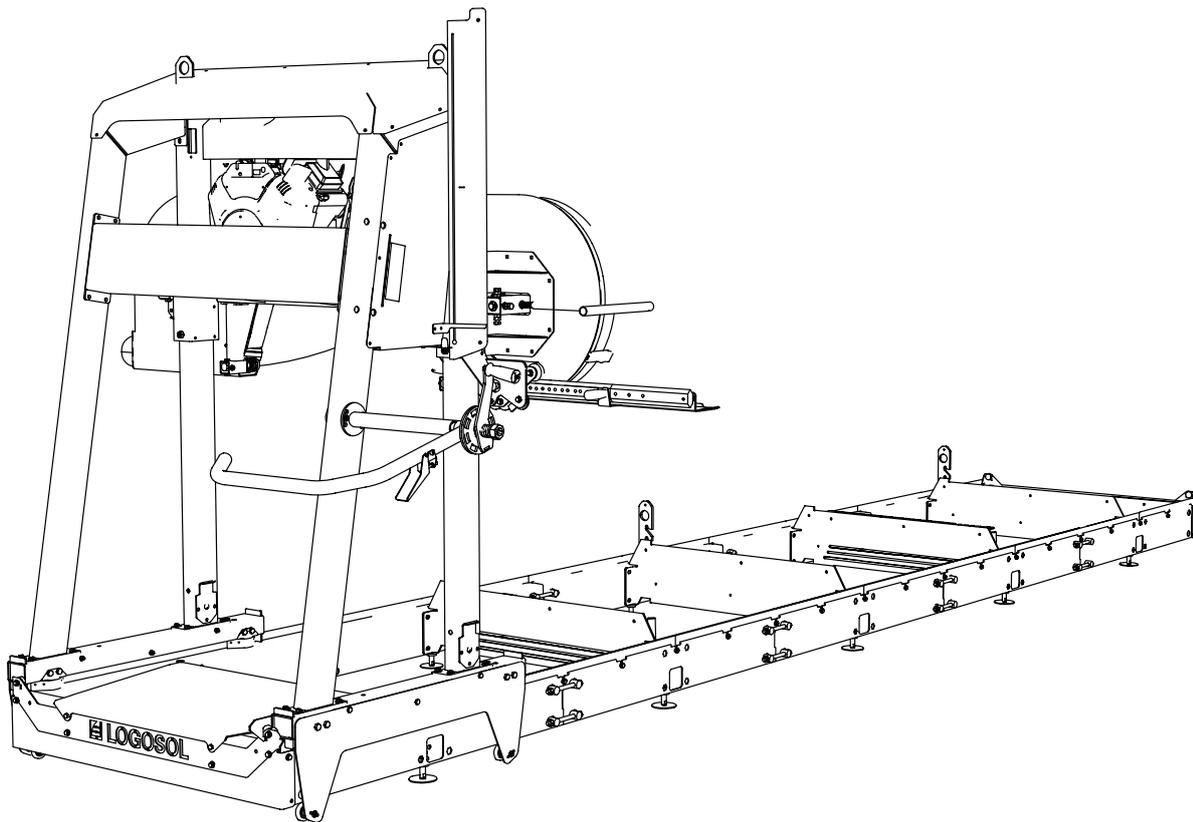


# LOGOSOL

# USER MANUAL

TRANSLATION OF ORIGINAL USER MANUAL

Ref. no. 0458-395-5301



## LOGOSOL B1001 G2

### BAND SAWMILL



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.

**EN**

## THANK YOU FOR CHOOSING A LOGOSOL MACHINE!

**W**elcome! 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.

A handwritten signature in black ink that reads 'Bengt-Olov Byström'.

**Bengt-Olov Byström**  
Founder and chairman,  
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 B1001 User Manual

Illustrations: Martin Söderberg

Last revised: Mars 2018

Ref. No. User Manual, English: 0458-395-5301

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## GENERAL INFORMATION

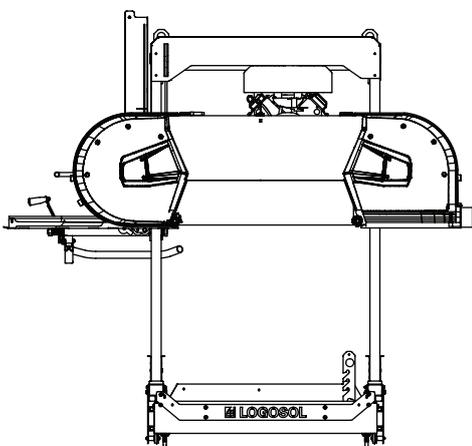
This user manual, the instructions of the motor, the assembly instructions of the band sawmill and instructions for accessories should be seen as integral parts of the band sawmill and should always be kept together with it. They should also follow the band sawmill if it is sold.

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.

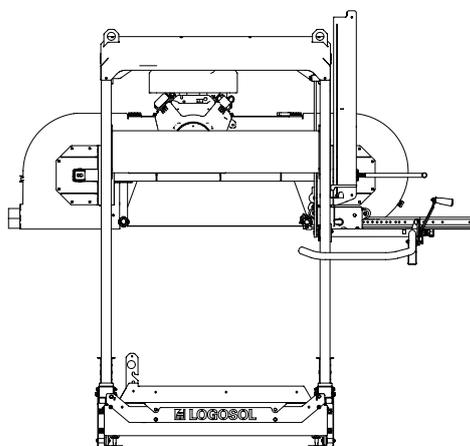
## DESCRIPTION OF THE BAND SAWMILL

### B1001

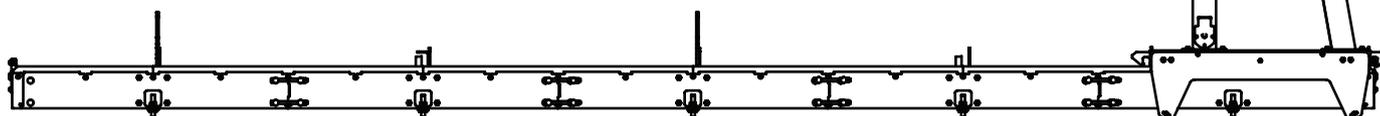
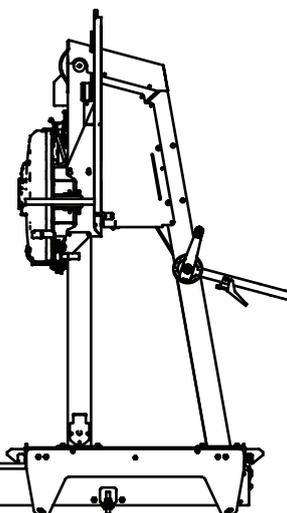
Front



Back



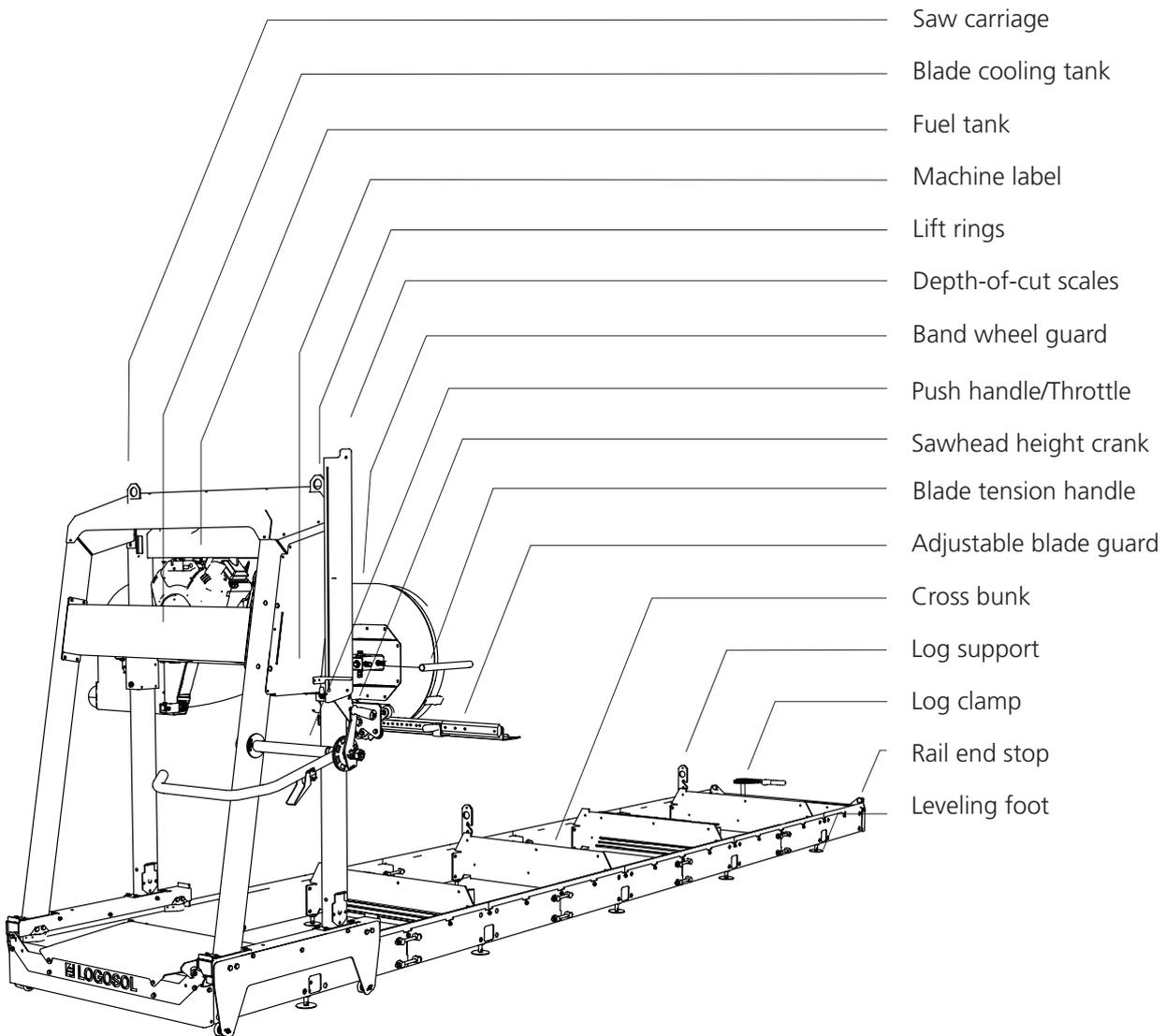
Side



# DESCRIPTION OF THE BAND SAWMILL

This band sawmill is designed for cutting knot-free logs and timber.

## **LOGOSOL B1001**

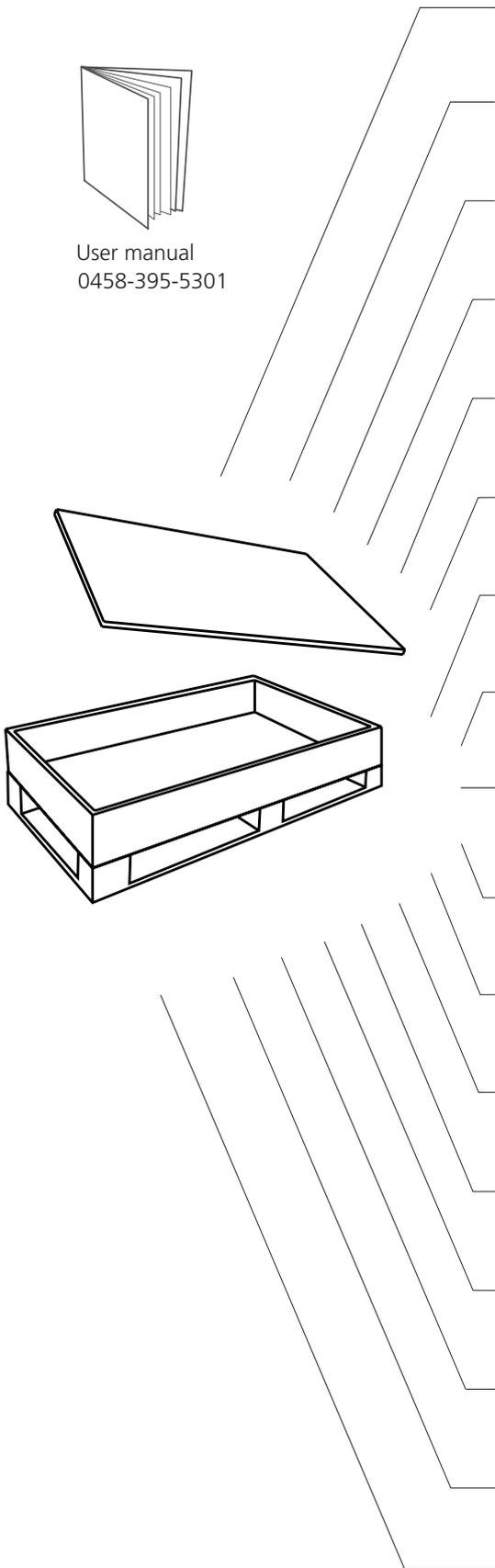


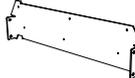
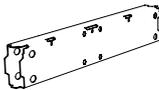
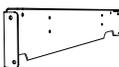
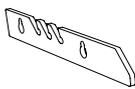
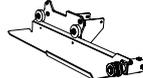
# COMPONENTS

Check that all components are included in the shipment when receiving your sawmill.



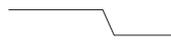
User manual  
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	— 1 pcs	— T-handle	0000-000-0000
	— 4 pcs	— Short rail section	0000-000-0000
	— 4 pcs	— Railsection long end piece	
	— 14 pcs	— Long rail section	0000-000-0000
	— 1 pc	— Control arm	0000-000-0000
	— 5 pcs	— Bolt bag	0000-000-0000
	— 1 pc	— Bag of smaller components	0000-000-0000
	— 4 pcs	— Cross bunk	00-00000
	— 10 pcs	— Rail frame section	00-00000
	— 2 pcs	— Log clamp	0000-000-0000
	— 32 pcs	— Joint pin	00-00000
	— 2 pcs	— Inner end plate	00-00000
	— 2 pcs	— Bed end frame	00-00000
	— 2 pcs	— Log clamp attachment	00-00000
	— 10 pcs	— Levelling foot	0000-000-0000
	— 2 pcs	— Long log support	0000-000-0000
	— 2 pcs	— Short log support	00-00000
	— 2 pcs	— Anti-tip plate	00-00000
	— 1 pcs	— Blade guard/guide	

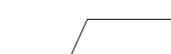
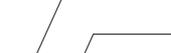
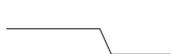


Bolt bag 1

-  — 54 pcs —  Flange bolt M8x16
-  — 54 pcs —  Flange nut M8



Bolt bag 2

-  — 4 pcs —  Flange bolt M6x16
-  — 4 pcs —  Flange nut M6
-  — 4 pcs —  Flange bolt M8x25
-  — 4 pcs —  Flange bolt M8x12
-  — 6 pcs —  Flange bolt M8x20
-  — 10 pcs —  Tensilocknut M8



Bolt bag 3

-  — 20 pcs —  Flange nut M16

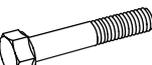


Bolt bag 4

-  — 16 pcs —  Hex bolt M12x90
-  — 16 pcs —  Hex nut M12
-  — 16 pcs —  Flange nut M12

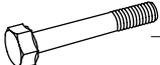


Bolt bag 5

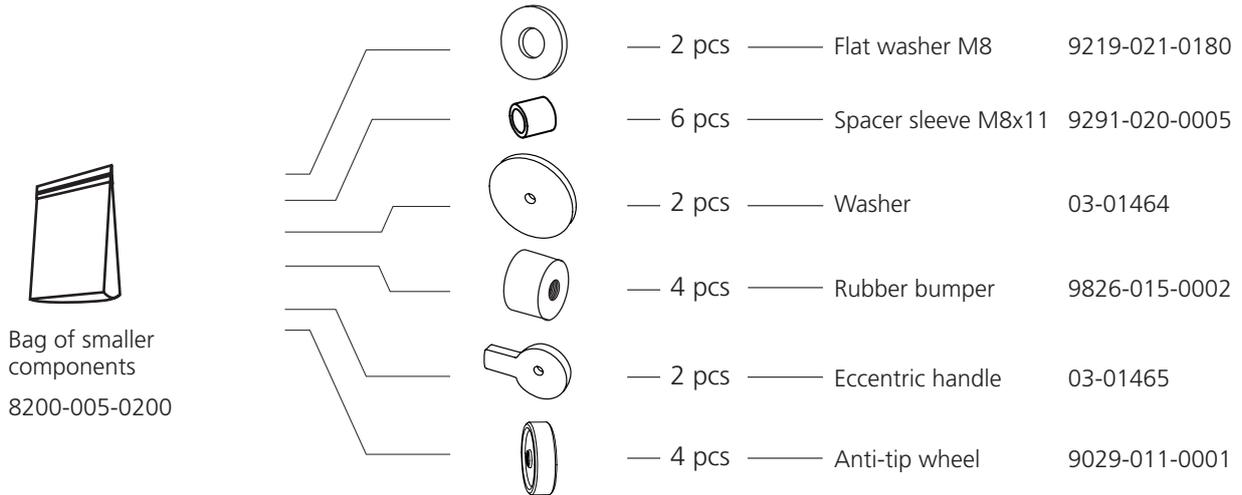
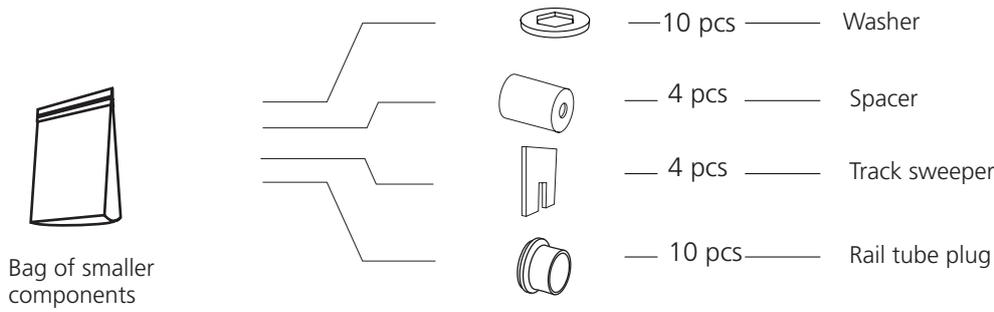
-  — 32 pcs —  Hex bolt M12x140
-  — 32 pcs —  Hex nut M12



Bolt bag 6

-  — 4pcs —  Hex bolt M6x65
-  — 4pcs —  Flange nut M6
-  — 4pcs —  Washer M6
-  — 4pcs —  Hex bolt M10x95
-  — 4pcs —  Flange nut M10
-  — 6pcs —  Hex bolt M8x95
-  — 6pcs —  Lock nut M8

# LOGOSOL



## SAFETY INSTRUCTIONS

Make sure that all warning and information labels are in place, and that they are clean and legible. Damaged labels should be replaced immediately.

### 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 sustaining cuts when

handling band blades. Band blades and engine parts can 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 non-slip 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

One of the hinges of the band wheel guards is equipped with an interlock safety switch. The machine can not be used without having the 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.

 Persons under the age of 18 may not work with the band sawmill or handle band blades.

 Never work with the machine or handle band 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.

## THE WORKSITE

 **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 an ABC fire extinguisher (min. 3 kg) easily accessible at the worksite.

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

## 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.

 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:

 Minimum safety distance around the sawmill is shown in *Illustration 1*. Note that the safety distance on the left side of the band sawmill is 15 m due to the risk of blade pieces being ejected out of the sawdust chute if a blade breaks. On the other sides of the sawmill the safety distance is 5 m. [*Illustration 1*]

 **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.

 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

### 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.

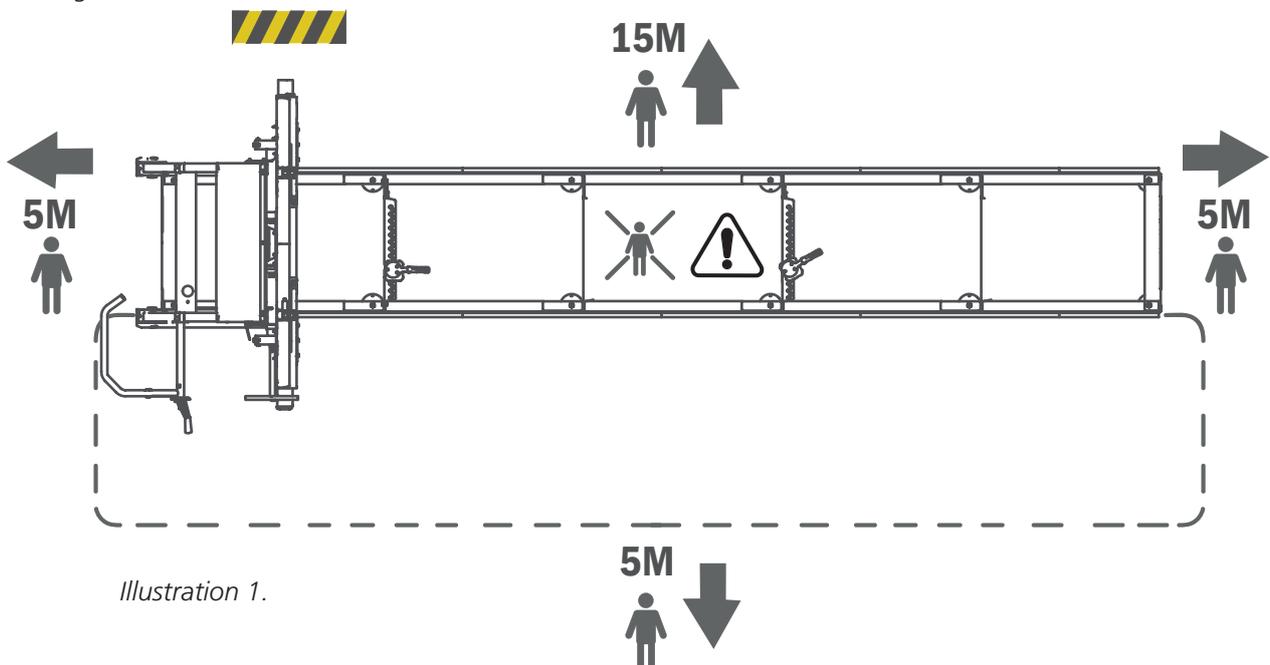


Illustration 1.

## 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 valve.

-  **WARNING!** 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 resistance 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 engine 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.

### EMERGENCY STOP

Activate the emergency stop by pressing the emergency stop button. The emergency stop has to be reset after it has been used.

## WORKING 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*].

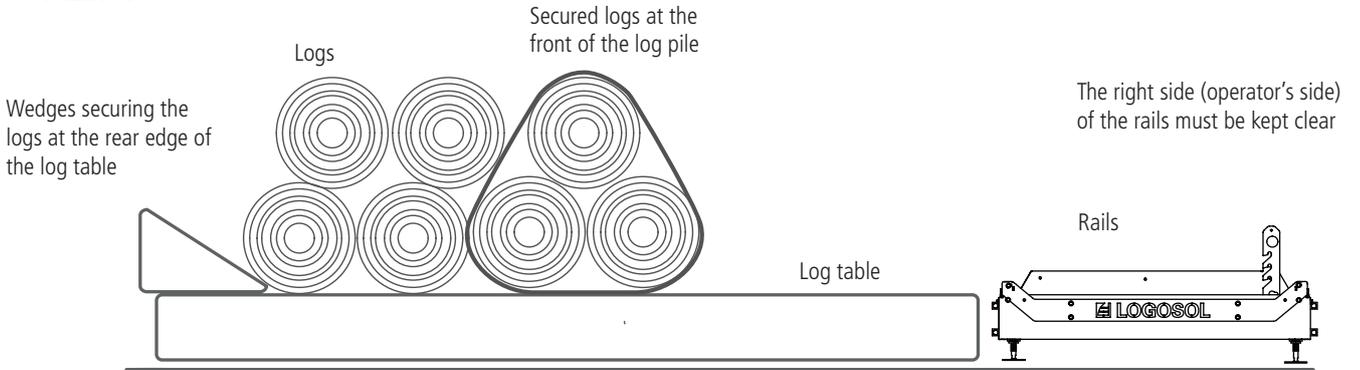
 The logs should be rolled from the log table. Do not drop them onto the band sawmill.

### 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. Untie 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 the accessory SMART Turner. 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.

# WORKING INSTRUCTIONS

## ALT. 1



## ALT. 2

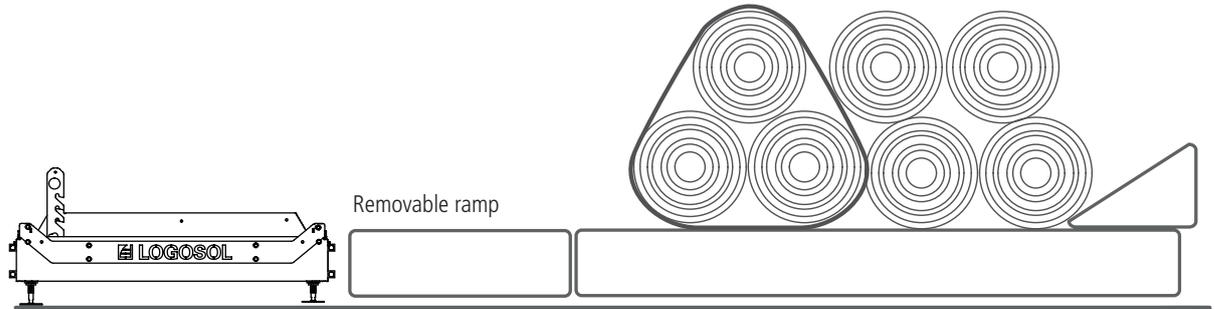


Illustration 2

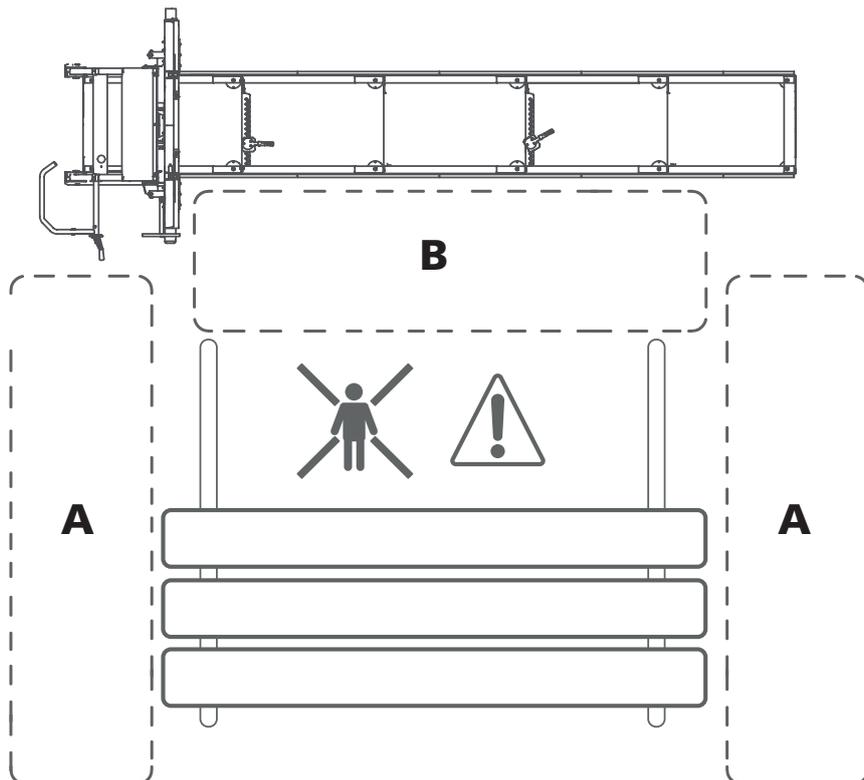


Illustration 3

## WORKING 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.

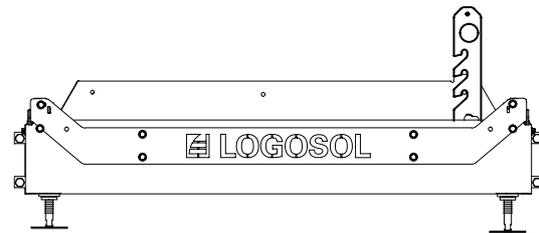
**WARNING!** Read and follow all the safety instructions described in the chapter *Safety Instructions* under the section *Before each cut*.

**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.

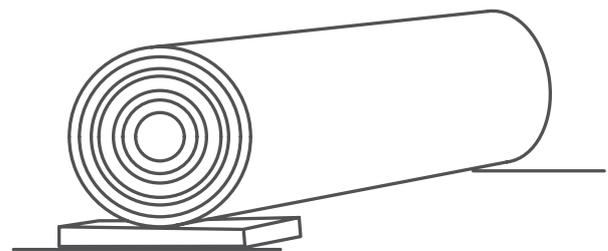
**!** Watch your fingers when lowering the log supports. Make sure that the log supports are properly and securely fitted in their adjustment notches.



**3.** Use the accessory SMART Turner 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.

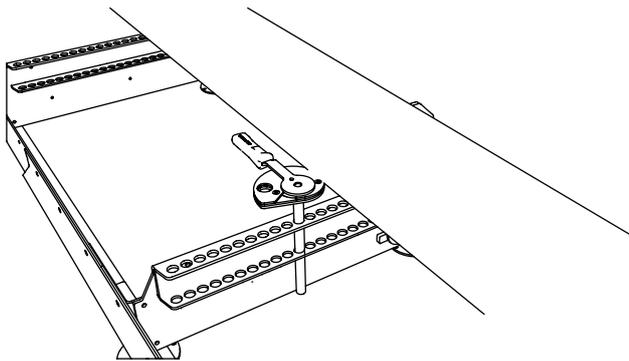
**5.** If the log is distinctly tapered from one end to the other, you have to compensate for this to get the best possible result. You always want the cut to run parallel to the centre line of the log. Place a shim between the log bed cross bunk and the narrow end of the log.



*A shim placed under the narrow end of the log.*

## WORKING 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.

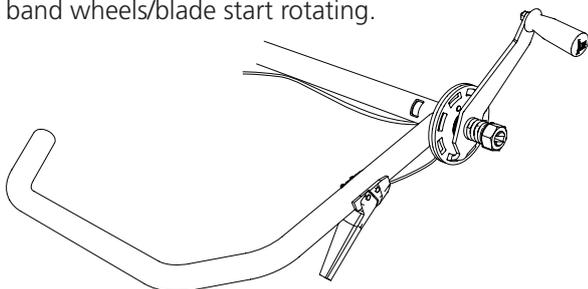
**8.** Check that the blade will not come into contact with the log supports and log clamps.

**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.



*Push handle and throttle*

**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.

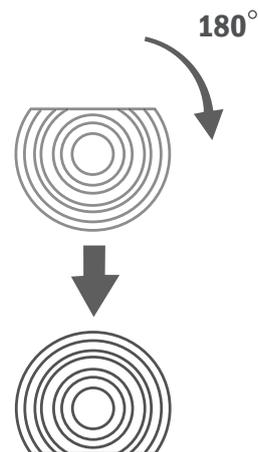
**14.** As soon as you have sawn through the log, release the throttle handle and let the blade come to a complete stop before continuing to step 15. Tip: If you release the throttle just before the blade comes out through the log end, the blade will stop faster.

**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.

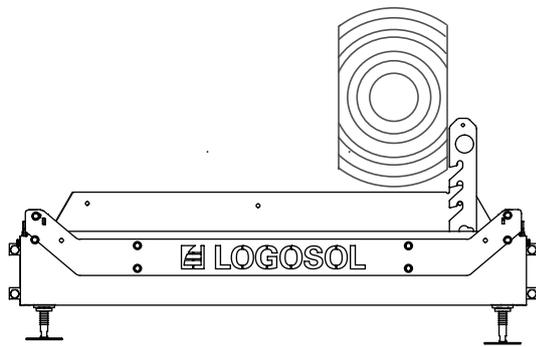


*Rotate the log 180° so that the freshly sawn surface rests on the log bed*

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.

## WORKING INSTRUCTIONS

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:



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



**WARNING!** Risk of cutting injuries:



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.

## 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 cutting injuries.

**When handling band blades:**

- always wear protective gloves (class 1) of leather
- always wear close-fitting safety goggles or visor
- 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.

