SM32 PORTABLE SAWMILL

SKU:150167D6



1 YEAR WARRANTY

Operator's Manual

MechMaxx

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SPECIFICATIONS

Model	SM-32
Engine	ZONSEN GB460
Engine Displacement	459cc
Engine Type	Single cylinder, 4 stroke, air-cooled, OHV
Start	E-start
Log Diameter	32 in
Max Live Edge Width	29 in
Standard Cutting Length	16 ft 4 in
Max Board Thickness	7 in
Blade Engagement System	Centrifugal Clutch
Cast Iron Bandwheel Diameter	19 in
Blade Wheel Engagement	Belt drive
Blade Guide	By roller
Blade Tension	By adjustable lever
Blade Size	158 x 1.3 in
Blade Pitch	7/8 in
Blade Lubrication	Water lube - manual valve
Lubricant Tank Size	2.6 gal
Track Width	3 ft 1 in
Track Length	20 ft
Track Extension Length	6 ft 6 in
Leveling Feet	18
Log Rests	2 long and 2 short rests
Log Clamps	2x Quick Lock
Track Bunks	3 x 6 in
4 Post Head Design	Yes
Finish	Powder Coat Paint Galvanized Steel
Packing Size	90 x 25 x 34"
N.W./G.W.	937/1031 lbs

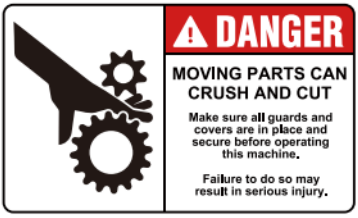
SAFETY SIGNS

The rating plate on your machine may show symbols. These represent important information about the product or instructions on its use.











SAFETY

WARNING: Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

WARNING: Only operate the engine in a well ventilated area. Carbon Monoxide produced by the engine during use can kill. Do not use indoors, near windows or in other sheltered areas.
NOTE: All Federal and State laws and any regulations having jurisdiction covering the safety requirements for use of the machine take precedence over the statements in this manual. Users of this machine must adhere to such regulations.

WORK AREA

- Keep work area clean, free of clutter and well-lit. Cluttered and dark work areas can cause accidents.
- Do not use your sawmill where there is a risk of causing a fire or an explosion; e.g. in the presence of flammable liquids, gases, or dust. Power tools create sparks, which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control, so visitors should remain at a safe distance from the work area.
- Be aware of all power lines, electrical circuits, water pipes and other mechanical hazards in your work area, particularly those hazards below the work surface hidden from the operator's view that may be unintentionally contacted and may cause personal harm or property damage.
- Be alert to your surroundings. Using power tools in confined work areas may put you dangerously close to cutting tools and rotating parts.

INTERNAL COMBUSTION ENGINE SAFETY

WARNING: Internal combustion engines present special hazards during operation and fueling. Read and follow the warning instructions in the engine Owner's Manual and the safety guidelines below. Failure to follow the warnings and safety standards could result in severe injury or death.

- DO NOT run the machine indoors or in an enclosed area such as a deep trench unless adequate ventilation, through such items as exhaust fans or hoses, is provided. Exhaust gas from the engine contains poisonous carbon monoxide gas; exposure to carbon monoxide can cause loss of consciousness and may lead to death.
- DO NOT smoke while operating the machine.
- DO NOT smoke when refueling the engine.
- DO NOT refuel a hot or running engine.
- DO NOT refuel the engine near an open flame.
- DO NOT spill fuel when refueling the engine.
- DO NOT run the engine near open flames.
- ALWAYS refill the fuel tank in a well ventilated area.
- ALWAYS replace the fuel tank cap after refueling.
- ALWAYS check the fuel lines and the fuel tank for leaks and cracks before starting the engine. Do not run the machine if fuel leaks are present or the the fuel lines are loose.
- ALWAYS avoid contact with hot fuel, oil, exhaust fumes and solid surfaces.

PERSONAL SAFETY

- Stay alert. Watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.

- Dress properly. Do not wear loose clothing, dangling objects, or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts. Air vents often cover moving parts and should be avoided.
- Use safety apparel and equipment. Use safety goggles or safety glasses with side shields which comply with current national standards, or when needed, a face shield. Use a dust mask in dusty work conditions. This applies to all persons in the work area. Also use non-skid safety shoes, hard hat, gloves, dust collection systems, and hearing protection when appropriate.
- Do not overreach. Keep proper footing and balance at all times.
- Remove adjusting keys or wrenches before connecting to the power supply or turning on the tool. A wrench or key that is left attached to a rotating part of the tool may result in personal injury.
- Never make blade guide adjustments, remove or install blades or conduct any other maintenance or make any other adjustments when the engine is running. Always shut the engine off, remove the ignition key, and keep the engine off before carrying out any of the aforementioned procedures. Consult your engine manual for safe shutdown procedures to prevent accidental ignition.

TOOL USE AND CARE

- Always be sure operator is familiar with proper safety precautions and operation techniques before using machine.
- Never touch the engine or muffler while the engine is on or immediately after it has been turned off. These areas get hot and may cause burns.
- Always close fuel valve on engines when machine is not being operated.
- Avoid "kick-back" by knowing what conditions can create it.
- Do not force the tool. Tools do a better and safer job when used in the manner for which they are designed.
- Never use the sawmill with a malfunctioning switch or throttle. Any power tool that cannot be controlled with the switch is dangerous and must be repaired before using.
- Turn off the engine and place the switch in the locked or off position before servicing, adjusting,installing accessories or attachments, or storing. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- Secure logs with the log screw clamping device instead of with your hand or another individual's help. This safety precaution allows for proper tool operation using both hands.
- Storing sawmill. When the sawmill is not in use, store it in a dry, secure place or keep well covered and out of the reach of children. Inspect the sawmill for good working condition prior to storage and before re-use.
- Maintain your sawmill. It is recommended that the general condition of the sawmill be examined before it is used. Keep your sawmill in good repair by adopting a program of conscientious repair and maintenance in accordance with the recommended procedures found in this manual. If any abnormal vibrations or noise occurs, turn the sawmill off immediately and have the problem corrected before further use.
- Keep saw blades sharp and clean. Properly maintained band saw blades are less likely to bind and are easier to control.
- Cleaning and Lubrication. Use only soap and a damp cloth to clean your sawmill. Many household cleaners are harmful to plastic and rubber components on the sawmill.
- Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for another sawmill may create a risk of injury when used on the SM32 sawmill.
- Always operate the machine with all safety devices and guards in place and in working order. Do NOT modify or make changes to safety devices. DO NOT operate machine if any safety devices or guards are missing or inoperative.
- Never leave sawmill running unattended.
- Coiled blades can spring apart with considerable force and unpredictably in any direction. Always deal with coiled blades, including those packaged in boxes, with the utmost care.
- Never use the equipment to cut anything other than lumber or for any purpose other than cutting lumber as described in this manual.

START UP PROCEDURE - EQUIPMENT OPERATION

- Wear heavy-duty work gloves, ANSI-approved goggles behind a full face shield, steel-toed work boots, and a dust mask.
- Operate only with assistance.
- Ensure guide blocks are tight and track is level
- Fill the lubrication tank with clean water and dish soap.
- Start and operate the engine according to the provided engine manual.
- Depress the throttle to bring the blade up to full speed.
- Throttle should be fully depressed when the saw is under load.
- Cut branches off the lumber to be processed.
- WARNING: To avoid death or serious injury. Do not cut lumber with foreign objects in it such as nails, any metal pieces, etc.
- Place the lumber to be cut on the supports.
- WARNING: The operator and any assistants must stay clear of the blade's path of travel whenever the engine is on.
- Move the Sawhead slowly along the track and against the lumber to make the cut.
- Trim off the rounded sides of the log.
- When the log is squared-off, boards or posts can be cut to custom specifications.
- To prevent accidents, turn off the engine and disconnect its spark plug wire after use. Wait for the engine to cool, clean external parts with a clean cloth, then store the equipment out of children's reach.

MAINTENANCE

Proper and routine maintenance is critical to operator safety, achieving good milling results and to prolonging the life of your investment.

1. Band wheel Bearings—Should be inspected before use to ensure they are not worn. Bearings are sealed and do not need to be greased.

2. Blade Guide Bearings—Inspect before use for excessive grooves or scoring in the bearing case. Replace if necessary.

3. Blade Tension—Grease threads of tensioning "T" handle when dry or as required. Use multipurpose, extreme-pressure grease.

4. Log Screws—Grease frequently.

5. Belts-Periodically check the condition and wear of the drive and idler belt. Ensure the blade tracks correctly on the band wheel belts.

6. Drive Belt—Periodically check the tension of the drive belt. It should deflect by no more than 1/2".

7. Sawhead Locking Cam Handles—Grease assembly every 30 days or as required.

8. Sawhead Vertical Posts—Spray posts before use with a silicone spray lubricant such as 3in-1 or Jig-A-Loo.

9. Bandwheel guards—Routinely remove any build-up of sawdust that may collect inside the bandwheel guards.

10. Lubrication Tank-Only fill with a water and dish soap mixture (one to two caps) or in winter months, use windshield washer fluid. Do not leave lubricant in tank if temperatures fall below 32 degrees Fahrenheit (0 degrees Celsius).

11. Blade Lubricant — Never use diesel fuel or kerosene as blade lubricant. These substances lead to premature wear of your belts and poor sawing performance. For winter operations, replace the water lubricant with windshield washer fluid.

12. Engine — Check the engine oil level before each use and maintain the engine as per the instructions set out by the engine manufacturer in the engine manual.

13. Sawhead Lifting Cables — Regularly before, during and after operations, inspect the cables for any wear or kinks. Ensure that the cables are in perfect condition. Oil the coiled cable frequently to prevent premature wear. Replace with new cables as necessary.

ASSEMBLY

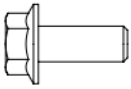
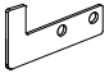
During several of the assembly steps, more than one socket or wrench of the same size may be required to assemble the hardware. A socket or box wrench in combination with an adjustable wrench can be utilized if multiple same size tools are in limited supply.

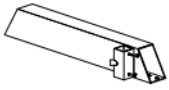
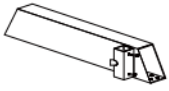
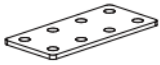
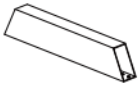
When assembling the sawmill, do not torque the bolts to hardware Class/Grade specifications. Snug the hardware, then tighten a further ¼—½ turn. Tightening bolts to torque spec can crush metal tubing, ruining the components.

TRACK

Assemble the track with the provided components and hardware listed in the table below. It is important to assemble and level the track on a firm foundation before tightening all of the hardware and should ideally be 3-1/2 to 4 inches (90 to 100 mm) off the ground. This will allow for easy cleanup of sawdust and log support height adjustments.

