve a flat, horizontal rail with parallel sections and as seamless joints between the sections as possible. A wellleveled rail is essential for achieving accurate sawing results. Be sure to prepare a flat and stable surface for setup. The rail must be supported beneath the cross bunks the load from the logs must not rest directly on the rail sections.

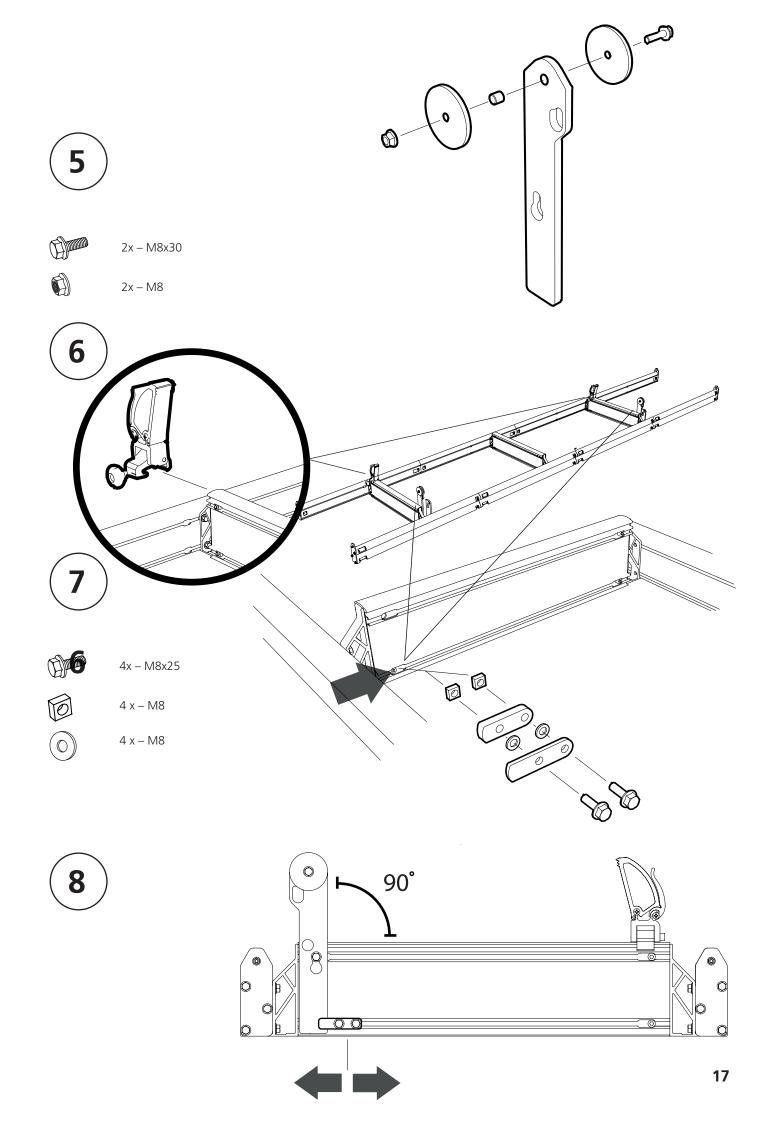
The sawhead and the carriage is then adjusted according to the rail; the sawing result will depend on how well the rail is aligned.











### ADJUSTING THE RAIL FRAME

To ensure proper rail function, it is important that it is completely flat. It must be placed on a stable surface with support directly beneath the log supports. Logosol recommends placing the supports on squared timbers, 100x100 mm.

The weight of the logs must not stress the rail sections. Prepare the setup site so the squared timbers are parallel and level, both lengthwise and across. This makes it possible to move the sawmill later while leaving the support base in place.

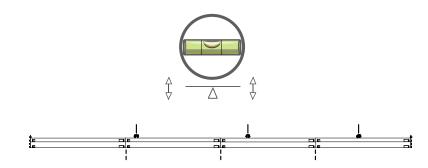
24x – 4,8x40

ADJUST THE LEVELNESS OF THE RAIL FRAME

To ensure a good sawing result, it is important that the rails are completely level. Earlier, we have adjusted the levelness along the long sides of the rail frame. Now the rail frame is to be adjusted on its short sides. Place a spirit level on a cross bunk and adjust the levelling feet until the rails are on a level. Repeat this procedure on all cross bunks until the rails are on a level along the whole length of the rail frame.



This step is crucial for the precision of the sawmill. Be careful and put some extra time into this step.



# **MOUNTING THE SAWHEAD**

Assembly begins with mounting the rail. The rail parts are packed underneath the sawhead. The assembly involves heavy lifting, and two people are required to carry out the installation safely.



**! WARNING!** Heavy lifting – risk of injury.



**! WARNING!** Risk of crushing injuries



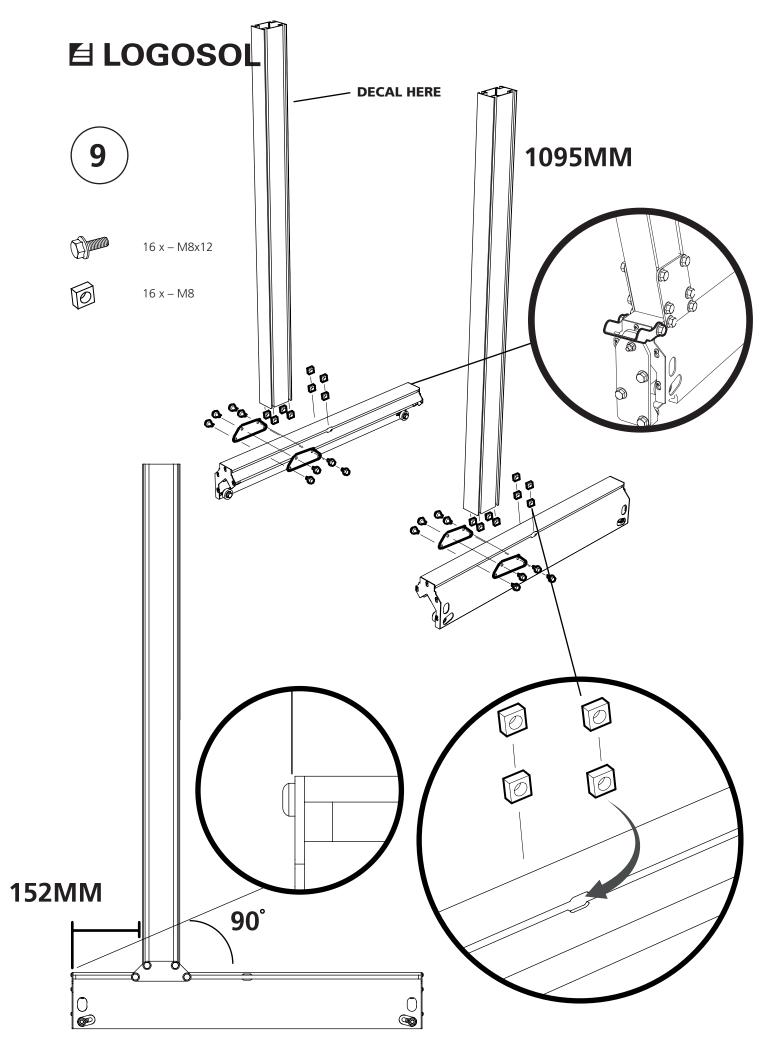
Always have two people for heavy lifting.

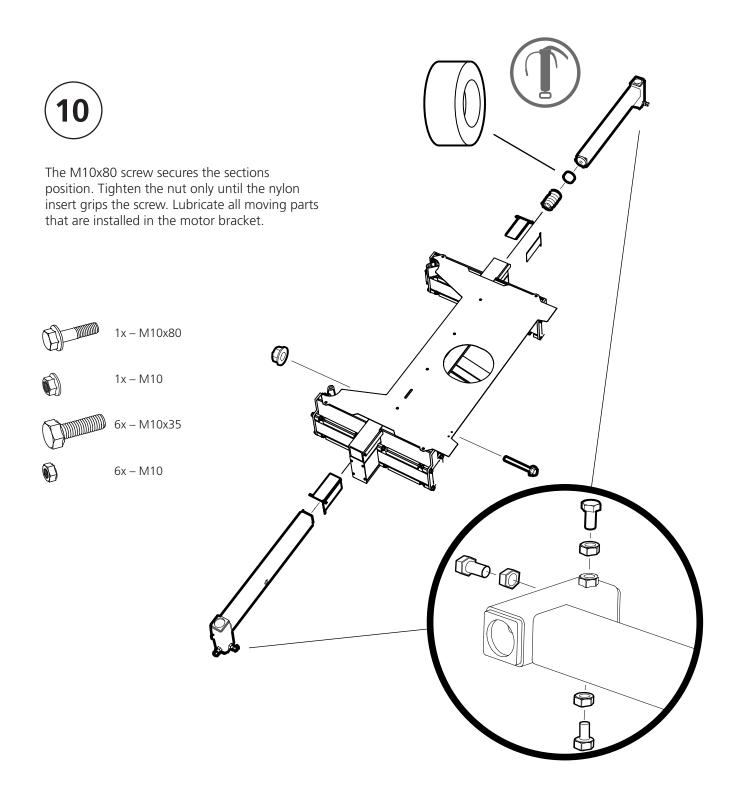


Wear protective gloves and handle the motor carefully when placing it onto the motor bracket.

#### **ASSEMBLY OBJECTIVE:**

The goal of assembling and adjusting the sawhead is to achieve a stable saw carriage where both the bandsaw wheels and blade guide rollers are aligned so the blade runs parallel to the rail. A properly adjusted sawhead is crucial for achieving good sawing results. Pay close attention during installation and adjustment — the quality of the cut will reflect how well the saw has been aligned.