### COILING BAND BLADES

Hold the band blade out in front of you with your palms facing up and the blade teeth pointing away from your body. Your thumbs should be placed on the outside of the blade and your fingers on the inside. Your hands should be placed about 1 m apart. Hold the bottom of the blade on the ground with your foot. Be careful so you do not damage the teeth of the blade.

Press the band blade inwards at the same time as you rotate your wrists inwards and downwards. Bring your hands together and downwards, and complete the coiling so that the band blade forms three loops.

Secure the band blade by tying the loops together at a couple of points so that the blade can not spring apart.



### CHANGING BAND BLADES

It is crucial to change the blade regularly to ensure peak performance. 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 76.
3. Close the guards over the band wheels.
4. Lock the guards.

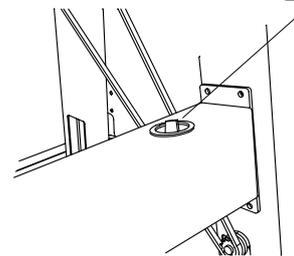
# MAINTENANCE

## 1 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).

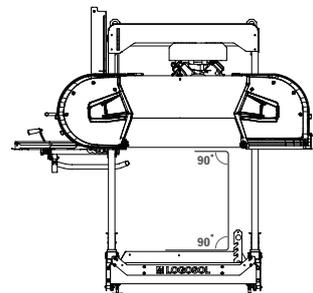
## 2 WATER TANK

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.



## 3 HORIZONTAL ALIGNMENT OF THE BAND BLADE

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



## 4 ENGINE

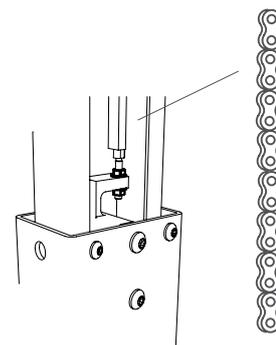
Check the oil level in the engine before each work shift. Follow the maintenance schedule in the user manual for the engine.



User manual

## 5 SAWHEAD LIFTING CHAINS

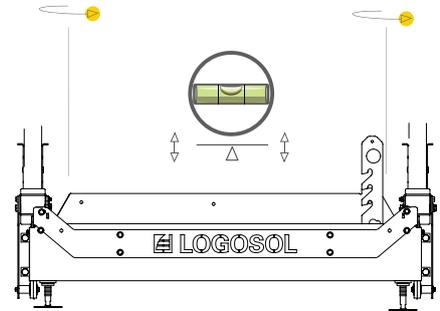
Inspect the sawhead lifting chains for any wear or damages. Replace with new chains if necessary.



## MAINTENANCE

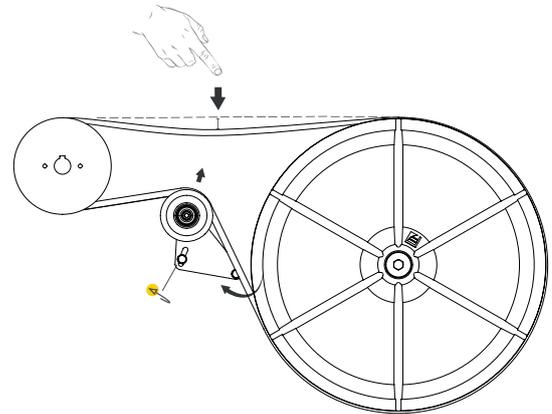
### 6 LEVEL ALIGNMENT OF THE RAILS

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



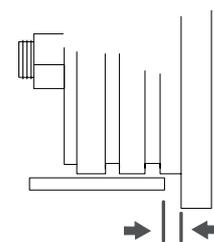
### 7 BAND WHEEL BELTS

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.



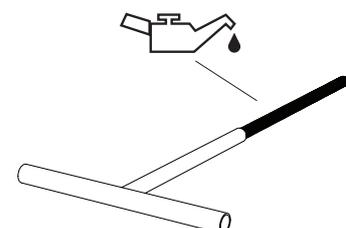
### 8 BLADE GUIDES

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.



### 9 BLADE TENSIONING T-HANDLE

Every month, the threaded hole and the threads of the T-handle should be lubricated with multipurpose grease, or alternatively Super Flo. If you operate the band sawmill on a daily basis, you should lubricate more frequently.



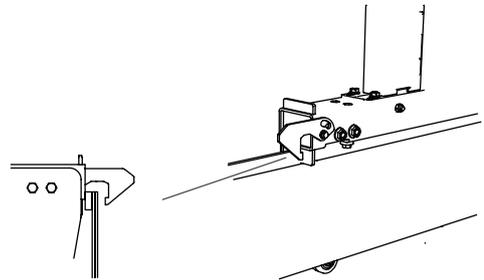
# MAINTENANCE

## 10 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.

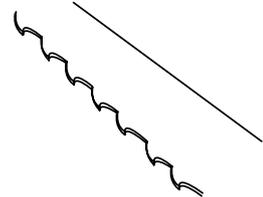
## 11 TRACK SWEEPERS

Regularly check that both track sweepers touch the rails. This keep the rails free from sawdust.



## 12 BAND BLADES

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



## 13 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 (ref. no: 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. Check that the emergency stop shuts down the engine ignition (listen for a clicking sound).

## TROUBLESHOOTING

SYMPTOM	PROBABLE CAUSE	SOLUTION
The blade quickly loses its sharpness	<ul style="list-style-type: none"> <li>• Dirty logs</li> <li>• The blade is worn out</li> </ul>	<ul style="list-style-type: none"> <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	<ul style="list-style-type: none"> <li>• Dull blade</li> <li>• The feed speed is too high</li> <li>• The feed speed is too low</li> <li>• Sawing through a partly frozen log</li> </ul>	<ul style="list-style-type: none"> <li>• Resharpener the blade</li> <li>• Lower the feed speed</li> <li>• Increase the feed speed</li> <li>• Let the log fully thaw or fully freeze before sawing it. <b>TIP:</b> 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.</li> </ul>
The blade dives or rises when sawing	<ul style="list-style-type: none"> <li>• Insufficient blade tension</li> <li>• The feed speed is too high</li> <li>• The blade is damaged</li> <li>• The blade does not track correctly on the band wheels</li> </ul>	<ul style="list-style-type: none"> <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	<ul style="list-style-type: none"> <li>• The blade is worn out</li> <li>• Dull and/or incorrectly installed blade</li> <li>• The blade tension is too tight</li> <li>• The blade guide rollers are not aligned with the band wheels</li> <li>• Worn band wheel belts. This makes the blade running directly on metal</li> </ul>	<ul style="list-style-type: none"> <li>• Replace the blade with a new one</li> <li>• Resharpener the blade</li> <li>• Reduce the blade tension</li> <li>• Adjust the blade guides</li> <li>• Replace the belts on the band wheels with new ones</li> </ul>
Uneven board thickness	<ul style="list-style-type: none"> <li>• The log bed flexes due to insufficient support</li> </ul>	<ul style="list-style-type: none"> <li>• Support the rails/log bed as outlined in the instructions in this manual</li> </ul>
The blade does not track correctly and slips off the band wheels	<ul style="list-style-type: none"> <li>• The band wheels are incorrectly adjusted</li> <li>• Worn band wheel belts</li> </ul>	<ul style="list-style-type: none"> <li>• Adjust the band wheels as outlined in the instructions in this manual</li> <li>• Replace the belts with new ones</li> </ul>
The blade does not cut	<ul style="list-style-type: none"> <li>• The blade is installed backwards</li> </ul>	<ul style="list-style-type: none"> <li>• Remove the blade and, turn the blade inside out and reinstall it</li> <li>• 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.</li> </ul>
The blade does not slacken after releasing the blade tension with the T-handle	<ul style="list-style-type: none"> <li>• The blade tension assembly is sticking</li> </ul>	<ul style="list-style-type: none"> <li>• Push the T-handle inwards</li> </ul>
The sawhead is stiff when raised or lowered	<ul style="list-style-type: none"> <li>• The vertical guides are too tight</li> <li>• The sawhead lifting winch drum is dry</li> </ul>	<ul style="list-style-type: none"> <li>• Lubricate with Superflo and, if necessary, loosen them slightly</li> <li>• Lubricate with Superflo</li> </ul>
The sawhead is rattling when going down	<ul style="list-style-type: none"> <li>• The rails are not level and cause the carriage to twist</li> </ul>	<ul style="list-style-type: none"> <li>• Level the rails as outlined in the instructions in this manual</li> </ul>
The blade overheats during operation	<ul style="list-style-type: none"> <li>• The water tank is empty</li> <li>• The water valve is closed</li> </ul>	<ul style="list-style-type: none"> <li>• Refill with water</li> <li>• Open the water valve</li> </ul>
The engine does not start	<ul style="list-style-type: none"> <li>• The ignition key is in the "OFF" position</li> <li>• The emergency stop is pushed in</li> <li>• The interlock safety switch on the blade guards is disconnected</li> </ul>	<ul style="list-style-type: none"> <li>• Turn the ignition key to the "ON" position</li> <li>• Reset the emergency stop</li> <li>• Check the working order of the interlock safety switch</li> </ul>

# TECHNICAL DATA

<b>LOGOSOL B1001</b>	
<b>RAILS/BED</b>	
Length of rails, standard	5.85 m
Length of rail extension	1156 mm
Track width	1100 mm
Total width	1170 mm
Height	240 mm
Weight (5.85 m rails)	250 kg
<b>SAW CARRIAGE</b>	
Length	1100 mm
Width	2250 mm
Height	1980 mm
Weight	214 kg
Volume of water tank	17.75 litres
Feed rate	Manual
<b>CAPACITY</b>	
Max. log diameter	1001 mm
Max. cant width	850 mm
Effective sawing length (standard)	4.85 m
<b>BAND BLADE</b>	
Type and size	4310x33 pitch 22 mm
Band wheel diameter	500 mm
Band wheel rotation speed	1000 rpm
Blade speed	30 m/s
<b>SAWMILL MOTORS</b>	
Electric motor	12 kW, 400 V
Petrol engine	Briggs & Stratton 23 hp
Volume of fuel tank	5 litres
<b>SOUND LEVELS/VIBRATIONS</b>	
Equivalent sound pressure level in the operator's area 1)	88.4 dB(A)
Sound power level (estimated) 2)	109.4 dB(A)
Vibration level in handle 3)	<2.5 m/s <sup>2</sup>

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

2) The typical distribution measurement for sound power level is a standard deviation of 3 dB(A).

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

## ASSEMBLY: RAIL FRAME

Work on level ground, as this will facilitate when adjusting the rails.



Read all the assembly instructions before beginning the assembly, and then follow the step-by-step instructions during the assembly.

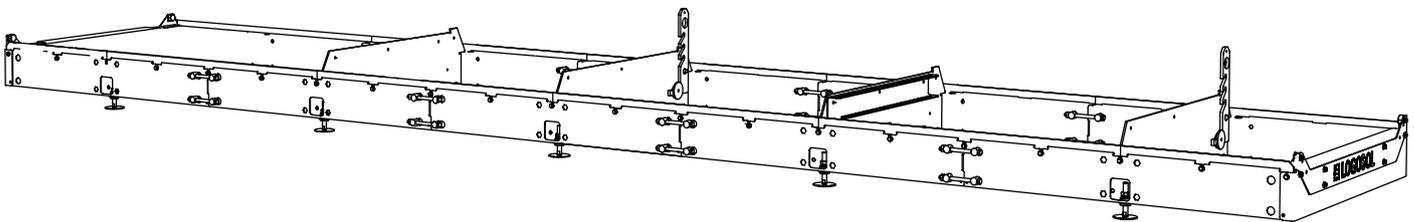


Order of assembly



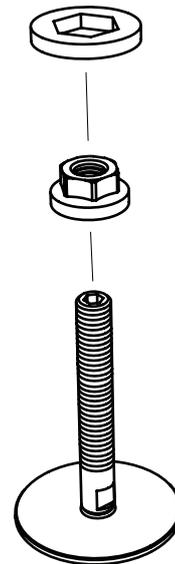
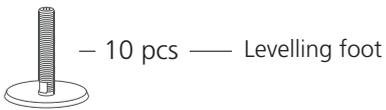
Good job!

Follow the steps of assembly carefully and use an ergonomically correct work position while working.

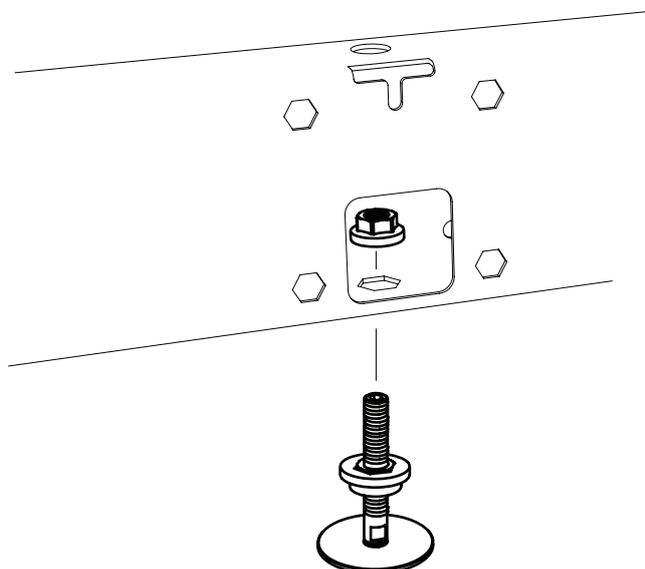
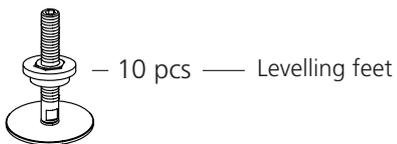


# ASSEMBLY: RAIL FRAME

Fit the nut and the washer on the levelling foot.

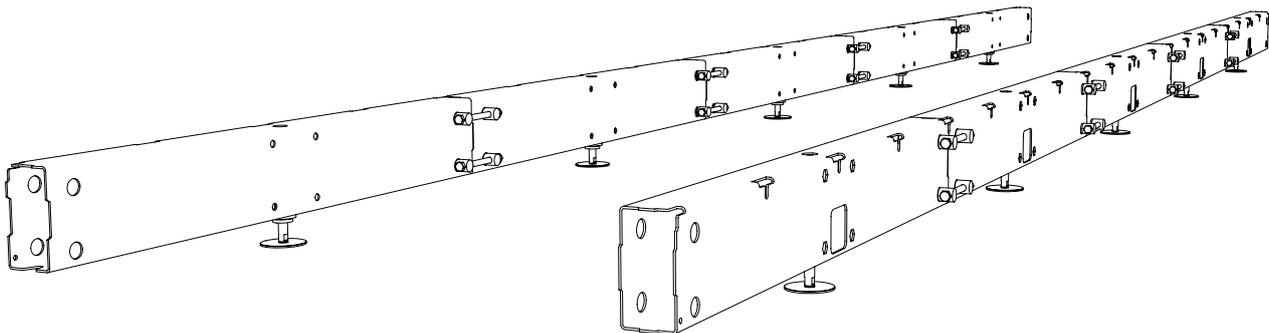


Install the levelling feet to the rail frame. Secure the feet with flange nuts inside the rail tubes.



## ASSEMBLY: RAIL FRAME

Rail frame assembly. Follow the steps of assembly carefully and use an ergonomically correct work position while working. When the assembly is finished, the two rail frame sides should be completely straight.

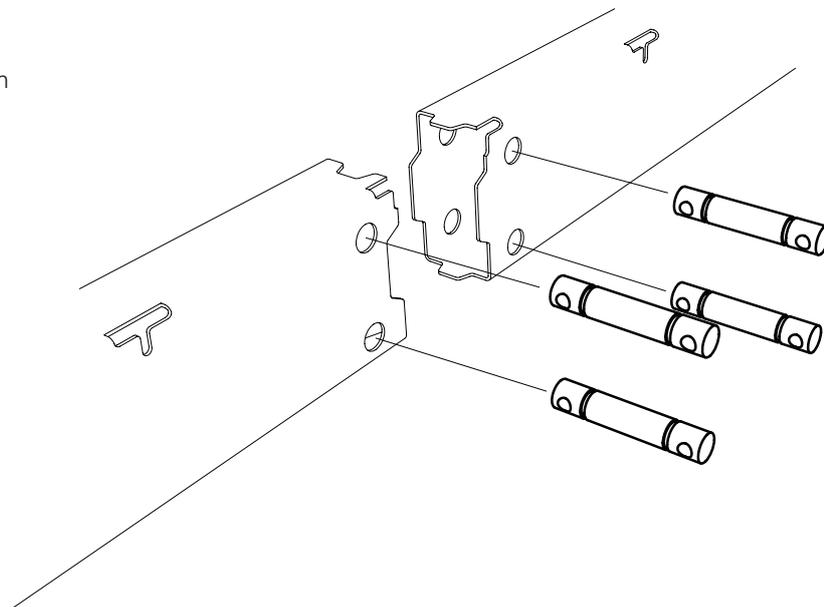


1

Install the joint pins in the first rail joint.



— 4 pcs — Joint pin

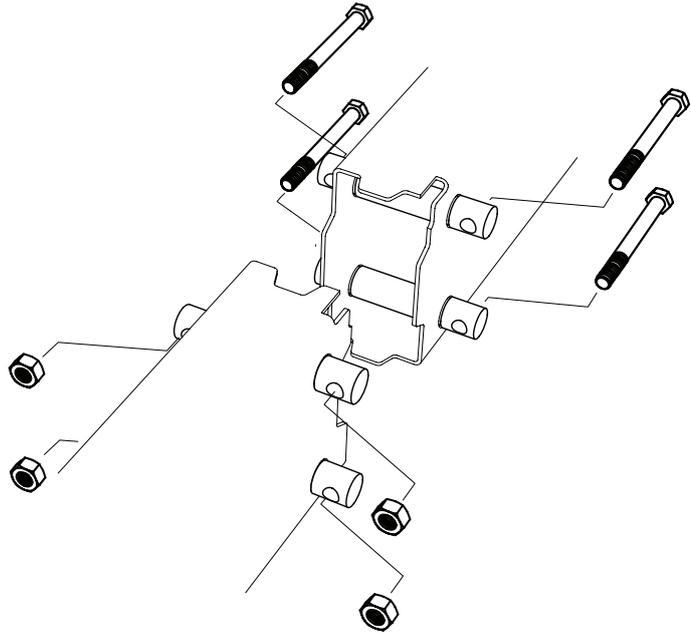


## ASSEMBLY: RAIL FRAME

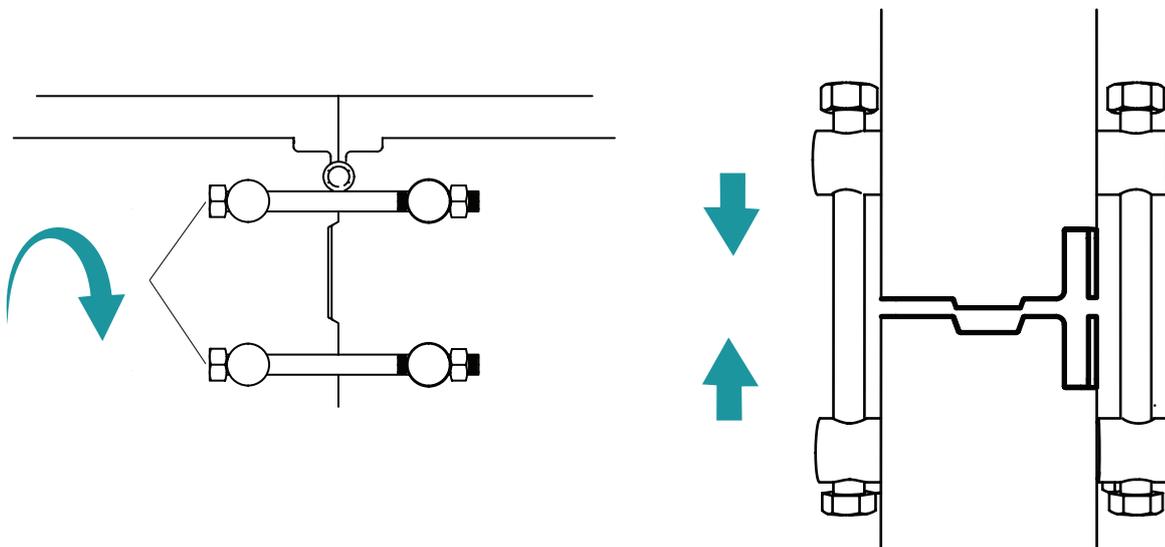
Insert the bolts through the joint pins and fasten with nuts.

 - 4 pcs — Hex bolt M12x140

 - 4 pcs — Hex nut M12

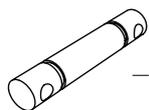


Secure the bolt joints. Ensure that the joint between the rail frame sections stays straight when tightening the bolt joints.



## ASSEMBLY: RAIL FRAME

Repeat the assembly on the other joints between the rail frame sections. Note that a rail frame side consists of 5 rail frame sections. Tighten the bolt joints until you have a completely straight rail frame side.



– 12 pcs — Joint pin

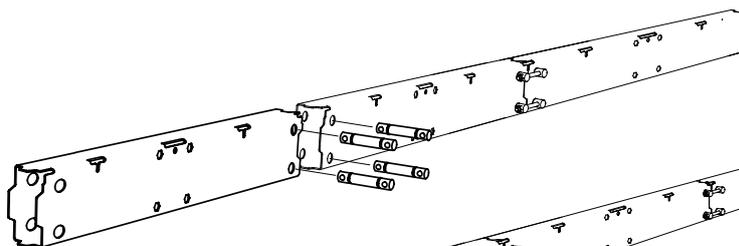


– 12 pcs — Hex bolt M12x140

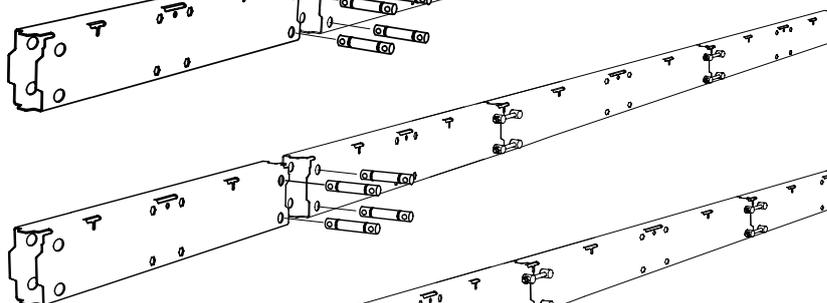


– 12 pcs — Hex nut M12

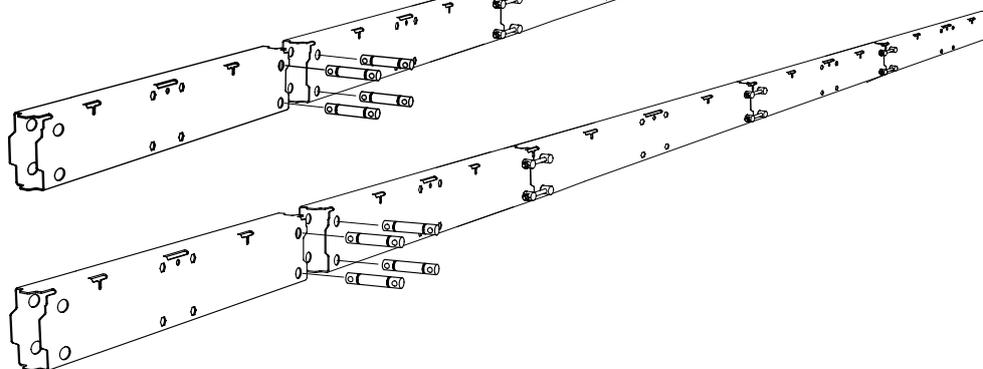
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3



4



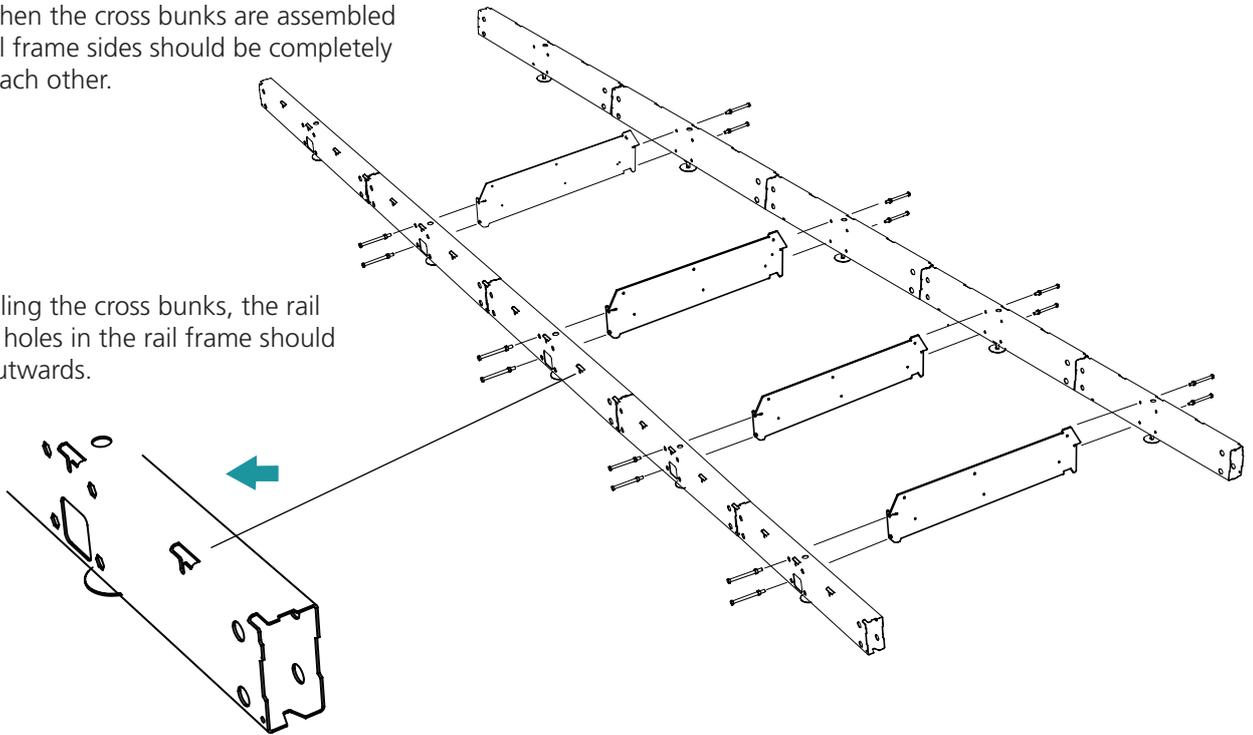
Good job!

Repeat the assembly steps for making the other rail frame side.

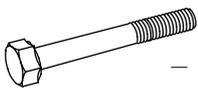
## ASSEMBLY: RAIL FRAME

Installation of the cross bunks in the rail frame. Follow the steps of assembly carefully and use an ergonomically correct work position while working. When the cross bunks are assembled the both rail frame sides should be completely parallel to each other.

When installing the cross bunks, the rail attachment holes in the rail frame should be facing outwards.



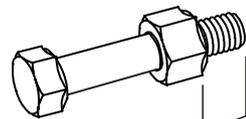
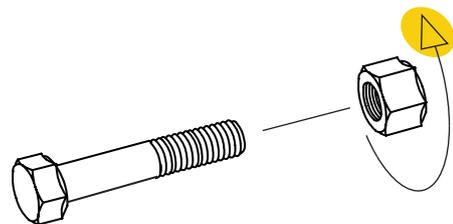
Prepare the bolt joints for the installation of the cross bunks in the rail frame. The nut should be tightened until there is 20 mm of free thread.



— 16 pcs — Hex bolt M12x90



— 16 pcs — Hex nut M12

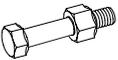


20mm

# ASSEMBLY: RAIL FRAME

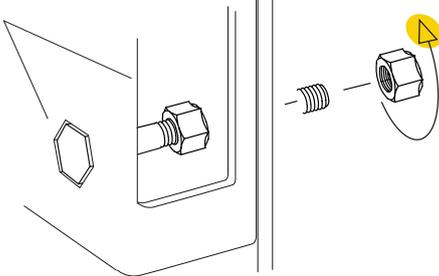
1

Fit the first cross bunk to the rail frame. Note that it should be fitted to the second rail frame section seen from the sawing direction. The cross bunk should be installed so that the log stop is on the left side, seen from the sawing direction.

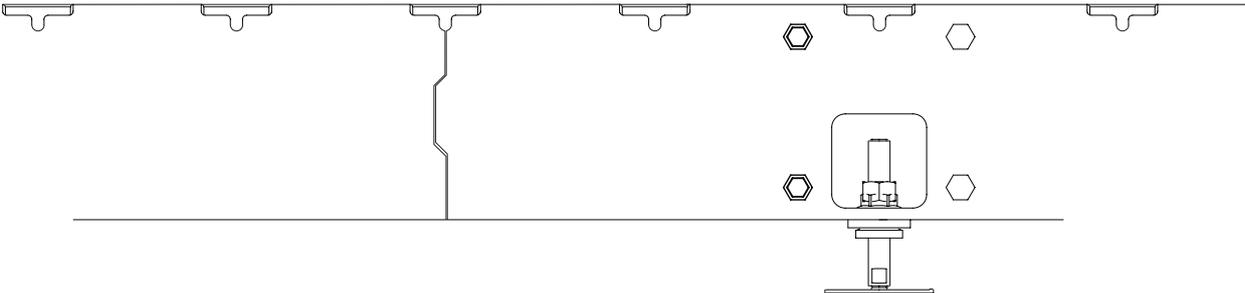
 - 4 pcs — Bolt joint

 - 4 pcs — Flange nut M12

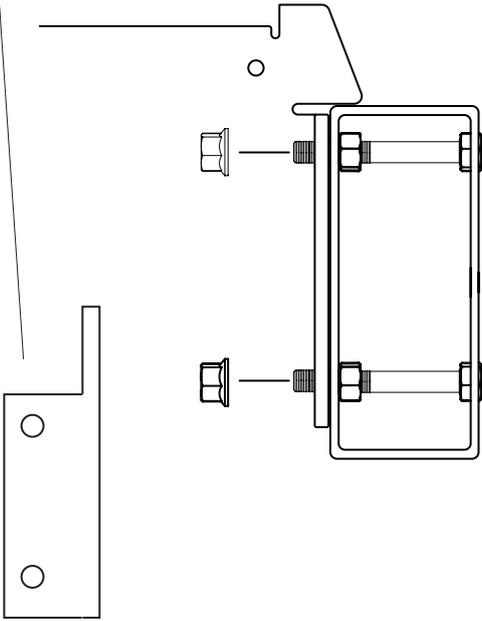
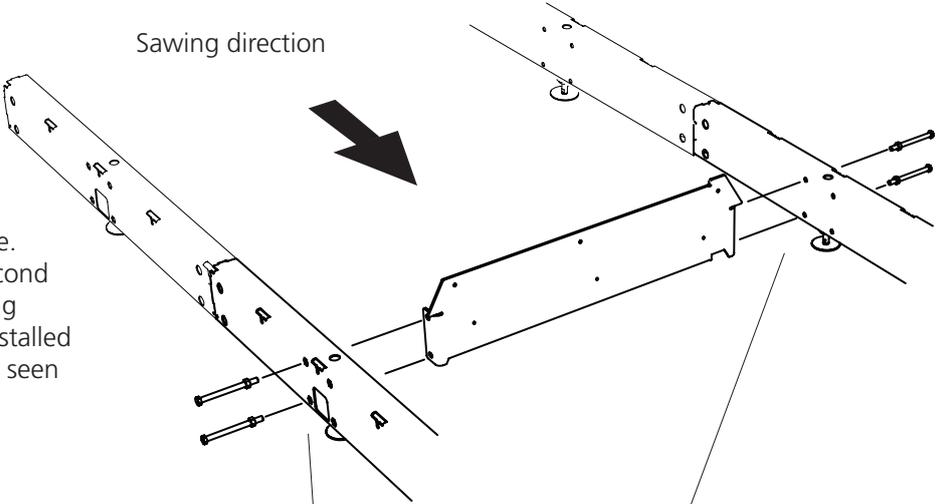
The hex bolt head should be fitted so that is locked in the hexagonal hole in the rail frame, at the same time as the nut locks the bolt joint from the inside of the rail frame tube.



