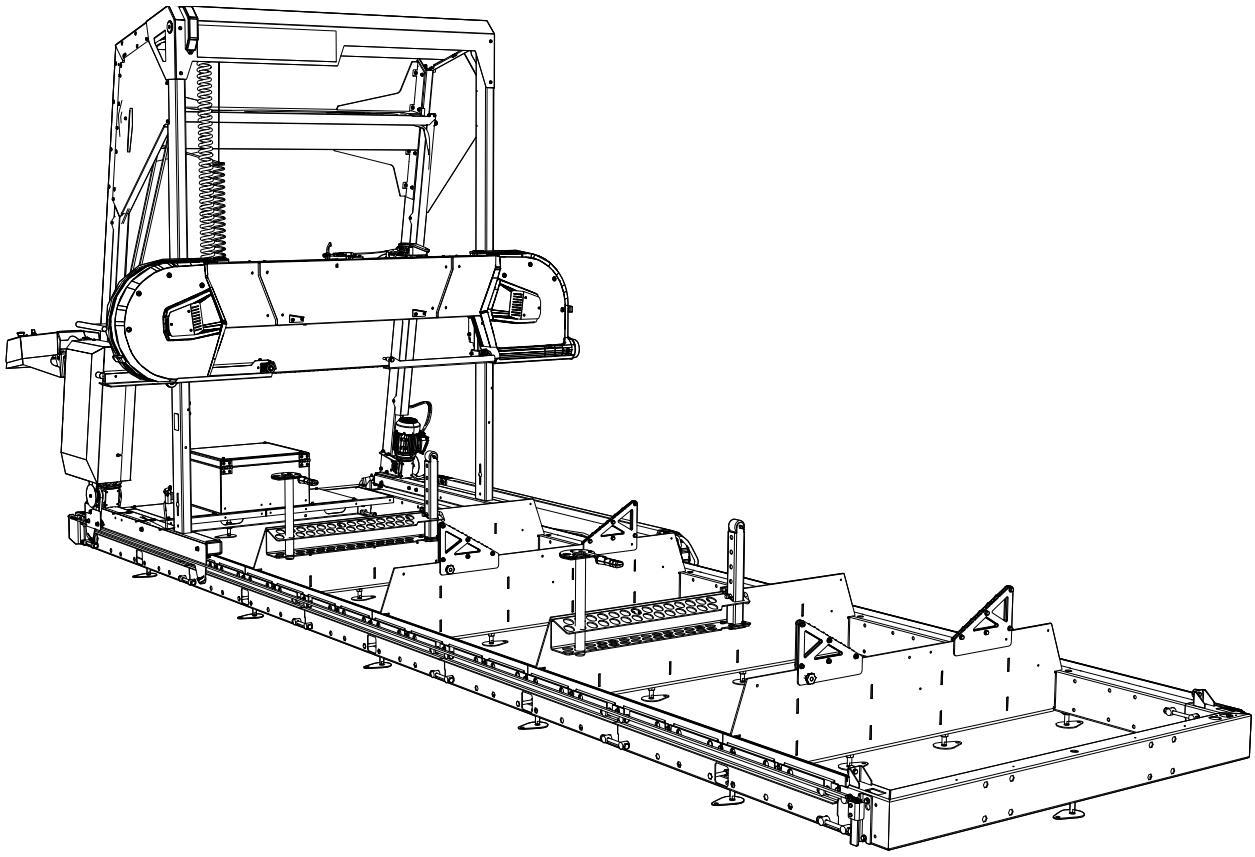
LOGOSOL

USER MANUAL

B1651 Band Sawmill



ORIGINAL USER MANUAL

SKU: 0458-395-5601

REV: 1

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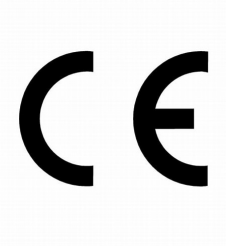

LOGOSOL continuously develops its products.

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

Document: B1651 Band Sawmill User Manual

SKU User Manual, English: 0458-395-5601

Last revised: August 2024

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THANK YOU FOR CHOOSING A LOGOSOL MACHINE!

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

LOGOSOL has been manufacturing sawmills since 1989, and in that time we have supplied approximately 100,000 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 will be thoroughly satisfied with your new machine.

Bengt-Olov Byström

Founder,

Logosol in Härnösand

GENERAL INFORMATION

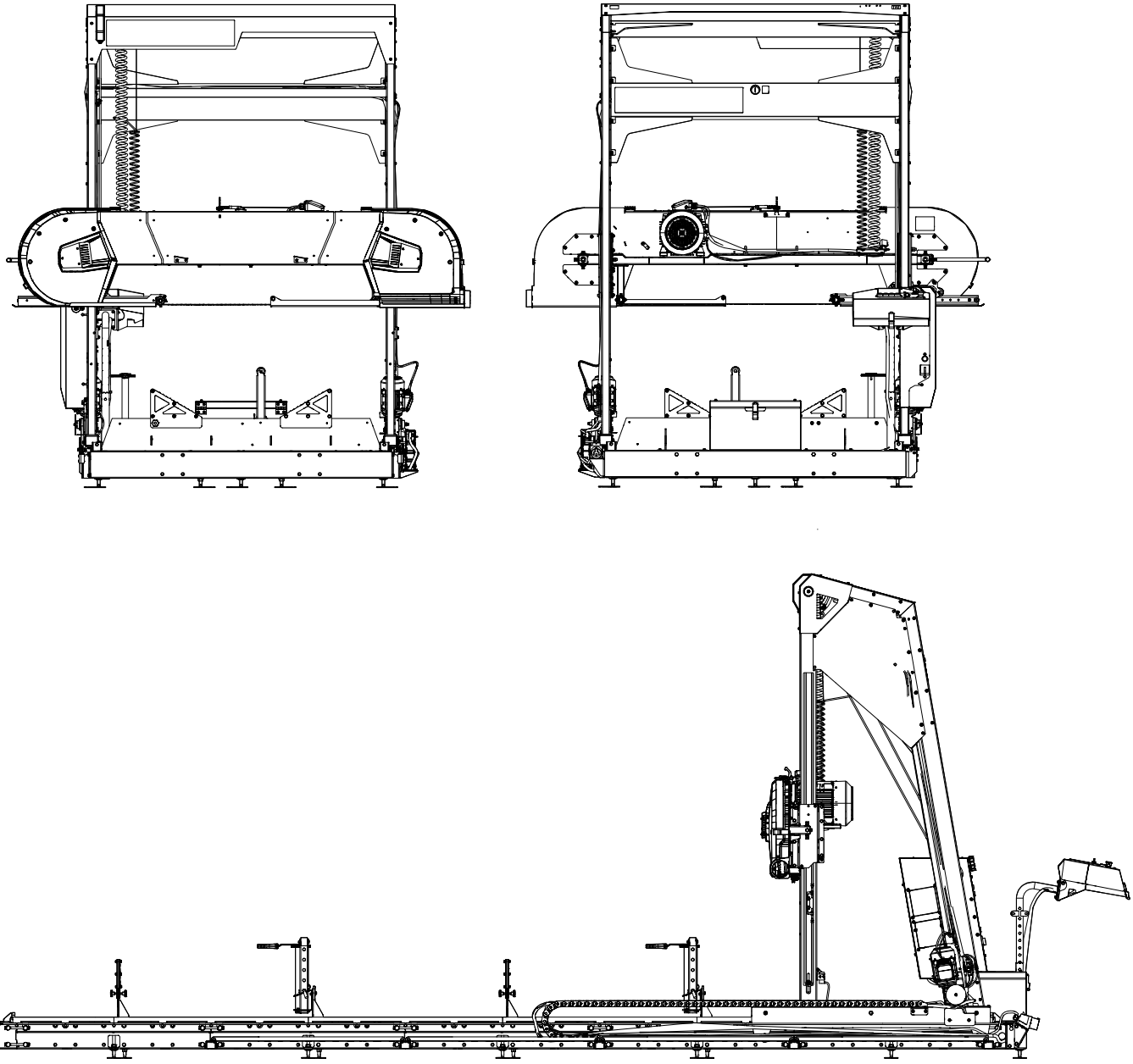
This user manual, the instructions of the motor, the assembly instructions of the band sawmill and instructions for accessories should be seen as integral parts of the band sawmill and should always be kept together with it. They should also follow the band sawmill if it is sold.

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.

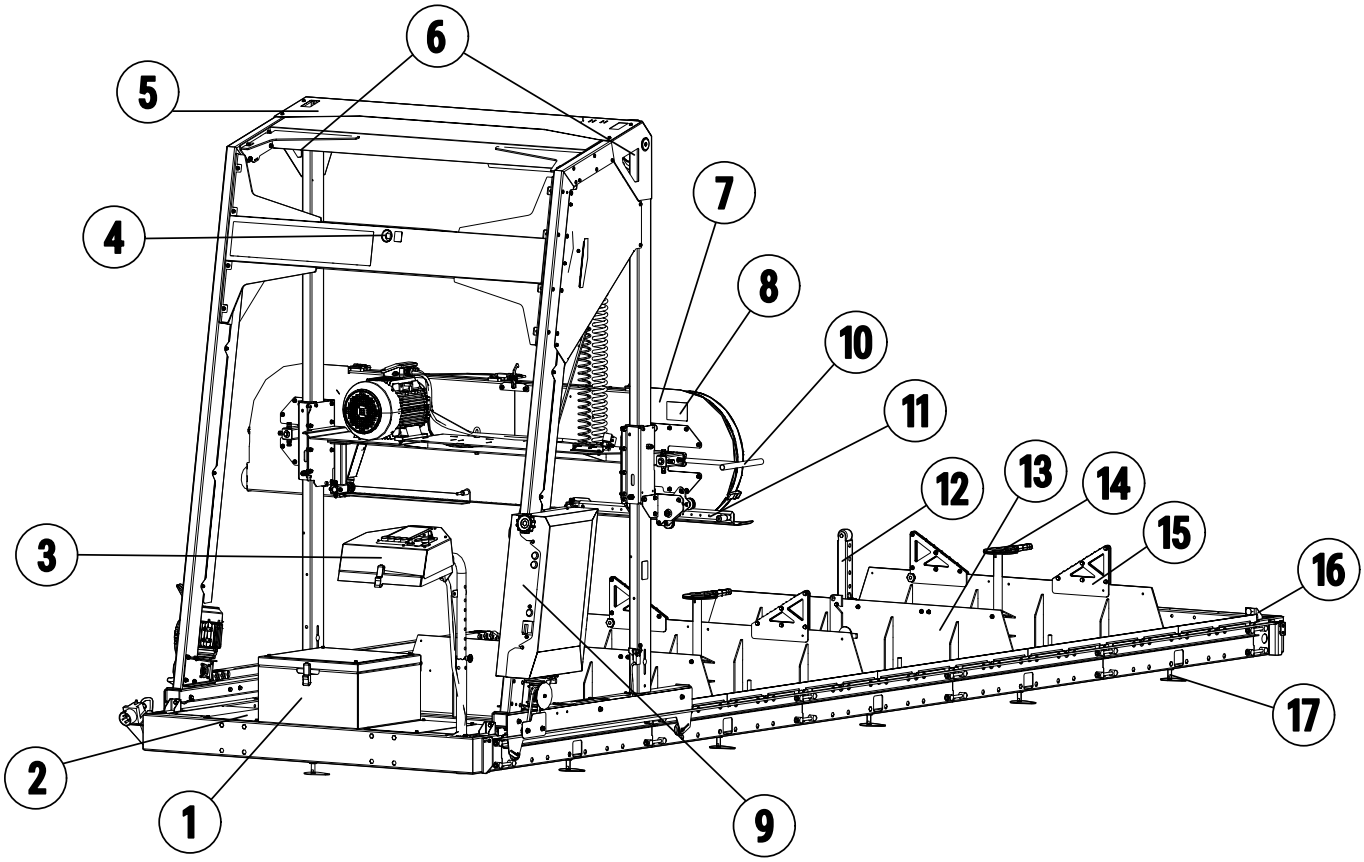
Disclaimer: The actual appearance of the system and its components may vary slightly from the illustrations shown. These variations do not affect the functionality or performance of the machine.

DESCRIPTION OF THE BAND SAWMILL

B1651



Front-, rear- and side view



1. Toolbox
2. Platform
3. Operator panel
4. Water tank
5. Saw carriage
6. Lifting points
7. Band wheel guard
8. Machine decal
9. Electrical cabinet
10. Blade tension handle
11. Adjustable blade guard
12. Log support
13. Cross bunk
14. Log clamp
15. Log wedge
16. Rail end stop
17. Leveling foot

SAFETY INSTRUCTIONS

KEY TO SYMBOLS

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

IMPORTANT
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 of the machine can lead to life-threatening injuries. Bandsaw blades are extremely sharp and dangerous.

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 when working. Secure loose hair before working with the Band sawmill.

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

When this symbol appears during the assembly, parts must be lubricated beforehand mounting. Lubricate affected parts with universal grease.

Always use close-fitting safety goggles when working with the machine or handling bandsaw blades. Under certain circumstances the use of a protective mask may also be advisable. This would primarily apply if you are sawing dry wood or sawing indoors.

Always use approved hearing protection when working with the machine. Even brief exposure to high frequency noise can damage your hearing.

Always wear protective gloves (class 1) when fitting and working with the band sawmill or handling bandsaw blades. Risk of lacerations when handling bandsaw blades and some sheet metal. Bandsaw blades and motor parts can be hot after sawing.

This symbol describes the direction of the saw head. The symbol is critical to the assembly and will return during the montage.

This symbol shows that there is a helpful tip nearby!

THE SAFETY EQUIPMENT OF THE BAND SAWMILL

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

IMPORTANT
The safety equipment must be checked and maintained.

Here is a description of the items of safety equipment on the band sawmill together with their features.

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 these guards closed.

Rail end stops

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

OPERATOR

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

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

IMPORTANT
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.

WORK SITE

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.

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

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

IMPORTANT
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.

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

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

TECHNICAL DATA

LOGOSOL B1651	
RAIL COMPONENT	
Rail length, standard	6232 mm
Rail length, extension	1156 mm
Track width	1,75 m
Overall width	1,92 m
Height	240 mm
Weight (6,23 m rail)	500 kg
SAW CARRIAGE	
Length	1,42 m
Width	2715 mm
Height	2850 mm +- 40 mm (support legs)
Weight	350 kg
Volume, water reservoir	25 liters
Feed rate	Variable
CAPACITY	
Max. log diameter	1651 mm
Max. sawing width	1500 mm
Effective saw length (standard)	4380 mm
BANDSAW BLADE	
Type and size	5610x33 pitch 22 mm
Band wheel diameter	500 mm
Band wheel, rotational speed	1000 v/min
Saw blade, speed	30 m/s
SAW MOTOR(S)/ENGINE	
Electric motor drive	12 kW, 400 V (Weight: 65 kg)
Fuse	25 A
Petrol engine	Loncin 27hp
Volume, fuel tank	5 liters
NOISE LEVEL/VIBRATIONS	
Equivalent sound pressure level at ear of operator[a.]	88,4 dB(A)
Sound power level (estimated)[b.]	109,4 dB(A)
Vibration level in handle[c.]	<2,5 m/s^2

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

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

[c.] The typical distribution measurement for vibration level in the handles is 1 m/s2

BOLTS & NUTS

Definition of the fasteners on following pages.


Shoulder bolt


Phillips bolt


Slotted screw

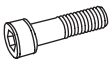

Set screw

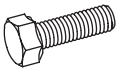

Hex nut

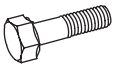

Flange nut


Flat washer

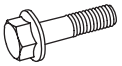

Allen bolt

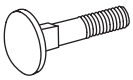

Partial thread Allen bolt


Hex bolt


Partial thread hex bolt


Flange screw


Partial thread flange bolt


Carriage bolt

Additional Symbols

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


Low


Tensilock


Lock


Countersunk

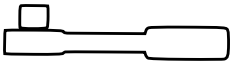
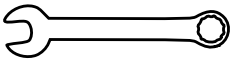
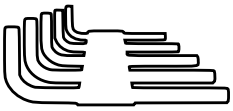
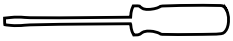
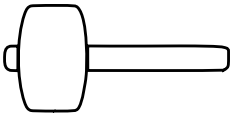

Dome

Diameter & Length

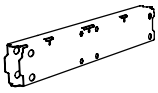
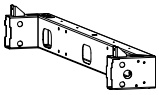
The size of a fastener is written as a diameter measurement (M) ISO 68-1. For bolts, this is followed by a length measurement. The length of the bolt is measured from below the head to the tip of the bolt.

(Diameter)		(Length)
M8	x	20

Recommended Tools

	Socket wrench	6 mm, 8 mm, 10 mm, 12 mm
	Box end wrench	6 mm, 8 mm, 10 mm, 12 mm
	Allen key	5 mm, 12 mm
	Screwdriver	Philips #2, Flathead 10 mm
	Mallet	

COMPONENT PARTS

10 x		03-01971
2 x		02-00556
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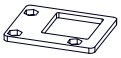
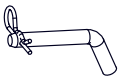
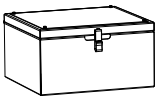
2 x		03-02461
2 x		9321-633-0112
1 x		01-00939
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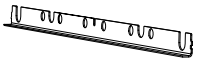
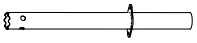
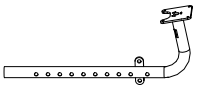
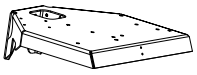
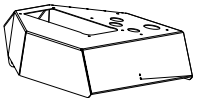
10 x		03-02459
1 x		02-00564
1 x		02-00449
1 x		02-00465
1 x		03-03699
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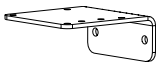
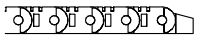
1 x		03-03703
1 x		04-00734
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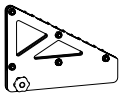
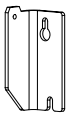
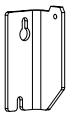
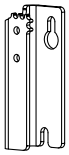
4 x		01-00935
1 x		03-02972
1 x		03-03763
1 x		03-02668
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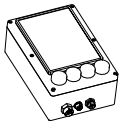
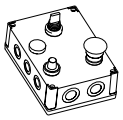
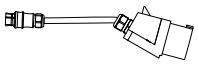
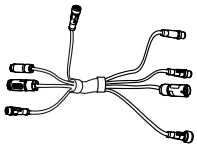
1 x		01-00899

1 x		01-00947
1 x		01-01033 (6m)
1 x		01-00945 (10m)
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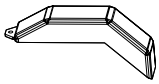
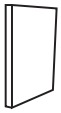
1 x		03-03706
4 x		03-01982
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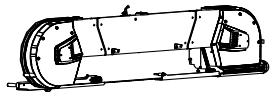
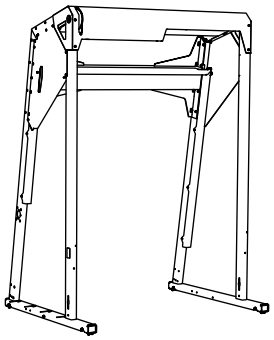
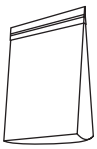
1 x		01-00942
1 x		01-00932



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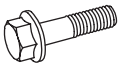
4 x		M6x35
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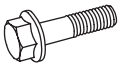
2 x		M10x95
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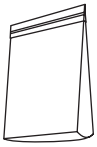
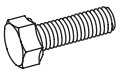
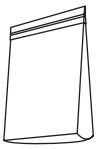


02-00554-SKP

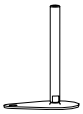
16 x		M12x90
16 x		M12
16 x		M12



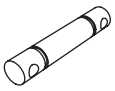
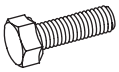
01-00960-SKP

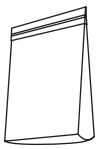
42 x		M8x16
42 x		M8

01-00334-DM (2 x)

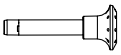
10 x		9039-001-0001
20 x		M16
20 x		03-03786

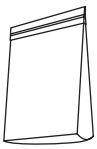
01-00335-DM (2 x)

24 x		03-01814
24 x		M12x140
24 x		M12



01-00955-SKP

1 x		04-00521
6 x		M6x16
4 x		M6



01-00961-DIV

2 x		03-01465
2 x		03-01464
2 x		9291-020-0005 (8.5x12x11mm)
2 x		03-03681
2 x		M8x20
2 x		M8x25
2 x		M8

01-00956-SKP

4 x		M5x20
16 x		M6x10
4 x		M6x20
5 x		M6x70
2 x		M8x100
4 x		M5
25 x		M6
4 x		M8

RAIL ASSEMBLY

Start assembling the sawmill by mounting the rail. The sections of rail are place under the saw head in the pallet. The assembly involves heavy lifting and requires two people.

WARNING!
Heavy lifting. Risk of injury.

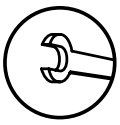
WARNING!
Risk of crush injuries.

IMPORTANT
Two people are always required to help with heavy lifting.

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

EXTRA EQUIPMENT

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



Follow the steps of assembly carefully and use an ergonomically correct work position while working. Work on level ground, as this will facilitate when adjusting the rails.

Read through all the assembly instructions before starting assembly, then follow the instructions step by step as you work.

MOUNTING OF THE RAIL PIPES AND SUPPORT FEET

When installing trailer kits and accessories that require fixed support legs: skip step 1 (see manual for the product in question).

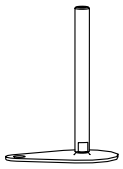
There are accessories for this machine that may affect the sequence of assembly in this manual. Read through the assembly instructions in the various manuals before starting work to get an overview of the different procedures.

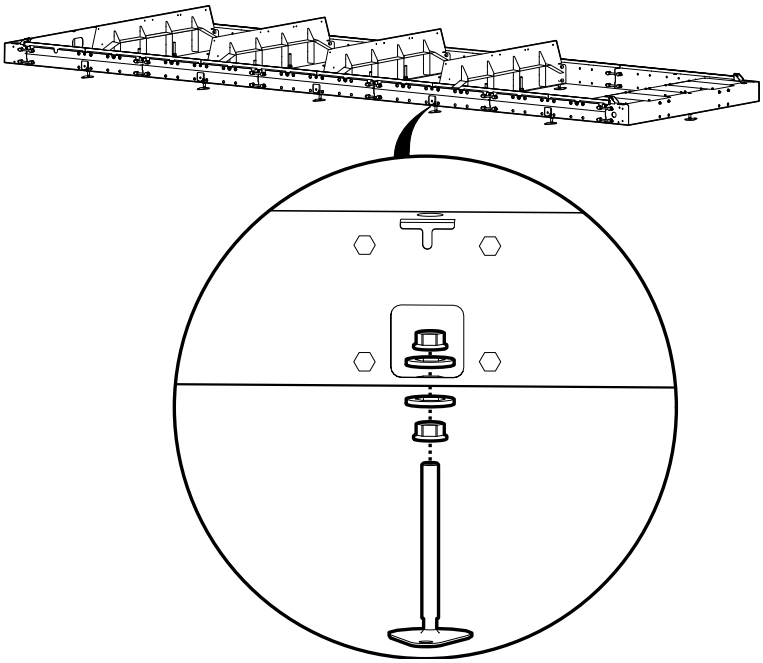
1. The support legs will be fitted to all ten rail pipes.

01-00334-DM

20 x  M16

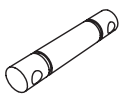
20 x  03-03786

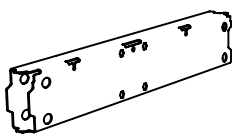
10 x 

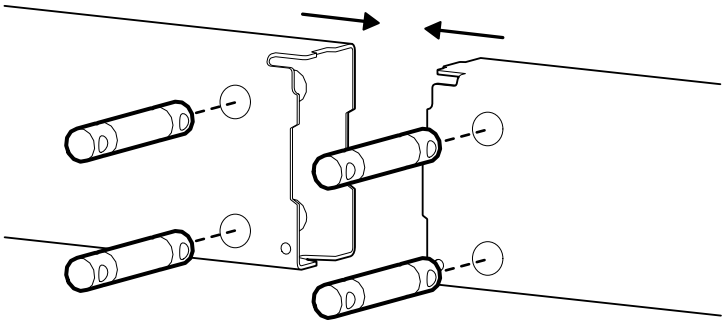


2.

01-00335-DM

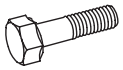
4 x 

2 x 

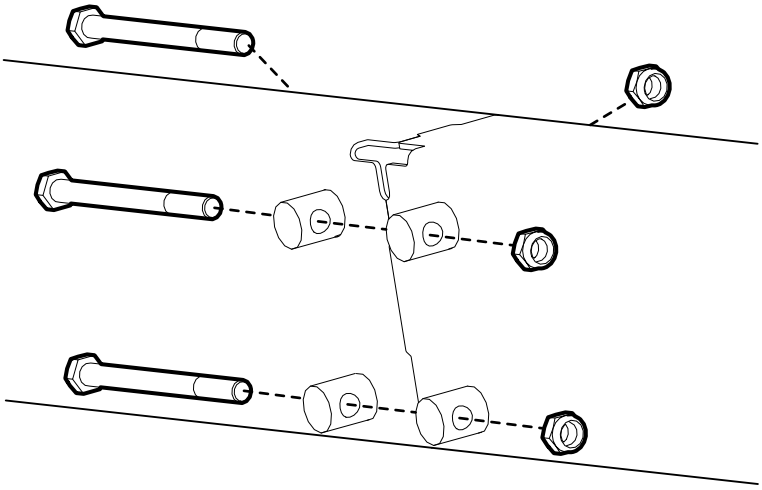


3. Gradually tighten the nuts on both sides to prevent misalignment.

01-00335-DM

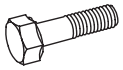
4 x  M12x140

4 x  M12

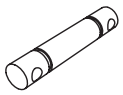


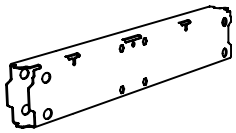
4.

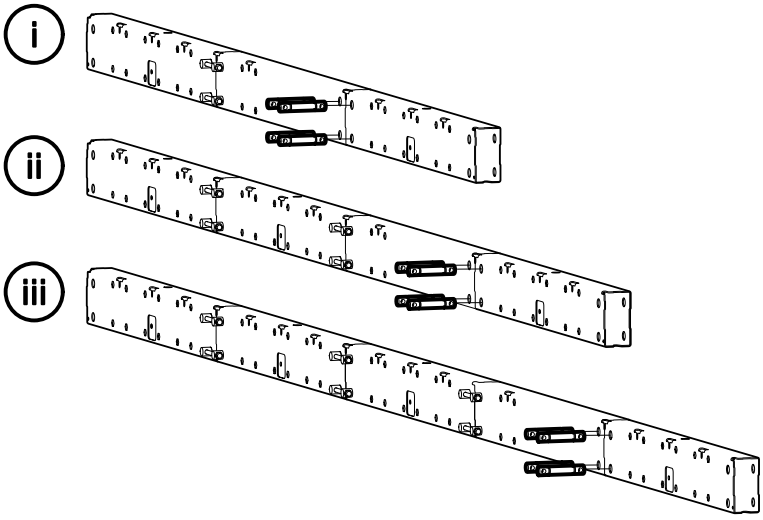
01-00335-DM

12 x  M12x140

12 x  M8

12 x 

3x 

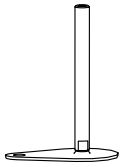


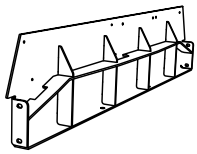
5. Repeat steps 2 to 4 for the second rail pipe.

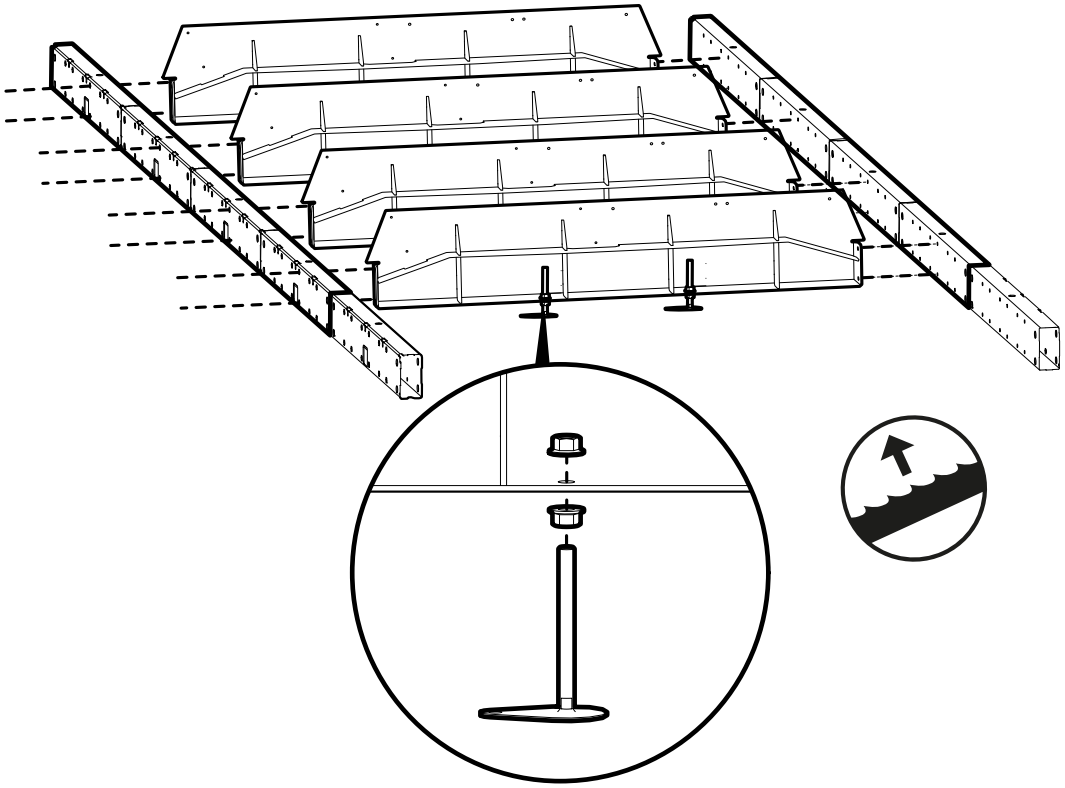
6. Please note the direction of the sawhead before assembling the following steps. Fasten the support legs to the cross bunks. Align the cross bunks against the rail pipes. The shelf in the middle of the cross bunks should be pointing towards where the saw head will be later on.

01-00334-DM

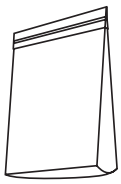
16 x  M8

8 x 

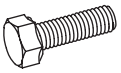
4 x 



7. Attach the cross bunks to the rail pipes number **2**,**3**,**4** and **5** seen from the sawing direction. Count the hole patterns from the pipe joint; the cross bunks should be placed on hole pattern **4** from each respective pipe joint. Fasten the bolts fingertight and make sure that the bolt heads are level with the rail pipe.