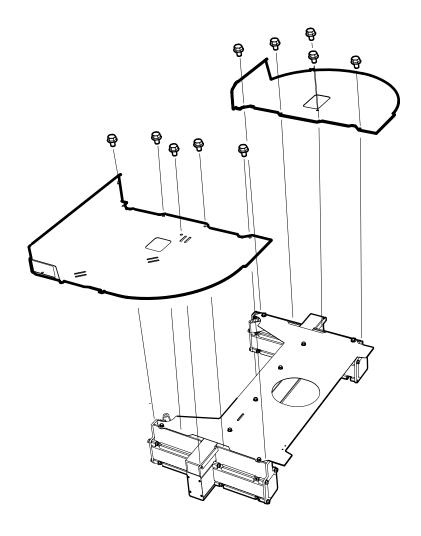


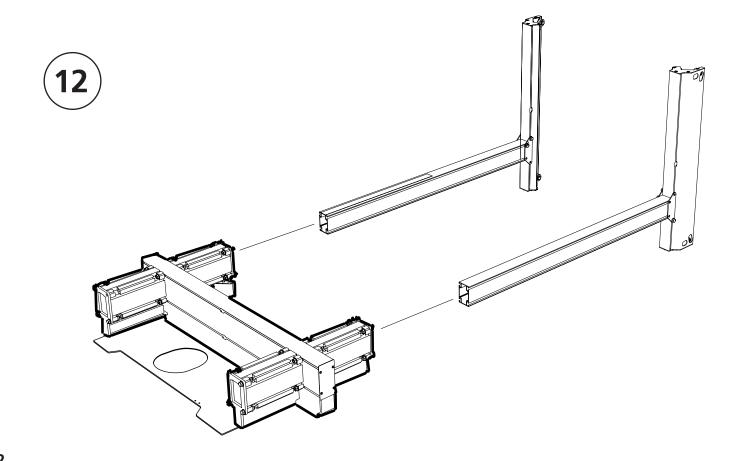


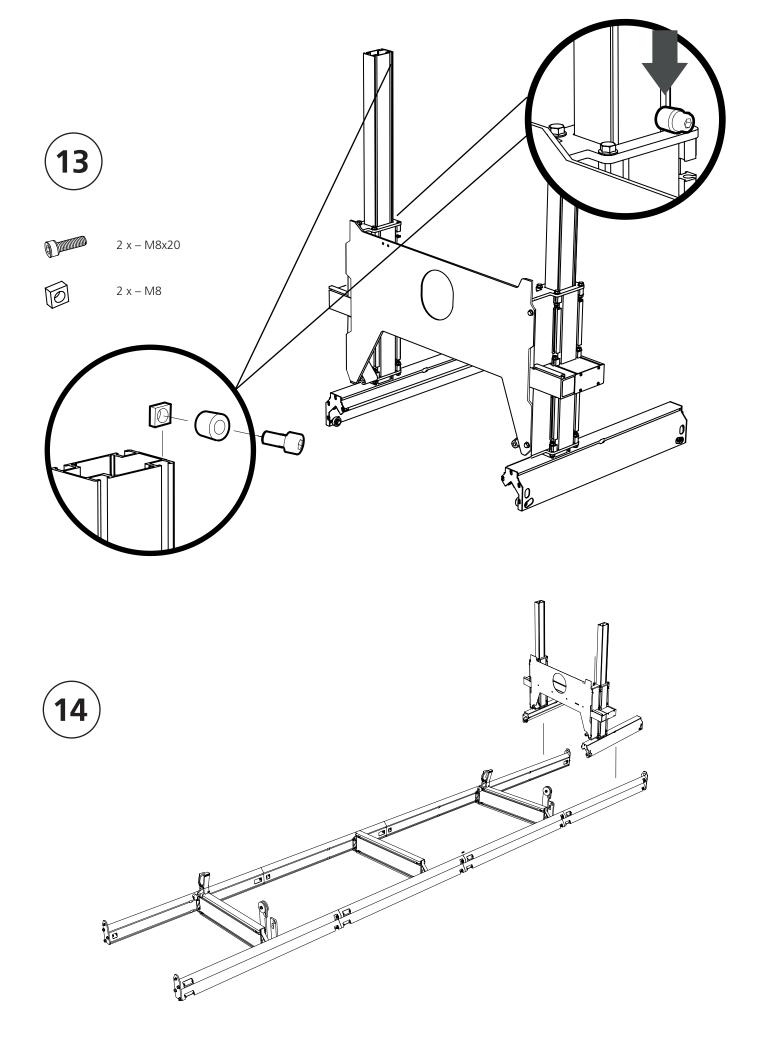


10x - M6x12





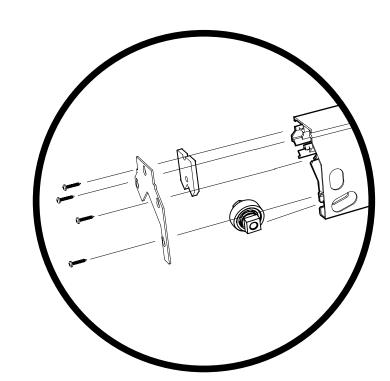


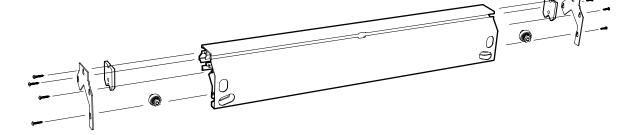


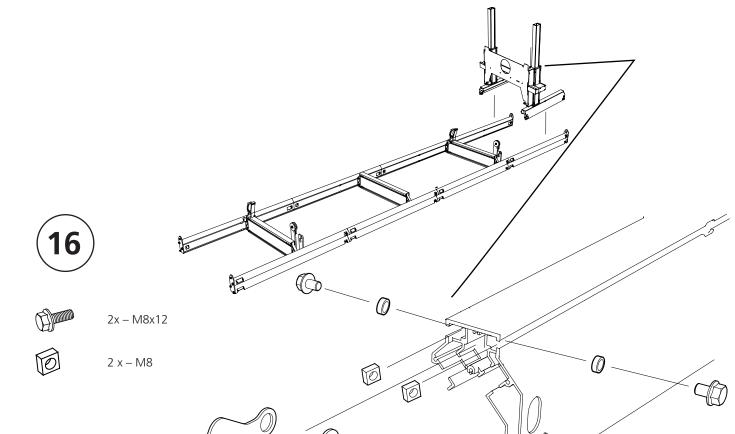


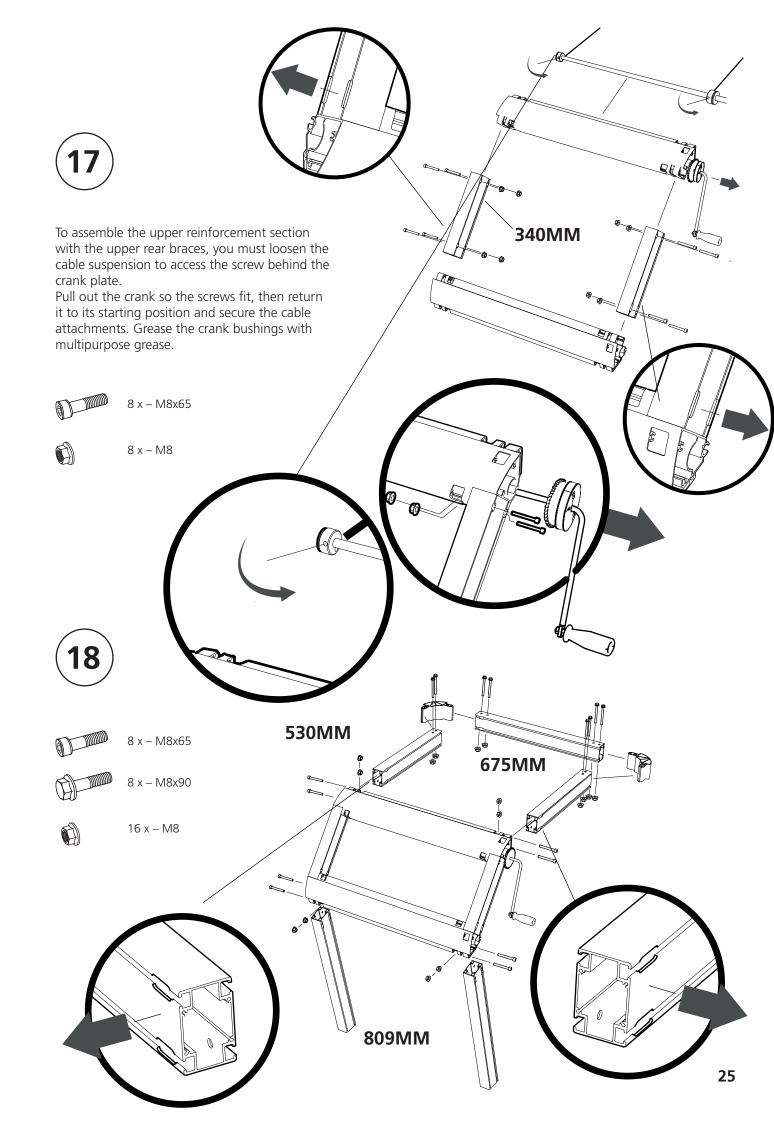
To improve the function of the felt wiper, it is recommended to prep it with kerosene (lamp oil) before use.