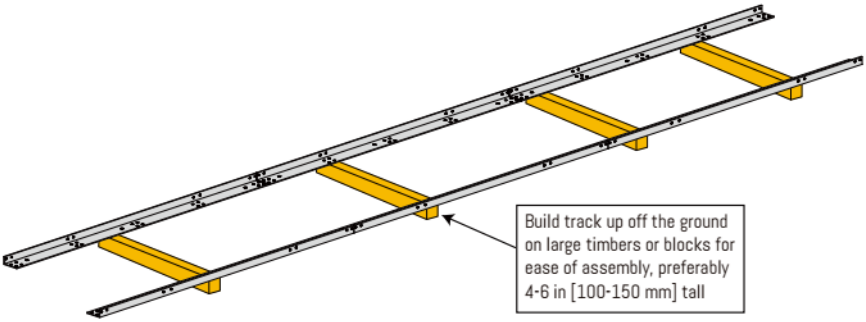
Assemble one of the bunk assemblies over the joint between both pairs of track rails using the components and hardware listed in the table below.

Hex Nut M16	 36X
Flanged Lock Nut M10	 60X
Flanged Hex Bolt M10 X 30 mm	 60X
Limit Plate	 4X

Track Rail	 6X
Bunk Assembly (Two-hole guide rail beam welding)	 3X
Bunk Assembly (Four-hole guide rail beam welding)	 2X
Reinforcement Plate	 4X
End Bunk	 2X
Feet	 18X

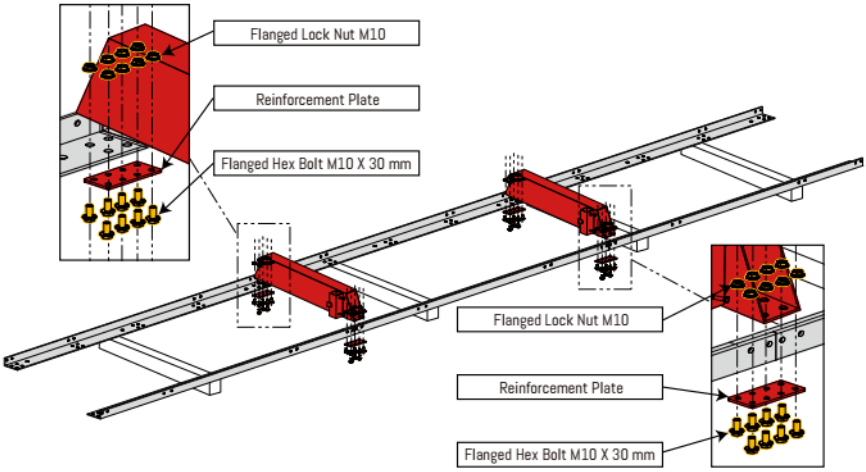
RAILS & CENTER BUNK

First, set the six (6) track rails on top of four pieces of lumber of equal height. It is ideal to keep the rails at least 4-6 in [100-150 mm] off the ground for ease of assembly.



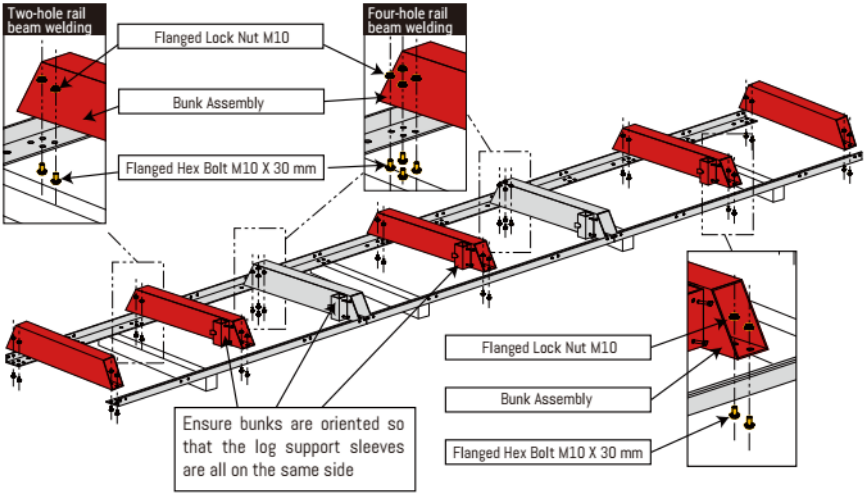
Next, assemble the center bunk over the rail joints with a reinforcement plate under the rails on both the left and right sides. Use eight M10 X 30 mm flanged hex bolts and M10 flanged lock nuts per side.

Keep the outer faces of the rails 45-¼ in [1150 mm] apart but do not fully tighten the hardware. Snug the bolts enough so that minor adjustments to the track width can be made once all the bunks are assembled to the rails.



MID & END BUNKS

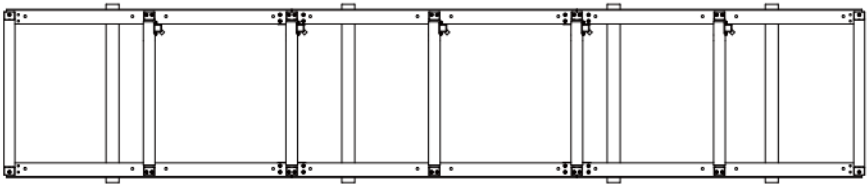
Use sixteen M10 X 30 mm flanged hex bolts and M10 flanged lock nuts (5 per bunk) at all end & mid bunk locations. Snug the hardware in the same manner as the center bunk.



SQUARING THE TRACK AND SETTING THE WIDTH

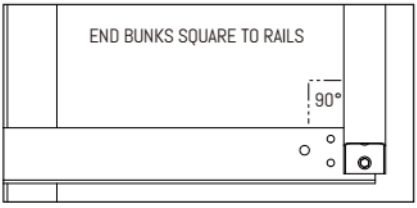
With the bunk hardware connections only snug-tight, the rails can be moved in or out as needed until the proper width is achieved along the entire length of the track.

When the width is uniform along the full length of the track, check its square by measuring diagonally from the railroad tip to the railroad tip.



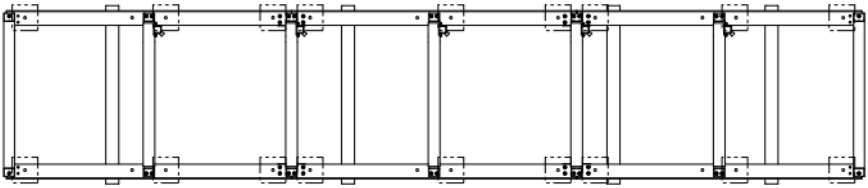
Ensure the end bunks are square to the rails.

Once the width is correct and the rails are square, tighten all M10 x 30 mm flange hex bolts and their nuts, working from the center toward the end, as shown above with the black arrow. Check the width and square of the track again after tightening. Readjust if necessary.

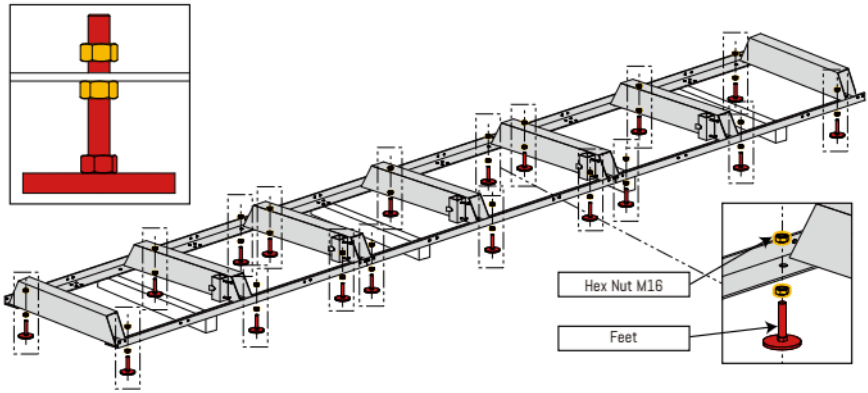


FEET

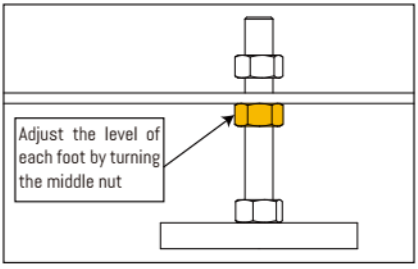
Attach the eighteen (18) leveling feet assemblies to the rails at the locations shown below.

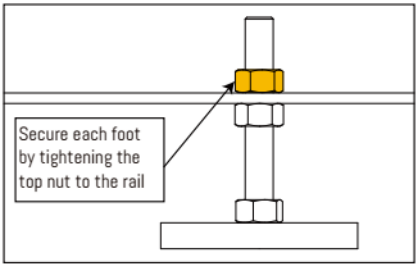


Assemble the leveling feet up through the bottom of the guide rail and thread the M16 hex nut to each foot. Do not tighten the nut. Leave it loose enough so that there is a noticeable gap between the nut and the track to allow for track leveling in later steps.



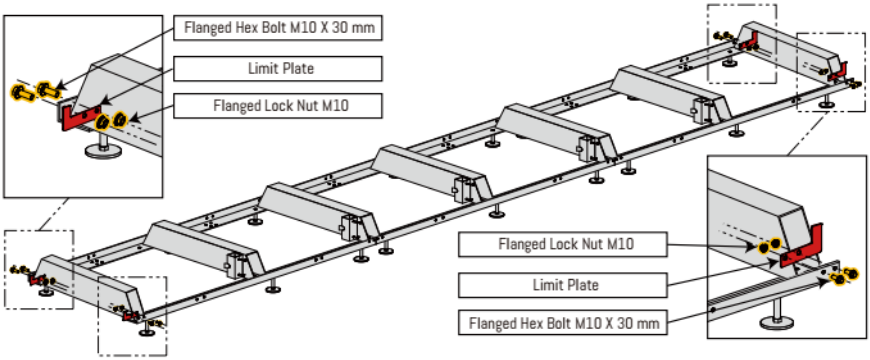
With the feet loosely assembled to the rails, remove the timber/block supports so the full weight of the track is resting on the middle nuts of the leveling feet.
Turn the middle nut on each foot to fine-tune the level. Once level, secure each foot to the rail by tightening the M16 top nut.





LIMIT PLATE

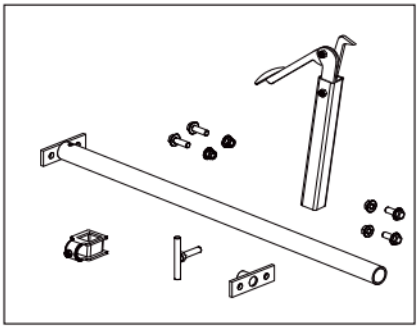
Use two (2) M10 X 30 mm flanged hex bolts and M10 flanged lock nuts to assemble each limit plate to the inside of the track rails.