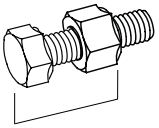


02-00554-SKP

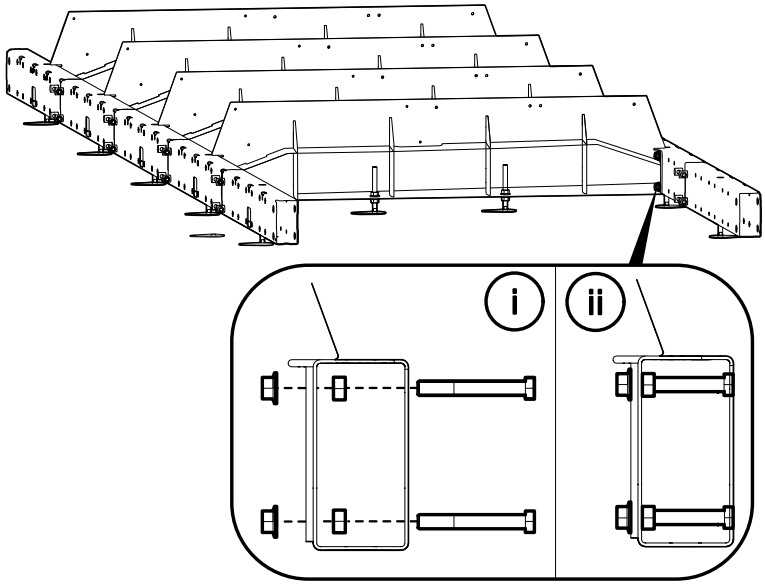
16 x  M12x90

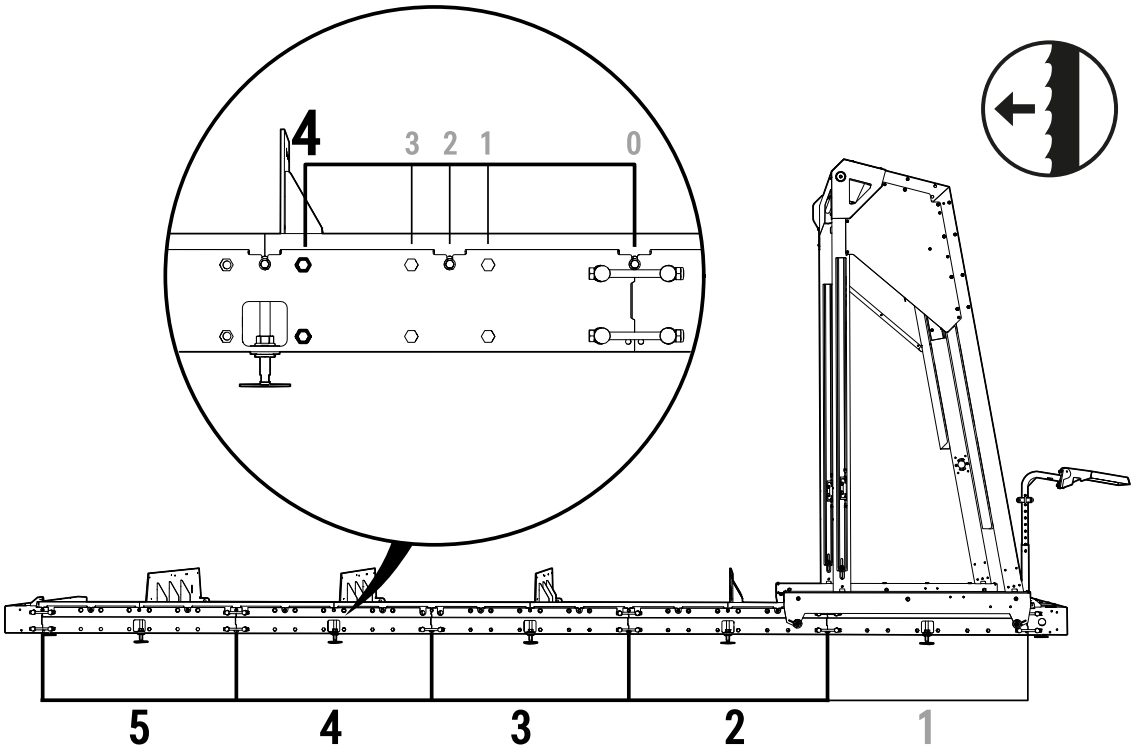
16 x  M12

16 x  M12



78.5mm



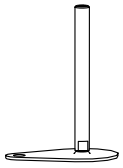


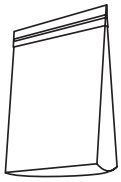
8. Attach the rail end stop and position the support leg under the rail pipe edge piece.

01-00334-DM

2 x  M16

2 x  03-03786

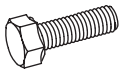
1 x 



01-00977-DIV

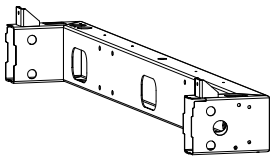
+

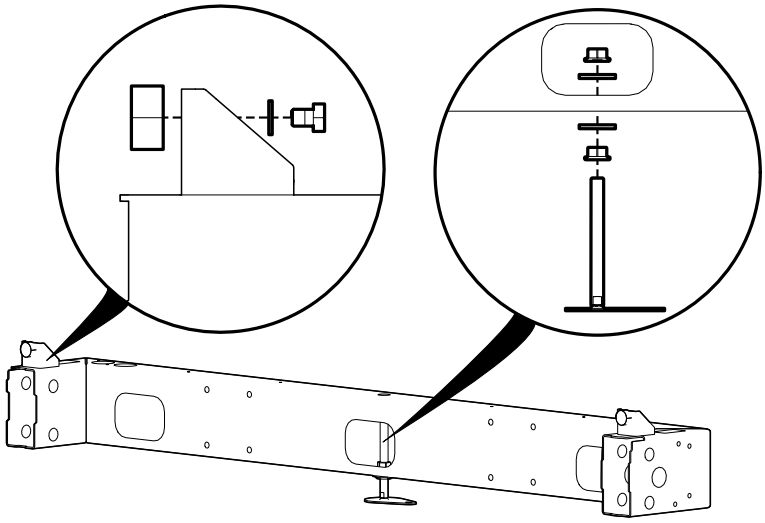
XXXXXXXX

2 x  M8x10

4 x  M8

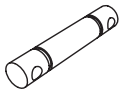
2 x  M8

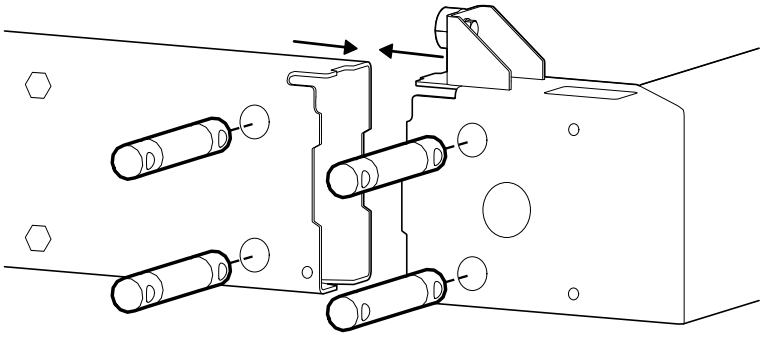
1 x 



9. Attach the edge piece to the rail pipes.

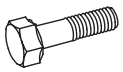
01-00335-DM

4 x 

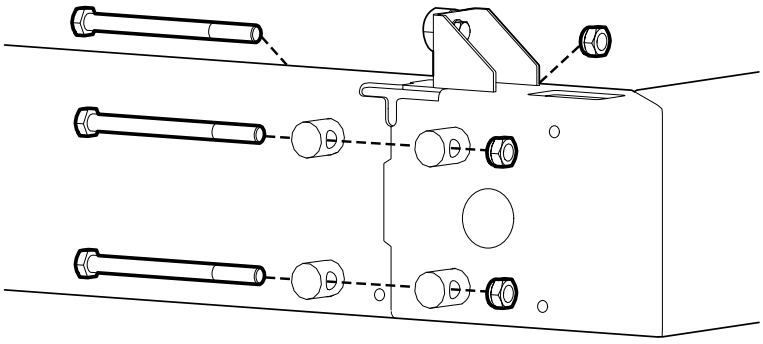


10.

01-00335-DM

4 x  M12x140

4 x  M12

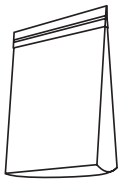


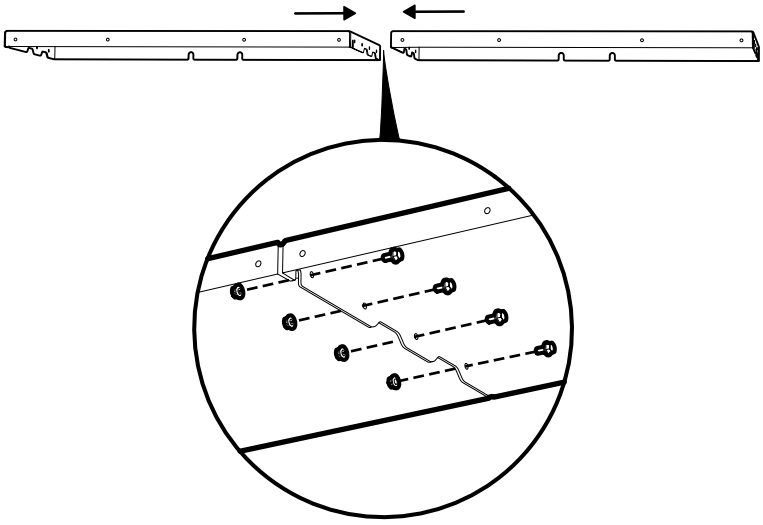
11. Repeat the steps 8, 9 and 10 for the second rail pipe edge piece.

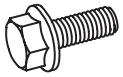
12. Tighten the bolts from step 7.

MOUNTING OF THE PLATFORM & TOOLBOX

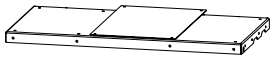
1.



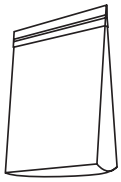


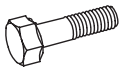
4 x  M6x12

4 x  M6

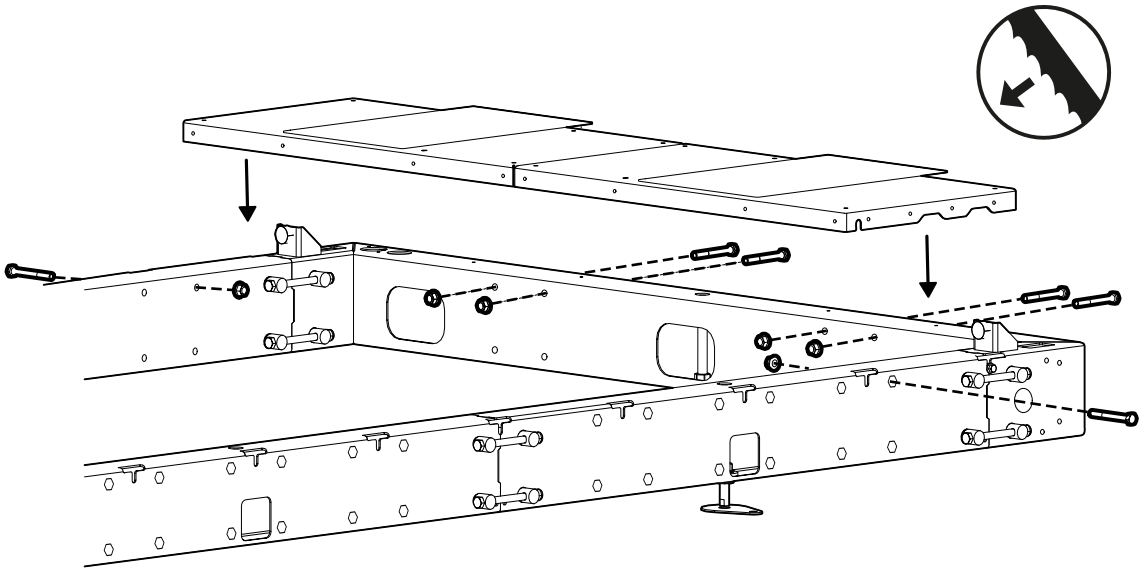
2 x 

2. Please note the direction of the saw blade before mounting the platform. Lower the platform in place. Attach the bolts to its sides and back. The assembly is symmetrical around the platform.

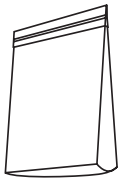


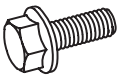
6 x  M6x12

6 x  M6

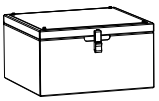


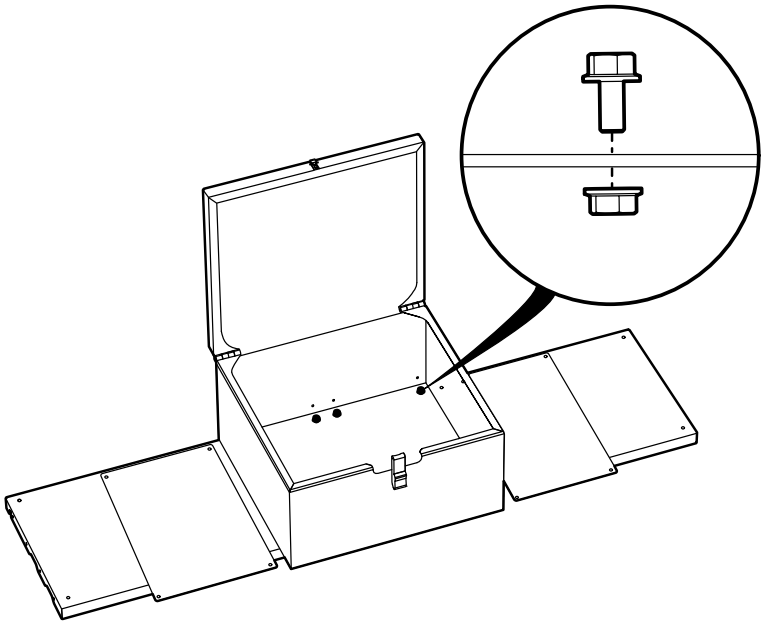
3. Position the box in the middle of the platform. Fasten it through the bottom in eight different places.



8 x  M6x12

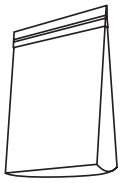
8 x  M6

1 x 

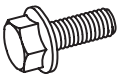


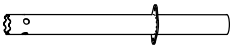
MOUNTING OF THE OPERATOR PANEL

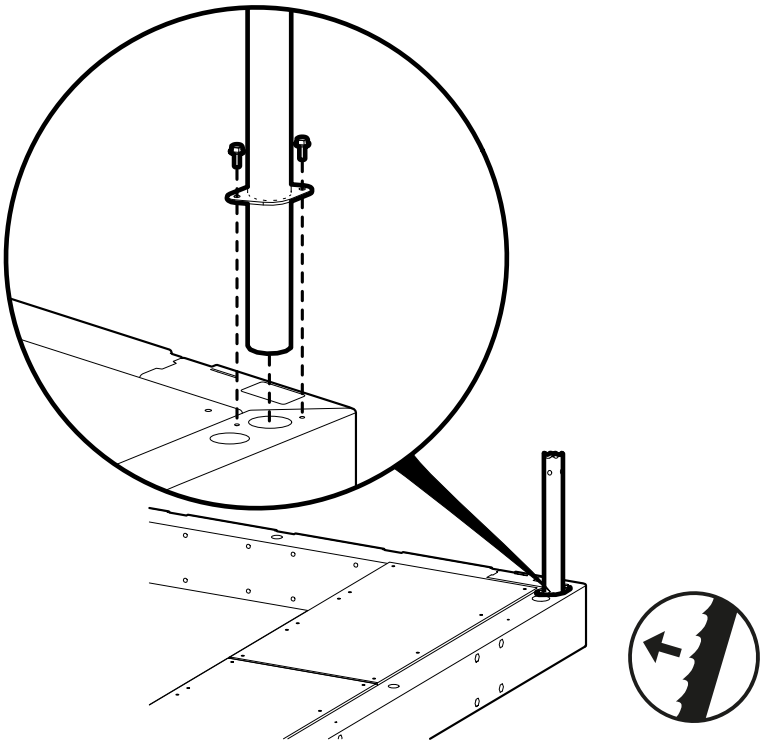
1. Please note the direction of the saw blade before assembling the following steps.



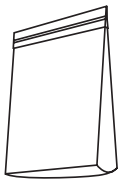
01-00955-SKP

2 x  M6x16

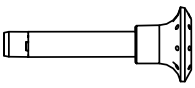
1 x 

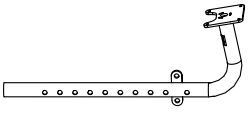


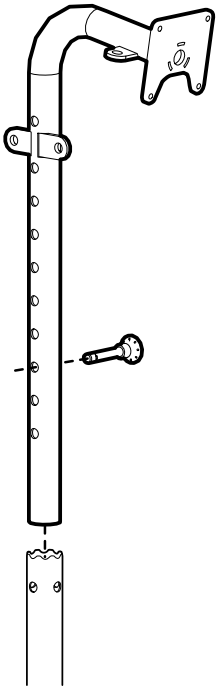
2. Use the holes in the tube to position the operator panel at your desired height. It is recommended to have it set just above your stomach. Using the holes above the seam allows free rotational movement of the operator panel. Using the hole under the seam locks the operator panel in position, which can be useful while transporting the band saw.



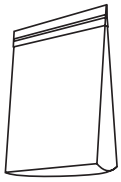
01-00955-SKP

1 x 

1 x 



3.



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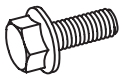
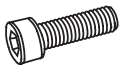
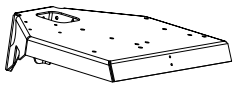
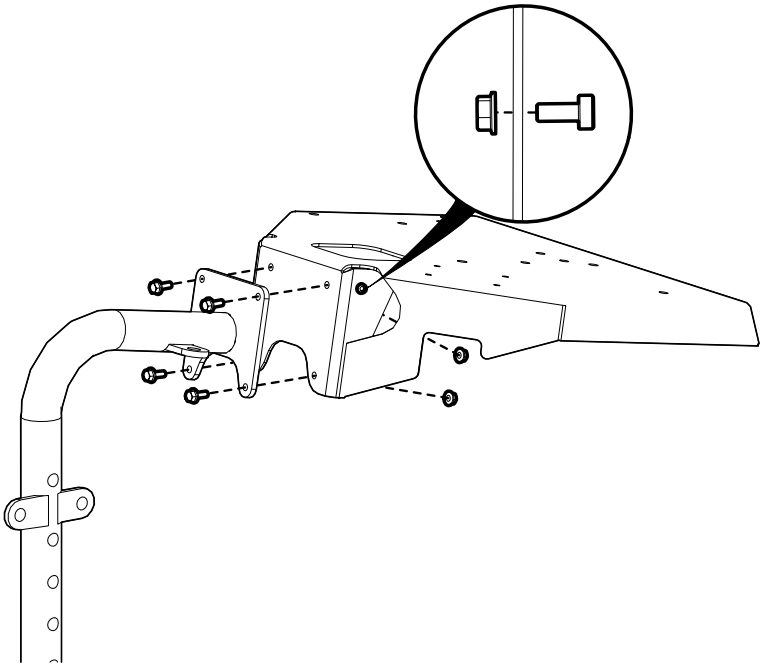
4 x  M6x16

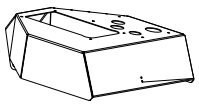
6 x  M6

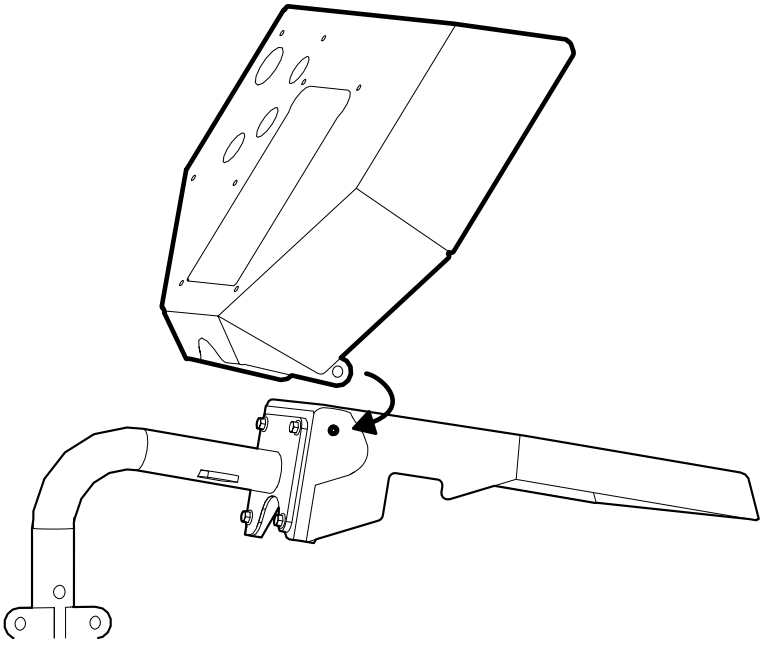
2 x  M6x10

1 x 

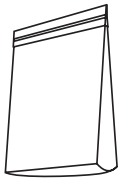


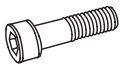
4. Hang the lid on the screws by slightly bending its ears outwards.

1 x 



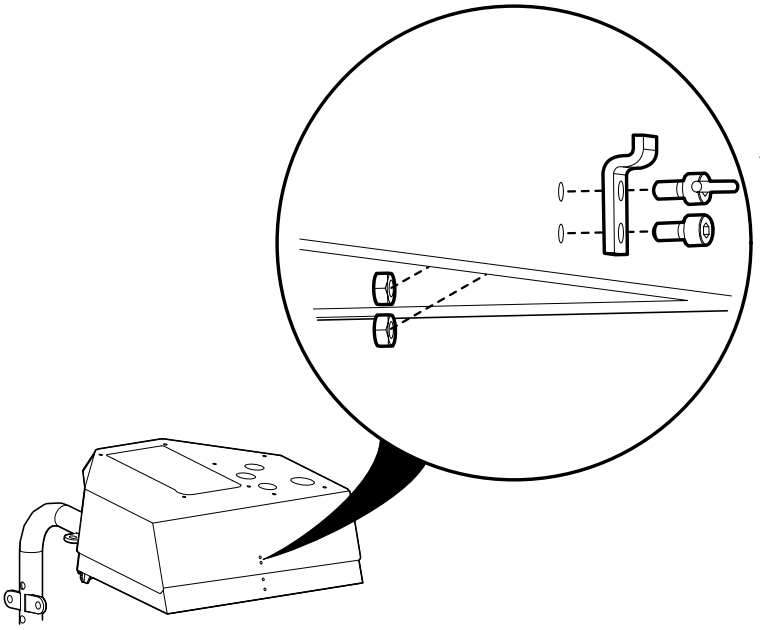
5.



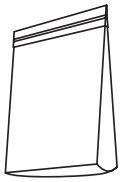
2 x  M4x8

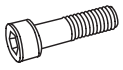
2 x  M4

1 x 

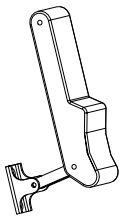


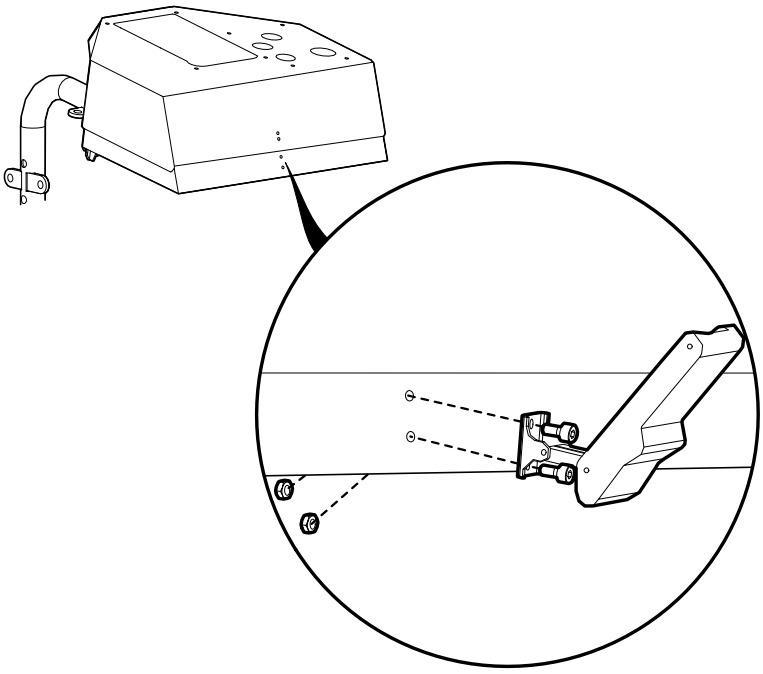
6.



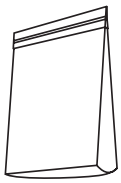
2 x  M4x8

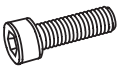
2 x  M4

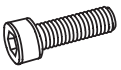
1 x 

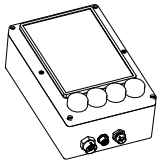


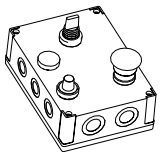
7. Fasten the consoles to the lid. Use the M4x20 screws to fasten the big console and the M5x20 to fasten the smaller consol.

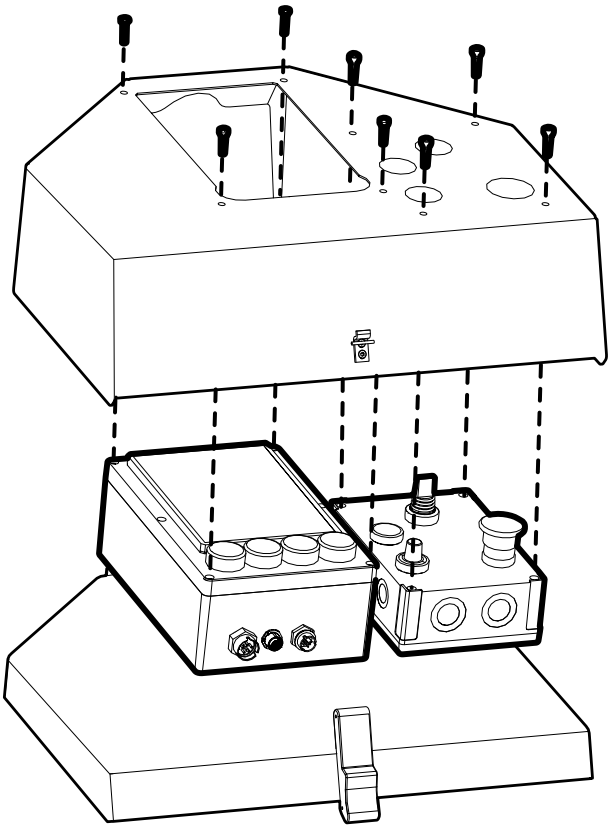


4 x  M5x20

4 x  M4x20

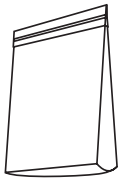
1 x 

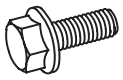
1 x 



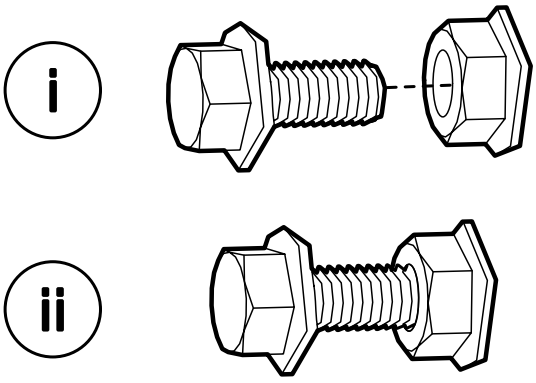
MOUNTING OF THE RAIL AND GUIDEBAR

1. Leave a distance between the bolt head and the nut. This distance should be 8-10 mm.

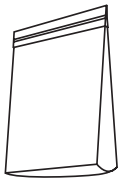


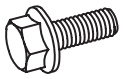
1 x  M8x16

1 x  M8



2. The rail sections should be fitted so that they overlap each other. The last short rail section should be fitted the same way as the first one.

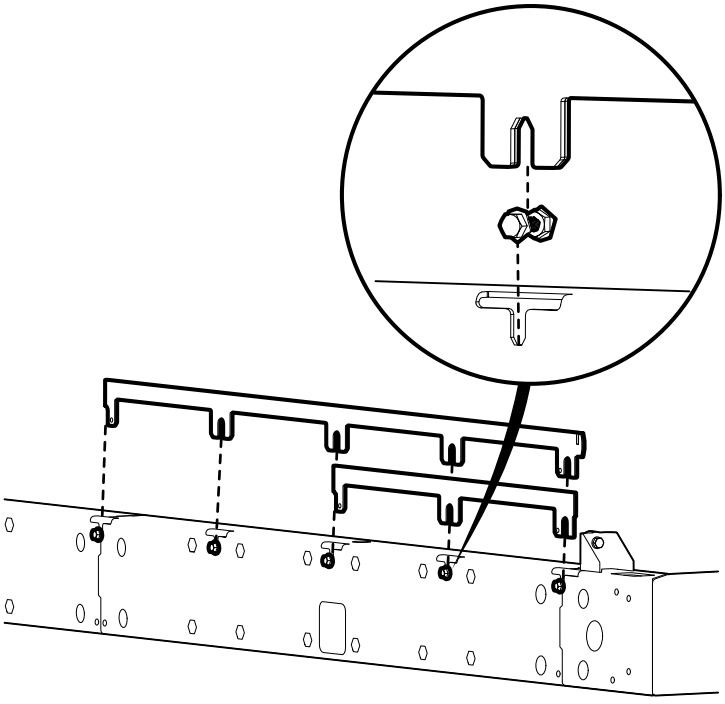


21 x  M8x16

21 x  M8

1 x  602mm

1 x  1195mm

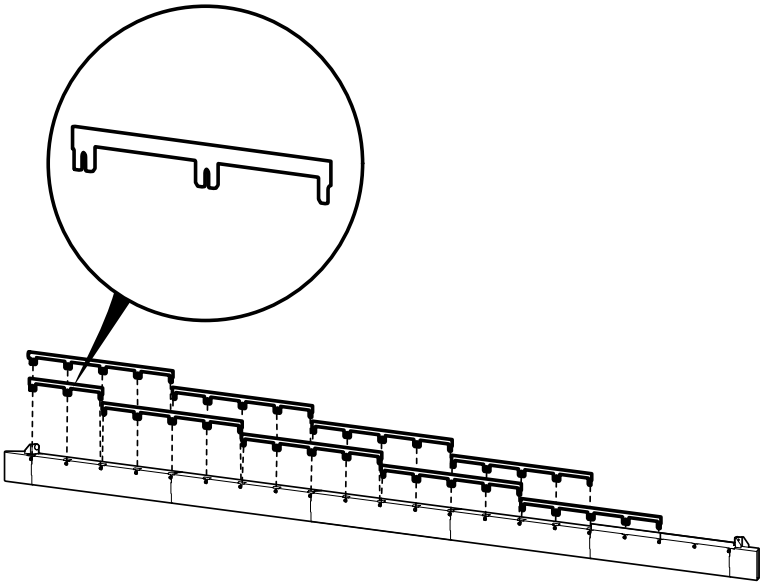


3.