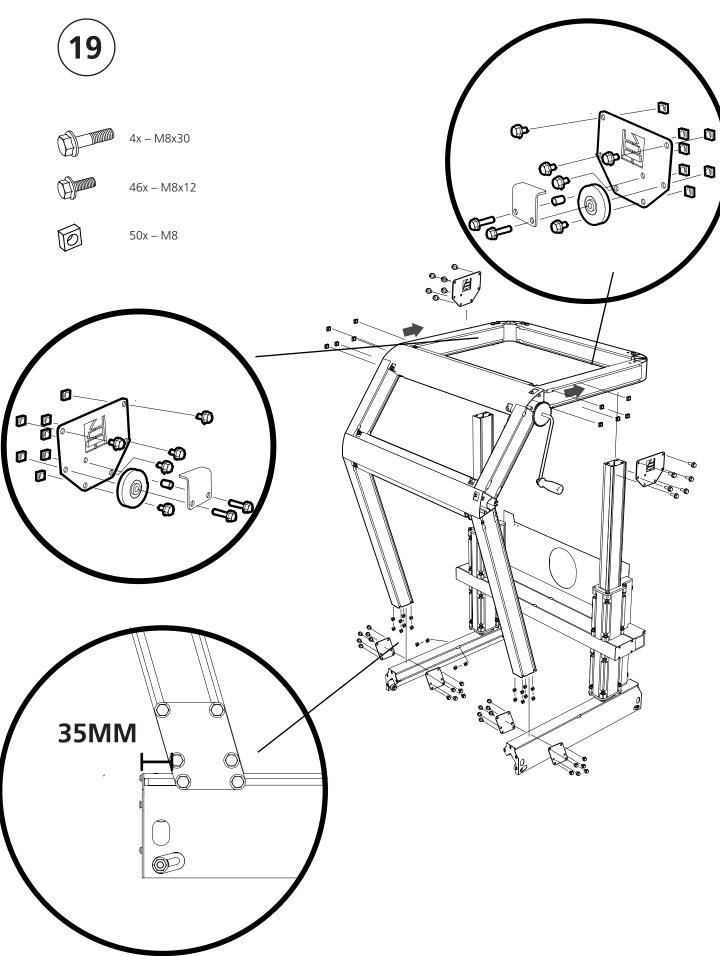
When mounting the rail wheels, (on the underside of the rail) ensure the wheels only make contact with the surface — misalignment during installation can create excess tension between the bogie and the rail.



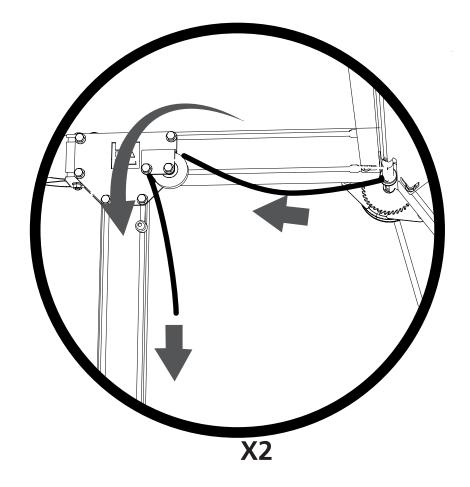














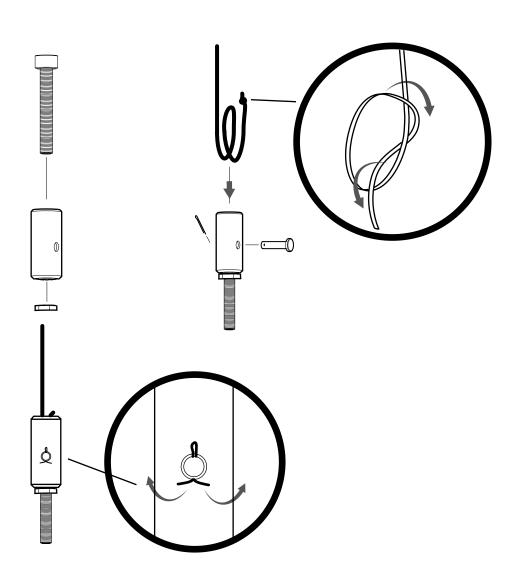
Adjust the position of the cable knot so the cables raise the sawhead evenly.



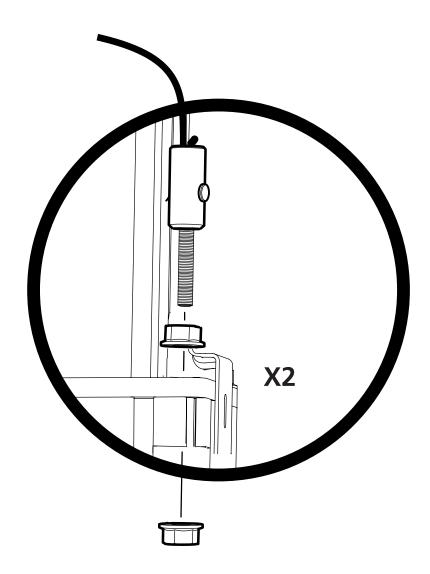
2 x - M8x80



2 x – M8





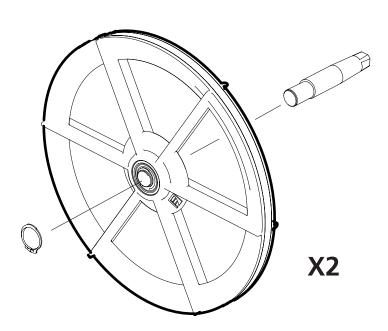


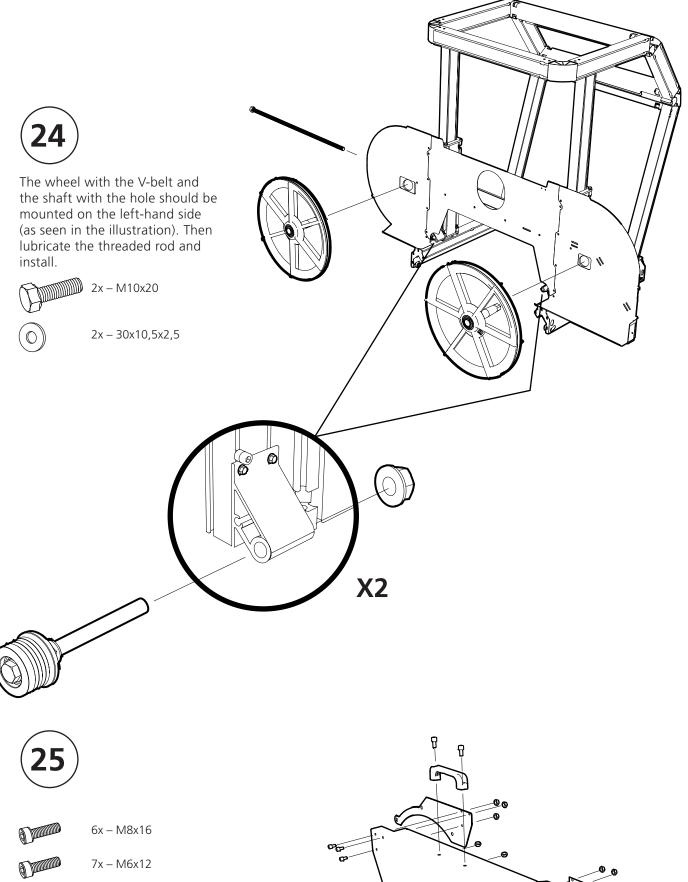


The wheel with the V-belt must be mounted to the shaft with the machined hole.