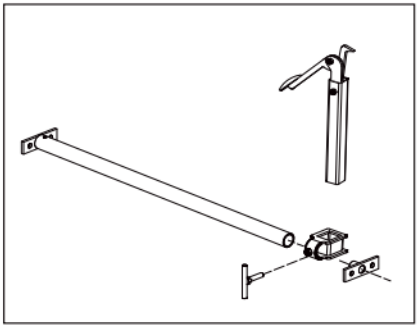


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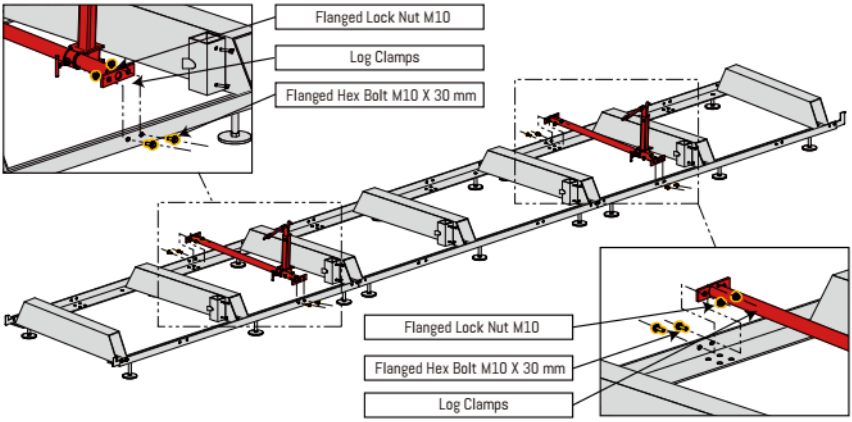
LOG CLAMPS

Assemble log clamp pieces as shown below and use waterproof grease on threaded handle and "T" handle.





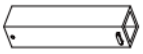
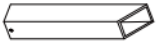
Attach assembly to the track using the provided nuts and bolts and tighten. Attach the log clamp assembly to the track as shown below with the 4 nuts and bolts provided. Note that there are various locations along the track where this assembly can be bolted. Depending on how many track sections are being used, select a log clamp position that will secure the log firmly against the log supports.



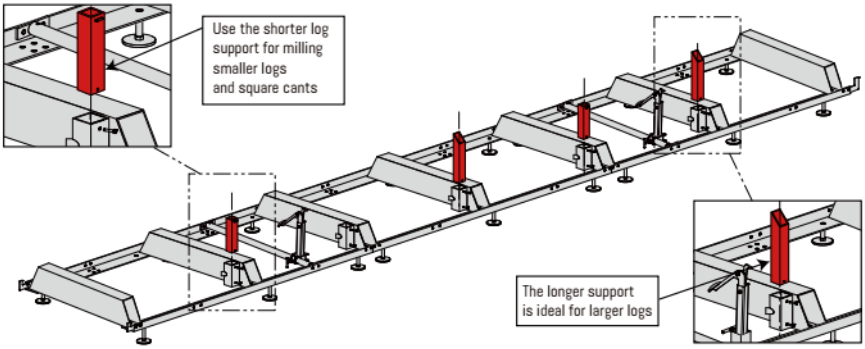
Ensure the log clamp tilts towards the log when clamping. If it tilts away from the log, remove the log clamp from the receiver, loosen the T-bolt, reverse the receiver on the shaft by rotating it 180°, and retighten the T-bolt. Insert the log clamp back into the receiver.

LOG SUPPORTS

Assemble the log supports into the sleeves bolted to the log bunks using the components listed in the table below.

Vertical Short Support		2X
Vertical Long Support		2X

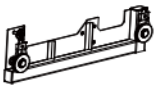
The log supports can be installed into any bunk with a sleeve by simply sliding them down through the top of the sleeve and securing them with the T-bolt.



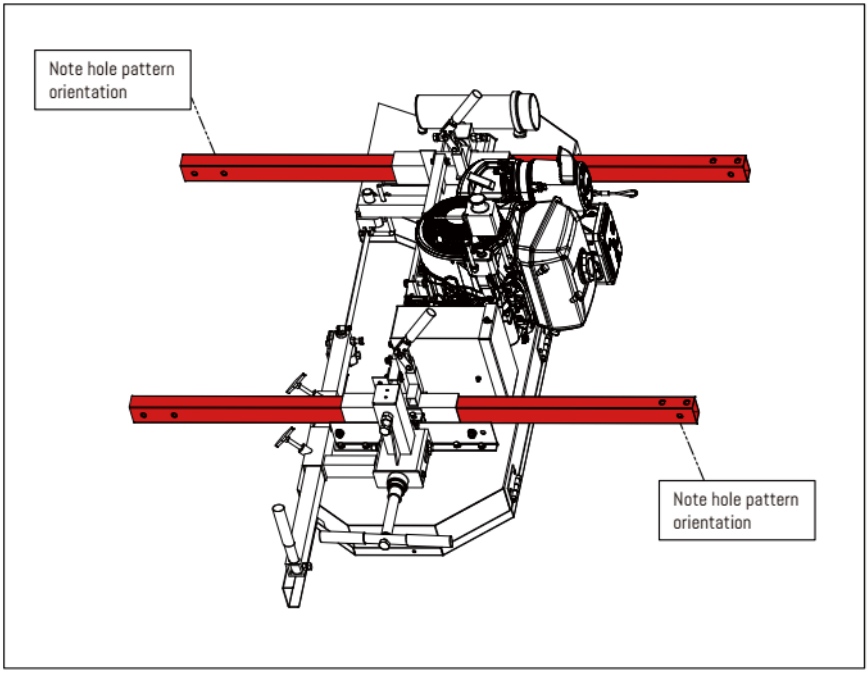
SAWMILL HEAD ASSEMBLY

The sawmill head assembly is built in multiple steps. Follow the sub-sections below using the parts table at the top of each sub-section to gather the necessary components for each step.

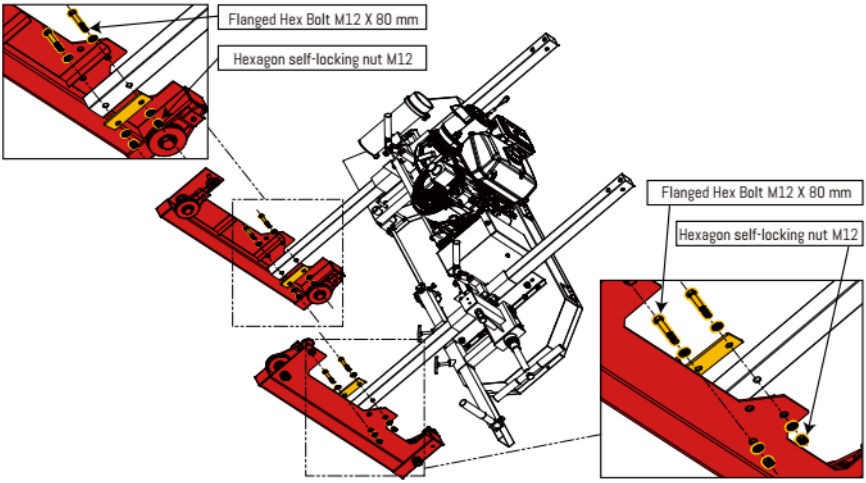
Hexagon head bolt M12x80	 4X
Hexagon self-locking nut M12	 4X
Flat washer 12	 8X

Wheel assembly	 2X
Front Post	 2X
Clamping piece	 2X

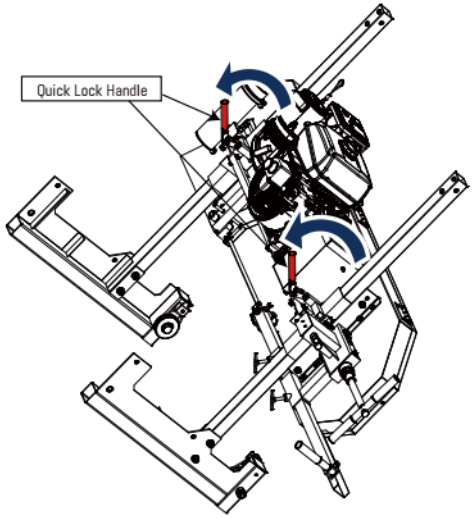
Then insert vertical post assemblies into corresponding locations in head assembly.



Assemble front vertical post to wheel assembly using the two bolts and clamping piece. Repeat same step for the other front vertical post assembly.

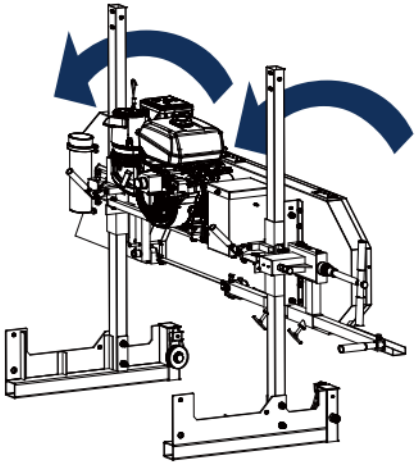


Lock the cam handles on both the square posts to prevent the head from moving when it is stood up in the coming steps. Ensure that when activating the cam handles, the clamps securely lock on the square vertical post.



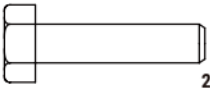
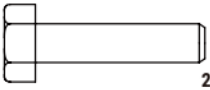
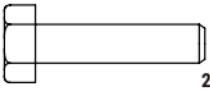
STANDING THE SAWHEAD UPRIGHT

With the help of another person, stand the sawhead upright by rotating it around the rounded profiles at the front of the carriage legs. Do not set the sawhead on the track until instructed to do so later in the assembly process.



REAR POSTS

The sawmill head assembly is built in multiple steps. Follow the sub-sections below using the parts table at the top of each sub-section to gather the necessary components for each step.

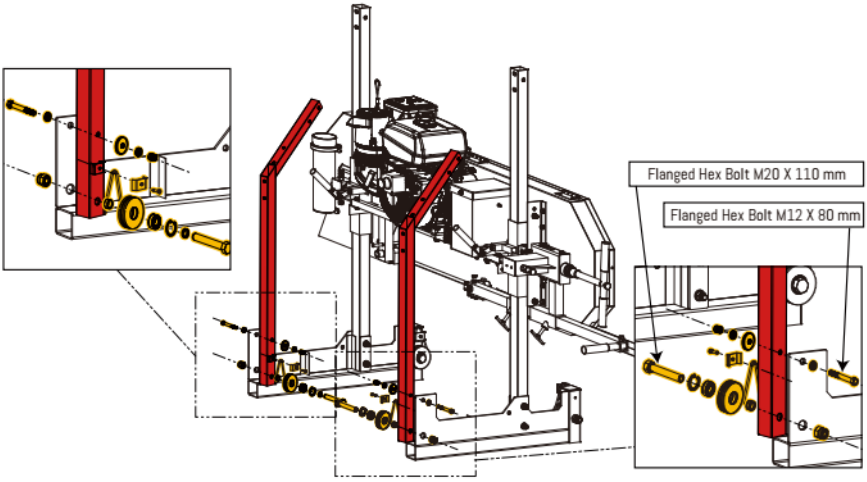
Hexagon head bolt M6x20	 2X
Hexagon head bolt M12x80	 2X
Hexagon head bolt M20x110	 2X
Hexagon self-locking nut M12	 2X

Rear Post	 2X
Wire rope brush	 2X
Clamping plate	 2X
Bottom wheel	 2X

Hexagon self-locking nut M20	2X
Flat washer 12	4X

Bottom wheel spacer	2X
Rear gasket	2X

Assemble rear vertical post to wheel assembly using the two bolts and back plate. Repeat same step for the other rear vertical post assembly.



