SM36MAX

2 YEARS
WARRANTY



Operator's Manual

MechMaxx

www.mechmaxx.com

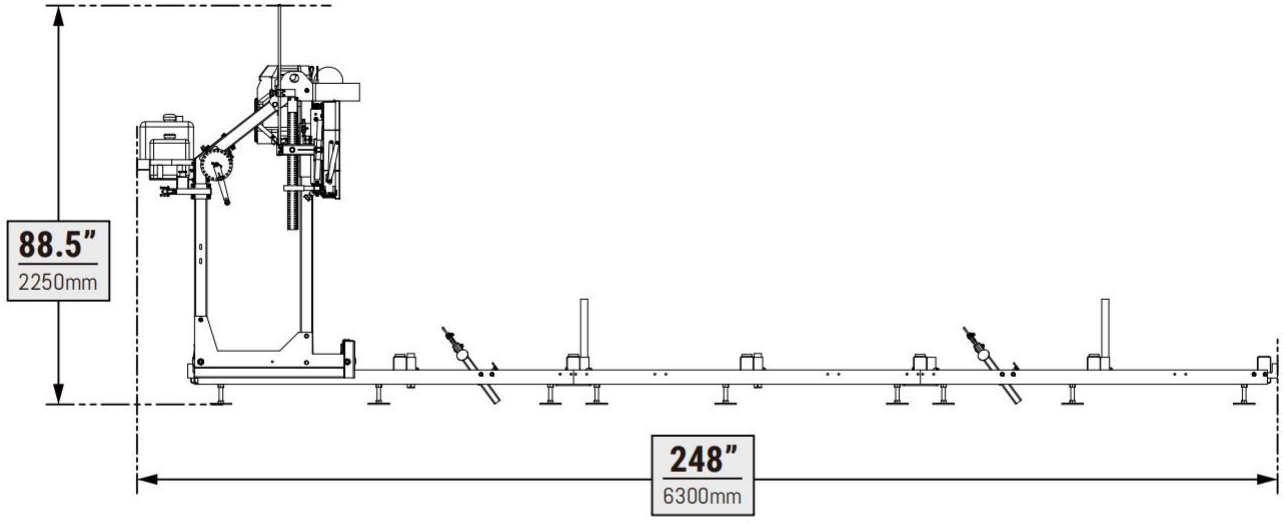
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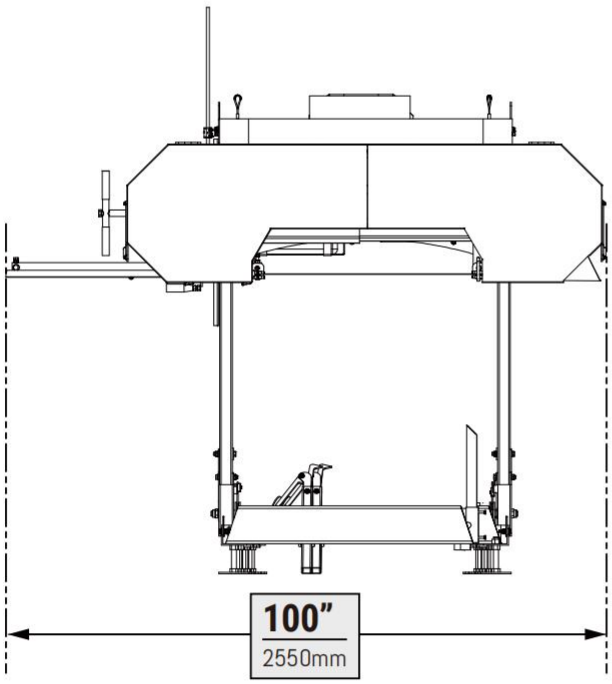
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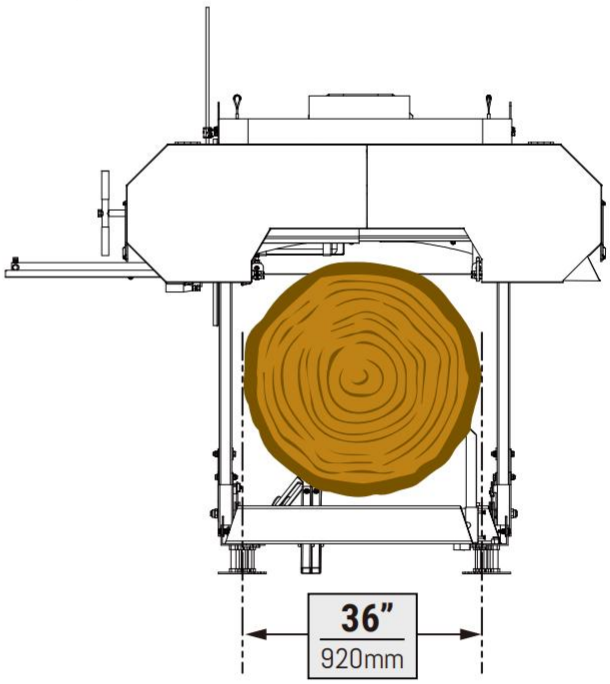
SPECIFICATIONS

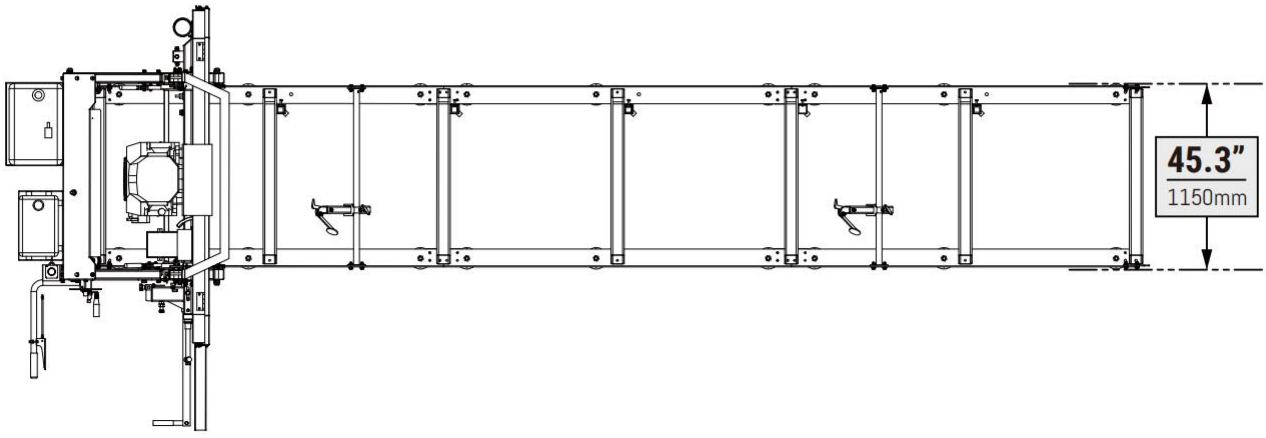
Model	SM-36MAX	
Engine	ZONGSHEN GB750	HONDA GX690
Engine Displacement	750 cc	688 cc
Horsepower	25 HP	25 HP
Engine Type	Dual cylinder (90'V type)4 stroke forced air Colling	
Start	E-Start	
Log Diameter	36 in	
Max Live Edge Width	36 in	
Standard Cutting Length	16 ft 8 in	
Max Board Thickness	7 in	
Blade 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	175x 1.25 in	
Blade Pitch	7/8 in	
Blade Lubrication	Water Lube - Manual Valve	
Lubricant Tank Size	4 gal	
Fuel Tank Size	6.3 gal	
Track Width	45.3 in	
Track Length	20 ft	
Track Extension Length	6 ft 5 in	
Levelling Feet	18	
Log Rests	2 Long and 2 Short Rests	
Log Clamps	2 x Quick Lock	
Track Bunks	3X6 in	
4 Post Head Design	Yes	
Finish	Powder Coat Paint Galvanized Steel	
Sawmill Warranty	2 Years	
Engine Warranty	2 Years	
Package Method	Wood	
Packing Size	90 x 28.5 x 34 in	
Weight(N.W./G.W.)	1115/1239 lbs	1133/1257 lbs

OVERALL DIMENSIONS









SAFETY SIGNS

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











SAFETY

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

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.

Only operate the engine in a well ventilated area. Carbon Monoxide (CO) 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, therefore, visitors should remain 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 cause personal harm or property damage.
- Be alert of your surroundings. Using power tools in confined work areas may put you dangerously close to cutting tools and rotating parts.

INTERNAL COMBUSTION ENGINE SAFETY

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 (CO); 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 an open flame.
- 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 fuel lines are loose.
- ALWAYS avoid contact with hot fuel, oil, and exhaust fumes.

PERSONAL SAFETY

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool when 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, hardhat, 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 while the engine is running. Always shut the engine off, remove the ignition key, and turn 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 the 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 extremely hot and can cause burns.
- Always close the fuel valve on the engine when the machine is not in use.
- 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 clamp 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 reuse.
- 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 bandsaw 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 sawmill.
- Always operate 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.

EQUIPMENT OPERATION

1. Wear heavy-duty work gloves, ANSI-approved goggles behind a full face shield, steel-toed work boots, and a dust mask.
2. Operate only with assistance.
3. Ensure guide blocks are tight and track is level
4. Fill the lubrication tank with clean water and dish soap.
5. Start and operate the engine according to the provided engine manual.
6. Depress the throttle to bring the blade up to full speed.
7. Throttle should be fully depressed when the saw is under load.
8. Trim branches off the log before placing it on the sawmill.
9. WARNING: To avoid death or serious injury. Do not cut logs containing embedded foreign objects such as nails, metal pieces, etc.
10. Place the log to be cut on the supports.
11. WARNING: The operator and any assistants must stay clear of the front and back of the blade whenever the engine is on.
12. Move the saw head slowly along the track and against the log to make the cut.
13. Trim off the rounded sides of the log.
14. When the log is squared-off, boards or posts can be cut to custom specifications.
15. 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.



To avoid death or serious injury, do not cut logs containing embedded foreign objects such as nails, metal fragments, etc.

The operator and any assistants must stay clear of the front and back of the blade whenever the engine is on.

Check the oil level before each use. Change the engine oil if it is above the maximum level. There is a risk of contamination due to the short-cycle operations common during milling where the oil may not reach normal operating temperature (212°F / 100°C).

MAINTENANCE

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

1. Bandwheel 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 multi- purpose, extreme-pressure grease.
4. Log Screws — Grease frequently.
5. Belts — Periodically check the condition and wear of the drive and idler belt. Ensure that the blade does not ride on the bandwheels.
6. Drive Belt — Periodically check the tension of the drive belt. It should deflect by no more than 1/2".
7. Saw Head Locking Cam Handles — Grease assembly every 30 days or as required.
8. Saw Head Vertical Posts — Spray posts before use with a silicone spray lubricant such as 3- in-1 or Jig-A-Loo.
9. Band-Wheel Guards — Routinely remove any build-up of sawdust that may collect inside the bandwheel guards.
10. Lubrication Tank — Only fill with a water/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 0 degrees Celsius (32 degrees Fahrenheit).
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 according to 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 part of the cable often to prevent premature wear. Replace with new cables as necessary.