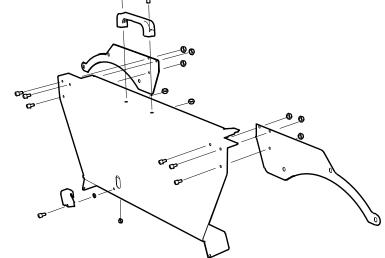
2x





2x - M8

7x - M6







6x - M8x25





6x - M8



6x - M8



2x - M6x12









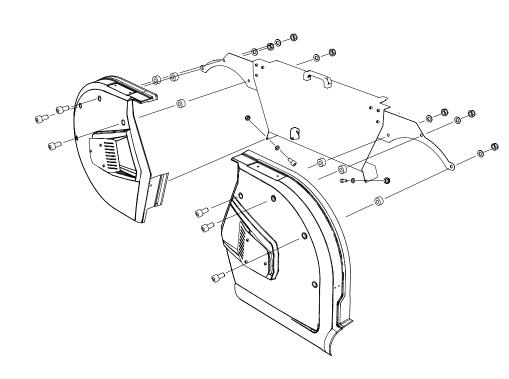
2x - M6



2x - M6



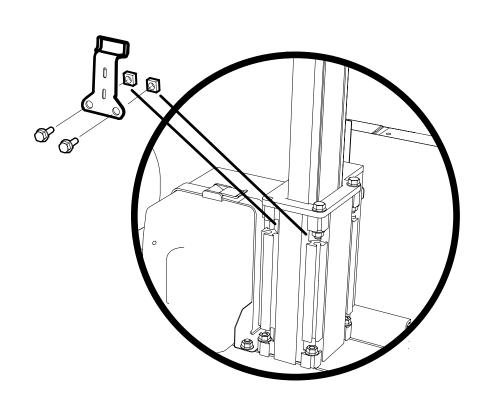
бх





2x - M8x12









4x - M8x20

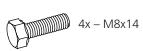


4x – M8

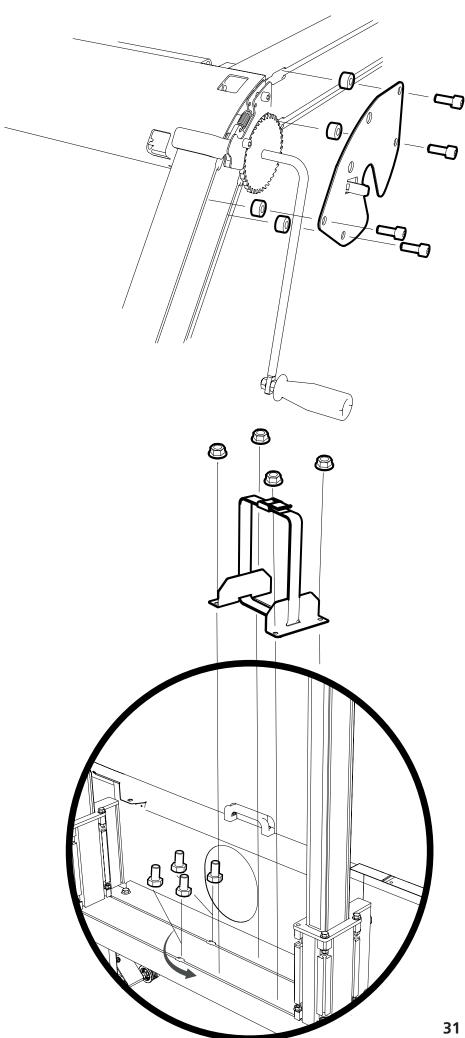


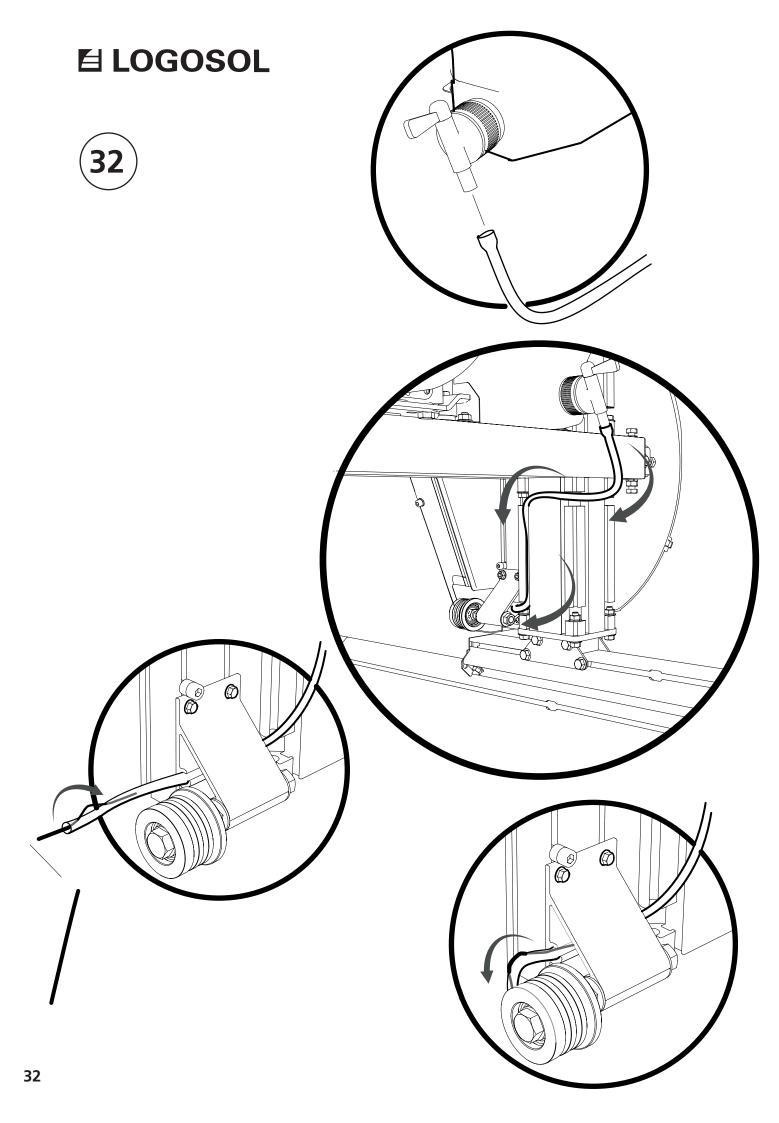
4x

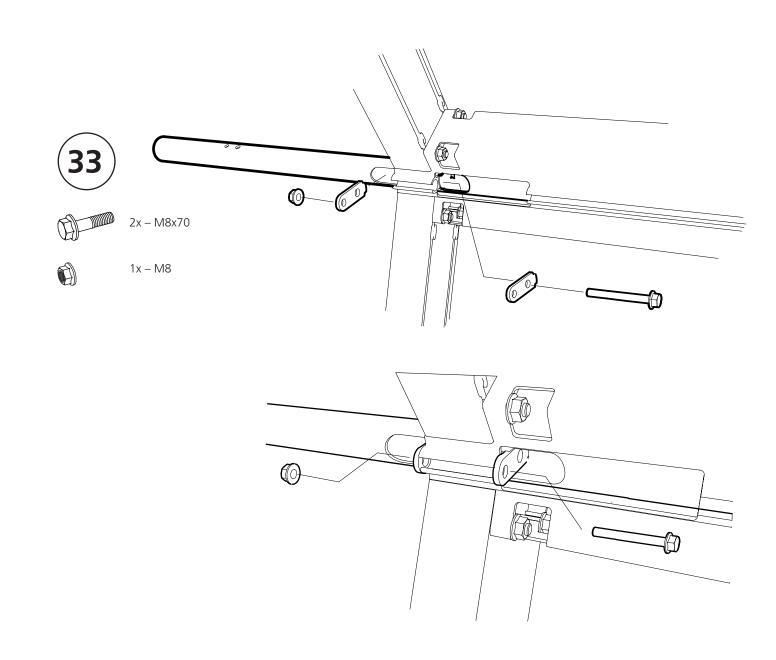








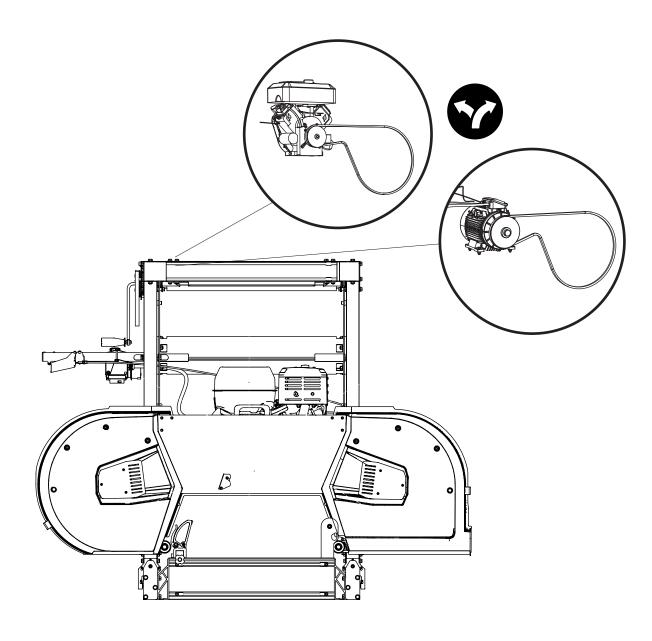




# INSTALLATION OF THE MOTOR: SEE THE SEPARATE USER MANUAL



It is now time to fit the engine. The instructions for fitting the engine are supplied in a separate attachment: see the instructions for the engine you will be working with. When assembly is complete, carry on with the section entitled Adjustment sequence on the next page of this user manual to complete the adjustment sequence before starting the machine.



### **ORDER OF ADJUSTMENTS**



Read all the adjustment instructions before beginning adjusting, and then follow the step-by-step instructions while adjusting.



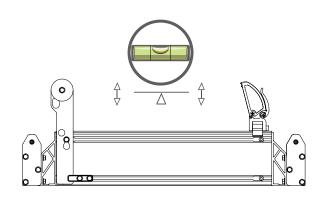
#### **IMPORTANT!**

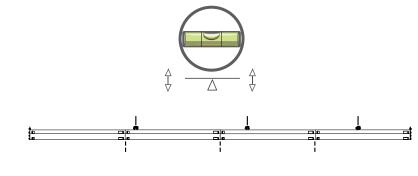
To ensure good operation of the sawmill, it is important that it is correctly adjusted. Some adjustments affect other machine settings. Due to this, it is crucial that you follow the order outlined below.

- 1 Adjust the levelness of the rail frame
- Adjust the band wheels
- The lengthwise position of the blade / Adjust the lengthwise position of the blade
- Adjust the parallelity between the band blade and the cross bunks
- Adjust the adjustable blade guide horizontally
- **6** Adjust the parallelity between the band blade and the rails
- **7** Tensioning the throttle wire

### **ORDER OF ADJUSTMENTS**







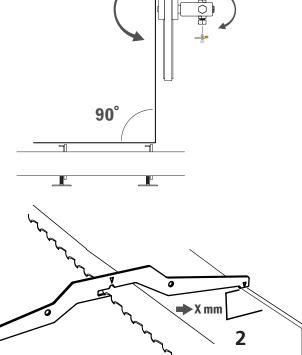


#### **ADJUST THE BAND WHEELS**

Adjust the angle of the wheels so that they are perpendicular to the cross bunks. With the sawhead in its lowest position, check that the wheels are square to the cross bunks. Do this adjustment without the blade guide rollers.

Place a straightedge on the saw blade as close to one wheel as possible. Position the straightedge over a tooth without set. Measure from the front edge of the straightedge (measurement point 1) vertically down to a cross bunk and note the value. Move the sawhead and repeat the measurement from the rear edge of the straightedge (measurement point 2). Compare the two values — they should match. If they don't, adjust the wheel angle using the adjustment screws until both values are the same. Once one wheel is set, repeat the process for the other wheel.

→X mm 1



### Loosen the lock nut

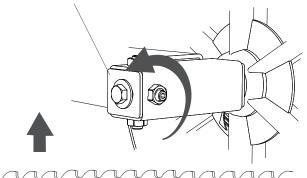
### ORDER OF ADJUSTMENTS

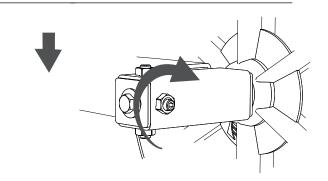


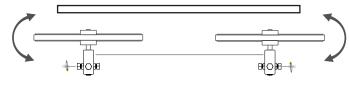
# ADJUST THE LENGTHWISE POSITION OF THE BLADE

The lengthwise position of the blade is adjusted by the adjusting bolts that is positioned horizontally, i.e. the bolts situated on the outside of the shaft mountings. Before adjusting, the lock nut has to be opened. If the blade moves outwards on the wheels, turn the adjusting bolt clockwise to compensate. If the blade moves inwards, turn the bolt counterclockwise. Adjust in small steps. Tighten all lock nuts and adjusting screws after the adjustment.

**TIP!** You may need to loosen the adjusting bolts slightly on the top side of the shaft mountings before adjusting the blade.





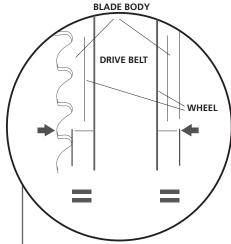


#### THE LENGTHWISE POSITION OF THE BLADE

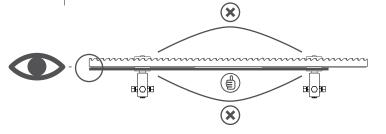
The lengthwise position of the blade is crucial to the sawing result. To ensure the best possible sawing result, we recommend that the blade body is positioned centred over the drive belt, which lies in the groove in the wheel.