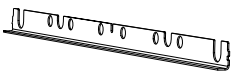
1 x  602mm

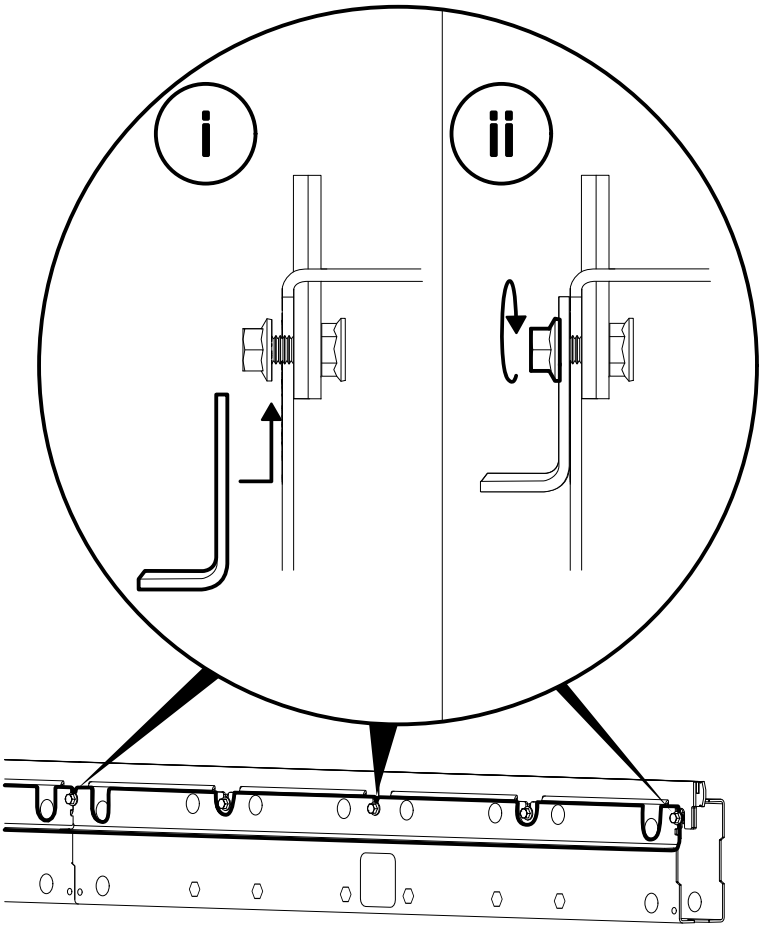
1 x  1195mm

7 x  1156mm



4. After the rails have been positioned, slide the guide bars in place along the rail pipe and tighten the bolt with your fingers. Make sure the guidebar is pushed all the way up and aligned at the bottom.

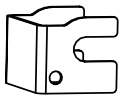
5 x 

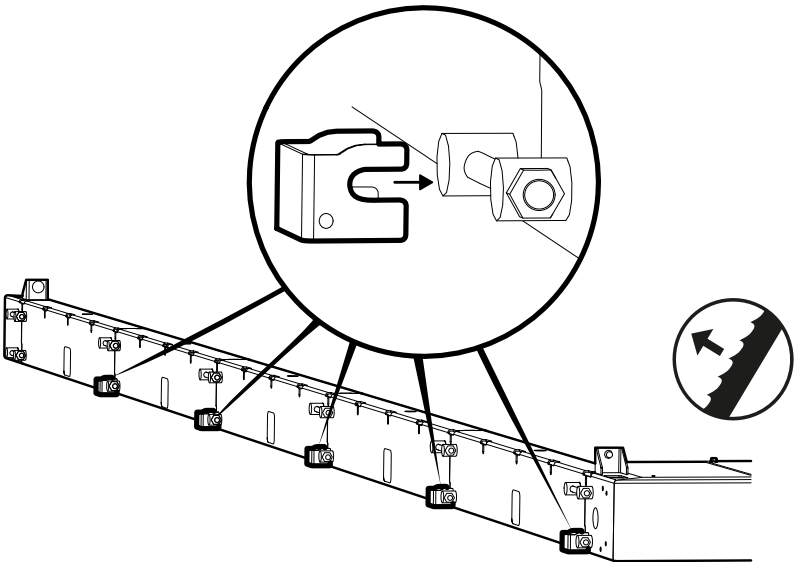


5. Repeat the installation on the other side. See step 1-4 above.

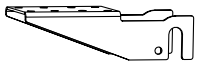
MOUNTING OF THE CABLE RAIL

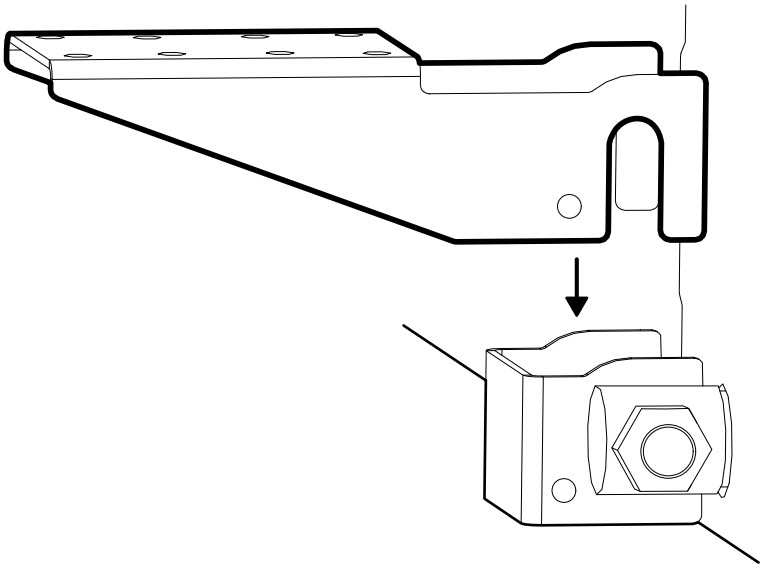
1. Please note the direction of the saw blade before assembling the following steps.

5 x 

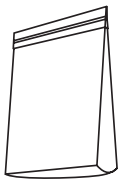


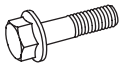
2.

5 x 

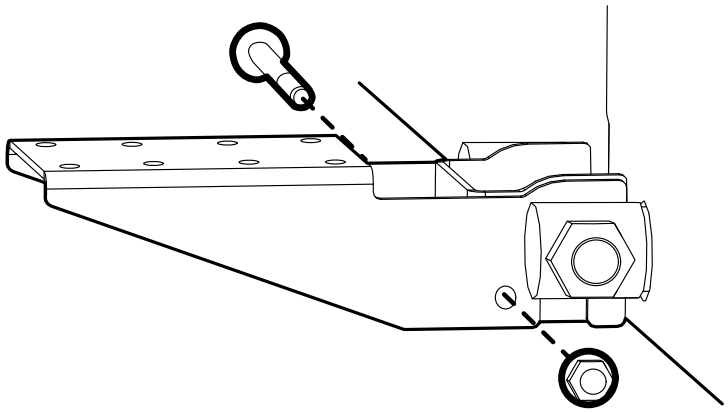


3.

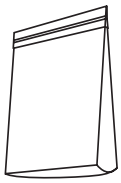


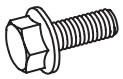
5 x  M6x70

5 x  M6

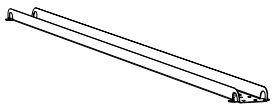


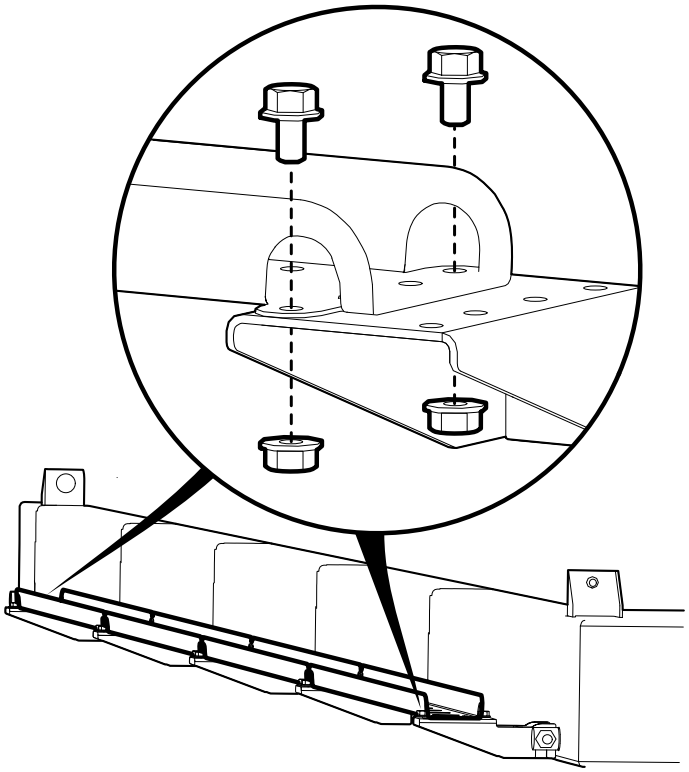
4. Lay the cable rail base on top of console brackets and attach the screws.



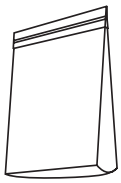
4 x  M6x10

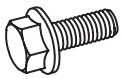
4 x  M6

4 x 

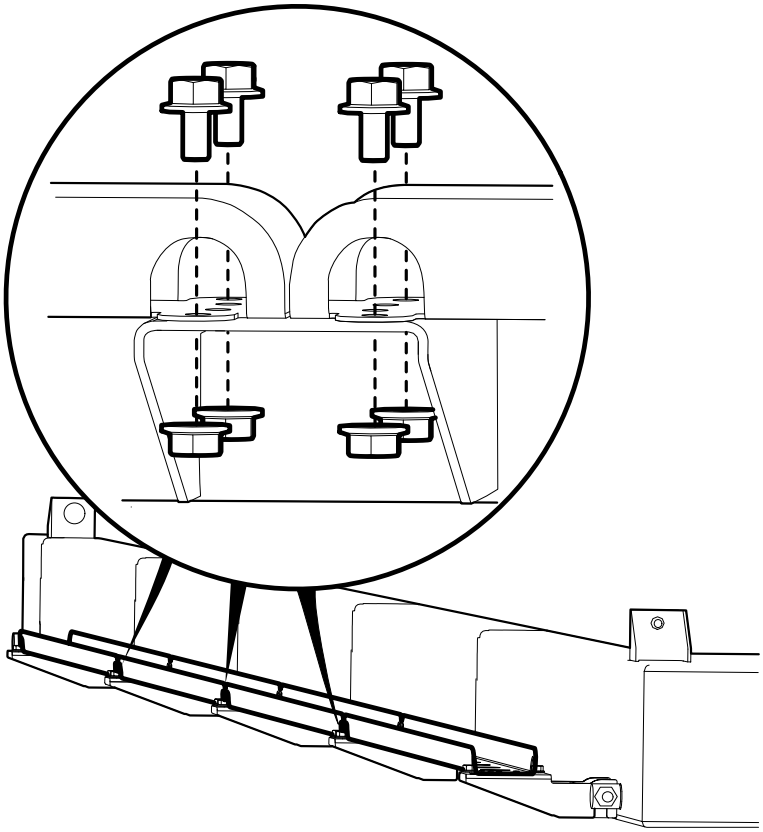


5.

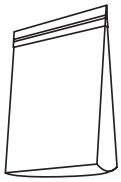


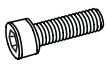
12 x  M6x10

12 x  M6



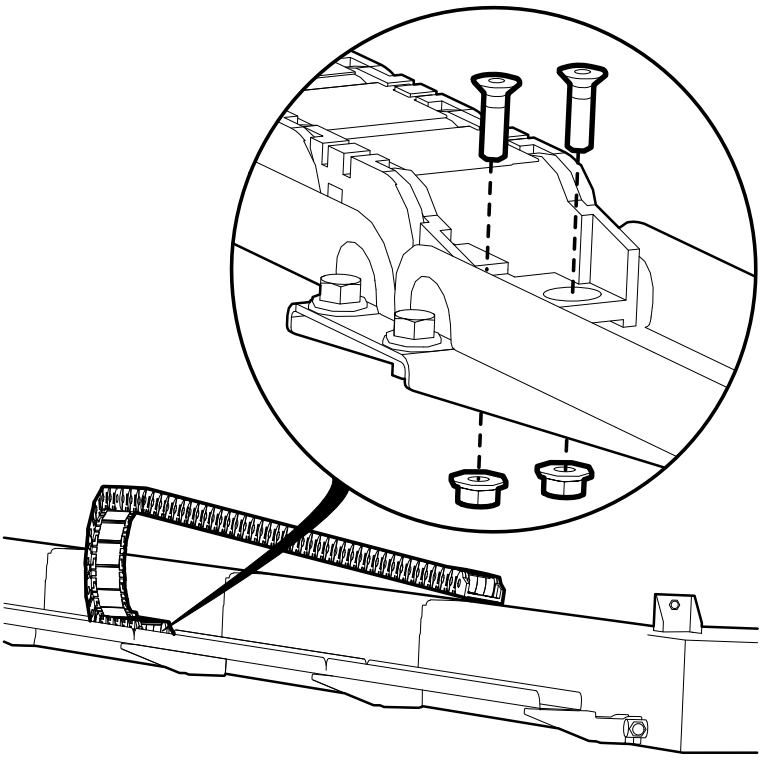
6. Attach the cable holder to the cable rail base.



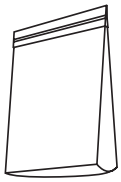
2 x  M8x16

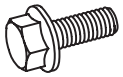
2 x  M8

1 x 

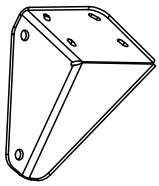


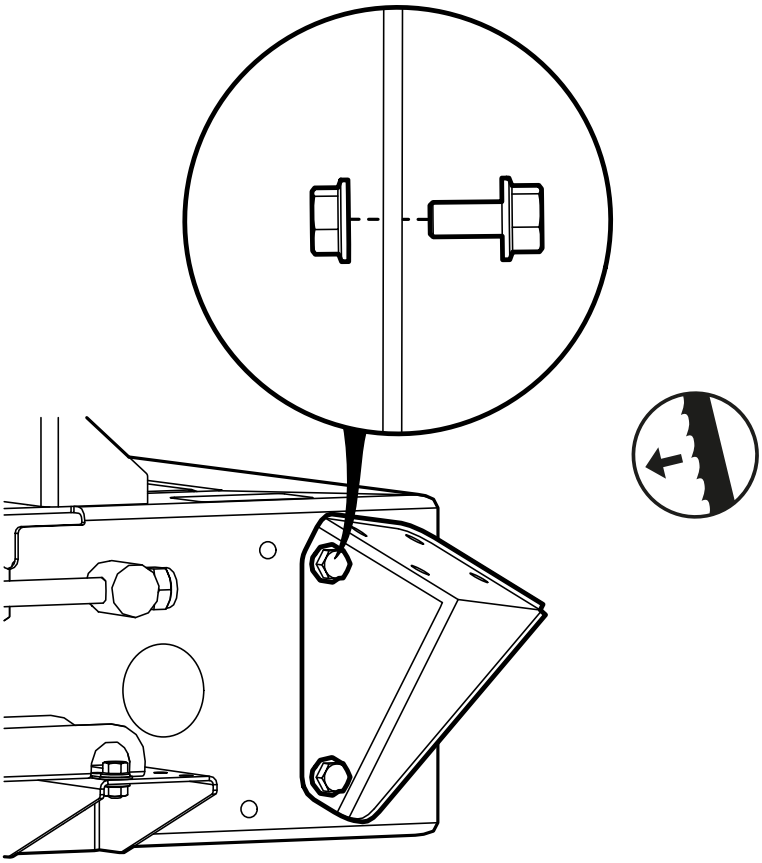
7. Attach the inlet holder to the rail pipe edge piece, next to the cable rail base.



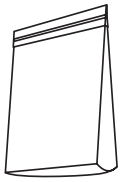
2 x  M8x16

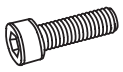
2 x  M8

1 x 

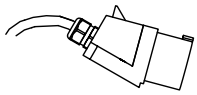


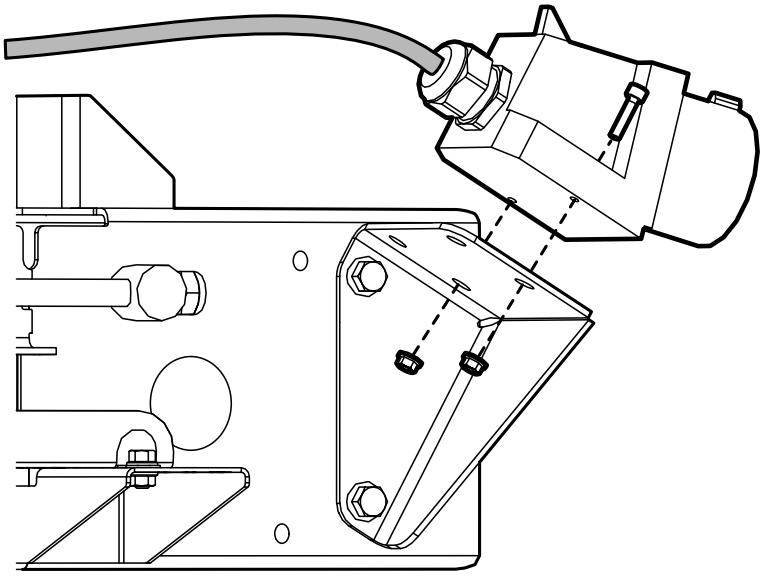
8.



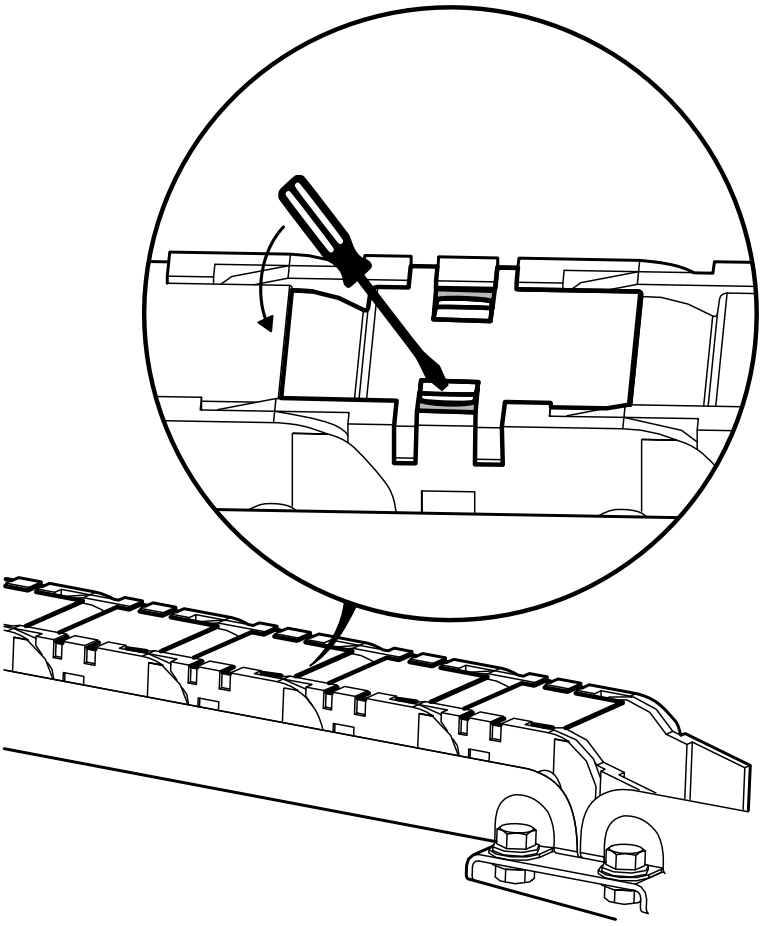
2 x  M5x20

2 x  M5

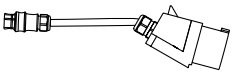
1 x 

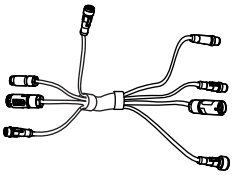


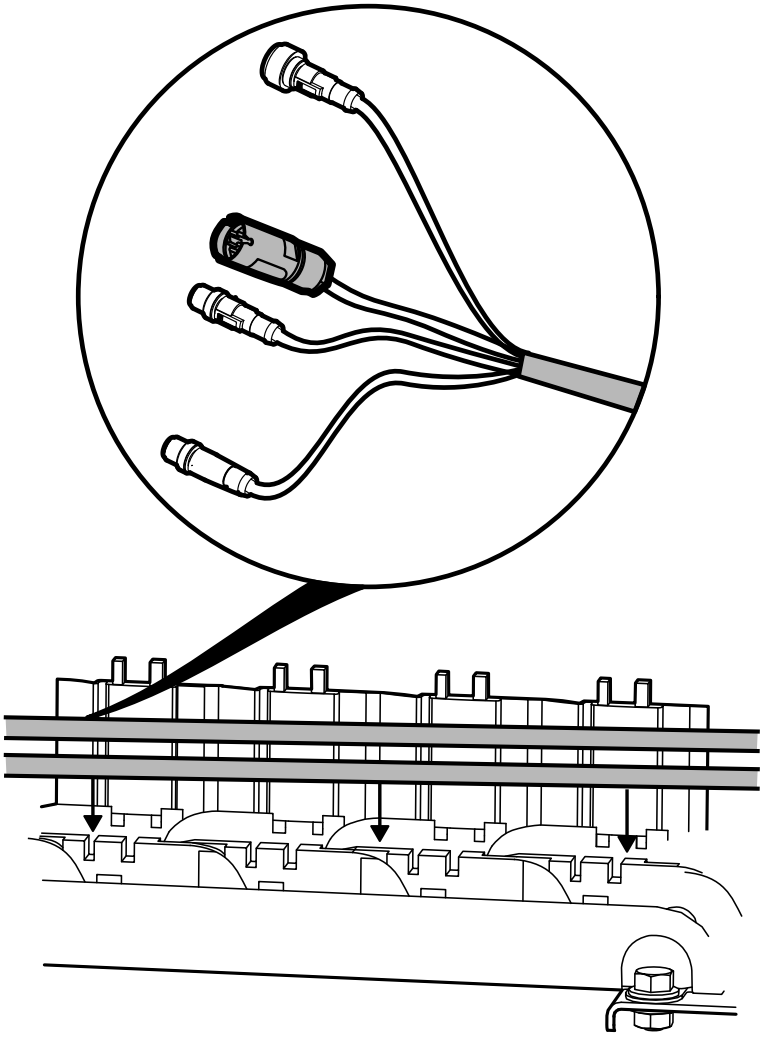
9. Lay the cable holder out flat and open the lids with a flathead screwdriver. Stick the screwdriver against the wall above the latch and bend downwards.



10. Insert the power cable and the signal cable into the cable holder. Align the cable ends together and make sure that there is at least 60-70 cm of cable extending beyond the end of the holder. Make sure the cables are straight and oriented correctly by placing the biggest, male coded connector beyond the cable holder end, furthest away from the power inlet in step 8. Close the lids again.

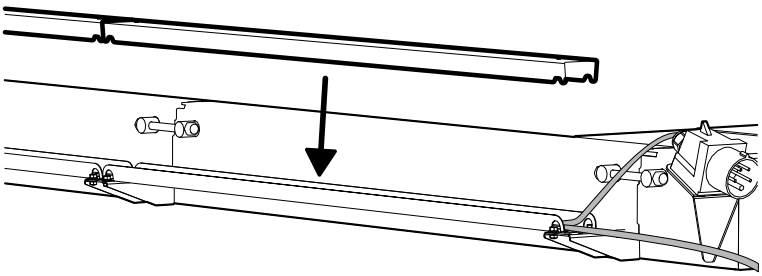
1 x  6m

1 x  10m

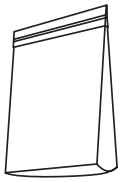


11. Cover up the rest of the cables in the rail base using the protection covers.

2 x 

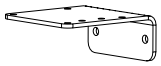


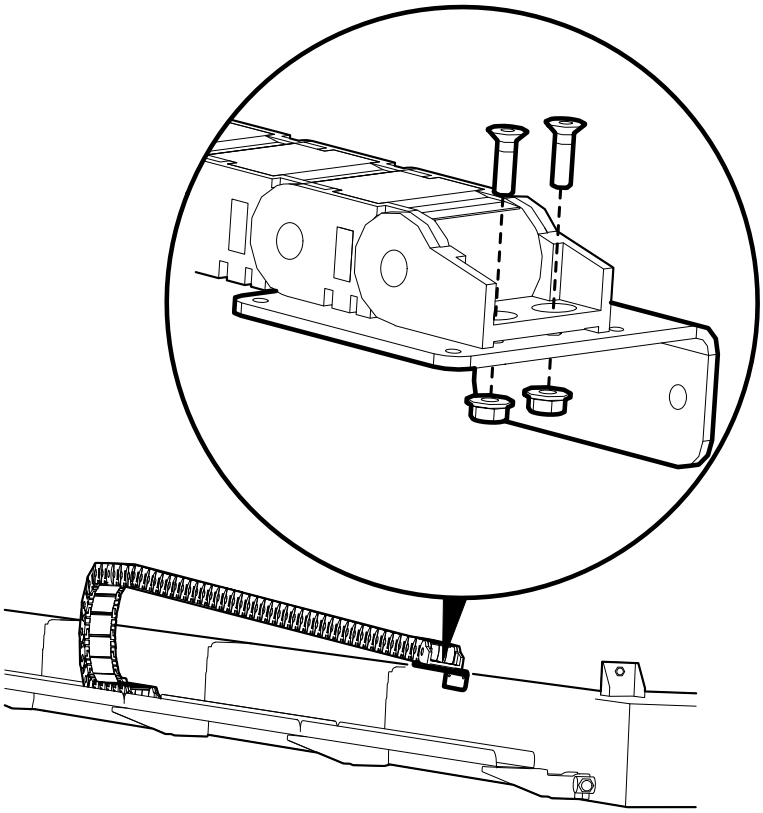
12. Fold the cable holder back up and attach the connector plate. Leave it hanging there until later.



2 x  M6x20

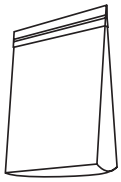
2 x  M6

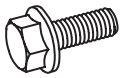
1 x 



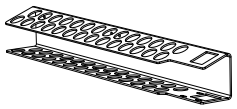
MOUNTING OF THE LOG TENSION PROFILE

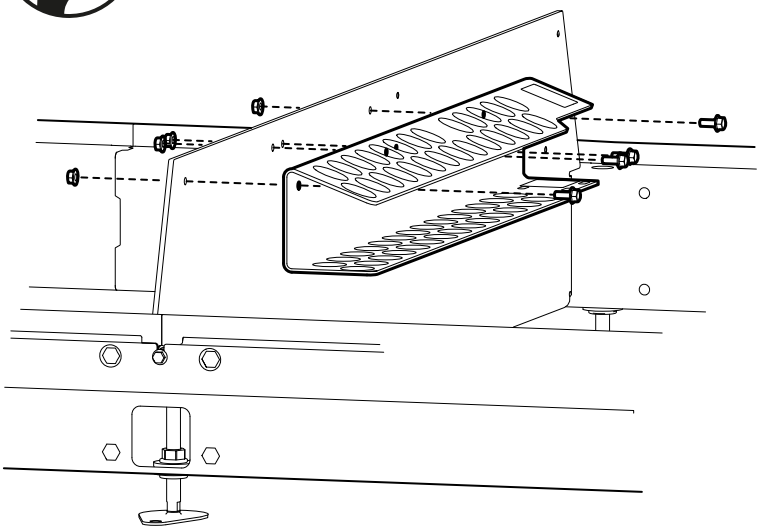
1. Fit the log tensioning profiles on the side of the cross bunk with no reinforcement. We recommend installing the profiles on cross bunk 1 and 3.



4 x  M8x20

4 x  M8

1 x 



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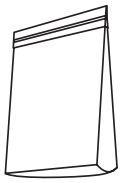
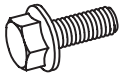
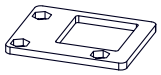
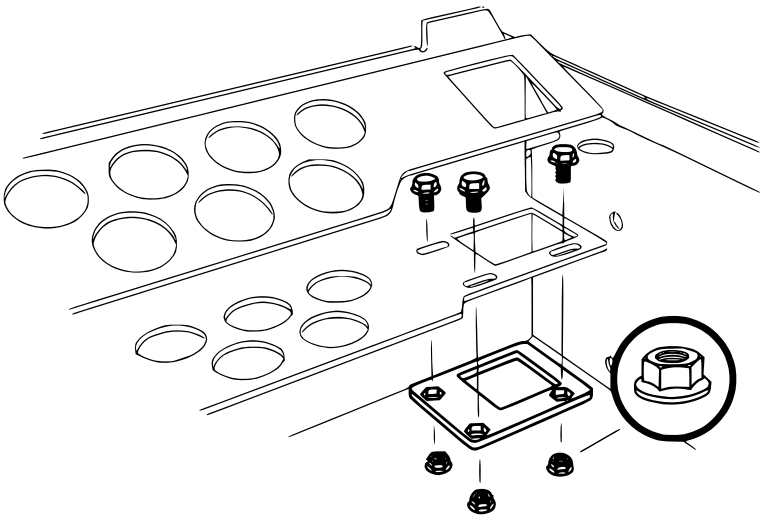


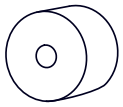
3 x  M8x14

3 x  M8

1 x 



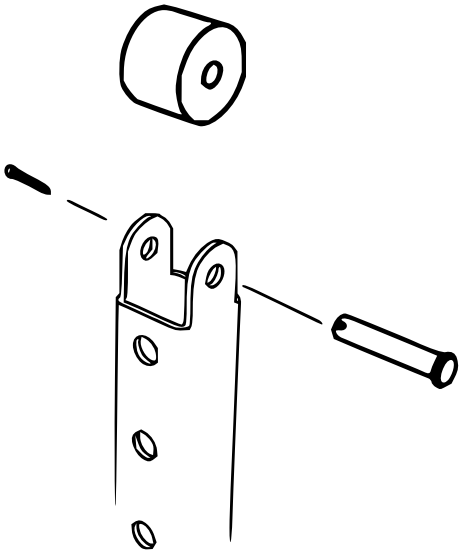
3.