Check the oil level before each use. Change the engine oil if it is above the maximum level. There is a risk of contamination due to the short-cycle operations common during milling where the oil may not reach normal operating temperature (212°F / 100°C).

ASSEMBLY

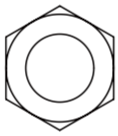
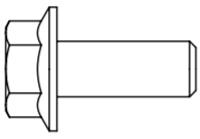
During several of the assembly steps, more than one socket or wrench of the same size may be required to assemble the hardware. A socket or box wrench in combination with an adjustable wrench can be utilized if multiple same size tools are in limited supply.

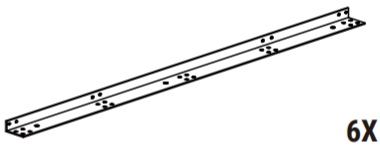
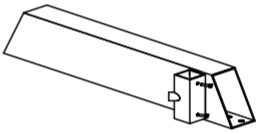
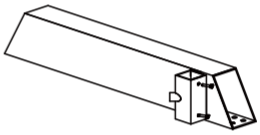
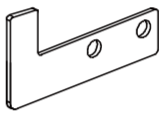
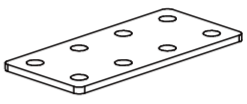
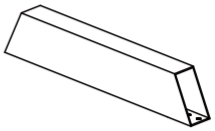
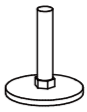
When assembling the sawmill, do not torque the bolts to hardware Class/Grade specifications. Snug the hardware, then tighten a further 1/4 to 1/2 turn. Tightening bolts to torque spec can crush metal tubing, ruining the components.

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 ½ to 4 in [90—100 mm] off the ground. This will allow for easy cleanup of sawdust and log support height adjustments.

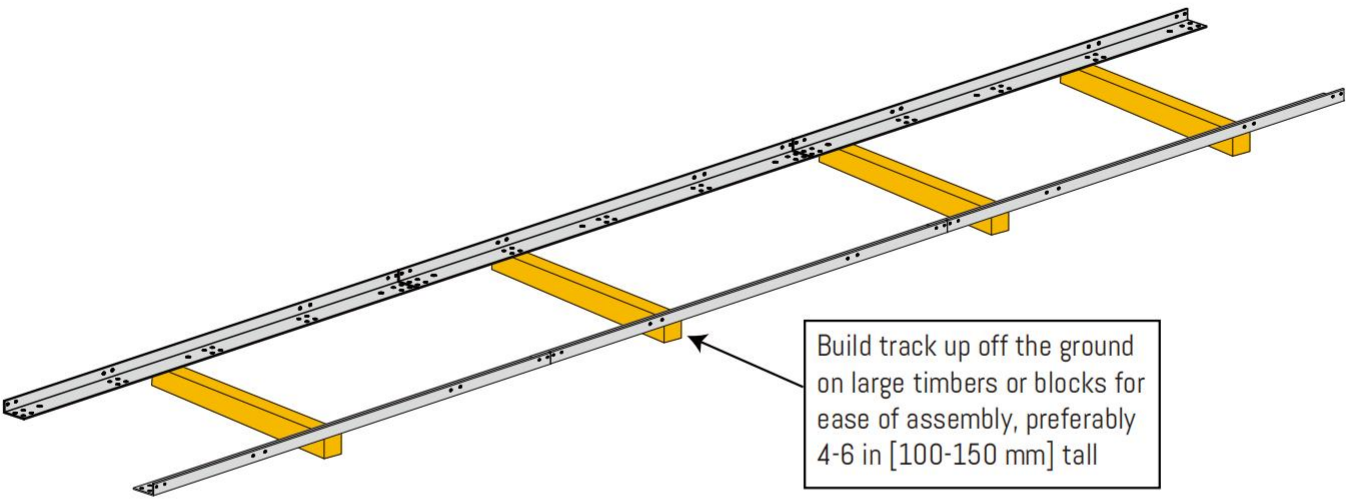
Assemble one of the bunk assemblies over the joint between both pairs of track rails using the components and hardware listed in the table below.

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

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

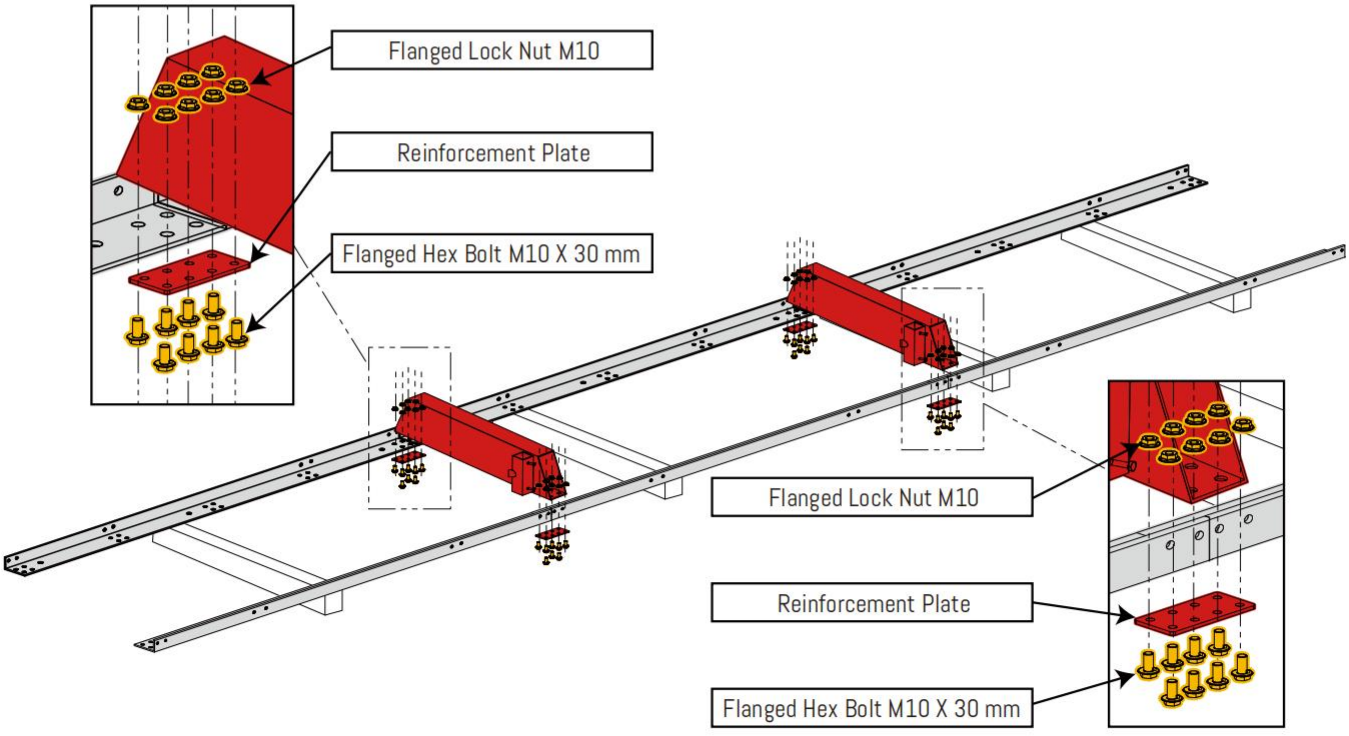
RAILS & CENTER BUNK

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.



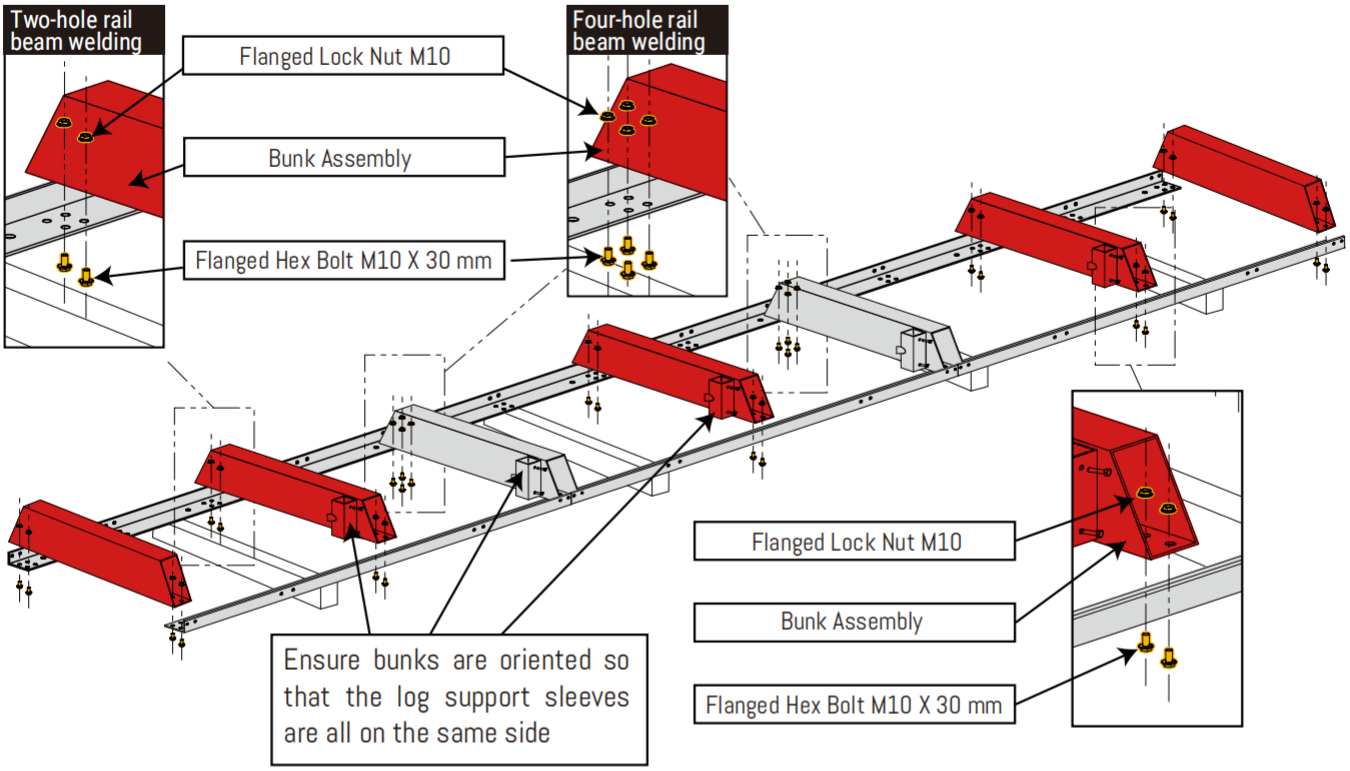
Next, assemble the bunk assembly over the rail joints with a reinforcement plate under the rails on both the left and right sides. Use eight M10 X 30 mm flanged hex bolts and M10 flanged lock nuts per side.