CROSS BEAM & HEAD STOPS

With the hardware listed below, assemble the cross beam to the carriage posts.

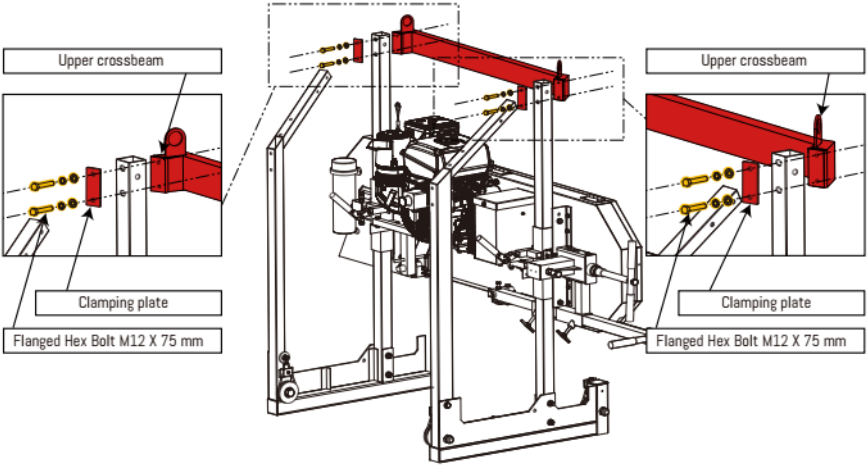
Hexagon head bolt M12x75	4X
Hexagon head bolt M12x100	2X

Upper crossbeam	1X
Clamping plate	2X

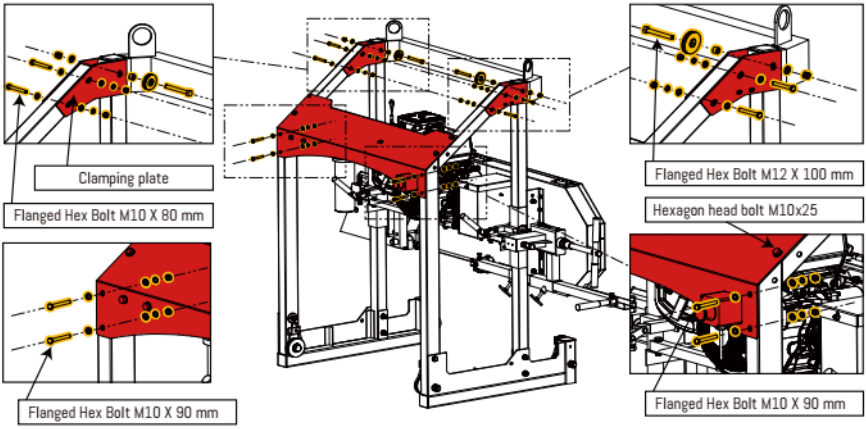
Hexagon head bolt M10x90	4X
Hexagon head bolt M10x80	4X
Hexagon self-locking nut M10	8X
Hexagon self-locking nut M12	2X
Flat washer 12	4X
Flat washer 10	14X

Connecting plate	1X, 3X
Hexagon head bolt M10x25	2X
Bottom wheel spacer	2X
Bottom wheel	2X
Spring washer 12	4X
Spring washer 10	10X

Place the Upper Crossbeam across the tops of the two front vertical posts. Bolt the top of the square tube post and the cross beam.



Install the connecting clamping plate, upper arch, and steel cable roller. Use a wrench to hold the nut while tightening the bolt.



PLEASE NOTE Install the emergency switch to the upper arch as shown in the above.

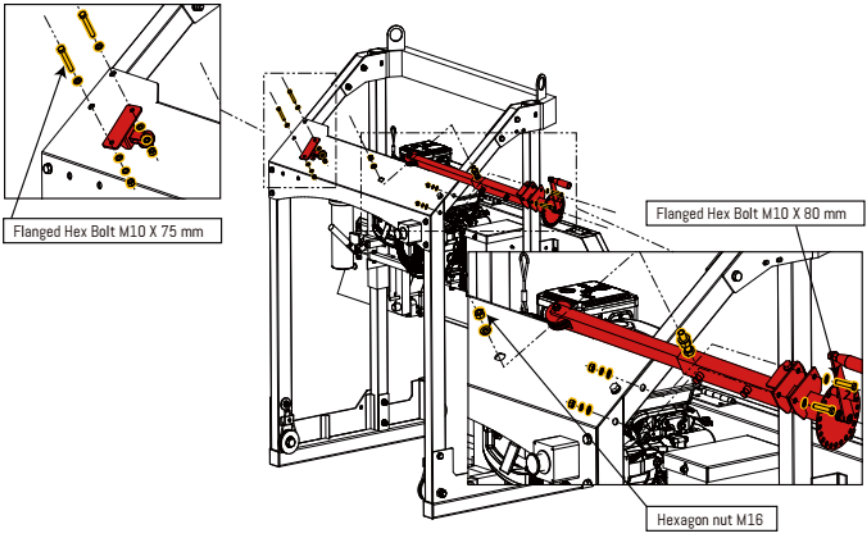
LIFTING SYSTEM

Assemble the Lifting system to the posts using the hardware listed below.

Hexagon head bolt M10x80	2X
Hexagon head bolt M10x75	2X
Hexagon nut M16	2X
Hexagon nut M10	4X

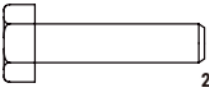
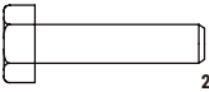
lifting system	1X
Flat washer 10	8X
Spring washer 10	4X
Flat washer 16	2X

Install the lifting system. Use a wrench to hold the nut while tightening the bolt.



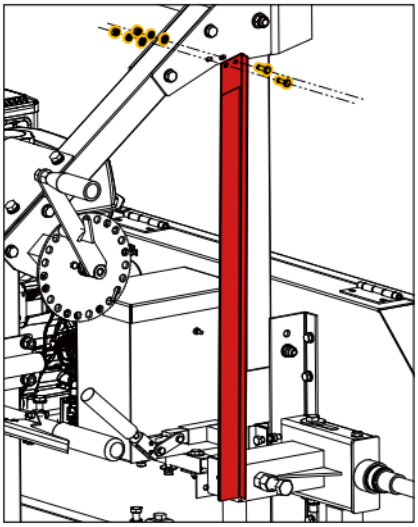
LOG SCALE

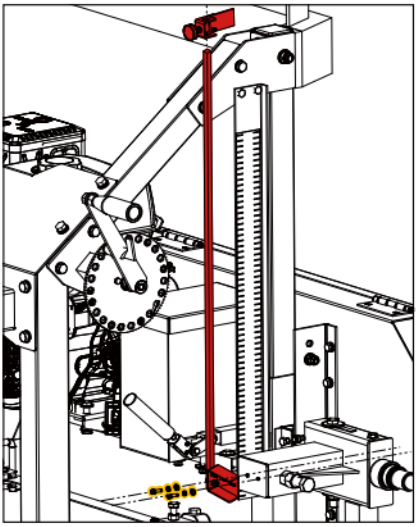
Place the measuring scale assembly. The assembly includes the ruler and height indicator.

Hexagon head bolt M8x20		2X
Hexagon head bolt M6x20		2X
Hexagon nut M8		2X

Flat washer 6		2X
Flat washer 8		2X
Spring washer 6		2X
Spring washer 8		2X

A. Install ruler, using wrench to hold the nut, tighten the bolt.
B. Install the square indicator rod to the sawmill using the two bolts and tighten. Slide the scale indicator over the square rod and tighten.





It is important to alternate tightening of the nuts (top then bottom) to ensure the black round clamp begins to compress evenly on both the top and bottom until flanges meet at outer edge.

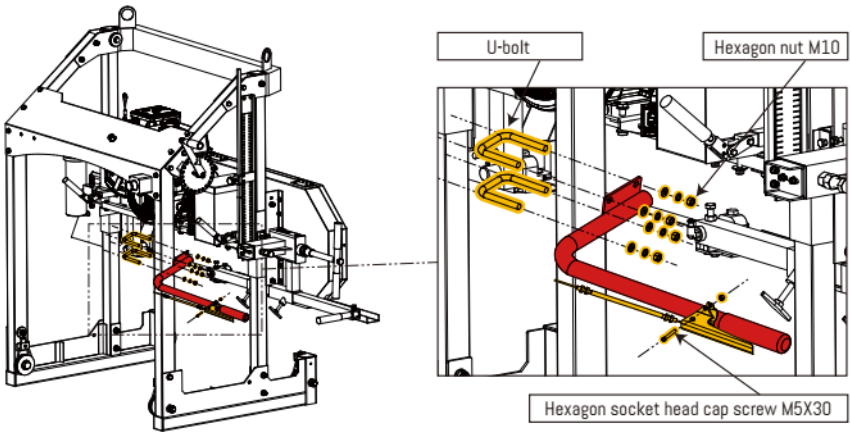
THROTTLE HANDLE

Assemble the throttle handle to the post using the hardware listed below.

Hexagon head bolt M5x30	2X
Hexagon nut M10	4X
Hexagon nut M5	2X

U-bolt	2X
Flat washer 10	4X
Spring washer 10	4X

Install the push handle onto the rear post of the machine using provided U-bolts and nuts, the installation height can be adjusted. Tighten the nuts in a position suitable for the operator.





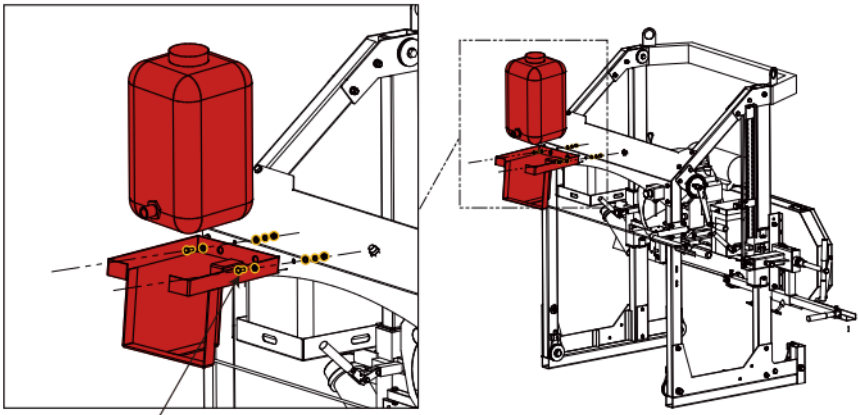
PLEASE NOTE: The idler screw needs to be fully retracted (loosened). Failure to do this will result in the engine not running at its full RPMs, which will result in a poor cut.