1 x 

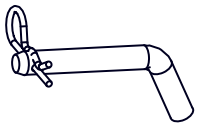
1 x 

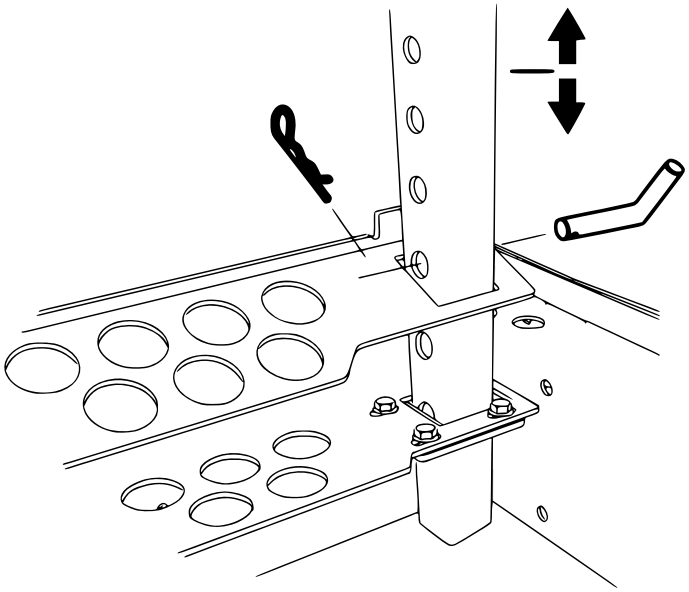
1 x 

1 x 

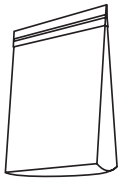


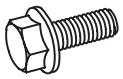
4. The height of the log support is adjusted using the holes and is locked in place with the pin.

1 x 



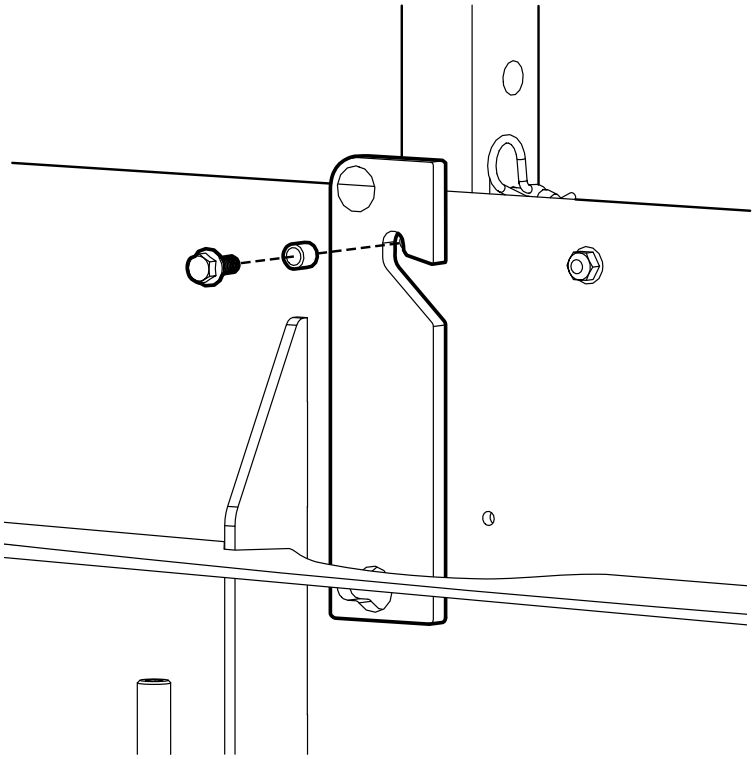
5.



1 x  M8x20

1 x  8.5x12x11

1 x 



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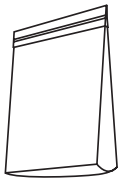
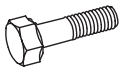
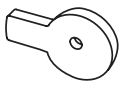
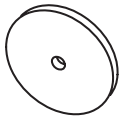
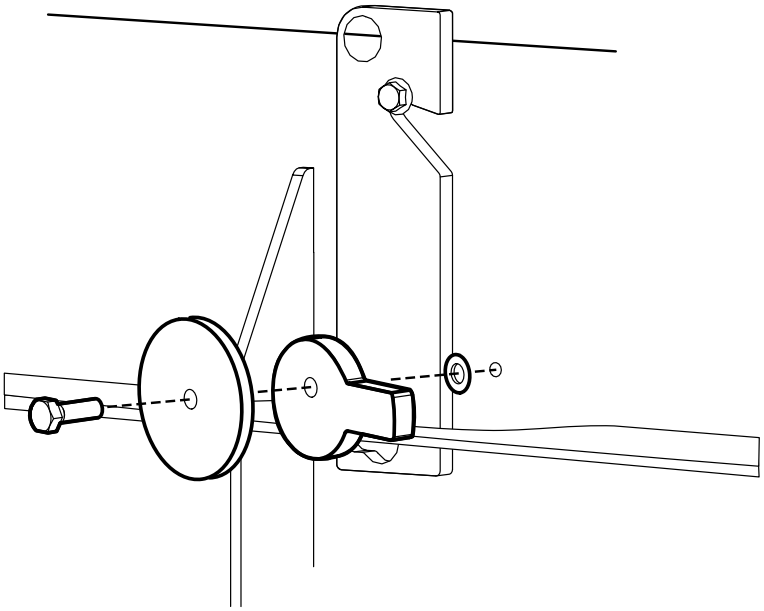


1 x  M8x25

1 x  M8

1 x 

1 x 



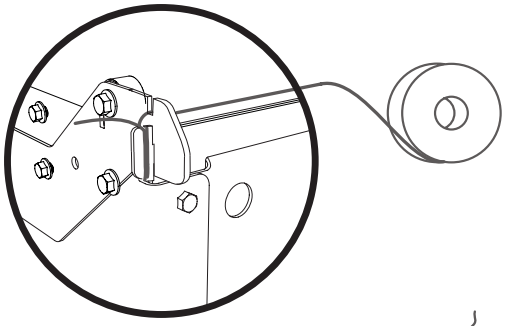
7. Repeat the steps 1-6 for the second log tension profile.

ADJUSTING THE RAIL FRAME

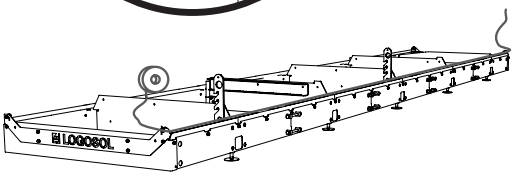
TIP
Use shims under the rail sections, so that they stay in the right position while you are tightening the bolts.

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

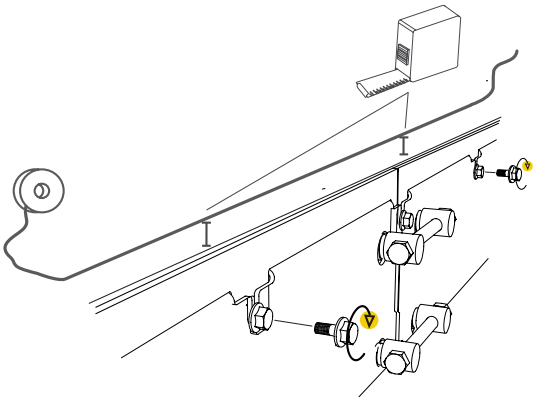
Measure along a string to check that the distance between the string and the rail is the same along the whole rail. To adjust the levelness of the rail, move the rail sections up or down at the points where the rail is not level.

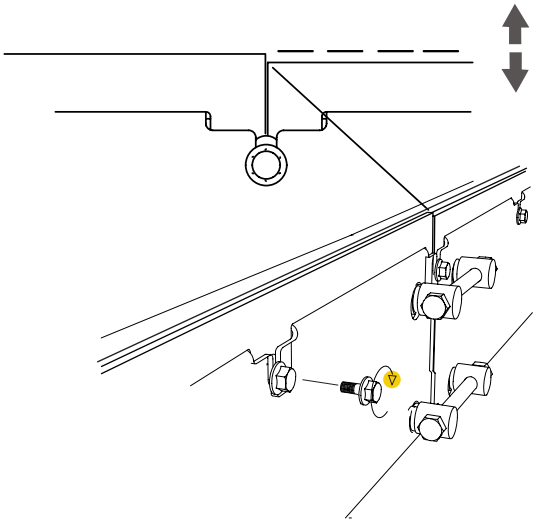


When the rail is adjusted level, check that all the rail sections are level at the joints and that the inner and outer rail sections are at the same height. All joints should be as level as possible.



Adjust and tighten the bolting step by step. 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.





SAW HEAD

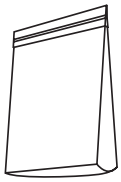
The saw head is partly assembled when supplied. The rail bar tipping wheels must be installed as soon as the saw head has been placed on the rail. After installing the tipping wheels, to ensure proper functioning of the sawmill the machine must be finally assembled and adjusted as described in the adjustment sequence provided in the manual.

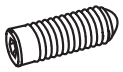
MOUNTING OF THE SAW HEAD ON THE CARRIAGE

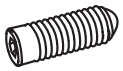
Steps 1-7 will be performed on both sides of the carriage simultaneously

WARNING!
Heavy lifting. Risk of injury.

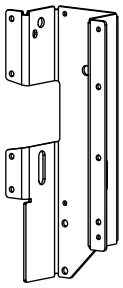
1. Mount the shroud on the carriage.

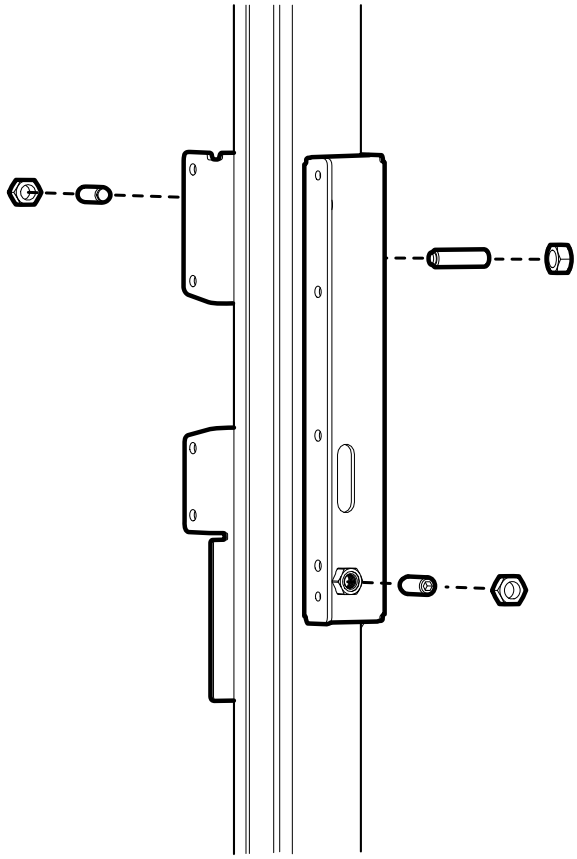


1 x  M12x40

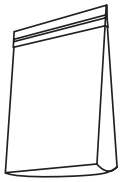
2 x  M12x32

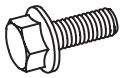
3 x  M12

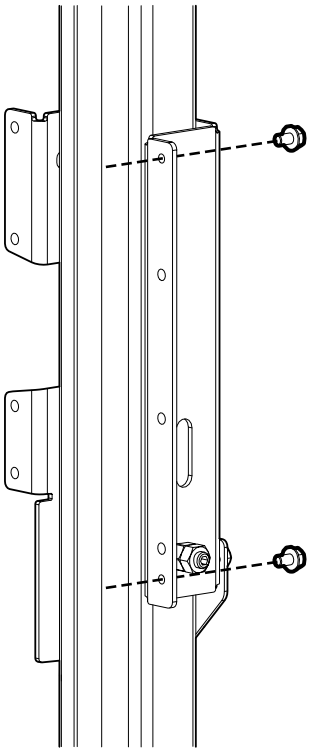
1 x 



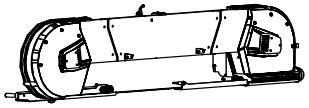
2. Enter the screws from the outside of the carriage.

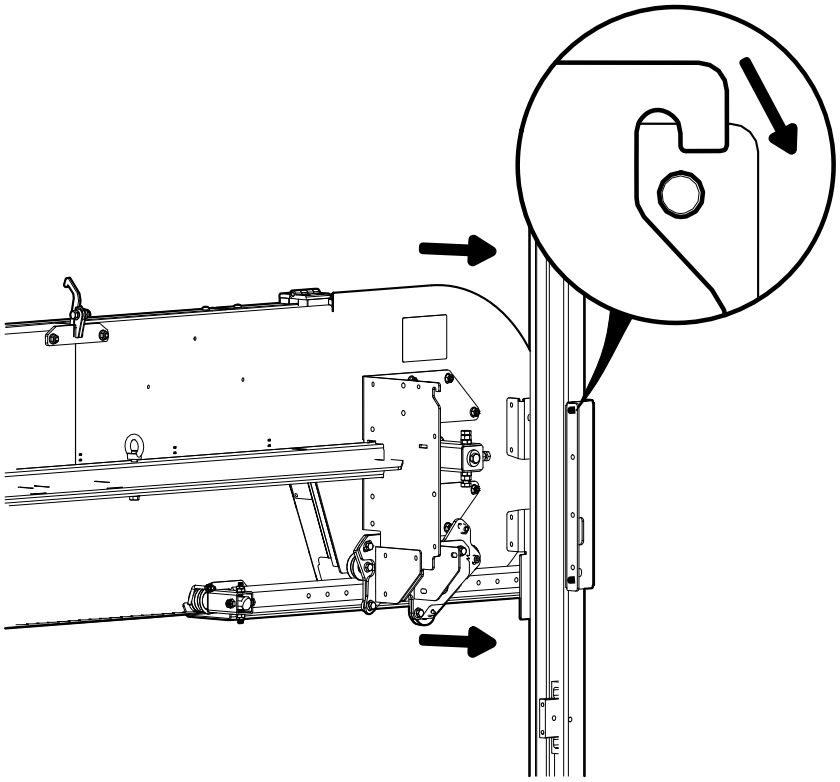


2 x  M8x12

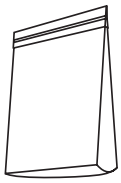


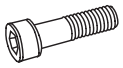
3. Lift the saw head and hang it on the screws from step 2.

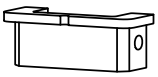
1 x 

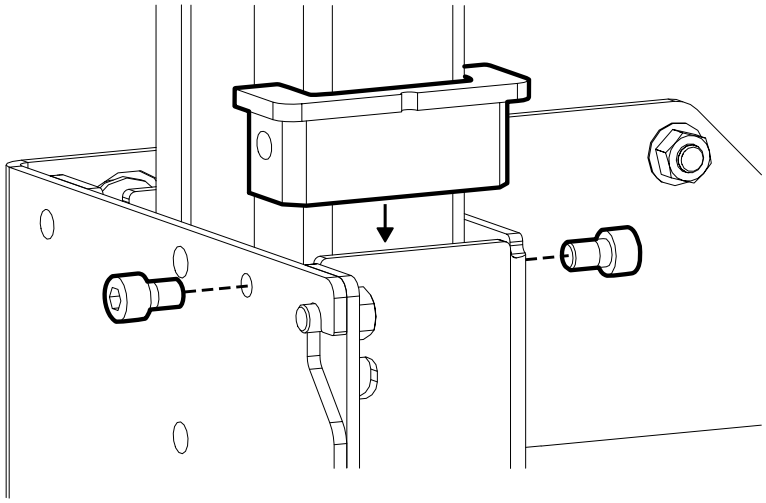


4. Enter the pylon bushing from above and fasten it from the sides.



2 x  M8x12

1 x 



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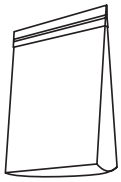
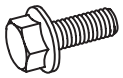
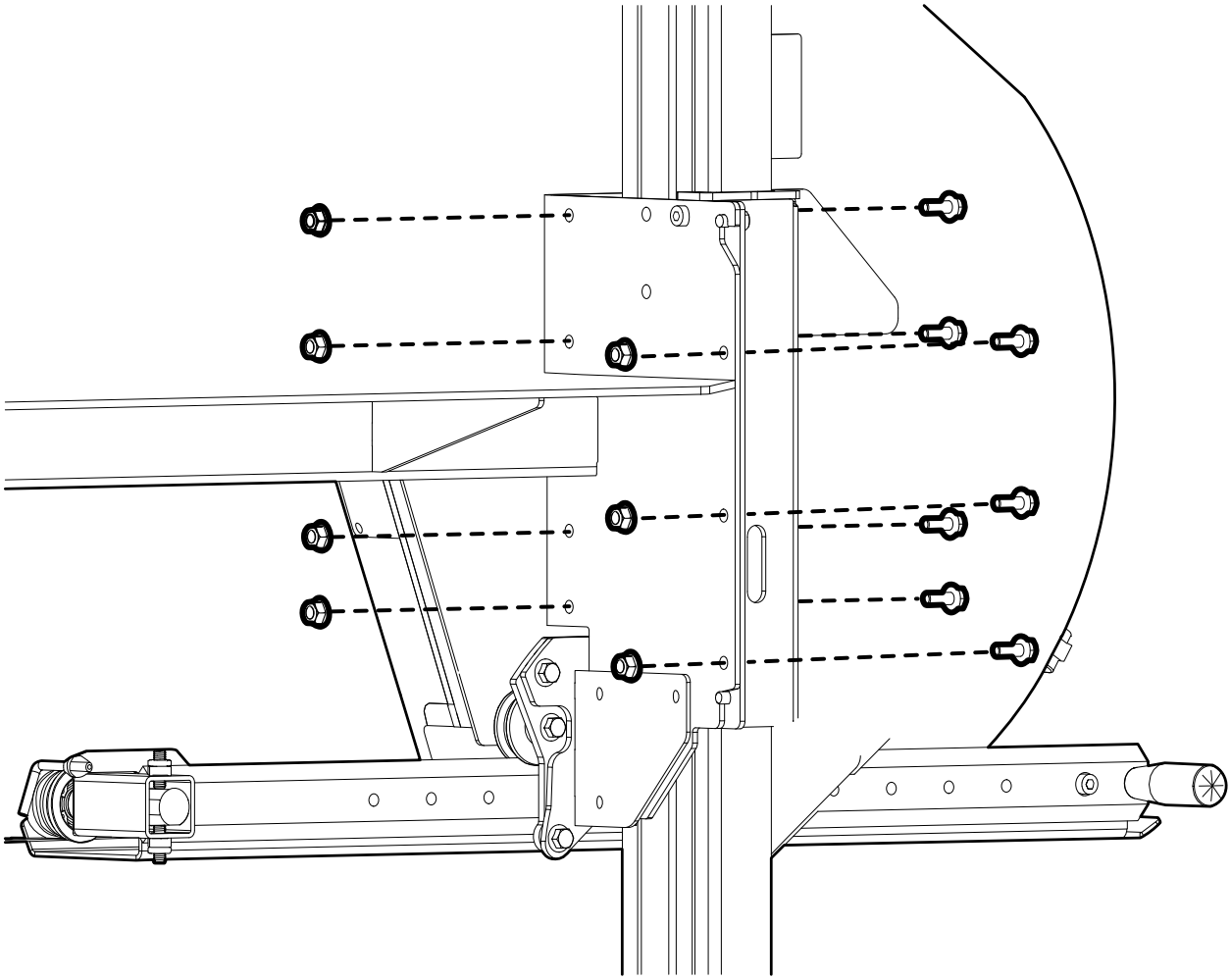
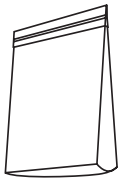


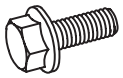
7 x  M8x20

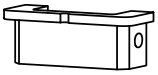
7 x  M8

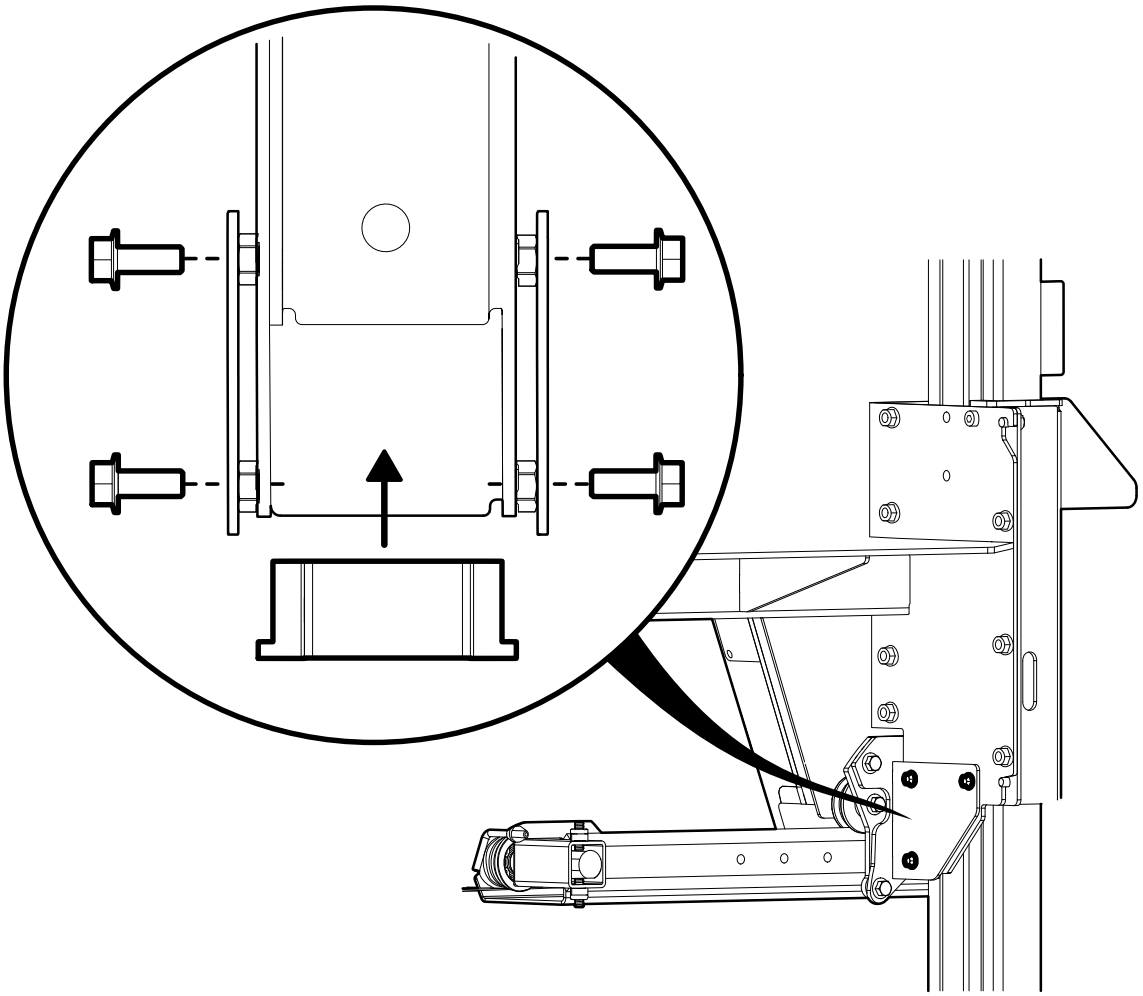


6. Enter the pylon bushing from below and attach it to the sides.

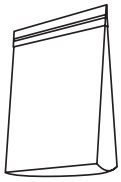


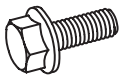
6 x  M8x20

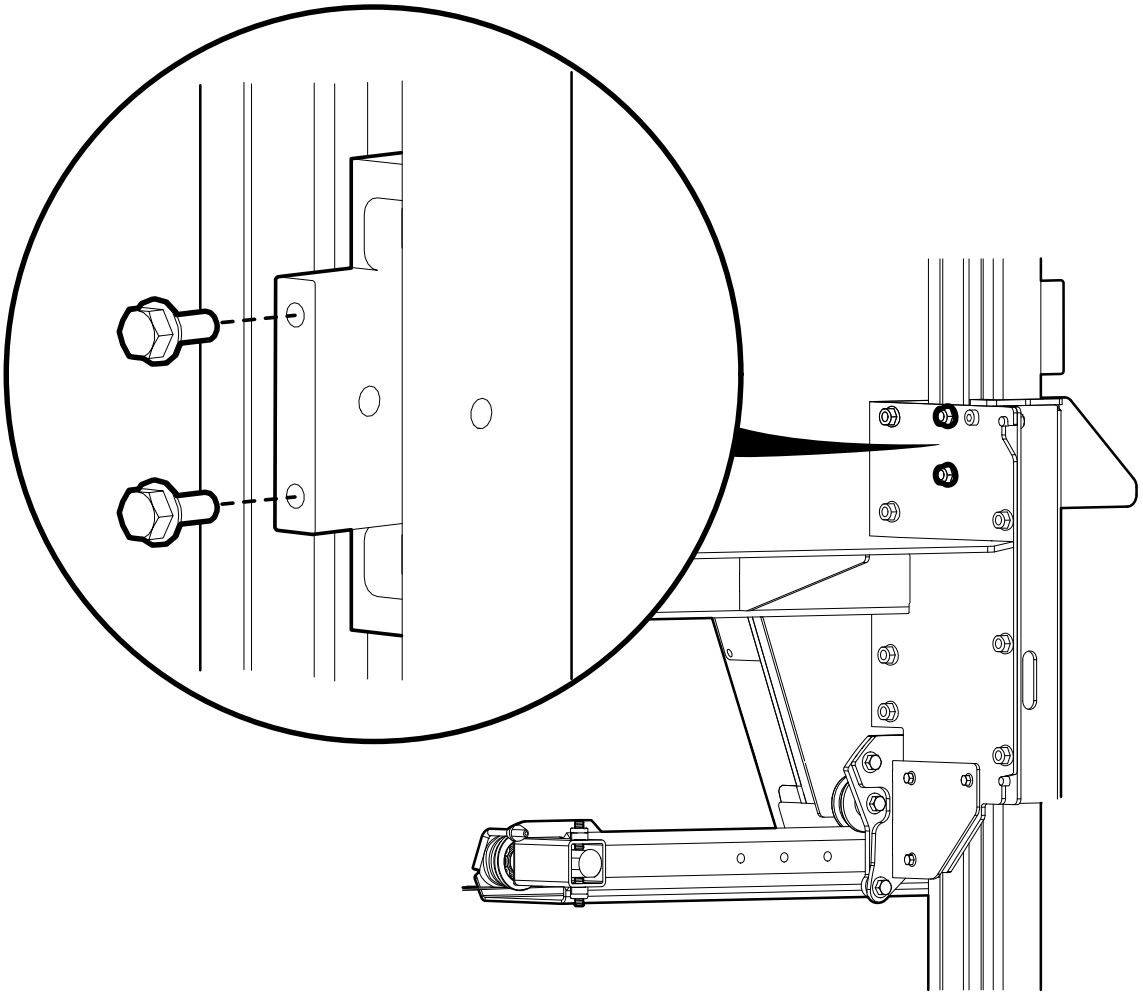
1 x 



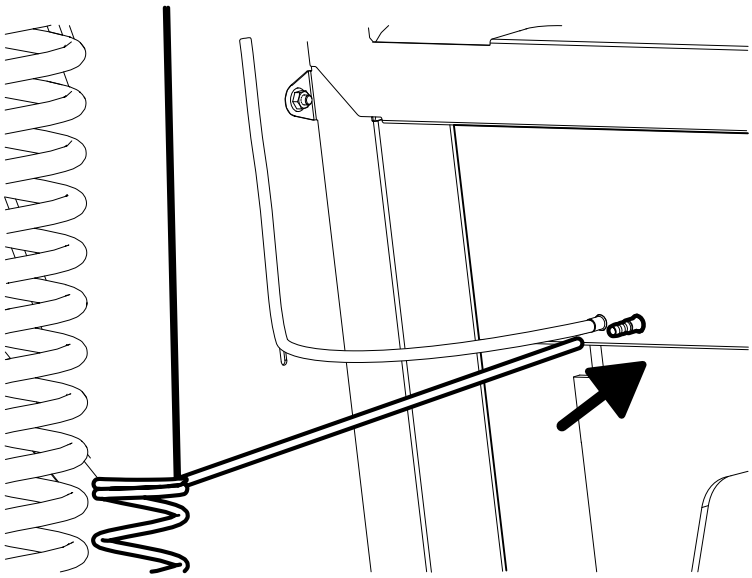
7.