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

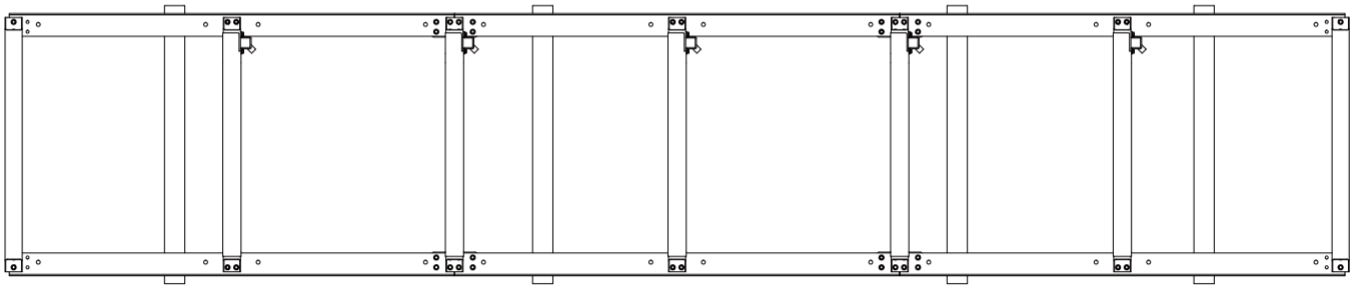
Use sixteen M10 X 30 mm flanged hex bolts and M10 flanged lock nuts (5 per bunk) at all end & mid bunk locations. Snug the hardware in the same manner as the center bunk.



SQUARING THE TRACK AND SETTING THE WIDTH

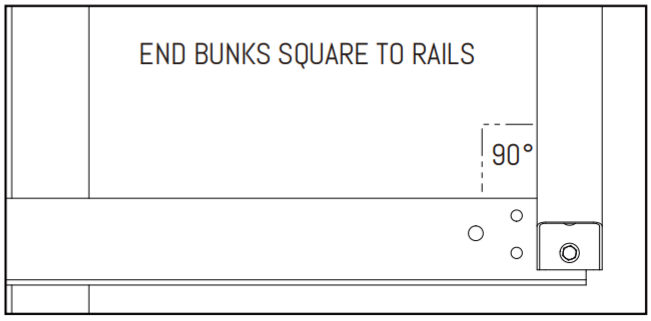
With the bunk hardware connections only snug-tight, the rails can be moved in or out as needed until the proper width is achieved along the entire length of the track.

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



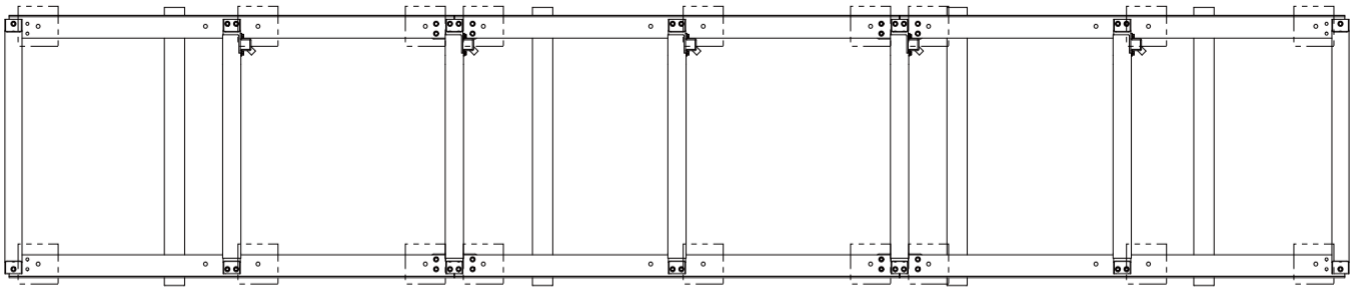
Ensure the end bunks are square to the rails.

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 towards the end, as shown above with the black arrow. Check the width and square of the track again after tightening. Readjust if necessary.

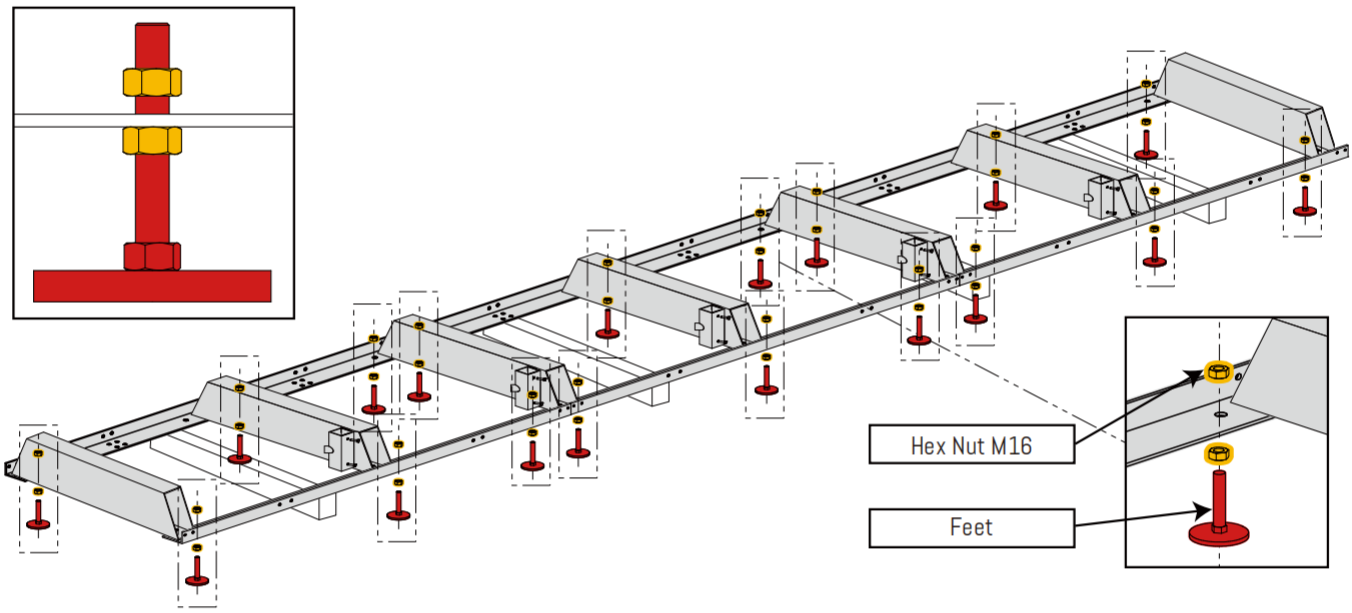


FEET

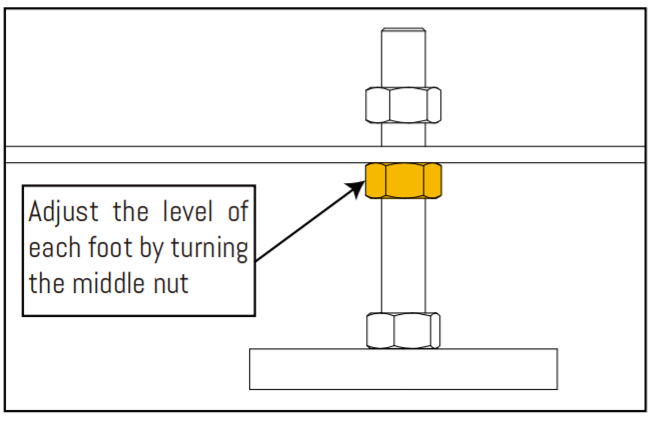
Attach the eighteen (18) leveling feet assemblies to the rails at the locations shown below.

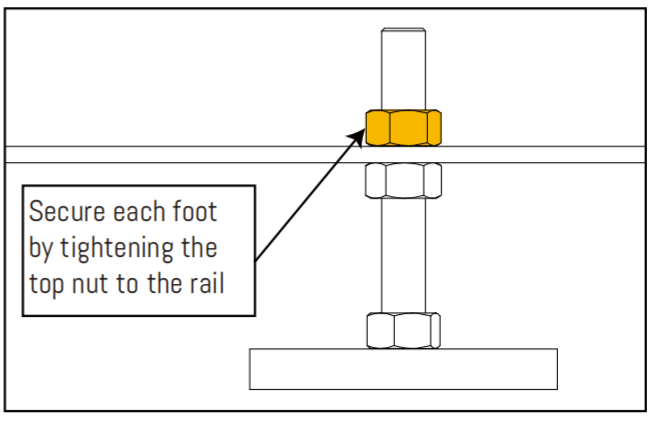


Assemble the leveling feet up through the bottom of the guide rail and thread the M16 hex nut to each foot. Do not tighten the nut. Leave it loose enough so that there is a noticeable gap between the nut and the track to allow the track level in later steps.



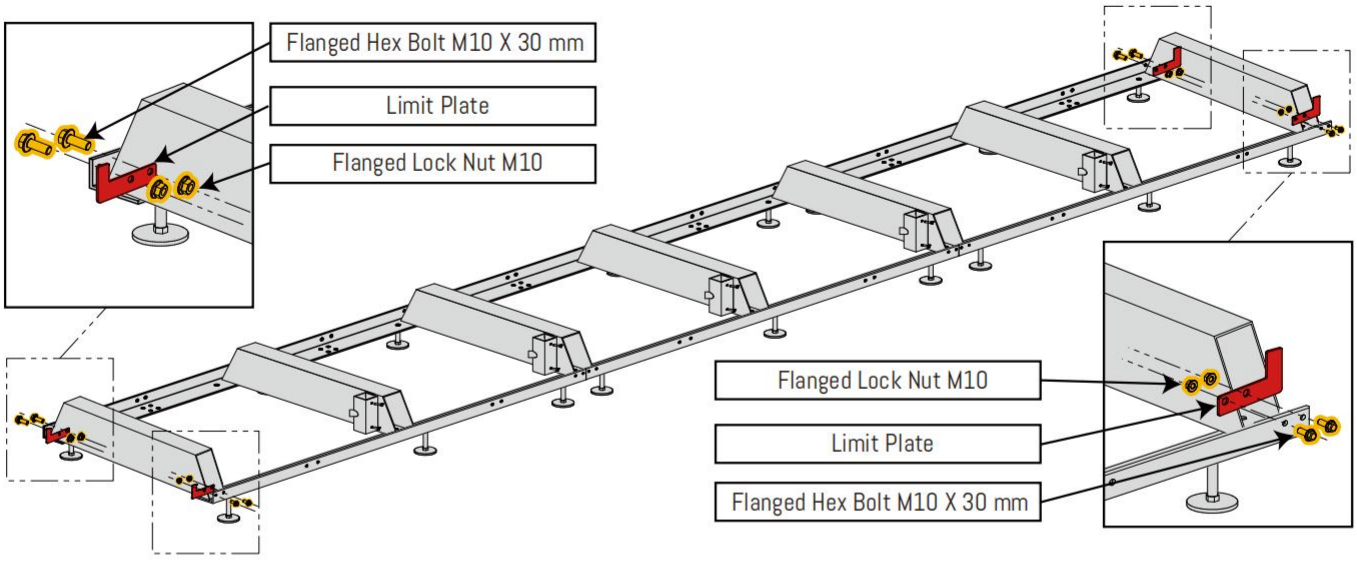
With the feet loosely assembled to the rails, remove the timber/block supports so the full weight of the track is resting on the middle nuts of the levelling feet.
Turn the middle nut on each foot to fine-tune the level. Once level, secure each foot to the rail by tightening the M16 top nut.





