LOGOSOL

# USER MANUAL

TRANSLATION OF ORIGINAL USER MANUAL.
ARTICLE NO: 0458-395-1010

# BIG MILL SYSTEM

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

This user manual contains important safety instructions.

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

## Big Mill System

*Welcome to Logosol! We are pleased that you have placed your trust in us by choosing the Timberjig, and we promise to do our best to satisfy your expectations.*

*Logosol began production of our flagship product, the Logosol Sawmill, in 1988. Since then we have delivered more than 15,000 sawmills to satisfied customers around the world. The first Timberjig was delivered in 1990. So far, every owner of a Timberjig we have talked to has been delighted with this simple, but functional, equipment. Many customers have, however, looked for a product that is a little more outfitted than the original design, but not quite as extensively equipped as a Logosol Sawmill.*

*Due to this customer feedback we have joined our customers' experience and ours, and developed a system where the base is a new, improved Timberjig. A well thought out line of mounts, guide rails, supports, and other accessories, which are all compatible with the Timberjig, makes it possible to extend and adapt the sawing equipment to your particular needs.*

*These components are divided into two lines; one which aims at sawing normal-sized logs, and one which aims at sawing oversized logs. Most of the components are the same for the different systems and can thereby be "re-utilized" for different applications.*

*All the aluminium components have been anodized to offer a smooth, hard surface. Some of the steel components are treated with nitrogen gas and hardened in oil, which gives the steel increased corrosion resistance, higher durability, low friction, and the characteristic black colour. Compared to typical zinc plating, this process is more expensive, but we feel that the resulting quality is both seen and felt.*

*We are just as concerned about your safety as we are about you getting the best results possible with your Timberjig. That is why we recommend you to read this manual from cover to cover before you begin sawing. Additionally, the manual also contains helpful information which we would like to pass down to you, gathered from our years of experience in sawing trees here in Sweden.*

*We wish you all the best with your new Timberjig and the Big Mill System.*

*-Coffee always tastes better on a porch built with your own planks!*

*Bengt-Olov Byström*
*Managing Director*
*at Logosol in Härnösand, Sweden.*

## Information about this manual

Whenever this symbol appears, a tip follows that will simplify or improve the results.

LOGOSOL is constantly developing its products. For that reason we reserve the right to make changes in the design and construction of our products.

Text: Mattias Byström

Translation: Anna Byström Olsgren

Illustrations: Mattias Byström

First edition: 2003-04-08

Latest revision: 2014-09-15

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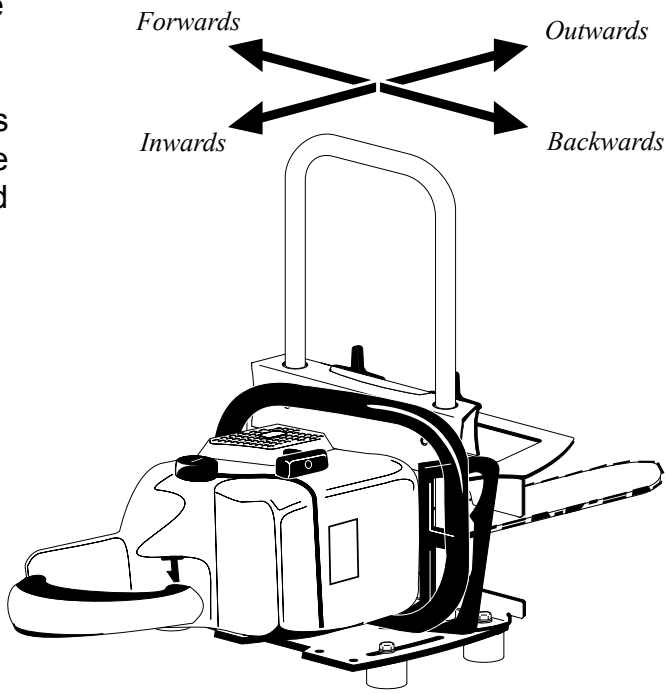
**Manual, Article No: 0458-395-1010**




*Timberjig directions used in this manual.*

# Table of Contents


| *Subject:* | *Concerning:* | *Page:* |
|---|---|---|
| Safety Instructions | | 6-7 |
| Assembly | Timberjig | 8 |
| Preparations | Wooden Aids | 11 |
| Work Site | Wooden Aids | 12 |
| Sawing | Wooden Aids | 12 |
| Assembly | Big Mill BASIC | 16 |
| Work Site | Big Mill BASIC | 18 |
| Guide Rail Supports | Big Mill BASIC | 18 |
| Height Setting | Big Mill BASIC | 19 |
| Sawing | Big Mill BASIC | 20 |
| Guide Rail Extension | Big Mill BASIC | 24 |
| Sawing Long Logs | Big Mill BASIC | 25 |
| Safety Instructions | Big Mill LSG | 26 |
| Assembly | Big Mill LSG | 26 |
| Sawing | Big Mill LSG | 28 |
| Guide Rails Supports EXT | Big Mill PRO | 29 |
| Double Guide Rails | Big Mill PRO | 30 |
| Oversized Logs | Big Mill PRO | 31 |
| Demands for Sawing Precision | | 33 |
| Troubleshooting / Tips | | 34 |
| Stationary Sawmill | | 36 |
| Build a Log Ladder | | 37 |
| M7-Saw Carriage | | 38 |
| Upgrading: Logosol Sawmill | | 39 |
| Seasoning Timber | | 40 |
| Cutting Equipment | | 41 |
| Build a Bench | | 47 |
| Manufacturer Declaration | | 48 |

# Safety Instructions, 2 pages

"WARNING!" Pay extra attention when this symbol appears in the text.

For your own safety, do not begin working with the Timberjig before having read and understood the entire manual. Also read the manual and safety instruction for the chainsaw you are using.

Incorrect use of the Timberjig can cause life-threatening injuries. Cutting tools: Never place your hands or tools past the scale bail while the chain saw is running.

Use protective gloves when operating the Timberjig. Risk of cutting injuries when handling the saw chain. The cutting equipment can be hot immediately after sawing.

Use an approved protective helmet in combination with hearing protectors. Hearing can be impaired after only a short exposure to high-frequency sounds. Use approved, well-fitted eye protectors.

Use approved protective shoes or boots with steel toe and deeply patterned sole with good grip.

Use approved protective jacket and protective trousers. Never work in loose-fitting clothing, an overcoat or the like. Do not wear a scarf, tie, jewellery or other items that can get caught in the equipment.

This symbol means "PAY ATTENTION" and is always followed by an admonition or warning with great importance for safety or sawing results.

- All the protective equipment - eye protectors, protective helmet, hearing protectors, protective shoes, protective gloves, protective trousers, and protective jacket - should be CE-certified and approved for work with chainsaws.

⚠ If used incorrectly, the Timberjig can cause serious injury.

- The most important safety instructions are found on this page and the next. Additional instructions will appear in each chapter throughout the manual. All warnings, admonitions, and operating instructions must be followed to avoid serious injury.
- Only persons who have read and understood all of the instructions in this manual, who are well-rested, in good physical health, and have good eyesight are qualified to use the Timberjig. Persons who do not meet these requirements are not qualified operators.
- Do not operate the Timberjig under the influence of alcohol or drugs.
- Sawing with the Timberjig should only be done in good visibility conditions.
- Persons under the age of 18 may not use the Timberjig. Children and animals may not be near the equipment when the Timberjig is in operation.
- The safety distance for persons other than the operator is 10 m (33 feet) due to the danger of the chain being hurled out because of a chain break.

⚠ Risk of the chain being hurled out if it breaks.

- Always stand behind the chainsaw during operation.

⚠ Increased kickback risk! Do not use a ripping chain when cross-cutting. Max. permitted guide bar length is 63 cm (25 inches). Exception: see LSG and PRO.

- Never work alone. Make sure there are other persons within hearing distance if you should need help.

## When using a petrol-driven chainsaw:

⚠ Fire danger! Turn the motor off before filling with petrol. Petrol is extremely flammable. Burn injuries can be life-threatening. If you spill fuel, clean the area immediately. If you get fuel on your clothing, change at once.

Tighten the petrol tank cover to minimize the risk of its vibrating loose during operation.

Never saw with the throttle in locked position, Always control the throttle manually while sawing.

## Safety check before starting the chainsaw.

❗ Always check that:

…the guide rail holders and the guide rail are assembled correctly.

…all screws, knobs, and handles are tight on all equipment.

…the dimension plate is in its upper position if it is not being utilized.

…you do not unintentionally saw into something placed behind the log or at the ends of the log. Kickback risk!

…you do not unintentionally saw into the guide rail holders. Kickback risk!

…the log is thoroughly fastened.

…the petrol and oil tank covers are tightened.

…the chain brake is activated.

…both you and your equipment are standing firmly on the ground.

...there is no one but the operator within the 10 m (33 feet) safety distance.

## Starting the chainsaw mounted on the Timberjig.

Read the manual and safety instructions for the chainsaw. Contact the chainsaw manufacturer if any of the information is not clear or understood.

The chainsaw may not be started on the guide rail.

The chainsaw should be started on the ground with the chain brake activated. Make sure you are standing firmly. Use the chainsaw's choke if it has one.

The chain brake should always be engaged when the Timberjig is lifted on or off the guide rail or the log.

## During sawing

Hold the chainsaw handles firmly with both hands (do not hold the scale bail). Hold your right hand behind the chain brake for quick activation if a problems occurs.

## After each cut

Release the throttle and wait until the chain stops. Activate the chain brake and turn off the chainsaw before lifting the Timberjig from the guide rail or the log. Keep your work site clean. Always remove slabs and boards. Do not leave the Timberjig unsupervised where unauthorized persons can start it.

**The chain brake should always be activated when the chainsaw is mounted on the Timberjig. The only exception is when the unit is in position on the guide rail for sawing.**

**Be aware that accidents with chainsaws happens most frequently when the operator e.g. is removing chips or is trying to correct a small problem. Whenever an operational disturbance occurs, turn the chainsaw off immediately! Such a stop can seldom be seen on the finished product.**

# 1. Assembling the Timberjig

(A) Fit two plastic rollers to the underside of the side plate. The rollers are adjustable inwards and outwards. Position them so that their edges are in line with the outer edge of the side plate. (2x M6x16 screws, 2x M6 washers, 2x M6x18 special nuts.)

(B) Fit the inner plastic rollers in the bottom plate tracks. These rollers should not rotate. (2x M6x14 screws, 2x M6 washers, 2x M6x12 special nuts.)

(C) Insert the star knobs through the hexagonal holes in the dimension lock and screw on the collar nuts, with the collar towards the dimension lock, approximately 20 turns. (2x star knobs M8x40, 2x M8 collar nuts.)

(D) Insert the dimension lock into the dimension plate from the side. Check that the collar nuts on the star knobs are correctly fitted into the hexagonal holes. Turn the starknobs, altering between right and left, until they touch bottom. Do not tighten them.

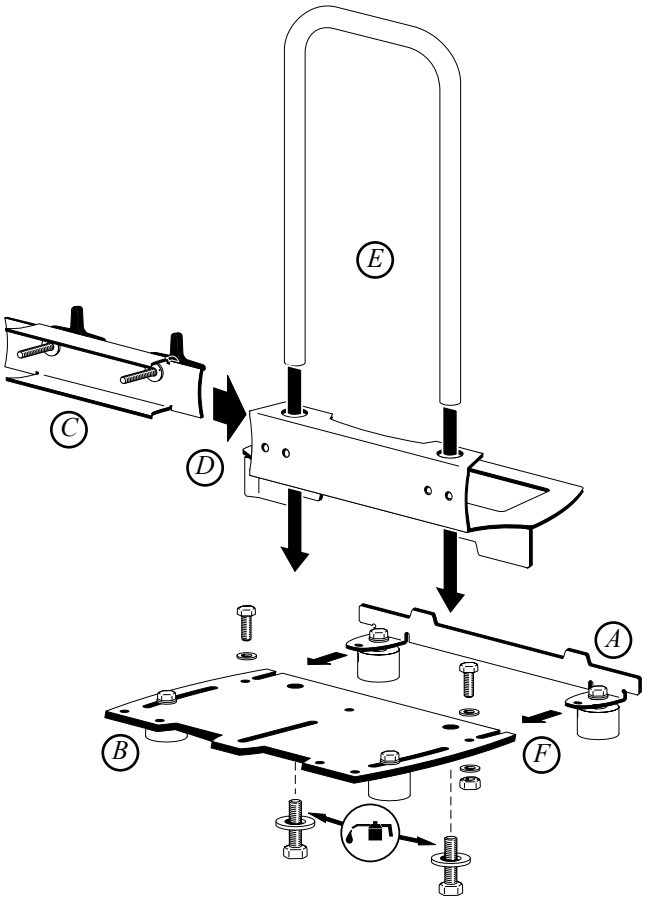
(E) Pass the scale bail through the dimension plate with the scale turned outwards. put a drop of oil on the screws and fasten the scale bail to the bottom plate. Hold the the scale bail carefully with an adjustable spanner while tightening the screws, in order to keep it from becoming crooked. (2x M12x30, 2x M12 washers).

Check that the dimension plate can move freely along the scale bail. If not, loosen the M12 screws a turn or two, move the dimension plate down as far as possible and tighten again. The scale bail should not press against the hole edges of the dimension plate in any position.

(F) Attach the side plate with the rollers to the bottom plate. Insert the special nuts into the tracks in the outer edge of the bottom plate. When in the basic setting, the outer edge of the side plate should be in line with the outside of the dimension plate's fence. (2x M6x16, 4x M6 washers, 2x M6 lock nuts.)

(G) See exploded view. Insert the guide bar's support bolt. Screw it down as far as possible. Do not tighten it. The nut on the top of the bottom plate **should not** serve as a lock nut. (1x M6x45, 1x M6 nut, 1x M6 lock nut, 2x M6 washers.)

When adding extra equipment, use only original parts from Logosol or parts that have been expressly approved by Logosol for that purpose. Other parts can cause accidents and may not be used. Logosol disclaims all responsibility for personal injury or damage on property caused by a sawmill equipped with non-approved parts, or modified in any other way.



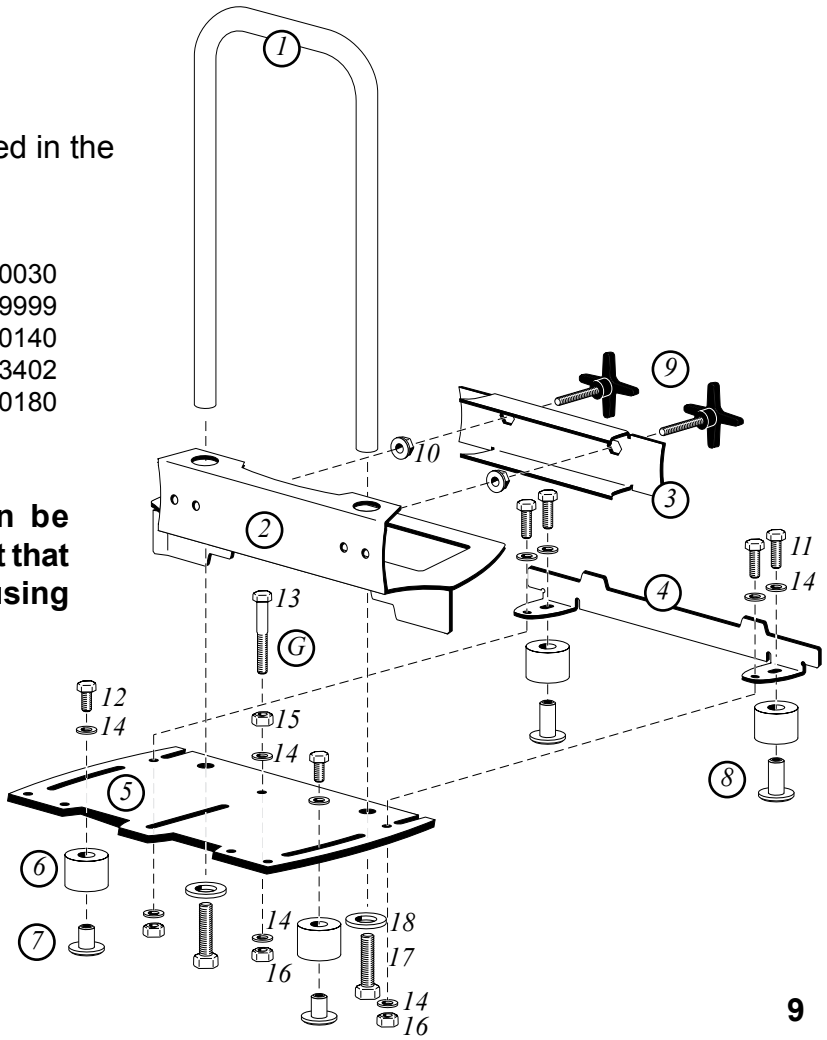

| Pos. | Component | Quantity | Article no. |
|---|---|---|---|
| | Timberjig | | 4900-000-1000 |
| 1 | Scale bail | 1 | 4510-723-4301 |
| 2 | Dimension plate | 1 | 4900-001-0001 |
| 3 | Dimension lock | 1 | 4900-001-0003 |
| 4 | Side plate | 1 | 4900-001-0005 |
| 5 | Bottom plate | 1 | 4900-001-0010 |
| 6 | Plastic roller | 4 | 4900-001-0015 |
| 7 | Spec. nut M6x12 | 2 | 4900-001-0020 |
| 8 | Spec. nut M6x18 | 2 | 4900-001-0025 |
| 9 | Cross knob M8x40 | 2 | 7202-001-0228 |
| 10 | Collar nut M8 | 2 | 9214-353-1100 |
| 11 | Screw M6x16 | 4 | 9007-319-1290 |
| 12 | Screw M6x14 | 2 | 9007-319-1291 |
| 13 | Screw M6x45 | 1 | 9008-319-1420 |
| 14 | Washer M6 | 10 | 9291-021-0140 |
| 15 | Nut M6 | 1 | 9210-260-0900 |
| 16 | Lock nut M6 | 3 | 9214-320-0900 |
| 17 | Screw M12x30 | 2 | 9007-319-2280 |
| 18 | Washer M12 | 2 | 9291-021-0220 |

## Timberjig components:

The quantities indicated are included in the basic Timberjig kit.

| Component | Quantity | Article no. |
|---|---|---|
| Assembly angle iron | 8 | 4900-001-0030 |
| Wood screw 20 mm | 48 | 9999-000-9999 |
| Manual | 1 | 0458-395-0140 |
| Logosol nut M8 | 2 | 4510-723-3402 |
| Washer 11x28x2 | 2 | 9291-021-0180 |

**All articles in this manual can be ordered from Logosol. Build a unit that perfectly suits your needs by using original components.**



## Mounting the chainsaw on the Timberjig

Loosen the two guide bar nuts on the chainsaw and remove the guide bar cover. Remove the two bark guards, but leave their bolts and tighten their nuts.