Sawing direction

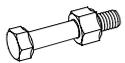


Sawing direction



# ASSEMBLY: RAIL FRAME

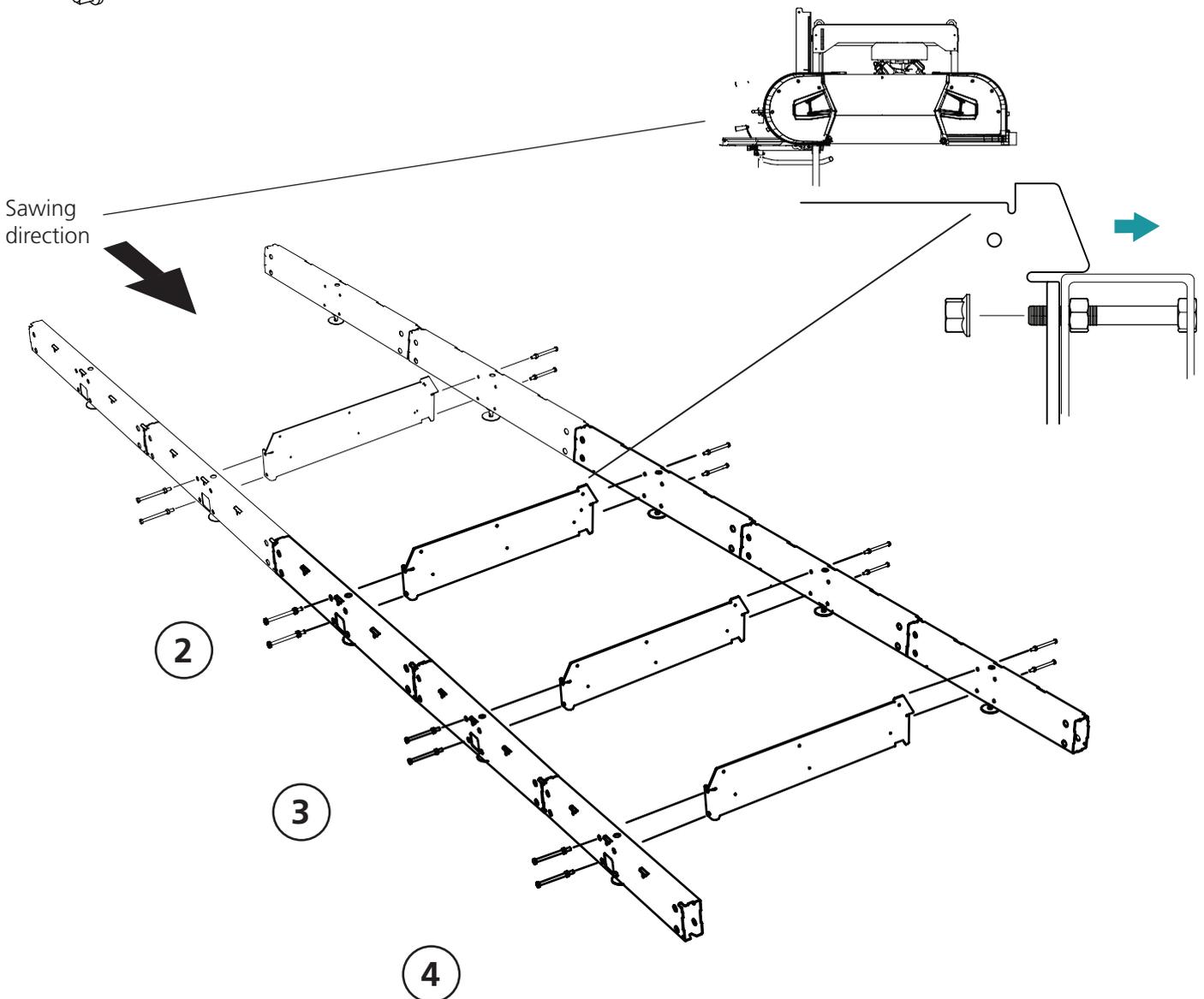
Install the other cross bunks as shown in the illustration. Note that the first rail frame section, seen from the sawing direction, should not have a cross bunk. This is because that section lies outside the effective sawing length.



— 12 pcs — Bolt joint

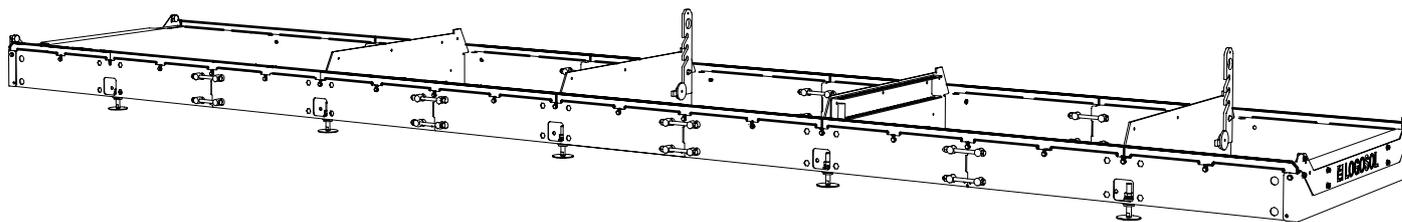


— 12 pcs — Flange nut M12



## ASSEMBLY: RAIL FRAME

Installation of the inner end plates, the bed end frames and the rail sections. Follow the assembly instructions carefully.

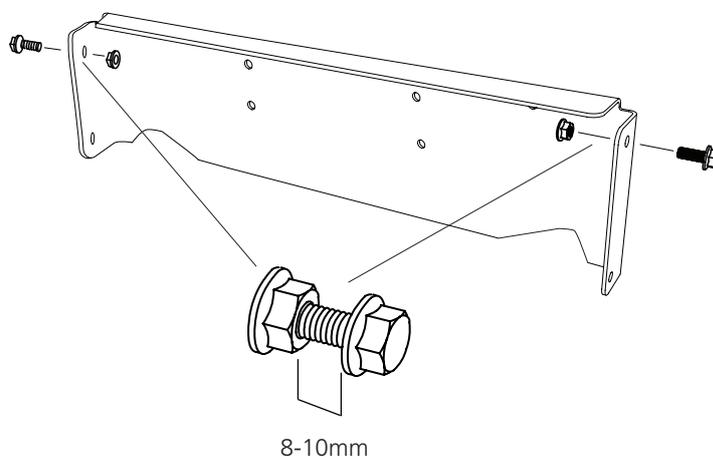


Read all the adjustment instructions before beginning the adjustment, and then follow the step-by-step instructions during the adjustment.

Insert the bolt joints in the rail end plates. Note that the flange nuts should be fitted “backwards” on the bolt.

 — 4 pcs — Flange bolt M8x16

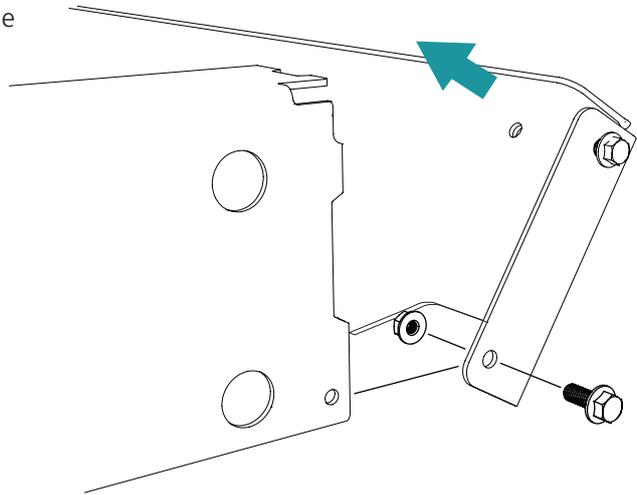
 — 4 pcs — Flange nut M8



## ASSEMBLY: RAIL FRAME

Fit the end plate to the end of one of the rail frame sides, then repeat this at the end of the other rail frame side.

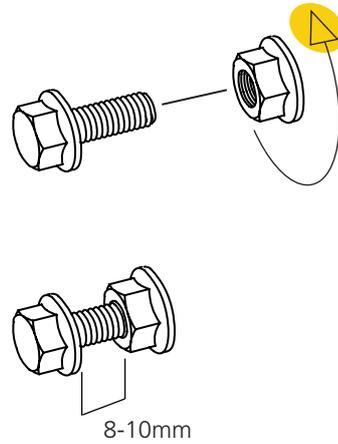
-  — 4 pcs — Flange bolt M6x16
-  — 4 pcs — Flange nut M6



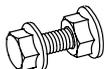
Prepare the bolt joints for the installation of the rail sections. Note that the flange nut should be fitted "backwards" on the bolt.

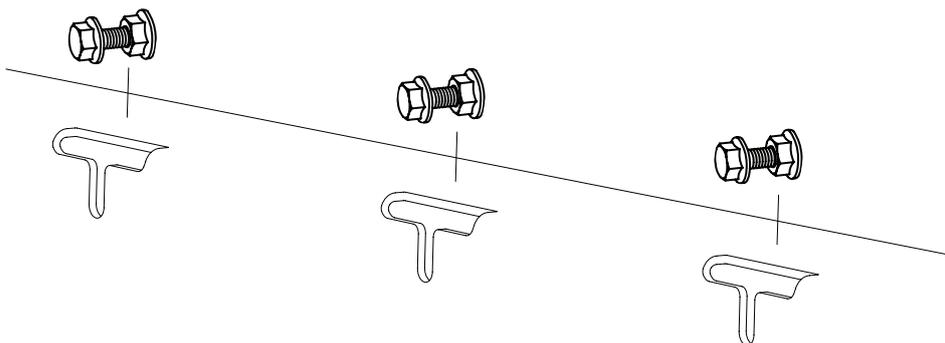
-  — 38 pcs — Flange bolt M8x16
-  — 38 pcs — Flange nut M8

Important! Note that the flange nut should be fitted "backwards" on the bolt.



Install the bolt joints for the rail sections in the rail frame.

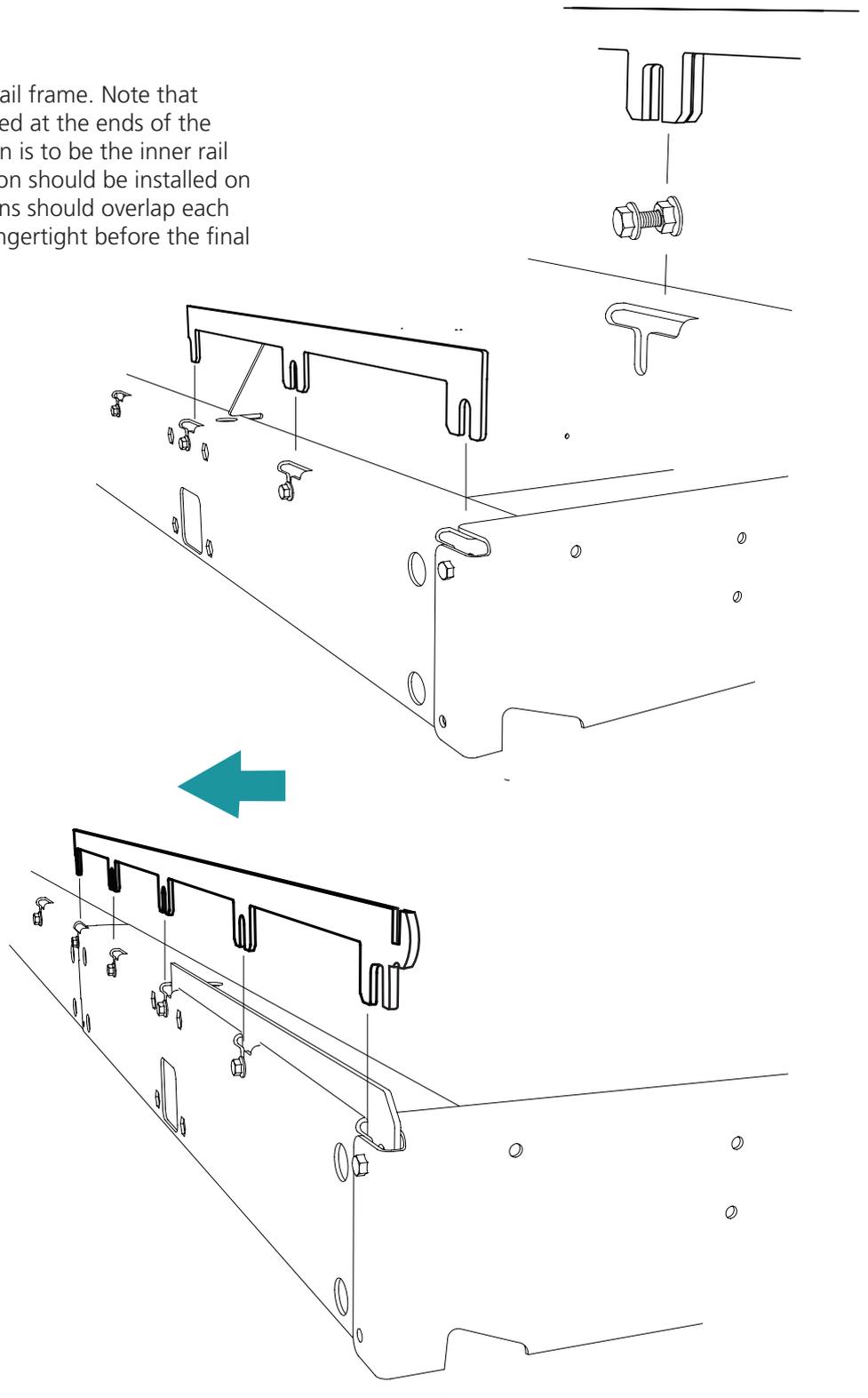
-  — 38 pcs — Bolt joint



## ASSEMBLY: RAIL FRAME

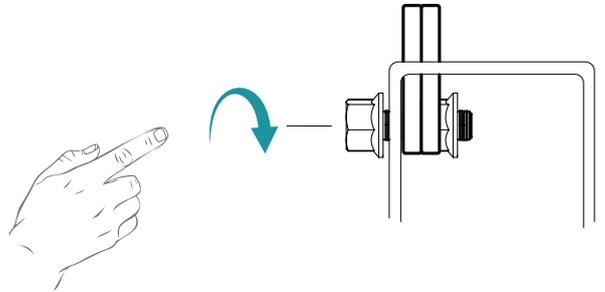
1

Fit the first rail sections to the rail frame. Note that the short sections should be used at the ends of the rail frame. The first short section is to be the inner rail section, and the first long section should be installed on the outside of it. The rail sections should overlap each other. Tighten the bolt joints fingertight before the final adjustment of the rails.



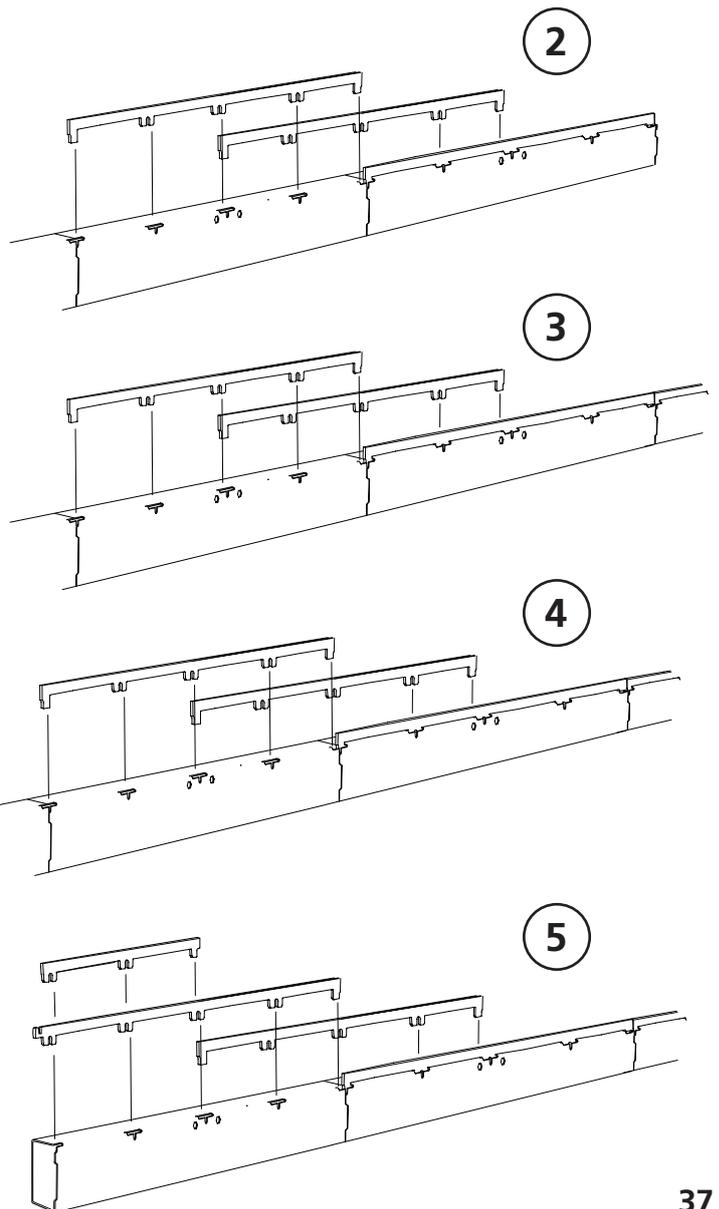
## ASSEMBLY: RAIL FRAME

The rail sections should be fitted so that they overlap each other. They are then secured with the bolt joints in every rail attachment hole in the rail frame as shown in the illustration.



Tighten the bolt joints fingertight!

Install all the rail sections the same way as described above. Follow the illustrations. Then, repeat the installation on the other side of the rail frame.



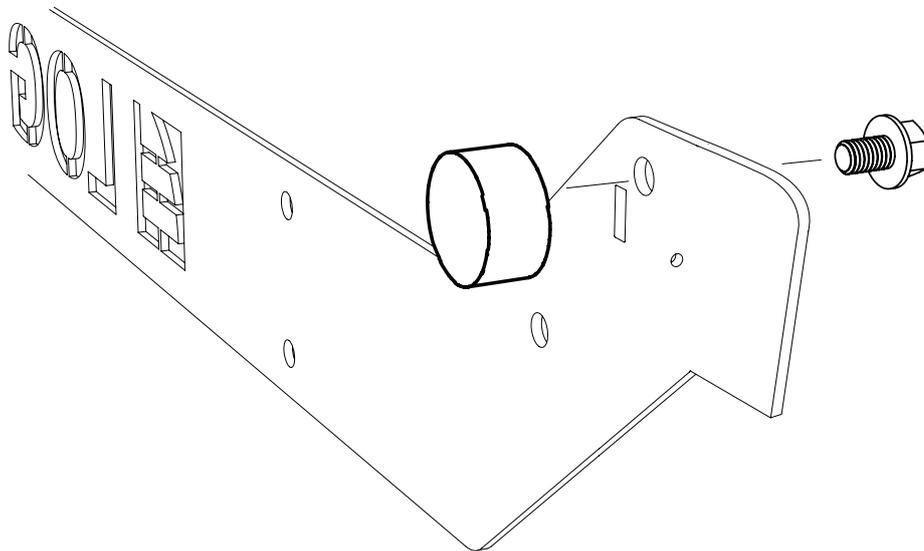
The last short rail section should be fitted the same way as the first one. See the first step of assembly on page 36.

## ASSEMBLY: RAIL FRAME

Fit the rubber bumpers to the bed end frames.

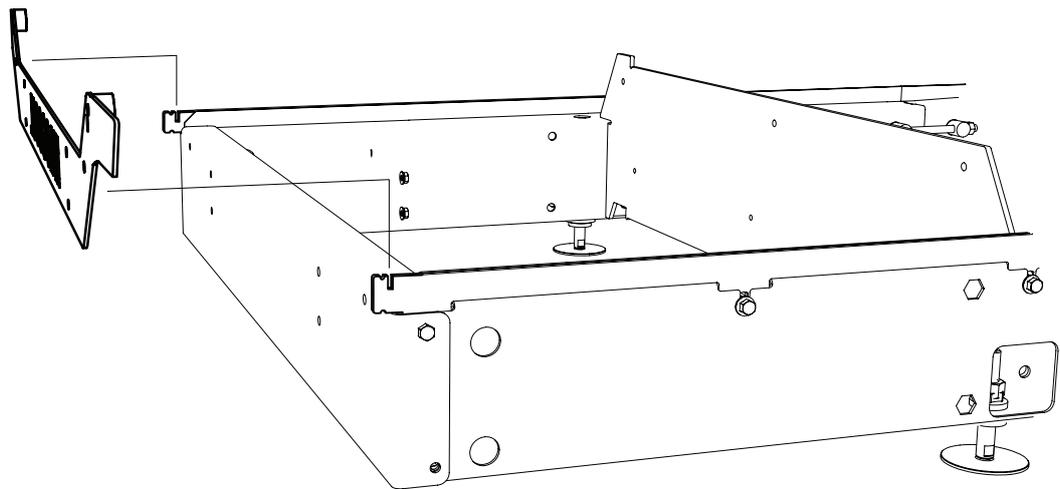
 — 4 pcs — Flange bolt M8x12

 — 4 pcs — Rubber bumper



## ASSEMBLY: RAIL FRAME

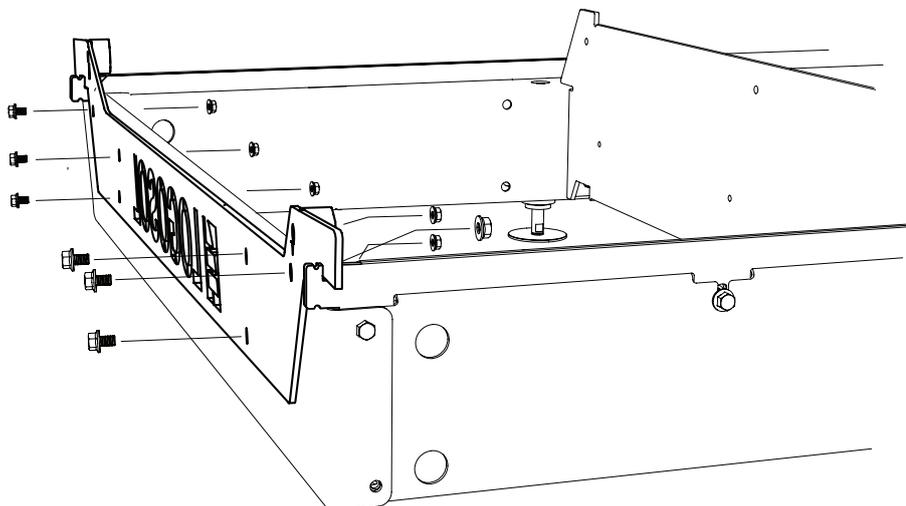
Hook the bend end frames onto the cut-out slots in the end pieces.



Secure the bed end frames with bolts and nuts.

 — 6 pcs — Flange bolt M8x 16

 — 6 pcs — Flange nut M8





Good job!

Now it is time to adjust the rails.

## ADJUSTMENT: RAIL FRAME

(Tools are not included in the shipment of the sawmill)



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



The purpose of adjusting the rails is to get them as level as possible. Read through the instructions and be careful.



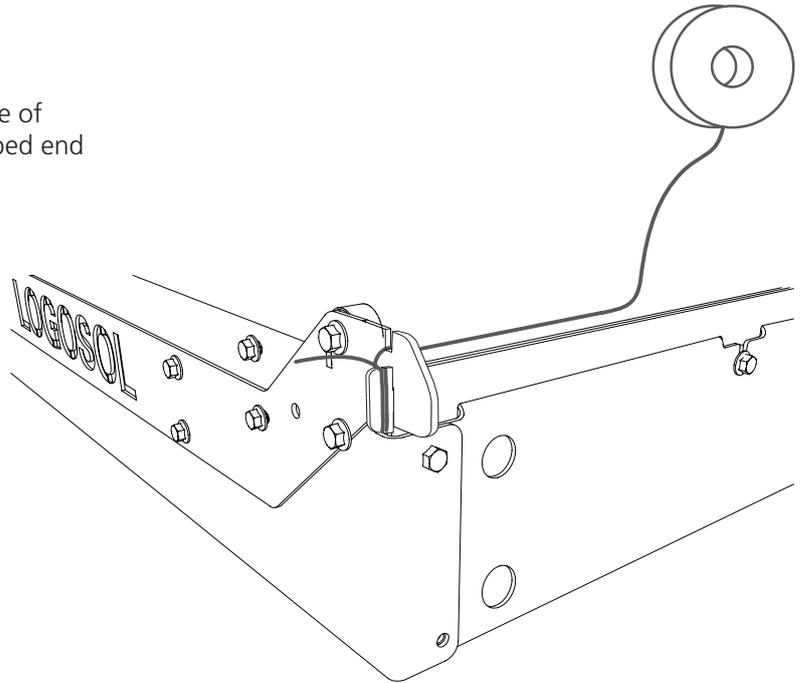
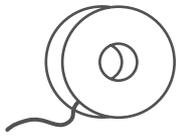
1 pc

Mason's string

## ADJUSTMENT: RAIL FRAME

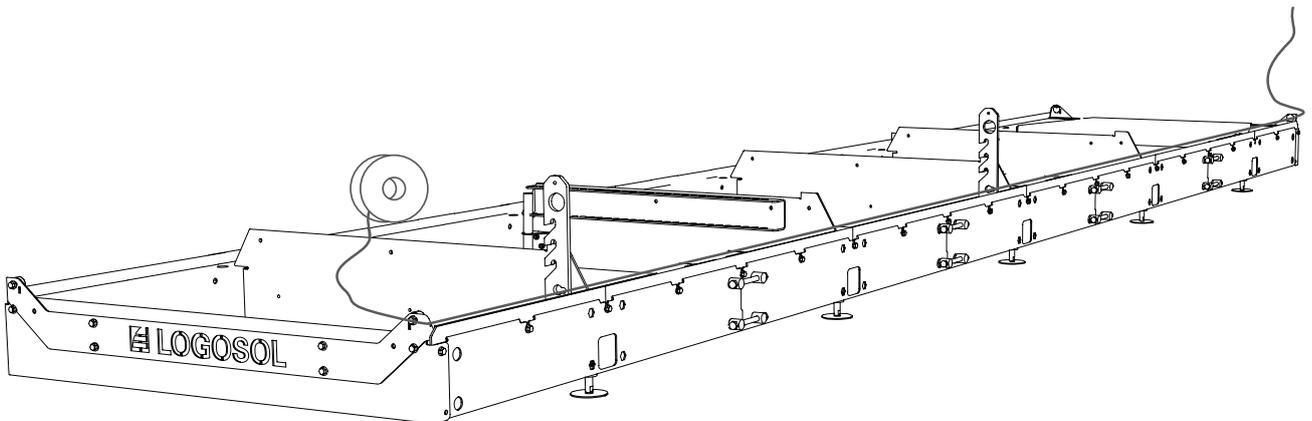
1

Tie a string between the corners of one side of the rail frame. Use the pre-cut slots in the bed end frame.



2

Tighten the string firmly!



## ADJUSTMENT: RAIL FRAME

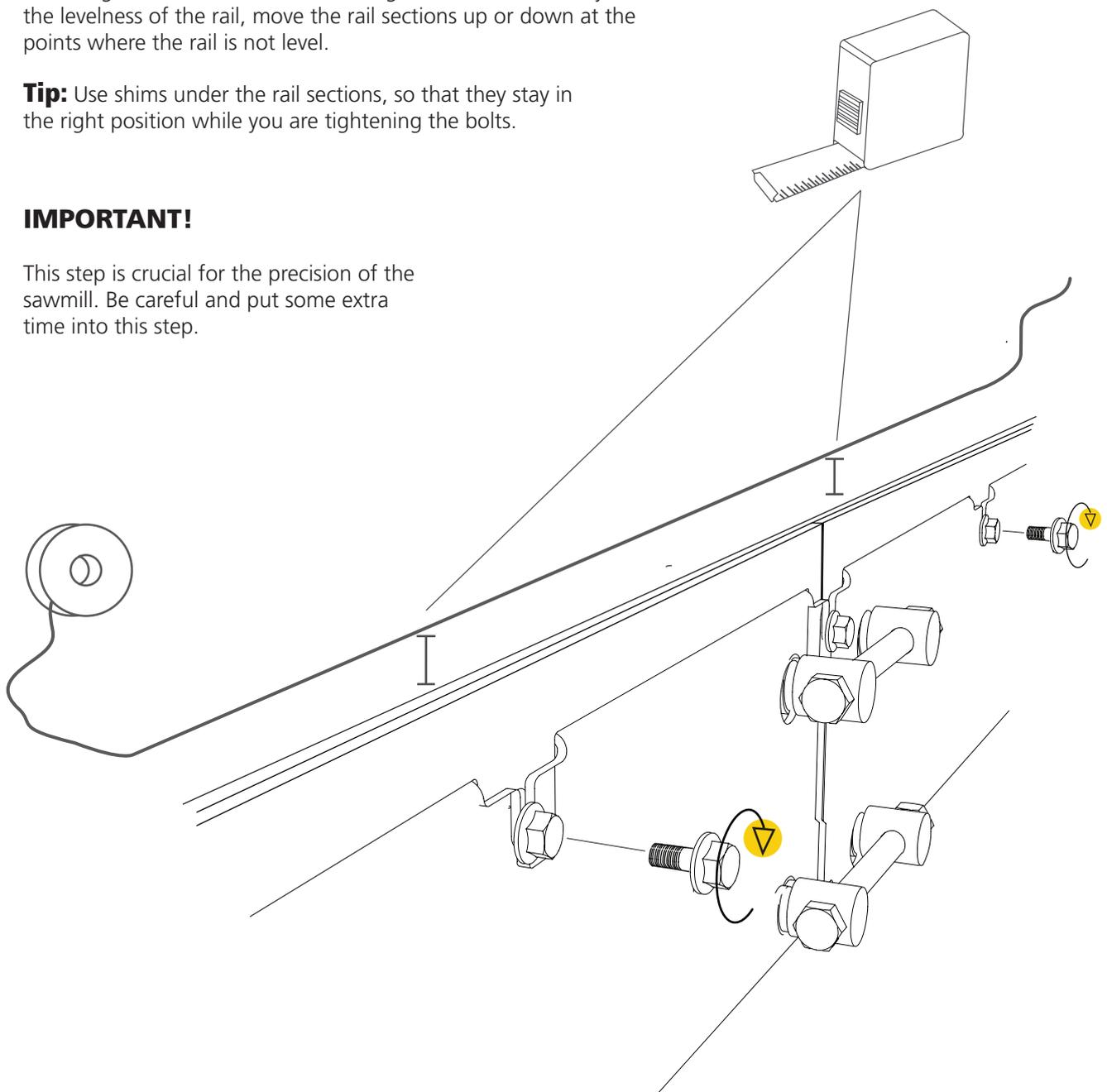
3

Measure along the string to check that the distance between the string and the rail is the same along the whole rail. To adjust the levelness of the rail, move the rail sections up or down at the points where the rail is not level.

**Tip:** Use shims under the rail sections, so that they stay in the right position while you are tightening the bolts.

### IMPORTANT!

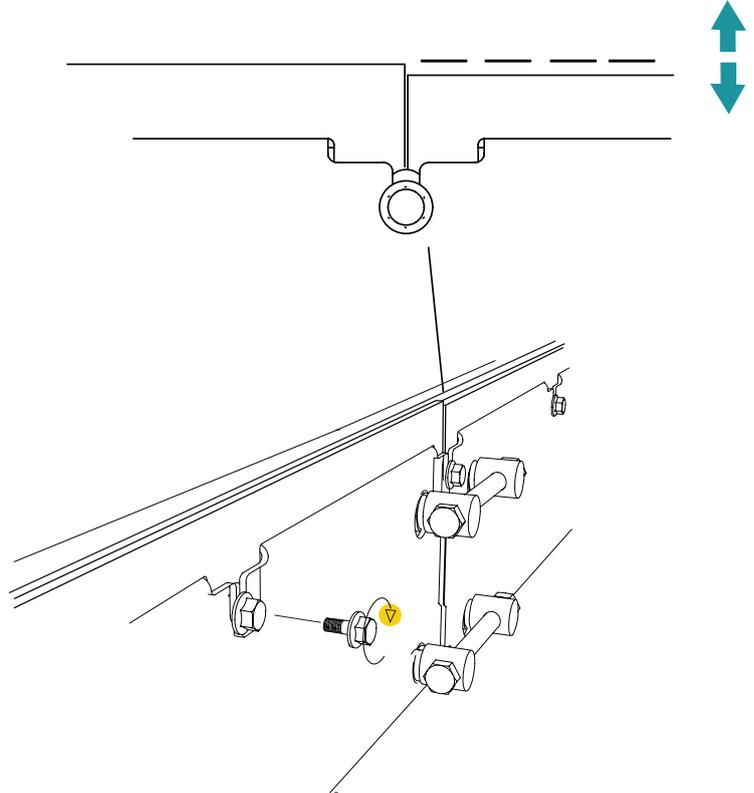
This step is crucial for the precision of the sawmill. Be careful and put some extra time into this step.