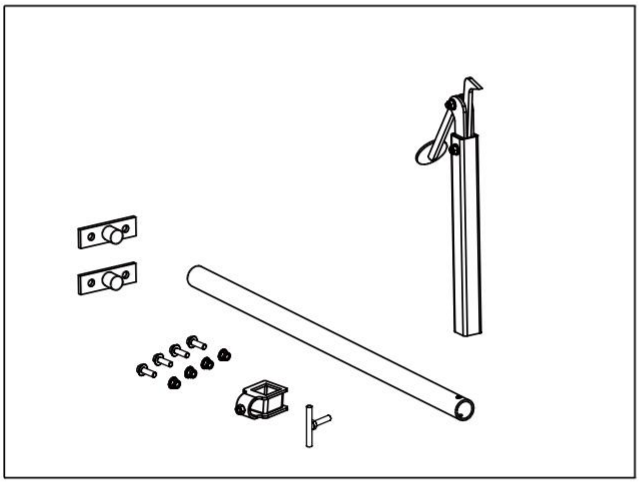
LIMIT PLATE

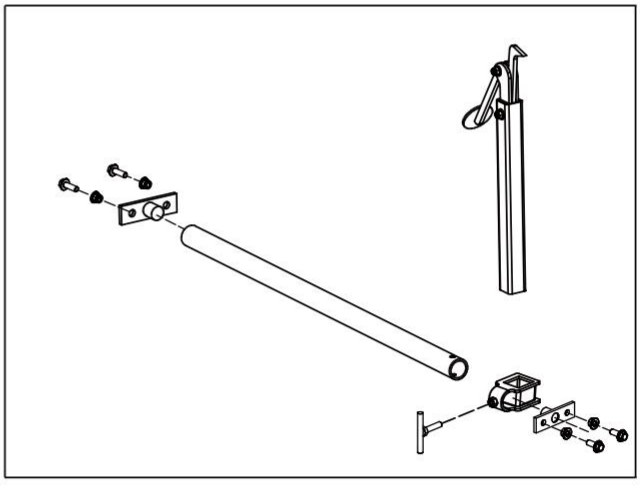
Use two (2) M10 X 30 mm flanged hex bolts and M10 flanged lock nuts to assemble each carriage stop to the inside of the track rails.



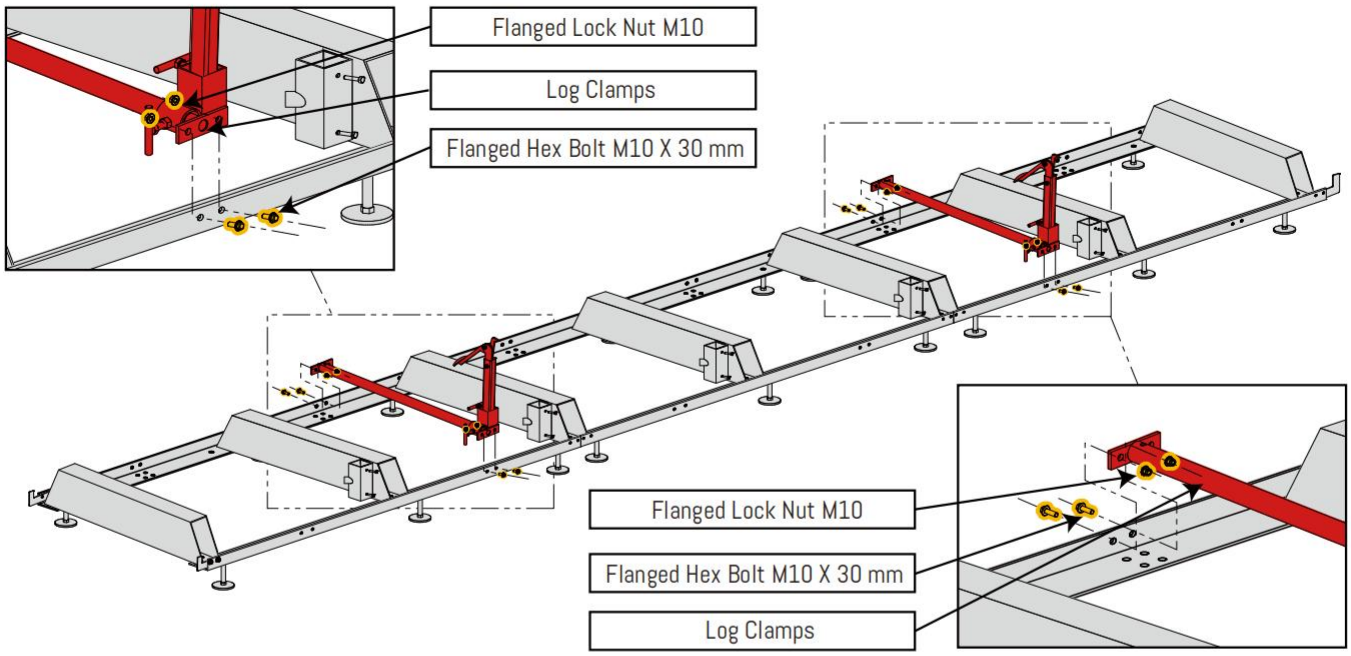
LOG CLAMPS

Assemble log clamp components as shown below and use waterproof grease on threaded handle and T-handle.





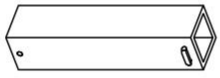
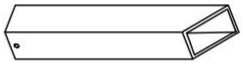
Attach assembly to the track using the provided nuts and bolts and tighten. Attach log clamp assembly to the track as shown below with the 4 nuts and bolts provided. Note that there are various locations along the track where this assembly can be bolted. Depending on how many track sections are being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



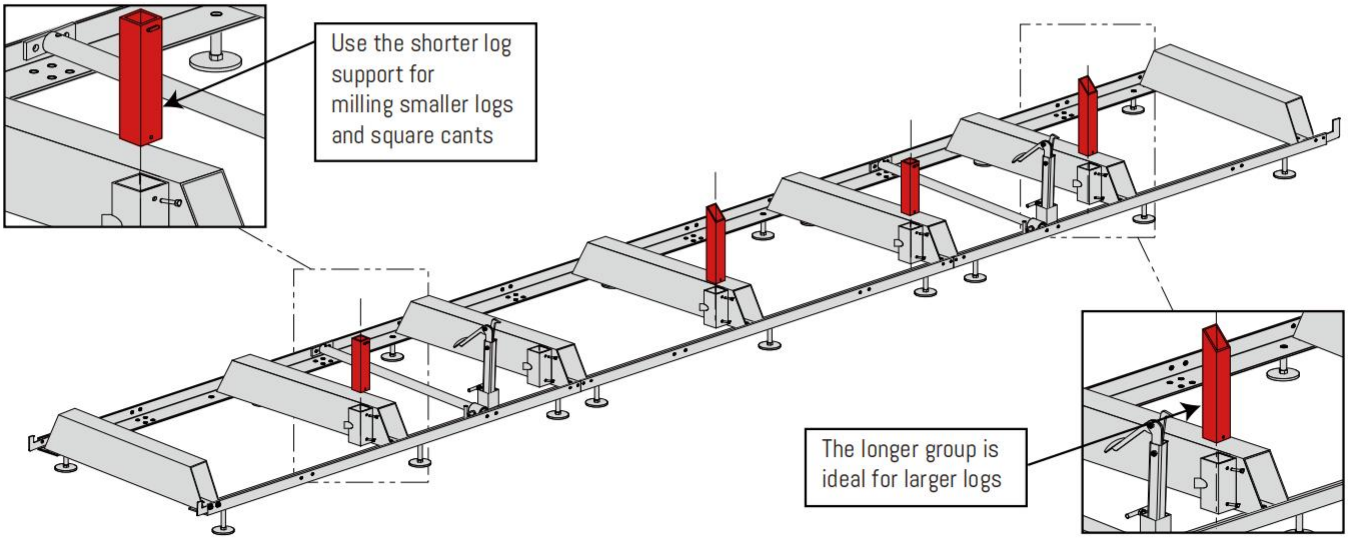
Ensure the log clamp tilts toward the log when clamping. If it tilts away from the log, remove the log clamp from the receiver, loosen the T-bolt, reverse the receiver on the shaft by rotating it 180°, and retighten the T-bolt. Insert the log clamp back into the receiver.

LOG SUPPORTS

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

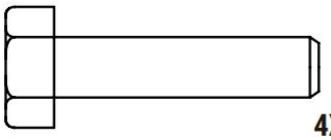
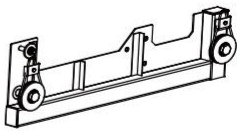
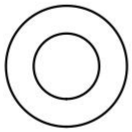
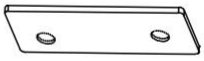
Vertical Short Support		2X
Vertical Long Support		2X

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.