**❗ Do not remove the chain catch if there is one. Make sure that the chain catch is correctly fitted on the chainsaw (see chainsaw manual).**

Refit the guide bar cover, and replace the guide bar nuts which came with the chainsaw with two Logosol nuts. (The guide bar nuts will later be used for mounting the chainsaw on the Timberjig.)

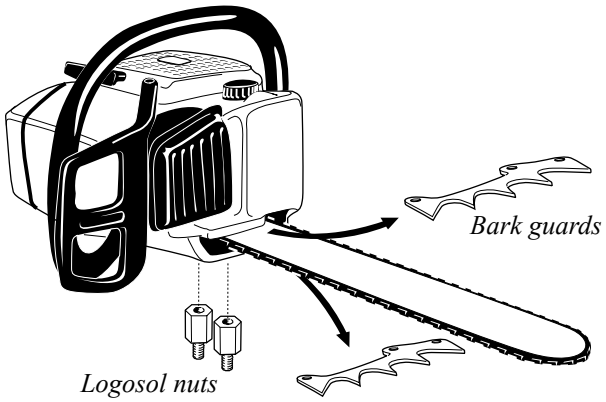
**❗ Only CE-certified chainsaws with two guide bar nuts may be used with the Timberjig.**

The maximum distance from the outer edge of the chainsaw to the inner guide bar bolt may not exceed 100 mm (4 inches).

Mount the chainsaw on the Timberjig. Insert the two logosol nuts into the track in the bottom plate and fasten them by using M8 washers and the original guide bar nuts on the underside of the plate. NOTE: The saw should be mounted as far forward as possible, leaving space for the motion of both the dimension plate and the chain brake (kickback guard). **The support bolt** (G page 9) **should be positioned so that it just touches the underside of the guide bar.**

**⚠ Kickback risk!**

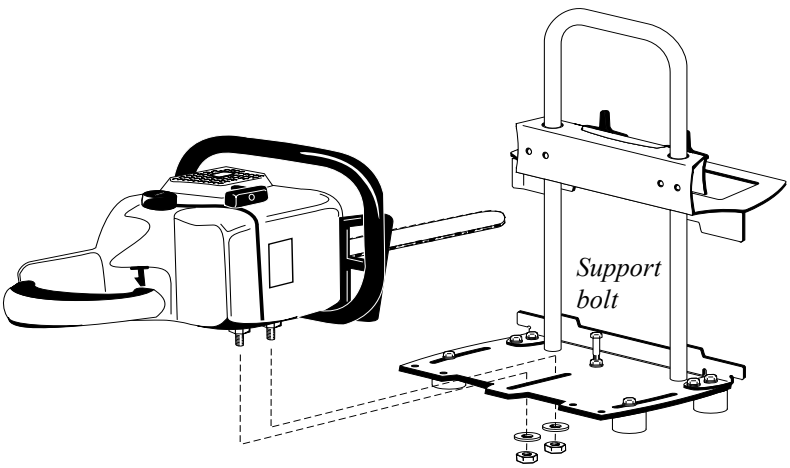
❗ Check the function of the chain brake after mounting the chainsaw on the Timberjig. Ensure that the Timberjig is assembled correctly, that the chainsaw is correctly mounted on the Timberjig and that all screws are tightened.




⚠ Risk of burn injury and of damaging the Timberjig.

When the chainsaw is mounted, check that the exhaust is not directed towards the scale bail on the Timberjig. If that is the case, the chainsaw must be moved inwards in its track so that the distance between the exhaust and the scale bail increases. Alternatively the exhaust fumes can be diverted from the muffler's exhaust with a thin piece of sheet metal which is screwed to the muffler or the like (always confer with the chainsaw manufacturer about such an addition). If the dimension plate is positioned so high that it gets near the exhaust, you should let the Timberjig cool at regular intervals.

❗ Let the Timberjig cool if it feels hot. Never let it get hot. Always use protective gloves.




*The chainsaw's original bar nuts with washers (11x28x2).*

# 2. Preparations – Timberjig Wooden Aids

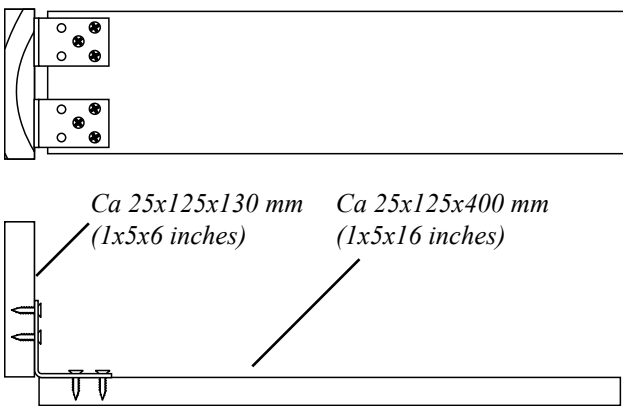
## Sawing with the Timberjig requires certain preparations.

The idea behind the Timberjig design was to create a fully functioning sawmill at a reasonable price. As the basic unit of the Big Mill System, the Timberjig is designed to be easily expanded and work together withother components.

If you do not have the guide rail and guide rail supports of the Big Mill System (pp16-17): Before you begin sawing you must build simple wooden copies of some of the Big Mill Sytem components, viz. the guide rail and the guide rail supports. Once this is done, you will have a system which saws quickly and accurately at a low cost.

## Building wooden guide rail supports

Make wooden guide rail supports. Material: Two 25x125x400 mm (1x5x16 inches) boards, two 25x125x130 mm (1x5x5 inches) boards, and four angle irons. The boards should be straight. Screw the boards together using angle irons as shown in the figure below. Note that the boards do not touch each other. The angle irons will serve as stiff hinge supports.




## Building a straight, wooden guide rail.

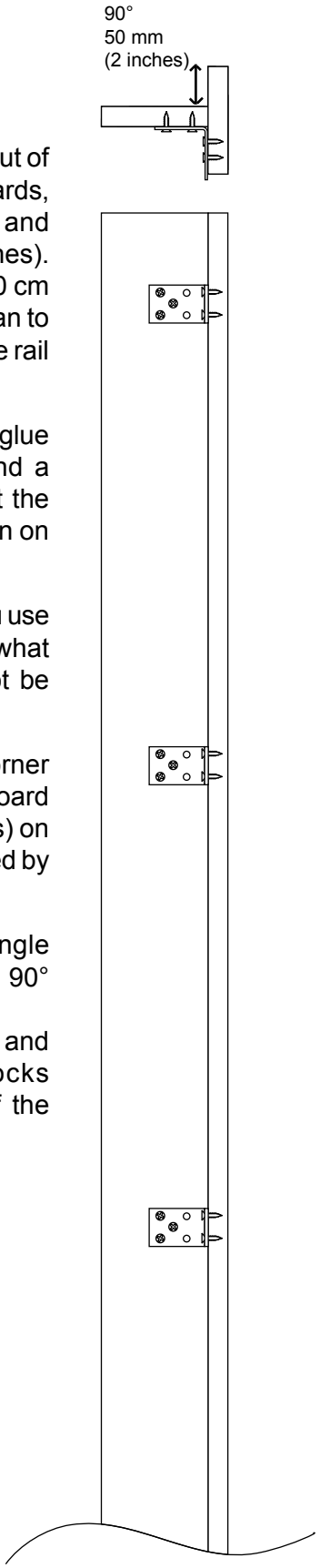
Make a straight guide rail out of two, preferably planed, boards, ca 22 mm thick (1 inch) and 120-150 mm wide (5-6 inches). The guide rail should be 40 cm longer than the logs you plan to saw. Do not make the guide rail longer than necessary.

Use angle irons and wood glue to obtain a right angle and a strong bond. It is vital that the corner the Timberjig will run on is exactly 90°.

It is all right if the boards you use for the guide rail are somewhat crooked, but they may not be warped.

The distance from the corner to the edge of the other board should be 50 mm (2 inches) on the side that is *not* reinforced by the angle irons.

- Make sure that the angle between the boards is 90° along the whole length.
- If necessary, reinforce and adjust with wood blocks along the underside of the guide rail.



# The Work Site – Wooden Aids

Prepare your work site on a clear and level ground. The easiest way to support a log that you are about to saw is to place it across two parallel, smooth, and level logs.

The height of your support logs should not exceed 50 cm (20 inches).

❗ If logs are used as a work bench, remember to keep them from rolling by using e.g. wedges.

Make sure you do not saw on an upward slope. It is better that the log bed is somewhat higher on the side you start sawing on, in order to ensure that you saw slightly downwards.

Screw a 30 mm (1 1/8 inch) wood block on both ends of the log to prevent it from moving sideways when you are sawing with your Timberjig through the log, and to prevent it from rolling down on you. An alternative to wood blocks is to use Logosol's Log Clamp Steel, (article no. 4900-001-0400).

⚠ Risk of serious injury.

❗ If you are working close to a pile of logs, secure them with wedges and fasten a strong strap around the front logs to prevent the pile from falling down over you.

❗ Keep your work site free of tools, pieces of wood, wood chips, and other things you can trip on.

⚠ Risk of crush injury if the log you are processing rolls down.

❗ Always use wedges or other means for making sure that the log will not roll off the supports.

# Sawing – Wooden Aids

## Preparations for sawing

It is of advantage to cross cut the ends of the log before starting. It is also useful to calculate the yield of your log. Mark it at both ends, measuring from the log's midpoint. Use a 6 mm felt-tip so that the line will correspond to the saw cut.

## First cut

1. Fasten the log with wedges.
2. Fasten the guide rail supports to the log ends, slightly under the level of your planned first cut. Use a spirit level to get them parallel.
3. Fit the guide rail to the supports with C-clamps.
4. Loosen the clamps if you want to adjust the guide rail so the kerf lies exactly where you want it. Check by lifting the Timberjig onto the rail. The supports may not extend over the guide rail.
5. Preferably, the guide rail should lie against the log. If it does not, or if the project log is longer than 2.5 m (8 feet), place a wedge between the guide rail and the log, and drive a screw through the guide rail, the wedge, and into the log.
6. Turn the log with the attached guide rail between 25° and 45° upwards and away from you, so that the guide bar will point slightly downwards during sawing. This simplifies the work and makes it easier to attain the desired result.

7. Fasten the log securely, paying special attention that it will not move when the Timberjig is mounted on the guide rail. This is a prerequisite for smooth and safe sawing. One method is to screw a board into the log end, making sure that it makes contact with the ground.

⚠ Tip risk. Check that the log is fastened well.

❗ Use at least two wood screws, 4x80 mm (1/4”x3 1/8”) or larger.

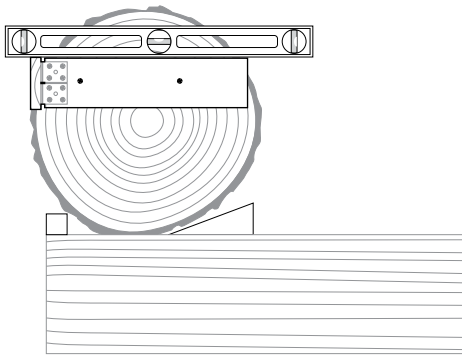
An alternative is a log clamp (art. no. 4900-001-0400) for fastening the log.

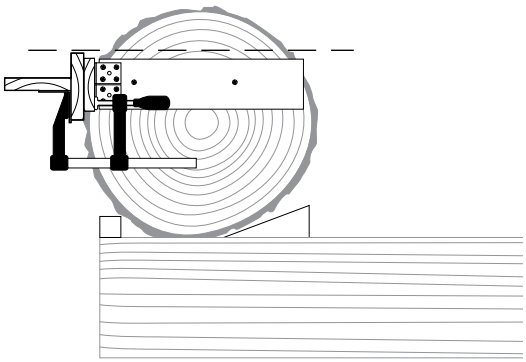
❗ Do not start your chainsaw until you have read and understood both the chainsaw and the Timberjig manual.

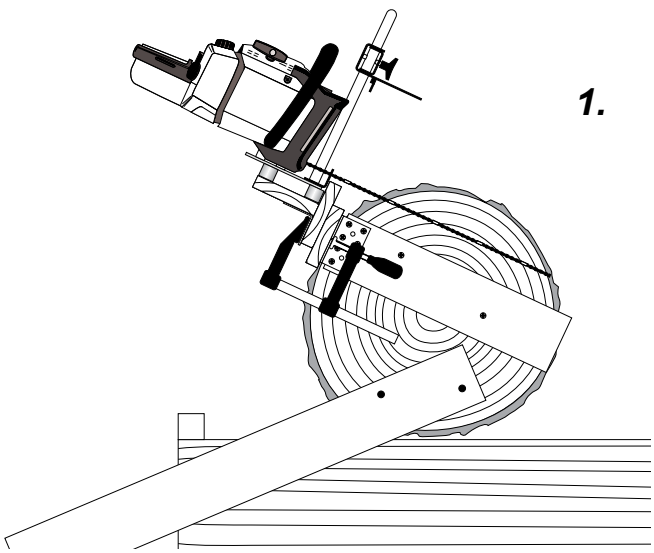
❗ Always perform the safety check listed on page 7 before each cut.

8. Always start the chainsaw with the chain brake engaged. Never release the chain brake until the saw is in the right position on the guide rail.
9. Make the first cut.
10. When finished, follow the instructions in *After each cut* on page 7.

*Setting the wooden guide rail.*





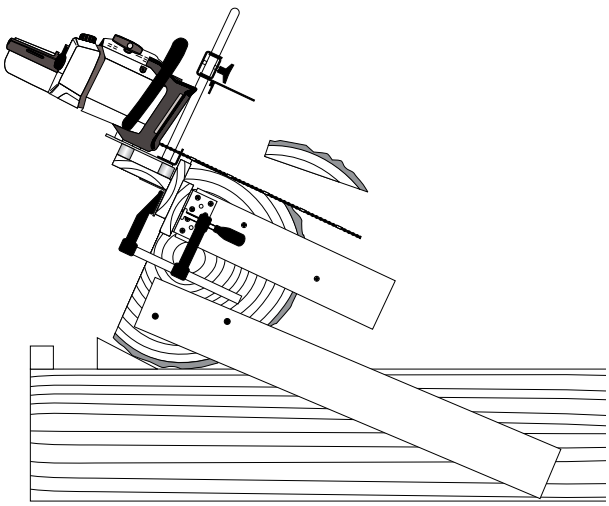


## Second cut

Remove the guide rail from the log. Place the guide rail on the sawn surface. Align it so that the the next cut will occur in the right place, and nail it to the sawn surface. Alternatively, you can use the guide rail supports. Fasten the log. Make your second cut.

The scale on the Timberjig can vary somewhat depending on the chainsaw used. Make note of any variance and remember that when setting the dimension plate height.

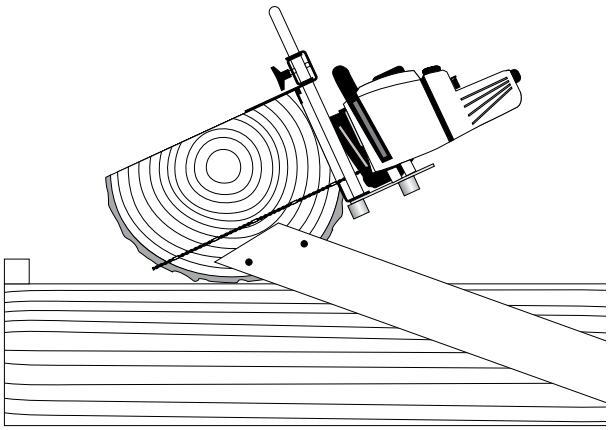
*2.*



## Third cut

Remove the guide rail from the log. Set the dimension plate for the block size desired. Fasten the log securely. Make sure that you will not saw into the log bed or the fastening points. Saw the block.

*3.*

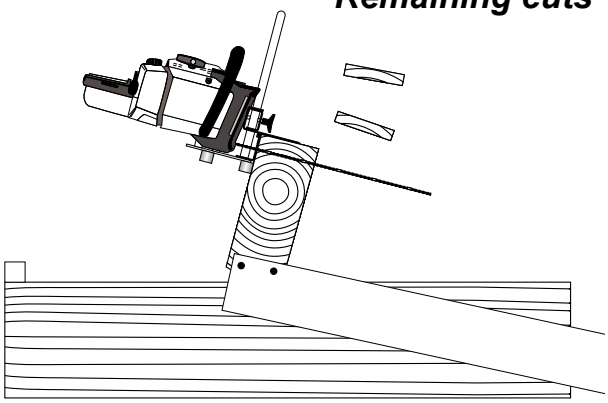


When sawing you should not try to steer the guide bar. The best method is to press the Timberjig straight forwards using the upper chainsaw handle. Position your hand as far down as posible on the handle. Your other hand should hold the chainsaw throttle handle, without pushing up or down. The most important is to make each cut in the same manner, something made easier by allowing the Timberjig to steer itself as much as possible.

## Remaining cuts

Position the block. Fasten it securely. Set the dimension plate to the board thickness desired. When making the last cuts, make sure you do not saw into anything else.