COOLING BOX

Follow the parts table below to gather the components required for each step.

Bucket	1X	**Bucket frame**	1X
Hexagon head bolt M10x25	2X	**Flat washer 10**	2X
Hexagon nut M10	2X	**Spring washer 10**	2X

Install the cooling box bracket on the beam, using wrench to hold the nut, tighten the bolt.



LIFT CABLE ROUTING

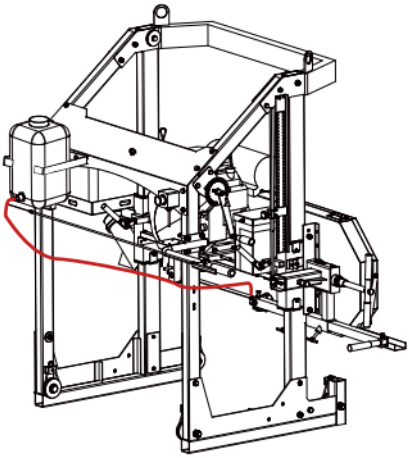
Route the cables on both sides as shown in the image below. Short cable, Long cable

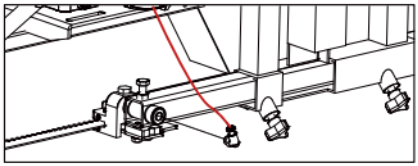




TRANSPARENT WATER PIPE

Connect the water pipe. After the connection is completed, check to ensure that there is no water leakage at the joints.





Please Note: We recommend adding some dishwashing liquid to the tank to help lubricate the wood – two to three capfuls.

Add waterproof grease to the threads of the blade tension "T" handle and to the washer face that it meets before use. Proper blade tension is achieved when the blade deflects no more than a total of 1/8" - 1/4" up/down.

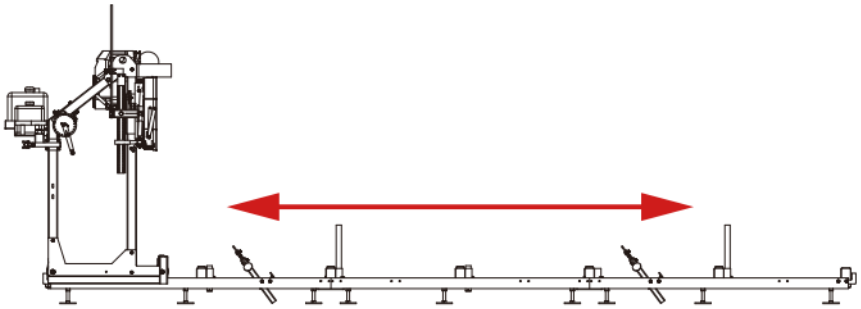


Note – It is very important to take the tension off of the blade by turning the "T" handle in the counter-clockwise direction when the sawmill is not in use. Failure to do so will result in flat spots on the rubber belts. These flat spots will cause the mill to vibrate excessively during next use.

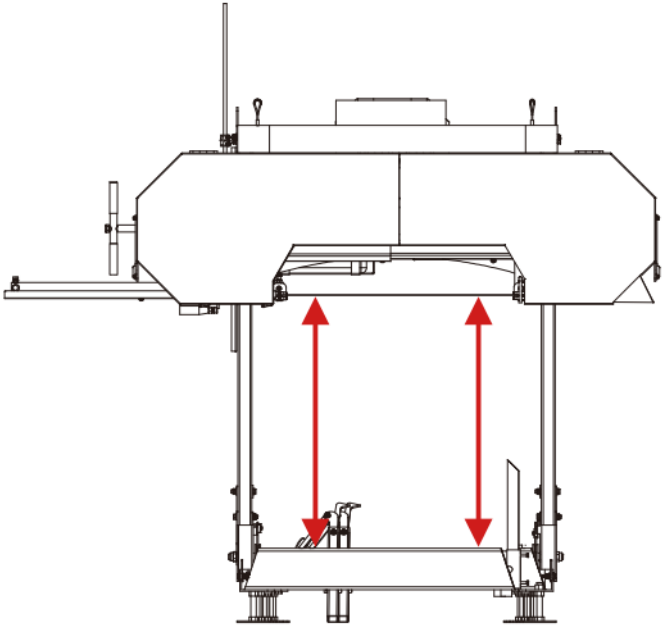
Add waterproof grease to all " ▲" handle threads on the sawmill.



Push the sawhead up and down the track system to ensure that the width of the track allows for the sawhead to move freely. If it binds, the "L" rails will need to be set further or closer together to achieve a consistent width along the entire track system. Once the desired width is achieved, all nuts and bolts can be tightened to the log bunks



Using a tape measure, take a measurement from the blade to the top of the log bunk on both the left and right side. The distance should be equal on both sides. If it isn't, you will need to adjust the cable ends at the rear handle to either raise or lower one side.

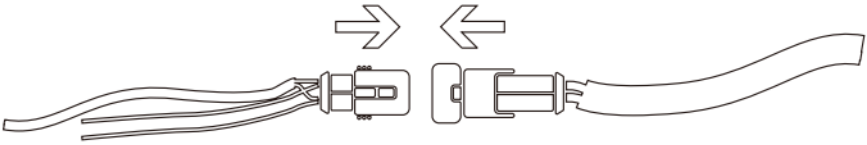


ELECTRICAL CONNECTION

Connect the wiring plugs together.



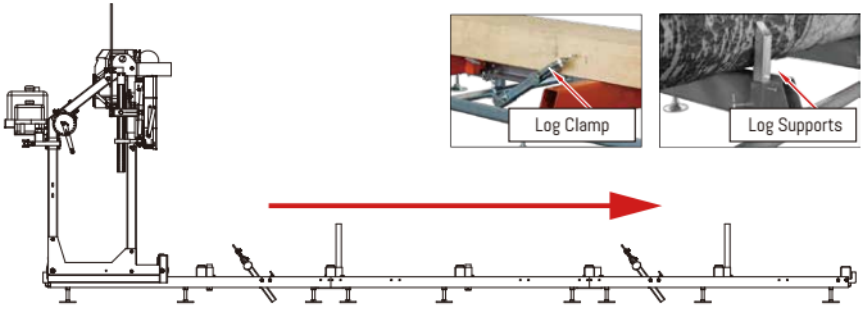




ENGINE



Refer to the engine manual before using your sawmill. Please note that the engine does not contain any gasoline or engine oil when it is shipped. Furthermore, the engine is equipped with an oil alert system, meaning that if the crankcase oil level is low or empty, the power is cut to the spark plug and it will not start.



Always cut in the direction shown above. The log clamp should always be on the right side of the log and the log supports should always be on the left. Failure to cut in this direction can cause the log to come loose and possibly even cause damage or injury.

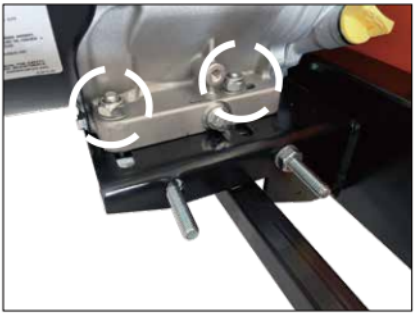
Now that your sawmill is assembled, please run through the "SAWMILL SET-UP PROCEDURES" in the following section. Failure to do so may result in poor sawing performance, damage or injury. See next page.

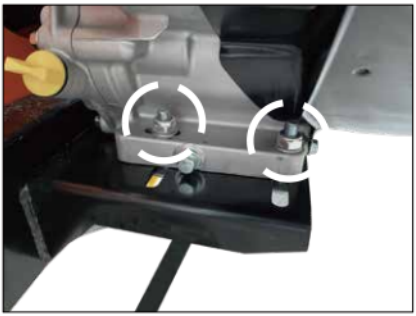
SAWMILL SET-UP PROCEDURES

BELT TENSION



To check the belt tension, with your hand, firmly try to deflect the belt up and down. There should be no more than 1/4" of deflection in both directions (1/2" total). If the belt deflects more than this, it will need to be tightened as described above.





To tighten the drive belt, start by loosening the four bolts that secure the engine to the engine mount using a 16mm wrench.

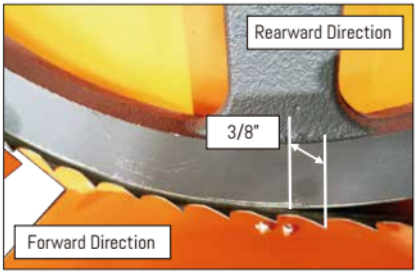
Now that the engine is free to slide on the engine mounting plate, turn the 16mm nut on the horizontal stud in the clockwise direction. This will pull the engine towards the stud and apply more tension on the belt. Do this step incrementally while checking the belt for proper deflection. It is also important to ensure that the engine remains perpendicular to the drive belt. Over tightening can cause the engine to twist on the mounting plate, resulting in belt alignment issues and premature wear. Once the desired belt tension is set, tighten the four engine bolts. Alternatively, if the drive belt is too tight, the 16mm nut on the horizontal stud can be turned counter-clockwise.

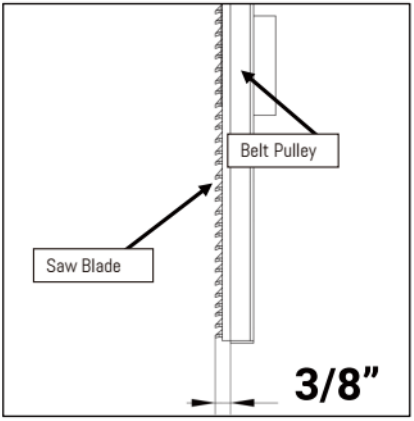


BLADE TRACKING

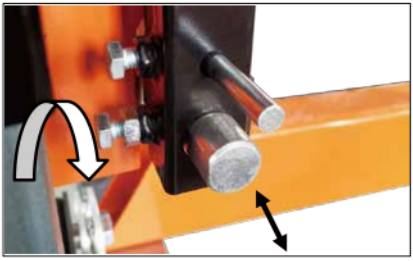
Never attempt the below with the engine running. As a safety precaution, remove the spark plug cap. It is also advised to wear gloves and safety glasses when working with the blade as it is extremely sharp.







The blade should run with the same tooth to bandwheel face distance on both sides. 3/8" is ideal. Measure the distance from the tip of the blade tooth to the front face of the bandwheel on both sides. If an adjustment on either side is required, the below steps will detail this procedure.



Loosen the blade guide assembly bolt with a socket. The round shaft should now be free to slide rearward and out of the way. Perform this step on both guide assemblies. This will ensure that the guide bearings do not influence tracking of the blade while adjusting.