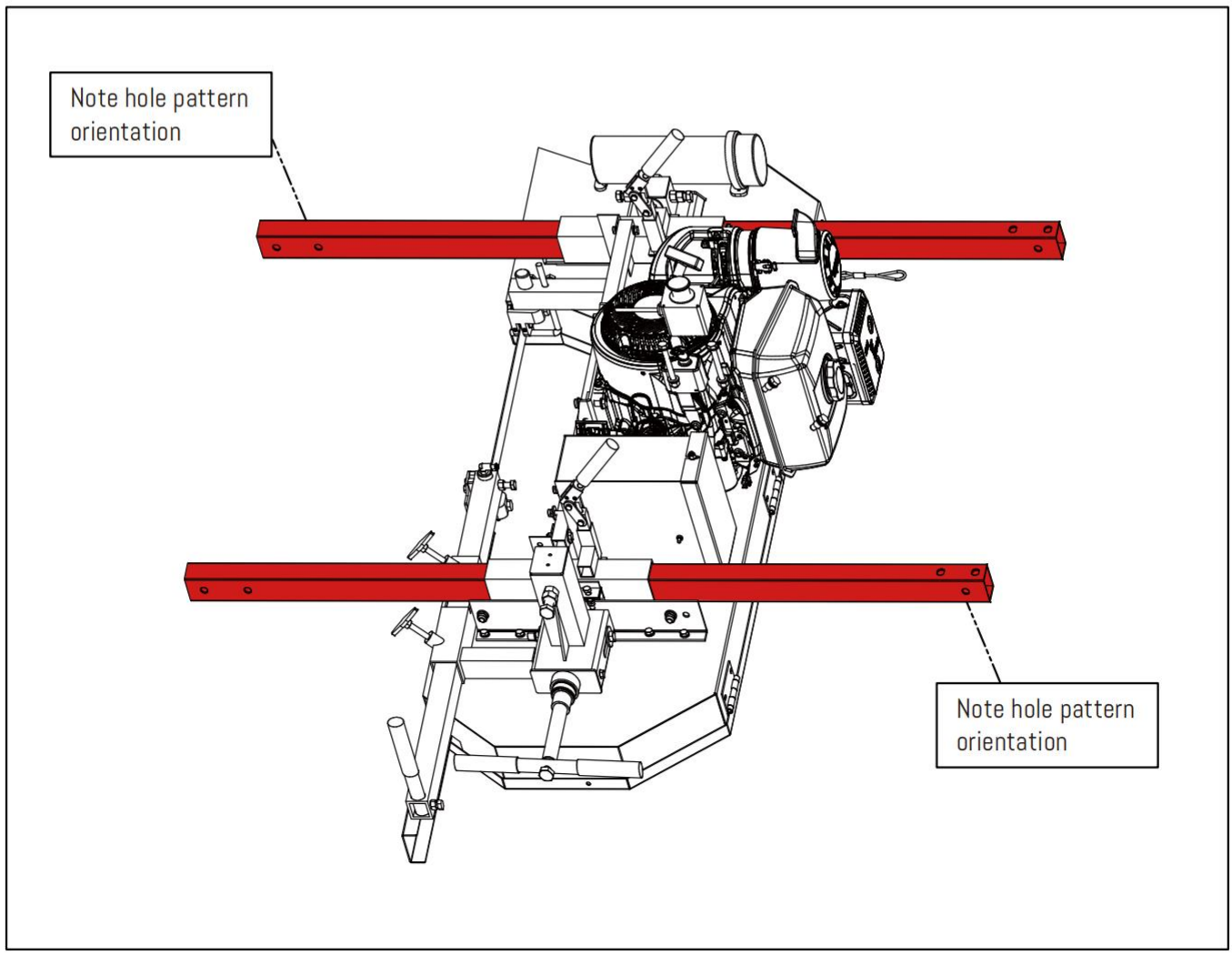


SAWMILL HEAD ASSEMBLY

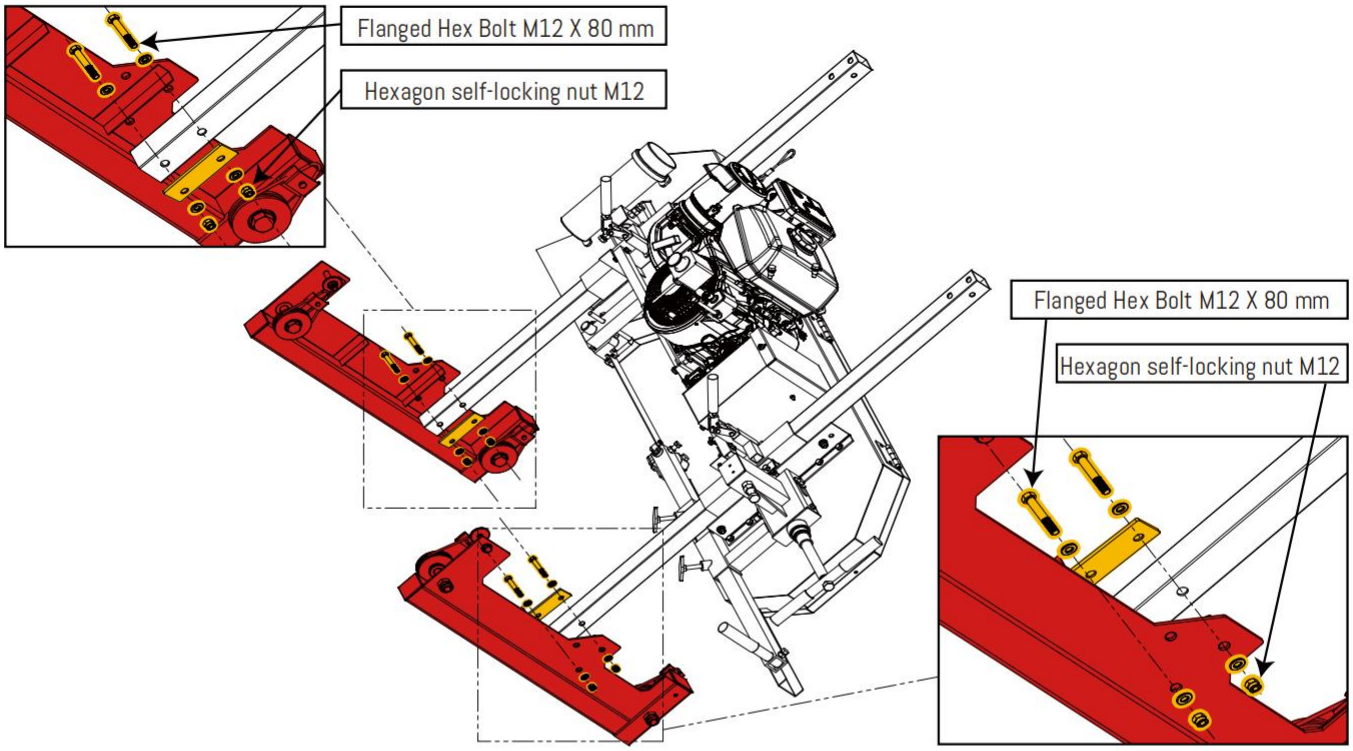
The sawmill head assembly is built in multiple steps. Follow the sub-sections below using the parts table at the top of each sub-section to gather the necessary components for each step.

Hexagon head bolt M12x80	 4X	Wheel assembly	 2X
Hexagon self-locking nut M12	 4X	Front Post	 2X
Flat washer 12	 8X	Clamping piece	 2X

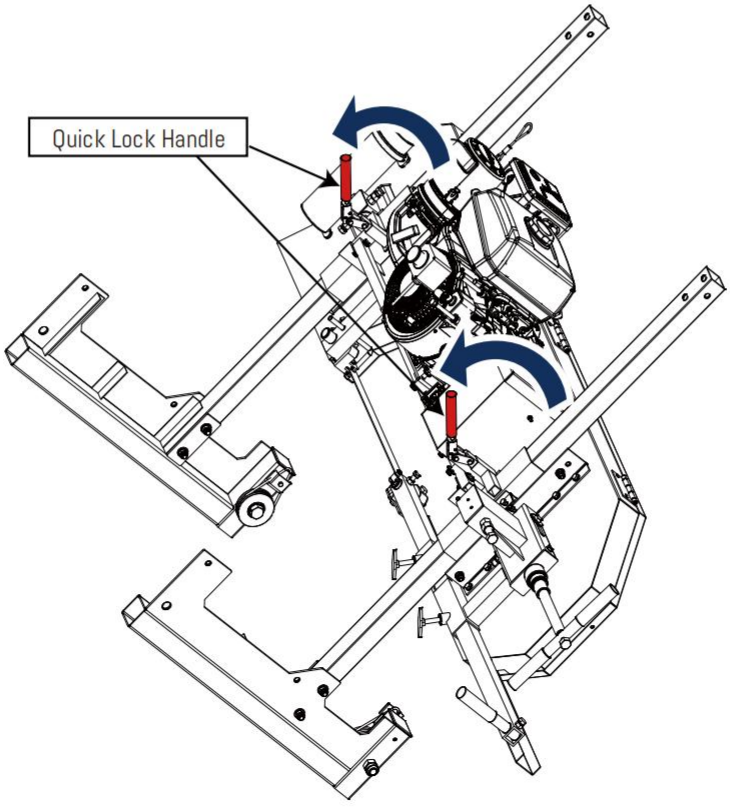
Then insert vertical post assemblies into corresponding locations in head assembly.



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

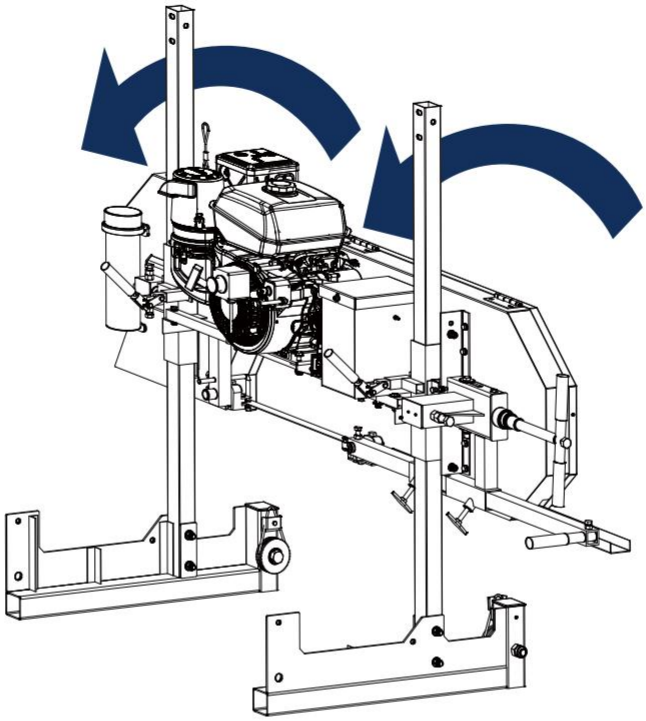


Lock the cam handles on both the square posts to prevent the head from moving when it is stood upright in the coming steps. Ensure that when activating the cam handles, the clamps securely lock on the square vertical post.