## ADJUSTMENT: RAIL FRAME

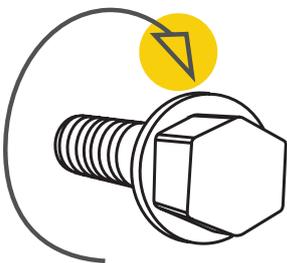
4

When the rail is adjusted level, check that all the rail sections are level at the joints and that the inner and outer rail sections are at the same height. All joints should be as level as possible. Adjust and tighten the bolting step by step.



5

When one side of the rail frame is adjusted along its whole length and the joints are level, tighten all boltings on this side of the bed. Then, repeat all the adjustment steps on the opposite side of the rail frame to complete the adjustment.



Good job!

## FINAL ASSEMBLY OF RAIL FRAME



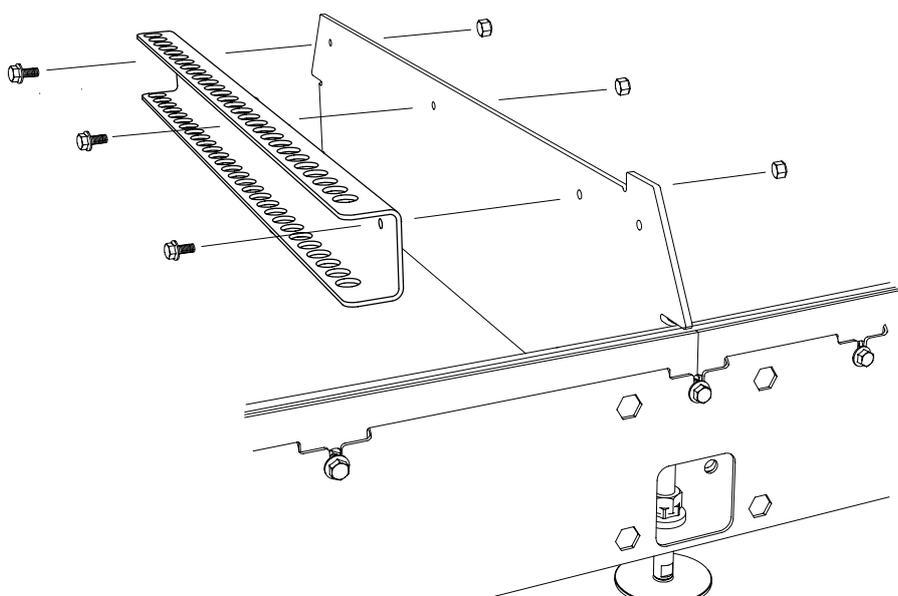
Read all the assembly instructions before beginning the assembly, and then follow the step-by-step instructions during the assembly.

Now it is time to do the final assembly of the rail frame.

Fit the log clamp attachments to two of the cross bunks.

 — 6 pcs — Flange bolt M8x20

 — 6 pcs — Flange nut M8



## FINAL ASSEMBLY OF RAIL FRAME

Fit the attachment points for the log supports to two of the cross bunks.



— 4 pcs — Flange bolt M8x25



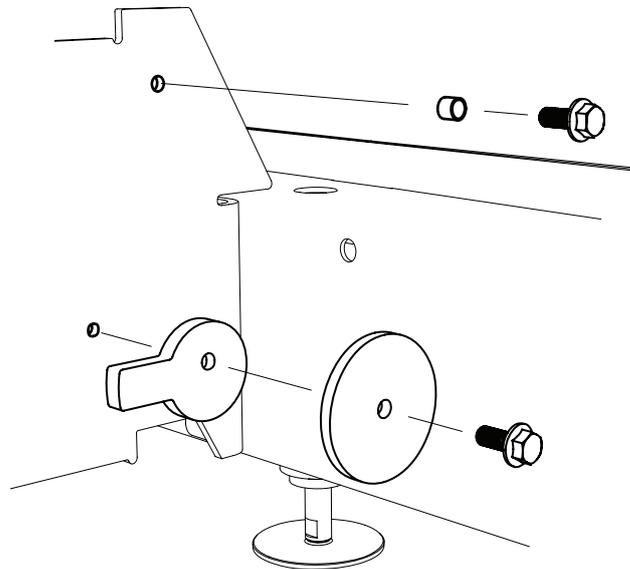
— 4 pcs — Flange nut M8



— 2 pcs — Washer M8



— 2 pcs — Eccentric handle M8





Good job!

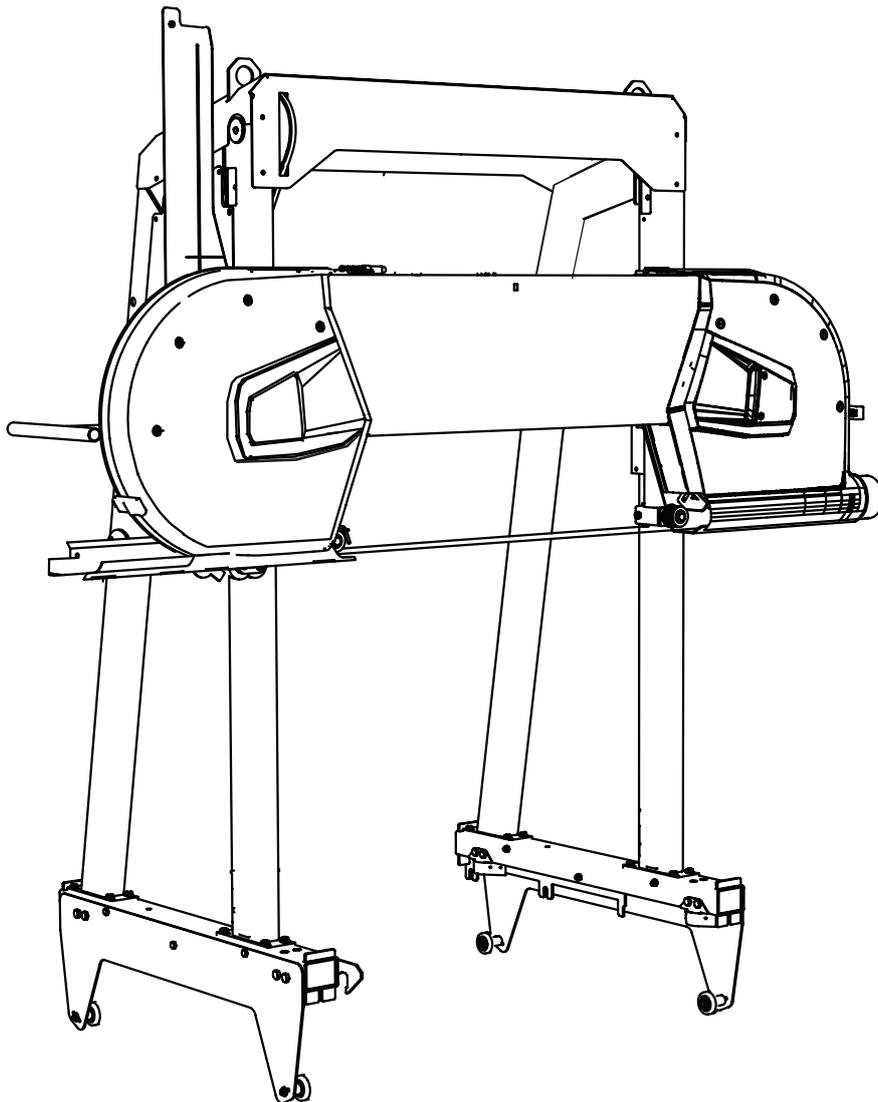
Now it is time to install the sawhead onto the rails.

# SAWHEAD

## THE SAWHEAD

The sawhead comes partly preassembled. The anti-tip wheels of the carriage are to be installed immediately after the sawhead is positioned on the rails. Then, the petrol engine or the electric motor has to be installed on the sawhead. After this, the equipment must be adjusted in the same order as is outlined in the user manual in the chapter *Order of adjustment* to ensure proper operation of the machine.

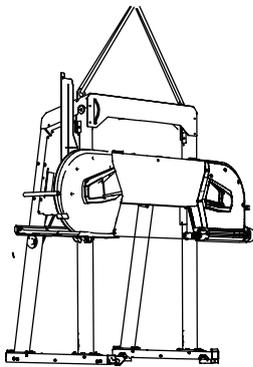
**SAWHEAD WEIGHT: 214 KG**



## SAWHEAD

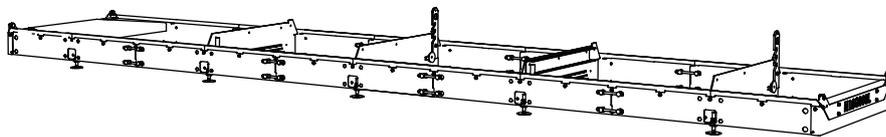
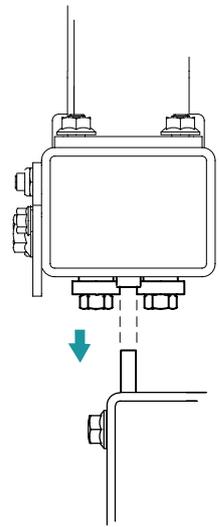
### INSTALL THE SAWHEAD ONTO THE RAILS

Lift the sawhead in place on the rails. The total weight of the sawhead is 214 kg. Use straps that are approved for this and fasten them in the sawhead lift rings. Carry out the lift with the help of a for this situation appropriate lifting device.



#### IMPORTANT!

Make sure that the top guide bearings of the sawhead frame clasp the rails.



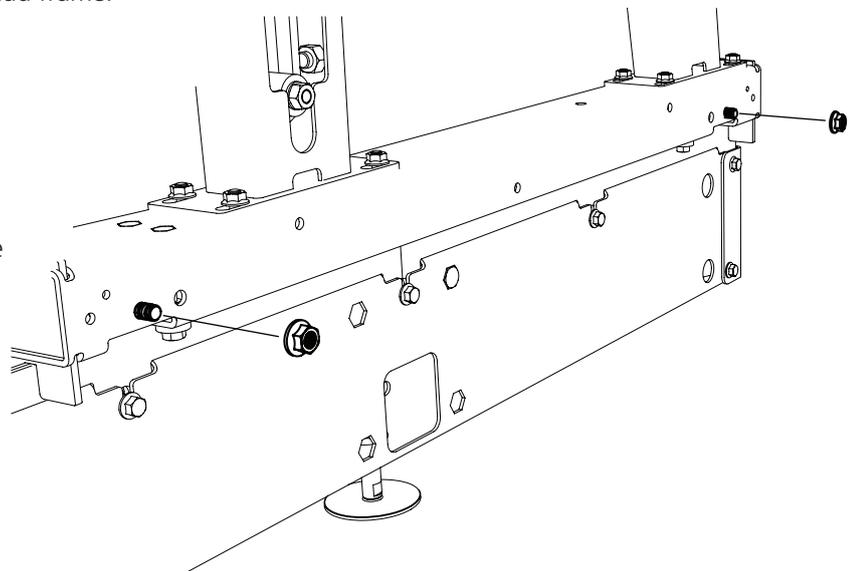
**DANGER! RISK OF TILTING.**  
**CRITICAL STEP OF ASSEMBLY.**



When the sawhead is installed onto the rails, the anti-tip wheels must be fitted to the sawhead frame.



First, remove the flange nuts on the inner side of the bogie base, but leave the bolts in their holes. They will be used in a later stage of the assembly.

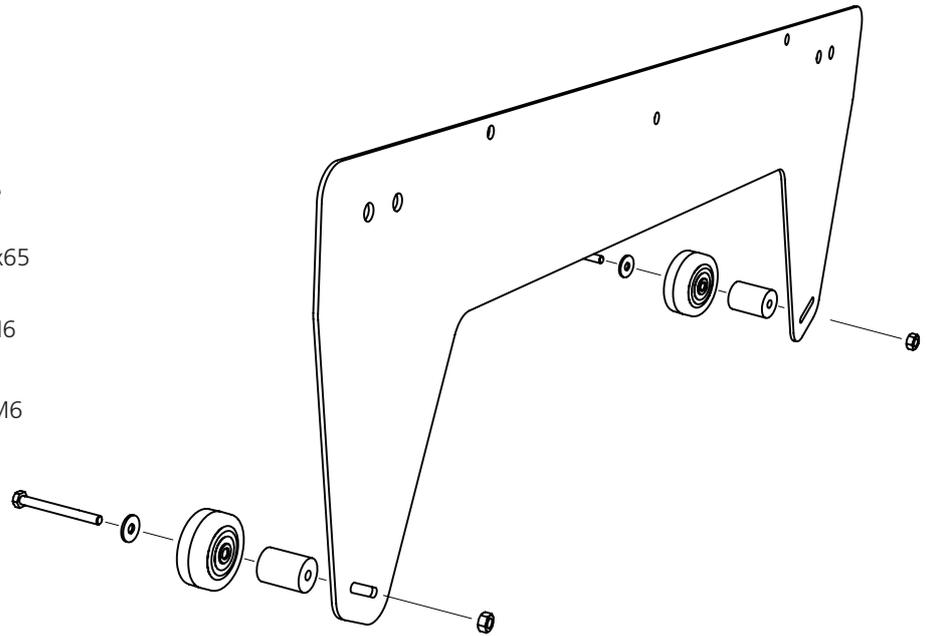


# SAWHEAD

2

Fit the wheels and the spacer sleeves to the anti-tip plate. Repeat the assembly on the other anti-tip plate.

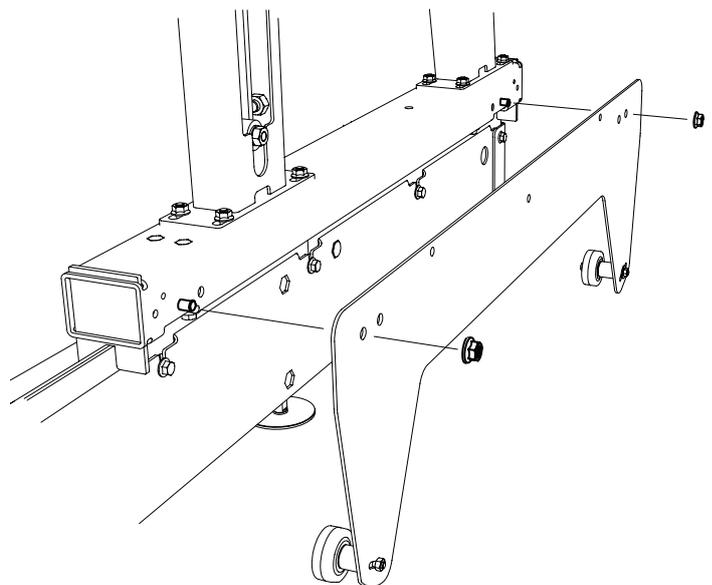
-  — 2 pcs ——— Spacer sleeve
-  — 2 pcs ——— Hex bolt M6x65
-  — 2 pcs ——— Flange nut M6
-  — 2 pcs ——— Flat washer M6



3

Fit the anti-tip plate to the bogie base. Repeat this on the other side of the machine.

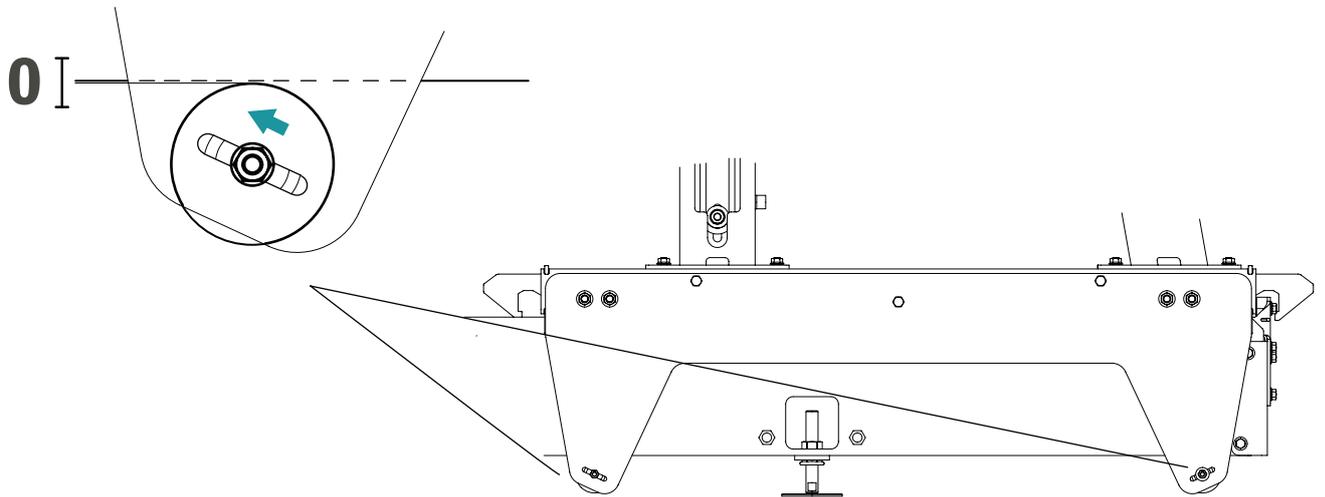
-  — 2 pcs ——— Flange nut M10



## SAWHEAD

4

Adjust the anti-tip wheels by moving them upwards in the slanted holes. Adjust them until they clamp against the bottom of the rail frame. Repeat the adjustment on the other side of the machine.



## FINAL ASSEMBLY OF SAWHEAD

When the sawmill is shipped, the sawhead is preassembled, except for the engine and the control arm. Follow these instructions to finish the assembly of the sawmill. The assembly starts with the control arm and ends with the installation of the petrol engine or the electric motor. Follow the assembly instructions carefully.



Read all the assembly instructions before beginning the assembly, and then follow the step-by-step instructions during the assembly.

1

Order of assembly



Good job!

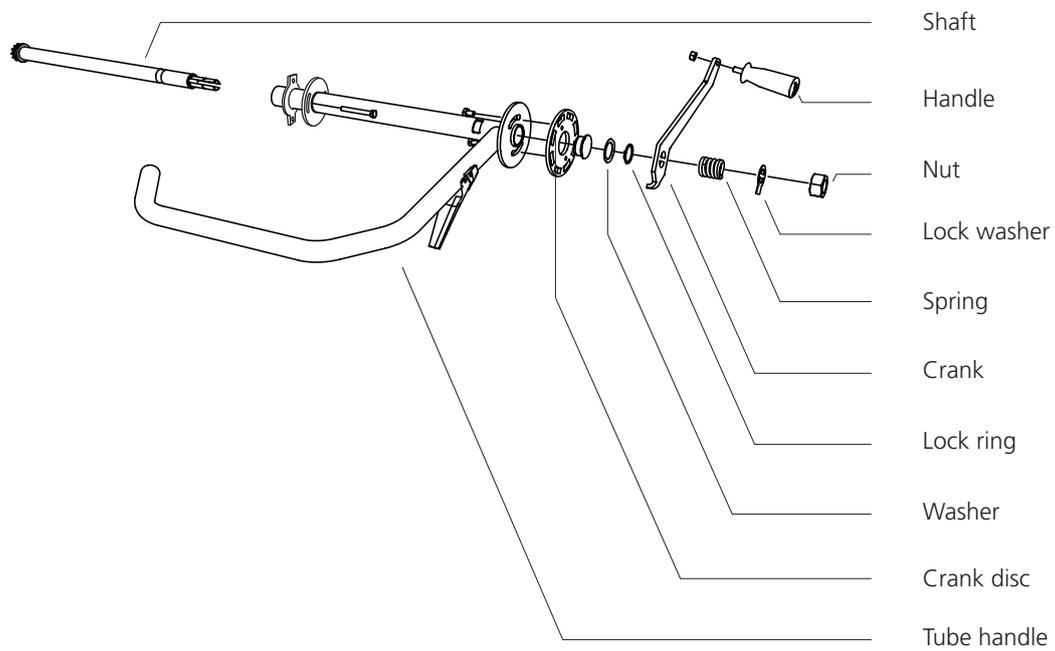


After the assembly, follow the instructions under the section *Order of adjustments* in the sawmill user manual to finish the settings before starting the machine.

## FINAL ASSEMBLY OF SAWHEAD

### ASSEMBLY: CONTROL ARM

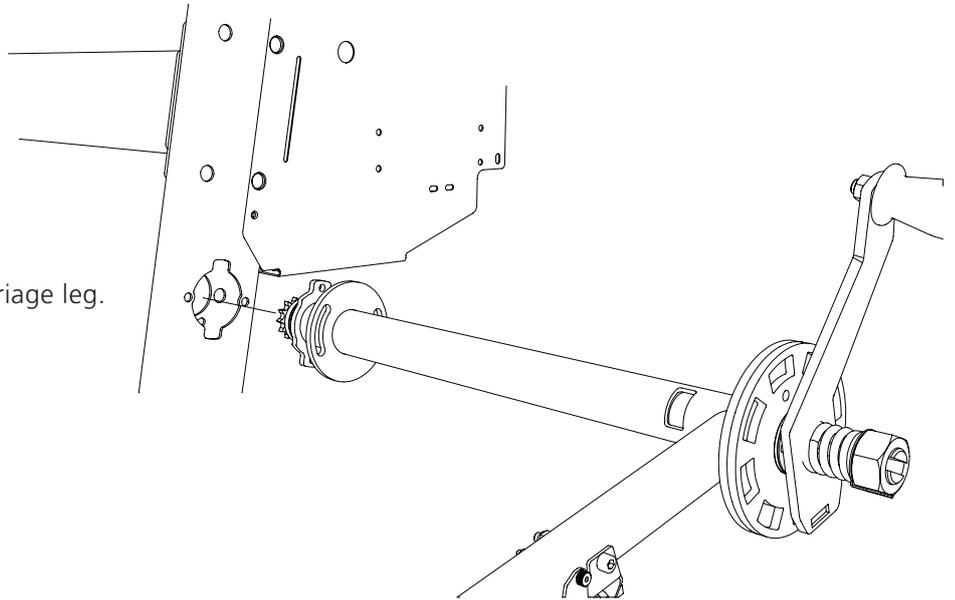
Exploded view: control arm.



## FINAL ASSEMBLY OF SAWHEAD

1

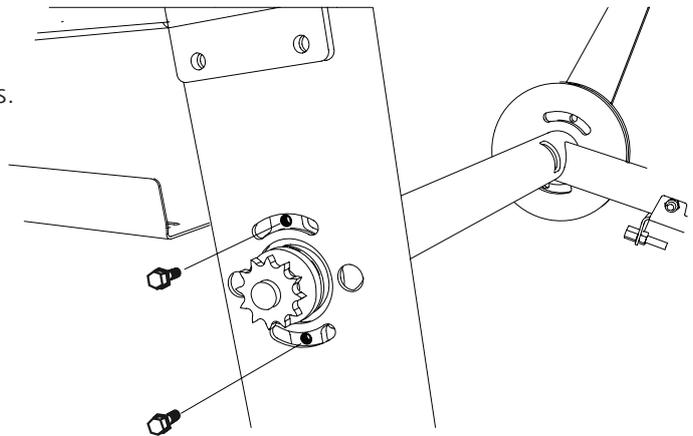
Fit the tube handle in the rear carriage leg.



2

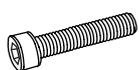
Secure the tube handle with the short fixing bolts.

 — 2pcs — Allen bolt M8x16



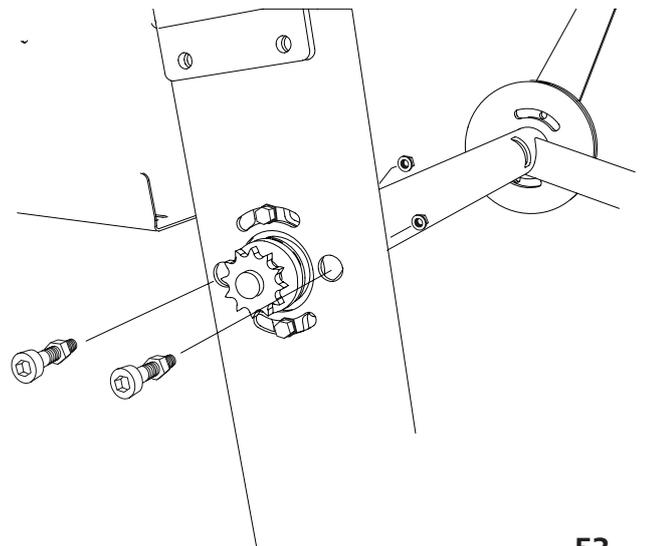
3

Secure the tube handle with the long fixing bolts. Note that the inner nut should be placed so that the head of the Allen bolt is flush with the surface of the carriage leg.

 — 2 pcs — Allen bolt M8x60

 — 2 pcs — Flange nut M8

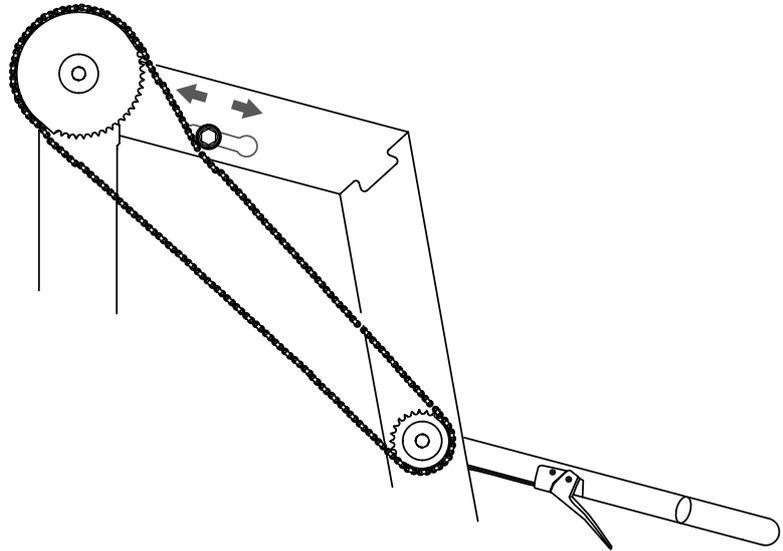
 — 2 pcs — Hex nut M8



## FINAL ASSEMBLY OF SAWHEAD

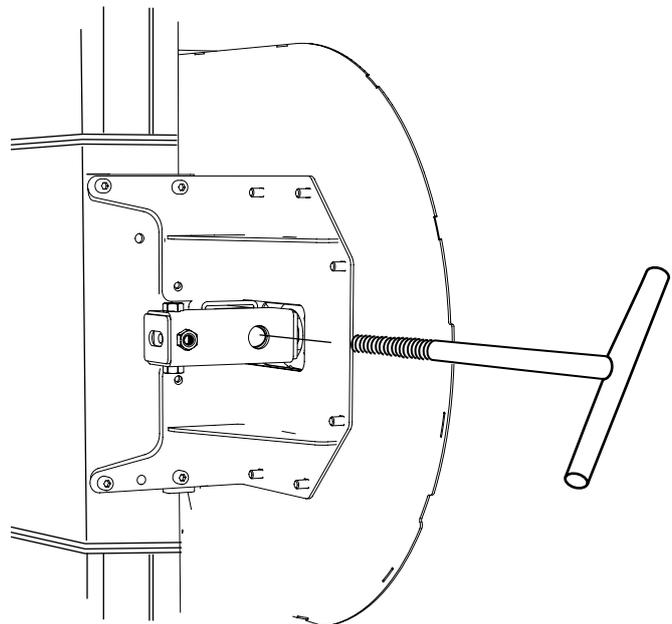
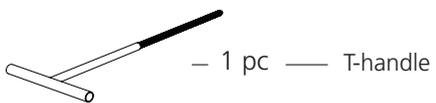
4

Tension the chain by moving the chain tensioner.



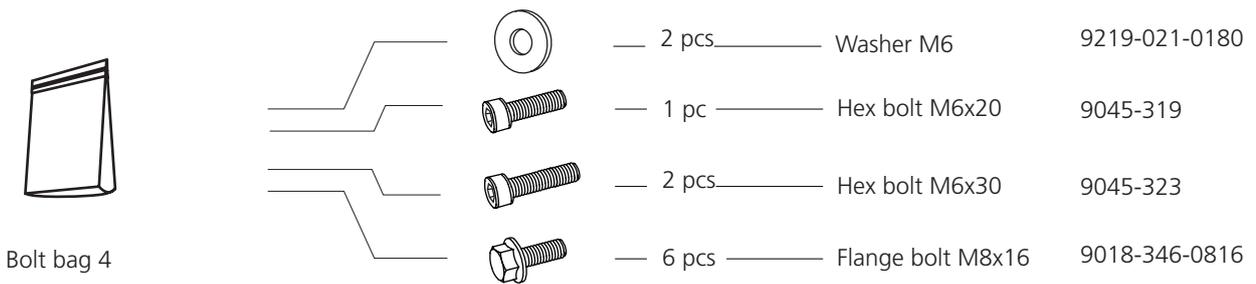
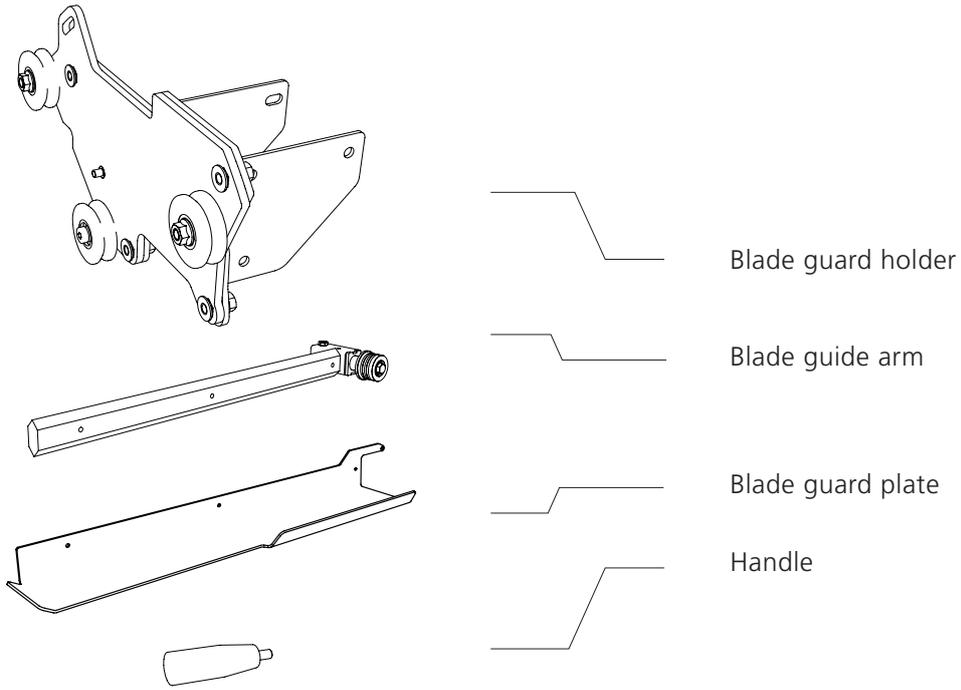
5

Install the the T-handle. Generously grease the threads of the T-handle.



# FINAL ASSEMBLY OF SAWHEAD

## COMPONENTS: BLADE GUARD/GUIDE



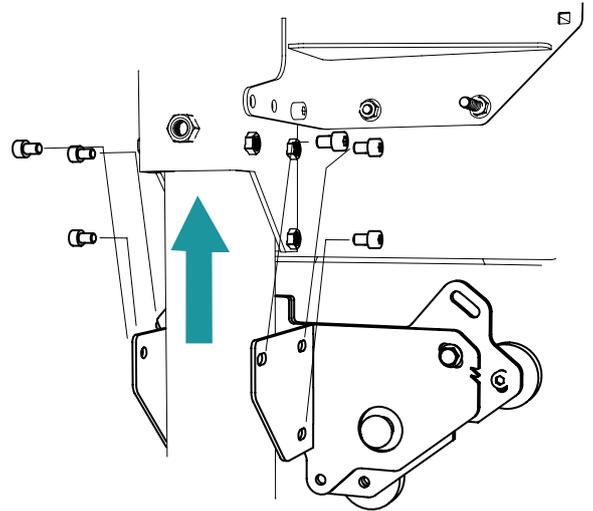
## FINAL ASSEMBLY OF SAWHEAD

1

Fit the blade guard assembly to the carriage leg.