ADJUSTING THE RIGHT HAND SIDE

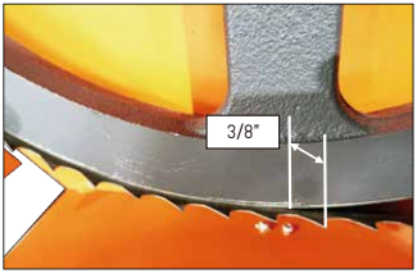


Loosen the tracking alignment locking nut with an adjustable wrench.



The alignment bolt can now be turned to change the angle of the bandwheel and track the blade. To move the blade more rearward on the bandwheel, this bolt will need to be turned clockwise. Alternatively, turning the bolt in the counter-clockwise direction would force the blade to run more forward on the bandwheel. Turn the bolt a 1/2 turn and re-tension the blade.



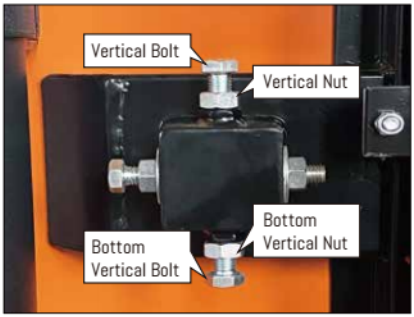


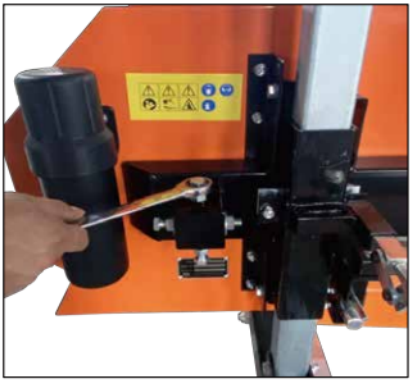
Wearing gloves, spin the bandwheel with your hand and observe how the blade has changed tracking. Measure the distance again and repeat the above step to further compensate if required.The ideal measurement is 3/8".



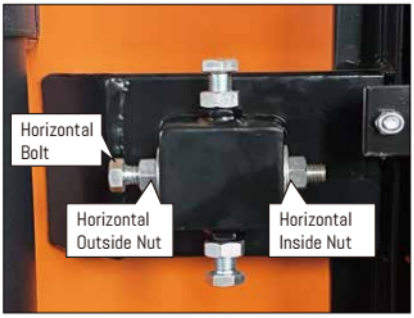
Once satisfied with the measurement, tighten the locking nut clockwise.

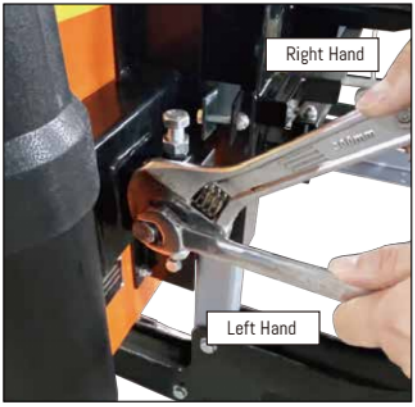
ADJUSTING THE LEFT HAND SIDE





To adjust the left side of the sawmill, again start by taking the tension off of the blade by turning the "T" handle one turn in the counter-clockwise direction. Using a 16mm wrench, loosen the "vertical nut" a ½ turn. Do the same on the "bottom vertical nut". Next, loosen both "vertical bolts" a 1/2 turn. This will take the clamping force off of the bandwheel shaft caused by these two bolts and allow it to move freely in the following steps.





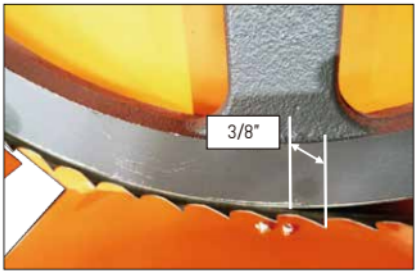
MOVING THE BLADE FORWARD

Using a 16mm wrench, hold the "horizontal bolt" stationary with a wrench and turn the "horizontal inside nut" counter-clockwise a ½ turn. Still holding the "horizontal bolt" stationary, turn the "horizontal outside nut" clockwise a ½ turn. This has now shifted the "horizontal bolt" and bandwheel shaft, causing the blade to track more forward.

MOVING THE BLADE REARWARD

Using a 16mm wrench, hold the "horizontal bolt" stationary with a wrench and turn the "horizontal outside nut" counter-clockwise a ½ turn. Still holding the "horizontal bolt" stationary, turn the "horizontal inside nut" clockwise a ½ turn. This step has now shifted the "horizontal bolt" and bandwheel shaft, causing the blade to track more forward. Tighten the vertical bolts, then nuts to clamp the bandwheel shaft back into vertical position.





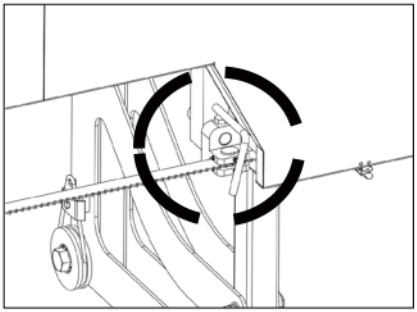
Re-tension the blade by turning the "T" handle a full turn in the clockwise direction. Wearing gloves, spin the bandwheel with your hand and observe how the blade has changed tracking. Measure the distance again and repeat the above step to further compensate if required. The ideal measurement is 3/8".

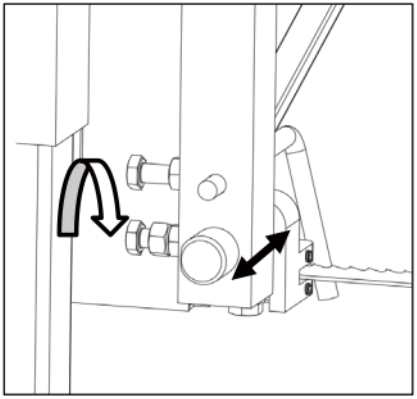
Once the blade is tracking true, bring the blade guide assemblies back up to the blade. Keep a gap the width of a piece of paper between the blade guide bearing and the back of the blade. More information on this setup can be found in the next section – "BLADE GUIDE ADJUSTMENT"

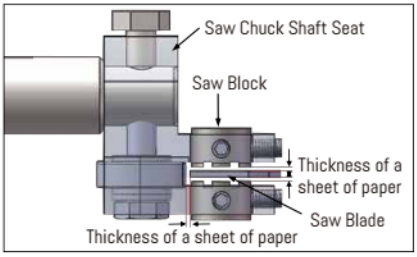
BLADE GUIDE ADJUSTMENT

Never attempt the below with the engine running. As a safety precaution, remove the spark plug cap. It is also advised to confirm that the blade is tracking properly before performing the below. Blade tracking is covered in the previous page.

Using a 6mm allen key, loosen the blade guide blocks on both the left and right sides. They should be free to slide up and down.







Loosen the blade guide assembly bolt with a 16mm socket. The round shaft should now be free to slide back and forth. Position it so that there is a paper width gap between the bearing and the back of blade. Tighten bolt against the flat on the shaft to secure assembly back in position.



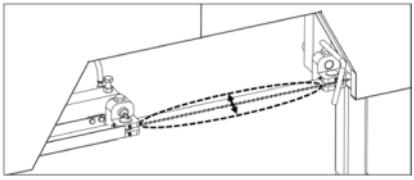
Adjusting the gap above the saw blade.



Adjust the gap below the saw blade.

Using a piece of paper in between the blade and blade guide blocks, tighten the allen key bolts.

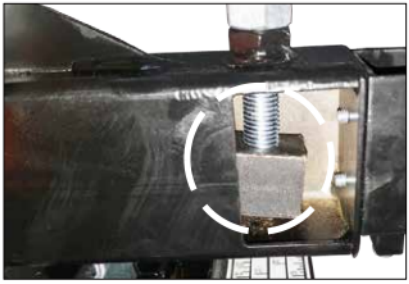
BLADE TENSION



Proper blade tension is achieved when the blade deflects no more than a total of 1/8" - 1/4" up/down when it is firmly moved by hand at the center location of the blade guide blocks. Turning the blade tension "T" handle in the clockwise direction will add tension to blade.



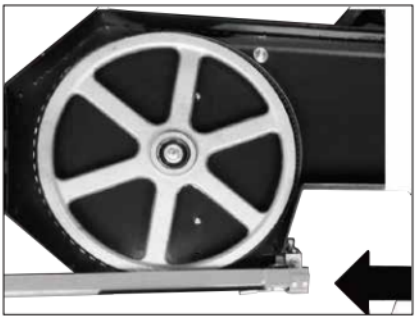
When tensioning the blade, make sure the tracking adjustment bolt sitting behind the T-handle (pictured) is sitting back in its recess after you have finished and before the mill is run. Failure to do this will result in the blade being thrown and possibly broken.



Tracking adjustment bolt out of recess, if it looks like this DO NOT start the mill until it is resting back in its recess

Tracking adjustment bolt sitting in recess. It should look like this before the mill is started back up.





Ensure the blade support arm is locked into place after tensioning the blade.

SAWMILL MAINTENANCE

CHANGING THE BLADE

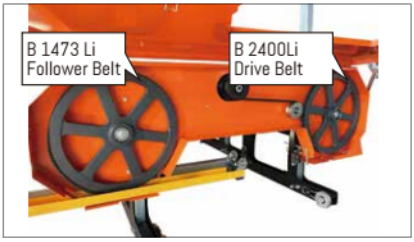
Never attempt the below with the engine running. As a safety precaution, remove the spark plug cap. Gloves and safety glasses must be worn when changing the blade.



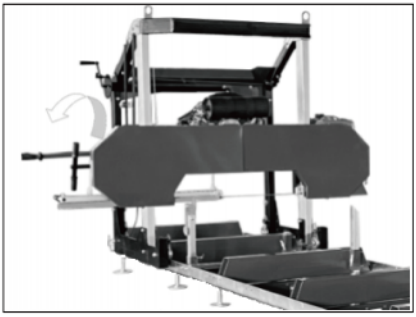
Remove the tension in the blade by turning the "T" handle in the counter-clockwise direction and then open the blade guard cover. The blade should now be loose and free to pull straight out the front. The new blade can now be installed, guards closed and proper blade tension set.

REPLACING BELTS

Never attempt the below with the engine running. As a safety precaution, remove the spark plug cap. Gloves and safety glasses must be worn when replacing the belts.



There are two rubber "V" belts on the sawmill and they should be replaced as a set. It is not advised to replace individual belts separately. It is recommended to use a B 2400 Li drive belt for the drive side and a B 1473 Li follower belt.





Remove the tension in the blade by turning the "T" handle in the counter-clockwise direction and then open the blade guard cover. The blade should now be loose and free to pull straight out the front.