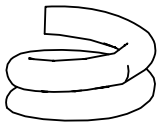
2 x  M8x20

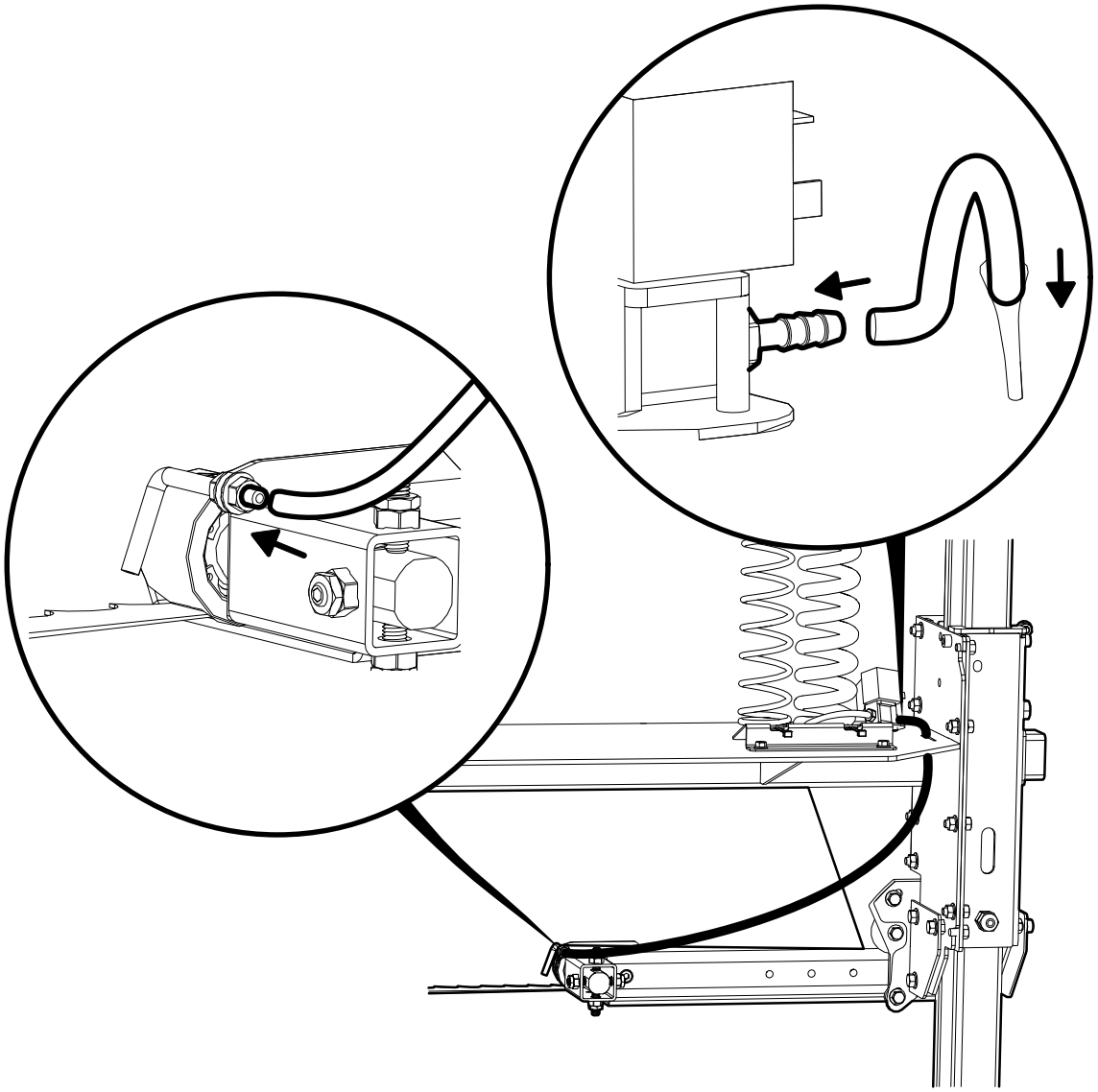


8. Tie the polyester string that is hanging from the top of carriage to the blue hose that is placed on the motorshelf. Attach the hose to the valve on the water tank.



9. Attach the hose to the valve on the motorshelf. String the hose down the hole in the motorshelf and connect at the end of the blade guard.

1 x  1.5m



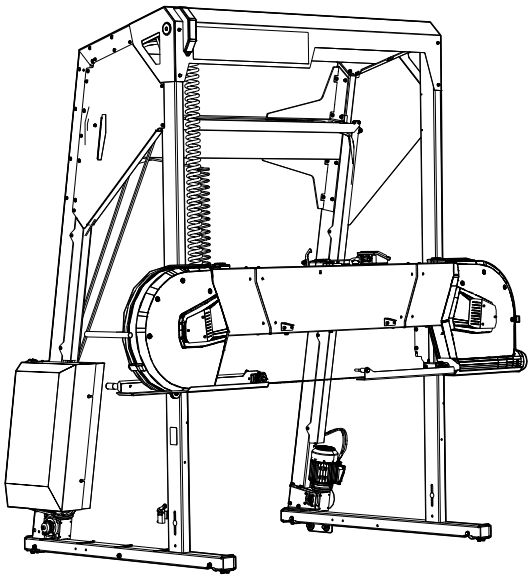
IMPORTANT
It is important to adjust the saw head before starting to ensure satisfactory sawing and the correct functioning of the sawmill.

Carefully follow the adjustment sequence! Certain adjustments affect other machine settings.

WARNING!
Overturning hazard! Critical assembly.

IMPORTANT
Take time to ensure that the saw carriage surrounds the rail.

CARRIAGE AND SAW HEAD WEIGHT: 350 KG

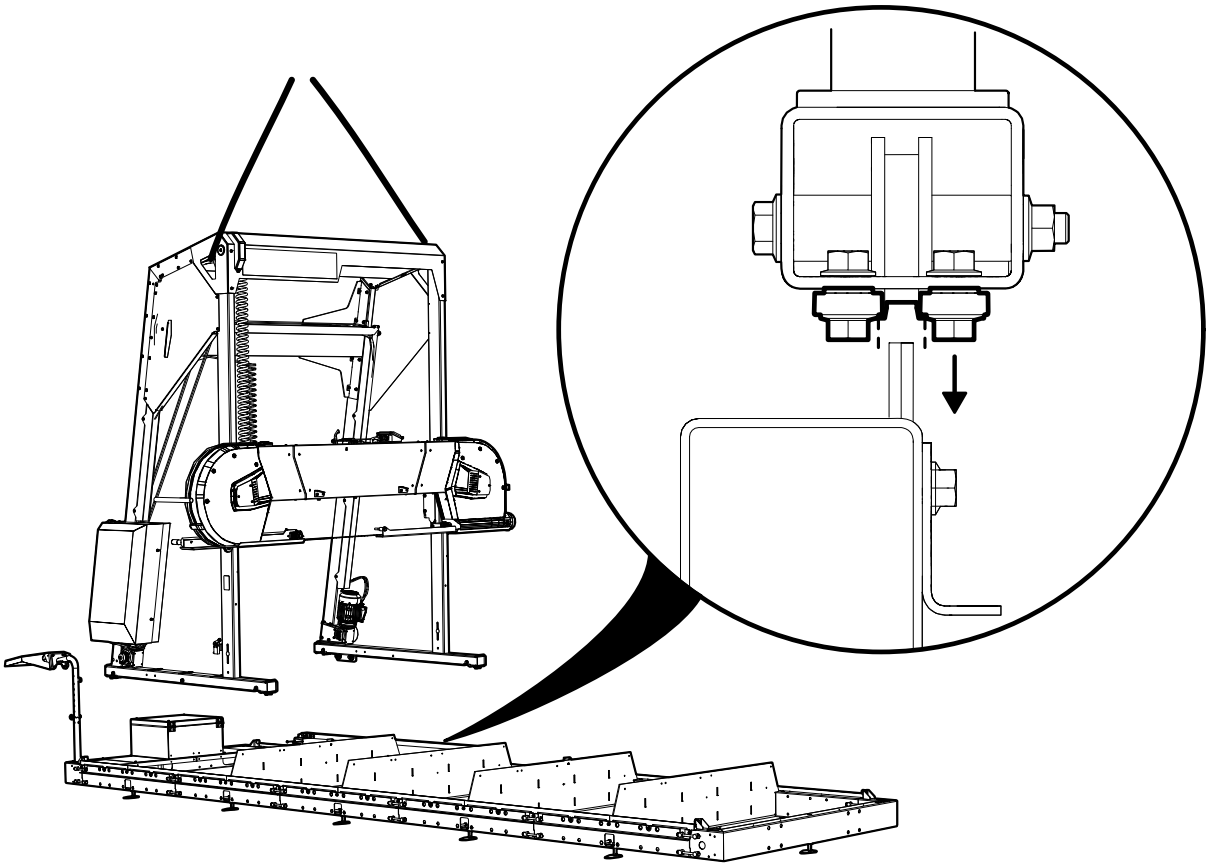


MOUNTING OF THE SAW HEAD ON THE RAIL FRAME

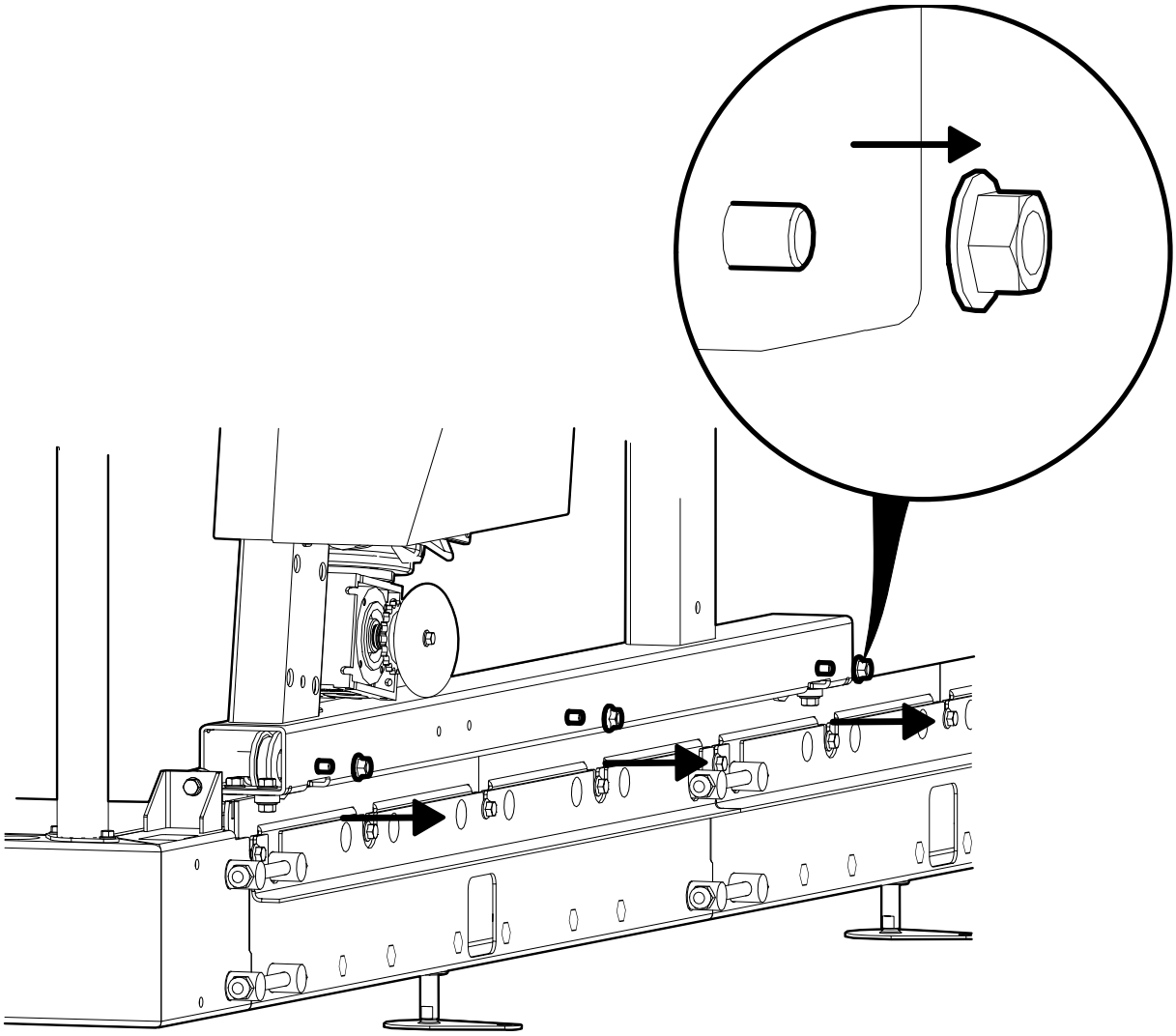
Lift the saw head into place on the rail. The carriage and saw head weighs 350 kg in total. Use a sling approved for the purpose and attach to the saw head's lifting points. Lift the saw head using the appropriate lifting gear

IMPORTANT

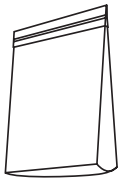
The anti-tip wheels must be mounted on the underside of the saw carriage when the saw head is mounted on the rail.



1. Start by removing the flange nuts on the outside of the bogie tube. Leave the bolts where they are. They will be needed for installation later.



2. Fit the wheels and the cogs to the anti-tip plate.



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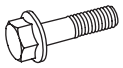
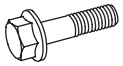
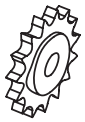
2 x  M10x40

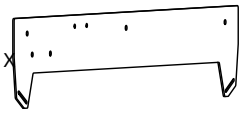
4 x  M10

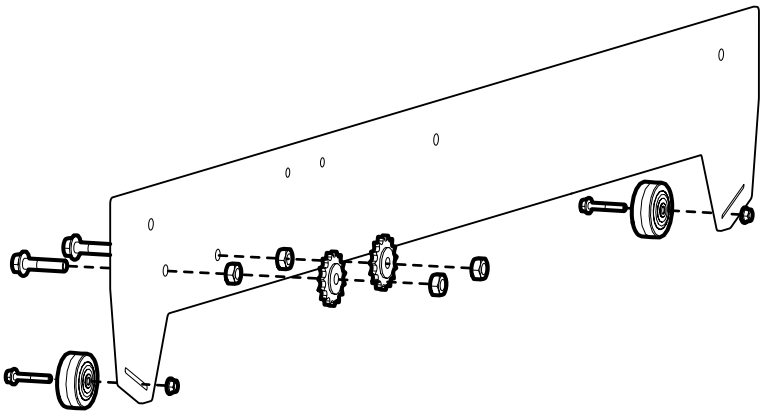
2 x  M6x35

2 x  M6

2 x 

2 x 

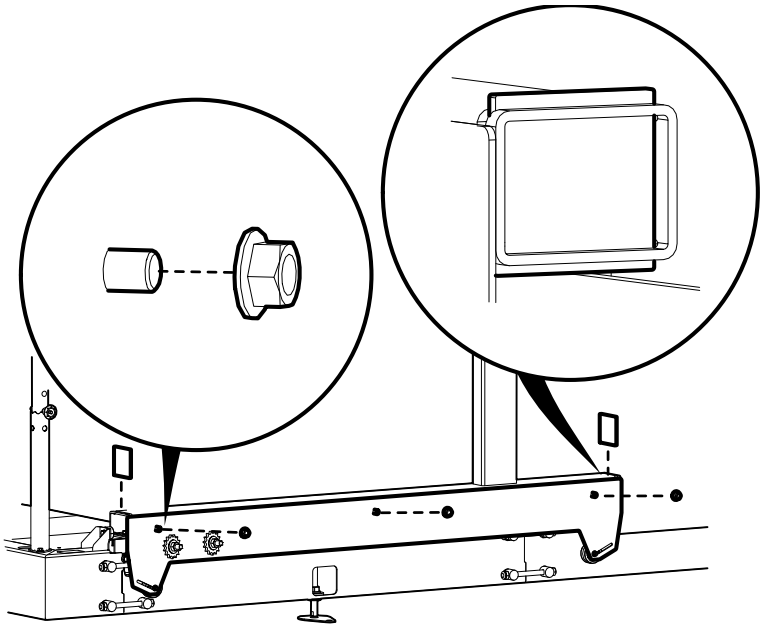
1 x 



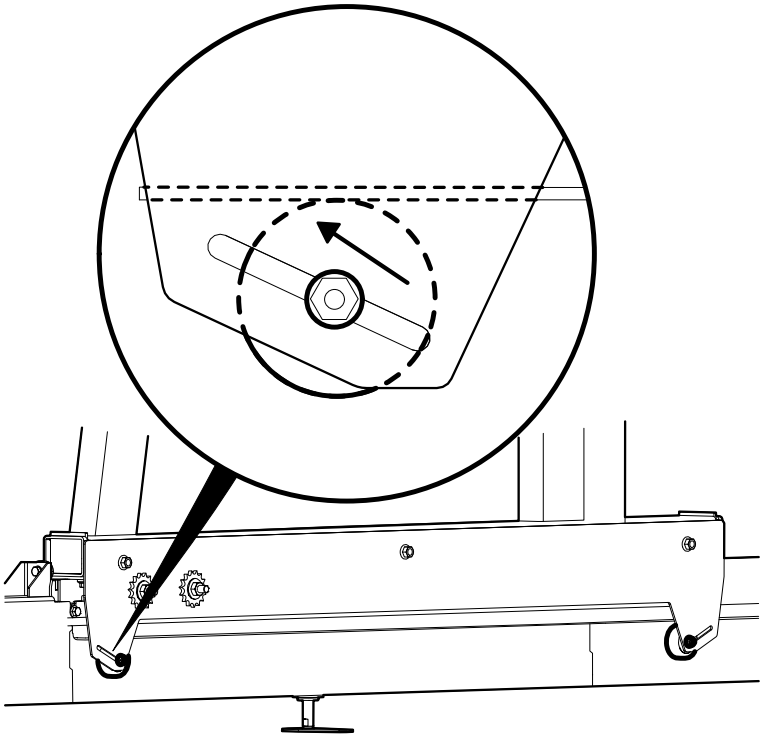
3. Fit the anti-tip plate on the bogie tube and use the existing nuts from step 1. Fit the rail cleaners by the ends of the bogie tube.

3 x  M10

2 x 

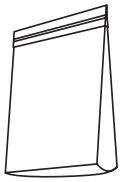


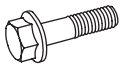
4. Tighten the anti-tip wheels by pushing them upwards in the inclined groove. Move them upwards so that they brace against the underside of the guide bar.



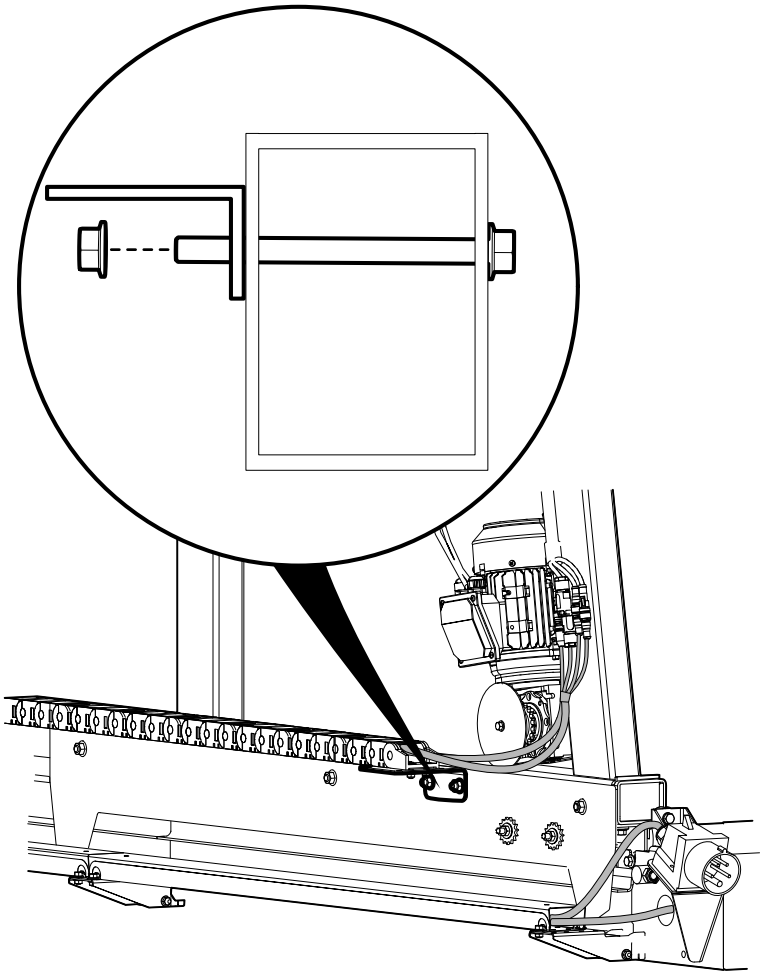
5. Repeat the installation and adjustment procedure seen in step 1-4 for the other side of the machine. Please note that the process will be mirrored.

6. Attach the cable holder connector to the bogie tube.

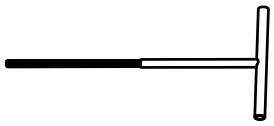


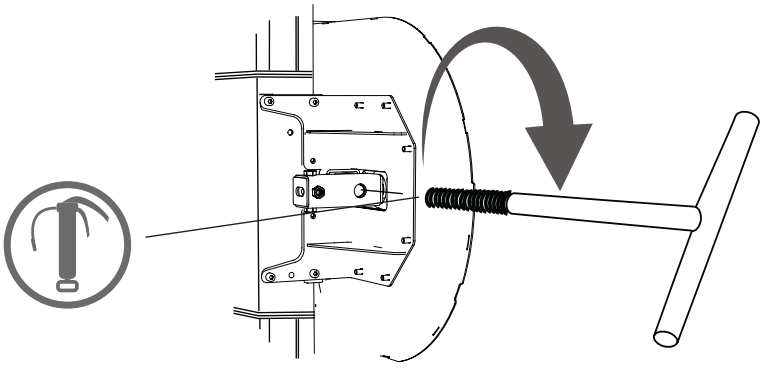
2 x  M8x100

2 x  M8

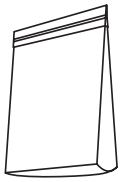


7. Fit the handle on the side of the sawhead.

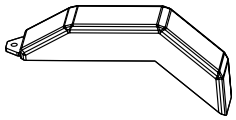
1 x 

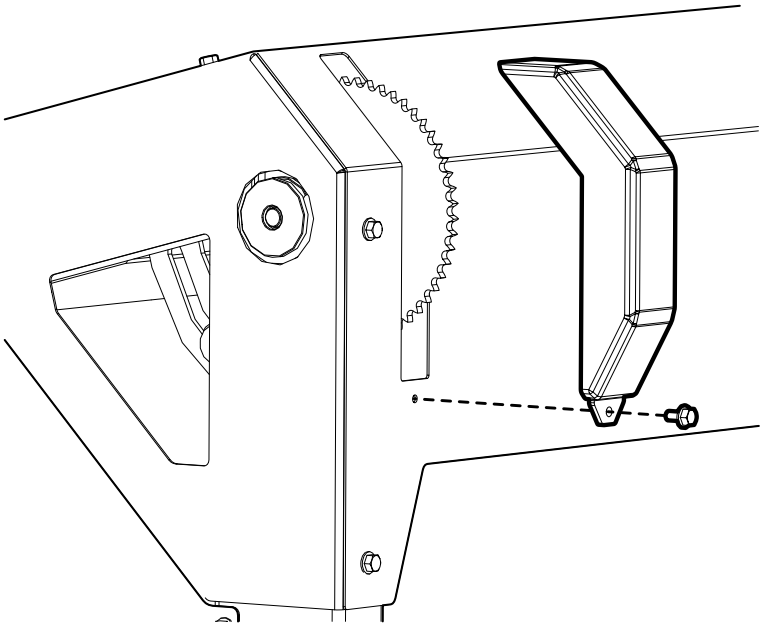


8. Attach the sprocket cover at the front of the carriage.



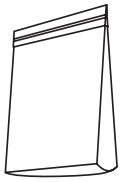
1 x  M6x12

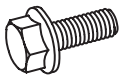
1 x 



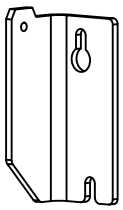
MOUNTING OF THE CHAIN

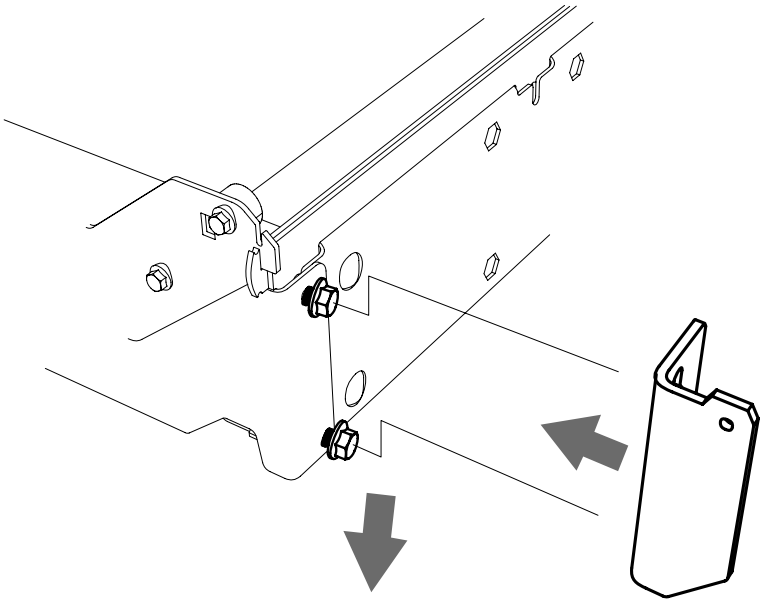
1. Attach the plate to the side of the rail pipe edge.



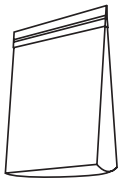
2 x  M8x20

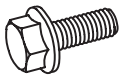
2 x  M8

1 x 

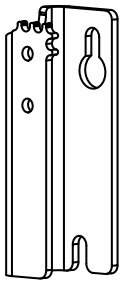


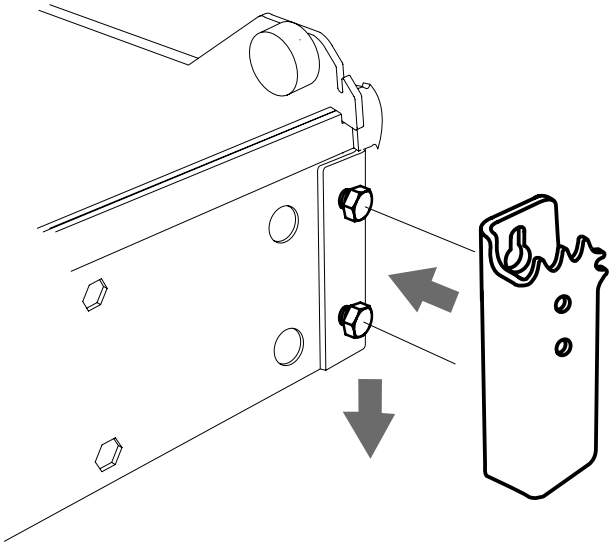
2. Attach the second plate to the other end of the machine.



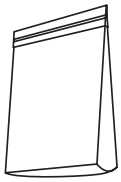
2 x  M8x20

2 x  M8

1 x 

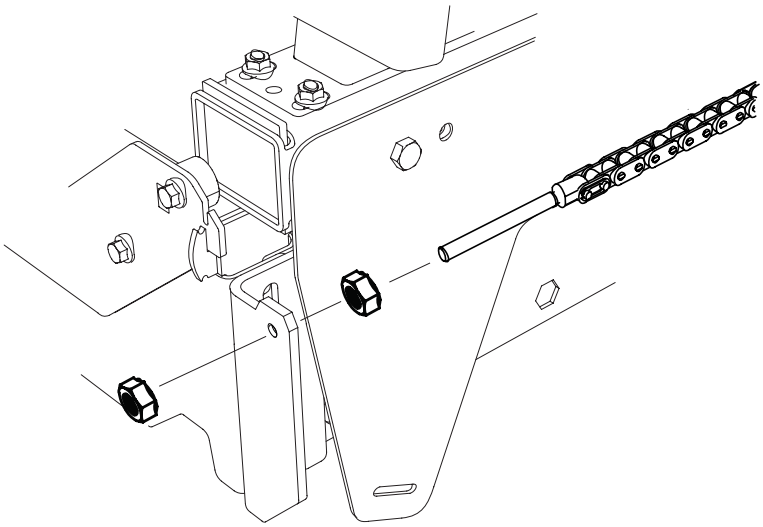


3. When assembling extensions of the log bed, extension chains 01-00536 should be used, one chain per extension.

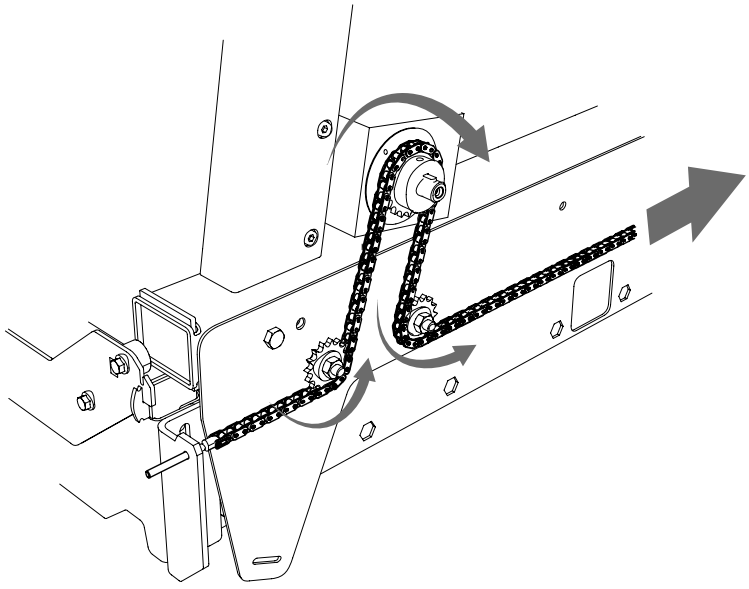


2 x  M6

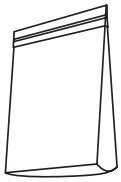
1 x 

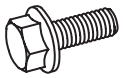


4.



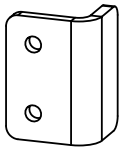
5. Tighten the supply chain manually as much as possible before it is mounted on the chain lock.

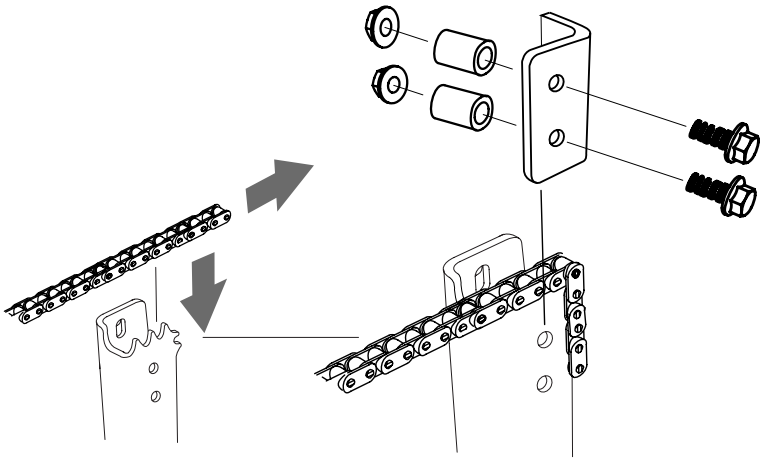


2 x  M6x30

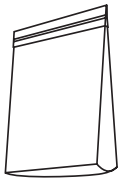
2 x  M6

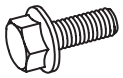
2 x  6.3x10x10

1 x 

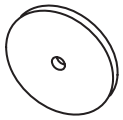


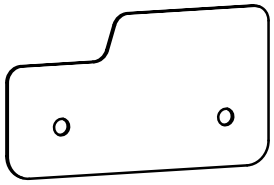
6.