***Remaining cuts***

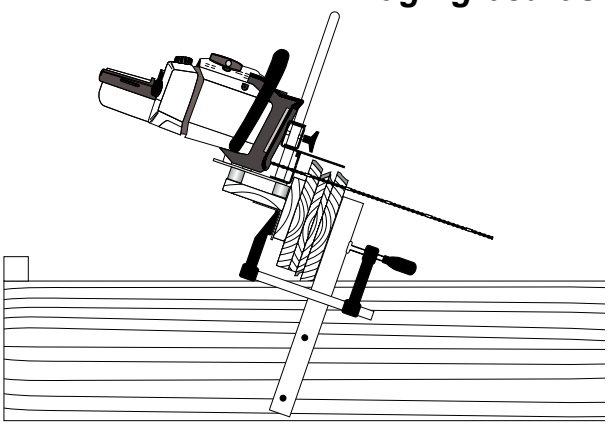


## Edging boards

For a better yield, save the rough edged boards until you have a number of boards that are about the same width.

1. Place a stack of rough edged boards on top of each other, and position the guide rail on the top of the stack.
2. Adjust the guide rail for the saw kerf desired, and clamp the boards and the guide rail together with C-clamps.
3. Place the stack on edge and fasten it securely. Carry out the safety check (p7), and then take the cut.
4. Lay down the stack, and carefully loosen the guide rail so that the boards do not get out of position.
5. Measure where the next cut should be, and then clamp the boards and the guide rail together with C-clamps.
6. Place the stack on edge and fasten it. Start sawing after the safety check on page 7 is carried out.

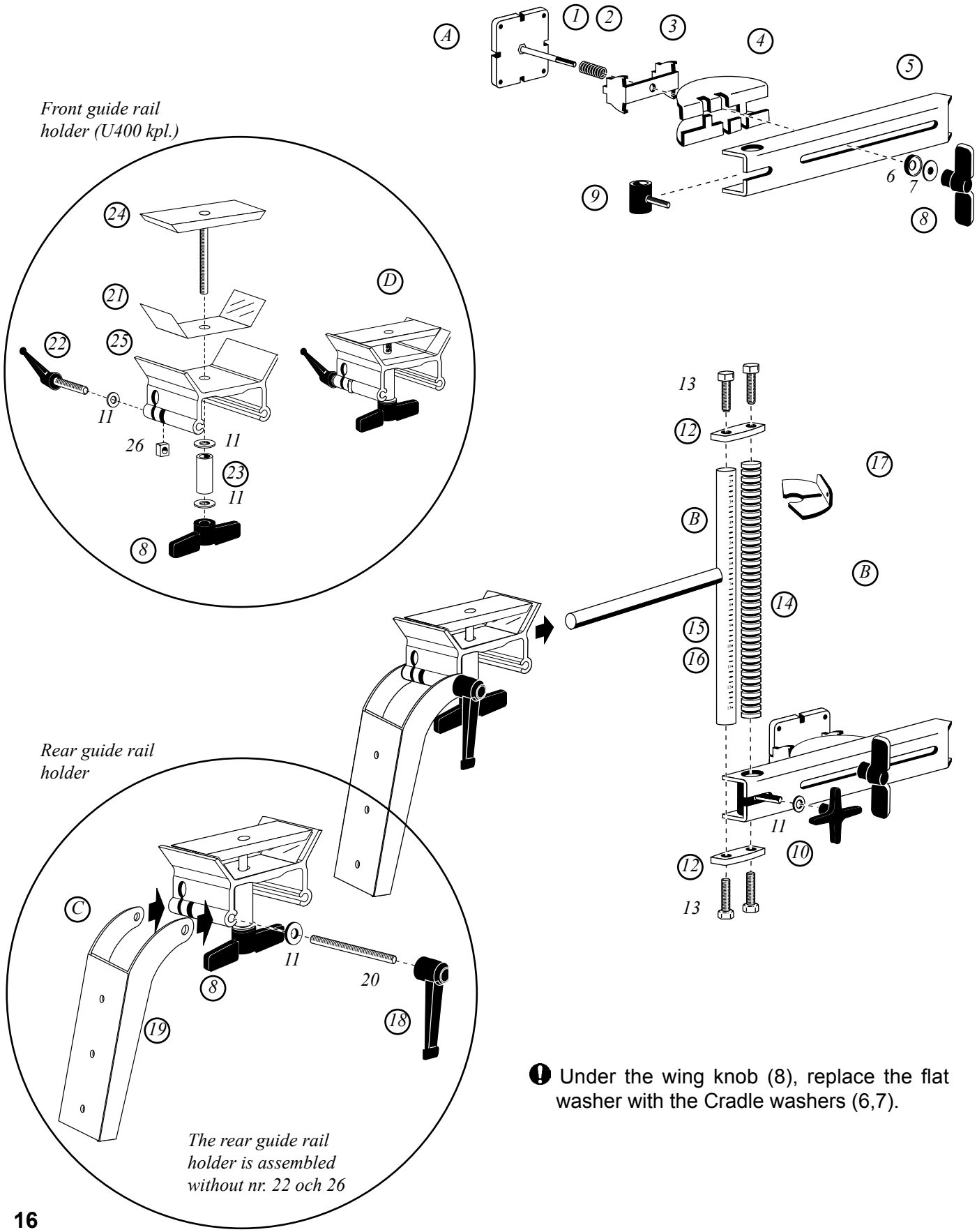
***Edging boards***



Use a log clamp (art. no. 4900-001-0400) to fasten the block when taking the last cuts. The clamp can be screwed into the log bed.

*Log Clamp*

# 1. Assembly - Big Mill BASIC




Under the wing knob (8), replace the flat washer with the Cradle washers (6,7).

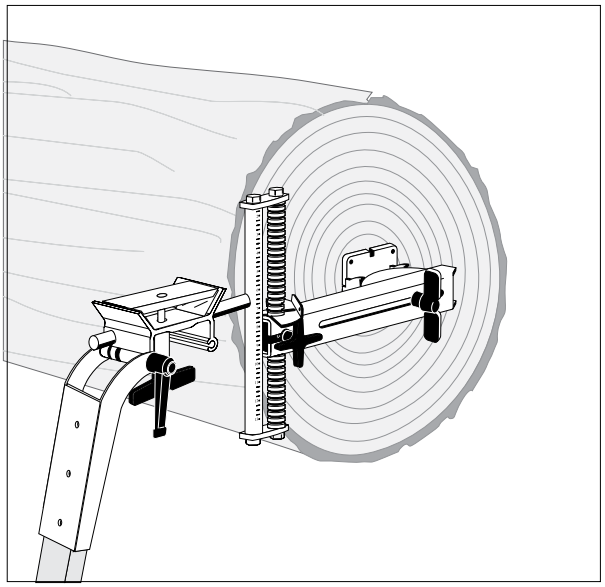
## Big Mill Basic, Components:

The quantities indicated are included in Big Mill BASIC.

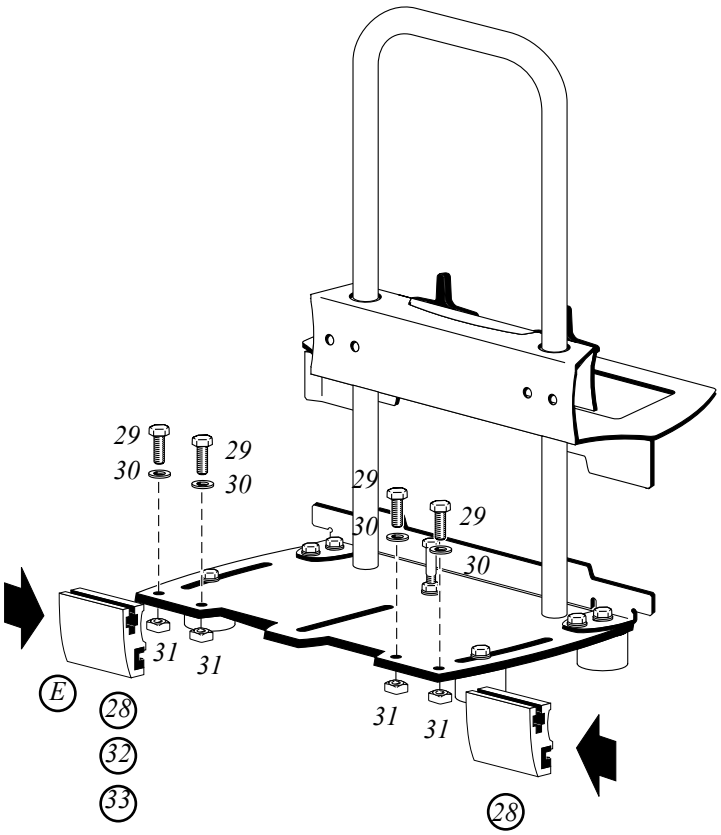
**Big Mill BASIC (1-33 + guide rail) art. no. 4900-007-1000**

**Adjustable guide rail supports (pos. 1-33 excl. guide rail) art. no. 4900-002-1005**

| *Pos.* | *Component* | *Quantity* | *Article no.* |
|---|---|---|---|
| A | Short arm compl. (no.1-9) | | 4900-002-1020 |
| 1 | Screw plate | 2 | 4900-002-0010 |
| 2 | Spring | 2 | 4900-002-0015 |
| 3 | Cradle foot | 2 | 4900-002-0020 |
| 4 | Cradle half | 4 | 4900-002-0025 |
| 5 | Short arm | 2 | 4900-002-0035 |
| 6 | Cradle washer female | 2 | 4900-002-0040 |
| 7 | Cradle washer male | 2 | 4900-002-0045 |
| 8 | Wing knob 100mm | 2 | 4510-723-5330 |
| 9 | Lock sleeve | 2 | 4900-002-0030 |
| B | T-bar kit (nr.8,9,10-17) | | 4900-002-1000 |
| 10 | Cross knob | 2 | 4900-002-0090 |
| 11 | Washer M8 | 2 | 9291-021-0180 |
| 12 | Double washer | 4 | 4900-002-0050 |
| 13 | Screw M12x25 | 8 | 9999-000-5050 |
| 14 | Rack | 2 | 4900-002-0055 |
| 15 | T-bar | 2 | 4900-002-0060 |
| 16 | TJ scale transfer | 2 | 4900-002-0070 |
| 17 | Key | 2 | 4900-002-0075 |
| C | Board fitting kit (nr.11,18-20) | | 4900-002-1015 |
| 18 | Adjustable handle M8 | 1 | 4900-002-1040 |
| 19 | Board fitting M8 | 1 | 4900-002-0080 |
| 20 | Threaded bar M8x95 | 1 | 4900-002-1025 |
| D | U400 compl. (nr.8,11,21-27) | | 4900-002-1010 |
| 8 | Wing knob 100mm | 2 | 4510-723-5330 |
| 21 | Stainless steel plate | 2 | 9999-000-1028 |
| 22 | Adjustable handle M8x40 | 1 | 4510-723-5400 |
| 23 | Sleeve 10x40 | 2 | 4510-723-5804 |
| 24 | Press plate | 2 | 4510-723-5702 |
| 25 | Guide rail holder profile | 2 | 4900-002-1030 |
| 26 | Square nut M8 | 1 | 9222-068-1100 |
| 27 | Washer M8 | 6 | 9291-021-0180 |
| E | Sliding block kit (nr.28-33) | | 4900-002-2015 |
| 28 | Sliding block 50 mm | 2 | 4900-002-0085 |
| 29 | Screw M6x16 | 4 | 9007-319-1290 |
| 30 | Washer M6 | 4 | 9291-021-0140 |
| 31 | Square nut M6 | 4 | 9222-068-0900 |
| 32 | Plastic slide strip 50 mm | 2 | 4510-723-2905 |
| 33 | Sheet metal screw drill-quick | 4 | 9099-021-2400 |
| | Wood screw 4x35 | 8 | 9999-000-9999 |
| Guide rail 2.75 m WWM (Approx. 9 feet) | | 1 | 4517-001-0005 |



*The adjustable guide rail support fastened to the center of the log end.*




Sliding blocks (2x50 mm) should be fitted to the Timberjig before it can be used together with Big Mill System's aluminium guide rail.

# The Work Site – Big Mill BASIC

Prepare a work site on clean and level ground. The log you are about to saw should lie across two other parallel, smooth, and even beams or logs.

Fasten a 30 mm (1 1/8 inch) high wood block at each end of the support logs, to reduce the risk of your project log rolling off. An alternative to wood blocks is using Logosol's log clamp (art. no. 4900-001-0400).

Do not saw on an upward slope. It is better that the log bed is somewhat higher on the side you start sawing on, in order to ensure that you saw slightly downwards.

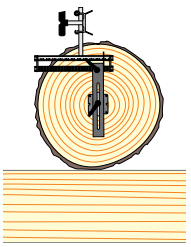
- If you use logs as a log bed, use e.g. wedges to prevent them from rolling sideways.
- If you work close to a pile of logs, secure it with wedges and fasten a strong strap around the front logs to keep the pile from falling down over you.
- Keep the work site free of tools, pieces of wood, wood chips, and other things you can trip on.

**Advanced setting of scales and height adjustment (next page):** If you do not get exactly the measurement you want for the log ( if you, for instance, get 155 mm instead of 152 mm when you want to make a 6" block) you can adjust this by placing washers between the bars and the double washers. One washer is e.g. placed *under* the rack and another washer is placed *over* the T-bar. This way the bars get displaced parallel to each other, and the block width can be exactly adjusted to the chainsaw you have.

# The Adjustable Guide Rail Supports – Big Mill BASIC

Place a project log on the front edge of the log bed, adjacent to the wood blocks. Screw one of the adjustable guide rail supports to the middle of the top end of the log. Screw a 70x40 mm (3"x2") board to the board fitting. Cut the support leg board so that it stands at an approximately 90° angle to the ground when the guide rail holder is in its uppermost position.

## Setting the parallelity of the guide rail supports, method 1:



Screw one of the guide rail supports to the top end of the log, in a vertical position to the ground (see fig.).

Tighten the wing knob on the arm. Fasten one end of the guide rail to the guide rail holder (allow approx. 200 mm / 8 inches to protrude from the log). Fasten the other guide rail support to the root end of the log with *one* screw. Tighten the wing knob on the arm. Fasten the other end of the guide rail. Lock both racks in their lowest positions. Screw the remaining three screws into the root end of the log. The guide rail supports are now parallel.

## Setting the parallelity of the guide rail supports, method 2:

Make sure the log is well fastened. Tighten the wing knobs on the arms. When you fasten the guide rail supports, use a spirit level to adjust them to a horizontal position. Fasten the guide rail.

# Scales and Height Settings – Big Mill BASIC

The guide rail support has a scale with two gradations. The large numbers represented on the scale indicate the distance from the lower edge of the guide bar to the centre, and the small numbers indicate the block thickness if the same setting is used when the opposite side of the log is sawed.

The key should be pressed into one of the tracks on the rack, and then rotated towards the scale for proper reading. Once the key is in the right position, the rack is lowered until the key rests against the upper side of of the short arm. Make sure there are no wood chips between the key and the arm. Then lock the rack by tightening the cross knob.

Because the guide rail supports are fastened to the center of the log you will obtain an excellent yield right from the start. As long as the log is fairly straight, the kerfs will automatically be parallel to the pith (medulla), which is usually considered optimal.

Right and left guide rail support should always be set at the same sawing height.

Example: *A 6 inch beam is to be sawn, as well as a one-inch and a two-inch board on either side of the beam. The settings will be as follows: the first cut at 6 1/2 (3+1/4+2+1/4+1), the second cut removes the one-inch board at 5 1/4 (3+1/4+2), and the third cut removes the two-inch board when the height is set on 3. Note that the scale gradation is set at 6. The log is then turned 180° and the procedure is repeated. The result is two rough edged one-inch boards, two rough edged two-inch boards, and a six inch block. The boards are edged separately,* *see page 23.*

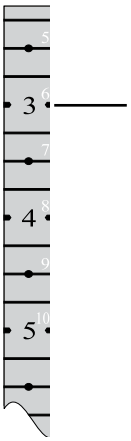
***Right and left guide rail support should always be set at the same sawing height.***

## A straight crosscut

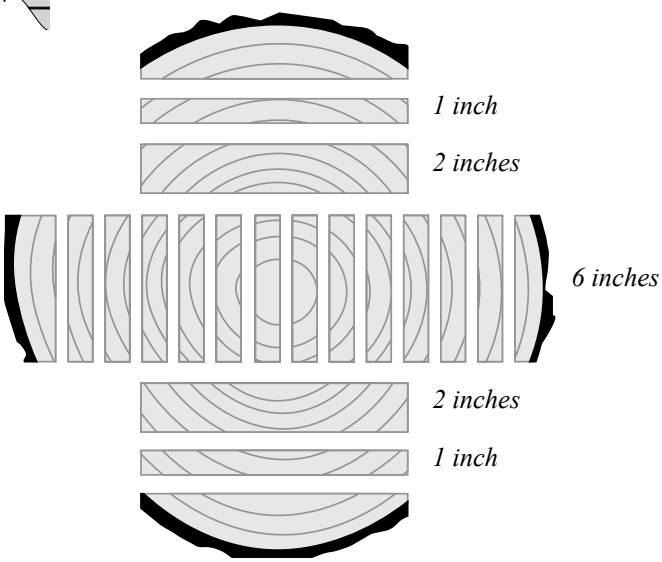
When you saw above and below the screw plate, as in the example on this page, it is vital that both ends of the log are crosscut as straight as possible. Additionally, the guide rail holders must be placed as close to the log ends as possible by angling the short arms inwards.

If the log ends are not crosscut straight, and the guide rail holders are positioned beyond the log ends because the short arms are angled away, you will get a variance in the form of a higher measurement at the end opposite to the earlier cut.

Crosscut the log ends at a right angle to the log's center line in order to obtain the correct block width.




*Example of how to use and read the scale: When the key is set to this height, it is 3 inches to the centre. If you use the same setting when making a cut on the opposite side, you will get a 6 inch block.*



# Sawing – Big Mill BASIC

## The first cut

1. Align the cut. In the beginning it is a good idea to draw in the yield on the top end and the root end. Use a 6-mm felt tip so the line will match the kerf.
2. Choose the block size you want. If there is space for extra boards, raise the guide rail with the combined boards thickness plus one-quarter of an inch for each cut.
3. Fold the support leg down to the ground so that the log is securely supported.

❗ Bring the guide rail towards the log. Make sure there is a 5-mm space along the upper edge of the guide rail. Also check the distance to the T-bars.