To change the drive side belt, loosen the four bolts that secure the engine to the engine mount using a 16mm wrench.



Now that the engine is free to slide on the engine mounting plate, turn the 16mm nut on the horizontal stud in the counter-clockwise direction. This will allow the engine to move and will also take the tension off of the belt. The old belt can be removed and the new belt can be installed. Tension the new belt and refer to the BELT TENSION instructions described in the sawmill set up section of the manual.

The follower belt can now be changed by simply pulling it off and installing the new one. The blade can now be re-installed, guards closed and proper blade tension set.

Note that blade tracking is likely to change and need adjusting when new belts are installed. Refer to "BLADE TRACKING" for more information.

TROUBLESHOOTING

Problem/Issue	Possible Causes	Resolution Options
Producing wavy cuts.	1. Inadequate blade tension. 2. Improper blade guide set up. 3. Improper blade tracking. 4. Sap build-up on blade. 5. Dull blade. 6. Pushing mill too quickly.	1. Tighten blade. 2. Gap between guide blocks and blade is incorrect. 3. Adjust blade tracking. 4. Install new blade. Always use blade lubricant. 5. Install new blade. 6. Slow feed rate down and push head slower through log.
Last board is tapered or narrow in middle.	1. Tracks are not level.	1. Tracks need to be checked with a level and adjusted to be square. They also need to be set up on firm, sturdy foundation or base so deflection does not occur from logs or sawmill head.
Blade dulls quickly.	1. Logs are not clean. 2. Foreign objects in log.	1. Logs may contain dirt/sand causing them to wear prematurely. 2. Tree may contain nails, staples, old fencing etc.
Blade comes off of bandwheels.	1.Inadequate blade tension. 2.Improper blade guide set up. 3.Improper blade tracking. 4.Belts are worn. 5.Dull blade. 6.Pushing mill too quickly	1. Tighten blade. 2. Gap between guide blocks and blade is incorrect. 3.Adjust blade tracking. 4. Install new belts. 5. Install new blade. 6. Slow feed rate down and push head slower through log.
Blades are breaking.	1. Too many blade sharpening. 2. Inadequate blade tension. 3. Improper blade guide set up. 4. Improper blade tracking. 5. Pushing mill too quickly.	1. Replace blade. 2. Binding between guide blocks when blade is too loose. Tighten blade. 3. Gap between guide blocks and blade is incorrect. 4. Adjust blade tracking. 5. Slow feed rate down and push head slower through log.
Blade is slowing down or stopping when milling.	1. Inadequate blade tension. 2. Improper drive belt tension. 3. Pushing mill too quickly.	1. Tighten blade. 2. Belts are worn or too loose. Replace. 3. Slow feed rate down and push head slower through log.
Mill is not cutting/cutting very slowly	1. Dull blade. 2. Blade is on backwards.	1. Install new blade. 2. Remove blade and flip it inside out. The teeth should be facing in the direction of the log supports.

Problem/Issue	Possible Causes	Resolution Options
Mill is vibrating excessively.	1. Log is not clamped securely. 2. Belts are deformed. 3. Bandwheel bearing issue. 4. Pushing mill too quickly. 5. Loose bolts.	1. Ensure log is clamped firmly resting on log bunks and against log supports. 2. Belts may have flats in them from leaving blade tension tight when not in use. Replace them. 3.Inspect and replace the bandwheel bearings if worn. 4. Slow feed rate down when milling, 5. Check all bolts to ensure they are tight.

DIAGRAM: OVERALL ASSEMBLY

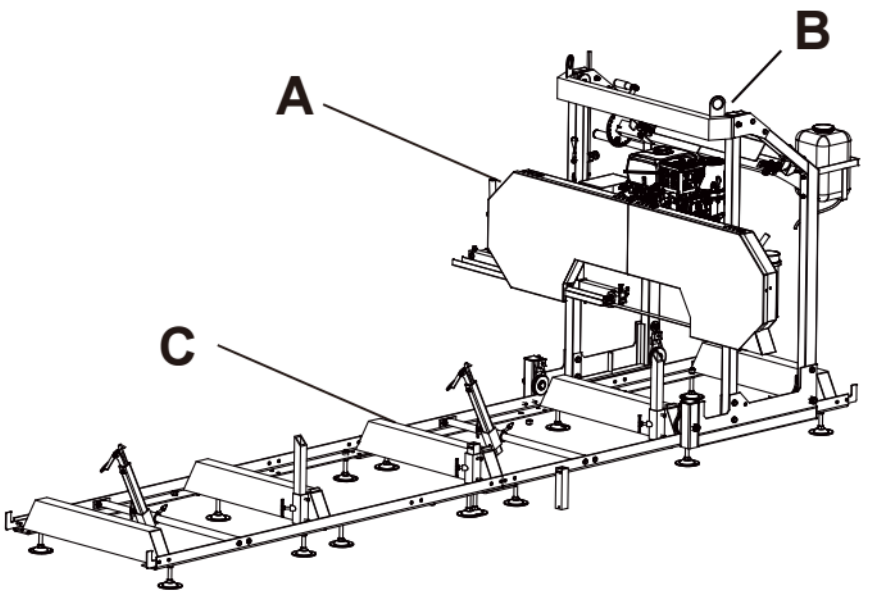
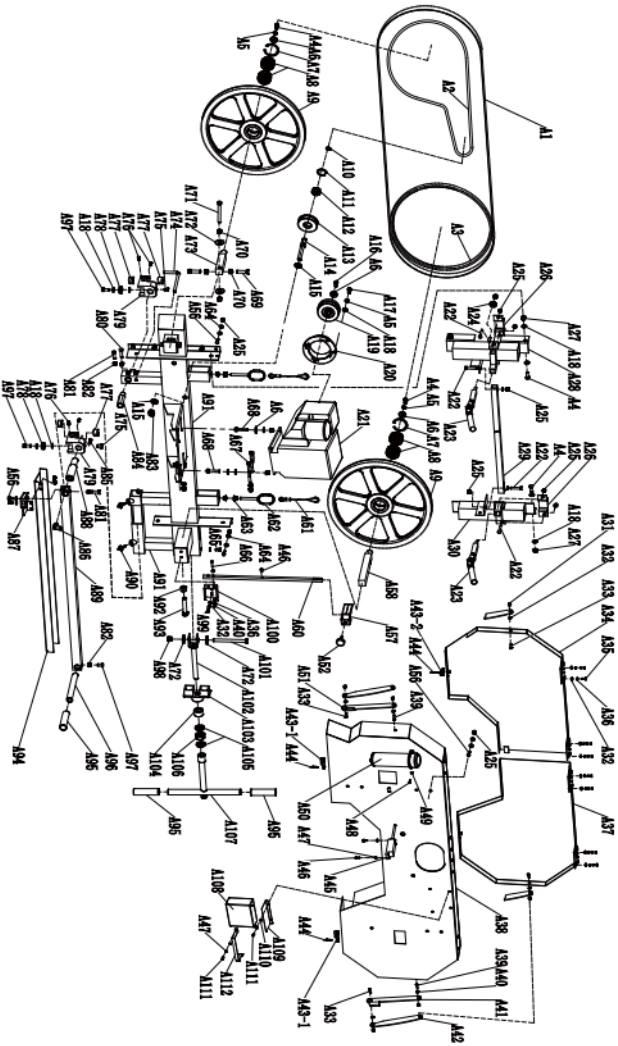


DIAGRAM A: BANDWHEEL HOUSING



PARTS LIST A: BANDWHEEL HOUSING

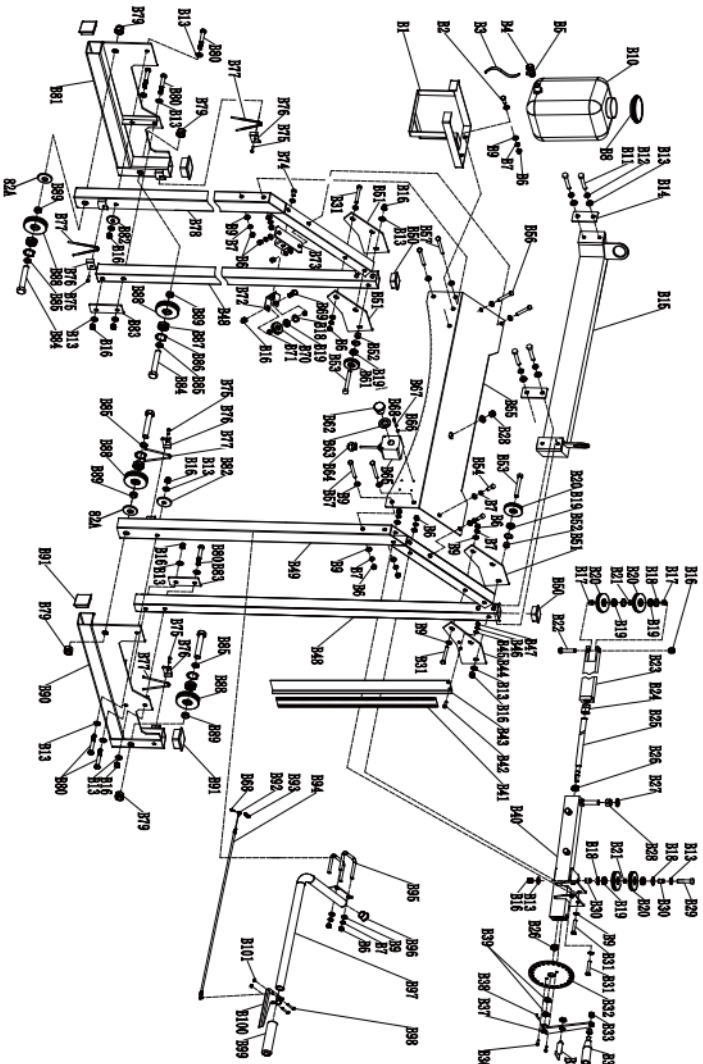
REF	DESCRIPTION	QTY
A1	Saw blade	1
A2	Bi2400 V-belt	1
A3	Bi1473 V-belt	1
A4	Hexagon bolt M10x25	9
A5	Spring washer 10	7
A6	Large side flat pad 10(φ10*35*3.0)	5
A7	Circlip for hole 62	2
A8	Deep groove ball bearing 6305	4
A9	Pulley	2
A10	Circlip for shaft 17	1
A11	Circlip for hole 40	1
A12	Deep groove ball bearing 6203-2RS	1
A13	Tensioner wheel	1
A14	Tension Shaft	1
A15	Flat washer 16	2
A16	American 3/8x24x25	1
A17	American 3/8x16x25	4
A18	Flat washer 10	22
A19	Clutch	1
A20	Clutch shield welding	1
A21	Engine	1
A22	Hexagon bolt M8x40	4
A23	Quick locking (assembly)	2
A24	Large washer 10	5
A25	Non-metal insert hexagon lock nut M8	16
A26	Locking plate weldment	2
A27	Non-metal insert hexagon lock nut M10	11
A28	Right Lifting Lock Weldment	1
A29	Support Tube	2