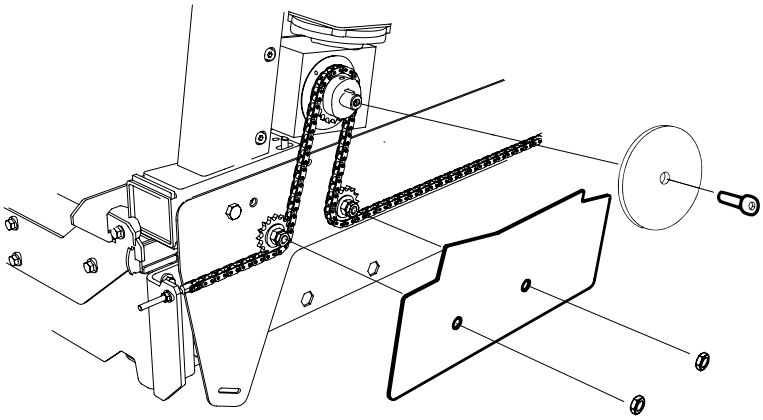


1 x  M6x16

2 x  M10

1 x 

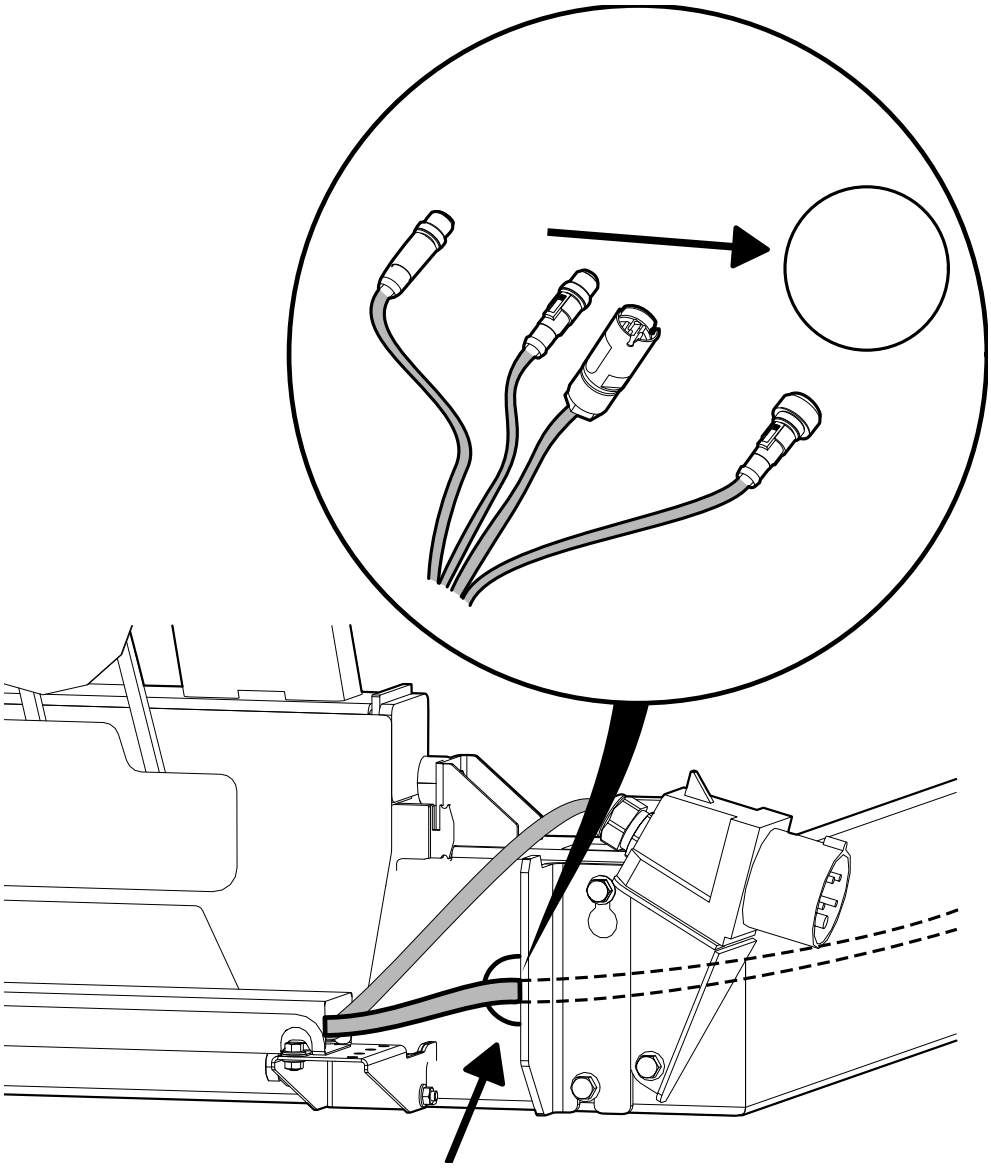
1 x 



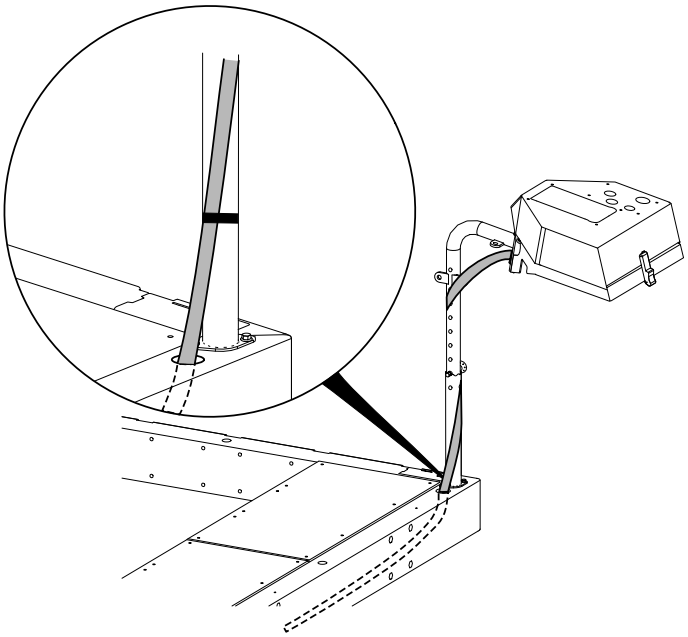
7. Repeat the steps 1-6 for the other side of the machine. Please note that the process will be mirrored.

MOUNTING OF THE FEEDING CABLE

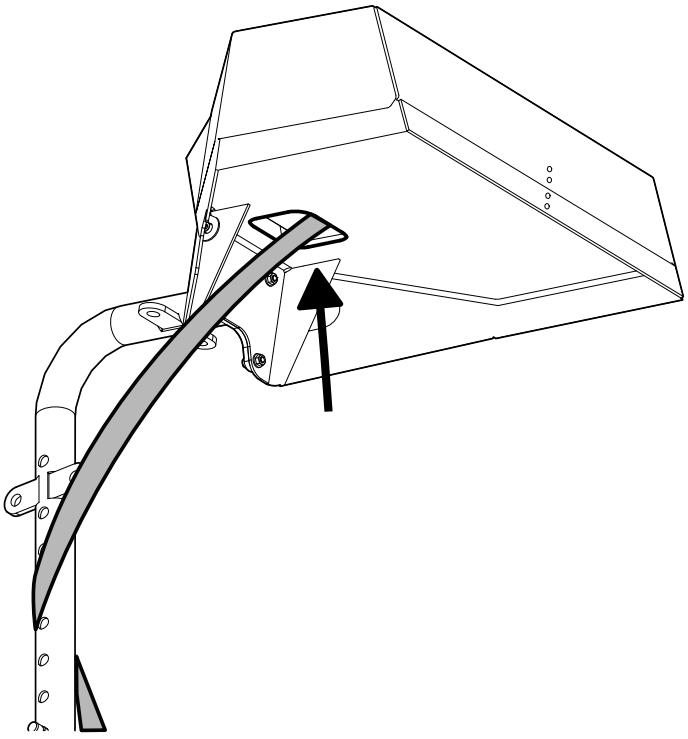
1. Insert the signal cable through the hole on the side of the rail pipe.



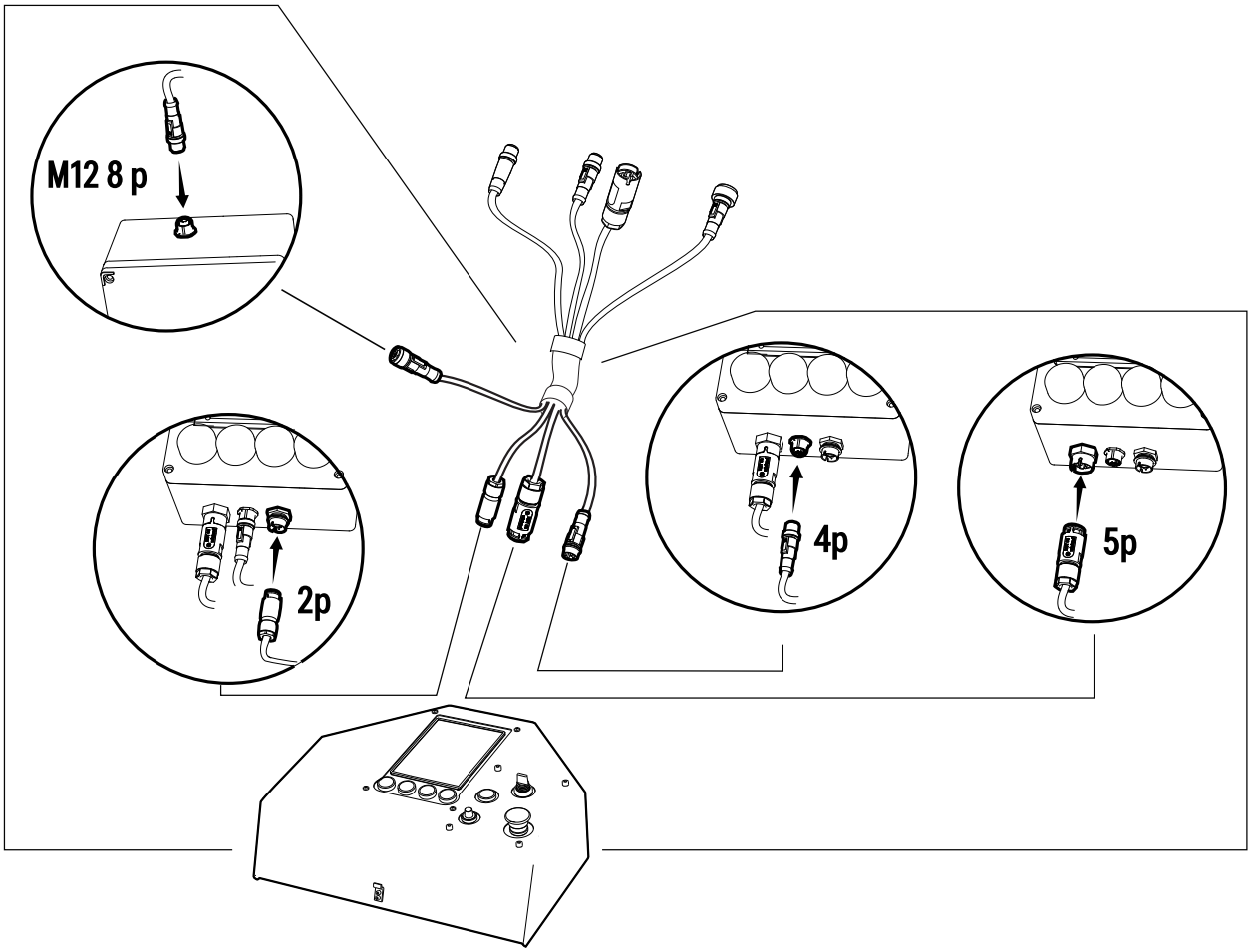
2. Pull the signal cable through the rail pipe edge and up through the hole next to the operator panel. Hold the cable in place against the tube using velcro bands.



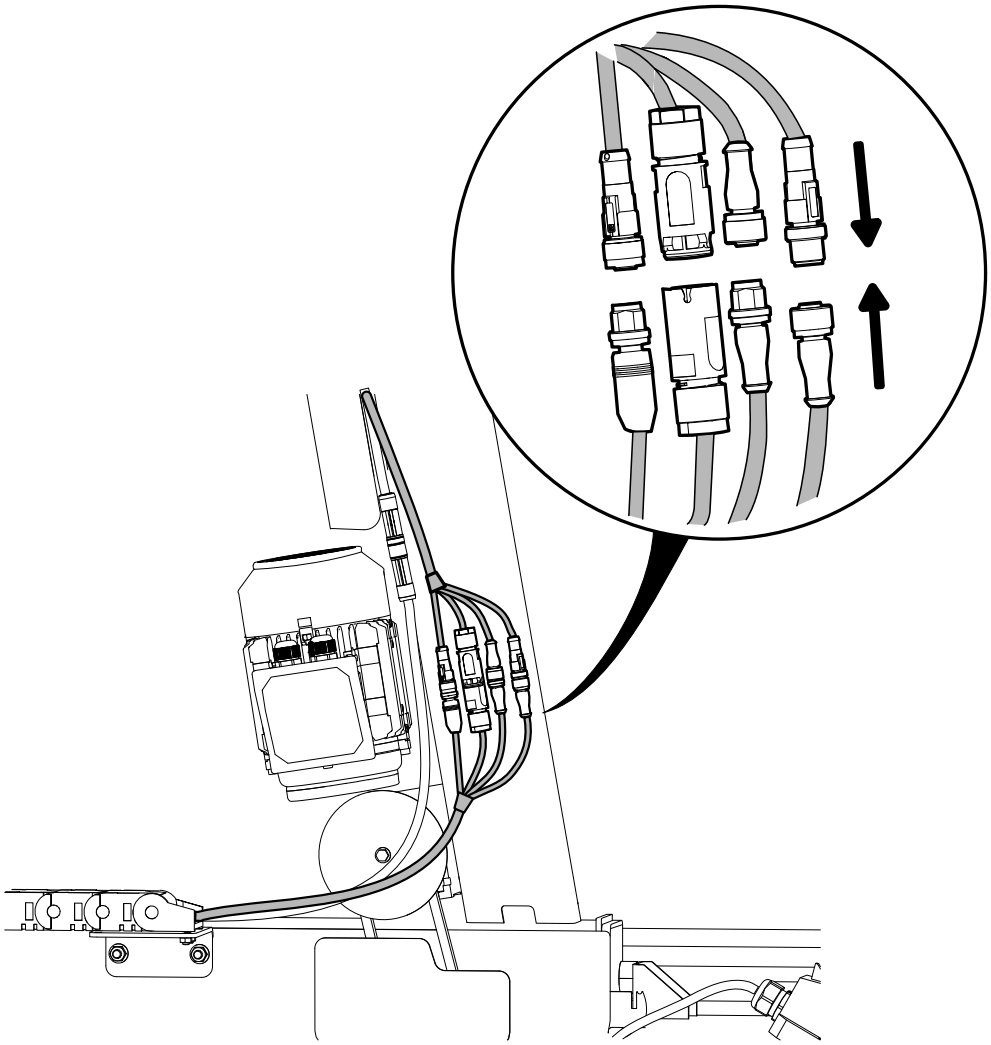
3. Open the operator panel lid and enter the cable from below.



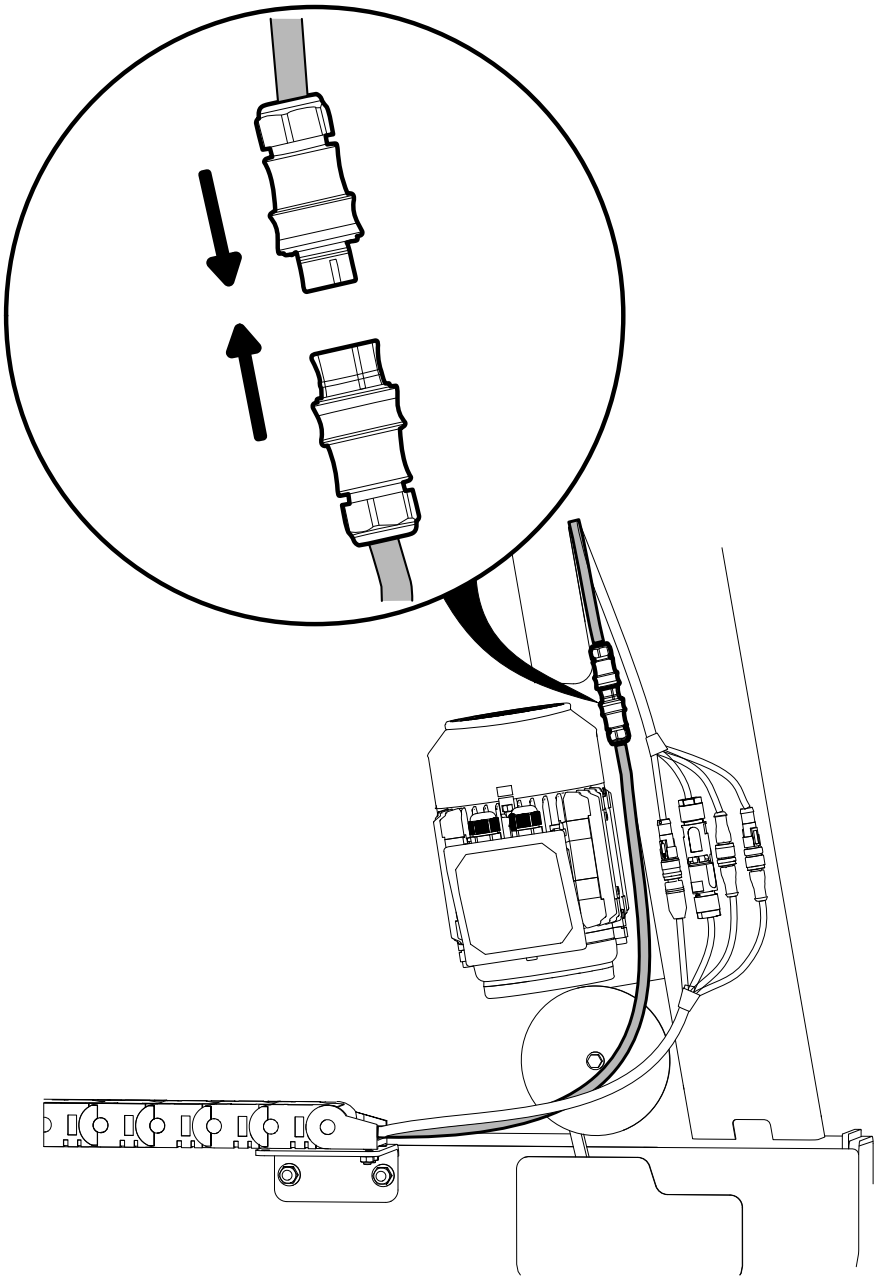
4. Connect the signal cable to the console.



5. Connect the other side of the signal cable to the cables hanging from on the side of the carriage.



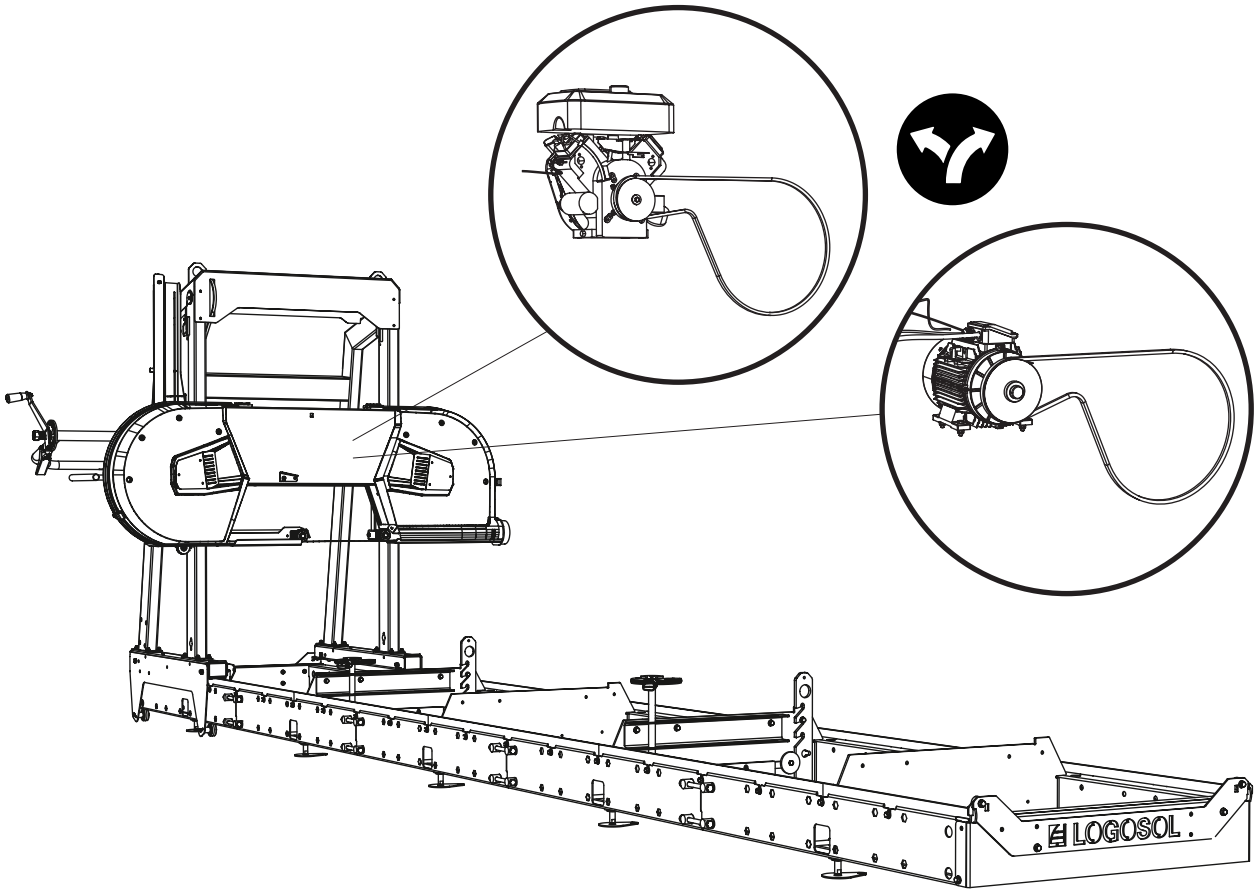
6. Connect the power cable.



INSTALLATION OF THE MOTOR: SEE THE SEPARATE USER MANUAL

It is now time to fit the engine. The instructions for fitting the engine are supplied in a separate attachment: see the instructions for the engine you will be working with.

When assembly is complete, carry on with the section entitled *Adjustment sequence* on the next page of this user manual to complete the adjustment sequence before starting the machine.



ORDER OF ADJUSTMENTS

Read through all the assembly instructions before starting assembly, then follow the instructions step by step as you work.

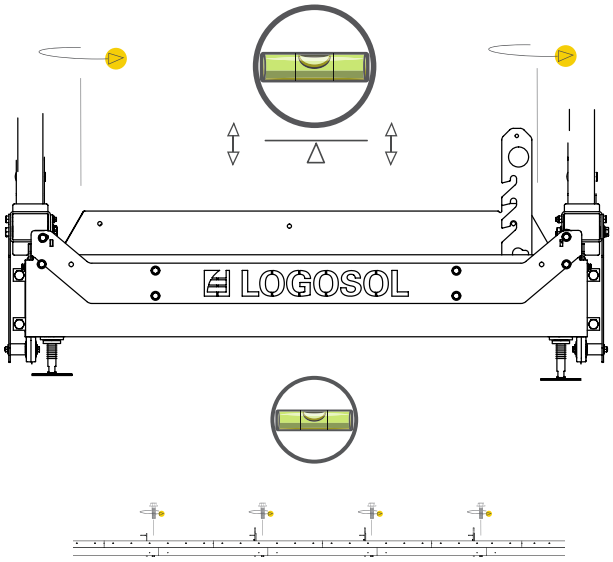
IMPORTANT

It is important to adjust the saw head before starting to ensure satisfactory sawing and the correct functioning of the sawmill. Carefully follow the adjustment sequence! Certain adjustments affect other machine settings. That is why it is important to follow the sequence 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 and fixed blade guides
6. Adjust the parallelity between the band blade and the rails
7. Adjust the log support angle

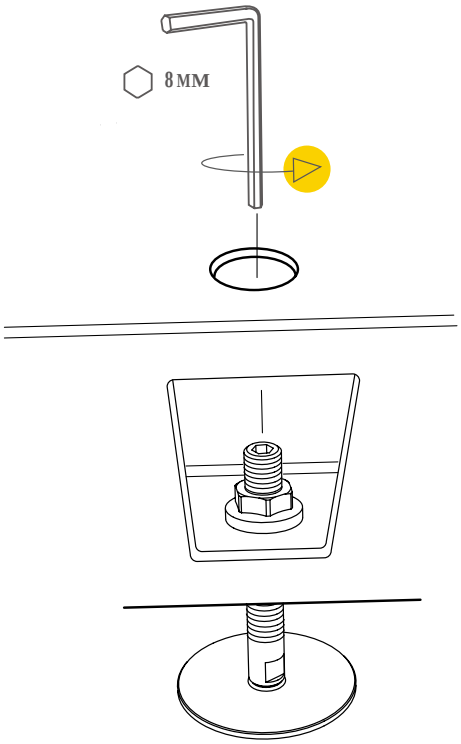
1. ADJUST THE RAIL HORIZONTALLY

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.



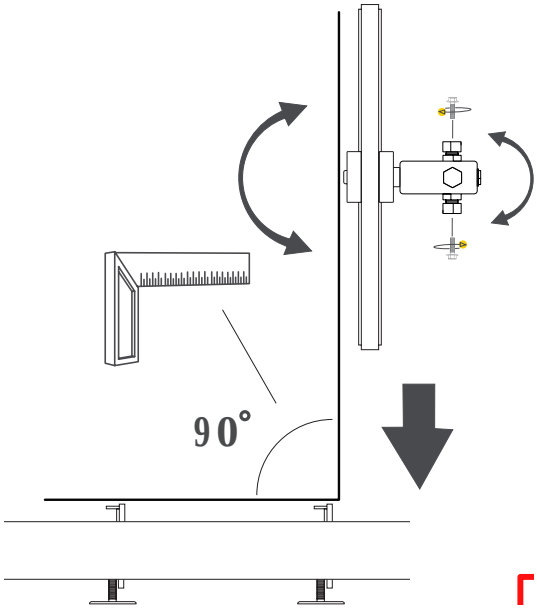
ADJUSTMENT OF THE LEVELING FEET

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

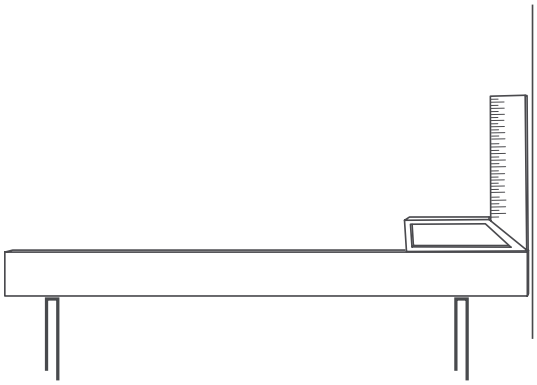


2. ADJUST THE BAND WHEELS

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.



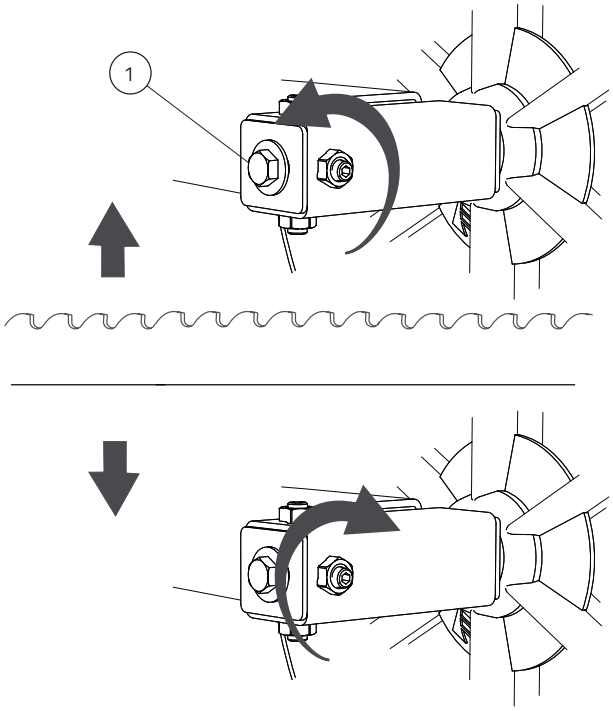
A good method is to place a set square on a straightedge that rests on two cross bunks. Adjust by first loosening the lock nut and then turning the adjusting screws on the top side of the band wheel shaft mountings until the band wheels and the cross bunks are perpendicular to each other.



Tighten lock nuts and adjusting bolts.

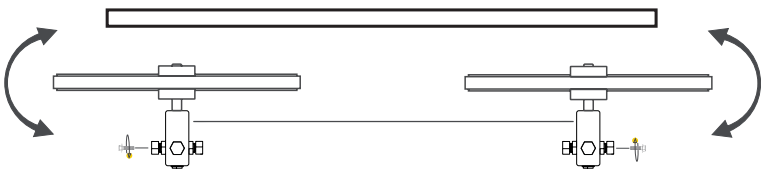
3. ADJUST THE LENGTHWISE POSITION OF THE BLADE

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 on the wheels, turn the adjusting bolt clockwise to compensate. If the blade moves inwards, turn the bolt counterclockwise. Adjust in small steps. Tighten all lock nuts and adjusting screws after the adjustment.



TIP:

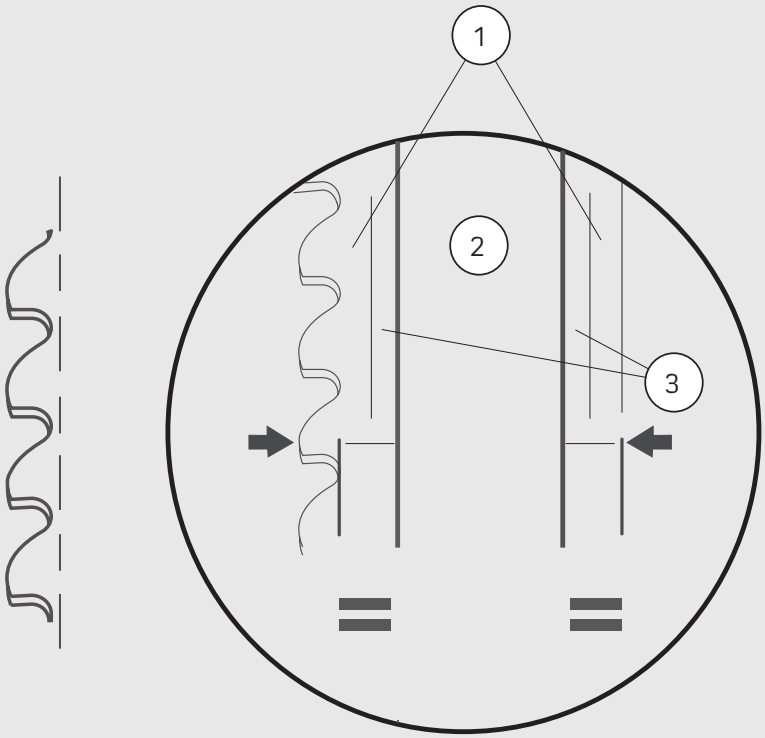
You may need to loosen the adjusting bolts slightly on the top side of the shaft mountings before adjusting the blade.