❗ Do not start the chainsaw until you have read and understood both the Timberjig and chainsaw manual and safety instructions.

❗ Always perform the safety check before starting (see page 7).

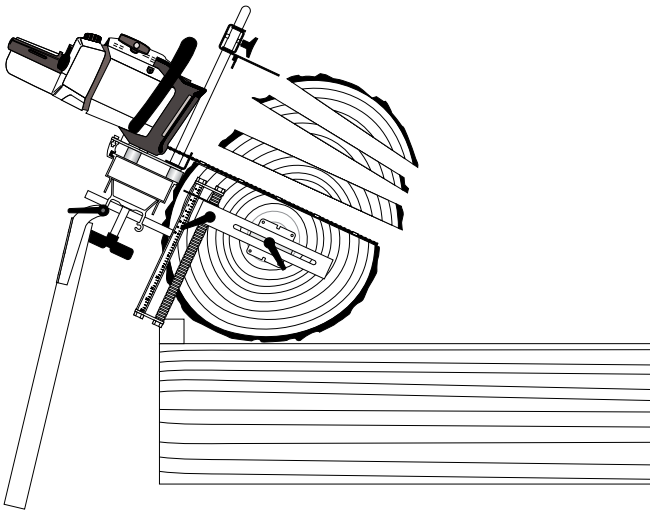
⚠ Risk of serious injury. Always start the chainsaw on the ground, with the chain brake engaged.

⚠ Risk of serious injury. Never release the chain brake until the chainsaw is in the right position on the guide rail.

4. Make the first cut.
5. Engage the chain brake before removing the chainsaw from the guide rail.

⚠ Risk of serious injury. After sawing: Always engage the chain brake before removing the Timberjig from the guide rail.

❗ Always remove the piece you just cut to make sure it is not in the way of the next cut.



## Rotate the log

Remove the Timberjig from the guide rail. Make sure you have about one metre (approx. 3.5 feet) of free space on the log bed in front of the log. Loosen the wing knob on the short arm 6-7 turns (pos. 8, page16). Move the guide rail outwards on the T-bar to make clearance for rotating the log. Roll the log forwards. Let the support leg drag over the ground so that the guide rail retains its approximate angle as the log is rotated.

Stop rotating when the cradle foot reaches the next notch in the screw plate, and tighten the knob on the short arm. Set up for your second cut.

❗ Be careful not to loosen the knob so much that it comes completely loose. In that case the cradle washers may get lost.

👍 Always work by loosening the lock knobs on the short arms and rolling the log away from you.

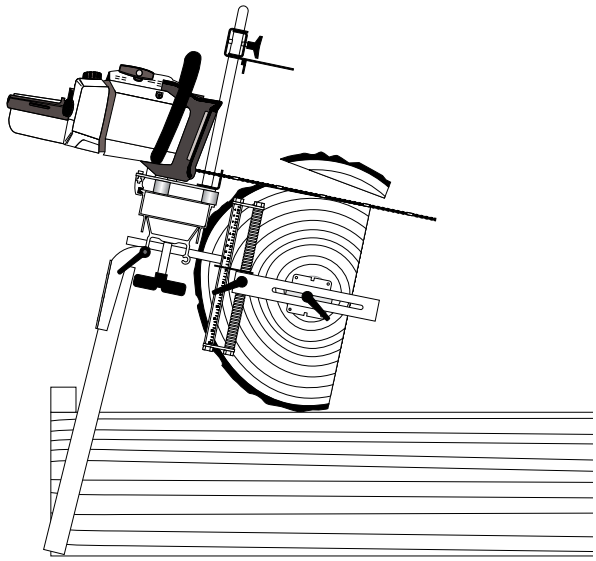
👍 If the log is heavy, remove the guide rail from the T-bars before rotating the log.

## The second cut

- Watch out so that the log does not roll off the log bed when you rotate it.

1. Turn the log 90°
2. Set the desired sawing height.
3. Fold the support leg down against the ground so that the log is securely supported.
4. Perform the safety check (page 7), and make the cut.
5. Engage the chain brake before removing the chainsaw from the guide rail.

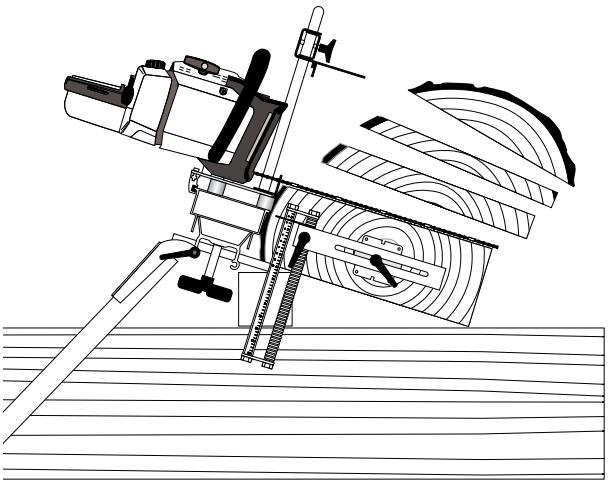
- If you intend to use the Timberjig's dimension plate for sawing the block, you should saw away all bark (at least on one side of the block) so that you get a 90° angle.



## Third cut

1. Turn the log 90°.
2. Set the desired sawing height.
4. Fold the support leg down against the ground so that the log is securely supported.
5. Perform the safety check (page 7), and make the cut.
6. Always engage the chain brake before removing the chainsaw from the guide rail.
7. Reset the sawing height and make the next saw cuts until you have the desired block width.

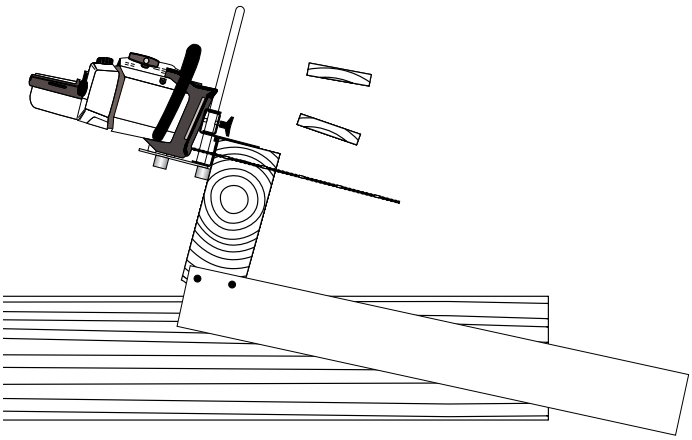
- Place a sturdy plank under the log to obtain a firm position and a good sawing angle.
- Replace the support leg with a shorter board if the angle to the ground is not optimal.



- Cut the ground end of the support leg at an angle to keep it from sliding along the ground.

## The fourth cut:

Once the block is ready, place it on end. Set the guide rail so the cut will be made exactly at bark level at the top end, then set the same height at the root end. The cut will then be parallel to the pith (medulla). When three sides are sawn there are two ways to continue sawing:



Method 1: Loosen the guide rail supports, fasten the block and use the Timberjig to cut the block into boards. Make sure that the corner the Timberjig will run on is a sharp right angle and not a rounded edge.

Method 2: Saw the boards by lowering the guide rail after each cut. Turn the block 180° when you cannot go any further. Calculate how big you want the centre piece to be, and where the saw cuts will be made (see example on page 19). The smallest possible measurement on the center piece is 4 1/2 inches. Saw by lowering the guide rail after each cut. Loosen the guide rail supports, fasten the block and saw the remaining piece with the Timberjig.

Remember to perform the safety check before sawing (page 7) and to engage the chain brake when the chainsaw is not on the guide rail.

The scale on the T-bar can vary somewhat depending on the brand of chainsaw used. Make note of any variance and remember and take that into account when sawing the log. Even the smallest possible block size can vary depending on the chainsaw used. The scales will agree when the guide bar cover is 8 mm thick.

Use a log clamp (art. no. 4900-001-0400) to hold the log during the last cuts. The clamp can be screwed to the log bed.

*Log Clamp*

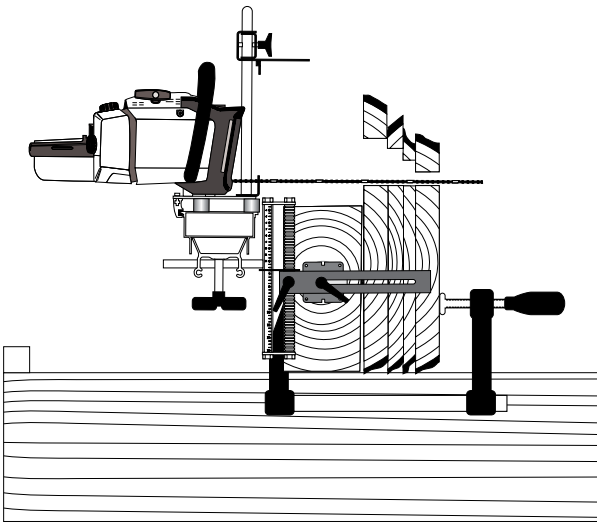
## Edging the boards

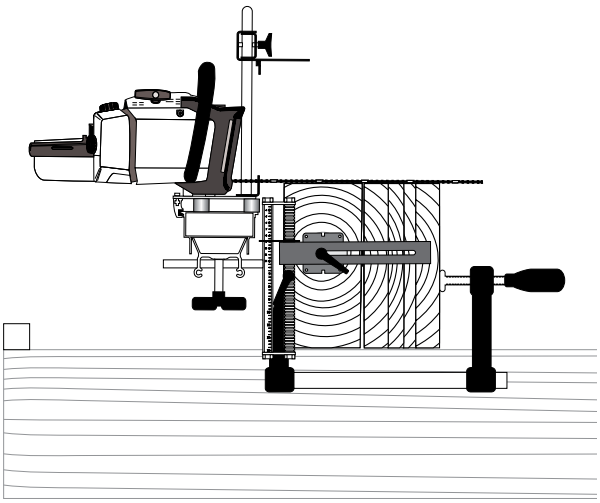
To obtain a better yield, collect the rough edged boards until you have a larger number that are approximately the same width.

Work on a smooth, level surface.

If you want to make six inch wide boards from rough edged boards, use the guide rail to prepare a 5 to 6 inch high rectangular block. Place the rough edged boards on the work surface and clamp together them and the rectangular block with C-clamps. Set the height at about 7 inches (the small scale) so that all bark will be removed when you saw. After you have taken the cut, turn the boards over and fasten them to the block with C-clamps again. Set the height at 6 inches (small scale) and start sawing.

Cross stack and dry the rough edged boards. When you have gathered a large amount, you can remove the bark on all of the boards at the same time. This method is much more efficient than performing the operation on only a few boards at a time. In addition, you can decide on the definitive width of the boards at a later stage.





*With a Timberjig and Big Mill BASIC you can saw fairly large logs. Here a 70 cm thick log is sawn. If you want to saw even larger logs you can choose Big Mill LSG and PRO!*

# Extend the Guide Rail - for Sawing Longer Logs

The guide rail is very easily extended by adding additional rail sections. The extensions are available in sections measuring 0.5, 1.0, and 2.75 meters (approx. 1.6, 3.3, and 9 feet). A specially designed joint coupler which expands inside the rail sections, allows the joint to become as strong and true as the rest of the guide rail.

If the guide rail length exceeds 2.75 m (9 feet) it must be supported in the middle to remain straight. This is accomplished with an accessory called U408, which comes with a spike to drive into the log. The ends of the guide rail sections are different, and must be aligned correctly to fit.

**Work on a clean and flat surface.** Split the guide rail cardboard packaging into two halves. Place them in a line and use them as a work surface in order to prevent the surface of the guide rail from being scratched or damaged.

Make sure that the joint coupler screws are loose. They should be screwed out approx. one turn from the position where they begin to tighten. (4 Allen screws M8x35, 4 square nuts M8)

Fit the joint coupler into one of the guide rail ends so the Allen screws are accessible through the two holes in the guide rail side. Tighten the inner screw.

**The joint coupler must be turned in the right direction.** (See fig.) The opening in the joint should be turned towards the glide surface of the guide rail. **Lubricate the sides of the joint coupler.** This is vital if the joint is to expand correctly when the screws are tightened.

Fit the other guide rail section over the joint coupler and push the sections together completely.

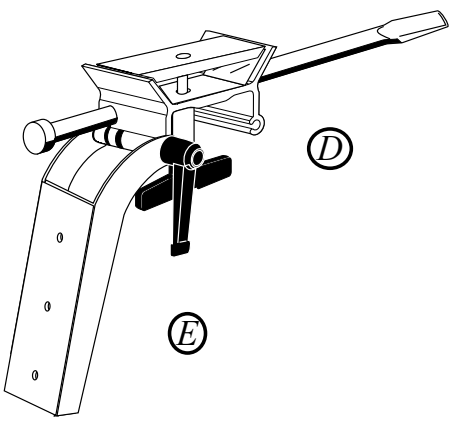
If the guide rail and the joint coupler cannot be easily pushed together, either the sections are not exactly lined up, or the inner screw is too tight.

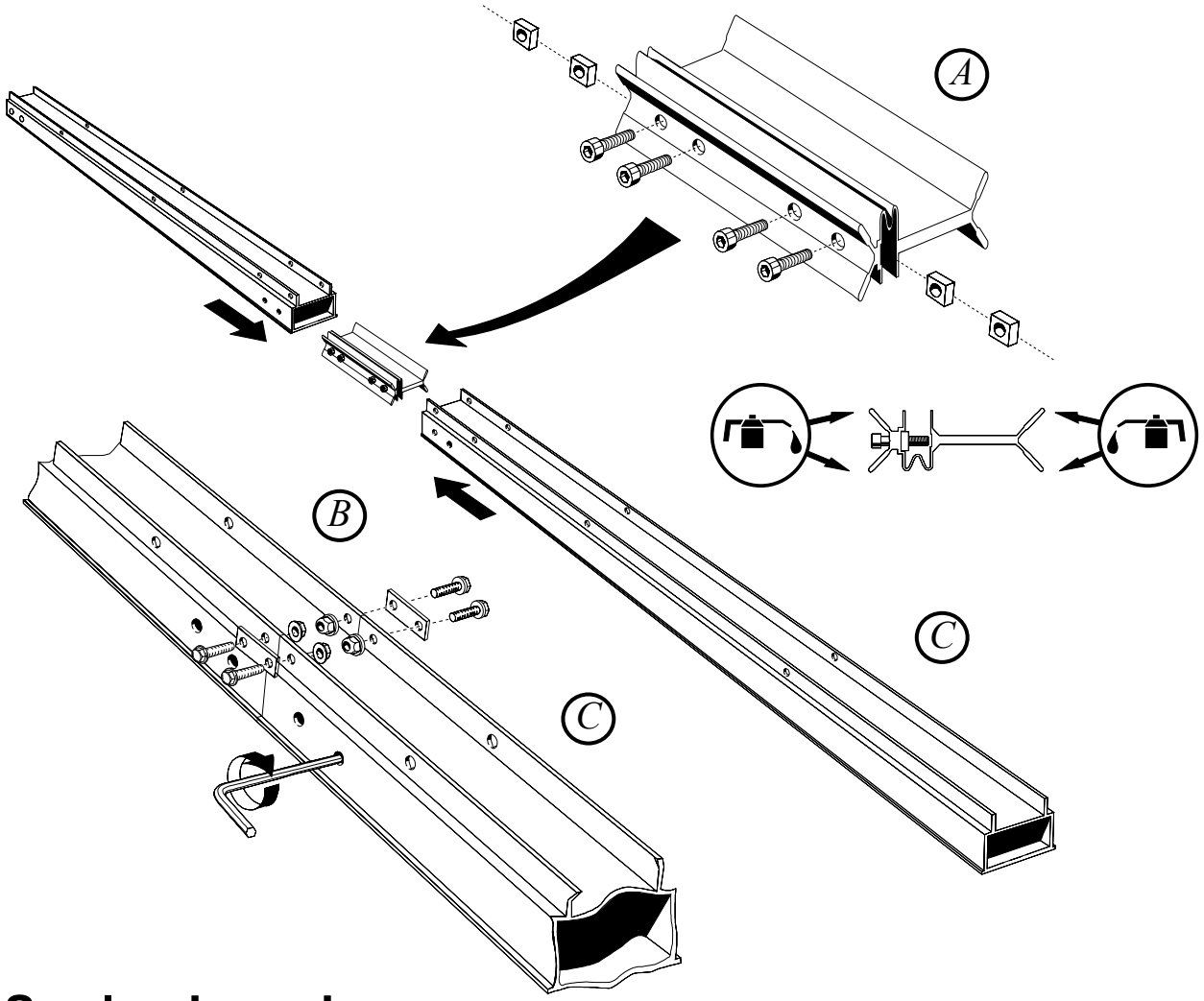
Tighten the four Allen screws.

Fit the joint plate (4 collar screws M6x20, 4 collar nuts M6).

| | | |
|---|---|---|
| A | Joint coupler with screws | 4510-720-6700 |
| B | Joint plate | 4510-723-0800 |
| B | Collar screw M6x20 | 9018-346-1320 |
| B | Collar nut M6 | 9214-352-0900 |
| C | Guide rail 2.75 m WWM | 4517-001-0005 |
| | Extension* 0.5 m | 4507-000-0500 |
| | Extension* 1 m | 4507-000-0800 |
| D | U408 guide rail prop with spike | 9999-000-1026 |
| E | Board fitting M8 | 4900-002-1015 |

** Joint coupler included in the 0.5 and 1 m extensions*






# Sawing Long Logs

If you are sawing logs that are longer than 3.5m (11.5 feet), the system requires a U408 guide rail prop at every other metre (approx. 3.5 feet) of sawing length.

Transfer the board fitting from the U400 on the guide rail holder to the U408. The front and rear guide rail holders should be identically assembled without board fitting (see *Assembly - Big Mill BASIC*).

**U 408 – instructions**

1. Fit the U408 to the middle of the guide rail.
2. Place the guide rail in the correct position in relation to the guide rail supports, and position the guide rail as close to the log as possible.
3. Drive the U408 spike into the log. It does not need to go further in than into the sapwood.
4. Lock the spike in place with the adjustable handle.