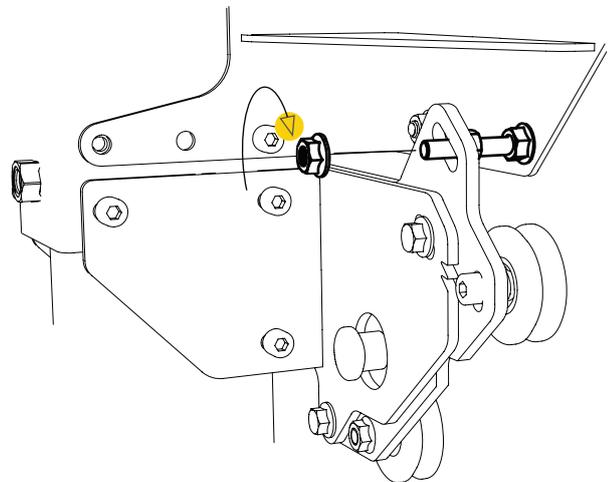


— 6 pcs — Flange bolt M8x16



2

Fit the adjusting bolt and its nut in the blade guard holder.



3

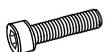
Fit the blade guard plate to the blade guide arm.



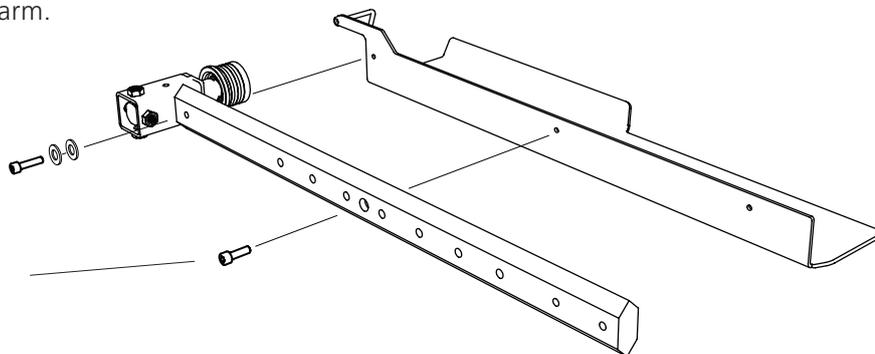
— 2 pcs — Washer M6



— 1 pc — Hex bolt M6x20



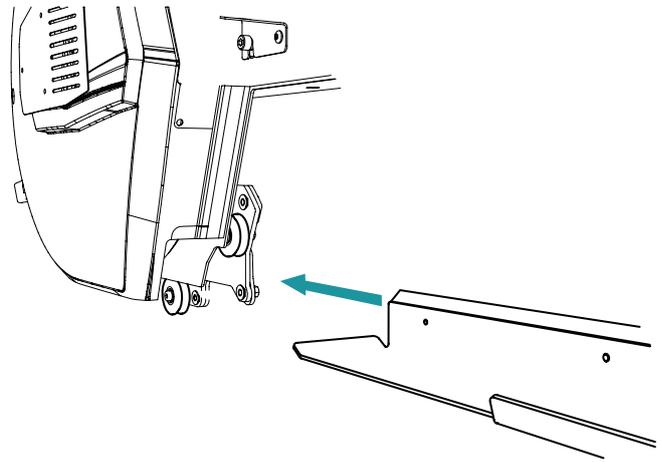
— 1 pc — Hex bolt M6x30



## FINAL ASSEMBLY OF SAWHEAD

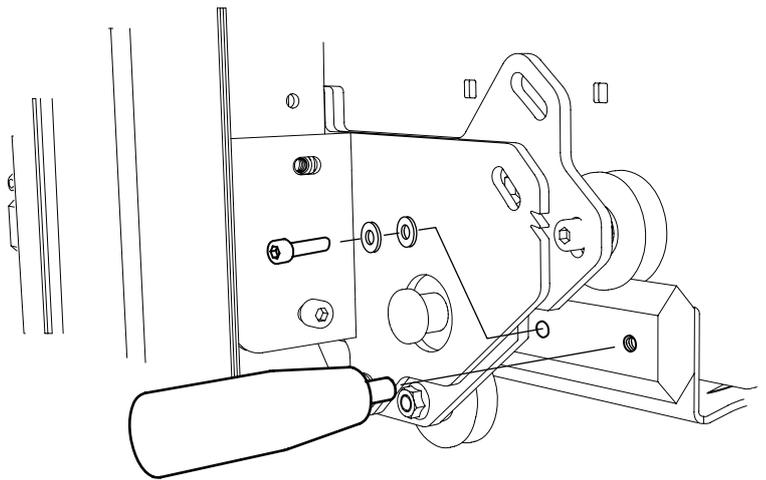
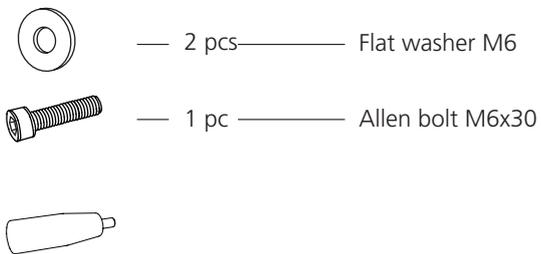
4

Insert the blade guide arm into the blade guard holder.



5

Fit the stop bolt and the handle to the blade guide arm. See adjustment of the blade guide mechanism under the section *Order of adjustments* in this user manual



## FINAL ASSEMBLY OF SAWHEAD – BRIGGS 23HP

### ASSEMBLY: ENGINE AND THROTTLE WIRE

The motor is to be mounted on the motor bracket and be secured with fixing bolts. The centrifugal clutch, and also the drive belt and the throttle wire are to be installed on the sawmill. Follow the assembly instructions, and then the instructions under the section *Order of adjustments* in the sawmill user manual when the assembly is finished.

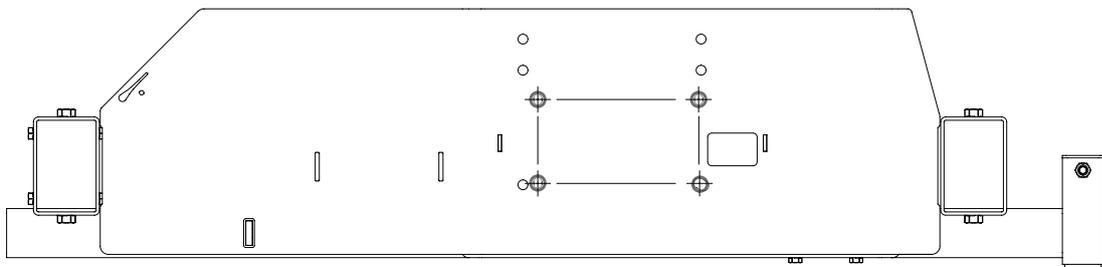
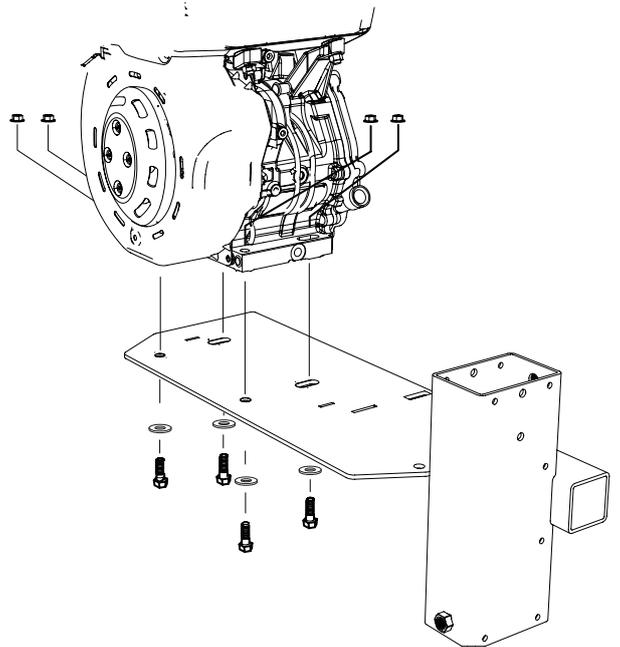
1

Mount the engine on the motor bracket and push in the centrifugal clutch through the hole in the rear band wheel guard.

 – 4 pcs — Flange bolt M10x40

 – 4 pcs — Tensilock nut M10

 – 4 pcs — Flat washer M10



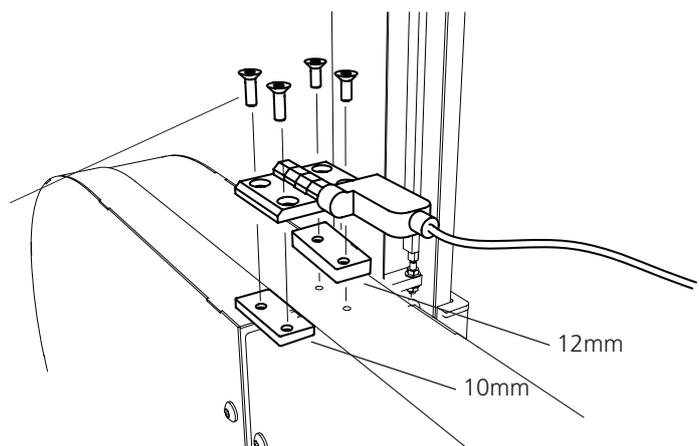
2

Fit the interlock-safety-switch hinge with bolts in the existing holes.

 – 2pcs — Countersunk allen bolt M6x25

 – 2pcs — Countersunk allen bolt M6x30

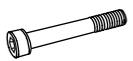
 – 2st — Threaded washer

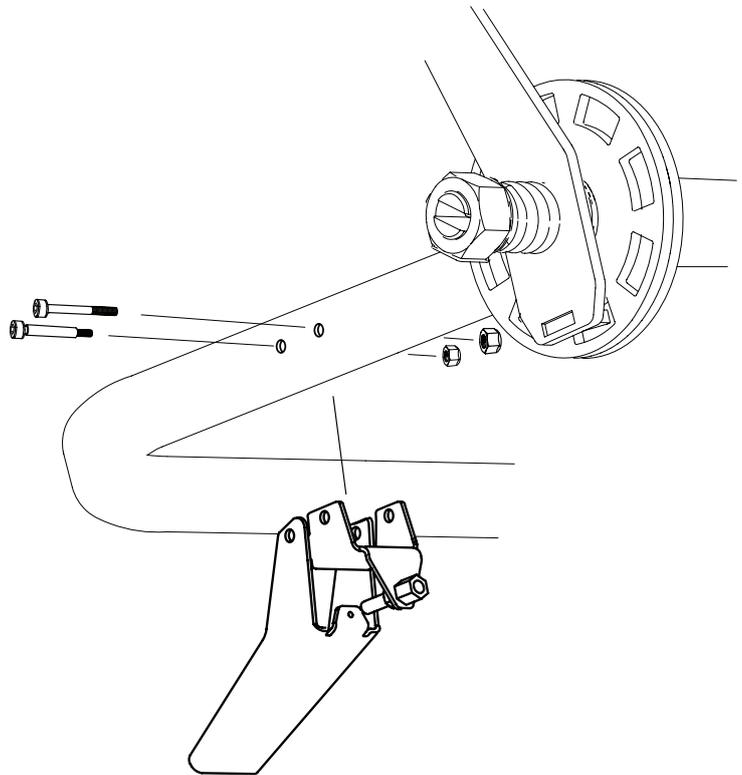


## FINAL ASSEMBLY OF SAWHEAD – BRIGGS 23HP

3

Fit the the throttle handle to the tube handle.

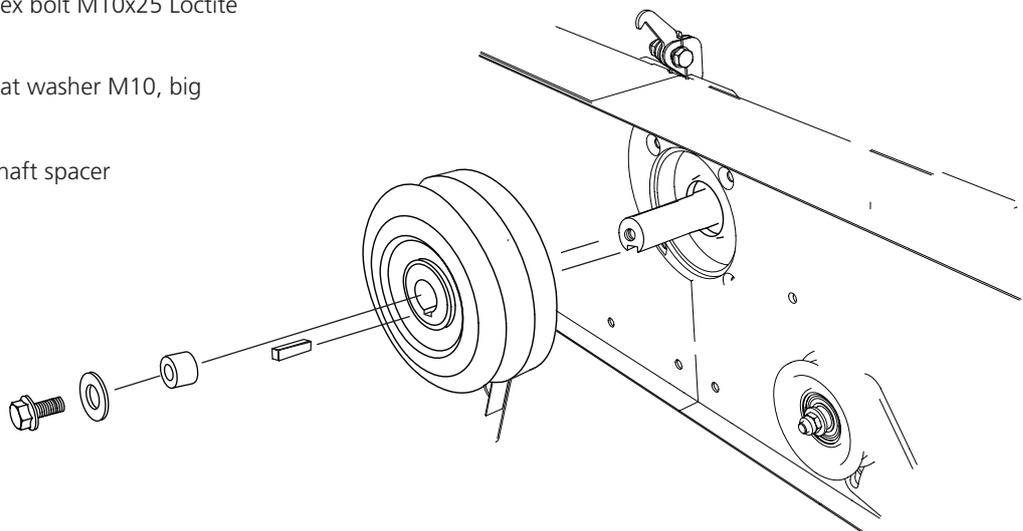
-  – 1 pc — Allen bolt M6x50
-  – 1 pc — Allen bolt M5x50
-  – 1 pc — Lock nut M6
-  – 1 pc — Lock nut M5



4

Install the centrifugal clutch on the shaft and secure the clutch with the square key. The clutch should be able to move on the shaft.

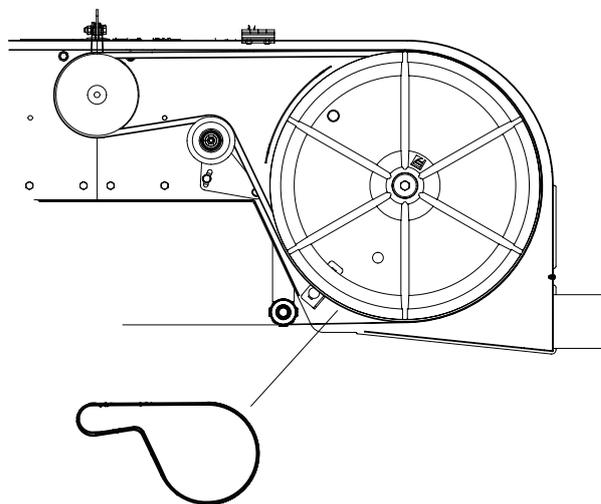
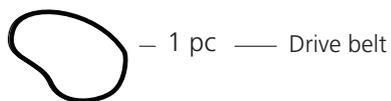
-  – 1 pc — Square key
-  – 1 pc — Hex bolt M10x25 Loctite
-  – 1 pc — Flat washer M10, big
-  – 1 pc — Shaft spacer



## FINAL ASSEMBLY OF SAWHEAD – BRIGGS 23HP

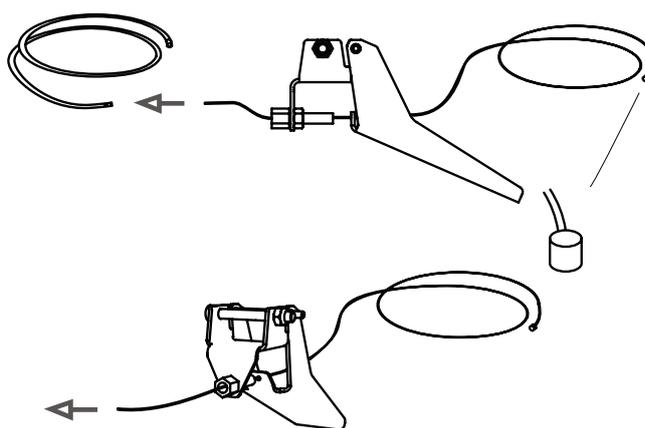
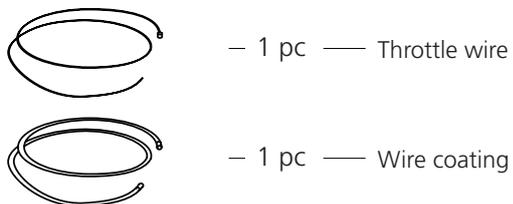
5

Fit the drive belt round the belt pulley, the driving wheel and over the tensioner pulley.



6

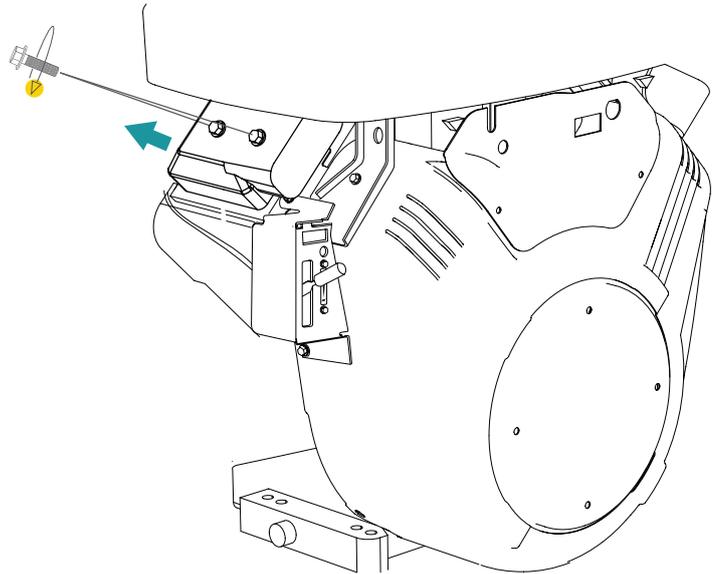
Pass the wire end through the throttle handle and then through the wire coating.



## FINAL ASSEMBLY OF SAWHEAD – BRIGGS 23HP

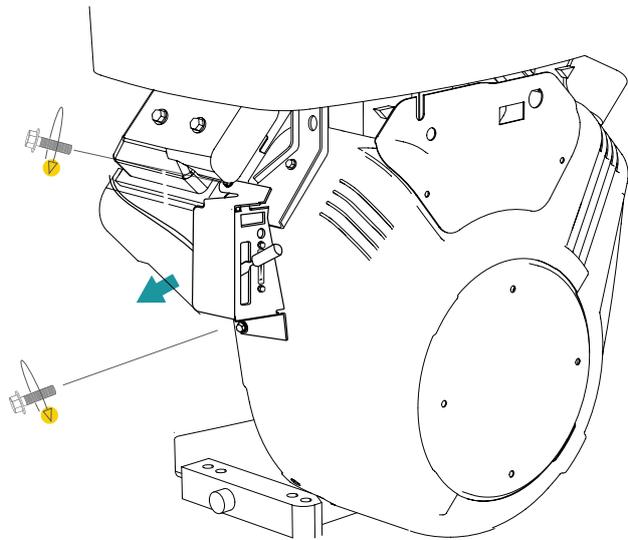
7

Release the screws on top of the valvecover and remove it gently. This operation is needed to gain the clearance for the next step.



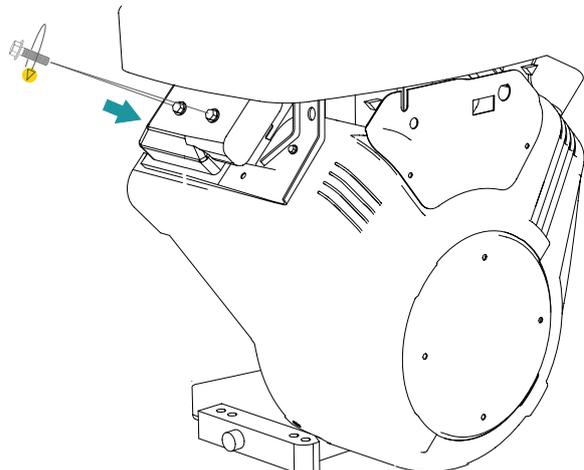
8

Release both of the throttle lever attachment points and remove the lever from the engine.



9

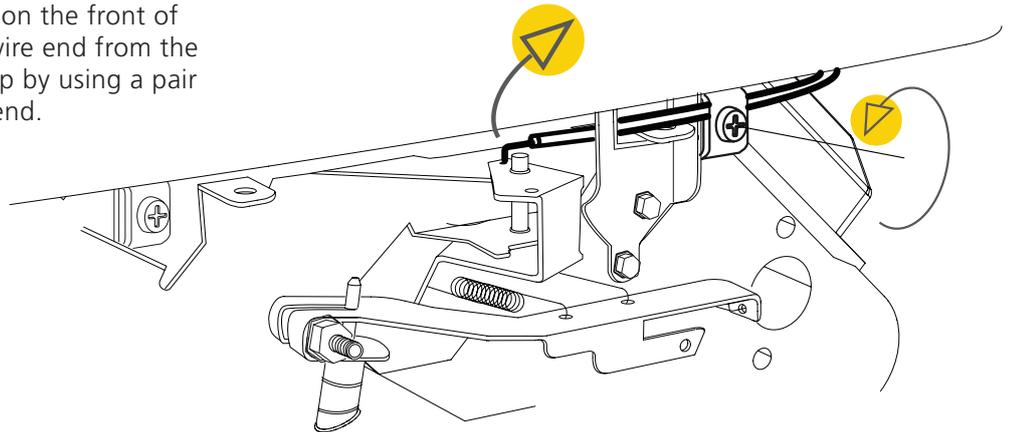
Remount the valvecover, be careful not to damage the valvecover gasket during the refit.



## FINAL ASSEMBLY OF SAWHEAD – BRIGGS 23HP

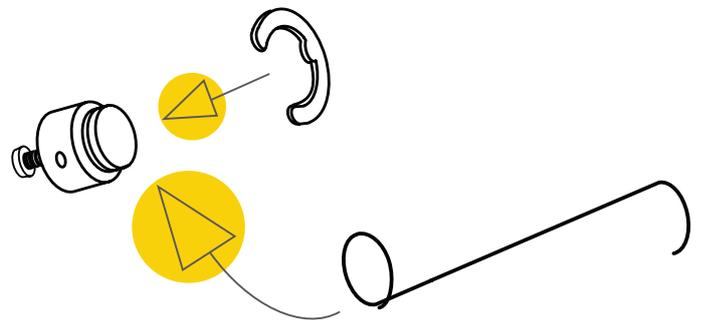
10

Loosen the throttle wire bolt on the front of the engine and remove the wire end from the wire holder. Facilitate this step by using a pair of pliers to remove the wire end.



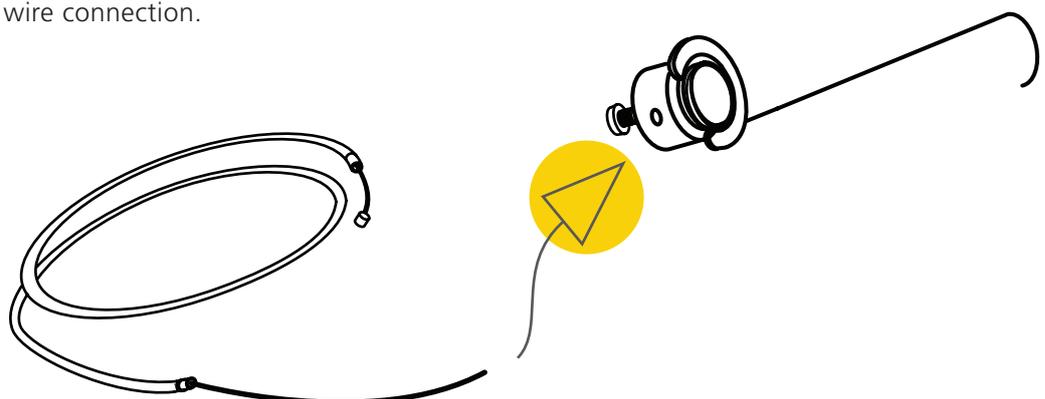
11

Fit the spring to the wire connection, then secure the assembly with the lock washer.



12

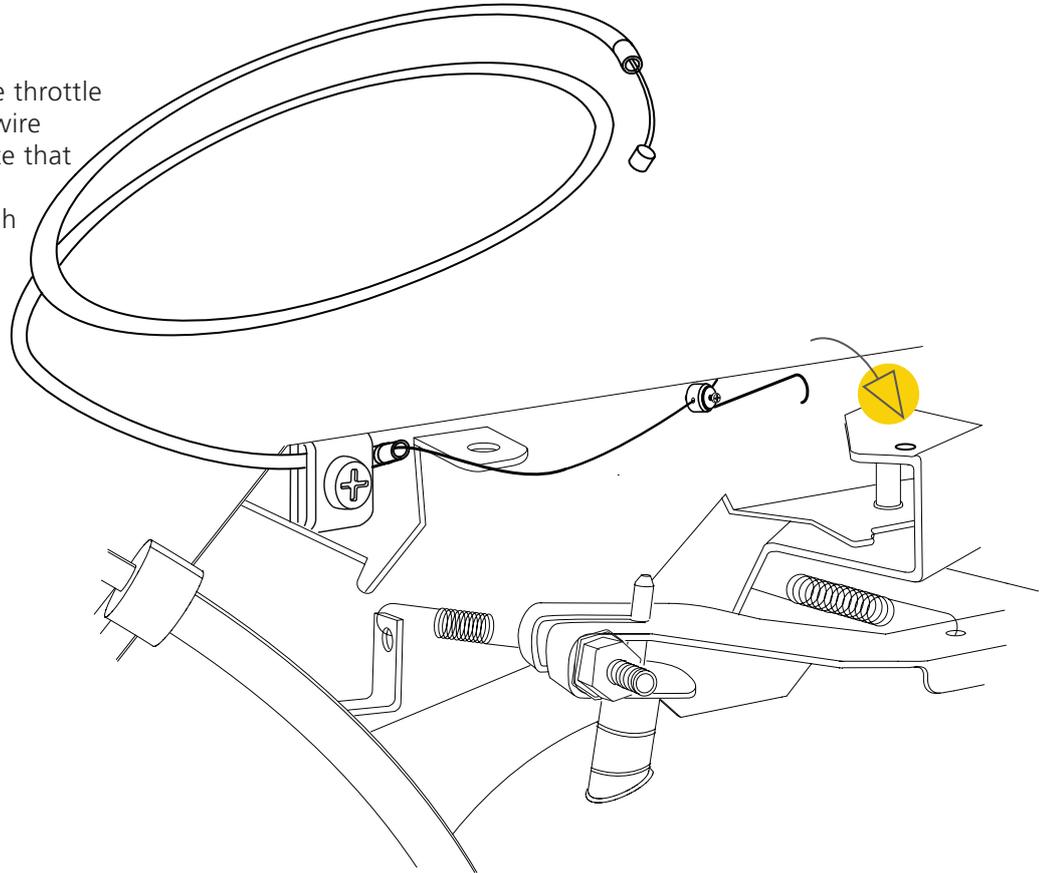
Fit the wire to the wire connection.



## FINAL ASSEMBLY OF SAWHEAD – BRIGGS 23HP

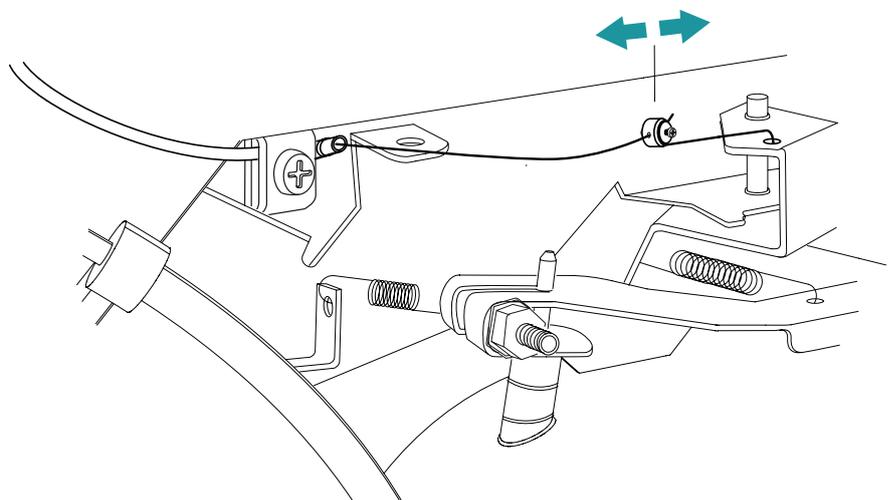
13

Fit the spring in the hole in the throttle control. Start by securing the wire coating in the wire holder. Note that the wire is now to be installed from the opposite side, through the left wire holder.



14

Tighten the wire until full throttle on the handle gives full throttle on the engine.



## FINAL ASSEMBLY OF SAWHEAD – BRIGGS 23HP

15

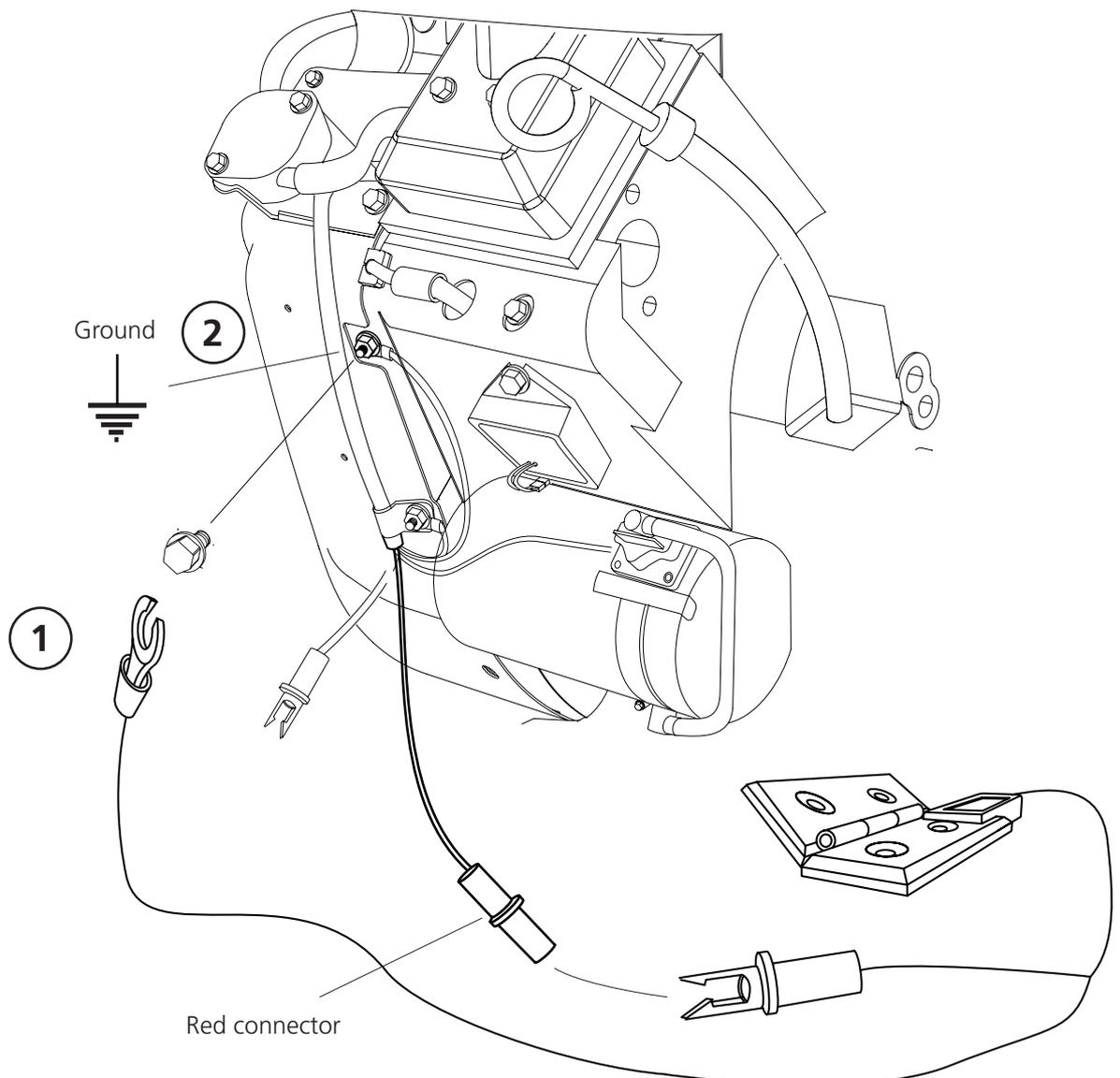
You have already installed the interlock-safety-switch hinge. It is now to be connected to the engine to activate the safety function. Connect the white connector ① to the free connector on the engine. Then, secure the grounding connector ② with the lower bolt that is located on the back of the ignition switch.