THE LENGTHWISE POSITION OF THE BLADE

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

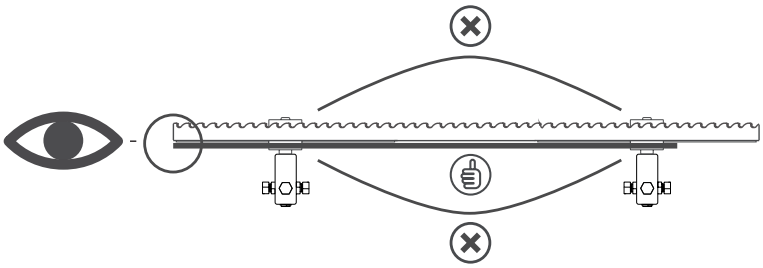
BLADE BODY



1. Blade body
2. Drive belt
3. Wheel

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

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

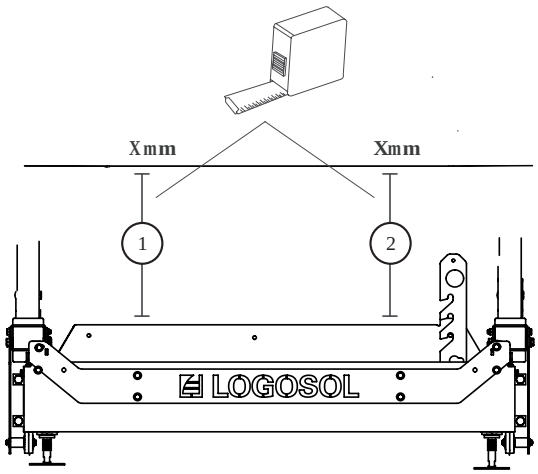


If the blade bends in the direction of the saw teeth, the blade is positioned too far forward on the wheels. If it bends in the other direction, the blade is positioned too far back.

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

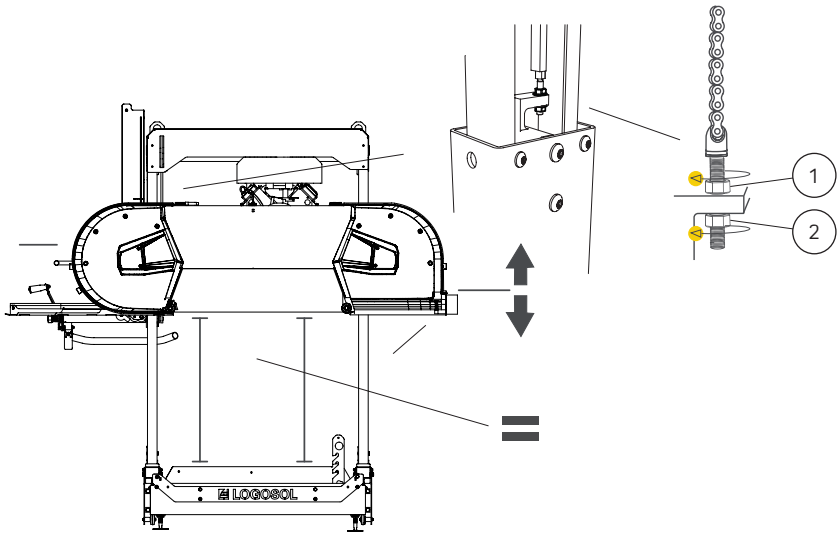
4. ADJUST THE PARALLELITY BETWEEN THE BAND BLADE AND THE CROSS BUNKS

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.



1. Measurement point 1
2. Measurement point 2

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

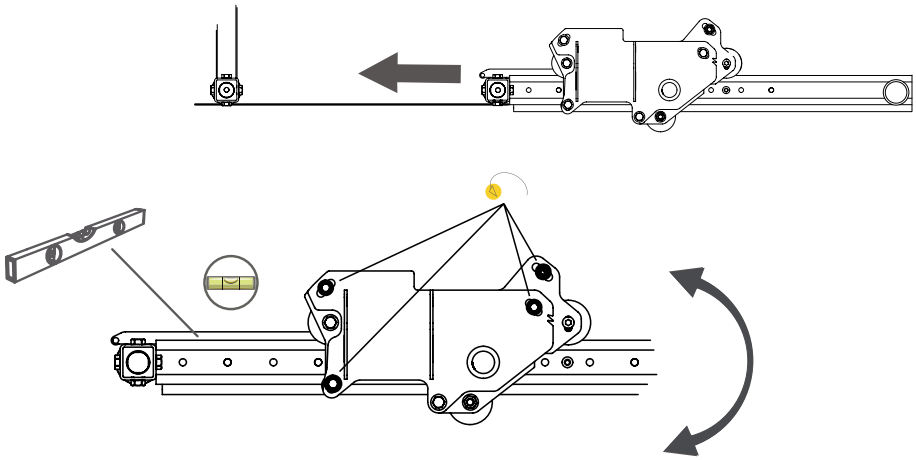


1. Locking
2. Adjustment nut

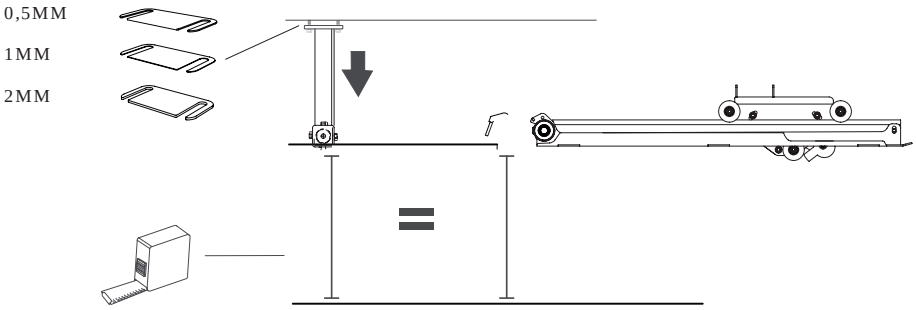
Adjust the band blade by turning the adjusting bolts on the sawhead until the measurements are the same at both measuring points.

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.

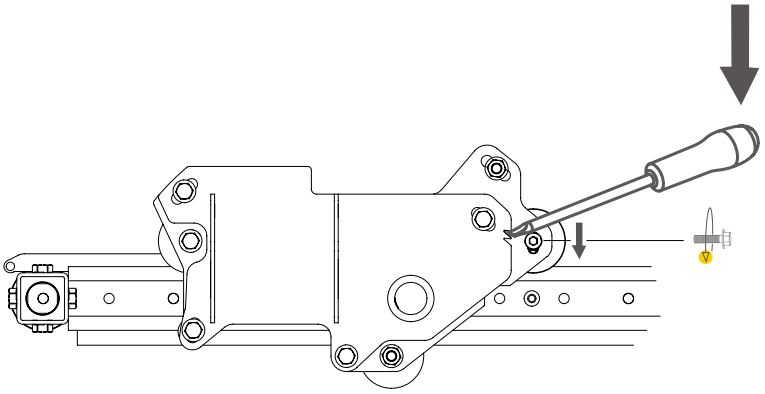


When it is level, use spacers on the fixed blade guide roller until both blade guide rollers have the same distance to the cross bunk.



TIGHTEN THE BLADE GUIDE ARM

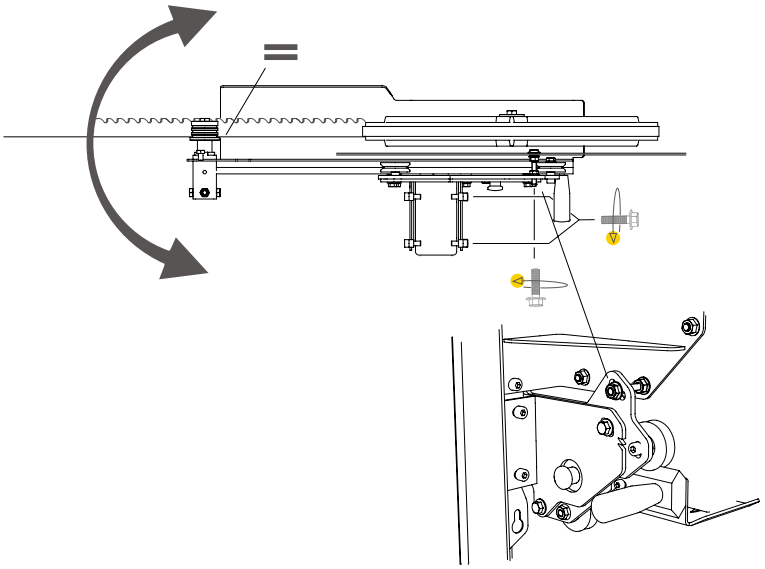
To ensure good operation of the sawmill, it is important that the blade guide arm runs without play in the blade guard holder. Loosen the Allen bolt on the blade guard holder and push the wheel down as in the illustration. Ensure that the blade guide arm is aligned between the wheels and runs without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



Make sure the blade protection arm is straight between the wheels and runs smoothly.

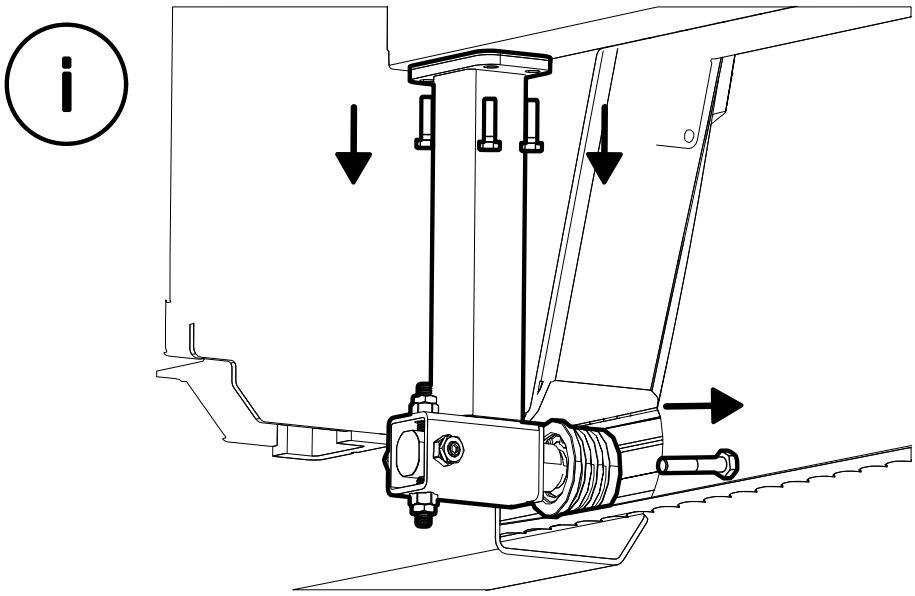
ADJUST THE PARALLELITY BETWEEN THE BLADE GUIDE ARM AND THE BLADE

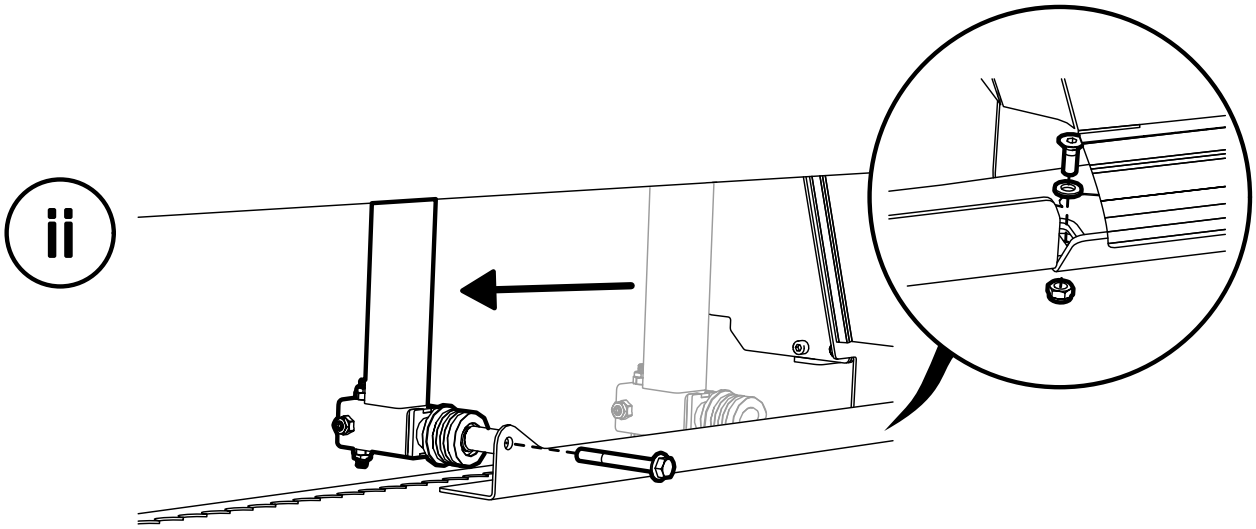
To adjust the parallelity between the blade guide arm and the band blade, you loosen the three fixing bolts on the outside of the blade guard holder. Then, adjust the parallelity using the adjusting bolt on the rear plate



ADJUST THE FIXED BLADE GUIDE AND BLADE GUARD - LEFT SIDE

When sawing smaller sized logs the blade guide on the left side of the machine needs to adjusted for better results. Remove the bolts at its top and front and move the blade guide to the inner hole section. Attach it with the same bolts you just removed. Lift the blade guard in place and fasten it in the at both ends.

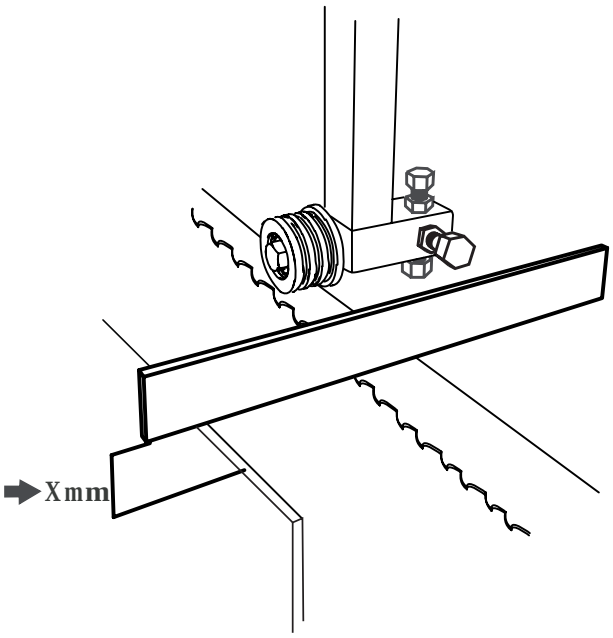




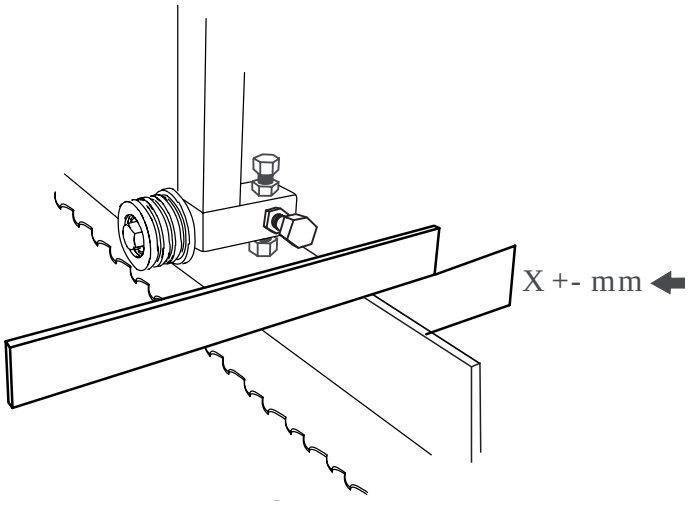
6. ADJUST THE PARALLELITY BETWEEN THE BAND BLADE AND THE RAILS

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.

Measurement point 1



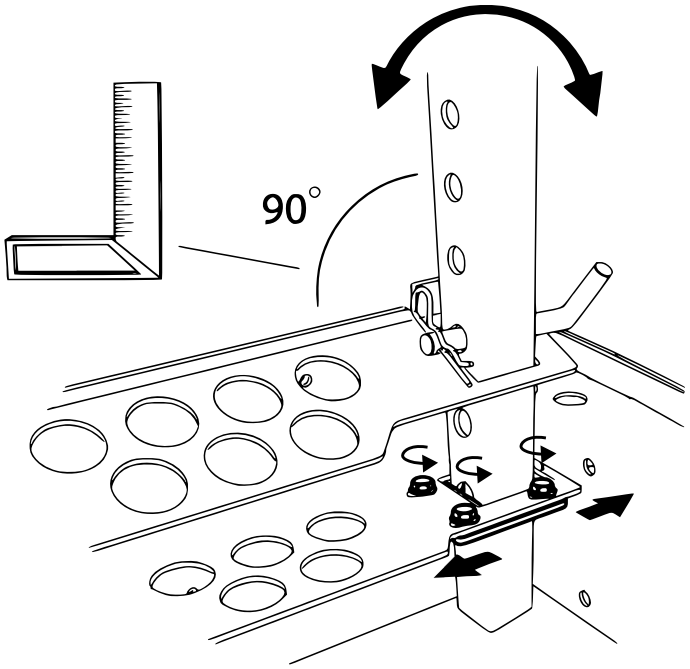
Measurement point 2



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

7. ADJUST THE LOG SUPPORT ANGLE

Adjust the log support angle by loosening the adjustment plate bolts. Set the angle of the log support so that the ratio is 90 degrees to the log shelf.



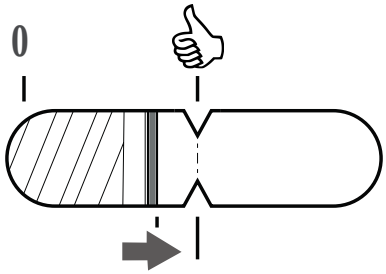
OTHER ADJUSTMENTS

Read through all the assembly instructions before starting assembly, then follow the instructions step by step as you work.

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.

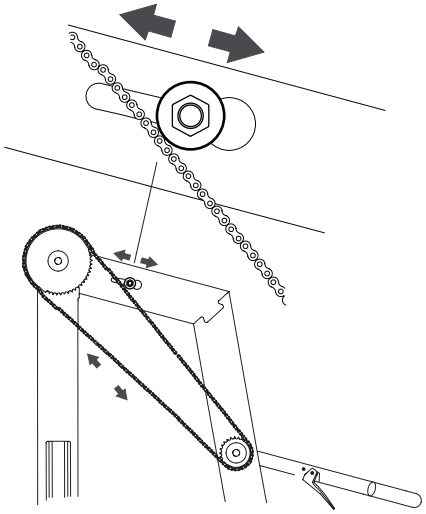
BLADE TENSION

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.



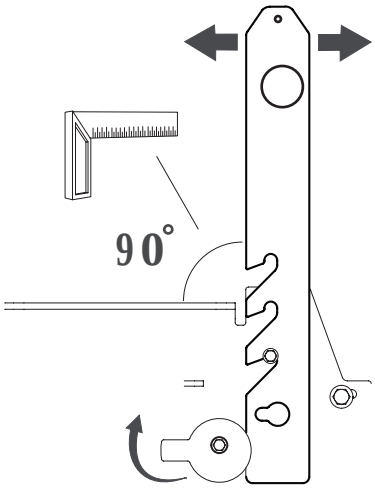
CHAIN TENSION

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.



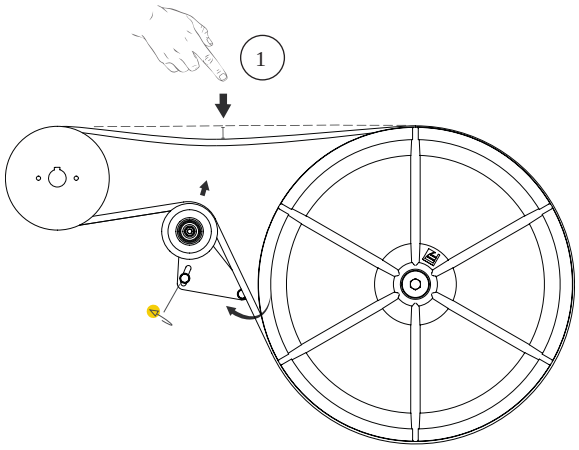
LOG SUPPORTS

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 in the illustration to the right.



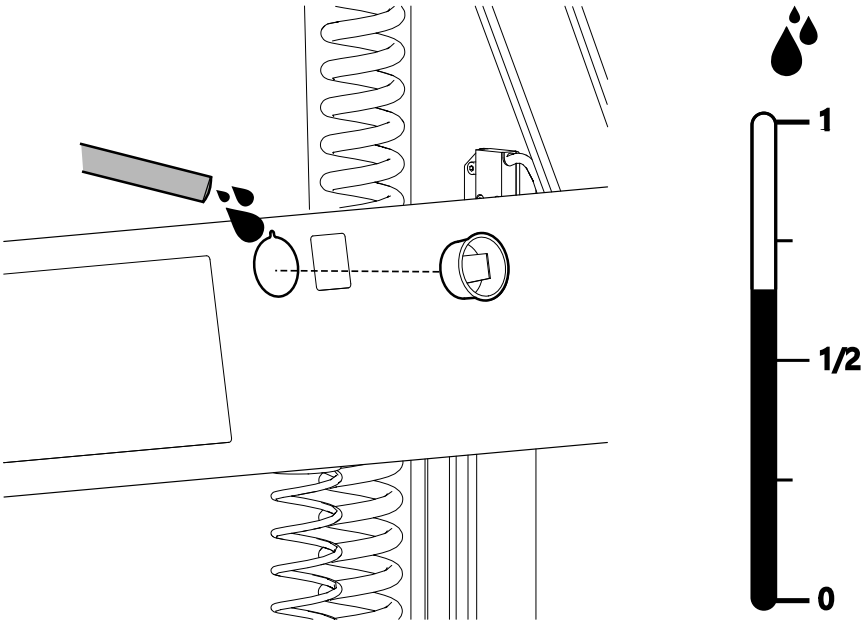
1. Tension checking point

Belt tension:

- Pressure: 3kg
- Deflection: 6 mm

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 25 liters. There is a scale positioned on the side of the saw carriage that shows how much water there is in the tank.

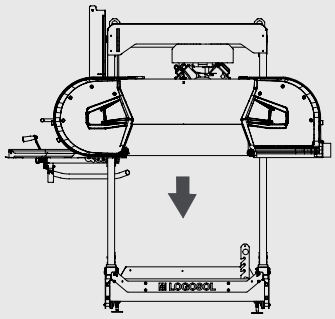


PREPARING THE ENGINE BEFORE STARTING UP

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

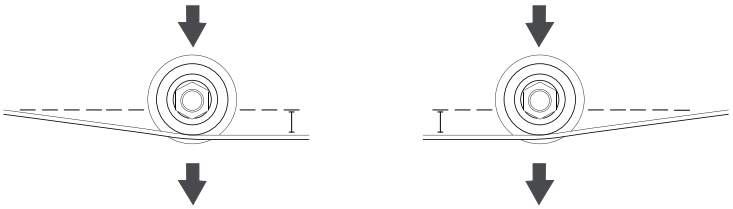
TIP

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

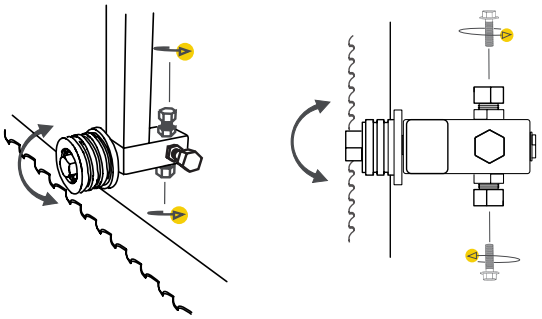


BLADE GUIDES

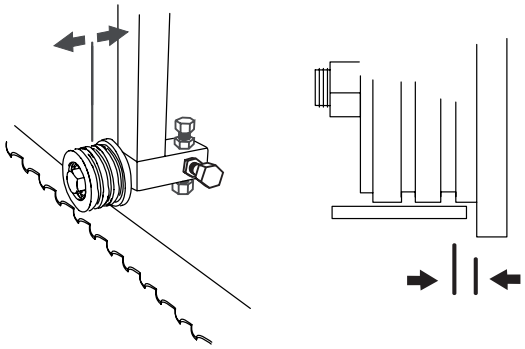
The blade guides tension the blade so that it comes 3 mm below the band wheels.



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.

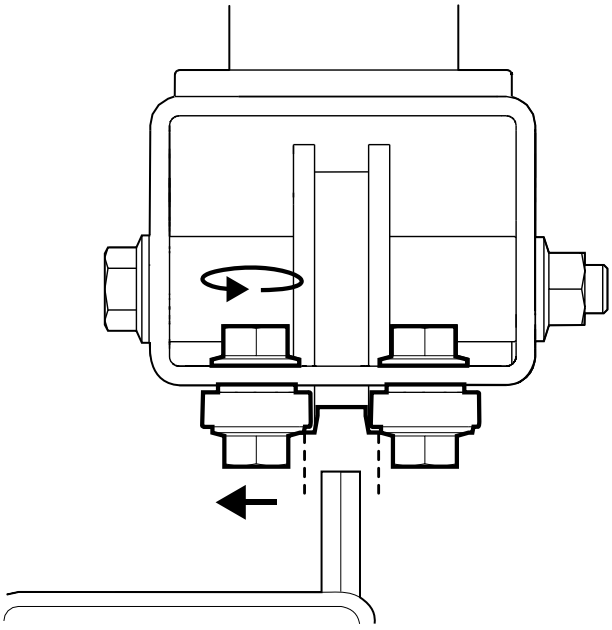


The blade guide can be adjusted inwards and outwards by pulling or pushing its shaft after the adjusting bolts have been loosened. The back of the blade should be approx. 3-5 mm from the rear edge of the blade guide roller.



CONTROL BEARINGS

Adjust the control bearing by loosening the nuts and moving them outwards.



AT FIRST STARTUP

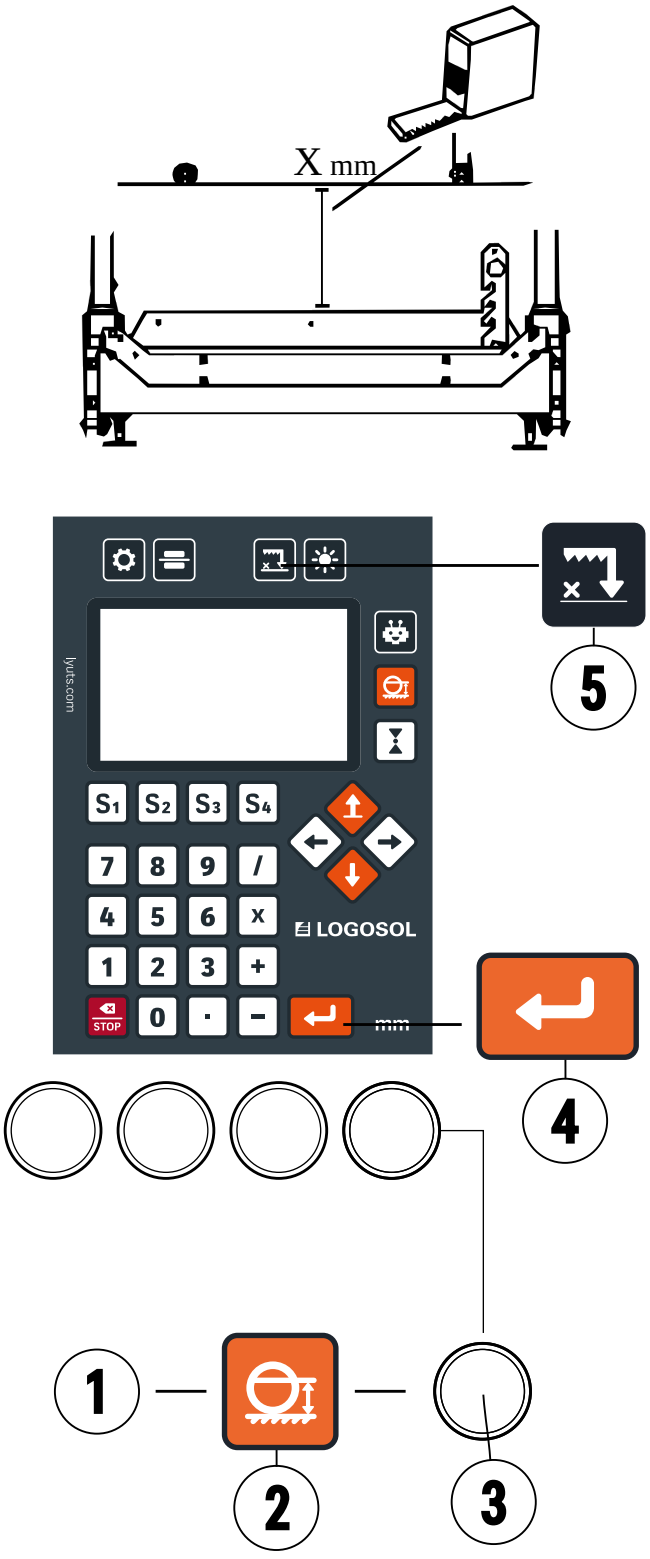
CALIBRATION

During the initial startup, the value for the saw blade's height position needs to be calibrated. The digital measuring device will display a value upon startup. Measure the distance between the saw blade, on a downward-facing tooth, and a log deck.

Hold down the calibration button until the displayed value disappears, then enter the measured value. Complete the operation by pressing the enter button.

Verify the calibration by moving the saw head 200 mm and check that the actual movement of the saw head is 200 mm. If the measurements do not match, repeat with a 500 mm movement. Measure from the saw blade to the log deck for verification. If it still does not match, try recalibrating.

1. 200mm
2. Absolute movement
3. Constant contact control
4. Enter button
5. Calibration button



Pre-Operation

Ensure the limit switches are functioning. Proceed as follows: Move the saw head until the lower switch is activated; proceed cautiously to avoid collision. Then repeat the operation with the upper switch.

Listen for unusual noises and ensure that the chain aligns between the upper and lower gears.

Check that no physical collision occurs **before** the limit switches activate.