When sawing long logs, tilt the guide rail upwards, away from you, between 20° and 30°, and let it rest on the log side as much as possible. This reduces the load on the screw plates in the log ends, and the tendency for the guide rail to sag. Be careful not to saw into something with the guide bar tip.

*U408*

## Safety instructions – LSG

⚠ **Warning: Especially dangerous application. Also observe the following application specific safety instructions.**

- Use approved safety equipment, including protective trousers, protective jacket, and protective boots or shoes. Make sure you do not wear loosely fitting clothing.
- LSG may only be used for horizontal cuts.
- Hold the chainsaw by its original handles until the guide bar has dissappeared completely into the wood, then release the throttle and move your right hand to the handle on the safety plate before continuing sawing. Turn the saw off as soon as the chain has sawn through the log.
- Do not release the chain brake until the chainsaw is in position on the log, and engage it again before removing the chainsaw from the log.
- Following exception to the overall safety instructions applies only for a Double Timberjig with **two** chainsaws: Two operators are allowed. Both operators should hold the original handles of the chainsaws. Sliding block kits (E, page 17) should be used under both Timberjigs.
- When two chainsaws are used, be especially careful that the ground is free from obstacles, in order to ensure that the other operator does not trip while he is walking backwards.

⚠ **Be aware that the risk of injury increases with the length of the guide bar.**

- Maximum permitted guide bar length for the Timberjig is 63 cm (ca. 25 inches). With LSG, however, the maximum length of the guide bar is 120 cm (ca. 47 inches).

(Check which type of guide bar attachment you have on your chainsaw, SLHD009, SLHD025 or SDEA095, before ordering a guide bar.)

## Assembly – LSG

2 Timberjigs, 1 complete LSG kit.

If the LSG is to be used with double guide rails, the sliding block should only be fitted on the motor side.

Dismantle the scale bails and the dimension locks. Fasten the steel angles loosely to the dimension plates. Pass the screws (7) through the steel angles and the safety plate. Fit the flat nuts and the double nuts (3,15). Fasten the safety plate between the slide profiles. Pass the slide profiles over the steel angles' double nuts. The 45° angle of the safety plate should face the motor side and be placed approx. 10-30 cm (4-12 inches) from the dimension plate on the motor side. Adjust the steel angles so that the slide profiles are parallel to each other, and tighten all screws. For the rest, assemble according to the exploded view on the next page. The distance between the Timberjigs can be altered to fit the length of the guide bar. The slide profile on the motor side should be pushed forwards so that the chainsaw's chain brake can move freely.

## Fitting the chainsaw to LSG.

The chainsaw is mounted on the Timberjig as described earlier. On the side of the guide bar tip: Adjust the guide bar attachment's lower press plate so that the guide bar will be at the same level on the bar tip side as on the motor side. Fit the guide bar into the bar attachment and fasten it so that no part in the bar attachment is closer than 7 mm (0.3 inch) from the chain. Be aware that the chain can be hurled out a couple of millimetres from the guide bar tip. If the guide bar has a nose wheel, the press plates should lie centered over the nose wheel's rivets. Screw the nuts on the press plates tight. Make sure that the chain can rotate freely.

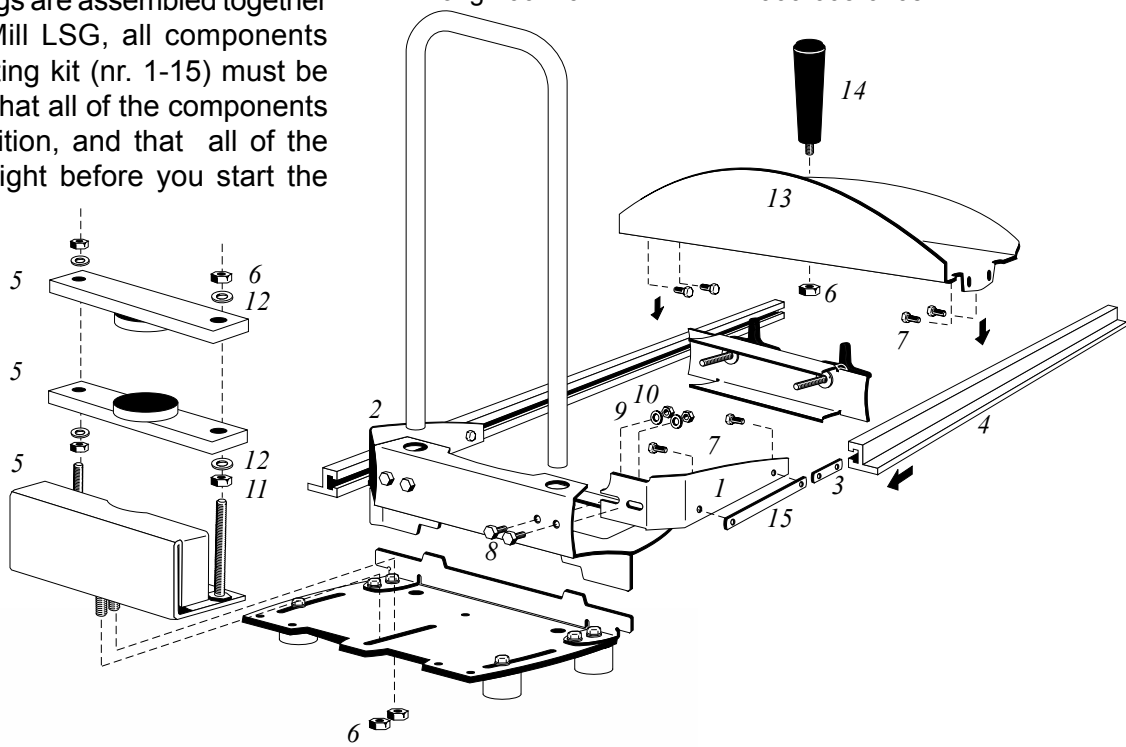
## Big Mill LSG Components:

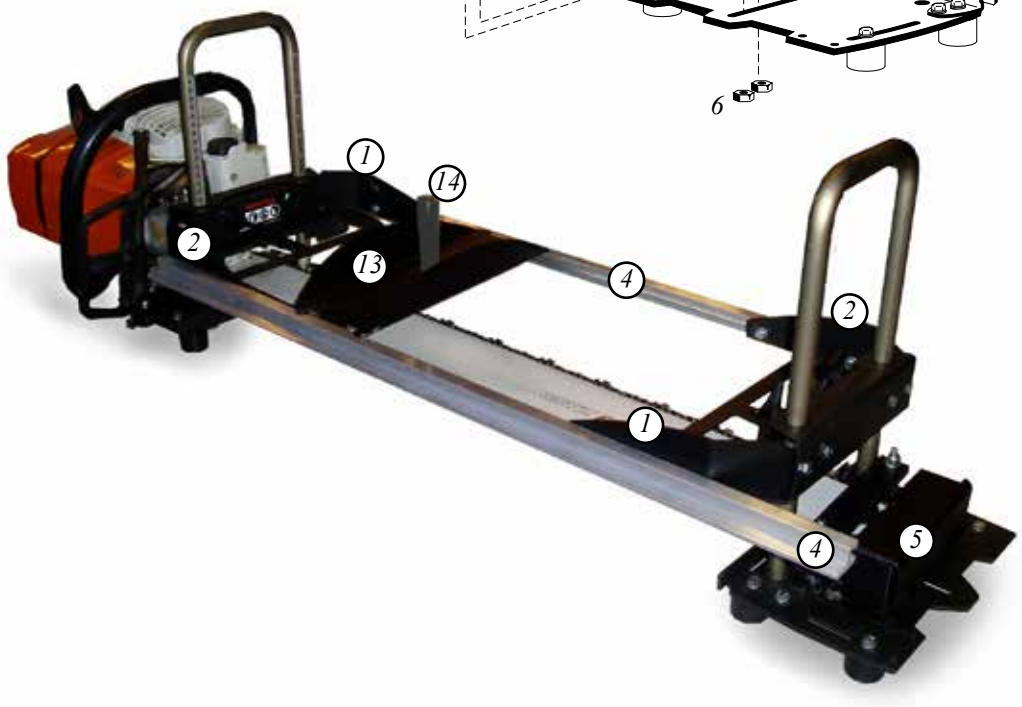
The quantities below are included in Big Mill LSG.

| *Pos.* | *Component* | *Quantity* | *Article no.* |
|---|---|---|---|
| | Big Mill LSG | (pos. A+B) | 4900-007-3000 |
| A | Timberjig | 2 | 4900-000-1000 |
| B | LSG mounting kit (pos. 1-15) | | 4900-003-1200 |
| 1 | Steel angle, front | 2 | 4900-003-0200 |
| 2 | Steel angle, rear | 2 | 4900-003-0201 |
| 3 | Double flat nut, short | 2 | 4900-003-0205 |
| 4 | Slide profile 120 | 2 | 4900-003-0210 |

| *Pos.* | *Component* | *Quantity* | *Article no.* |
|---|---|---|---|
| 5 | Bar attachment kit | 1 | 4900-003-0215 |
| 6 | Lock nut M8 | 5 | 9214-320-1100 |
| 7 | Screw M6x12 | 12 | 9007-319-1289 |
| 8 | Screw M6x16 | 8 | 9007-319-1290 |
| 9 | Washer M6 | 8 | 9291-021-0140 |
| 10 | Lock nut M6 | 8 | 9214-320-0900 |
| 11 | Nut M8 | 2 | 9210-260-1100 |
| 12 | Washer M8 | 4 | 9291-021-0180 |
| 13 | Safety plate LSG | 4 | 4900-003-0220 |
| 14 | Handle M8 | 1 | 4900-003-0225 |
| 15 | Double flat nut, long 100/M6 | 4 | 4900-003-0205 |

When two Timberjigs are assembled together to create a Big Mill LSG, all components of the LSG mounting kit (nr. 1-15) must be used. Make sure that all of the components are in good condition, and that all of the connections are tight before you start the chainsaw.



# Sawing with Big Mill LSG

*LSG without guide rails. The plane surface of the log steers the next cut.*

## A double Timberjig

Fasten a flat and straight plank on the log. This plank will serve as a guide for your first cut with the LSG. For the remaining cuts, you just let the equipment be steered by the sawn surface.

The abbreviation LSG comes from the German *Längsschnittgerät,* which roughly means ”a unit for sawing along the log”.

When two Timberjigs are assembled together to create a Big Mill LSG, they can be used for this sawing method.

## Instructions – Big Mill LSG

Before you begin sawing, you need a wide, flat plank that is not warped. The plank should be at least 0.5 m (20 inches) longer than the log that you are sawing. The wider plank you use, the better stability you will get. Fix the plank with sturdy nails or screws on top of the log so that it protrudes at least 20 cm (8 inches) from both the log ends, and then check the plank for straightness. Wedges under the plank can make it easier to get the plank fixed in a straight position.

Make your first cut a bit further down on the log to avoid sawing into the nails or screws the plank is fastened with, and to get a wide sawn surface that you can use as a guide for your next cut.

Set the dimension plates on both the Timberjigs at the same height. Perform the safety check on page 7, and start sawing.

Remaining cuts: Adjust the dimension plates for the desired board thickness, and push the slide profiles of the LSG (pos. 4, page 27) along the sawn surface of your previous cut. Hold the chainsaw straight and steady until both slide profiles are resting on the sawn surface.

You can use a wooden ladder instead of a wide plank as a guide for your first cut.

You can quickly disassemble the Timberjigs and use a shorter guide bar, if you want to edge the boards or saw smaller logs.

If you want to use a shorter guide bar for edging board, you can let the guide bar tip stay in the guide bar attachment when you disassemble the LSG. This way, you will not have to readjust the height the next time you use your LSG. Set the dimension plates in their top position. Loosen the M8 nuts that fasten the bar attachment to the bottom plate (no. 6, page 27). Release the chainsaw, turn it 90°, and carfully pull out the guide bar with the guide bar attachment. Change to a shorter guide bar.

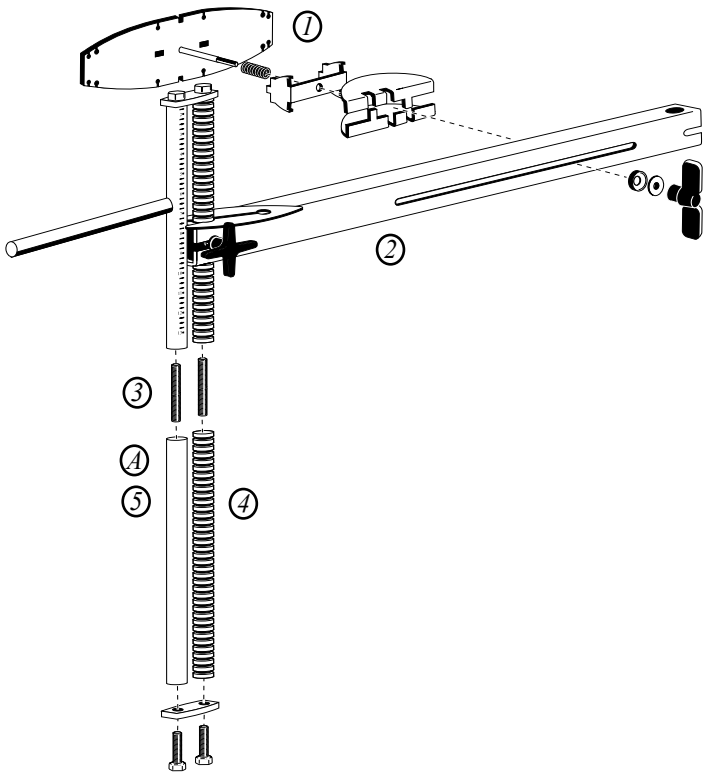
It is also possible to use double chainsaws together with a special guide bar when really large diameter logs are to be sawn.

# Big Mill PRO – for Sawing Large Diameter Logs

**Big Mill PRO is a set of EXT and other Big Mill components, which enables you to saw extremely oversized logs with millimetre precision. EXT stands for extra and extension.**

In the Big Mill PRO kit two guide rails are included. You can either mount the guide rails on each side of the log, or you can mount the guide rails in a line for sawing twice as long logs.

When double guide rails are mounted, one on each side of the log, you should choose the Arm-EXT that corresponds to the length of the guide bar you use: 90 or 120 cm (approx. 35 or 47 inches).




## Big Mill PRO components

| *Pos.* | *Component* | *Article no.* |
|---|---|---|
| | Big Mill PRO* | 4900-007-2000 |
| 1 | Fixing plate-EXT | 4900-003-0100 |
| 2 | Arm-EXT 90 (pair) | 4900-003-0090 |
| | Arm-EXT 120 (pair) | 4900-003-0120 |

* *Included in the Big Mill PRO kit: 1 Big Mill BASIC kit, 1 extra Timberjig, 1 extra guide rail 2.75 m (totally two with the guide rail included in Big Mill BASIC), 1 LSG mounting kit, 2 Arm EXT 90 cm* ***or*** *120 cm, 2 fixing plates EXT, 1 extra rack and T-bar kit.*

## Big Mill EXT – Extend the guide rail supports

The height range of the guide rail supports can be extended by adding the accessory *Rod extension kit*.

| | | |
|---|---|---|
| A | Rod extension kit** | 4900-003-1020 |
| 3 | Threaded bar M12x50 | 4900-003-0115 |
| 4 | Rack | 4900-002-0055 |
| 5 | T-bar extension | 4900-003-0065 |

** *(A) Complete kit for extending the range of 2 guide rail supports: Threaded bar x4, rack x2, T-bar extensions x2.*

⚠ Risk of sawing into the Fixing plates EXT (pos. 1) with the result that the chain breaks.

❗ Be extra careful that the guide bar does not come into contact with the Fixing plates EXT. The minimum safety margin is 20 mm (0.78 inch).

# Big Mill PRO - Sawing with Double Guide Rails

- If the guide bar is longer than 630 mm (ca. 25 inches), two Timberjigs must be used.
- If LSG is to be used for Big Mill PRO application, the use of double guide rails is required.

The use of double guide rails greatly increases the sawing precision. Measurement deviations are limited to under 2 mm if everything is set-up correctly and the log lacks extensive tensions in the wood. As always, it is easier to obtain the desired result with short logs.

The working procedure is basically the same as when sawing with one guide rail. Observe the safety instructions and admonitions. Application specific instructions which differ from the usual working procedure follow below.

Use a Fixing Plate EXT and an Arm EXT 90 or 120, depending on which guide bar length you use.

Aluminium sliding blocks (E, page 17) are only utilized on the motor side. Under the guide bar tip's Timberjig you only use the plastic rollers.

Use a spirit level when fitting the Fixing Plates EXT into the log ends, in order to ensure that they are level with each other. **All guide rail supports should be set at the same height.**

*Big Mill PRO: LSG with double guide rails, Arm EXT and Fixing Plate EXT. The slide profiles (no.4 page 27) do not touch the log.*

Adjust the guide rails so that they are parallel, and so that both Timberjigs rest centered over their respective guide rails. Check the distance between the guide rails.

When sawing with double guide rails, the cut must always be horizontal. Use a spirit level placed between the two guide rails at the log ends to make sure that the setting is correct.

When you have made some cuts, and you get close to the Fixing Plates EXT, dismantle the guide rails, the guide rail supports and the fixing plates. When making the next cut, let the slide profiles guide the LSG along the sawn surface (see page 28, *Remaining cuts*).

⚠ **Risk of chain break if the chainsaw cuts into the Fixing Plates EXT.**
⚠ **Crushing risk and tipping risk.**

Always remove the chainsaw from the guide rails before adjusting the sawing height or loosening screws, knobs or handles. The chainsaw may not be placed on the guide rails before the log is securely fastened, the guide rails adjusted, and all screws tightened.

## Sawing oversized logs

The method is by and large the same as the one used when sawing smaller logs. Follow the general safety instructions. In addition, observe the following instructions:

When using guide rail supports with extended height range, two support boards of different lengths are often required, in order to have a support both when sawing in the highest position, and in the lowest.

⚠ **Tipping risk. Sawing oversized logs requires that certain safety precautions are taken.**

❗ The log must be thoroughly fastened with large wooden wedges, and you have to be cautious so that the sawn piece, which is often very heavy, does not fall down on you. Do not take the cut until you are absolutely sure that the balance change, which will occur when the oversized log is sawn, will not create a dangerous situation.