**SAFETY CIRCUIT.  
CRITICAL ASSEMBLY.**



The interlock safety switch has to be connected to the engine to ensure good safety.



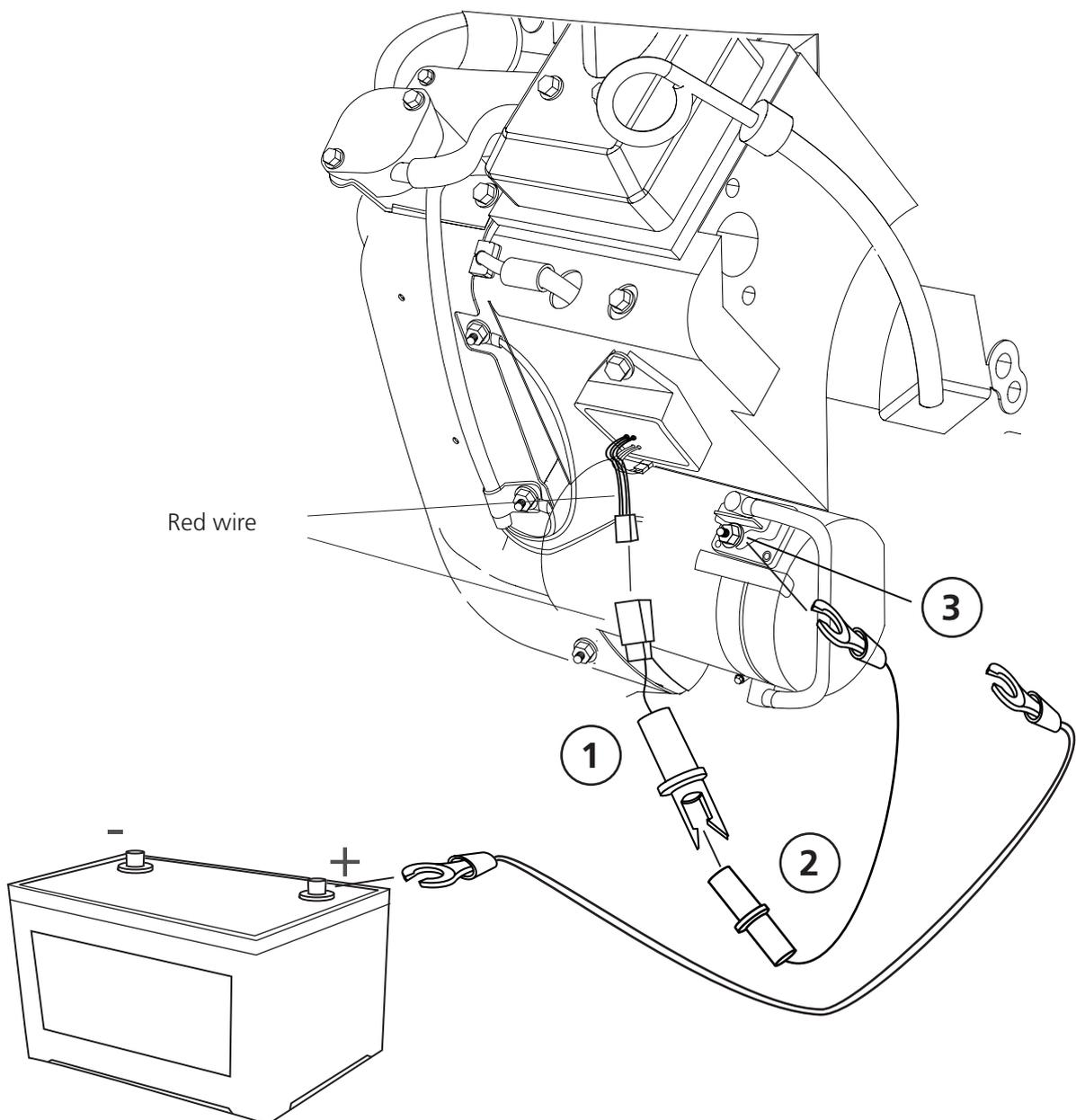
# FINAL ASSEMBLY OF SAWHEAD - BRIGGS 23HP

## INSTALLATION: ELECTRIC START

If your motor option comes with an electric start, it should be installed as described below:

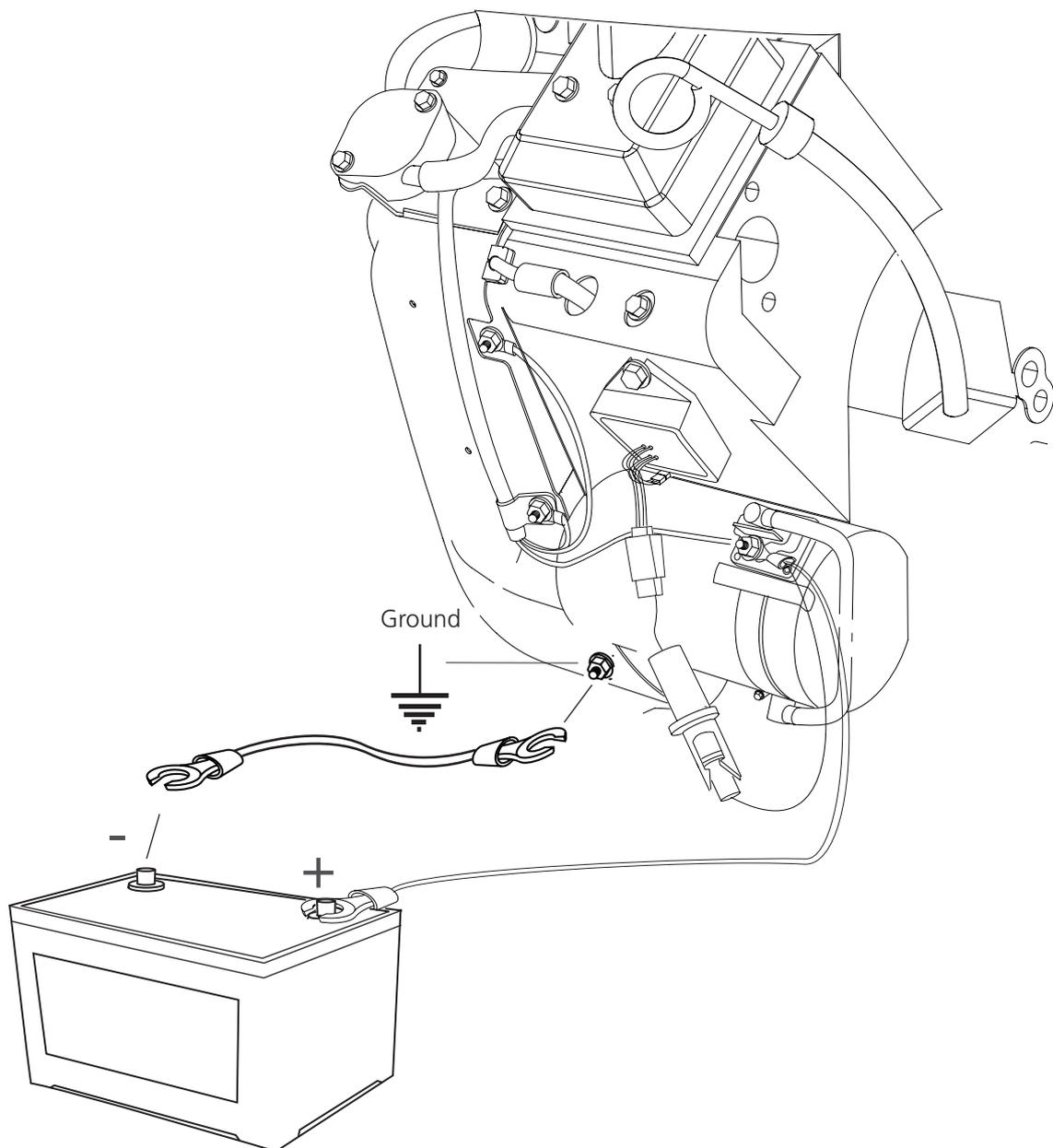
16

First, connect the red wire connector to the engine (1) (the connector comes together with the engine user manual). Then, connect it to the male connector/the positive wire (2). Connect the positive wire to the output of the generator (3). Connect the other end to the battery plus pole.



## FINAL ASSEMBLY OF SAWHEAD - BRIGGS 23HP

Connect the ground wire to the engine ground point. Connect the other end to the negative pole of the battery.



# ASSEMBLY – ELECTRIC MOTOR 12 KW

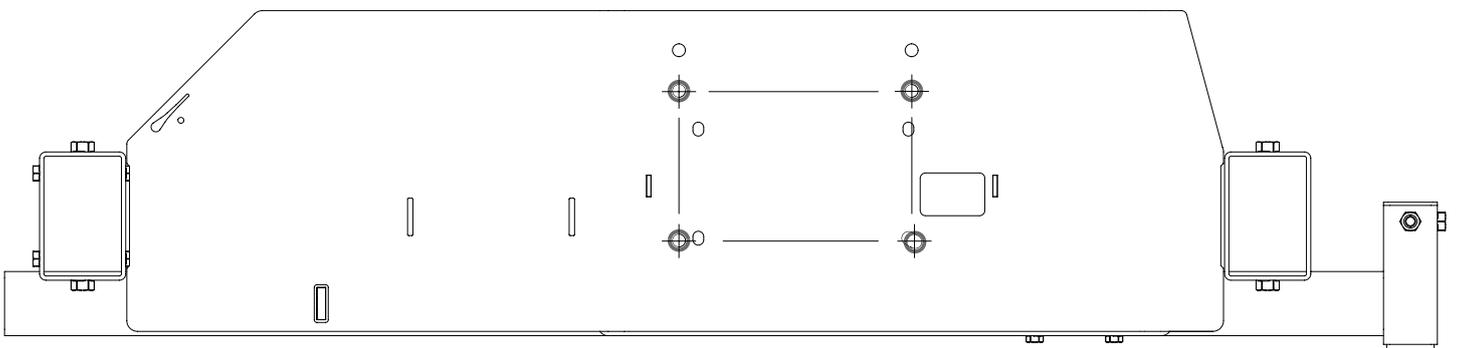
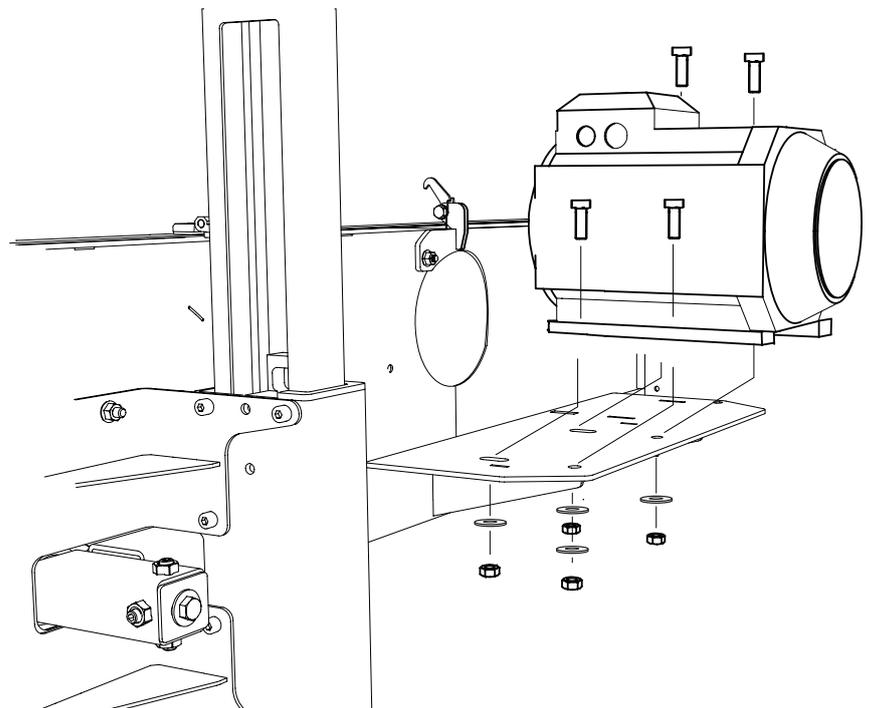
## ASSEMBLY: ELECTRIC MOTOR

The electric motor comes with the interlock safety switch installed. Now, the electric motor has to be mounted on the motor bracket, and the belt pulley and the drive belt have to be installed. Follow the assembly instructions, and then the instructions under the section *Order of adjustments* in the sawmill user manual when the assembly is finished.

1

Install the engine on the engine plate.

-  – 4 pcs — Allen bolt M12x40
-  – 4 pcs — Lock nut M12
-  – 4 pcs — Flat washer M12

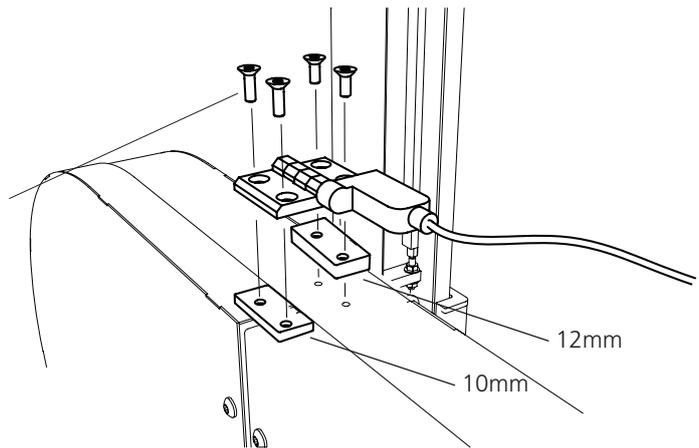


## ASSEMBLY – ELECTRIC MOTOR 12 KW

2

Fit the interlock-safety-switch hinge with bolts in the existing holes.

-  – 2pcs — Countersunk allen bolt M6x25
-  – 2pcs — Countersunk allen bolt M6x30
-  – 2st — Threaded spacer



## ASSEMBLY – ELECTRIC MOTOR 12 KW

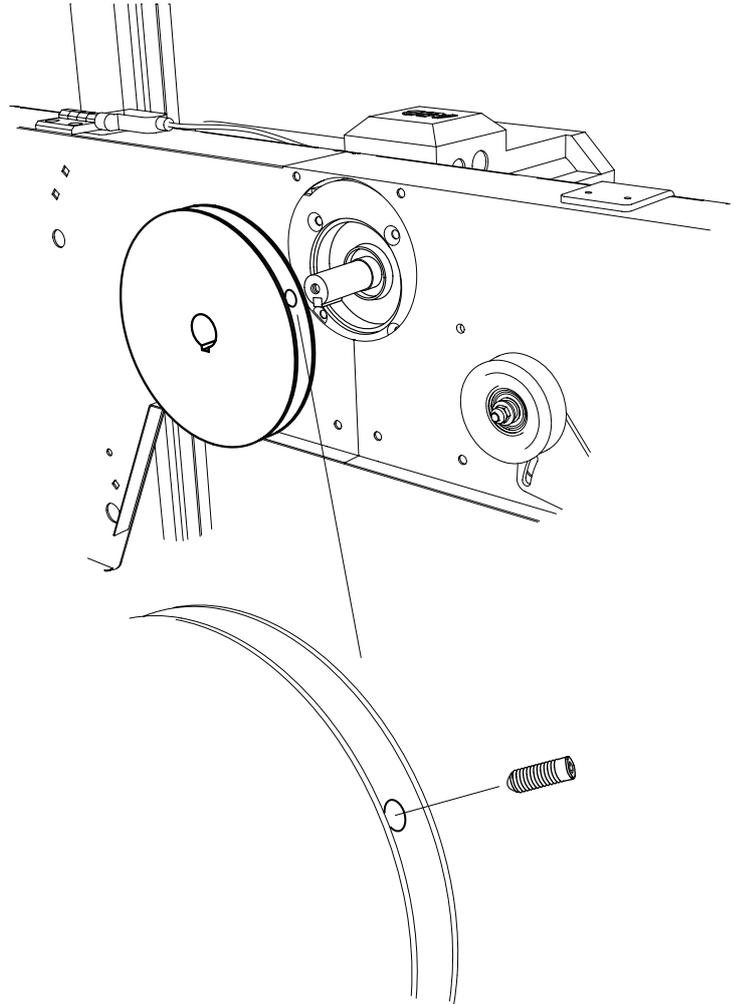
3

Install the belt pulley on the shaft so that the square key comes in its groove. Secure the belt pulley with the set screw.

 – 1 pc — Set screw

 – 1 pc — Square key

 – 1 pc — Belt pulley



## ASSEMBLY – ELECTRIC MOTOR 12 KW

5

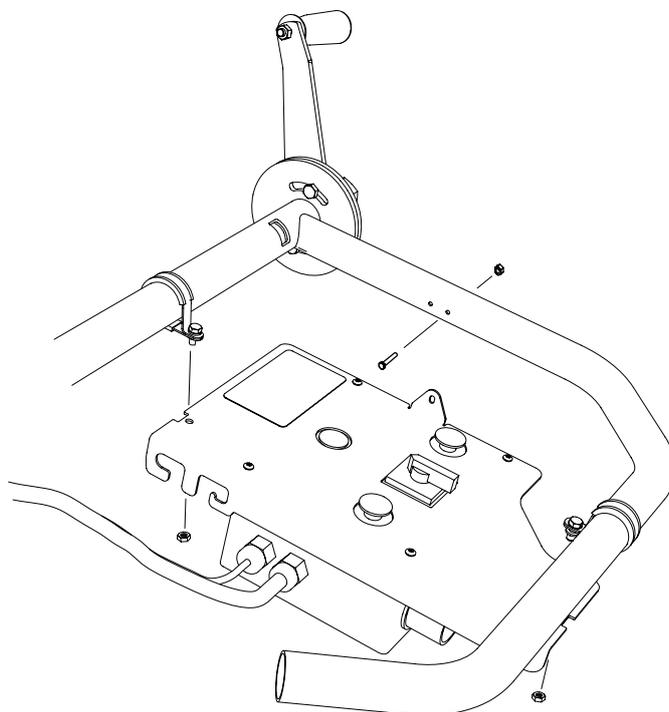
Install the control panel box on the tube handle.

 – 1 pcs — Flange bolt M5x45

 – 2 pcs — Flat washer M5

 – 3 pcs — Lock nut M5

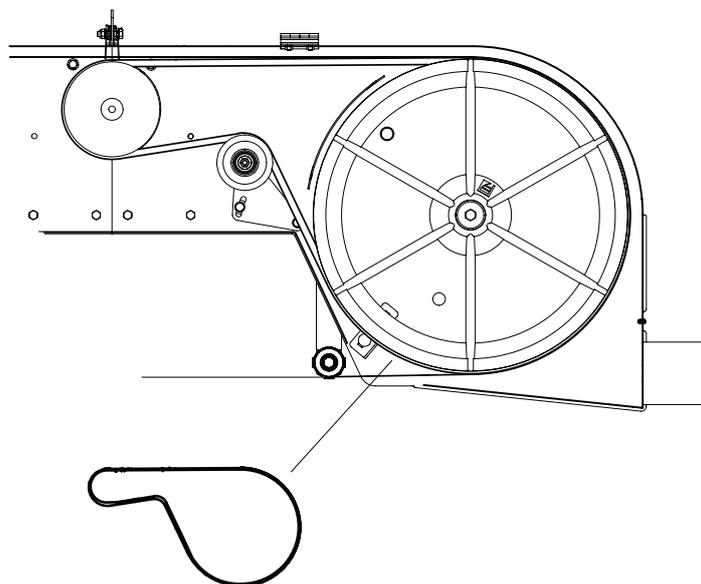
 – 2 pcs — Tube clamp



6

Fit the drive belt round the belt pulley, the driving wheel and over the tensioner pulley.

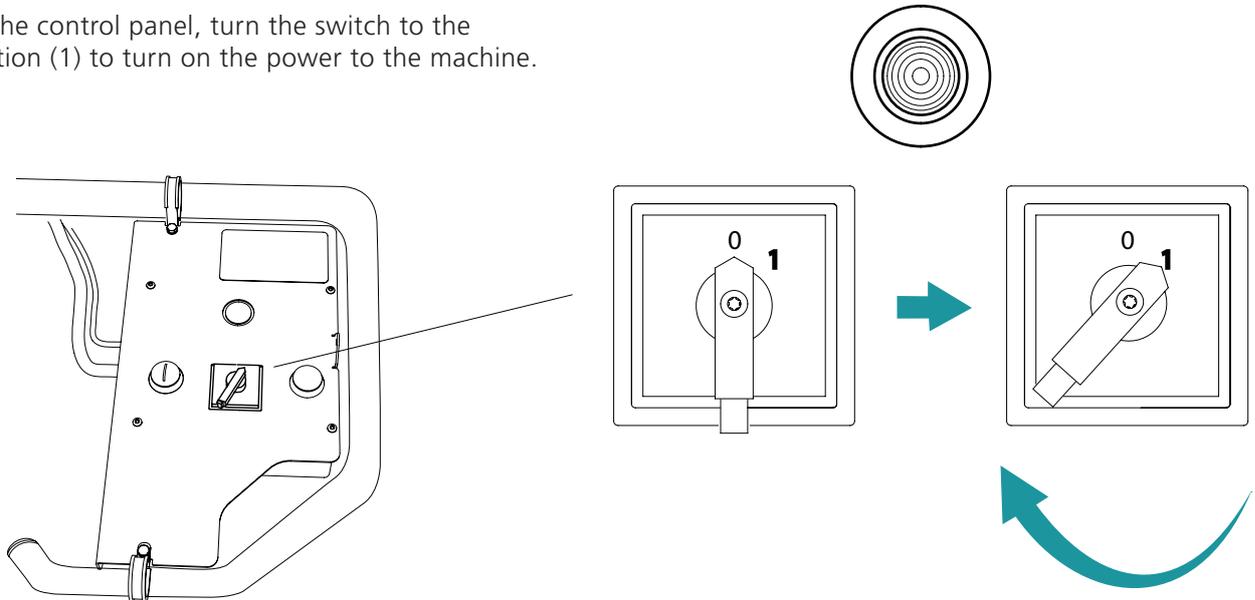
Go through the instructions under the section *Order of adjustments* in the sawmill user manual to ensure proper operation of the machine.



## ASSEMBLY – ELECTRIC MOTOR 12 KW

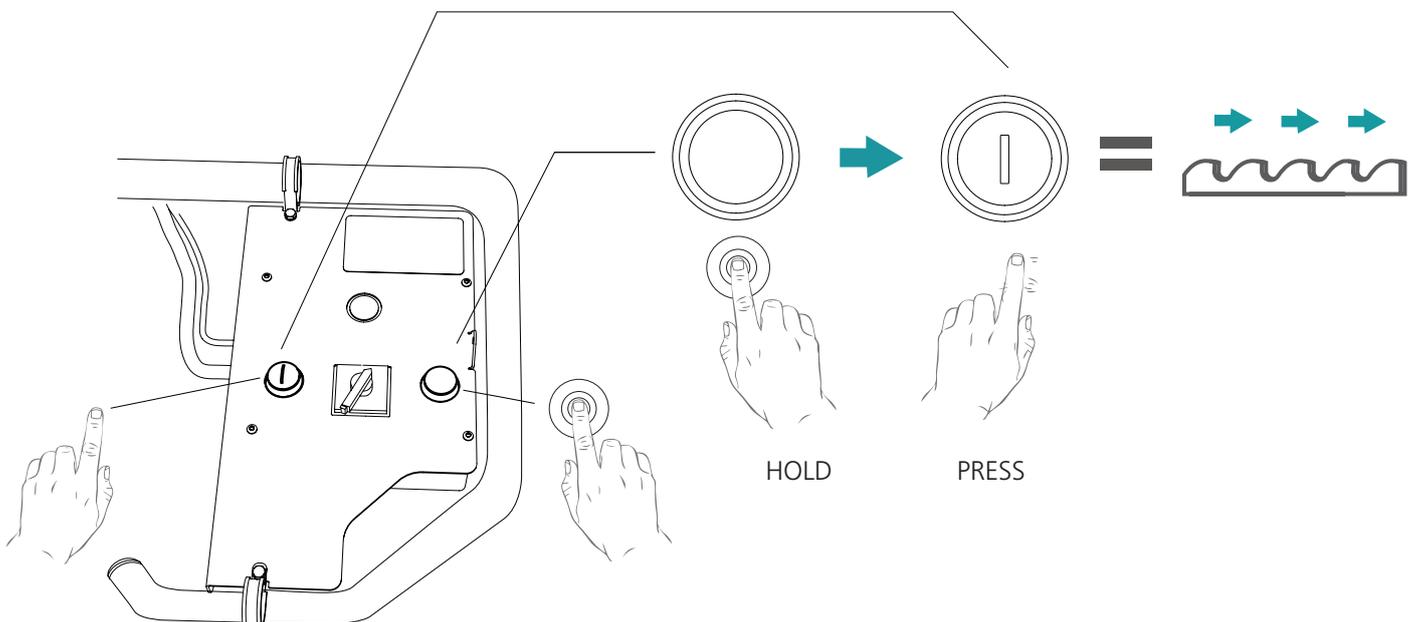
### CONTROL PANEL: SWITCH ON/OFF

On the control panel, turn the switch to the position (1) to turn on the power to the machine.



### STARTING THE MOTOR

To start the motor, press and hold the enabling switch (right button). Then, press the start button (left button). When the motor has started you can release the start button. The motor will run until you release the enabling switch.



## ORDER OF ADJUSTMENTS



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

1

Order of assembly



Good job!



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

2

Adjust the band wheels

3

The lengthwise position of the blade / Adjust the lengthwise position of the blade

4

Adjust the parallelity between the band blade and the cross bunks

5

Adjust the adjustable blade guide horizontally

6

Adjust the parallelity between the band blade and the rails

7

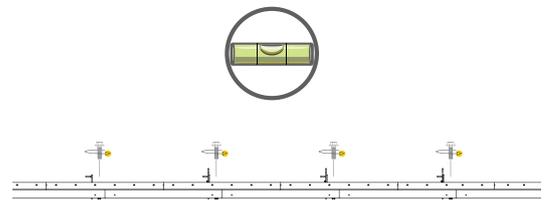
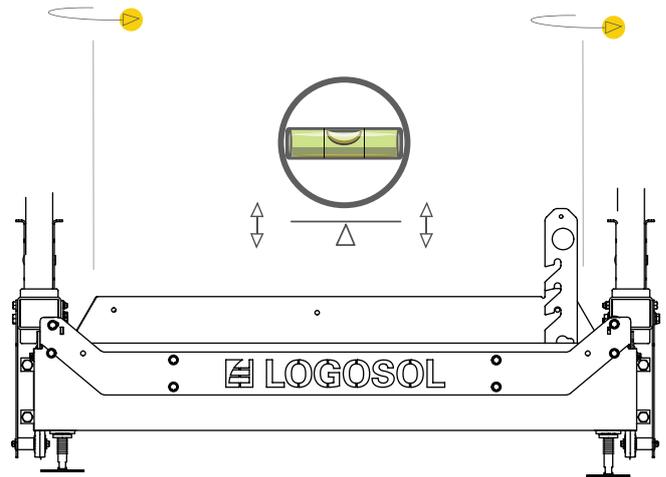
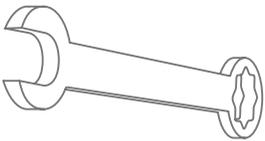
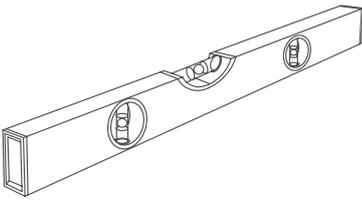
The tension of the throttle wire

# ORDER OF ADJUSTMENTS

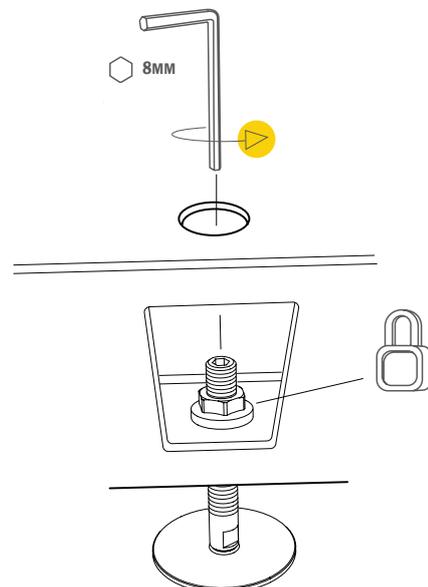
1

## 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.



Adjust the levelling feet by using an Allen key from above. When the adjustment is done, you secure the position of the feet by tightening the lock nut inside the rail frame.

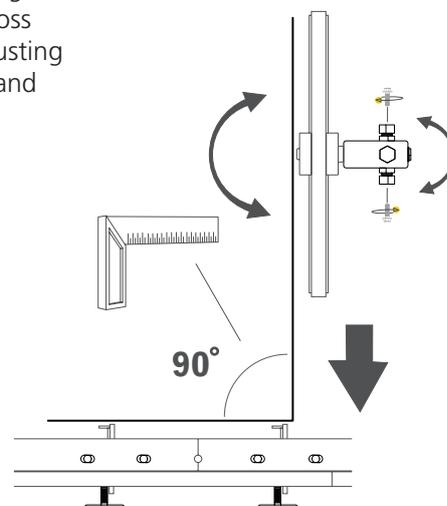
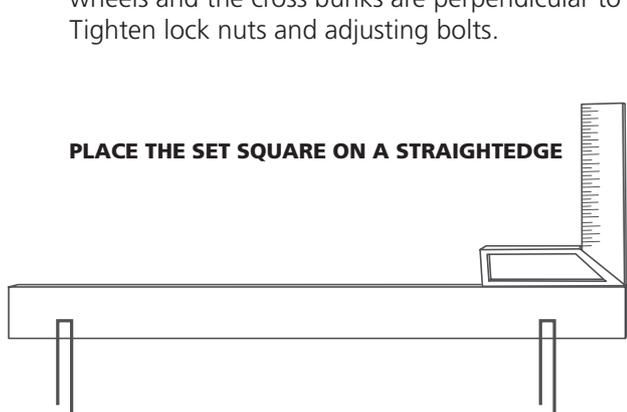


## ORDER OF ADJUSTMENTS

2

### ADJUST THE BAND WHEELS

The angle of the band wheels has to be adjusted so that they are at right angles to the cross bunks. With the sawhead in its lowest position, check the perpendicularity between the band wheels and the cross bunks. A good method is to place a set square on a straightedge that rests on two cross bunks. Adjust by first loosening the lock nut and then turning the adjusting screws on the top side of the band wheel shaft mountings until the band wheels and the cross bunks are perpendicular to each other. Tighten lock nuts and adjusting bolts.



3

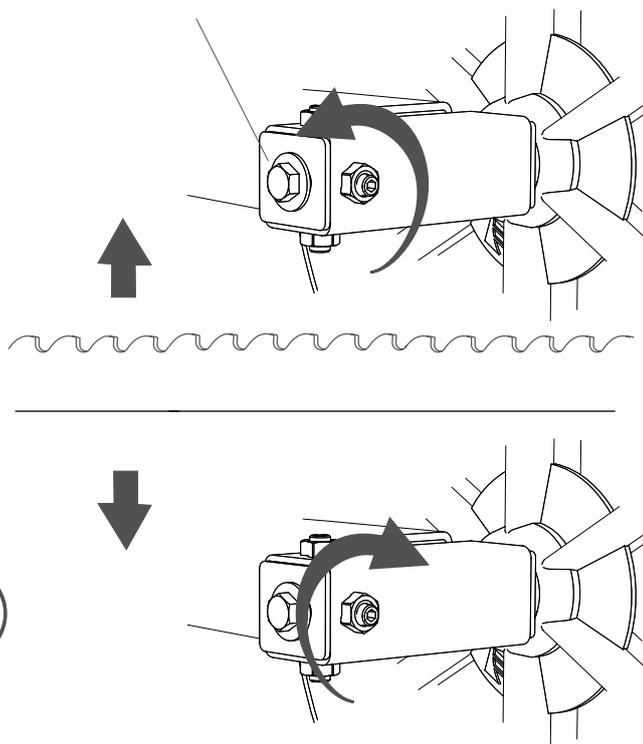
### ADJUST THE LENGTHWISE POSITION OF THE BLADE

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 from the wheels, turn the adjusting bolt clockwise to compensate. If the blade moves inwards, turn the bolt counter-clockwise. 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.