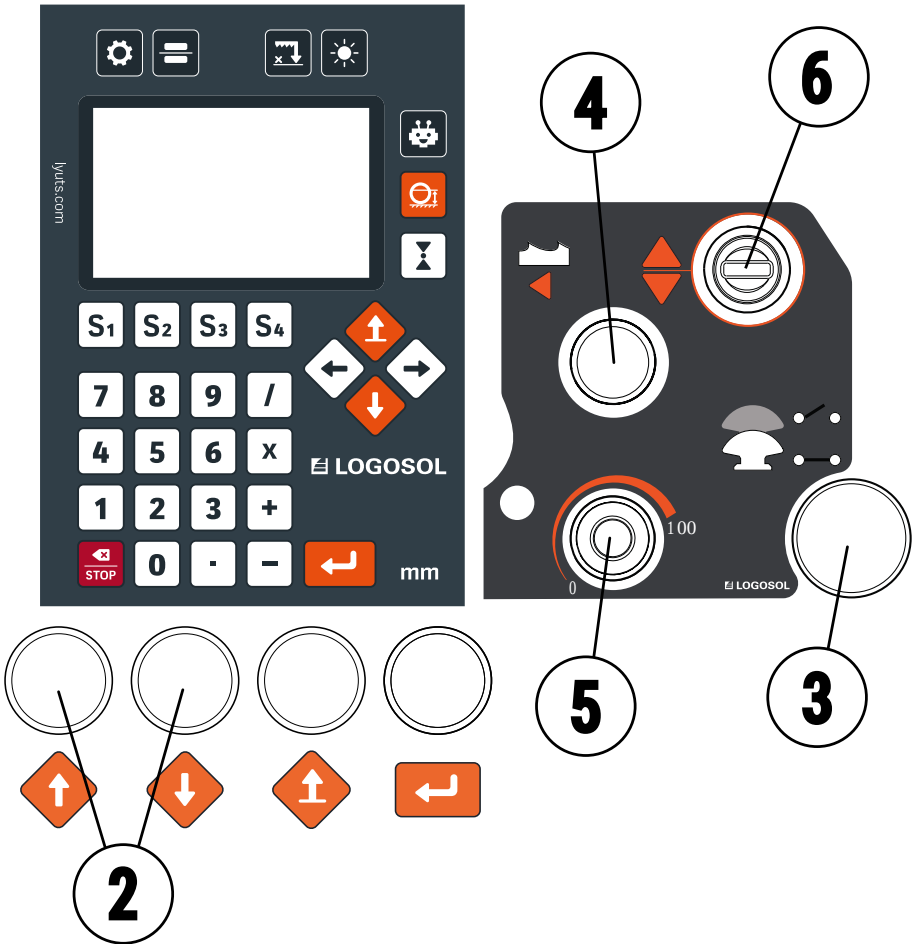
STARTING AND STOPPING

The Pro Set and the Pro Feed are two units used to control the sawmill. The Pro Set handles the vertical movement of the saw head and allows you to set the thickness of the board. The Pro Feed handles the movement of the carriage and the speed of the saw blade.

You can find a more indepth description of how to use the Pro set and Pro feed in the **ProSet ComputerSetworks Manual** and **ProFeed 400V Manual**on the Logosol website.

How To Start

1. Turn the switch on the electrical cabinet to the "ON" position.
2. Adjust the height of the saw head.
3. Press and hold the constant contact control.
4. Start the motors.
5. Adjust the speed of the saw blade.
6. Move the saw head and carriage forward to start sawing.



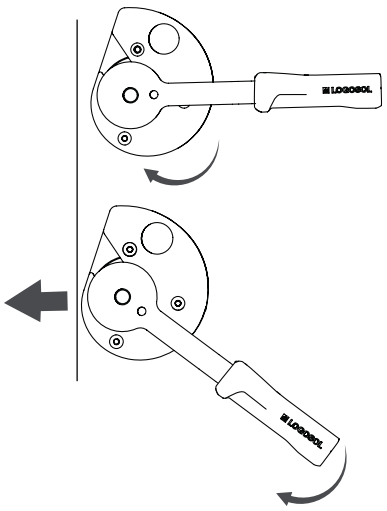
How To Stop

1. The bandsaw blade will slow down and stop when you release the constant contact control.
2. Turn the switch on the electrical cabinet to the "OFF" position.

THE FUNCTIONS OF THE SAWMILL

LOG CLAMPS

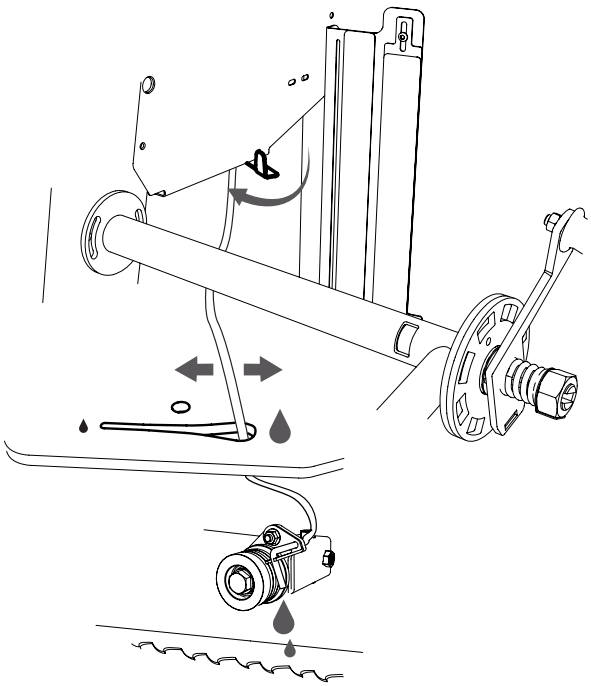
The sawmill comes with two log clamps that secure the log on the sawmill. The log clamp is an eccentric clamping device.



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.

WATER COOLING

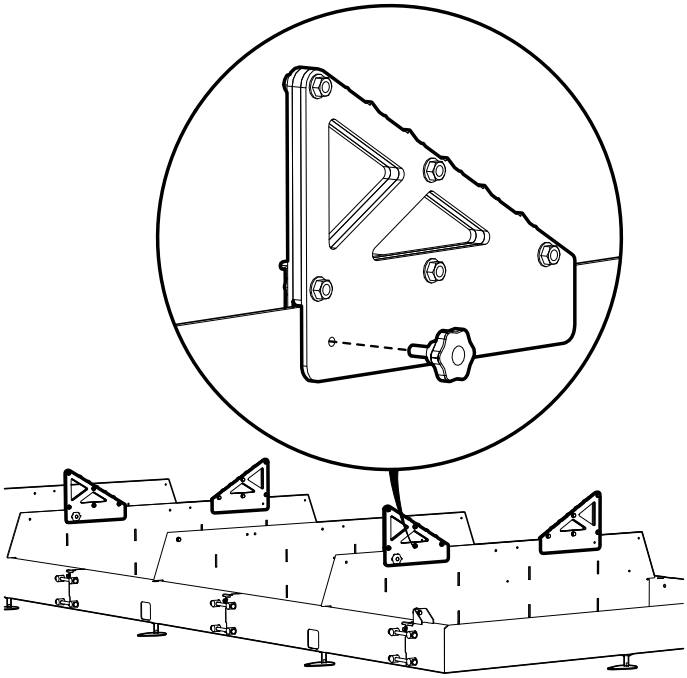
The water cooling of the blade is controlled by a lever located on the side plate at the operator side. In its starting position, the lever points at a right angle from the side plate. To release the water flow, the lever is pulled back. The flow of the water cooling is controlled by moving the cooling 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.



LOG WEDGE

The sawmill comes with four log wedges which help prevent bigger logs from rolling off the sawmill. Adjusting the distance between the wedges allows different size logs to be used.

Here's how to use them: Attach two wedges to crossbunk 2 and 4 counted from the saw head, on the opposite side of your log table. Roll the log from the log table onto the saw mill and position the last two wedges on the other side of the log. You can hit the wedge with a mallet to secure it further under the log before tightening the wheels.



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.

CAUTION
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.

CAUTION
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.

CAUTION
Ensure that the machine is correctly assembled and maintained in accordance with the instructions in this user manual.

CAUTION
Never work alone. Make sure that there are other adults within hearing distance, should you need to call for help.

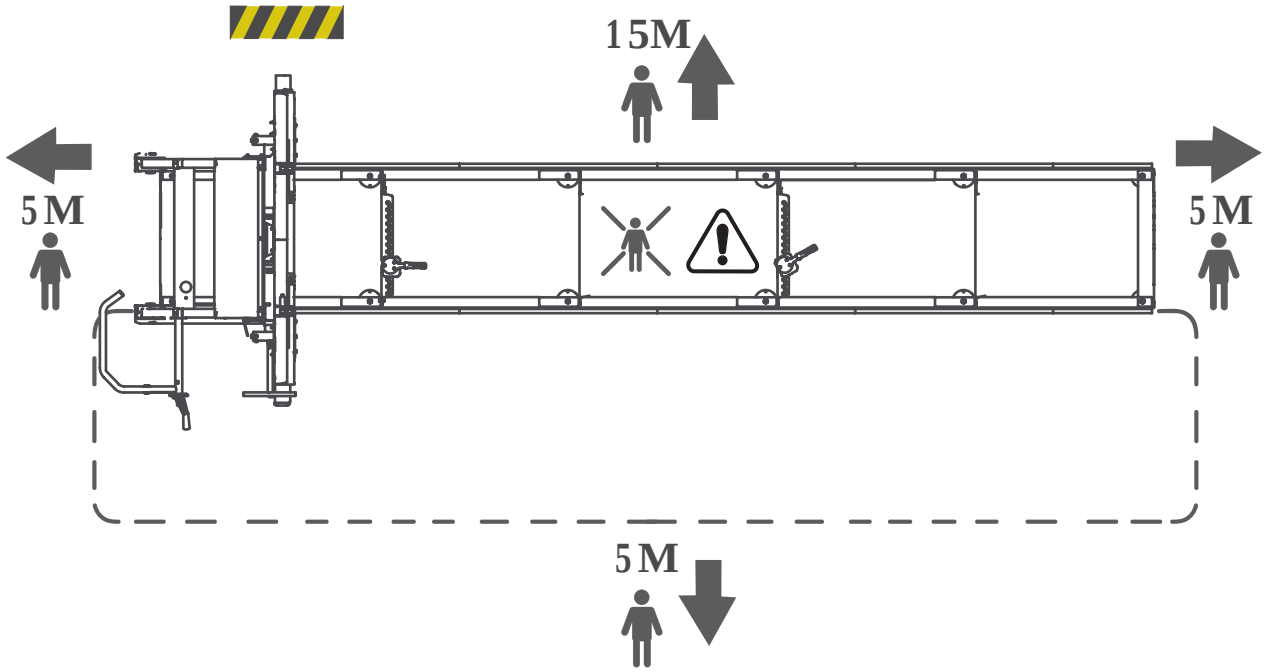
WARNING!
Danger of flying fragments from dirty logs.

CAUTION
Always inspect the logs so that there are no objects wedged in the bark before sawing.

CAUTION
Load and turn logs carefully. The sawmill has a recommended maximum log weight of 1500 kg, but even smaller logs can damage the sawmill if handled incorrectly.

CAUTION
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:



CAUTION
Minimum safety distance around the sawmill is shown in illustration. Note that the safety distance on the left side of the band sawmill is 15 m due to the 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 distande is 5 m.

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.

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

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

CAUTION
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.

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

CAUTION
Never walk on the rails or the cross bunks.

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

EVERY TIME BEFORE OPERATING THE BAND SAWMILL:

Ensure that

- the customer 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 injury. The engine and its muffler get very hot during operation and remain hot after the engine has stopped.

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

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

CAUTION
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.

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.

IMPORTANT

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

MAINTENANCE

WARNING!
Risk of serious injury.

CAUTION
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.

CAUTION
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.

CAUTION
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.

NOTICE
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: 350 kg.

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: 500 kg.

REFUELING

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

CAUTION
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.

IMPORTANT
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^3/h.

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

OPERATION INSTRUCTIONS

LOG STACK
Do not stack the logs higher than 1 m.

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

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

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

Build the log table so it is the same height as the cross bunks on the band sawmill. If the log table is placed on the left side of the band sawmill, it should end 10 cm from the band sawmill. If the log table is placed on the operator's side, it should end approx. 1 m from the band sawmill and you should use a removable ramp between the log table and the sawmill.

Ensure that the rear of the log table has large wedges to prevent the logs from rolling off from it.

LOADING LOGS

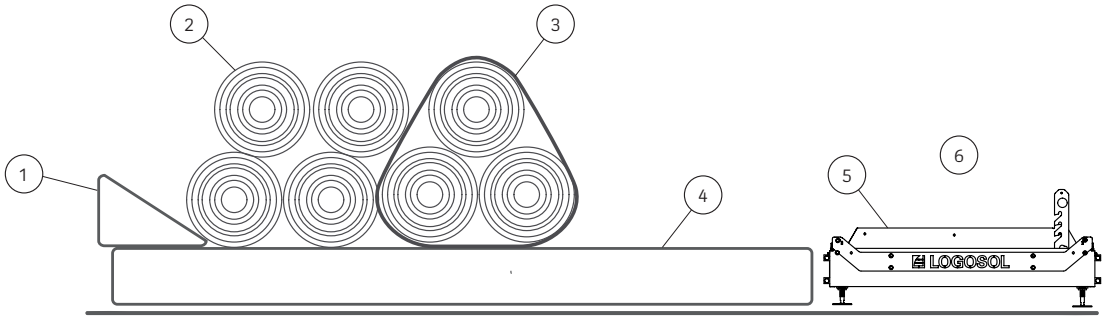
WARNING!
Risk of being crushed between the sawmill and a moving log.

CAUTION
Always stand to one side of the log table when handling the logs. [Area A]

CAUTION
Try not to stand between the log table/log pile and the band sawmill. The log pile must always be secured when you are in area B.

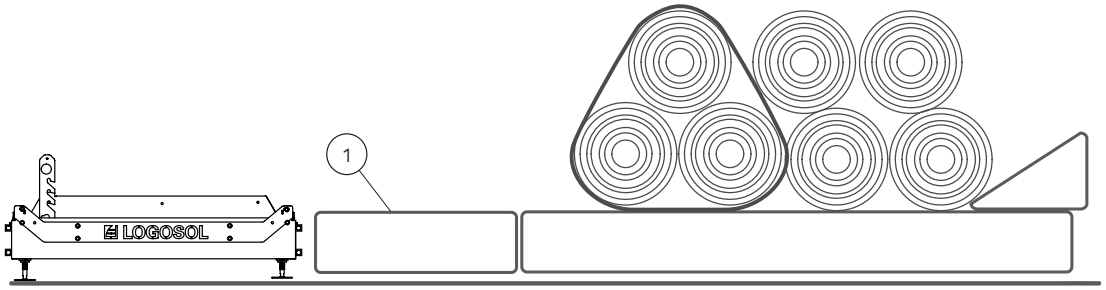
IMPORTANT
The logs must be rolled off the log table. Do not drop them onto the band sawmill.

Option 1:

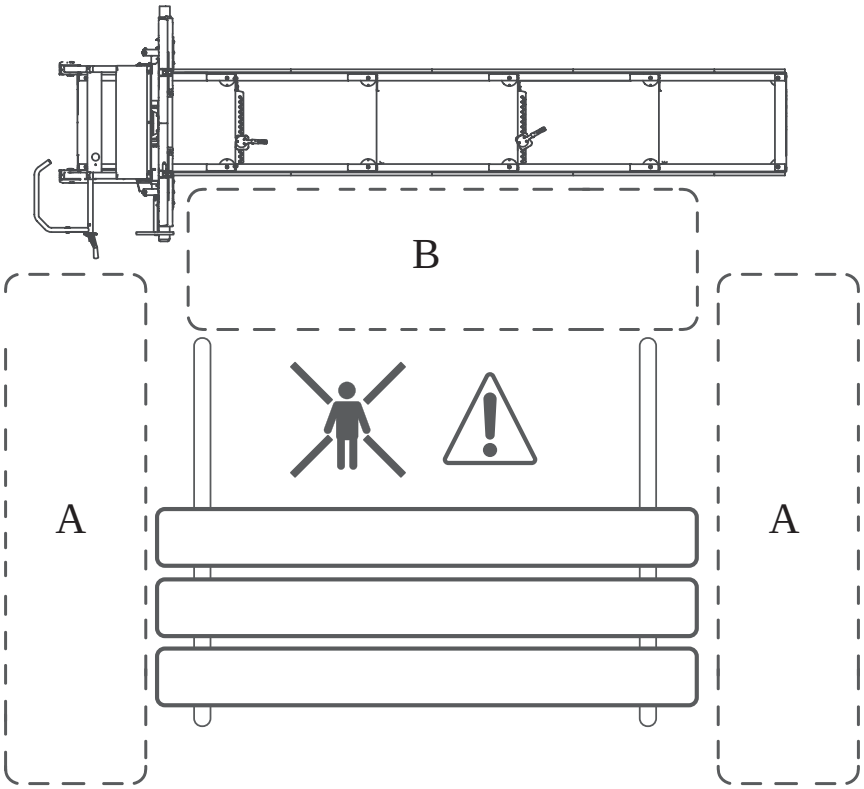


1. Safety wedge at the rear of the log pile
2. Logs
3. Safety device at the front of the log pile
4. Log table
5. Rail
6. The right side of the rail must be clear

Option 2:



1. Detachable ramp



When loading a log:

1. Place the saw carriage as far back on the rail as possible (its starting position).
2. The log supports must be raised to their top position when loading logs from the operator's side. The log supports must be moved over to the opposite side of the rail (the operator's side) and mounted in their top position when loading logs from the left side of the band sawmill. The log supports are moved back to the left side of the band sawmill when the log is stable on the rail.
3. If the log table comes with a detachable ramp, fit it so that there is no gap between the log table and the band sawmill.
4. Disconnect the locking device for the front logs on the log table.
5. Roll out a log.
6. Secure the logs at the very front of the log pile.
7. Carefully roll the log onto the log supports of the band sawmill. Use a log turner. Centre the log laterally over the crossbars of the log bed.
8. Adjust the log supports so that they support the log but do not come into contact with the saw blade. Lock the log supports in position.
9. Adjust the log clamps so that they are in the middle of the log supports on opposite sides of the log. Adjust the height of the log clamps to lock the log in place. However, ensure that the log clamps cannot come into contact with the bandsaw blade.

ADJUSTING THE CUT

You can adjust the position of the sawhead in steps to set the depth of cut.

The band sawmill 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.

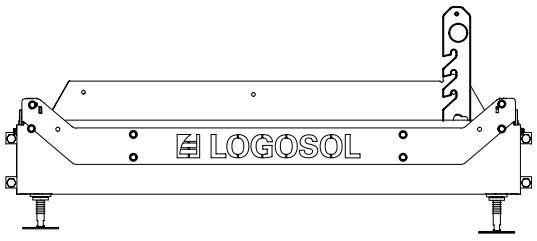
CAUTION
Always stand behind the saw carriage and keep both hands on the push handle while operating the machine. Never stand in front of the saw carriage or blade. Never pull the saw carriage back through the cut.

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.

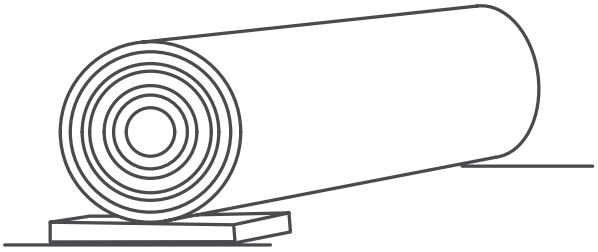
WARNING!
Risk of pinching.

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



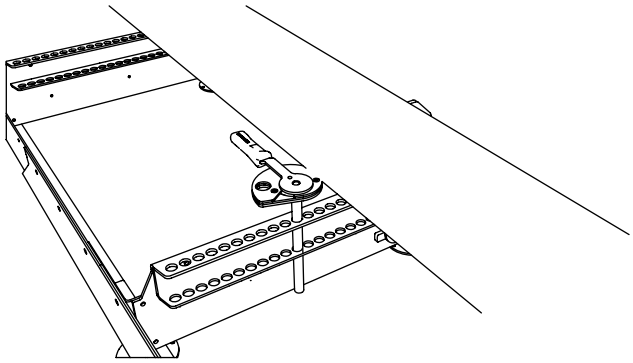
3. Use a log turner/rotator when rolling a log on the log bed.
   Centre the log on the log bed and roll it up against the log supports. Check the position of the log on the log bed.
   To be able to cut through the whole length of the log, the log should not protrude past the last cross bunk.
4. Rotate the log to a position that will give the best sawing yield.

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



A shim placed under the narrow end of the log.

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 clamps. Use of two log clamps is recommended.

7. Note! The crank is not applicable for all machine types.
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.

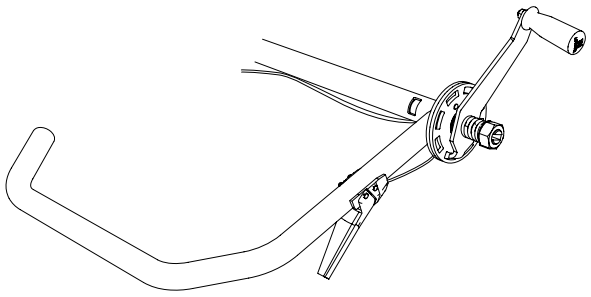
8. Check that the blade will not come into contact with the log supports and log clamps.

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. Note! The handle and throttle is not applicable for all machine types.
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.

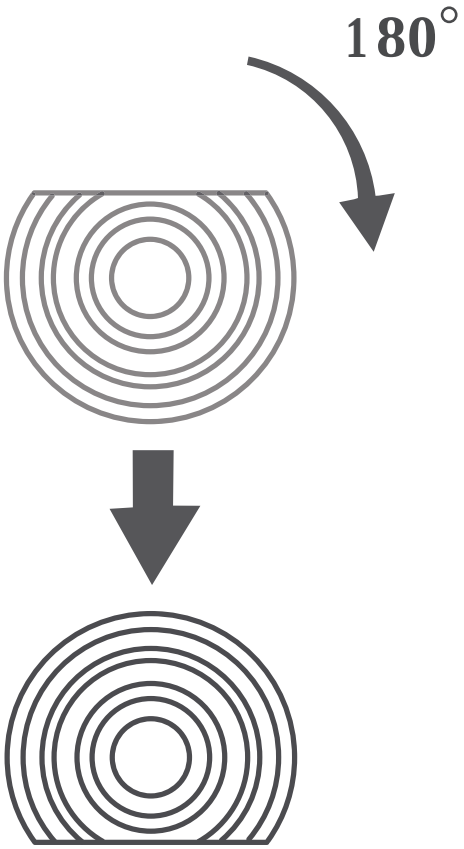
TIP
If you release the throttle just before the blade comes out through the log end, the blade will stop faster.

15. Remove the slab from the log.

16. Raise the sawhead slightly and, by hand, roll the saw carriage back to the starting position.

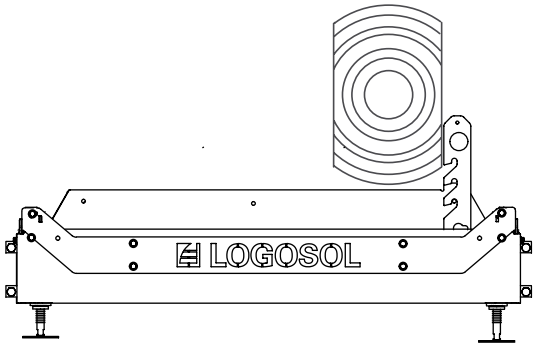
17. Set the height for the next cut. Use the crank and the depth of cut scales.

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



Turn the log through 180° so that the freshly sawn side faces towards 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.
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.

CAUTION
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 lacerations.

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

WARNING!
Risk of fire:

CAUTION
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.

CAUTION
If you spill fuel on the machine when refueling, wipe this up immediately.

If you get any fuel on your clothes, change clothes immediately.

CAUTION
Never operate the engine if there is a fuel or oil leak. Always turn the engine off before refuelling.

HANDLING SAW BLADES

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

WARNING!
Risk of lacerations.

IMPORTANT
When handling band blades:

- always wear protective gloves (class 1) of leather
- always wear close-fittiing 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

CHANGING BAND BLADES

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

TO REMOVE THE SAW 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*.
3. Close the guards over the band wheels.
4. Lock the guards.

LUBRICATION POINTS

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

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

The lubricants you should use on your sawmill are:

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

THE TUBE SECTIONS OF THE RAIL FRAME

Lubricant: Universal oil

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

THE TOP RAIL SECTIONS ON WHICH THE SAW BOGIE RUNS

Lubricant: Universal oil

THE BLADE TENSIONING T-HANDLE

Lubricant: grease or Superflo

Unscrew the T-handle and grease its threads generously.

THE LIFTING CHAINS AND CHAIN TRANSMISSION OF THE SAWHEAD

Lubricant: Superflo

Lubricate the whole chain.

THE LIFT WINCH SHAFT

Lubricant: Superflo

Lubricate from the outside on both sides.

THE THROTTLE WIRE AND HANDLE OF THE ENGINE

Lubricant: Superflo

Note! The handle and throttle are not applicable for B1651.

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

THE LEGS OF THE SAW BOGIE

Lubricant: Silicone

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

CLEANING THE BAND SAWMILL

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

WATER TANK

If the temperature falls below freezing, you should empty the water tank and tubes. At temperatures below 0°C, you can use windshield washer fluid.

Never use glycol or flammable liquids as a coolant.

HORIZONTAL ALIGNMENT OF THE BAND BLADE

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

ENGINE

Check the oil level in the engine before each work shift.

Follow the maintenance schedule in the user manual for the engine.

SAWHEAD LIFTING CHAINS

Inspect the sawhead lifting chains for any wear or damages.

Replace with new chains if necessary.

INSPECTION OF SAFETY FEATURES

Before each work shift, inspect the working order of following safety features:

Note! The push handle is not applicable for B1651.

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

LEVEL ALIGNMENT OF THE RAILS

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

BAND WHEEL BELTS

Regularly inspect the condition of the band wheel drive belt and the band wheel belt. Replace worn and damaged parts.

Regularly check the tension of the drive belt and adjust if necessary.

BLADE GUIDES

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

BAND WHEEL GUARDS

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

BAND BLADES

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

TROUBLESHOOTING SCHEDULE

PROBLEM/SYMPTOM	PROBABLE CAUSE	SOLUTION
The blade quickly loses its sharpness	• Dirty logs • The saw blade is worn out	• Avoid dragging the logs over the ground • Debark the log where the blade is going to cut • Square the logs before cutting boards, to minimize the cuts into bark • Replace the blade with a new one
Wavy cuts	• Dull blade • The feed speed is too high • The feed speed is too low • Sawing through a partly frozen log	• Resharpen the blade • Lower the feed speed • Increase the feed speed • Let the log fully thaw or fully freeze before sawing it **TIP:** Do not use a slower sawing speed when the blade is entering the log, but cut into the log end with the same sawing speed you are planning to have for the rest of the cut
The blade dives or rises when sawing	• Insufficient blade tension • The feed speed is too high • The blade is damaged • The blade does not track correctly on the band wheels	• Increase the blade tension • Lower the feed speed • Replace the blade with a new one • Install the blade correctly and adjust the tracking
Blade breakage	• The blade is worn out • Dull and/or incorrectly installed blade • The blade tension is too tight • The blade guide rollers are not aligned with the band wheels • Worn band wheel belts. This makes the blade running directly on metal	• Replace the blade with a new one • Resharpen the blade • Reduce the blade tension • Adjust the blade guides • Replace the belts on the band wheels with new ones
Uneven board thickness	• The log bed flexes due to insufficient support	• Support the rails/log bed as outlined in the instructions in this manual
The blade does not track correctly and slips off the band wheels	• The band wheels are incorrectly adjusted • Worn band wheel belts	• Adjust the band wheels as outlined in the instructions in this manual • Replace the belts with new ones

PROBLEM/SYMPTOM	PROBABLE CAUSE	SOLUTION
The blade does not cut	• The blade is installed backwards	• Remove the blade and turn the blade inside out and reinstall it • When the sawmill is powered by an electric motor, check that the motor is running in the correct direction. If not: Reverse the phase of the electric motor.
The blade does not slacken after releasing the blade tension with the T-handle	• The blade tension assembly is sticking	• Push the T-handle inwards
The sawhead is stiff when raised or lowered	• The vertical guides are too tight • The sawhead lifting winch drum is dry	• Lubricate with silicone and, if necessary, loosen them slightly • Lubricate with Superflo
The sawhead is rattling when going down	• The rails are not level and cause the saw bogie to twist	• Level the rails as outlined in the instructions in this manual.
The blade overheats during operation	• The water tank is empty • The water valve is closed	• Refill with water • Open the water valve
The engine does not start	• The ignition key is in the ”OFF” position • The interlock safety switch on the blade guards is disconnected	• Turn the ignition switch to the “ON” position • Check the working order of the interlock safety switch
The computer setworks do not start.	• Loose contacts. • Moisture in the computer setworks. • Residual current device (RCD) tripped. • Fuses blown in the saw box.	• Try removing the connectors and then reinstalling them. • Disconnect the power and take the box inside, let it dry and blow it out with compressed air. • • If an RCD trips, contact an electrician for troubleshooting. • Replace the fuses in the saw box.
The computer setworks is working, but the height adjustment motor does not run.	• The motor is running hot; motor protection has stripped.	• Wait until the motor has cooled and resume operation; the motor must not run hot. If the problem recurs, contact Logosol.
Abnormal noises from the mechanism.	• Poor lift chain alignment. • Insufficient chain tension. • Gearbox wear. • Worn bearings. • Over-tensioned chain.	• Check alignment between the lower and upper lift sprockets. • Check chain tension. • If bearing or gearbox wear is suspected, check for visual wear on the saw head bearings at the secondary shaft and at the gearbox mounting. Run the functions and listen for abnormal noise and feel if heat is building up. If a worn part is discovered, replace it.
The machine runs in the wrong direction	• Phase reversal in connector.	• Switch phases in the machine’s 400v socket.

DECLARATION OF CONFORMITY

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

Logosol AB

Arkivvägen 6

871 53 HÄRNÖSAND

hereby declare that **B1651 Band Sawmill**

has been manufactured in conformity with:

Machinery Directive 2006/42/EC, EMC Directive 2014/30/EU

and has been manufactured in conformity with the following harmonised standards:

EN ISO 12100:2010, EN 60204-1:2018, EN 50370-1:2005, EN 50370-2:2003.

Notified body, 0404, RISE SMP Svensk Maskinprovning AB, Box 7035, SE-750 07 Uppsala, Sweden, has performed EC type examination according to Directive 2006/42/EC, Article 12(3b). The EC type examination certificate is numbered: 0404/17/2408

The band sawmill supplied is identical to the band sawmill that underwent EC type examination.

Härnösand, 2024-07-01

Fredrik Forssberg, CEO

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