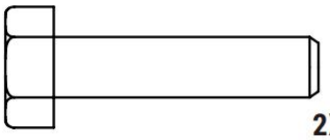
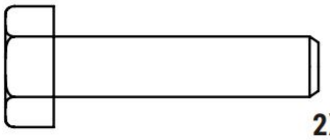
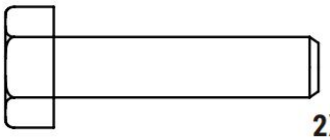
STANDING THE SAWHEAD UPRIGHT

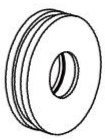
With the help of another person, stand the sawhead upright by rotating it around the rounded profiles at the front of the carriage legs. Do not set the sawhead on the track until instructed to do so later in the assembly process.

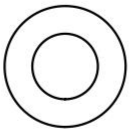


REAR POSTS

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.

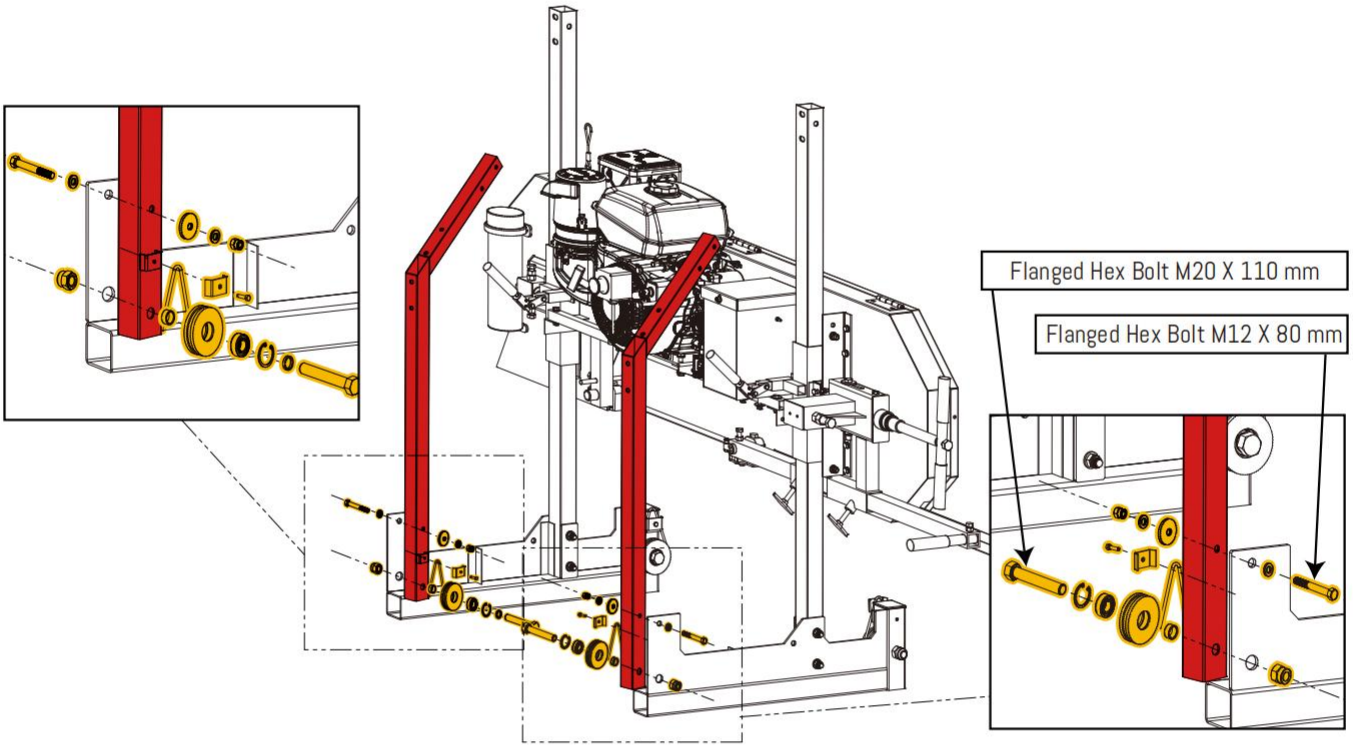
Hexagon head bolt M6x20	 2X
Hexagon head bolt M12x80	 2X
Hexagon head bolt M20x110	 2X
Hexagon self-locking nut M12	 2X

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

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

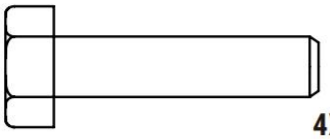
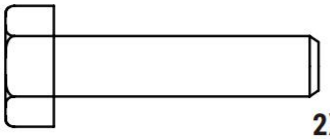
Bottom wheel spacer	 2X
Rear gasket	 2X

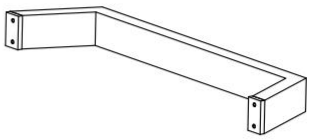
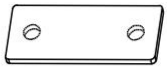
Assemble rear vertical post to wheel assembly using the two bolts and back plate. Repeat same step for the other rear vertical post assembly.



CROSS BEAM & HEAD STOPS

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

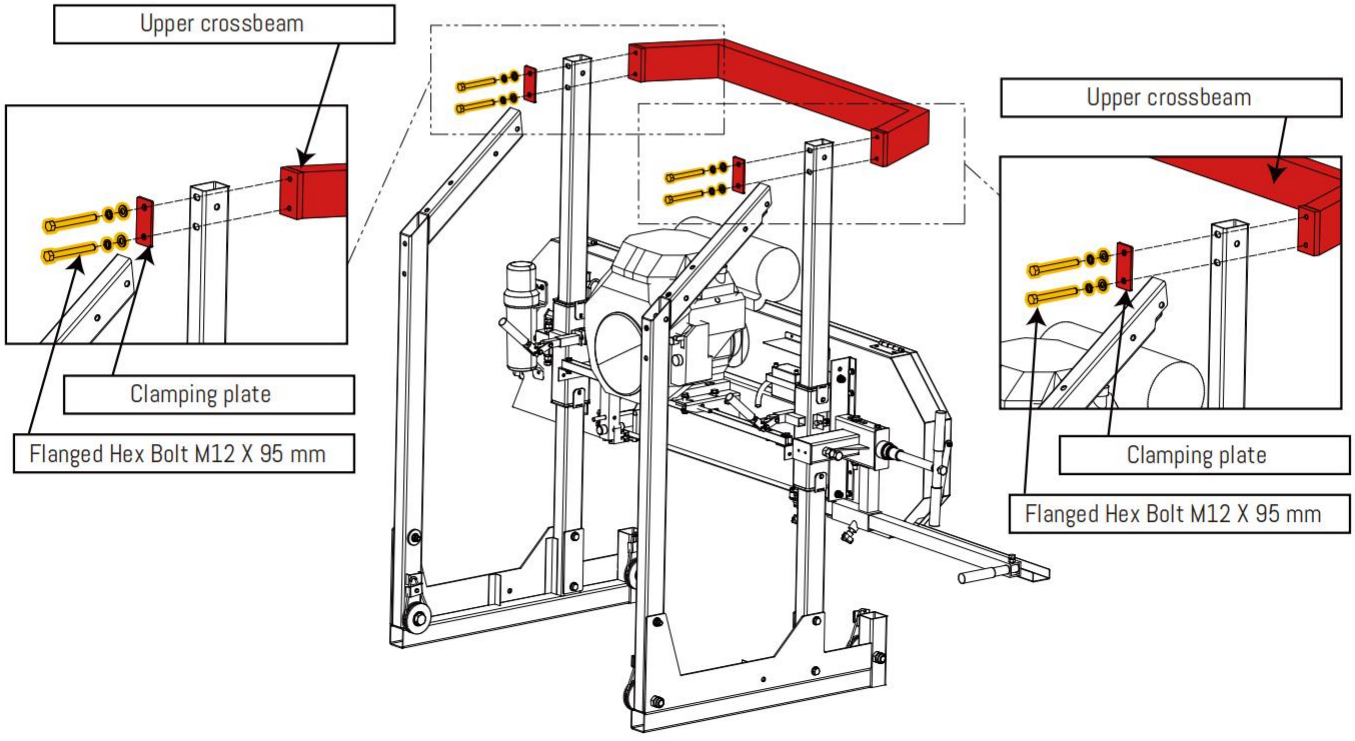
Hexagon head bolt M12x95	 4X
Hexagon head bolt M12x110	 2X

Upper crossbeam	 1X
Clamping plate	 2X

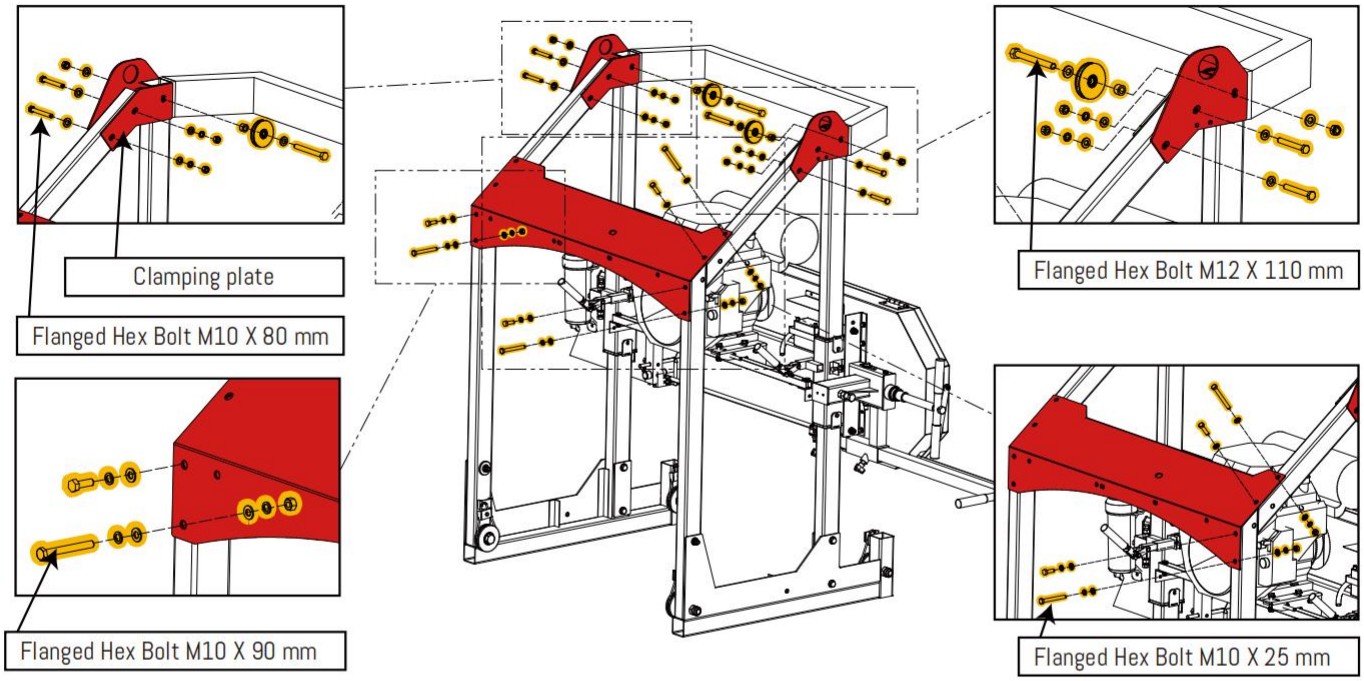
Hexagon head bolt M10x90	3X
Hexagon head bolt M10x80	4X
Hexagon self-locking nut M10	7X
Hexagon self-locking nut M12	2X
Flat washer 12	4X
Flat washer 10	17X

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

Slide the cross beam into the two square tube posts. Assemble the upper crossbeam to the posts using the clamping plates and hardware as shown.