First, install the blade centred over the drive belt so that blade body protrudes equally on both sides of the drvie belt. Then, tighten the blade. Rotate the wheels manually and check that the lengthwise position of the blade is unchanged. Rotate the wheels at least three turns. If the blade moves outwards or inwards on the wheels, you adjust this as described on the next page. If the blade runs straight on both band wheels, then check that the blade runs in a straigth line between the wheels. You check this by looking along the back edge of the blade viewed from the top of the wheels.

When the blade runs in a straight line, close the wheel guards and start the sawmill. Throttle up to make the wheels spin, then release the throttle. Open the wheel guards and check that the lengthwise position of the blade is unchanged. If this is the case, the blade is adjusted correctly.



In this case, **the blade body** refers to the part of the blade that is between the gullet and and the back of the blade.



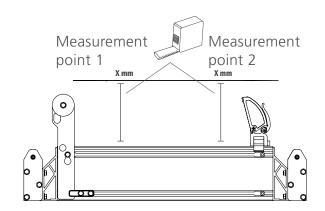
If the blade bends in the direction of the saw teeth, the blade is positioned too far forward on the wheels. If it bends in the other direction, the blade is positioned too far back.

### **ORDER OF ADJUSTMENTS**

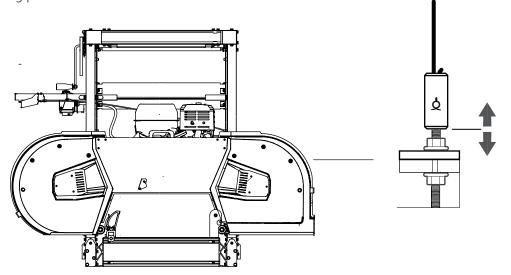


# ADJUST THE PARALLELITY BETWEEN THE BAND BLADE AND THE CROSS BUNKS

To ensure a good sawing result, it is important that the band blade is parallel with the cross bunks. Measure the vertical distance between the blade and the cross bunk. Note down the measurements.



Adjust the band blade by turning the adjusting bolts on the sawhead until the measurements are the same at both measuring points.



### **ORDER OF ADJUSTMENTS**



# ADJUST THE PARALLELITY BETWEEN THE BAND BLADE AND THE RAILS

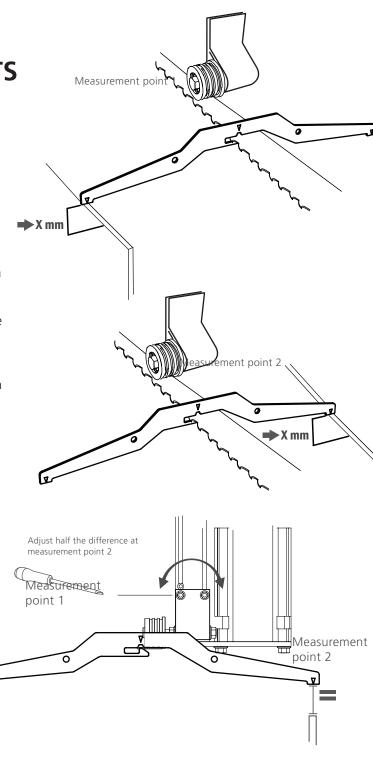
To ensure good operation of the sawmill it is important that the blade is parallel to the rails. Place a straightedge on the blade as close as possible to one of the blade guide rollers. The straightedge should rest on a tooth that is not set. Now, measure from the lower front edge of the straightedge (measurement point 1) vertically down to a cross bunk. Note down the measurement. Move the sawhead forward and measure from the rear edge of the straightedge down to the cross bunk (measurement point B). Compare the measurements. They should be the same at measurement point 1 and measurement point 2.

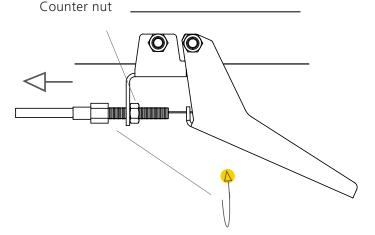
If the measurements differ, turn the adjusting bolts on the blade guide until the measurements are the same at both measurment points. One method to facilitate adjusting, is to use the value from measurement point 1, compare it with the value from measurement 2 and then, by raising or lowering the blade guide, adjust half the difference at measurement point 2. When the blade is parallel to the rails, repeat the adjustment steps on the other blade guide roller.



#### **TENSIONING THE THROTTLE WIRE**

The tension of the throttle wire can be adjusted by turning the adjusting bolt that holds the wire coating. Turn the adjusting bolt until you get full throttle on the engine when the throttle handle is fully pushed in. Then secure with the counter nut.





### **OTHER ADJUSTMENTS**



Read all the adjustment instructions before beginning adjusting, and then follow the step-by-step instructions while adjusting.



The following instructions are crucial for a good operation of the sawmill, but the adjustments do not affect each other and do not have to be carried out in a particular order.

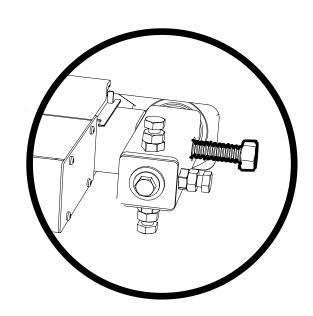
#### **TRACK SWEEPERS**

The saw carriage has track sweepers on its ends. It is important that you regularly check that they touch the rails.

#### **BLADE TENSION**

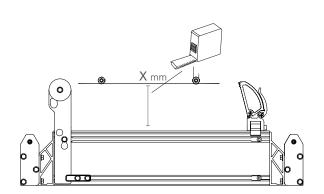
Tension the blade by tightening the spring until it bottoms out and the locking handle becomes stiff. Then back off two full turns.

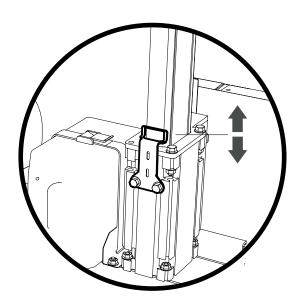
It is important to allow clearance for the spring to move, enabling it to absorb load variations from the blade. The spring must not bottom out during sawing.



#### **ADJUSTING THE SCALE**

Measure the distance between the cross bunks and the underside of a downward-set tooth. Then move the scale indicator to match the measured value.

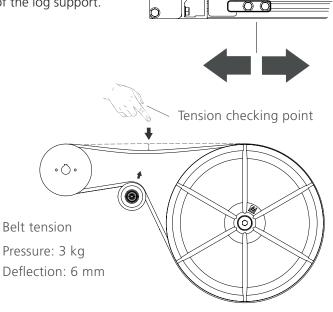




### **OTHER ADJUSTMENTS**

#### **LOG SUPPORTS**

To ensure good operation of the sawmill, it is important that the cross bunk and the log support are at right angles to each other. Adjust this by turning the adjusting handle located at the lower part of the log support. Check the angle with a set square.



90°

#### **DRIVE BELT TENSION**

To prevent the drive belt from slipping on the pulley, the drive belt has to be correctly tensioned. The belt tensioner pulley assembly can be rotated around its lower bolting. Tension the belt until you have reached the same values at the tension checking point as in the illustration to the right.

#### **WATER TANK**

The sawmill water tank has to be refilled before operation. Refill through the opening in the back of the saw carriage.

#### PREPARING THE ENGINE BEFORE STARTING UP

Before starting the engine for the first time, the engine has to be filled with oil and fuel. Lower the sawhead to its lowest position to facilitate the work. More detailed information on the engine can be read in the user manual of the engine, which is included in the shipment.

# Tip: Work with the sawhead

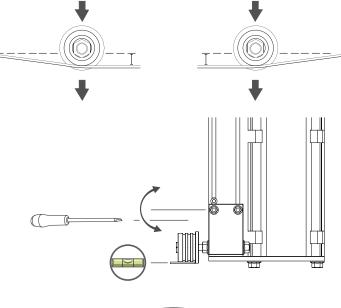
lowered to its lowest position to facilitate access to the engine.

#### **BLADE GUIDES**

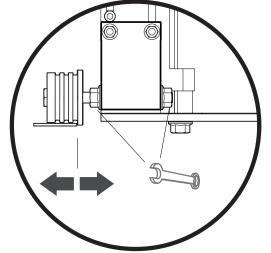
The blade guides tension the blade so that it comes 6 mm below the band wheels.

The guides allow adjustment of the blade's angle in the cutting direction by rotating the blade guide holder around the upper adjustment screw.

Be precise when making this adjustment. Refer to the setup sequence.



The blade guide can be adjusted inwards and outwards. The back of the blade should be approx. 3-5 mm from the rear edge of the blade guide roller.



THE FUNCTIONS OF THE SAWMILL<sup>2</sup>

#### THE FUNCTION OF THE CRANK



**WARNING!** Risk of crushing injuries.



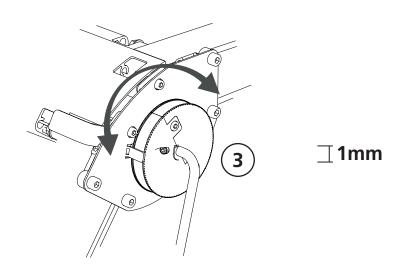
Always hold the crank handle before releasing the lock. The crank will spin rapidly if released uncontrollably. Always ensure the lock is engaged before letting go of the crank.

The crank's locking mechanism is divided into 40 positions per rotation.

The crank's locking mechanism is divided into 40 positions per rotation. Each position moves the sawhead 1 mm, and one full turn moves it 40 mm.

To avoid damage and injury, always keep one hand on the crank (1) before releasing the lock (2).

The crank scale (3) is used to help set the next cut and can be rotated around the crank shaft to reset to zero. This gives a clear view of the movement relative to the previous cut. The crank scale has a set screw to adjust friction against the crank shaft.



**TIP:** When cutting a board from the top of the log, always compensate for the blade thickness (i.e., 2 mm). The piece under the blade does not need compensation — it corresponds to the value shown on the absolute height scale.