⚠ **Risk of chain break if the chainsaw cuts into the Fixing Plate EXT.**

STIHL

# Demands for Sawing Precision

Wood is a living material. There are always tensions in the wood, which appear as the tree grows. These tensions are the 'muscles' of the tree, and they help the tree withstand the stress it is exposed to, as e.g. a steep bed, unevenly distributed branches, or a persistent south wind. Tensions form even if the log is seasoned. As is well known, wood contracts. When the dryness differs on the surface and in the pith, or on top and underneath, strong tensions appear. When you are sawing the log these tensions are released, and the wood bends as you cut into it.

Broad-leaved trees often have more tensions than spruce and pine.

When you saw with a guide rail, and get large measurement deviations, it is often due to this phenomenon.

The block width is also significant. You get smaller deviations with e.g. a 10 cm (4 inches) wide block than with a 20 cm (8 inches) wide block.

The below mentioned normal measurement deviations apply to logs under 3.5 m (11.5 feet), with a diameter under 40 cm (16 inches), and with small tensions.

## Measurement deviation – Timberjig

Measurement deviation may be due to the sawn surface on which the dimension plate is guided, and how well the dimension plate's side fences and the side plate press against the log.

The board thickness closest to the chainsaw is controlled by the dimension plate. Here, the deviation seldom exceeds 1 mm (0.04 inch).

The board thickness further away from the chainsaw is controlled by the side fences and the side plate. The thinner board you are sawing, the poorer the side fences and side plate will control the accuracy.

(Note that the dimension plate does not necessarily have to lie flat on the block surface. It is the side fences and the side plate which control the angle of the guide bar.) Apart from the first cut, the deviation should not be larger than +/- 2 mm (0.08 inch) on a 15 cm (6 inches) board width; e.g. if the thinnest part of the board is 18 mm (0.7 inch) and the thickest part 22 mm (0.86 inch) the deviation is too large.

One advantage of the Timberjig is that it is basically unaffected by tensions in the wood. If the log bends during sawing the saw will follow the curve, and the thickness of the board will not be affected.

## Measurement deviation – wooden guide rail

The occurence of deviations obviously depends on how straight the guide rail is, and how straight and securely it is fastened to the log. Normally, the wooden guide rail is only used for the two first cuts, when making an angle on the log. A one-degree angle deviation (ca. 3 mm on 15 cm) should be seen as a good result.

## Measurement deviation – Big Mill System

A deviation of 0.5 degree on the angle is considered normal. This approximately gives an 1.5 mm (0.06 inch) deviation on a width of 150 mm (6 inches). One reason for this is the play in the tracks of the screw plate. Normally, the board width stays within +/- 3 mm (0.12 inch). When only the height on the guide rail supports is changed, the board thickness should not present more than  small variations, normally +/- 1 mm (0.04 inch).

In most cases, the guide rail is not completely straight. A 1-2 mm deviation (in curve height) is completely normal. When two cuts on opposite sides are made this can be noticed, e.g. on the block width.

# Troubleshooting/Adjustment

## Wrong angle on the block

If you keep your right hand as far down on chainsaws handle as possible, the risk of getting the wrong angle of the guide bar will be minimized, and the saw will be more balanced.

A wrong angle mainly depends on three reasons:

- Incorrect adjustment of the side plate on the Timberjig.
- Faulty cutting equipment.
- The guide rail is too poorly fastened to the log.

When using an aluminium guide rail and guide rail supports, the angle of the guide bar is of no importance when it comes to the angle of the sawn block. It will be correct regardless of the angle of the bar.

The longer guide rail you use, the bigger the risk that the guide rail will turn during sawing. In such cases you will get an angle deviation.

## Adjustment of the Timberjig's side plate and plastic rollers

When using the Timberjig without a guide rail the angle is set by adjusting the side plate with plastic rollers (pos. 4, page 9) outwards or inwards. Basic setting: First, set the plastic rollers alongside the side plate. Second, set the side plate alongside the side fences of the dimension plate. If the side plate and/or the plastic rollers are set further out form the bottom plate the guide bar will tilt downwards; if the side plate and/or the plastic rollers are set further in the bar will tilt upwards.

The outer plastic rollers should be in contact with the side of the block.

## Support bolt under the guide bar

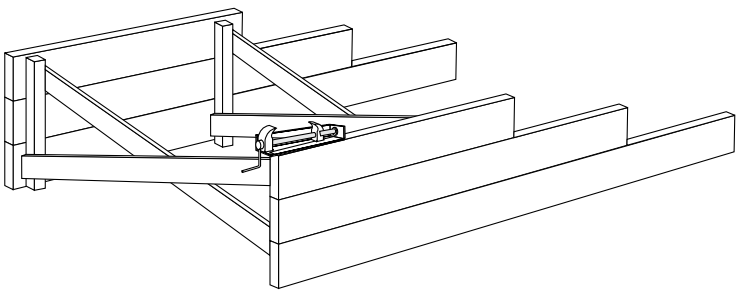
Basic setting: The support bolt under the guide bar (G, page 9) should be adjusted so that it just makes contact with the bar without pushing it upwards. If you want to adjust the guide bar, the bolt can be raised and the guide bar will then be pressed upwards. If the bolt is in a slightly lower position under the bar, the bar will be pressed down against it as soon as you start sawing.

# Tips

- The shorter logs you saw the easier it will be to make the settings, and the sawing precision will be higher. Due to this, you should use the equipment on short logs the first time you are sawing with it.
- You will get a better result if you saw boards from fresh cut trees. Dried or half dried logs have tensions in the wood, which will make the process harder. If you have logs with tensions, cut them into as short lengths as possible.

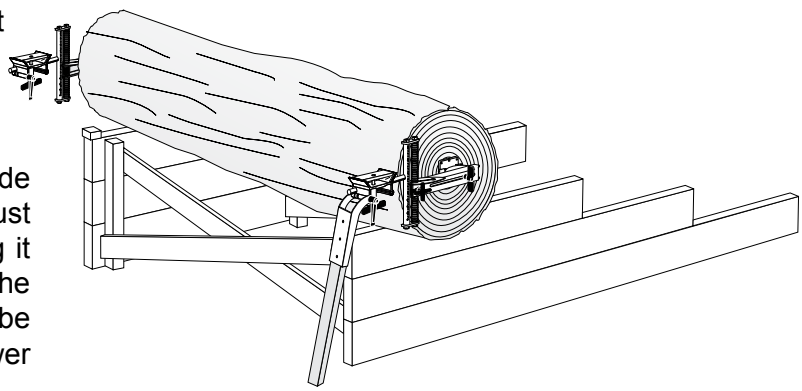
## Tips – the work site

- One alternative is to build a log table, perhaps with a log ladder as the one illustrated in the picture below.



*Log Clamp*

- With the log clamp you fasten the log in order to work safely. Screw the log clamp tight through its three holes.



## Tips for sawing with a wooden guide rail or with the Big Mill guide rail

- When sawing long logs, tilt the guide rail upwards, away from you, between 20° and 30°, and let it rest on the log side as much as possible. This reduces the load on the screw plates in the log ends, and the tendency for the guide rail to sag. Be careful not to saw into something with the guide bar tip.
- Make a wooden template to see where the cut is to be taken. Start out from the upper side of the guide rail.
- Cut out table tops, each in one piece, from oversized logs. Use double guide rails and a long guide bar with bar tip steering.

## Tips for sawing with a wooden guide rail

- If you paint your wooden guide rail and keep it in a dry place, it will remain straight for many years to come.
- You can make a support leg for the guide rail, similar to the Big Mill guide rail. Use a sturdy hinge and a board of suitable length. Fasten the support leg to the middle of the guide rail.
- If you do not want to use a battery-operated screwdriver, attach a bit fitting, or a screwdriver without a handle, to a brace drill. This works perfectly, and you need not worry about a flat battery!

## Tips for sawing with Big Mill System

- If the end wood of the log is too soft for the screw plate´s screws to fasten, nail a somewhat larger piece of plywood to the end of the log, then fasten the screw plate to this with screws. Be careful not to cut into the nails when sawing! Alternatively, order a Fixing Plate EXT.
- When keeping Big Mill stationary (pp 35-36): If you want to saw a few long logs, you can move the guide rail to the right and fasten it. When your cut has reached the middle of the log you unfasten the guide rail, move it to the left, and fasten it. In this way you can saw logs that are longer than the guide rail.

*Make sure you have a good working position!*

## Stationary Big Mills - Build your own mini-sawmill in wood!

**It is possible to screw the arms to the log bed. You will then have an easy-to-use mini-sawmill that works after the same principle as the Logosol sawmill.**

Remove the screw plates, the cradles, and the cradle feet. Turn the arms so that their 'backs' come in contact with the sides of the log bed. Let them protrude from the log bed so that you can reach the cross knobs. Fasten the arms to the log bed sides with screws. It is a good thing to use the angle irons (art. no. 4900-001-0030), which come with the Timberjig, as 'support shelves' under the arms.

Fasten the arms so they stick up a couple of millimetres over the log bed, and make sure they are mounted parallel to each other.

If you want to saw long logs, you can use three or more guide rail supports, and build the same amount of log ladders, which you line up to a long log bed. When you are to saw oversized logs, you extend the T-bars and the racks.

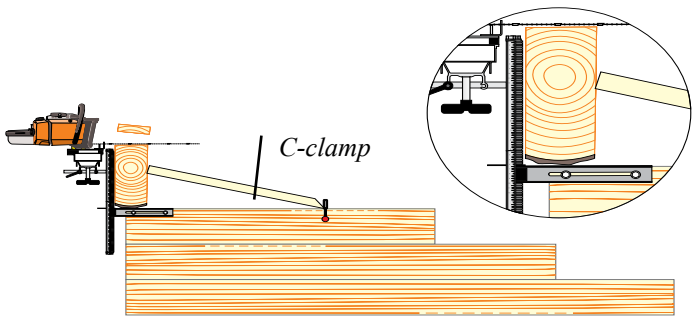
In order to utilize more of the guide bar length, the T-bar can be turned 90° towards the rack, so that the T-bar will be positioned next to the arm.

Remove the Timberjig from the guide rail, and move the log outwards, from the rack before making the height settings.

*The advantage of the log ladder is that you can lift up one log end at a time and let the opposite log end help you by its weight. It is easier than you think! The distance between the steps should be slightly over 1/2 of the guide rail's length.*

*The lower picture illustrates how a block or a log can be secured by a support which props against a C-clamp. The C-clamp can be moved to give good pressure against the project log or block. Note that the T-bar is turned 90° (so that the T-bar and the rack come next to each other) in order to better utilize the guide bar length (see the picture in the circle). Also note that the T-bar and the rack are extended.*

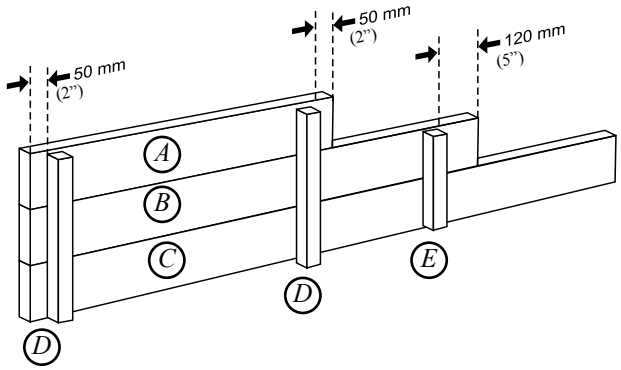
*If necessary, the scale bail and the dimension plate can be dismantled when using this method, but often you want to combine both sawing methods.*



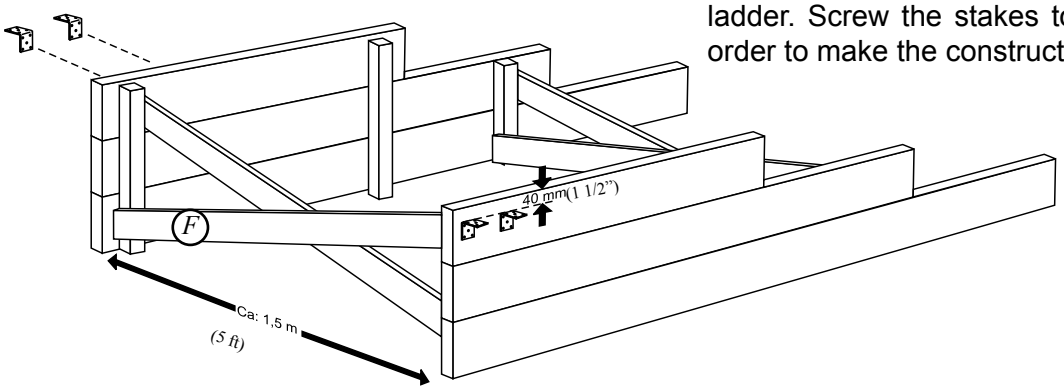
## Building your own log ladder – Instructions

The height of the log ladder should be adapted to suit your length. If you have a tractor or the like, with which you load the logs, you can make a log bed instead of a log ladder. Below you will find instructions for building a log ladder in a small format that is easy to take along with you. If you remove the cross struts, the log ladder will fit into a car or truck.

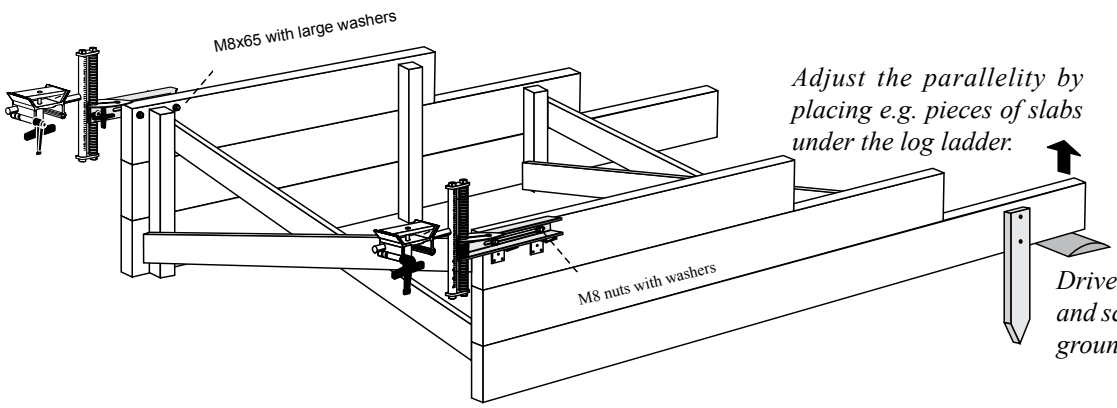
Work on clear and level ground when the steps are nailed together. Drive the nails in slightly at an angle so that they do not pierce through the boards. Remember to make the sides mirror-reversed so that the 2”x2” joists can be turned inwards on both side of the ladder. Cut the cross struts (F) diagonally at the ends and screw them to the 2”x2” joists so that they are on opposite sides of the joists, according to fig. Attach the assembly angle irons (B) which will serve as a support for the Big Mill System’s arms. Place the arms on the angle irons. They should protrude 55 mm (2 1/5”) from the ladder. Drill 8 mm holes for fastening the arms.Use a Big Mill arm as a template, and drill in the outer edges of its tracks. Put large washers on the screws, and drive them into the holes from the inside and out, so that the nuts will be inside the arm. This, together with the assembly angle irons, makes it easy to assemble and disassemble the Big Mill System. Tighten the arms with washers and nuts.




Adjustment: Look at the racks from the side. Place e.g. pieces of slabs under the log ladder until the racks are completely parallel to each other. If the ground gives way, make four small stakes out of a one-inch board, and drive a stake down into the ground at each corner of the log ladder. Screw the stakes to the log ladder in order to make the construction rigid.




**Boards**:
2 2”x6”x1m (3 ft) (A)
2 2”x6”x1,4 m (4.2 ft) (B)
2 2”x6”x1,8 m (5.4 ft) (C)
4 2”x2”x0,42 m (1.2 ft) (D)
2 2”x2”x0,28 m (0.8 ft) (E)
4 1”x4”x1,7 m (5.1 ft) (F)
**Additional components**:
4 assembly angle irons (G), which come with the Timberjig. 32 4” nails, 16 wood screws 40 mm, 4 M8x65, 4 M8 washers, 4 large M8 washers (ca 20 mm in diameter) and 4 M8 nuts.