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



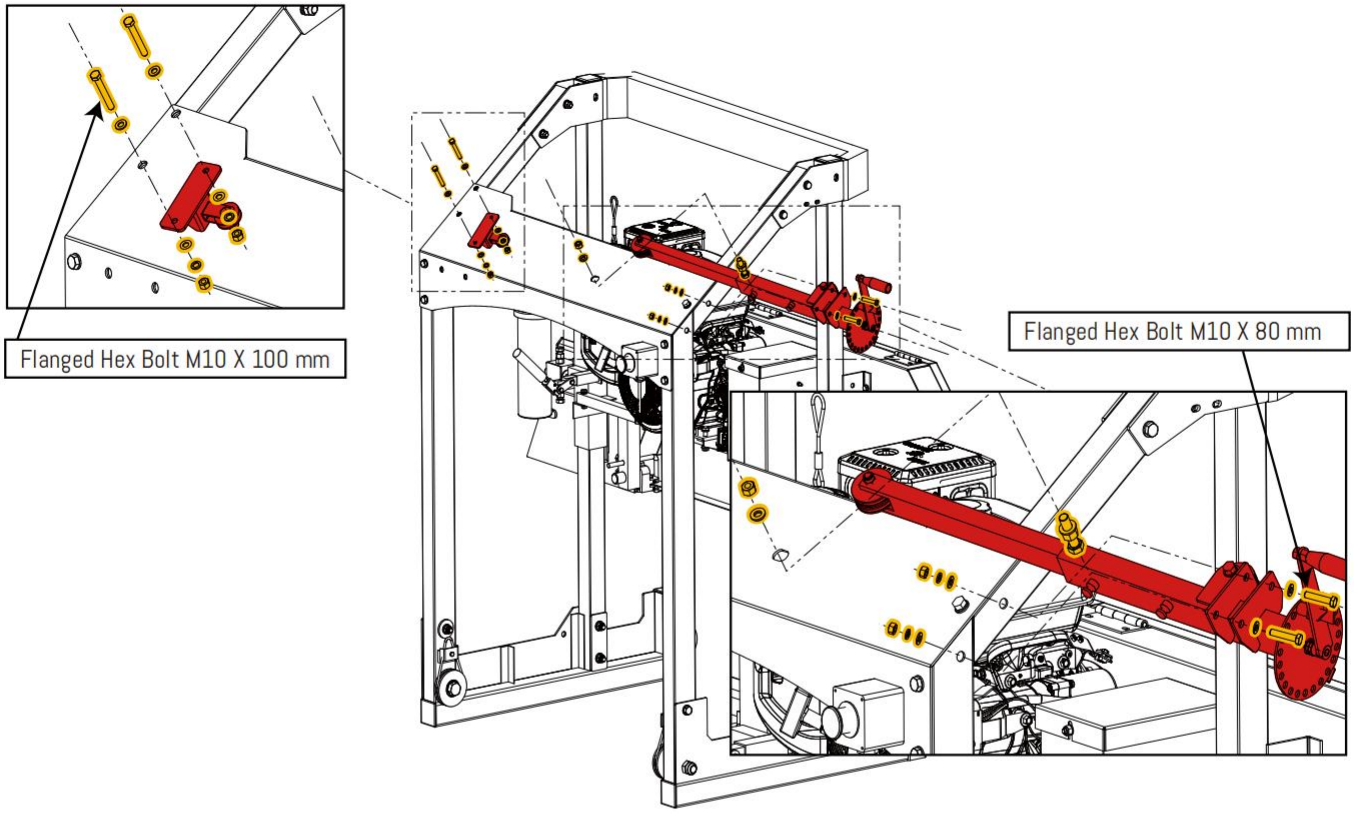
LIFTING SYSTEM

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

Hexagon head bolt M10x80	2X
Hexagon head bolt M10x100	2X
Hexagon nut M16	2X
Hexagon nut M10	4X

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

Install the lifting system, using a wrench to hold the nut, tighten the bolt.

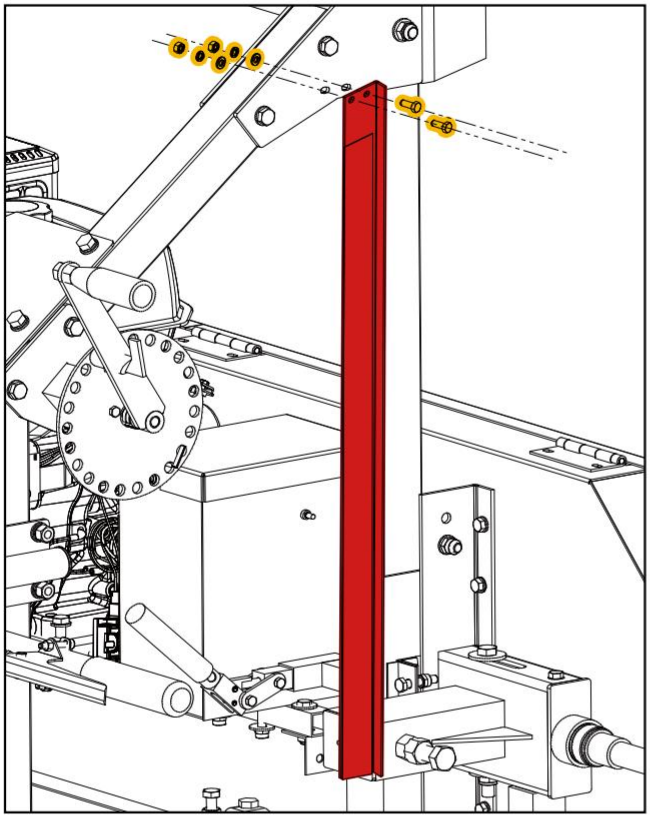


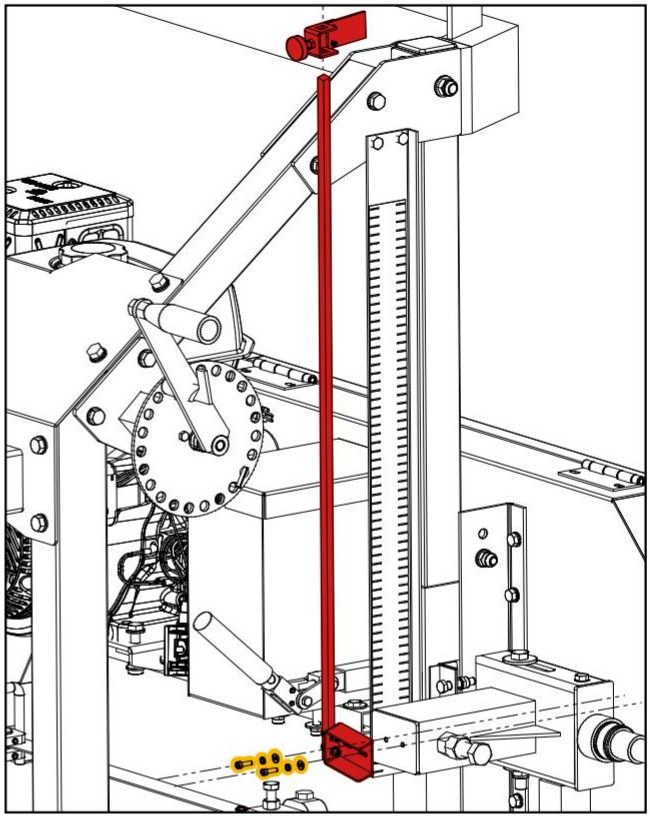
LOG SCALE

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

Hexagon head bolt M8x20	2X	Flat washer 6	2X
Hexagon head bolt M6x14	2X	Flat washer 8	2X
Hexagon nut M8	2X	Spring washer 6	2X
		Spring washer 8	2X

A. Install the ruler, using a 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.

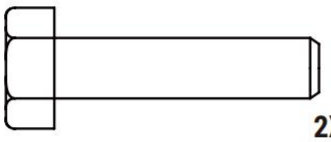
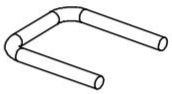
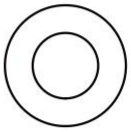
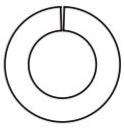




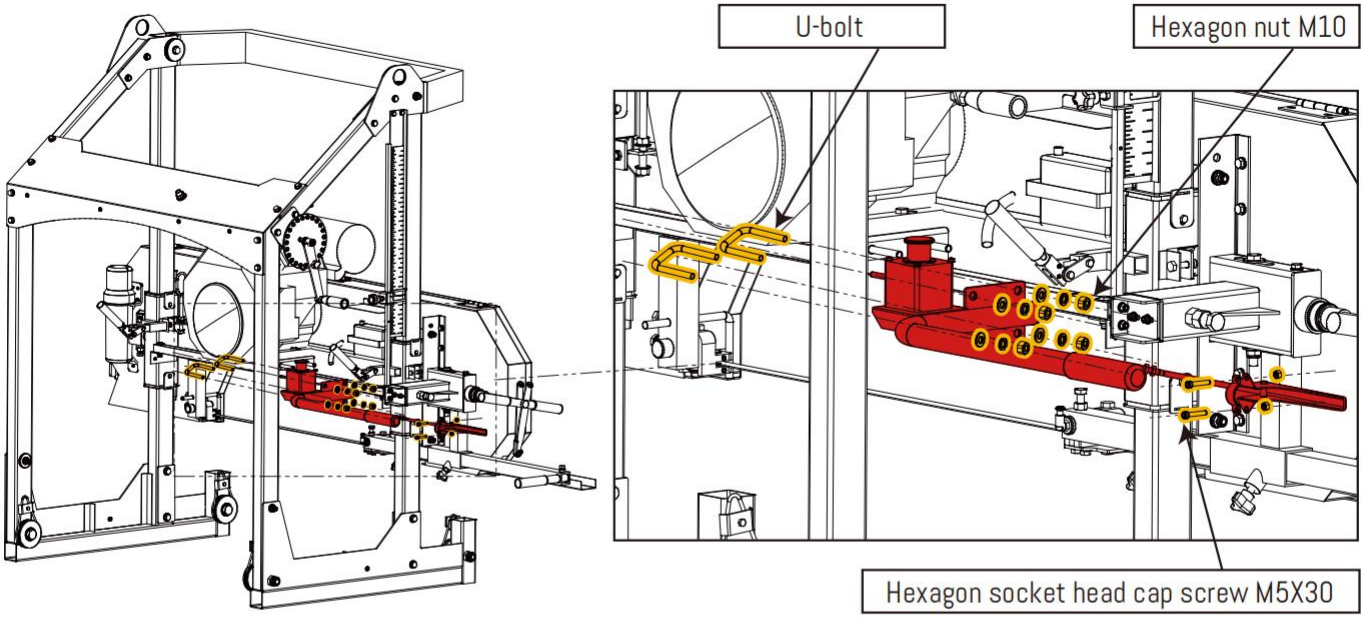
It is important to alternate tightening of the nuts (top then bottom) to ensure the indicator clamp begins to compress evenly on both the top and bottom until flanges meet at outer edge.