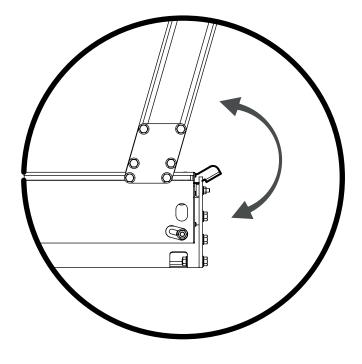
#### How to use the crank scale as a cutting guide:

Example 1: To cut a 28 mm board, place the saw blade at the top of the cant. Set the crank scale to 0, lower the sawhead until it shows 28. Then lower two more steps to 30. Now you have a 28 mm board above the blade.

If the board remains on the cant, reset the scale to 0 before raising the sawhead and returning to the starting position. When you want to find the previous cut again, lower the head until the scale shows 0, then set the next cut.

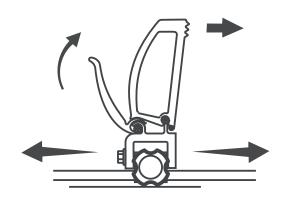
### THE FUNCTIONS OF THE SAWMILL

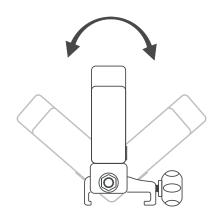
#### **PARKING LOCK**



#### **LOG CLAMPS**

The sawmill comes with two log clamps that secure the log on the sawmill. The log clamp is an eccentric clamping device.



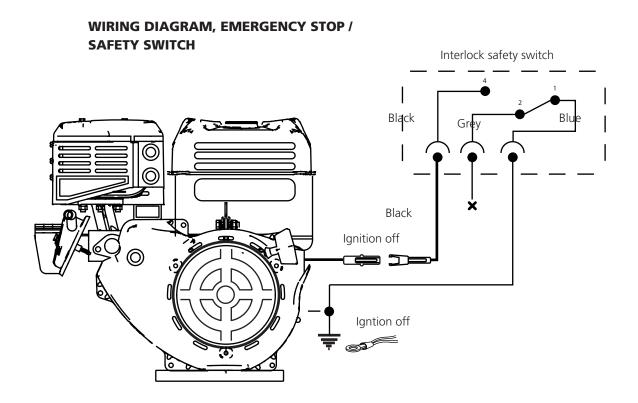


### THE FUNCTIONS OF THE SAWMILL

#### **WATER COOLING**

The sawmill is equipped with water cooling. Start and stop the flow using the valve on the water container.

### **WIRING DIAGRAM**



### **≝ LOGOSOL**

### **USING THE BAND SAWMILL**

#### **OPERATING THE BAND SAWMILL**



**WARNING!** Cutting tools: Always stand behind the saw carriage and keep both your hands on the handles while operating the machine. Never stand in front of the carriage or band blade. Never pull the carriage through the cut.



**WARNING!** Risk of crush injury. Rotating parts: Even a slight force applied to the release mechanism of the sawhead can cause the sawhead to drop uncontrollably and make the crank rotate rapidly, which can cause serious injury.



**WARNING!** Never modify this machine in such a way that it no longer corresponds with the original design. Do not use it if it has been modified. Never use other attachments/ accessories than those recommended in this user manual.



**WARNING!** A broken band blade can be ejected out of the sawdust chute at high velocity.

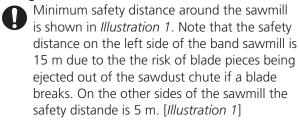
- During operation, make sure that nobody is on the side of the band sawmill where the sawdust chute is located. The risk of a blade breaking increases if it is not correctly installed or maintained.
- The band blades and plastic parts of the sawmill are cold-resistant down to -25°C.

  Do not operate the band sawmill in colder temperatures than -25°C.
- Ensure that the machine is correctly assembled and maintained in accordance with the instructions in this user manual.
- Never work alone. Make sure that there are other adults within hearing distance, should you need to call for help.

**WARNING!** Danger of flying fragments from dirty logs.

- Always inspect the logs so that there are no objects wedged in the bark before sawing.
- Never stand between the pile of logs and the band sawmill. Always stand at the side of the pile of logs when handling the logs. Never stand where you are at risk of being hit by a rolling log.

#### Danger area of the machine:





**WARNING!** Keep hands, limbs and other body parts well away from the band blade, cables and other moving parts.



**WARNING!** Risk of being crushed by the saw carriage.



Always use the parking lock when working with the saw carriage.



**WARNING!** Risk of tripping over the rails and cross bunks.



Never take a short cut across the rails. Hang electric cables up and out of the way so that they do not get damaged or become a tripping hazard.



**WARNING!** Never operate the petrol powered engine in enclosed areas. Ensure that there is good ventilation. The exhaust gases contain harmful substances that can pose a danger to life and health.



**WARNING!** Risk of being crushed between the sawmill and a moving log.

0

The log stack must always be secured with reliable straps around the logs (see the chapter *Operation Instructions*).



Never walk on the rails or the cross bunks.

### **USING THE BAND SAWMILL**

Hard knots in the wood can cause a deviation in the result of the sawing.

#### **Every time before operating the band sawmill:**

#### Ensure that

- the operator is wearing the prescribed personal protective equipment
- the prescribed maintenance procedures have been properly carried out
- the band blade is not moving when the engine is idling
- the machine stands firmly and securely and the rails are supported along their full length
- the anti-tip wheels of the carriage and the rail end stops are properly installed
- everything on the band sawmill is properly and securely installed and in good working order
- all safety features on the band sawmill are properly and securely installed and in good working order
- the band blade is correctly installed, and that it rotates freely and in the right direction.

#### Before each cut:

#### Ensure that

- no other persons than the operator and no pets are within the danger area of the machine.
- the worksite is free of objects that can pose a tripping hazard or distract the operator.
- the band blade runs clear of the log supports and log clamps.

- the rails are free of debris, dirt, etc.
- the log is firmly secured.
- the adjustable blade guard has been correctly adjusted to manage the maximum width of the log.

#### When operating the band sawmill:



**WARNING!** Risk of burn injuries. The engine and its muffler get very hot during operation and remain hot a while after operation. This also applies to an idling engine.



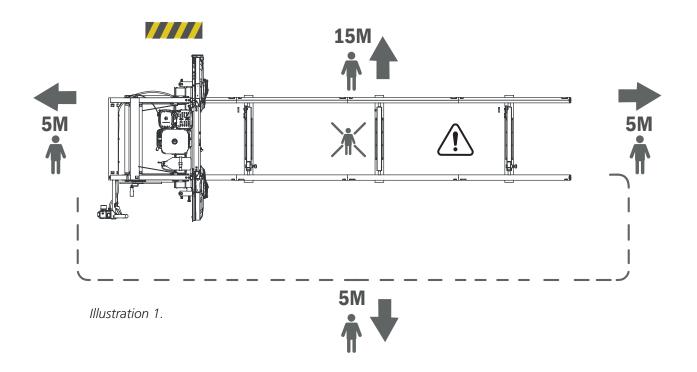
**WARNING!** Risk of fire! Petrol and petrol vapours are extremely flammable. Be aware of the fire, explosion and inhalation risks involved.



The engine must be turned off and have been allowed to cool for 10 minutes before refueling.



Always turn the engine off when you are leaving the operating station, even just temporarily, e.g. to take care of sawn timber or do maintenance.



### **USING THE BAND SAWMILL**

#### **STORING**

If the band sawmill is not in use, even when it is for short periods of time, the band blade must be removed from the machine and be stored where it is inaccessible to children and other persons.

#### For longer periods of storage:

- empty the fuel tank and the water tank,
- remove the band blade from the machine,
- close the fuel valve,
- secure the saw carriage to the bed.

Store the band sawmill where it is inaccessible to children and other persons, preferably in a locked location.



After very work session, release the tension on the blade to reduce wear.

#### **MAINTENANCE**



**! WARNING!** Risk of serious injury.



Before performing any service and maintenance on the machine: turn the ignition key to the OFF position and close the fuel



NARNING! Risk of burn injury. The engine and its muffler get very hot during operation and remain hot after the engine has stopped.



Allow the engine and the muffler to cool before you perform any service or maintenance on the machine.

#### **MOVING THE BAND SAWMILL**



/!\ **WARNING!** Risk of crush injuries.



Keep people and pets outside the 5 m danger area around the machine while lifting and moving the machine parts. Secure the load during transport.



The saw carriage and the rails/bed must not be lifted or transported when assembled together, but must be transported separately as two parts.

**Lifting the saw carriage:** Disconnect the carriage's anti-tip wheels, one on each side, and lift the carriage with the help of reliable lifting gear affixed to the lift rings located at the top of the carriage. Weight: see Technical data.

Lifting the rails/bed: Use a hand pallet truck or a forklift truck and lift under the rails. Place a protective layer of wood on the forks before lifting. Ensure that the rails are well balanced and secure the load to the lift forks before transport. Weight: see Technical data.

#### REFUELING



**WARNING!** Risk of burn injury. Petrol is an extremely flammable fluid.



Before refueling the engine of the machine, wait until the engine has cooled. Turn the ignition key to the OFF position and close the fuel valve.

Refueling: Lower the sawhead to its lowest position and have the saw carriage in its locked position at one of the rail ends before refueling. Use a funnel and try to avoid spilling.

### SAWDUST MANAGEMENT

If the sawmill is used outdoors it can be operated without a chip extractor.



Make sure that you regularly remove sawdust that has accumulated around the machine, using a shovel e.g. If a chip extractor is connected, you need a capacity of at least 800m<sup>3</sup>/h.

Exhaust hose: In case an exhaust hose is connected to the sawmill, it must have a spiral that can be grounded.

### **START & STOP INSTRUCTIONS: PETROL ENGINE**

#### **START**

- **1.** Open the fuel valve by moving the fuel control lever to the right until it reaches the position "ON".
- **2.** To start a cold engine, move the choke control lever to closed position (the control lever in its left position). To start a hot engine, leave the choke control lever in its open position (the control lever in its right position).
- **3.** Turn the ignition key to the "ON" position.
- **4.** Gently pull the start handle until you feel some resistace and then pull firmly. Gently return the starter handle.
- **5.** Give gas by squeezing the throttle handle all the way in to its end position. This brings the engine up to its operating speed and the band blade starts rotating.
- **6.** If the choke is in its closed position, gradually move the control lever towards its open position as the enging gets hotter.