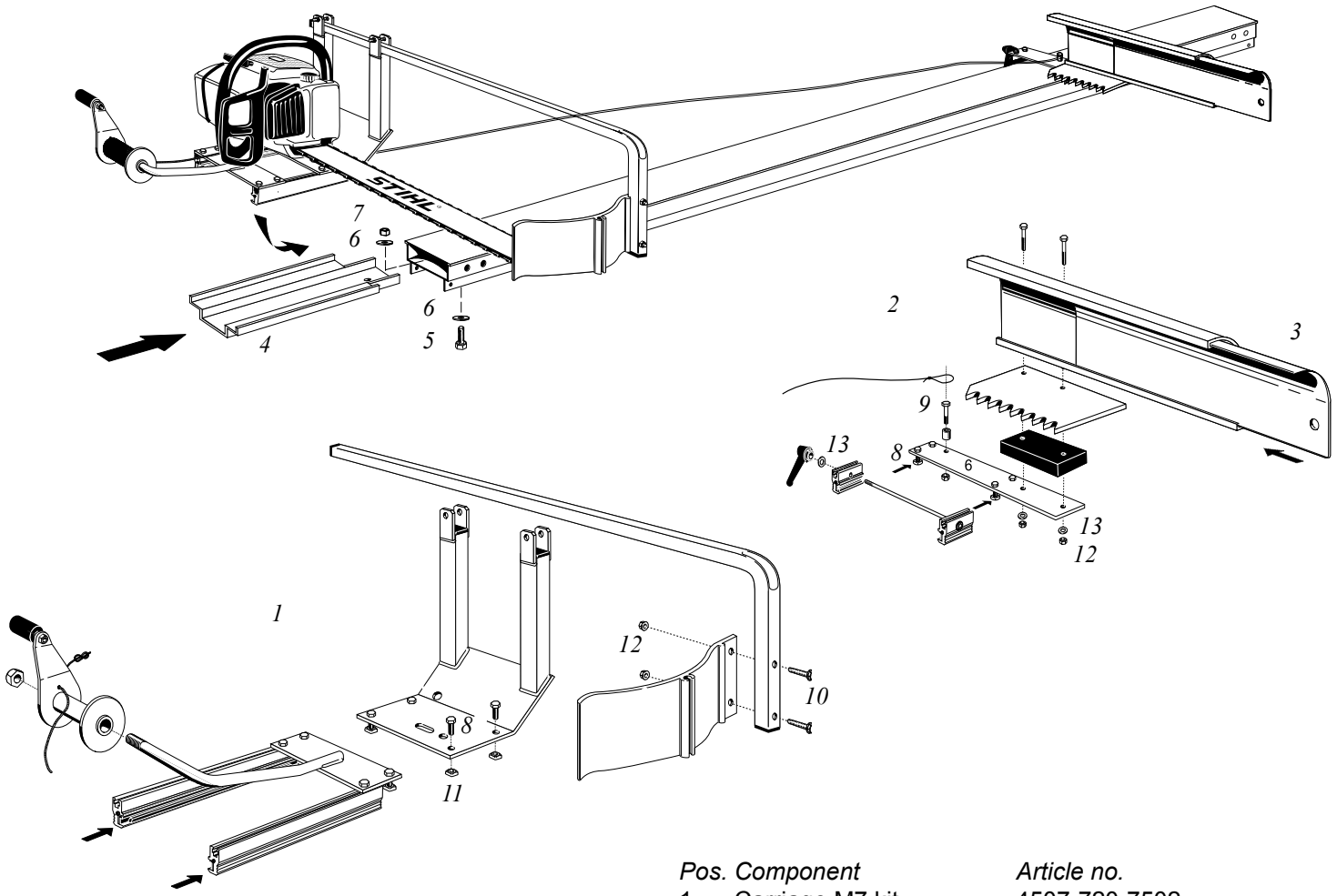

*Adjust the parallelity by placing e.g. pieces of slabs under the log ladder.*

*Drive stakes down into the ground and screw them to the ladder if the ground is giving way.*

# M7 Carriage and Log Grip

In some cases it can be better to use the Logosol sawmill's carriage and log grip on the Big Mill System. The advantage, above all, is that the chainsaw is forced through the log as you turn the crank on the carriage, which facilitates the sawing when using long guide bars.

The carriage has to be pushed onto the guide rail from the guide rail end. This makes it a bit harder to lift the carriage on and off when the height settings are to be made. A loading ramp (optional) can make it easier to mount the carriage on the guide rail.




⚠ Risk of injury when the guide bar comes out from the log! The safety plate extension should be fitted when guide bars longer than 45 cm (ca. 17.7 inches) are used. The position of the extension can be adjusted by sticking e.g. a screwdriver into the hole and then pushing the cover inwards or outwards.

❗ The safety plate extension is an accessory which is not included in the log grip kit.

| *Pos.* | *Component* | *Article no.* |
|---|---|---|
| 1 | Carriage M7 kit | 4507-720-7502 |
| 2 | Log grip M7 kit | 4507-001-7600 |
| 3 | Safety plate extension | 4510-723-4807 |
| 4 | Load ramp | 9999-000-0920 |
| 5 | Screw M8x16 | 9007-319-1830 |
| 6 | Washer M8 | 9291-021-0180 |
| 7 | Lock nut M8 | 9214-320-1100 |
| 8 | Screw M6x16 | 9007-319-1290 |
| 9 | Screw M6x25 | 9008-319-1350 |
| 10 | Screw M6x40 | 9008-319-1419 |
| 11 | Square nut M6 | 9222-068-0900 |
| 12 | Lock nut M6 | 9214-320-0900 |
| 13 | Washer M6 | 9291-021-0140 |

# Upgrading to Wood Workers Mill and Logosol Sawmill M7

If large amounts of timber are to be sawn, it may be worth upgrading your Big Mill to a Wood Workers Mill or to a Logosol Sawmill M7. You can still use the Timberjig on the guide rail, but the opportunity for other alternatives also arises. Besides the M7 carriage, you can use Logosol's electric chainsaw E5000 with automatic feeding, an efficient bandsaw, or a log house moulder to make blocks for log houses.

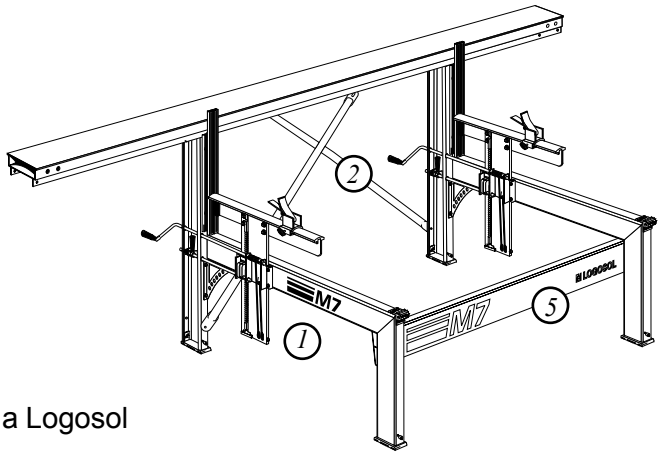
Order Logosol's product catalogue or visit our website to read more about the different alternatives.

## *M7 WoodWorkers Mill*

Components for upgrading the Big Mill System to a WoodWorkers Mill.

| *Pos.* | *Component* | *Quantity* | *Article no.* |
|---|---|---|---|
| 1 | M7 Leg frame with log bed, pair* | 1 | 4507-100-1100 |
| 2 | Guide rail strut M7 | 2 | 4507-001-1015 |
| 5 | Cross beam WWM | 1 | 4517-001-0010 |

** Included in the M7 Leg frame with log bed are the screws, nuts etc.needed for the assembly. Assembly instructions and operation instructions are also included.*

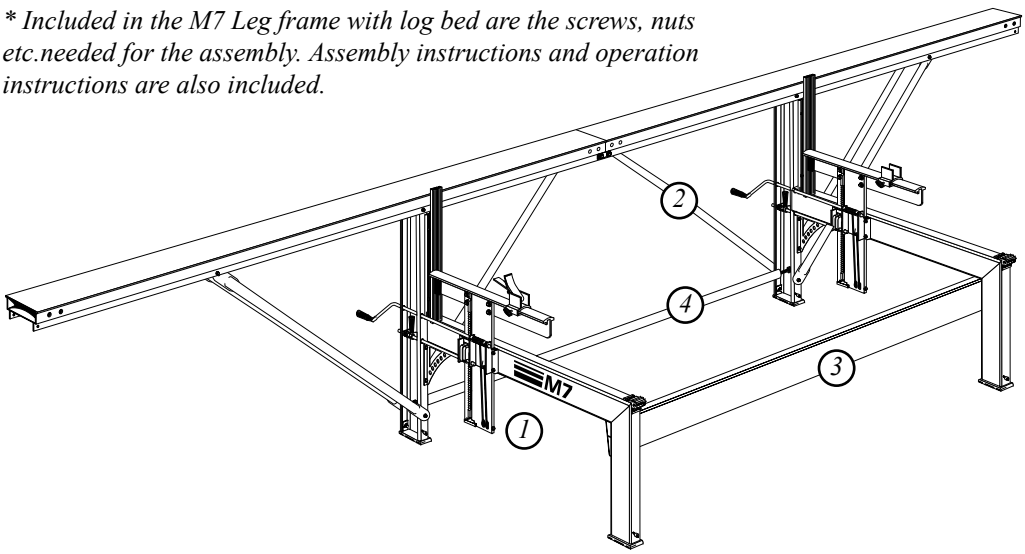



## *Logosol Sawmill M7*

Components for upgrading the Big Mill System to a Logosol Sawmill M7.

| *Pos.* | *Component* | *Quantity* | *Article no.* |
|---|---|---|---|
| 1 | M7 Leg frame with log bed, pair* | 1 | 4507-100-1100 |
| 2 | Guide rail strut M7 | 6 | 4507-001-1015 |
| 3 | Cross beam M7 | 1 | 4507-001-1009 |
| 4 | Adjusting strut | 1 | 4507-001-0501 |

** Included in the M7 Leg frame with log bed are the screws, nuts etc.needed for the assembly. Assembly instructions and operation instructions are also included.*



# Seasoning the Timber

When the timber is sawn it should be seasoned. It is possible to use unseasoned wood in some constructions, but then you have to keep in mind that there will be a 5% shrinkage in width and height. The wood will also shrink 0.3% in length, but often this is something you can leave out of account. In order to avoid rot, you should not enclose undried wood in a way that makes it hard for air to circulate. One further tip is not to drive two nails next to each other, as the board will probably crack in the middle when it dries out. Drive one nail in, and wait with the second until the wood has dried.

One example of when you *ought* to use unseasoned wood is when building log structures. In such a situation it is a plus that the wall is heavy and the logs still are malleable, since the logs then will be pressed to fit against and into each other.

In most cases, however, the wood must be seasoned. If this is not done, there is a risk that it will be damaged by fungal rot.

The best time for outdoor drying is in the spring. At that time the relative humidity in the air is very low, which makes the wood dry quicker. Wood is hygroscopic, which means that it absorbs moisture when the air humidity is high, and it dries when the humidity is low.

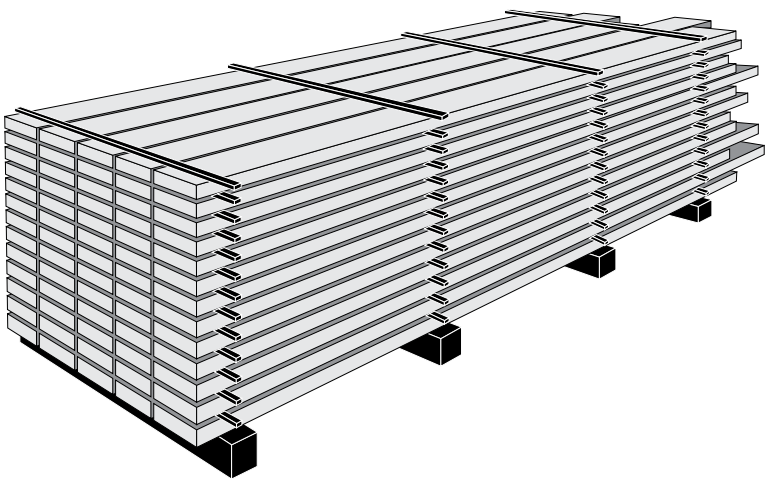
Cut some supportive blocks, e.g. 5x5”, in order to get the wood up from the ground. Place the support blocks at regular intervals on dry, level ground free of growth. The spacing should not exceed 1 m (appr. 1 yd) and the blocks should lie level. The pile should be positioned in an east-westerly direction.

Cut spacers or drying sticks in the same length as the supportive blocks. They should be equally thick (1x1” or 2x2”) and dry. You can get material for these by making an extra cut when edging your boards.

Place your first row of boards on the support blocks. In the first row you should place the boards sparser in order to increase the air current through the stack. The higher up in the stack, the closer you should place the boards to each other. However, the boards should not be placed closer to each other than the thickness they have; 50 mm (2”) thick boards should have a 50 mm (2”) space between them. The boards that are stacked should be of the same thickness. Place a spacer on the boards above each support block before stacking up the next row. It is important to place the spacers exactly over each other to keep the boards form warping or bending.

The higher you stack the boards, the better pressure there will be on the boards. Place a roof of e.g. plastic, sheet metal, or masonite over the top to protect the pile from rain, but leave the sides open. Put a weight of some sort on the roof to put pressure on the upper row as well.

If the wood is to be used for fine carpentry, it ought to be stored in a heated facility another 3-4 weeks (more for thicker boards) or be dried in a kiln to get a better result.



# Cutting Equipment

Before using new guide bars and chains, they should be greased. Put some grease in the chain groove so that the chain gets lubricated from the moment it starts rotating. Lubricate the groove every time you change to a new chain on a used guide bar, just to be on the safe side. Also pour some extra oil on the new equipment and let it soak in for a couple of minutes before staring the chainsaw. Let the guide bar and chain run for 30 seconds, then retighten the chain before you (very carefully) take your first cut. After this you can saw with a normal feeding pressure, but keep an extra eye on the chain tension when sawing the first logs. A new chain is stretched out to some extent, and initially it may need to be tensioned after every cut taken.

## Pay Attention!

### Interrupt immediately

If you keep the cutting equipment in good condition you will get the correct dimensions on the timber, chains and guide bars will last longer, and you will saw faster.

When rip sawing with a sawmill, the equipment is exposed to extreme stress. Both the motor output and the feeding pressure are several times higher than when cross cutting timber, and the saw is run for considerably longer intervals. This makes special demands on you as a master sawyer. When sawing hard, dry, or thick wood it is especially important that you are attentive, and that your cutting equipment is in good condition.

If you suspect something is wrong, you should immediately stop sawing. Immediately interrupt if you notice that:

- you have to increase the feeding pressure.
- the sawdust is more fine-grained than usual.
- the cutting equipment gets hot.
- the saw does not cut straight.

Usually operational disturbances are due to a dull chain that needs to be sharpened, but they can also be due to other problems that you should attend to. These will be presented later on in this text.

## The Chain (file in time)

It is quite common that the saw chain needs to be sharpened after 3-4 logs if ordinary spruce or pine wood is sawn, but this can of course vary substantially. Mainly, it is the cuts into bark that wear out the sharpness of the saw teeth. Trees that have grown next to a road, or are dirty due to some other reason, cause severe wear. Different wood species can be more or less hard to saw, and dry wood always causes more wear and tear than fresh wood. If the timber is perfectly clean, if it is felled on snow, or if the logs are barked, you can saw for a long time before the chain needs to be sharpened.

There are no rules for how long you can run the saw; this is something you as a master sawyer continually have to assess while operating the equipment.

When it comes to the chain, the most important points are: Right and left teeth should be filed down equally. An unevenly filed chain can steer wrong and increase the wear and tear on the guide bar. The depth gauges should be kept at the right level and, above all, the chain must never get dull.

### File comfortably

You can attain good results both with hand filing and with an electric chain grinder. Mechanical sharpening is a quicker and easier method. When sharpening manually we recommend you to use a double file with a fitted filing gauge. It is much easier to sharpen the chain if you have a proper working place. Fasten the guide bar with a vice or a saw clamp. Best is to build a table next to the sawmill where you can carry out the sharpening, and other maintenance of the chainsaw. If you have an electric saw you need a filing vice in order to keep the chain in position when filing manually.

Sharpening a PMX chain is easy. Hold the file straight over the guide bar (90° to the flat side of the bar) and keep the saw teeth at an approx. 10° angle. File the saw teeth from inside and out. First sharpen the teeth of one side of the chain, and then the teeth of the other side.

### Keep the edge within the chromium layer!

The cutter on a chainsaw is covered with a very thin chromium layer. This gives a very sharp and durable edge. As long as the edge is in the chromium layer, your chain will have perfect sharpness. If you do not immediately stop sawing as soon as you see indications that the chain has lost sharpness, there is an evident risk that the chromium layer will be so damaged that you cannot reach the layer the next time you sharpen the chain. The chain may feel sharp, but because the new edge is not in the chromium layer it will very quickly become dull again. To repair the damage, you have to remove a lot of the cutter with the file.

If you always file before the chain becomes dull, wear and tear on the guide bar and chain will be minimal. Only one or two light strokes with the file, and the cutter is sharp again. This means that the chain will last longer if you frequently sharpen it.

### The depth gauges

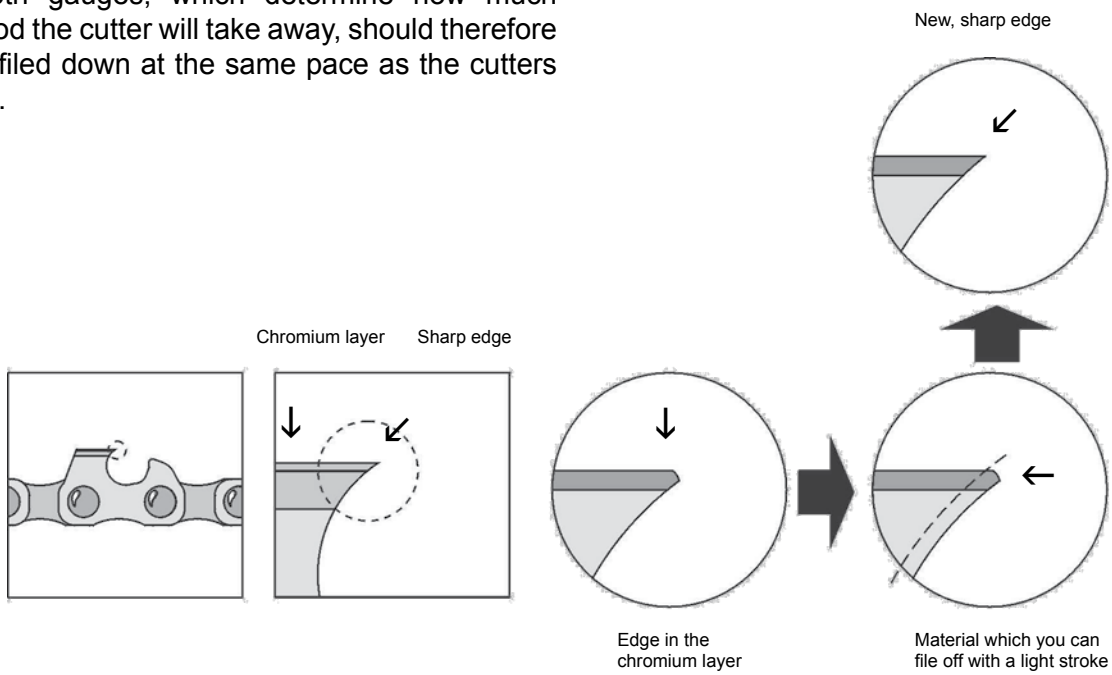
Due to the slight inclination of the upper side on the saw tooth, the edge will be in a lower position every time you sharpen the chain. The depth gauges, which determine how much wood the cutter will take away, should therefore be filed down at the same pace as the cutters are.