LOOSEN THE LOCK NUT

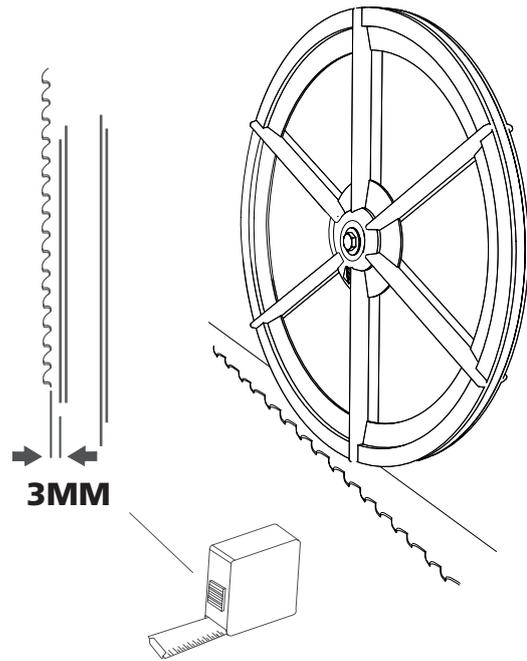


## ORDER OF ADJUSTMENTS

3

### 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 is positioned so that the distance between the lowest part of the tooth and the front edge of the band wheel is 3 mm. First, install the blade according to this measurement. Then, tension the blade. Rotate the wheels by hand 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 below in the next section. If the blade runs straight on both band wheels, close the band guards and start the sawmill. Throttle up to make the wheels spin, then release the throttle. Open the blade guards and check that the lengthwise position of the blade is unchanged. If this is the case, the adjustment is correct.



## ORDER OF ADJUSTMENTS

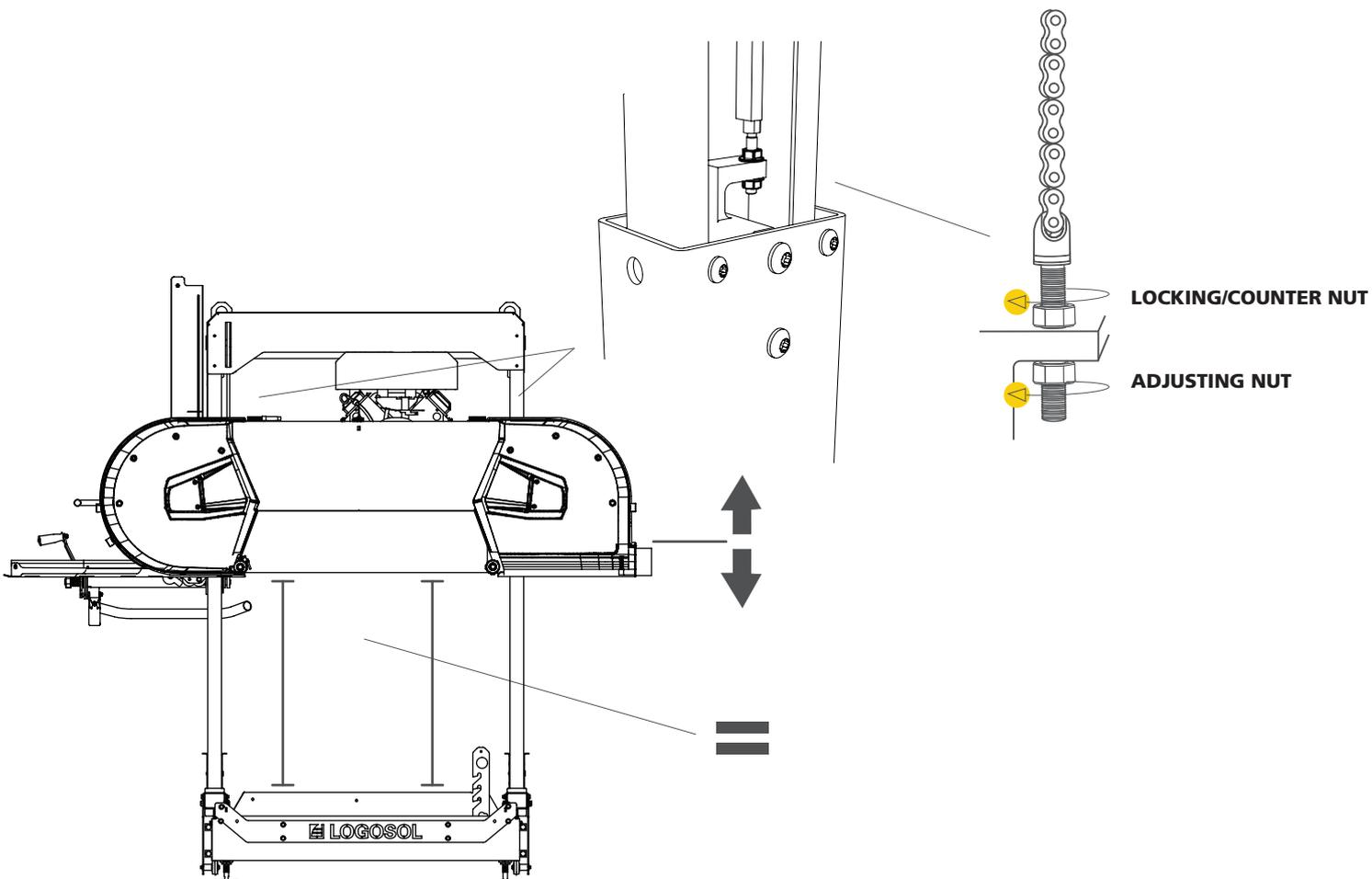
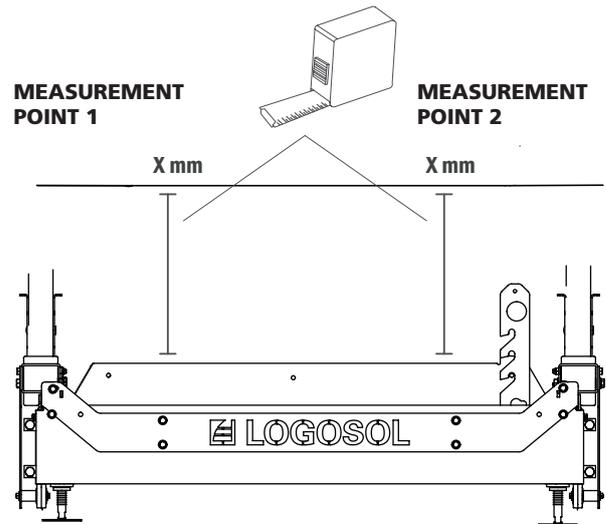
4

### 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.

When carrying out this adjustment, the blade guide rollers have to be removed.

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

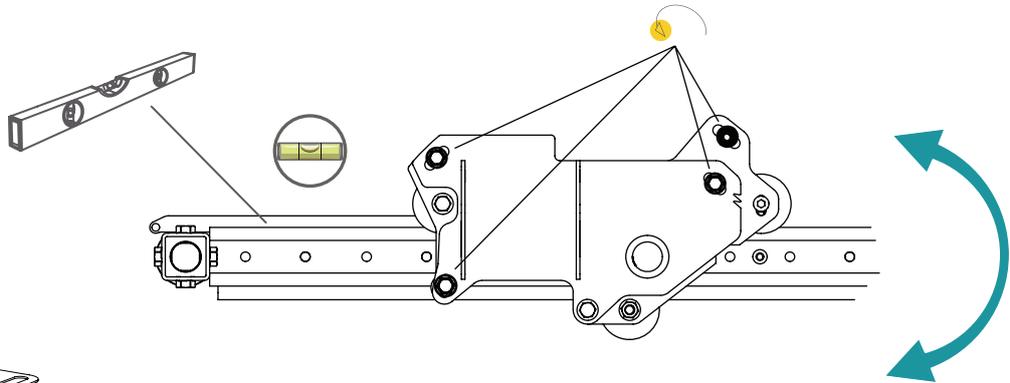
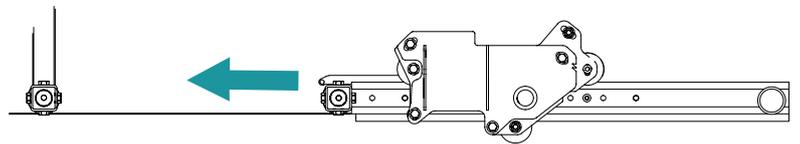


# ORDER OF ADJUSTMENTS

5

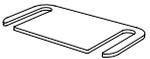
## ADJUST THE ADJUSTABLE BLADE GUIDE HORIZONTALLY

The adjustable blade guide with guard has to be adjusted to ensure straight cuts in all positions. Install the blade guide rollers. Then, bring the blade guide with guard to its innermost position. Place a spirit level on the blade guide and adjust by turning the eccentric handle until the blade guide with guard is horizontally level. When it is level, use spacers on the fixed blade guide roller until both blade guide rollers have the same distance to the cross bunk.

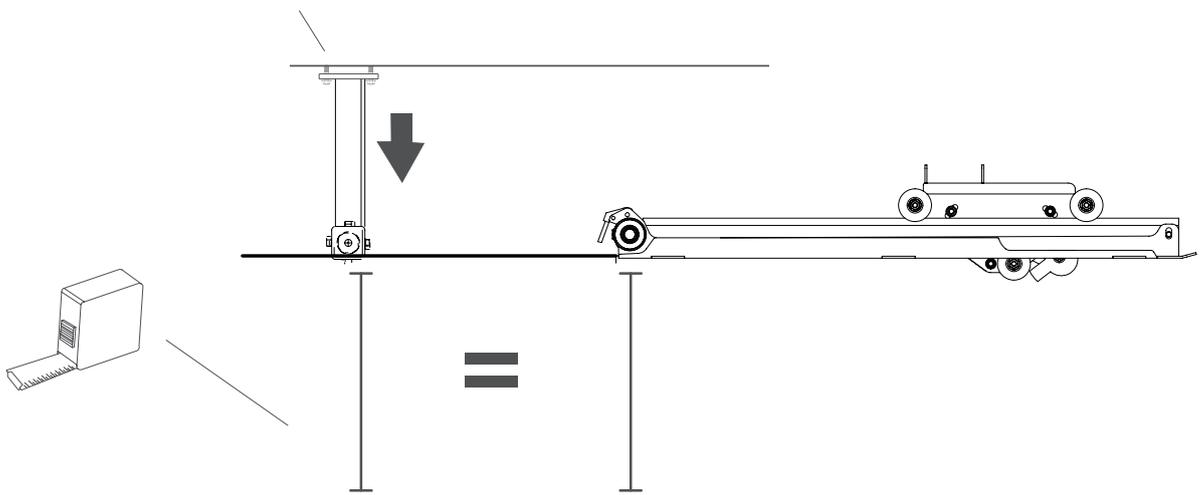


0,5MM 

1MM 

2MM 

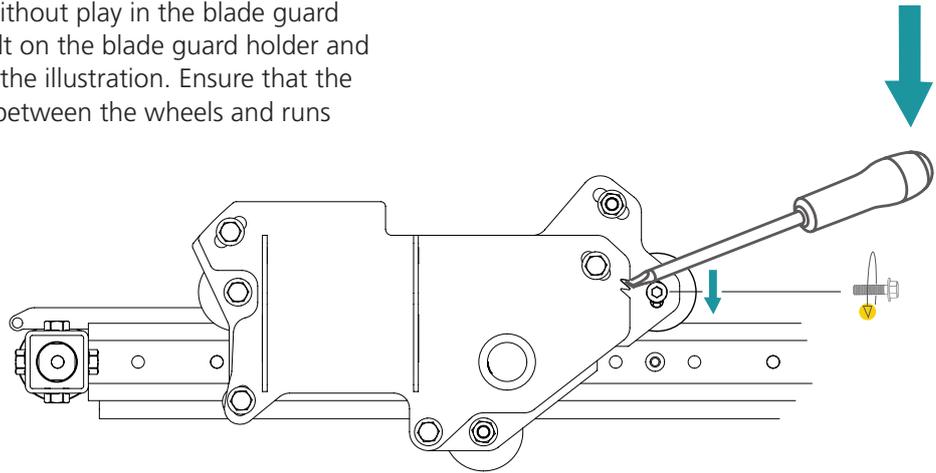
As standard, the sawmill comes with 2 mm spacers installed.



## ORDER OF ADJUSTMENTS

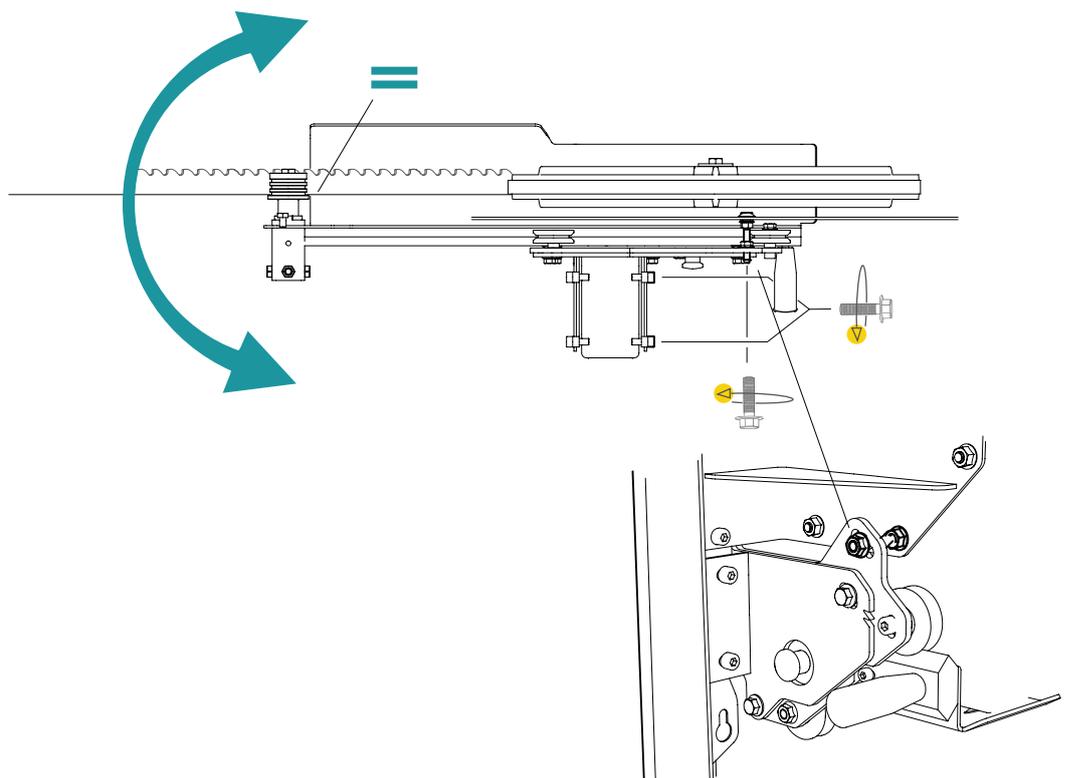
### TIGHTEN THE BLADE GUIDE ARM

To ensure good operation of the sawmill, it is important that the blade guide arm runs without play in the blade guard holder. Loosen the Allen bolt on the blade guard holder and push the wheel down as in the illustration. Ensure that the blade guide arm is aligned between the wheels and runs without play.



### ADJUST THE PARALLELITY BETWEEN THE BLADE GUIDE ARM AND THE BLADE

To adjust the parallelism between the blade guide arm and the band blade, you loosen the three fixing bolts on the outside of the blade guard holder. Then, adjust the parallelism using the adjusting bolt on the rear plate.

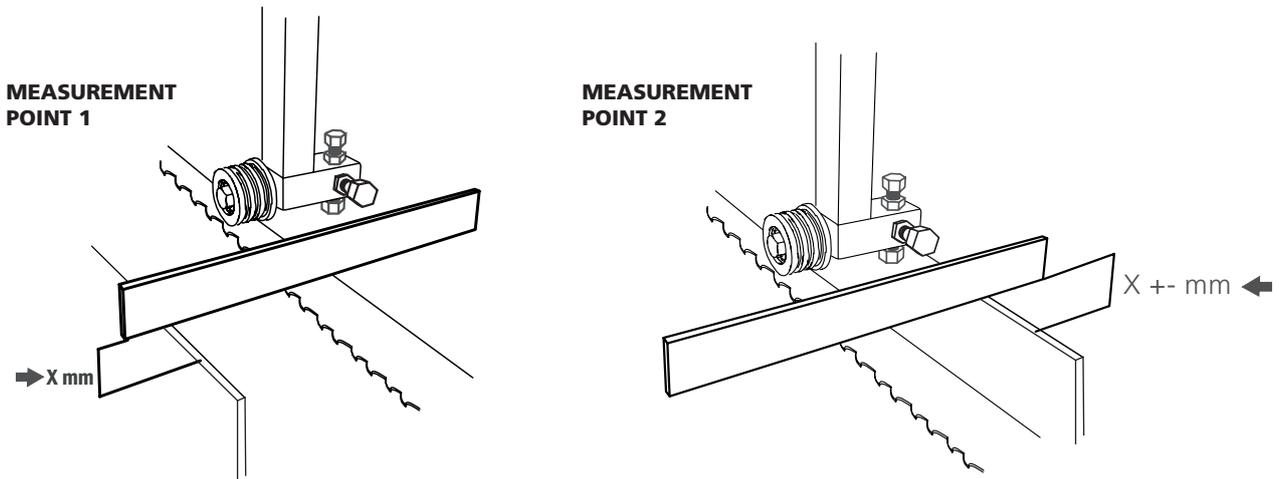


# ORDER OF ADJUSTMENTS

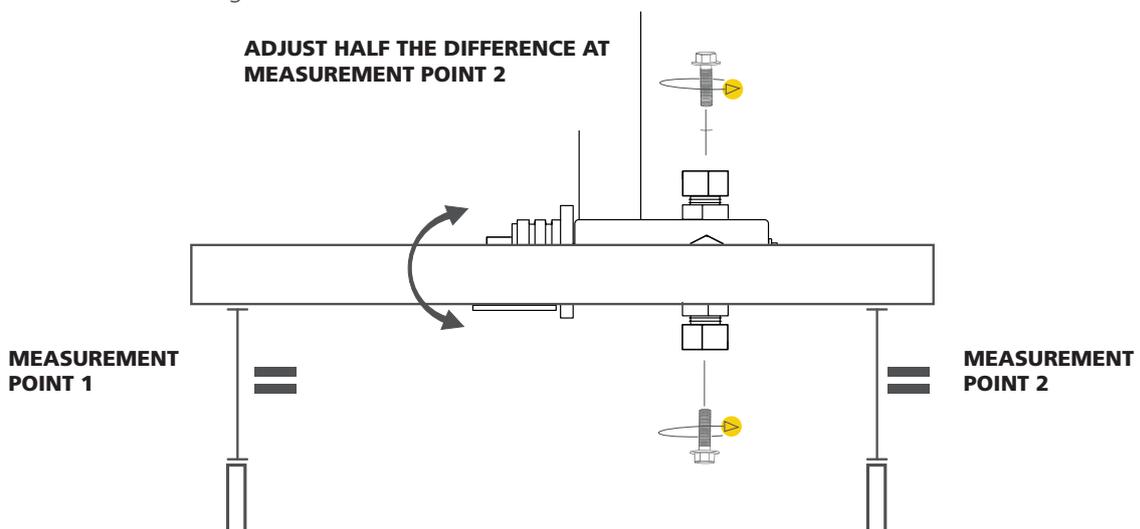
6

## 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 measurement points. One method to facilitate adjusting, is to use the value from measurement point 1, compare it with the value from measurement point 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.

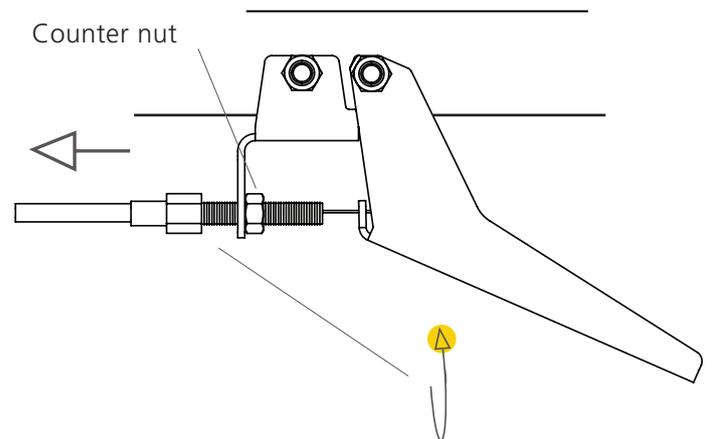


## ORDER OF ADJUSTMENTS

7

### 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.

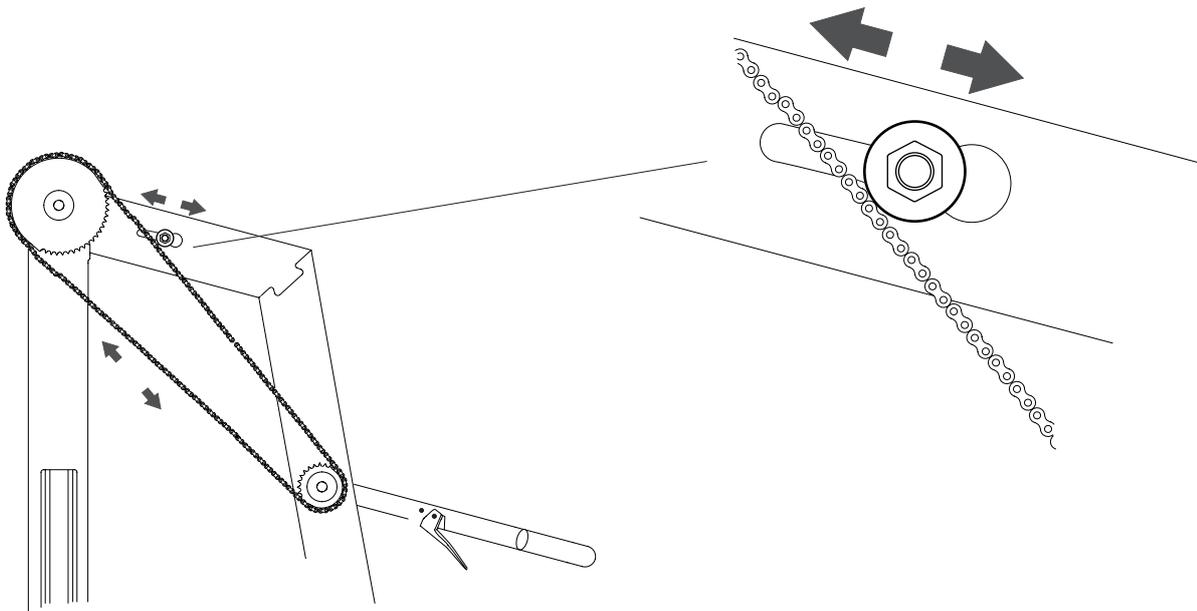


The following instructions are crucial for a good operation of the sawmill, but the adjustments do not affect each other and do not have to be carried out in a particular order.

## OTHER ADJUSTMENTS

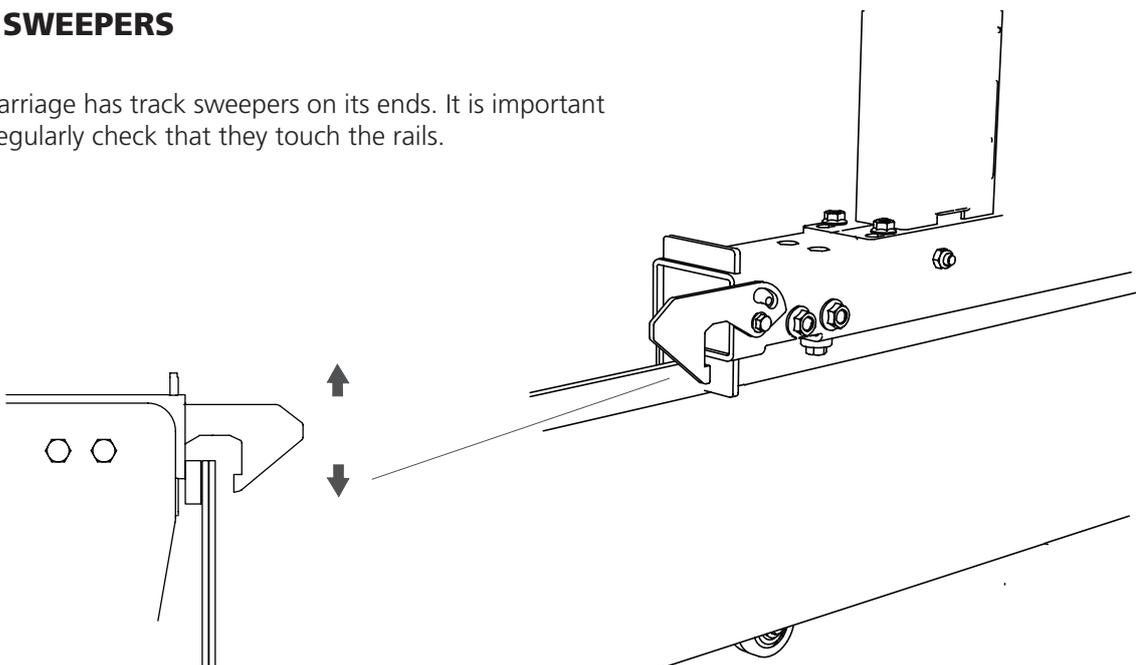
### CHAIN TENSION

The crank handle chain has to be tensioned to ensure good functioning of the lifting mechanism. First, untighten the fixing bolt of the chain tensioner. Then, move the chain tensioner towards the chain until the chain is slightly tensioned. Tighten the bolting.



### TRACK SWEEPERS

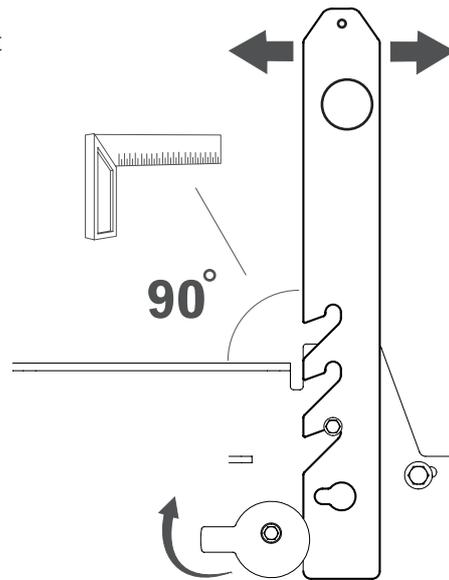
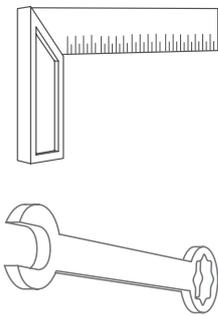
The saw carriage has track sweepers on its ends. It is important that you regularly check that they touch the rails.



## 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.

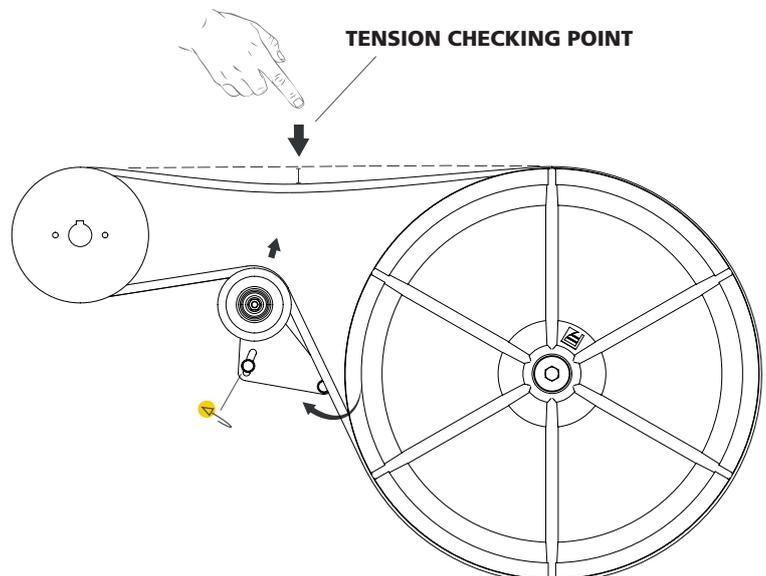


### DRIVE BELT TENSION

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 stated below.

**BELT TENSION**

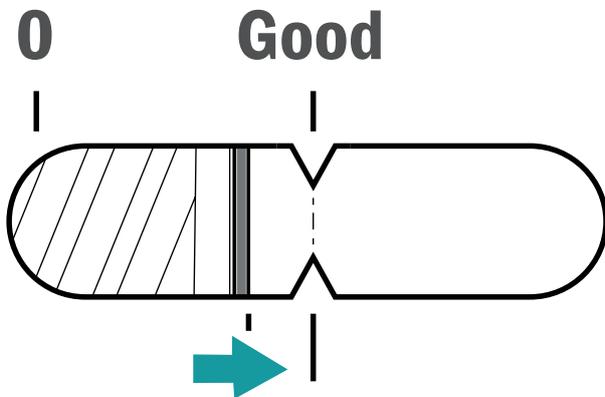
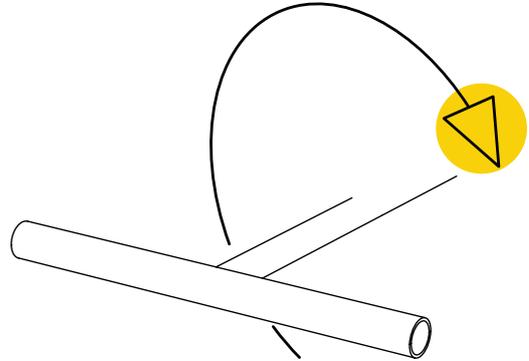
**PRESSURE: 3 KG  
DEFLECTION: 6 MM**



## OTHER ADJUSTMENTS

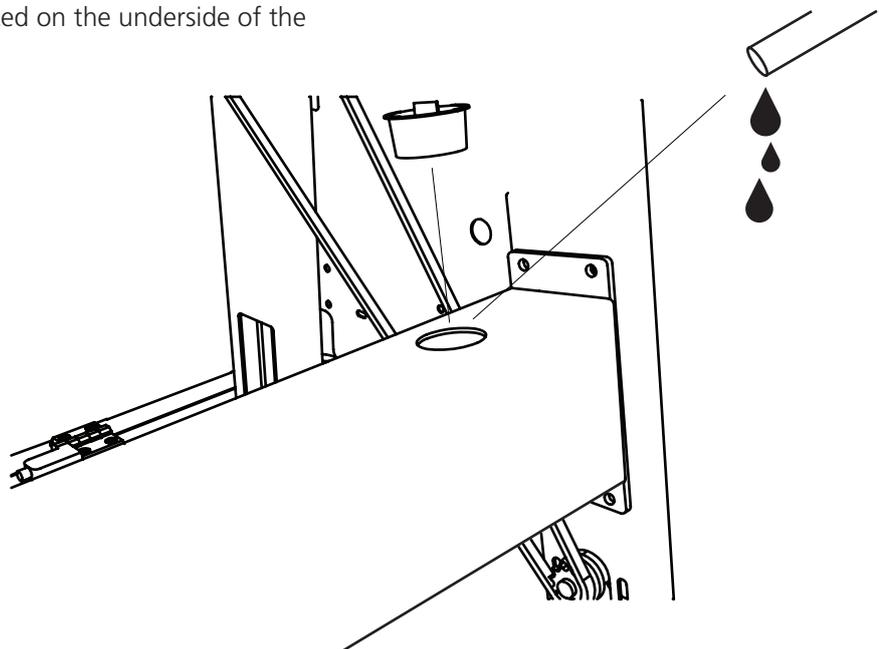
### BLADE TENSION

Tension the blade by turning the T-handle clockwise. Read the blade tension scale, which is located inside the band wheel guards. Tension the blade until the red line is aligned with the two "arrows" in the opening for the blade tension spring.