#### **STOP**

You stop the band blade by releasing the throttle on the push handle. The band blade will then slow down and stop, and the engine goes down to idle. Then, turn off the engine by turning the ignition key to the "OFF" position and close the fuel valve.

### **≝ LOGOSOL**

### **OPERATION INSTRUCTIONS**

#### **LOG STACK**

Do not stack the logs higher than 1 m.

Logs that are soiled, sandy, muddy or dirty considerably shorten the life of the band blade and increase the risk of blade breakage. Avoid dragging the logs over the ground and try to keep the logs as clean as possible.

It can also be a good idea to separate different sorts of wood into different log stacks.

#### **LOG TABLE**

It is possible to load logs from both sides of the band sawmill. If the log stack is placed on the same side as the operator's side, the log stack must be secured before every occasion of sawing.

Build the log table so it is the same height as the cross bunks on the band sawmill. If the log table is placed on the left side of the band sawmill, it should end 10 cm from the band sawmill. If the log table is placed on the operator's side, it should end approx. 1 m from the band sawmill and you should use a removable ramp between the log table and the sawmill. Ensure that the rear of the log table has large wedges to prevent the logs from rolling off from it.



Ensure that the logs closest to the band sawmill are secured with heavy-duty straps so that they can not roll towards the sawmill while the sawmill is running. [See illustration 2]

#### **LOADING LOGS**



**WARNING!** Risk of crush injuries between log and band sawmill.



Always stand at the side of the log table when handling logs [see illustration 3, area A]



Avoid standing between the log table/log stack and the band sawmill. The log stack must always be secured with reliable straps when you are within area B [see illustration 3].

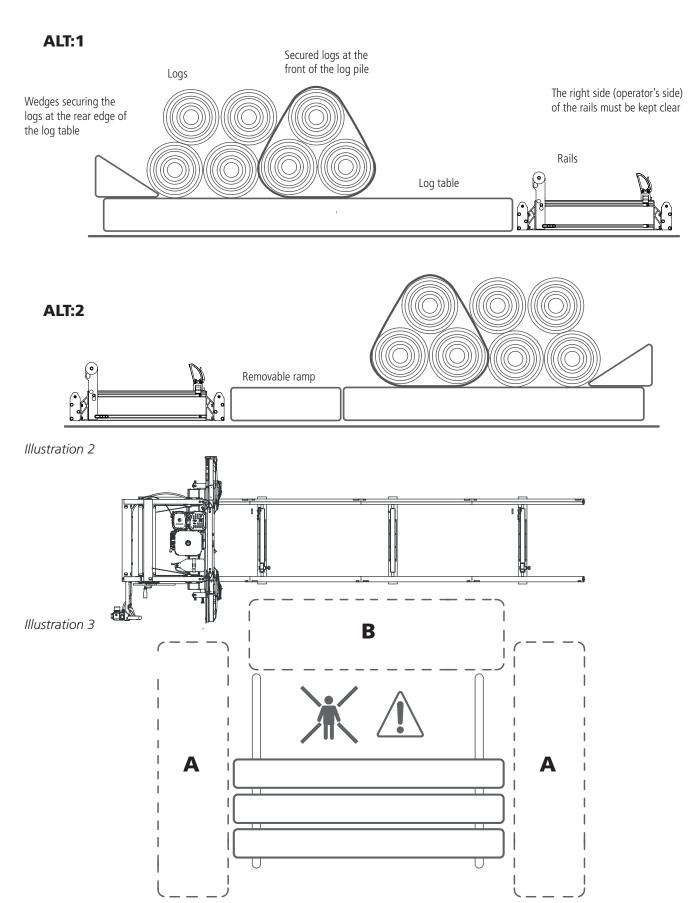


The logs should be rolled from the log table. Do not drop them onto the band sawmill.

#### When loading a log:

- 1. Position the saw carriage at its rearmost position on the rails (the 'home' position).
- 2. When loading the log from the operator's side, raise the log supports to their highest position. When loading the log from the left side of the band sawmill, the log supports have to be moved to the opposite side of the bed (the operator's side). Then, fit them in their highest position. When the log lies stably on the bed, refit the log supports to the left side of the band sawmill.
- 3. If you use a removable ramp, it should be built and positioned so that there is no gap between the log table and the band sawmill.
- 4. Until the straps that secure the front of the log pile.
- 5. Roll out a log.
- 6. Retie the front logs with the straps.
- 7. Carefully roll the log up against the log supports. Use a log turner/rotator. Centre the log laterally over the log bed cross bunks.
- 8. Adjust the log supports so that they support the log, but will not come into contact with the band blade when you are sawing. Lock the log supports in position.
- 9. Adjust the log clamps so that they come in the same position as the log supports, but on the opposite side of the log. Adjust the height of the log clamps to secure the log. Ensure that the log clamps will not come into contact with the band blade when you are sawing.

## **OPERATION INSTRUCTIONS**



### **OPERATION INSTRUCTIONS**

#### **ADJUSTING THE CUT**

You can adjust the position of the sawhead in steps to set the depth of cut. The band sawmill B1001 is equipped as standard with 1", 1 1/2", 1 3/4" and 2" scales with kerf compensation. The depth of cut is set by using the crank on the sawhead. Crank the sawhead down until the mark on the desired scale comes in level with the pointer.

#### **SAWING**



**! WARNING!** Cutting tools:



Always stand behind the saw carriage and keep both hands on the push handle while operating the machine. Never stand in front of the saw carriage or blade. Never pull the saw carriage back through the cut.



**WARNING!** Read and follow all the safety instructions described in the chapter *Safety Instructions* under the section *Before each cut*.

- **1**. Before operating the sawmill, perform all safety checks described in the chapter *Safety Instructions* under the section *Every time before operating the band sawmill*.
- **2**. Raise the log supports by unhitching them, then lifting them to the desired height and locking them in place.



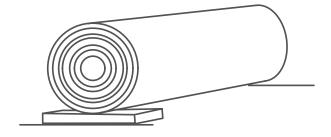
WARNING! Risk of pinching.



Watch your fingers when lowering the log supports. Make sure that the log supports are properly and securely fitted in their adjustment notches.



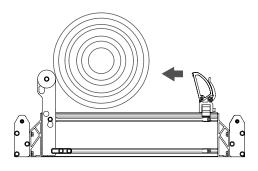
- **3.** Use a log turner/rotator when rolling a log on the log bed. Centre the log on the log bed and roll it up against the log supports. Check the position of the log on the log bed. To be able to cut through the whole length of the log, the log should not protrude past the last cross bunk.
- **4.** Rotate the log to a position that will give the best sawing yield.
- **5.** If the log is distinctly tapered from one end to the other, you have to compensate for this to get the best possible result. You always want the cut to run parallel to the centre line of the log. Place a shim between the log bed cross bunk and the narrow end of the log.



A shim placed under the narrow end of the log.

### **OPERATION INSTRUCTIONS**

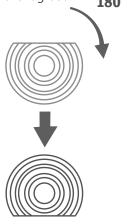
**6.** Secure the log with the log clamps. Adjust the height of the log clamps. Ensure that they will not come into contact with the blade when you are sawing.



Log clamp. We recommend that you use two log clamps.

- **7.** Set the height of the sawhead for the first cut by turning the crank that adjusts depth of cut. You raise the sawhead by turning the crank clockwise, while turning the crank counterclockwise will lower the sawhead.
- **8.** Check that the blade will not come into contact with the log supports and log clamps.
- **9.** Set the adjustable blade guard taking into account the widest part of the log.
- **10.** Open the valve for blade cooling to provide a small trickle onto the blade guide roller/band blade.
- **11.** Before each cut, perform all safety checks described in the chapter *Safety Instructions* under the section *Before each cut*.
- **12.** Stand behind the push handle of the saw carriage and start the engine. Give gas by squeezing the throttle handle all the way in to its end position. This brings the engine up to its operating speed and the band wheels/blade start rotating.

- **13.** With both hands on the push handle, gently push the saw carriage forward until the blade begins to cut into the log. When the band blade is completely inside the log, you can increase the feed rate. Adjust the feed rate so the cut becomes straight with a clean finish. Lower the feed rate when cutting through knots in the wood and choose a lower speed when cutting large or hard logs. Also lower the feed rate when you come to the end of the log.
- **14.** As soon as you have sawn through the log, release the throttle handle and let the blade come to a complete stop. Tip: If you release the throttle just before the blade comes out through the log end, the blade will stop faster.
- **15.** Remove the slab from the log.
- **16.** Raise the sawhead slightly and, by hand, roll the saw carriage back to the starting position.
- **17.** Set the height for the next cut. Use the crank and the depth of cut scales.
- **18.** Rotate the log 180° so that the freshly sawn surface rests on the log bed.  $180^{\circ}$

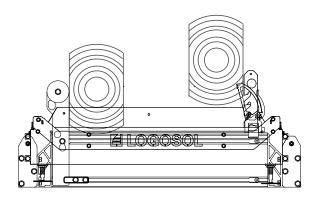


Rotate the log 180° so that the freshly sawn surface rests on the log bed

### **OPERATION INSTRUCTIONS**

Lower the log supports and the log clamps so that they will not come into contact with the blade and clamp the log in position. Continue sawing until you reach the desired cant width.

Rotate the log 90° so that one of the freshly sawn sides rests flat against the log supports, and then clamp the log in position. Now you can make the third cut and then produce boards. Here, you may need to compensate for taper in the log. Lower the log support gradually and cut up the log with the bark facing down.



Rotate the log 90° so that one of the freshly sawn sides rests flat against the log supports, and then clamp the log in position.

**19.** When you have rotated the log the last time to cut the last boards, you have to calculate where you should take the cut to make the last cut agree with the calculation. Check this by lowering the blade until it rests against the log. Now you can read the absolute scale to see the amount of wood left under the blade. Set the sawhead to the desired height.