If you do not file the depth gauges, the guide bar will be damaged by the feeding pressure which then has to be increased. If the depth gauges are filed down too much, it can lead to kickbacks, chain breaks, and a poor sawing result.

Thus, it is important that the depth gauges are kept at the right level; 0.6-0.7 mm (0.024-0.027”) below the edge of the cutting tooth. This can be hard to measure, but if you use a Pferd file holder (9999-000-0410) with a round file for the saw teeth and a flat file for the depth gauges you will always get the depth gauges at the correct level.

### Chain tension

Make sure that your chain is correctly tensioned. A chain that is too tight can damage the bar tip sprocket, and a chain that is too slack causes severe wear and tear, which will result in a dimple just behind the bar tip. A new chain is stretched out and has to be tensioned regularly the first time you use it. The chain should be tensioned so you can pull out the whole chain from the bar’s groove with your thumb and forefinger. When you release it, it should snap back into place.



## Chain Oil (the stickier the better)

### High feeding pressure calls for a sawmill chain oil

A guide bar is a slide bearing where the chain oil forms a coating as a barrier between the chain and the bar. As long as the oil film is intact the wear is minimal. If the film breaks due to too high feeding pressure, poor oil quality or quantity, steel will run on steel and the guide bar will be worn out very quickly. Also the underside of the saw chain will wear, which can result in a chain break.

### The stickier oil the better

A viscous, sticky chain oil will follow the chain round the bar tip and lubricate along the entire bar. The chain oils available on the market vary quite a lot both when it comes to price and quality. The best vegetable oils have just as good lubrication qualities as mineral oils. Often, the cause of severe wear and tear is that you have used an oil with a scanty adding of ”viscosity agent”. You can get an idea about the suitability of a chain oil if you take an oil drop between your thumb and forefinger and then part the fingers. If it is a good oil, it will form many, long, fine ”threads” between your thumb and forefinger. Logosol has developed a sawmill chain oil which is stickier and more viscous than all other chain oils we know of.

If the saw is to be stored for a longer period of time, you have to run some mineral oil through the pump. The vegetable oil can harden after a couple of months.

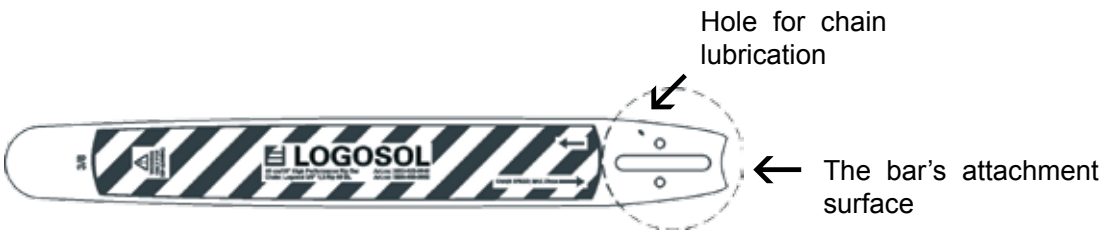
### Keep things clean

Keep the bar attachment, the bar’s attachment surface, and the oil channel clean from sawdust and paint flakes which can stop the oil flow. Sawdust and flakes can also cause oil leakage, which leads to poor lubrication as the bar plates cannot fit tight against the bar.

### Beware of too high feeding pressure

If you are sawing with a dull chain, or if the depth gauges of the chain are too high, the strain on the oil film can be so high that it breaks. In this situation the chain works as a file against the bar rails, and the guide bar will wear out very quickly. One single cut can cause visible damages.

When you are edging boards the bar is exposed to extreme stress. The entire feeding pressure will be on a small part of the bar. Even edging a few boards at the highest speed can cause a dimple in the bar rails. Do not saw any faster than you do when sawing a 5” block.



## The Guide Bar (also needs to be tended!)

It is easy to believe that it is a deficient bar that is to blame when something goes wrong. Actually, in most cases it is the factors around the bar which decide its performance and lifespan.

### File the bar rails

Make sure that the bar rails are level and straight every time you change the saw chain. A UKF edge file is a special tool for filing the bar rails, but you can also use an ordinary flat file or a band or disc grinder with angle support. If placed on a level surface, the bar should be able to stand straight on the bar rails.

The bar is worn out when the bar rails are filed down so much that the drive links touch the bottom of the chain groove. The bar will then pull askew, and you will see that the lower tip of the drive link is slightly worn.

### The groove width

The groove width, i.e. the distance between the bar rails, should be 1.40-1.45 mm (0.055-0.057”) when the chain is 1.3 mm (0.05”) – PMX-chain. If the distance is more than that, there is a risk that the bar will wear out quicker, and you can get poorer results on the cut surface.

### Water cooling spares the bar

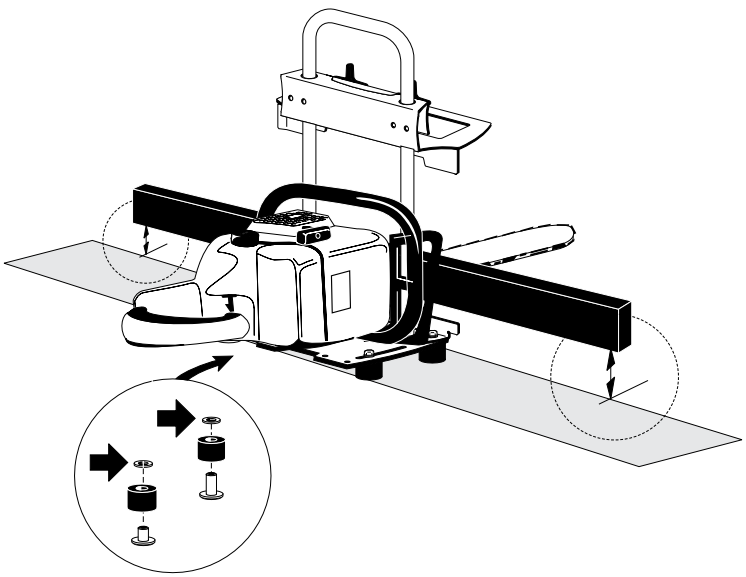
Even though the lubrication works as it is supposed to, and the feeding pressure is not too high, the bar can get overheated when you are sawing dry or hard wood. The oil’s properties will become impaired and the chain will get dull quicker if the temperature on the cutting equipment is too high. Consult Logosol about equipment that can be used together with water cooling during operation.

Level and straight bar rails!

### Check the sawing direction

The cut must be horizontal and parallel to the guide bar. To achieve this the bar has to be laterally straight in its attachment. Even small deviations of 0.1 mm (0.004”) will make the bar wear quickly and lopsidedly. A lopsided bar gives a cut surface below par, and in some cases you get a ridged pattern on the wood.

**Check:** Clean the bar attachment and the guide bar. If the paint has begun flaking off, it should be completely removed from the contact surfaces. Fit the bar without chain. Attach a ca. 1 m (3.28ft) long straight edge with a clamp. Let it be at a 90° angle to the guide bar, lying straight across it. Measure the distance between the upper side of the guide rail and each end of the straight edge. If the difference is more than



1 mm (1 mm difference at the ends of the rod is the same as 0.1 mm on the bar), you should make following procedures.

Place thin washers between the bottom plate and the two plastic rollers, on the front or the back side, until the straight edge is parallel to the guide rail. (The reason why the guide bar sometimes can be lopsided is that the outside of the chainsaw’s clutch cover is not always completely straight.)

## The Sprocket (change it every fourth chain)

If a drive link breaks, the reason can be that the chain and sprocket are not matched. For best results you should alternate four chains on one sprocket. When the chains are worn out you replace the entire set, including the sprocket. A completely new chain on a worn down sprocket can break during the first few minutes. It is not good to drive a normal 3/8" chain and a PMX-chain on the same sprocket.

Normally we recommend that you replace the sprocket after two chains, but by alternating between four chains the sprocket will last until these chains are worn out.

## Troubleshooting

**Small splinters break off the bar rails:** This will not affect the sawing results, but it is a sign that the guide bar is properly tempered.

**Both bar rails are worn down exceptionally quickly:** Too high feeding pressure. / Insufficient oil supply or oil quality. / Too high temperature on the cutting equipment.

**One bar rail is worn down quicker than the other:**
The bar is not fitted straight in the bar attachment.

**The guide bar is hot:** Dull chain. / Too high feeding pressure. / The chain is too tight. / Insufficient oil supply or oil quality. / Hard-to-saw wood.

**Ridged patterns on the wood:** The bar is not fitted straight in the bar attachment. / The chain groove in the bar has become too wide.

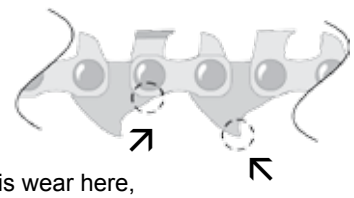
**Chain breake:** In a drive link - the sprocket is worn out. / In a cutting link - the chain is worn out on the underside due to a deficient oil film.

**A dimple forms in the bar rails at the bar tip sprocket:** Too slack chain

**A dimple forms in the bar rails at the bar attachment**: Too high feeding pressure when edging planks and boards.

**You get fine-grained sawdust, and the feeding pressure has to be increased:** The chain is dull. / The depth gauges are too high.

**The saw cuts slightly askew:** The chain's right and left teeth are not filed down equally much. / The bar rails are not equally high. / The bar is not fitted straight in the bar attachment.
If the bar springs back when it comes out at the end of the log, or if it does not follow the sawn surface when you reverse the saw, it does not cut straight. It can, however, be difficult to determine if it is movements in the wood or if it is the cutting equipment that causes the malfunction. If you use Logosol's Cross Support or the Versatile Log Fence, you can exclude sagging, and you will easily notice if there are any tensions in the wood.



If there is wear here, you have too high feeding pressure, or a poor chain oil.

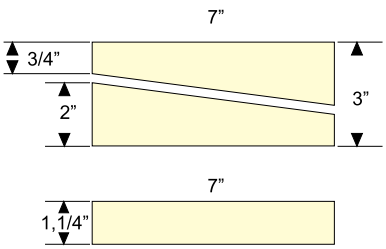
If there is wear here, your guide bar is worn out.

If there is wear here, you have a slack chain.

If there is wear here, you have too high speed when edging boards.

Unevenly worn bar rails means that the bar is not fitted straight in the bar attachment.

If there is severe wear and tear on both the bar rails, you have too high feeding pressure or a poor chain oil.

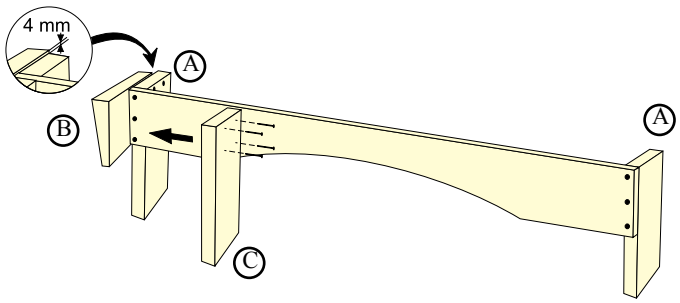


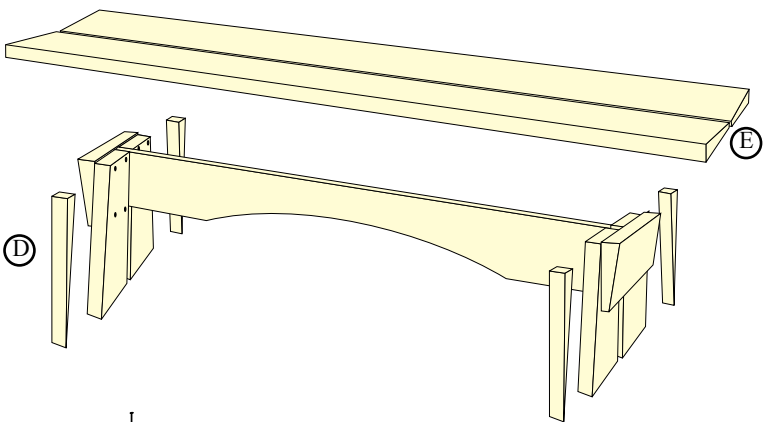

*To produce the two diagonally sawn boards, make a 7" block that is 221 cm (87 inches) long. Make a diagonal cut by not letting the cradle foot on the short arm reach the notch in the screw plate, but letting it be positioned next to it. Support the guide rail by placing sticks under it, in order to prevent the guide rail from moving while you are sawing. Make sure the block is securely fastened.*

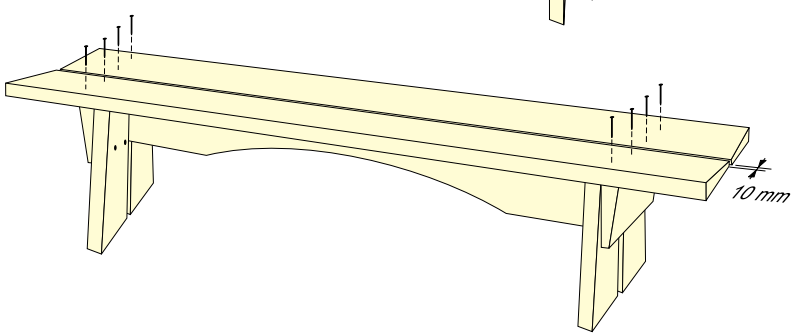
**It only takes an hour or two from log to completed bench. Use a chainsaw, folding rule, set square, hammer, and nails – and do not be unecessarily precise, you will get a good result anyway!**

**Boards:**
Diagonally sawn 2"x7" (51x178 mm):
two 185 cm (72"), two 35 cm (14").

1 1/4"x7" (32x178mm):
one 140 cm (55"), four 35 cm (14").




**Building instructions:**
Draw a curve on the 140 cm (55") long board (e.g. by attaching a pencil to a 150 cm (59") long string and fastening the other end of the string 142 cm (56") from the center of the board). Let the curve barely cover half the board width. Saw along the drawn line with a saw.

Nail two of the legs (A) to the curved board. Make sure that the curved board does not protrude from the outer side of the leg board. Mark the middle of the short, diagonally cut boards (B) and nail them to the legs, centered on the end of the curved board. Let the diagonally sawn piece stick up 3-4 mm above the leg board and the curved board.

Attach the two other legs with nails (C).

Cut off the leg boards with the chainsaw (C) so that they are in line (D) with the upper corners of the short diagonally cut boards (B) and the lower corners of the legs.

Place the long, diagonally cut boards (E) on the construction, and nail them to the short, diagonally cut boards with a space of 1 cm between them.

Finally, you carve off the rough edges with a sharp knife.

CE Manufacturer's declaration in accordance with the EG's machine directive 89/392/EEC Annexe IIB.

Manufacturer: Logosol AB, Industrigatan 13, S-871 53 Härnösand, Tel. +46 611 18285, hereby affirms that the Timberjig, article no. 4900-000-1000, and the Big Mill System are made in accordance with Machine Directive 89/392/EEC including the amendments in question, and that they are made in accordance with following harmonized standard, EN 292. The equipment may not be taken into use before the chainsaw which is to be utilized is in compliance with the requirements of EG's machine directive.

LOGOSOL is constantly developing its products. For that reason we reserve the right to make changes in the design and construction of our products.

Härnösand 960101

VD Bengt-Olov Byström

www.logosol.se

## Big Mill System – a summary

**It all starts with:**

- A chainsaw of at least 50 cc.
- A Timberjig
- A Big Mill BASIC kit

This equipment can saw logs up to 70 cm (27,5 inches) in diameter, length 2.5 m (8.2 ft).

**In addition:**

- Suitable guide bar length for the Timberjig is 45 cm – 63 cm (17.7-24.8 inches).
- If you want to saw logs wider than 70 cm (27.5 inches) in diameter, you can add an Arm EXT and /or a Rack and T-bar EXT kit. In that case it is only the bar that limits the log diameter.
- To improve the precision you can use a Fixing Plate EXT (which gives a stronger hold of the Arms). If Arm EXT is utilized you should also use the Fixing Plate EXT.
- If you want to take wide cuts with millimetre precision you can use Big Mill PRO (LSG with Arm EXT, one extra Rack and T-bar EXT kit, Fixing Plate EXT, and a guide rail on each side of the log). With LSG and PRO you can use guide bars up to 120 cm (47.3 inches) long.
- In standard application of the Timberjig and Big Mill Basic approx. 6 cm (2.36 inches) of the bar length ”disappears”. With LSG and PRO approx. 15 cm (5.9 inches) is not in use.
- The guide rail can easily be extended, but if it is extended longer than 3 m (9.84 ft) you should use U408 (guide rail prop with spike) as a mid-support for the log.
- If you want to use a M5/M7 chainsaw carriage and a log grip instead of the Timberjig we recommend that you fit a loading ramp at the end of the guide rail to be able to easily push the saw onto the guide rail.
- If you fit the leg frame with log bed-pair to your Big Mill it becomes a Woodworkers Mill or a Logosol Sawmill M7.

**LOGOSOL**

***Small scale wood processing products***

**Bailey’s**
1222 Commerce Ave., Unit D
Woodland, CA 95776
**Mailing address:**
P.O. Box 550
Laytonville, CA 95454
**Telephone:** Toll free 1-877-LOGOSOL
www.baileysonline.com
logosol@baileysonline.com

**LOGOSOL Canada**
Silvana Import Trading Inc. 4269
St. Catherine West
Suite 304 Montreal
Quebec Canada H3Z 1P7
**Telephone:** +1 514 939-3523
**Fax:** +1 514 939-3863
www.silvanatrading.com
silvana@total.net

**LOGOSOL UK**
The Sawmill
Abbey St Bathans
Duns
Berwickshire TD11 3TX
**Telephone:** +44-1361 840 389
www.logosol.co.uk
enquiries@logosol.co.uk

**LOGOSOL Sweden**
Fiskaregatan 2
SE-871 33 Härnösand
**Telephone:** +46-611-182 85
**Fax:** +46-611-182 89
www.logosol.se
info@logosol.se