### WATER TANK

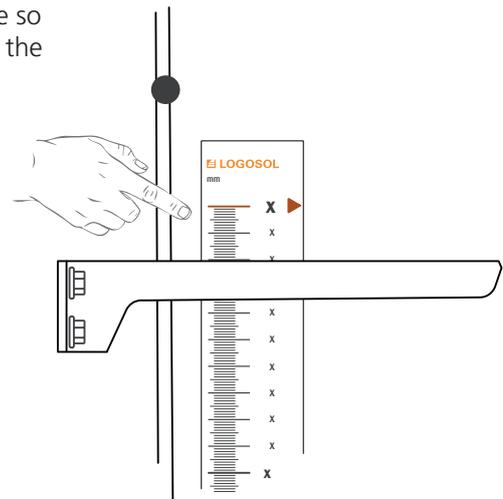
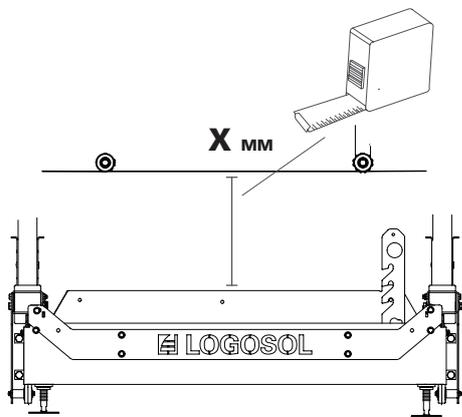
The sawmill water tank has to be refilled before operation. Refill through the opening in the back of the saw carriage. The volume of the tank is 7 litres. The water flow to the blade is adjusted by a valve located on the underside of the tank.



## OTHER ADJUSTMENTS

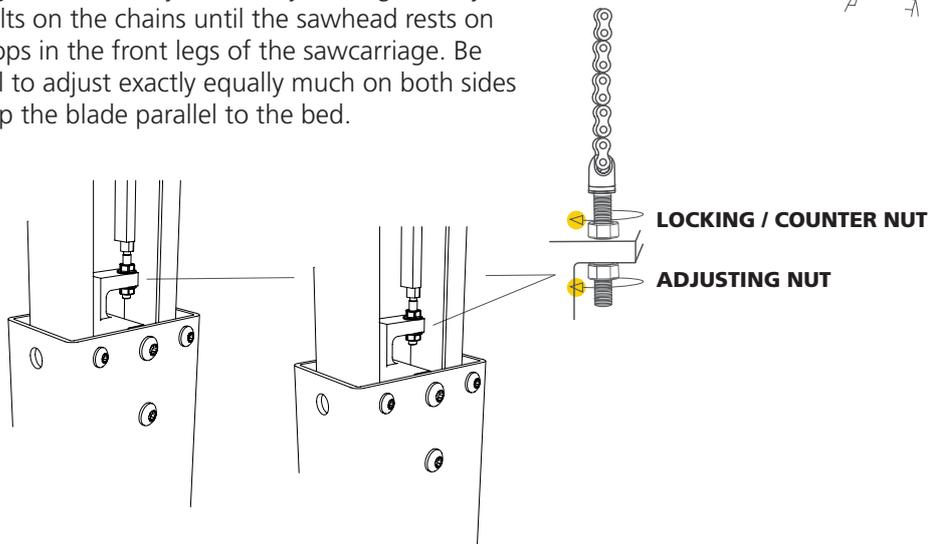
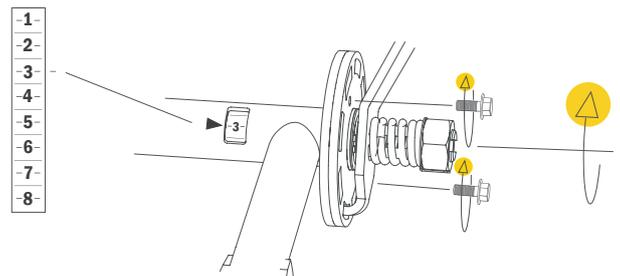
### ADJUSTING THE SCALE

To ensure that the scale shows the correct measurement between the cross bunk and the blade, it has to be calibrated. Do as follows: Measure the vertical distance between the sawhead and a cross bunk. Note down the distance. Fit the magnetic scale to the scale plate so that the measurement indicated at the top side of the pointer is the same as the measurement you noted down.



### ADJUSTING THE CRANK

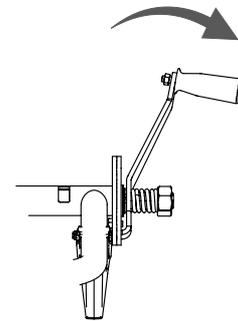
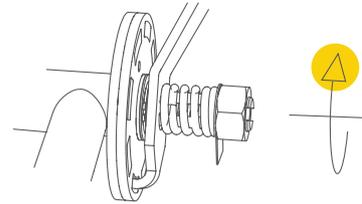
To ensure that the scale on the sawhead crank works correctly, it has to be calibrated. This is done by lowering the sawhead to its lowest position and then loosening the adjusting plate of the crank. Now, raise the sawhead until the pointer in the crank tube is aligned with a number on the crank scale. It does not matter what number it is, as long as it is aligned with the pointer. Then, tighten the bolting. Finish the adjustment by turning the adjusting bolts on the chains until the sawhead rests on the stops in the front legs of the sawcarriage. Be careful to adjust exactly equally much on both sides to keep the blade parallel to the bed.



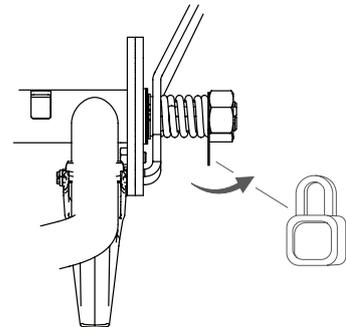
## OTHER ADJUSTMENTS

### ADJUSTING THE CRANK SPRING

Tighten the lock nut to tension the spring so that the handle easily springs back and locks in the crank disc.

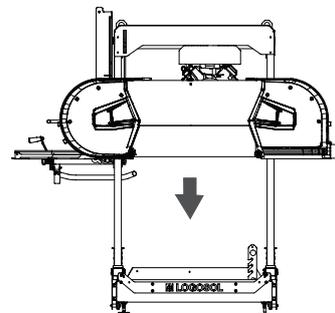


Once the handle is in good working order, you bend the lock washer to secure the lock nut in position.



### 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.

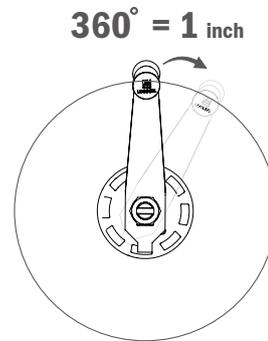
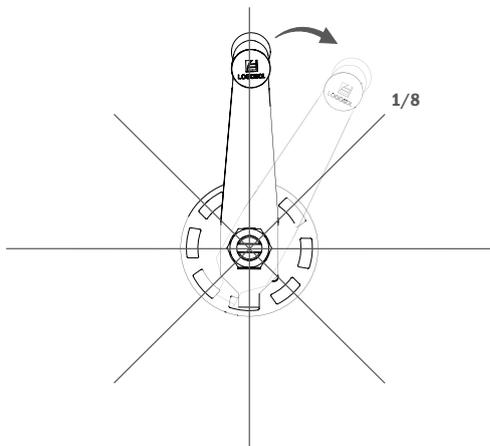
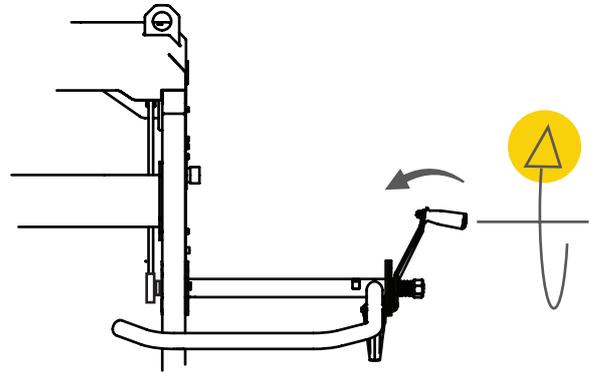


**Tip:** Work with the sawhead lowered to its lowest position to facilitate access to the engine.

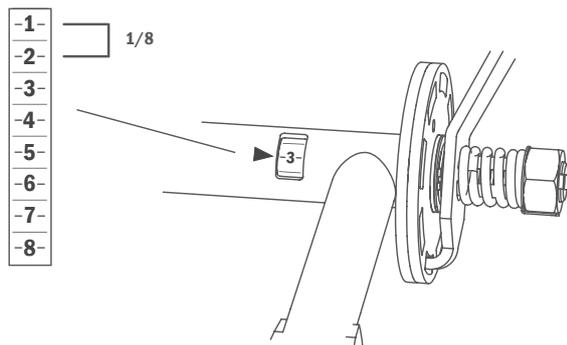
## THE FUNCTIONS OF THE SAWMILL

### THE FUNCTION OF THE CRANK

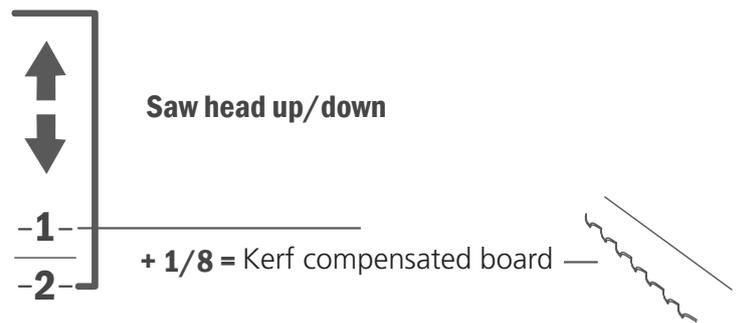
The crank that is used for moving the sawhead up and down is spring loaded, and has to be pushed inward to release the locking mechanism while you are raising or lowering the sawhead.



The locking mechanism of the crank is divided in eight steps per revolution. Each step moves the sawhead by 1/8", and one full revolution represents 1".



Kerf compensated cut:



On the crank shaft, there is an opening where you can see numbers on a scale. This scale has eight steps, where each step is 1/8". **TIP:** When a board is cut above the blade, you have to compensate for the kerf, i.e. 1/8". The wood piece below the blade never needs to be kerf compensated. It has the same measurement that is shown on the absolute scale on the front leg of the carriage.

### This is how you use the crank scale when adjusting depth of cut

Example 1: If you are going to cut a 1" board and the crank scale shows the number "3", you first turn the crank one full revolution and stop at "3", then you turn the crank one step (1/8") to number "4".

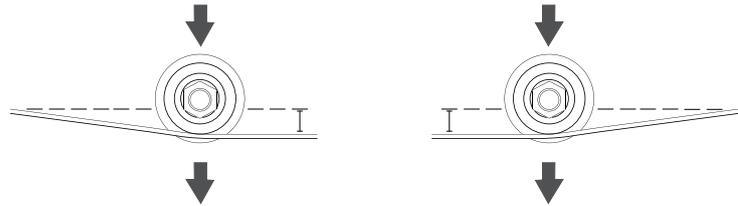
Example 2: To cut a 2" board starting from "3" on the scale, turn the crank two revolutions and stop at "4"

Example 3: To cut a 3/4" board starting from "3" on the scale, lower 6/8 + one step to compensate for the kerf and stop at "2".

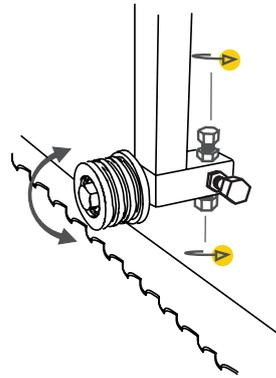
# THE FUNCTIONS OF THE SAWMILL

## BLADE GUIDES

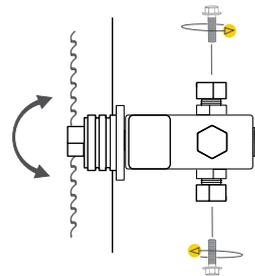
The blade guides tension the blade so that it comes 3 mm below the band wheels.



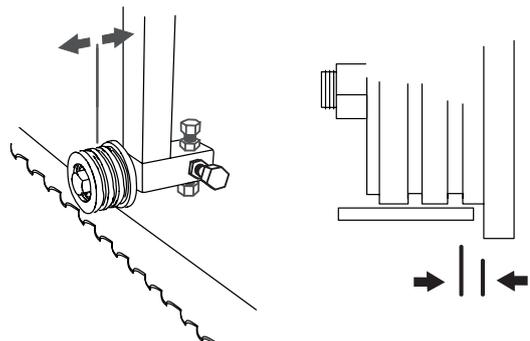
The blade guides can adjust the angle of the blade, measured in the direction of the cut, by adjusting the top and bottom adjusting bolts.



The blade guides must be adjusted so that they are parallel to the back of the blade. This is done by adjusting the outer and inner adjusting bolts. It is crucial that the blade guides run parallel to the blade. Be careful to adjust this correctly.



The blade guide can be adjusted inwards and outwards by pulling or pushing its shaft after the adjusting bolts have been loosened. The back of the blade should be approx. 3-5 mm from the rear edge of the blade guide roller.



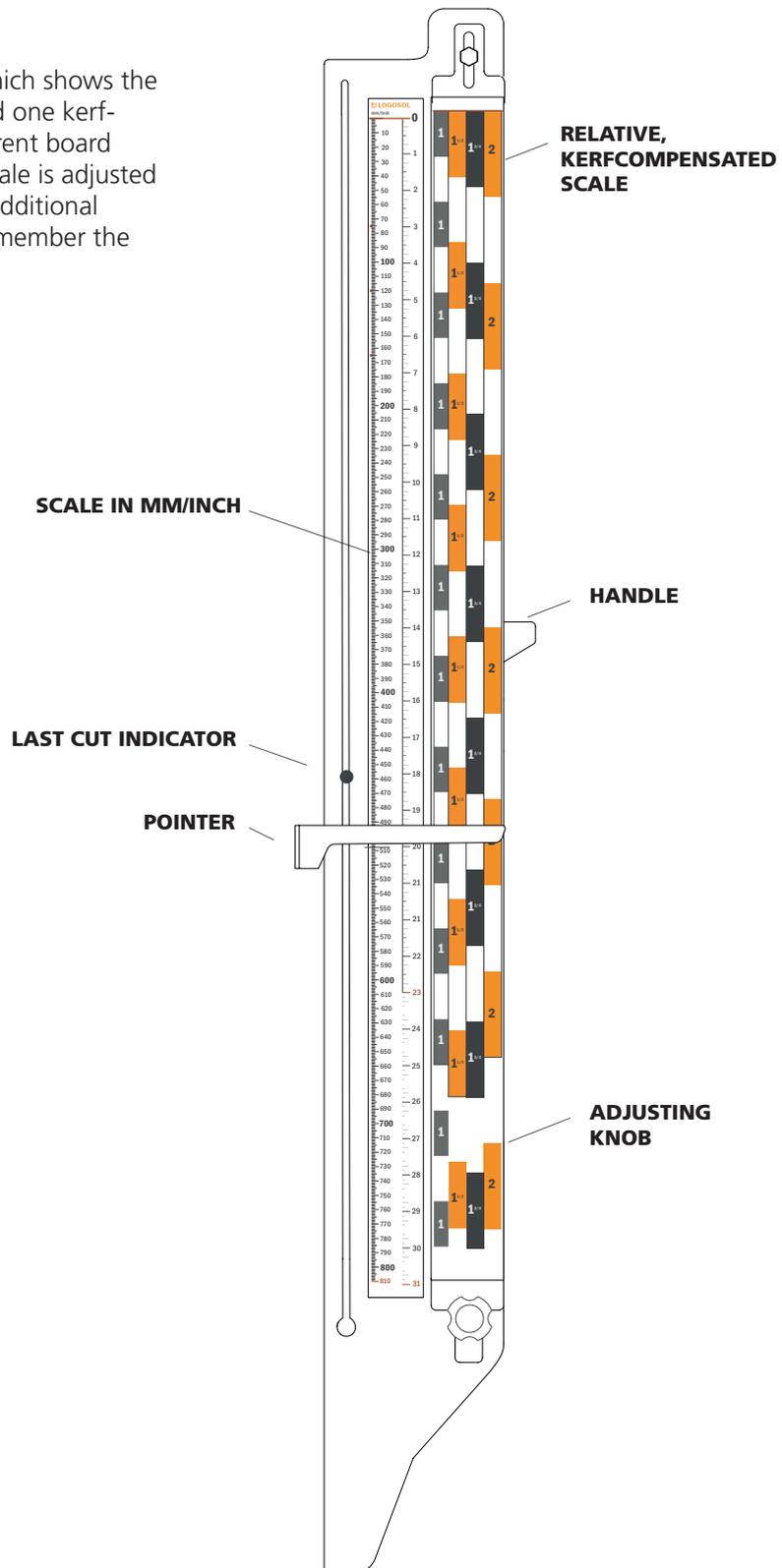
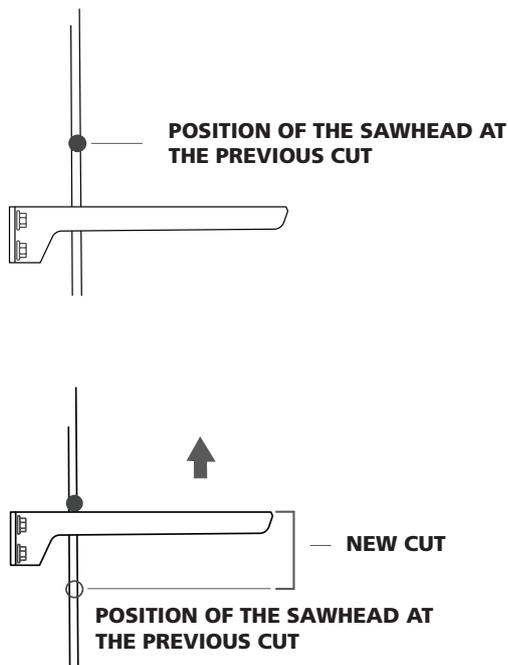
## THE FUNCTIONS OF THE SAWMILL

### THE FUNCTIONS OF THE SCALES

The sawmill has two scales: one millimetre scale, which shows the distance between the cross bunk and the blade, and one kerf-compensated scale, which shows a number of different board thicknesses in inches. The kerf-compensated inch scale is adjusted by a knob located at the bottom of the scale. One additional feature is the Last Cut indicator, which helps you remember the position of the sawhead at the previous cut.

### LAST CUT INDICATOR

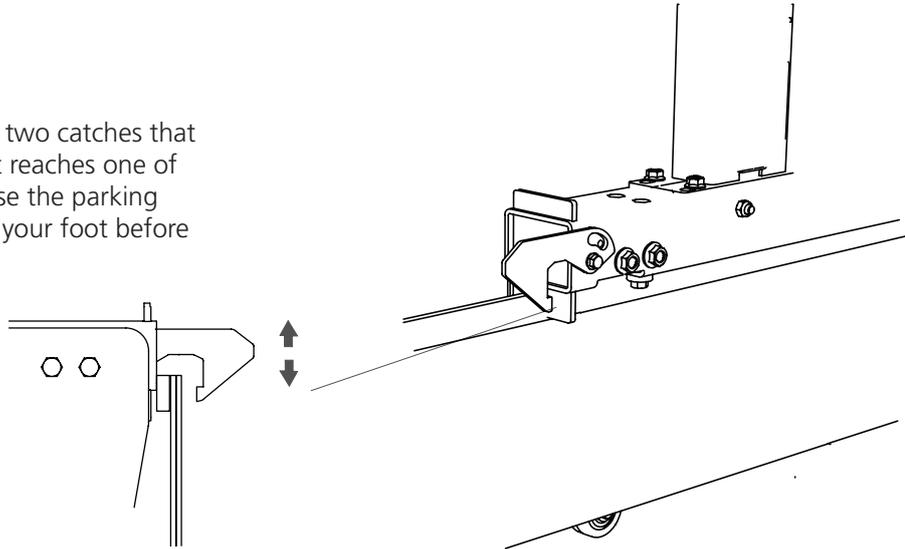
To use the Last Cut function, push the indicator down until it rests on the pointer before starting to saw. When you raise the sawhead to return it for the next cut, the Last Cut indicator stays in that position. Then, when you lower the sawhead for the next cut, you have the Last Cut indicator as a reference showing the position of the previous cut.



## THE FUNCTIONS OF THE SAWMILL

### PARKING LOCK

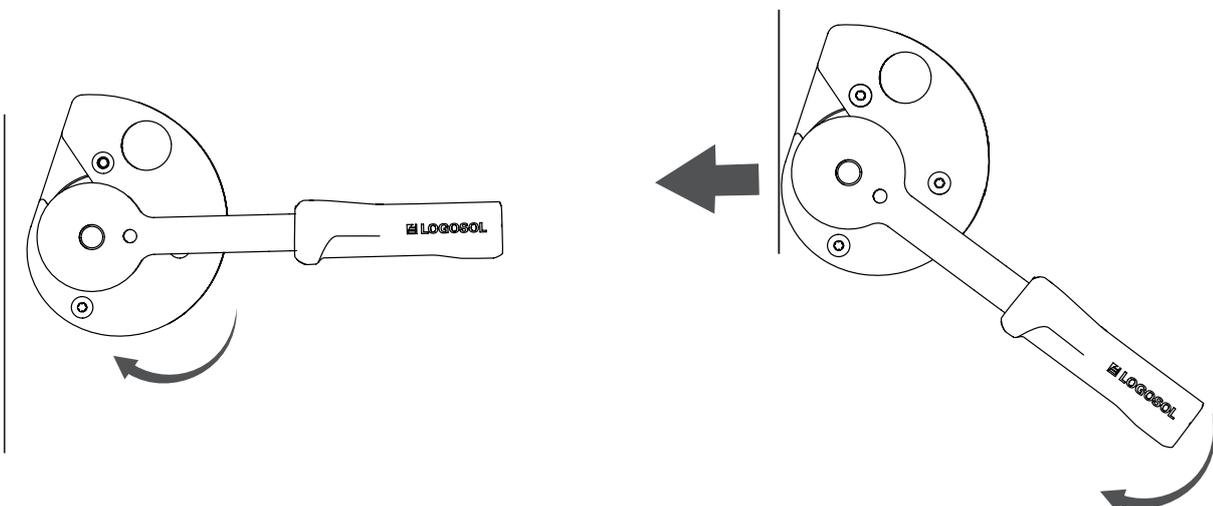
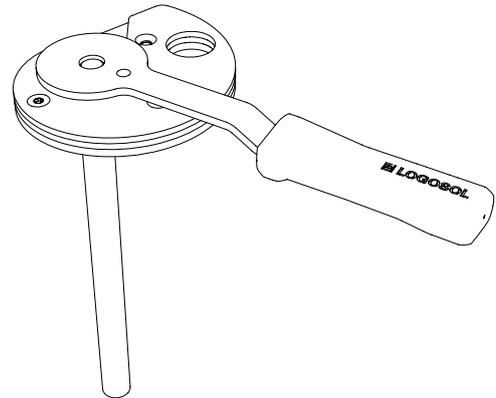
The sawmill is equipped with two catches that lock the saw carriage when it reaches one of the ends of the rails. To release the parking lock you lift the catches with your foot before moving the saw carriage.



### LOG CLAMPS

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

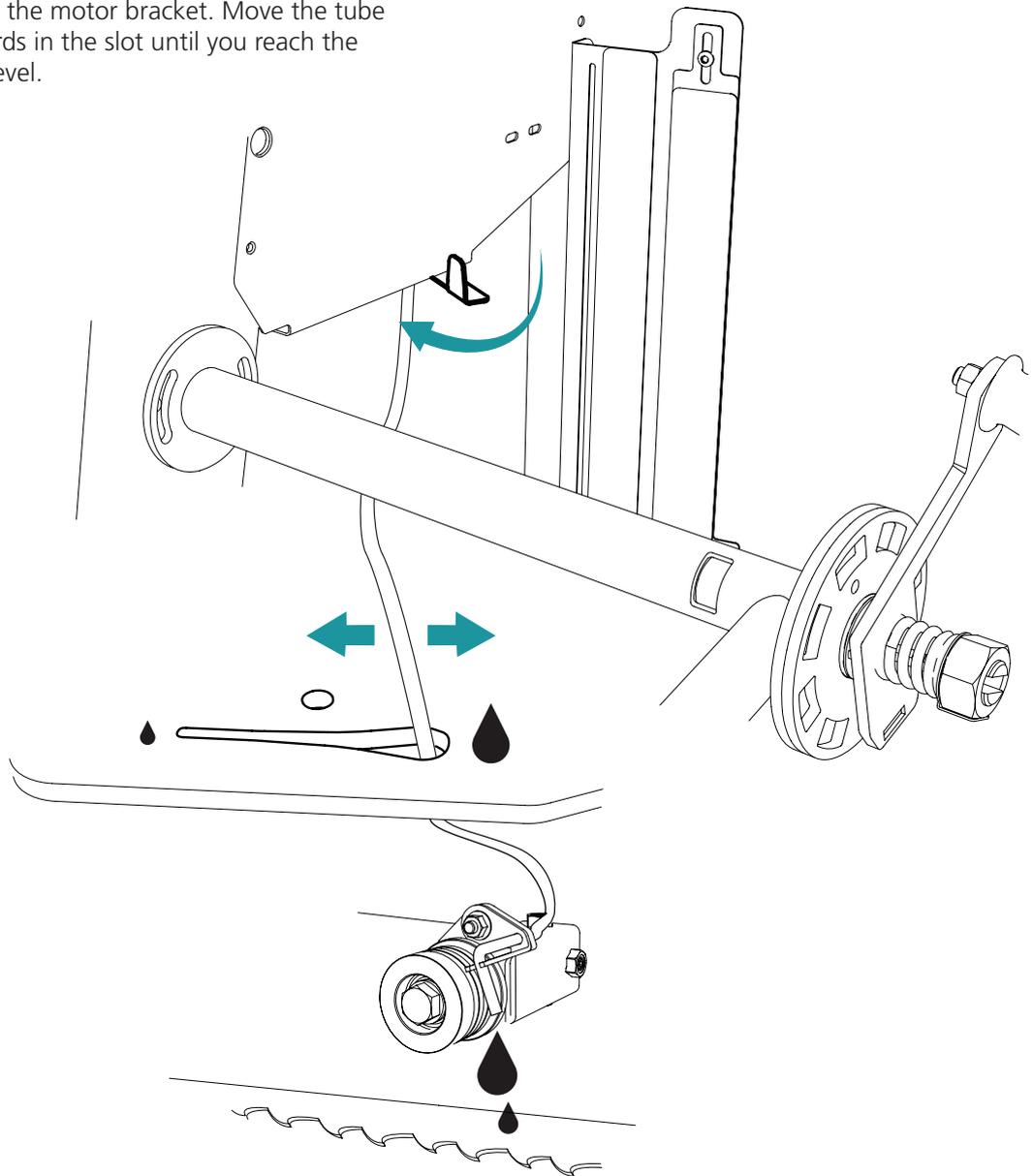
First, set the eccentric plate so that it lies against the log. This is done by turning the eccentric plate clockwise. Then, to secure the log, you turn the handle on the clamp clockwise, as shown in the illustration. To release the tension, carry out the steps in reverse order and turn the plate and the handle counter-clockwise.



## THE FUNCTIONS OF THE SAWMILL

### WATER COOLING ON/OFF

The water cooling of the blade is controlled by a lever located on the side plate at the operator side. In its starting position, the lever points at a right angle from the side plate. To release the water flow, the lever is pulled back. The flow of the water cooling is controlled by moving the cooling tube in the narrowing slot in the motor bracket. Move the tube inwards or outwards in the slot until you reach the desired cooling level.



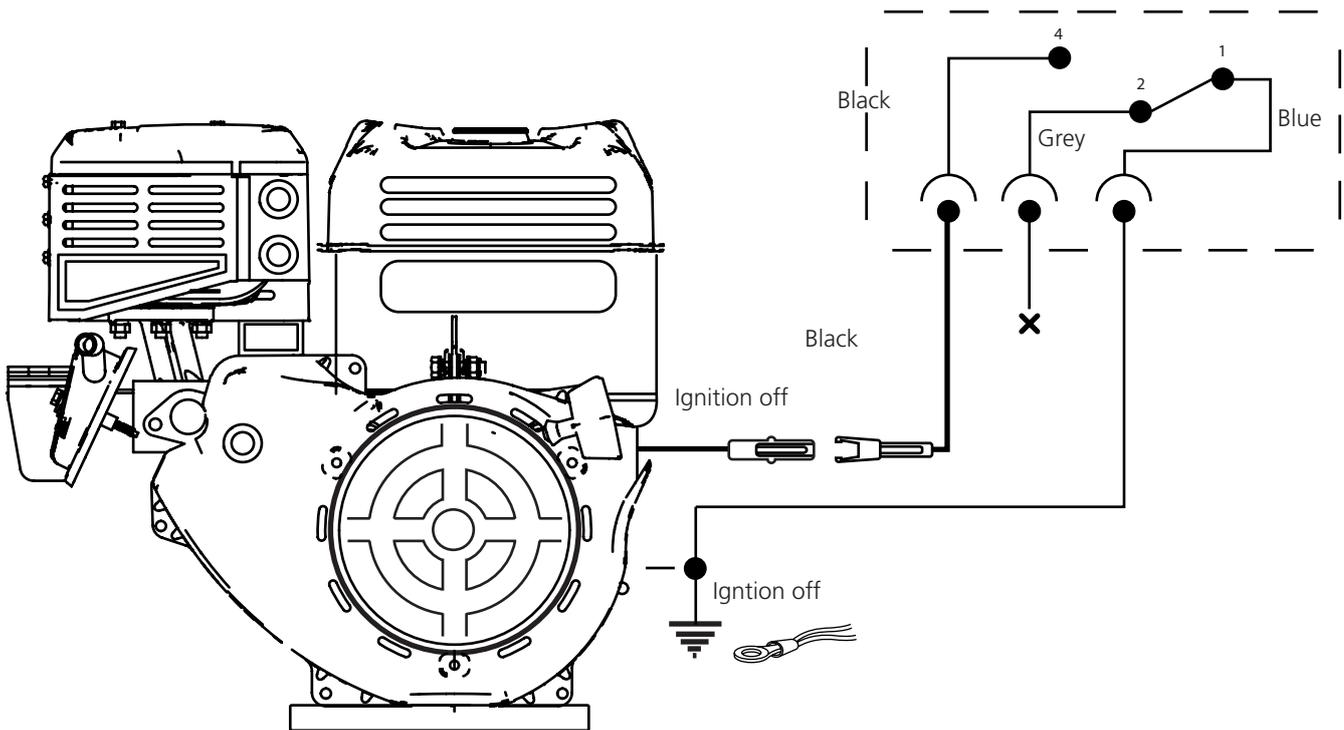
# WIRING DIAGRAM

The wiring diagram shows the connection of safety switch and emergency stop.

## WIRING DIAGRAM, EMERGENCY STOP / SAFETY SWITCH



Interlock safety switch





## EU declaration of conformity

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

Logosol AB,  
Fiskaregatan 2,  
S-871 33 Härnösand, SWEDEN  
Phone: +46 611 18285,

herewith declares that the portable band sawmill  
Logosol B1001, with reference numbers 8300-000-  
0010 and 8300-000-0030:

has been manufactured in conformity with: the  
Machinery Directive 2006/42/EG and the EMC  
Directive 2004/108/EU

and has been manufactured in conformity with the  
following harmonized standards:  
EN ISO 12100:2010, EN 60204-1:2006, EN 50370-  
1, -2.

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.

Mattias Byström, Product Manager, is responsible for  
the technical files.

Härnösand 0000-00-00  
Malte Frisk, CEO

# LOGOSOL

**LOGOSOL SWEDEN**

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