REF	DESCRIPTION	QTY
A30	Left Lifting Lock Weldment	1
A31	Non-metal insert hexagon lock nut M6	8
A32	Flat washer 6	18
A33	Hexagon head bolt M6X16	6
A34	Right hood door welding 1	1
A35	Cross pan head screw M6x16	8
A36	Spring washer 6	12
A37	Left hood door welding	1
A38	Welding of shield body	1
A39	Hexagon head bolt M6X20	2
A40	Hexagon nut M6	4
A41	Side pull plate 3	1
A42	Side pull plate 1	2
A43	Buckle	1
A44	Pop rivet 4X10	8
A45	Limit switch YBLX	1
A46	Cross recessed pan headscrew M5X12	3
A47	Spring washer 5	6
A48	Pop rivet 4X16	3
A49	Large flat washer 4	3
A50	Instruction Manual	1
A51	Side pull plate 2	1
A52	M8x40 Knob Handle	1
A53	Cross recessed pan head screw M4x12	2
A54	Flat washer 4	2
A55	Scale plate	1
A56	Hexagon head bolt M8X20	11
A57	Scale holder	1
A58	Passive saw wheel shaft	1

REF	DESCRIPTION	QTY
A59	Hexagon nut M8	2
A60	7101-150010 height indicator	1
A61	Lifting wire	2
A62	Lifting ring	2
A63	Hexagon flange nut M10	4
A64	Flat washer 8	17
A65	Hexagon head bolt M8X16	1
A66	Hexagon head bolt M6X25	2
A67	Tension plate	1
A68	Hexagon bolt M10X50	4
A69	Hexagon bolt M12X45	2
A70	Hexagon nut M12	4
A71	Hexagon head bolt full thread M12X100	1
A72	Large washer 12(φ12*35*3.0)	4
A73	Driving saw wheel shaft	1
A74	Saw guard hook	1
A75	Hexagon bolt M10X12	2
A76	Hexagon socket set screw with concave point M6X12	12
A77	Aluminum seat	4
A78	Deep groove ball bearing 6200-2RS	2
A79	Aluminum Saw Clamp Shaft Seat 2	2
A80	Hexagon bolt M10 x 35	1
A81	Hexagon bolt M10X30	2
A82	Hexagon nut M10	5
A83	Non-metal insert hexagon lock nut M16	1
A84	Right saw clamp shaft for aluminum seat	1
A85	One M6 90 degree oil cup	1
A86	1/4" Elbow Fitting	1
A87	Saw Guard Plate 1 Weldment	1
A88	Left saw clamp shaft	1
A89	Push rod	1

REF	DESCRIPTION	QTY
A90	Triangular handle M10X40X30	2
A91	Beam welding	1
A92	Hexagon nut M16	1
A93	Hexagon bolt M16X80	1
A94	Saw guard 2	1
A95	25 Tube rubber handle	3
A96	Push-pull handle	1
A97	Hexagon bolt M10 x 20	1
A98	Non-metal insert hexagon lock nut M12	1
A99	Hexagon socket head cap screw M6X14	2
A100	Scale base	1
A101	Hexagon bolt M12X150 half thread	1
A102	Tension Rod Weldment	1
A103	Tie Bar Seat Weldment	1
A104	Cushion	1
A105	Tensioning gasket(φ21*38*4.5)	2
A106	Thrust ball bearing 51204	1
A107	Tensioning Handle Weldment	1
A108	Lead-acid battery	1
A109	Lead acid battery cap	1
A110	Flat washer 5	4
A111	Hexagonal cylindrical head screw M5X16	4
A112	Lead acid battery holder	1

DIAGRAM B: CARRIAGE



PARTS LIST B: CARRIAGE

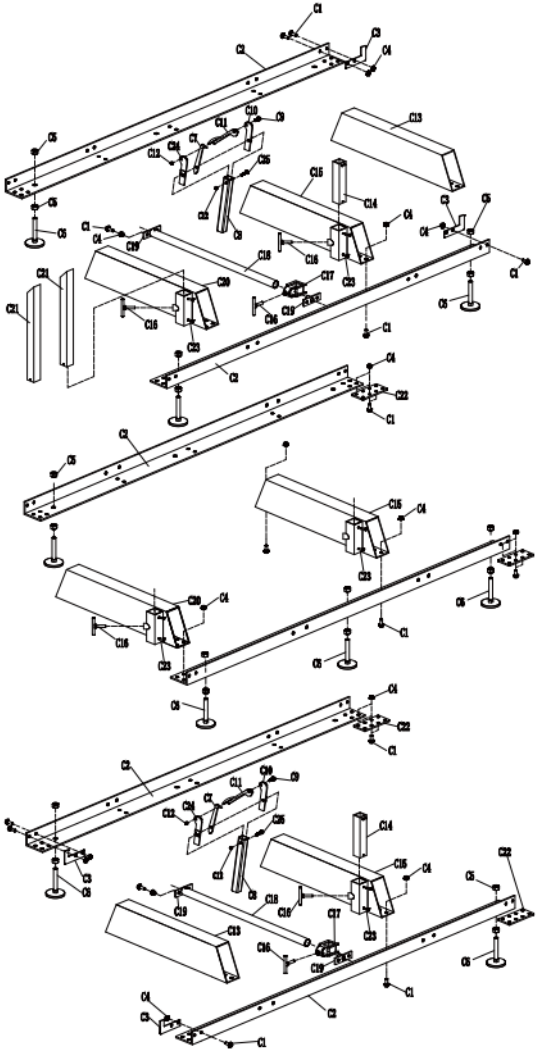
REF	DESCRIPTION	QTY
B1	Bucket Frame Weldment	1
B2	Hexagon bolt M10X25	2
B3	8mm x 5mm PU Air Hose (Transparent)	1
B4	Throttle valve	1
B5	Quick connect CSL8-04	1
B6	Hexagon nut M10	20
B7	Spring washer 10	20
B8	Bucket lid	1
B9	Flat washer 10	35
B10	bucket	1
B11	Hexagon bolt M12X75 half thread	4
B12	Spring washer 12	4
B13	Flat washer 12	20
B14	Clamping plate 2	2
B15	Welding of upper crossbeam	1
B16	Non-metal insert hexagon lock nut M12	11
B17	Spacer 1	2
B18	Circlip for hole 28	7
B19	Deep groove ball bearing 6001RS	7
B20	Lifting wheel	5
B21	Spacer sleeve	2
B22	Hexagon bolt M12X65 half thread	1
B23	Welding of expansion pipe	1
B24	Copper nut	1
B25	Lifting screw rod	1
B26	Thrust ball bearing 51102	2
B27	Flat washer 16	2
B28	Hexagon nut M16	2
B29	Hexagon bolt M12X85 half thread	1

REF	DESCRIPTION	QTY
B30	Reversing wheel sleeve	2
B31	Hexagon bolt M10X80 half thread	6
B32	Dial	1
B33	Hexagon nut M12	2
B34	13 hole handle	1
B35	PLUNGER AS-KNOB 1	1
B36	Hexagon head bolt M6X16	2
B37	Crank Weldment	1
B38	Elastic straight pin 5X24	1
B39	Small round nut M14X1.5	2
B40	Expansion Pipe Weldment 2	1
B41	7103-20003C Height scale	1
B42	Hexagon head bolt M8X20	2
B43	7203-200050 ruler base	1
B44	Connecting plate 3	1
B45	Flat washer 8	2
B46	Spring washer 8	2
B47	Hexagon nut M8	2
B48	Lifting square tube	2
B49	Left Rear Support Weldment	1
B50	50*50 square pipe plug	2
B51	7203-230010 connecting plate	3
B52	Lifting wheel sleeve	2
B53	Hexagon bolt M12X95 half thread	2
B54	Hexagon head bolt M10 x 25	2
B55	Upper arch cover	1
B56	Hexagon bolt M10X75 half thread	2
B57	Hexagon bolt M10X90 half thread	4

REF	DESCRIPTION	QTY
B59	Flat washer 5	6
B60	M5 self-locking nut	6
B61	Right lifting wheel	1
B62	Mushroom head emergency stop button	1
B63	Emergency stop sign	1
B64	Retaining Bolt M20	1
B65	One hole of button box CA-BX	1
B66	Flat washer 4	4
B67	Spring washer	4
B68	Cross recessed pan head screw M4X12	5
B69	Hexagon bolt M12X30	1
B70	7001-230040 pulley	1
B71	7101-240040 Spacer	2
B72	Pulley Frame Weldment	1
B73	Pulley frame seat	1
B74	Hexagon head bolt M10 x 20	1
B75	Hexagon head bolt M6X20	4
B76	Clamping plate 2	4
B77	Wire rope brush	2
B78	Right Rear Support Weldment	1
B79	Non-metal insert hexagon lock nut M20	4
B80	Hexagon bolt M12X80 half thread	6
B81	Right Bottom Wheel Frame Weldment	1
B82	Rear gasket of bottom wheel frame	2
B82A	Rear bottom wheel gasket	2
B83	Right clamping plate of bottom wheel frame	2
B84	Hexagon bolt M20X110 half thread	4
B85	Bottom wheel spacer 1	4
B86	Circlip for hole 42	4
B87	Deep groove ball bearing 6004	4
B88	Bottom wheel	4
B89	Bottom wheel spacer 2	4

REF	DESCRIPTION	QTY
B90	Welding of left bottom wheel frame	1
B91	60*60 square pipe plug	4
B92	clamp	1
B93	drag spring	1
B94	Accelerator cable	1
B95	U-bolt	2
B96	33 Round pipe plug	1
B97	Pusher Weldment	1
B98	Hexagon socket head cap screw M5X30	2
B99	7001-201040 Handle cover φthirty-two	1
B100	Throttle handle	1
B101	Hexagon nut M5	2

DIAGRAM C: GUIDE RAIL



PARTS LIST C: GUIDE RAIL

REF	DESCRIPTION	QTY
C1	Hexagon flange bolts M10*30	68
C2	Guide rail	6
C3	Limit plate	4
C4	Hexagon flange self-locking nuts M10	68
C5	Hex nut M16	36
C6	Leveling Feet M16	18
C7	Hook	2
C8	Telescopic Tube Weldment	2
C9	Hexagon socket head screw M10X35	2
C10	Telescopic Left Plate Weldment	2
C11	Eccentric Compression Weldment	2
C12	Hexagon lock nut M10	4
C13	Two-hole guide rail beam (not welded)	2
C14	Log support	2
C15	Two-Hole Guide Rail Beam Weldment	3
C16	T-screw M10*40	7
C17	Log clamp receiver	2
C18	Slide tube	2
C19	Sliding Socket Weldment	4
C20	Four-Hole Rail Beam Weldment	2
C21	Log support	2
C22	Rail connecting plate	4
C23	Hex Bolts M8*30	10
C24	Telescopic Right Plate Weldment	2
C25	Half round head square neck bolt M10x35	2

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