**TIP:** The easiest way is to wait to rotate the log until there only remains material for one 2" board. If you do so, there is no need for calculation.

#### **HANDLING SAWN TIMBER**

When cutting the cant into boards, you can either immediately lift the boards off the cant, or you can leave them there while cutting more boards before handling the timber.

When you are going to lift boards from the rails, ensure that the saw carriage is in its locked position at one of the rail ends. Then, move the sawn timber to a timber stack. Place spacers between the layers of boards to facilitate drying.

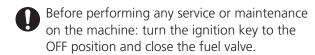
### **MAINTENANCE**

#### **MAINTENANCE**

The regular maintenance that is expected to be performed by the operator, is described in this chapter. Be sure to perform the prescribed maintenance intervals as this forms the basis for a good functionality of the sawmill.



**! WARNING!** Risk of serious injury:





**!\ WARNING!** Risk of lacerations:

Coiled band blades can unpredictably spring apart with considerable force. Handle coiled band blades with utmost care.



**! WARNING!** Risk of fire:

- Do not smoke or perform any work (welding, sharpening blades, etc.) on the band sawmill that can produce sparks or flames near the engine, fuel tanks, fuel or other flammable material.
- If you spill fuel on the machine when refueling, wipe this up immediately. If you get any fuel on your clothes, change clothes immediately.
- Never operate the engine if there is a fuel or oil leak. Always turn the engine off before refuelling.

### **≝ LOGOSOL**

### **MAINTENANCE**

#### **HANDLING BAND BLADES**



/!\ WARNING! Cutting tools: Incorrect handling of band blades can cause life-threatening injuries. Band blades are extremely sharp.



**WARNING!** Risk of lacerations.



#### When handling band blades:

- always wear protective gloves (class 1) of
- always wear close-fittiing safety goggles or
- wear protective footwear with saw protection, steel toe cap and non-slip sole
- always wear full-length protective pants
- keep people and pets at a safe distance, at least 5 m away.

#### **CHANGING BAND BLADES**

It is crucial to change the blade regularly to ensure peak perfomance. Normally, you can saw 15-30 logs before changing blades, but this depends a lot on how clean the bark is. Using dull band blades will result in wavy or imprecise cuts, reduced blade life and greater risk of blade breakage. Always wear protective gloves when handling band blades.

#### To remove a band blade:

- 1. Release the tension on the blade by turning the T-handle counter-clockwise.
- 2. Open the band wheel guards.
- 3. Remove the blade from the band wheels.

#### To install a new band blade:

- 1. Fit the blade under the blade guides and then around the band wheels. Make sure that the saw teeth point towards you.
- 2. Rotate the band blade by hand in the direction of the cut to check that the blade still tracks straight. See the section *The lengthwise position of the blade* and Adjusting the position of the blade, on page 33.
- 3. Close the guards over the band wheels.
- 4. Lock the guards.

#### **LUBRICATION POINTS**

In order to keep the sawmill in good condition for many years, and to have a problem-free ownership, it is important to lubricate the sawmill components as describred below.

- Lubricate immediately after assembly, before starting to use the sawmill.
- Lubricate every 50 hours of operation, but at least once a year.

The lubricants you should use on your sawmill are:

Superflo SKU: 9999-000-5115 Universal oil SKU: 9999-000-5105 Silicone SKU: 9999-000-5110 Grease ISO-L-XCCIB2

#### The tube sections of the rail frame

Lubricant: Universal oil

Insert the spray can nozzle into all openings and spray the inside of the tube sections to protect against corrosion.

#### The top rail sections on which the saw bogie runs

Lubricant: Universal oil

#### The blade tensioning T-handle

Lubricant: grease or Superflo

Unscrew the T-handle and grease its threads generously.

#### The lifting chains and chain transmission of the sawhead

Lubricant: Superflo

Lubricate the whole chain.

#### The lift winch shaft

Lubricant: Superflo

Lubricate from the outside on both sides.

#### The throttle wire and handle of the engine

Lubricant: Superflo

Lubricate the handle joint and spray oil into the wire from its ends. If the wire is difficult to move, remove the wire from its coating and lubricate the whole wire and spray oil into the wire coating.

#### The legs of the saw bogie

Lubricant: Silicone

Lubricate the sliding surfaces of the sawhead and the plastic guides.

### **MAINTENANCE**

#### **CLEANING THE BAND SAWMILL**

Clean the band sawmill after each work shift. Remove sawdust and wood debris inside the band wheel guards and on and around the rails. Wipe painted surfaces and plastic parts with silicone spray (ref. no: 9999-000-5110). Lubricate moving parts with Super Flo (ref. no: 9999-000-5115).

#### **WATER TANK**

If the temperature falls below freezing, you should empty the water tank and tubes. At temperatures below 0°C, you can use windshield washer fluid. Never use glycol or flammable liquids as a coolant.

#### HORIZONTAL ALIGNMENT OF THE BAND BLADE

Before each work shift, check that the blade is parallel with the log bed.

#### **ENGINE**

Check the oil level in the engine before each work shift. Follow the maintenance schedule in the user manual for the engine.

#### **SAWHEAD LIFTING CHAINS**

Inspect the sawhead lifting chains for any wear or damages. Replace with new chains if necessary.

#### **INSPECTION OF SAFETY FEATURES**

Before each work shift, inspect the working order of following safety features: Check that the throttle handle returns to its neutral position when released, so that the engine goes down to idle. If not, lubricate the throttle wire with Super Flo (SKU: 9999-000-5115). Check that the interlock safety switch in the hinge of the band wheel guards works. Check by opening the band wheel guards while the engine is turned off and listen for the safety switch disconnecting.

#### **LEVEL ALIGNMENT OF THE RAILS**

Before each work shift, check that the rails are level, especially in winter when frost can heave the ground.

#### **BAND WHEEL BELTS**

Regularly inspect the condition of the band wheel drive belt and the band wheel belt. Replace worn and damaged parts. Regularly check the tension of the drive belt and adjust if necessary.

#### **BLADE GUIDES**

Regularly inspect the condition of the blade guides and check that the distance between the flange on the blade guide and the blade is within 3-5 mm. Replace worn or damaged blade guides.

#### **BAND WHEEL GUARDS**

Every hour of operation, or when you change band blade, clean the inside of the band wheel guards and the blade from build-up of sawdust and wood debris.

#### **BAND BLADES**

Replace the blade with a new, sharp blade after approx. every two hours of efective sawing.

# **TROUBLESHOOTING**

PROBLEM/SYMPTOM	PROBABLE CAUSE	SOLUTION
The blade quickly loses its sharpness	Dirty logs     The blade is worn out	<ul> <li>Avoid dragging the logs over the ground.</li> <li>Debark the log where the blade is going to cut.</li> <li>Square the logs before cutting boards, to minimize the cuts into bark.</li> <li>Replace the blade with a new one.</li> </ul>
Wavy cuts	Dull blade     The feed speed is too high     The feed speed is too low     Sawing through a partly frozen log	Resharpen the blade.  Lower the feed speed.  Increase the feed speed.  Let the log fully thaw or fully freeze before sawing it. TIP: Do not use a slower sawing speed when the blade is entering the log, but cut into the log end with the same sawing speed you are planning to have for the rest of the cut.
The blade dives or rises when sawing	Insufficient blade tension The feed speed is too high The blade is damaged The blade does not track correctly on the band wheels	<ul> <li>Increase the blade tension.</li> <li>Lower the feed speed.</li> <li>Replace the blade with a new one.</li> <li>Install the blade correctly and adjust the tracking.</li> </ul>
Blade breakage	The blade is worn out  Dull and/or incorrectly installed blade  The blade tension is too tight  The blade guide rollers are not aligned with the band wheels  Worn band wheel belts. This makes the blade running directly on metal	Replace the blade with a new one. Resharpen the blade. Reduce the blade tension. Adjust the blade guides. Replace the belts on the band wheels with new ones
Uneven board thickness	The log bed flexes due to insufficient support	Support the rails/log bed as outlined in the instructions in this manual
The blade does not track correctly and slips off the band wheels	The band wheels are incorrectly adjusted     Worn band wheel belts	Adjust the band wheels as outlined in the instructions in this manual     Replace the belts with new ones
The blade does not cut	The blade is installed backwards	Remove the blade and turn the blade inside out and reinstall it.
		When the sawmill is powered by an electric motor, check that the motor is running in the correct direction. If not: Reverse the phase of the electric motor.
The blade does not slacken after releasing the blade tension with the T-handle	The blade tension assembly is sticking	Push the T-handle inwards.
The sawhead is stiff when raised or lowered	The vertical guides are too tight The sawhead lifting winch drum is dry	Lubricate with silicone and, if necessary, loosen them slightly.     Lubricate with Superflo.
The sawhead is rattling when going down	The rails are not level and cause the saw bogie to twist	• Level the rails as outlined in the instructions in this manual.
The blade overheats during operation	The water tank is empty The water valve is closed	Refill with water.     Open the water valve.
The engine does not start	The ignition key is in the "OFF" position The interlock safety switch on the blade guards is disconnected  The ignition key is in the "OFF" position  The ignition key is in the "OFF" position key is in the latest position key is in the latest position key is in the "OFF" position	Turn the ignition key to the "ON" position. Check the working order of the interlock safety switch.



# **EU declaration of conformity**

In accordance with Directive 2006/42/EG, Annex 2A

Logosol AB, Arkivvägen 6 871 53 Härnösand, SWEDEN

herewith declares that Logosol B1001

has been manufactured in conformity with the Machinery Directive 2006/42/EG and the EMC Dierctive 2014/30/EU

and has been manufactured in conformity with the following harmonized standards: EN ISO 12100:2010, EN 60204-1:2018, EN 50370-1:2005, EN 50370-2:2003.

Notified body, 0404,RISE SMP Swedish Machinery Testing Institute AB, Box 7035, 750 07 Uppsala, Sweden, has executed EC type-examination according to Directive 2006/42/EG, article 12, paragraph 3b. The EC type examination certificate has the number: 0404/17/2408

The delivered band sawmill corresponds to the machine that was subject to EC type-examination.

Härnösand 2022-11-30

Fredrik Forssberg, CEO

# **ELOGOSOL**

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