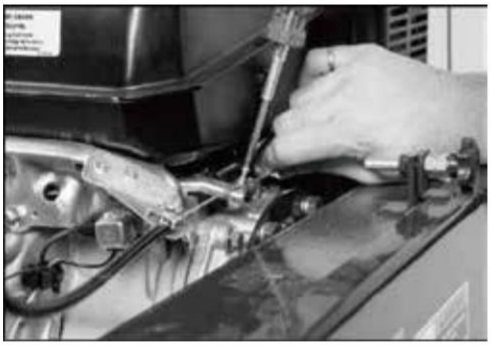
THROTTLE HANDLE

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

Hexagon head bolt M5x30	 2X	U-bolt	 2X
Hexagon nut M10	 4X	Flat washer 10	 4X
Hexagon nut M5	 2X	Spring washer 10	 4X

Install the push handle assembly 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.

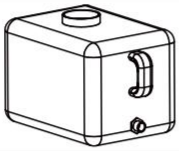
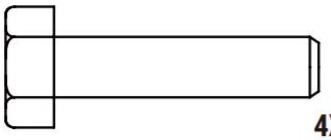


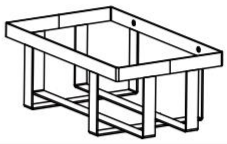
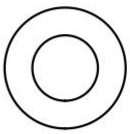


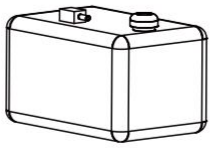
**PLEASE NOTE: *Ensure the engine idle speed screw is correctly adjusted according to the engine manual. An incorrectly set idle may prevent proper engine operation and result in a poor cut.

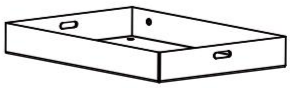
LUBRICATION TANK AND FUEL TANK

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

Lubrication Tank		1X
Hexagon head bolt M10x20		4X
Hexagon nut M10		4X

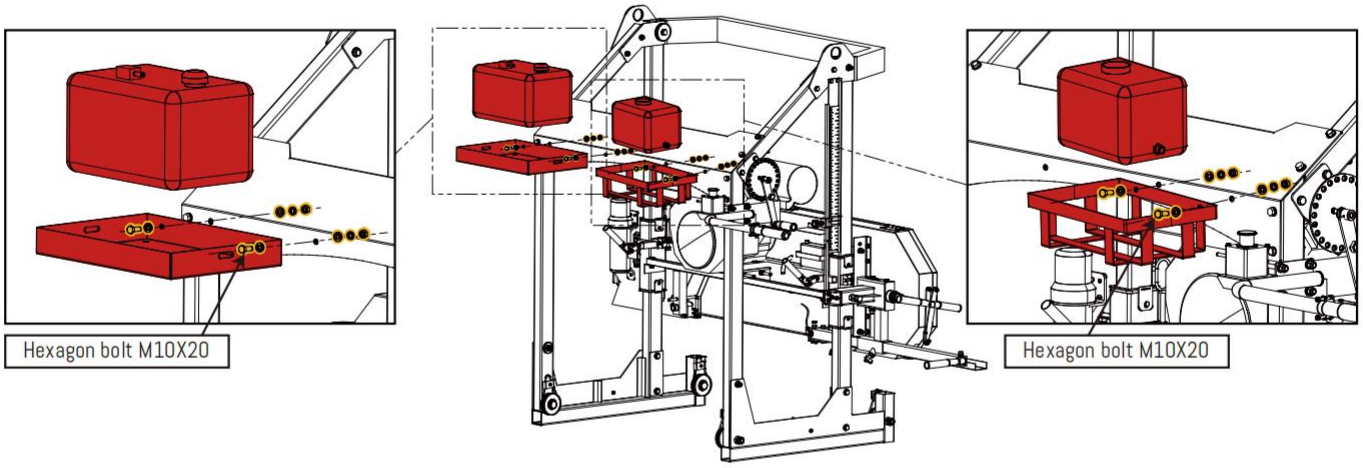
Tank Frame		1X
Flat washer 10		8X

Fuel tank	 1X

Fuel tank frame	 1X

Install the lubrication tank bracket on the beam, using wrench to hold the nut, tighten the bolt.

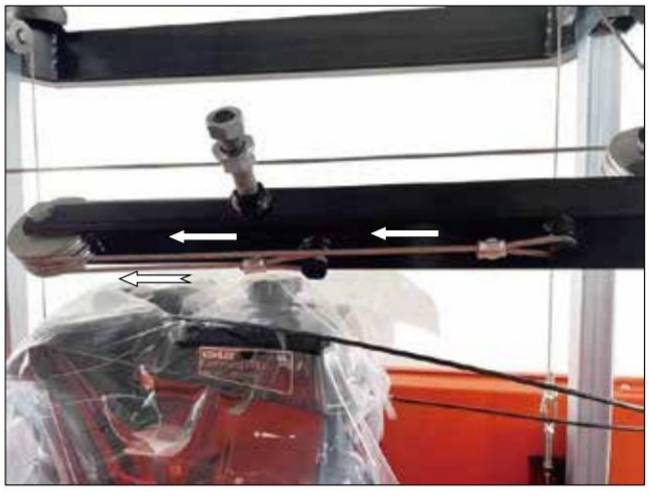
Install the fuel tank bracket on the beam, using wrench to hold the nut, tighten the bolt.



LIFT CABLE ROUTING

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

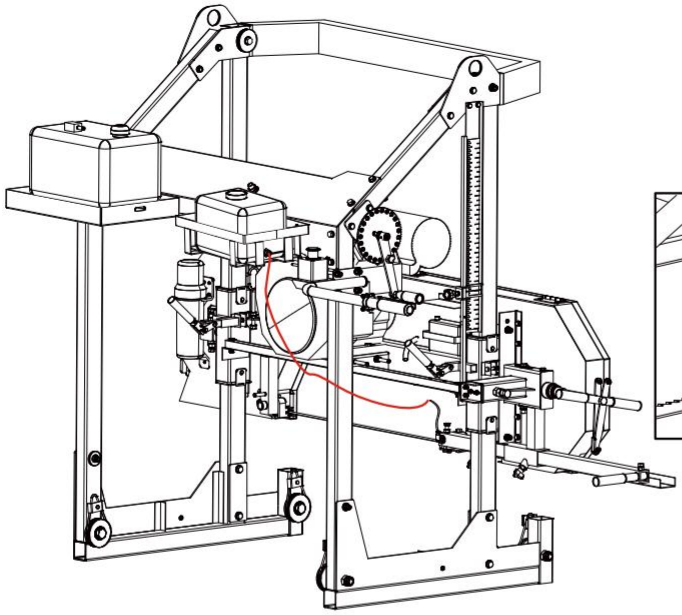


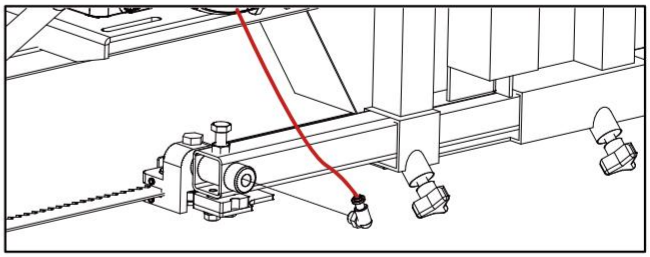


TRANSPARENT WATER PIPE AND BLACK TUBING

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

Connect the black tubing from the lubrication tank to the engine.





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.

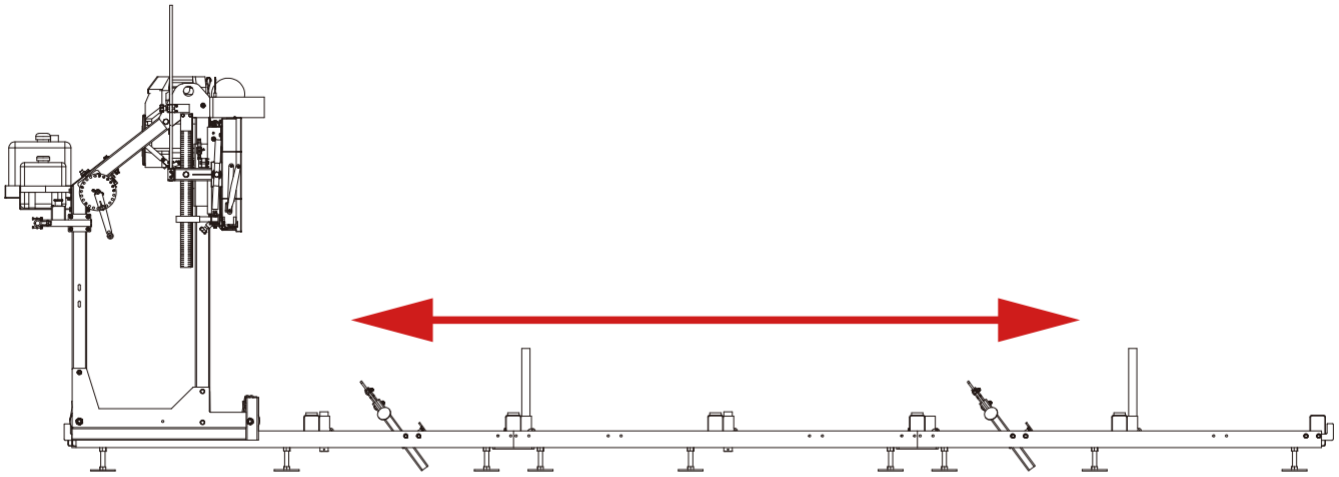


Note – It is very important to take the tension off of the blade by turning the T-handle in the counter-clockwise direction when the sawmill is not in use. Failure to do so, will result in flat spots on the rubber bandwheel belts. These flat spots will cause the mill to vibrate excessively during next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

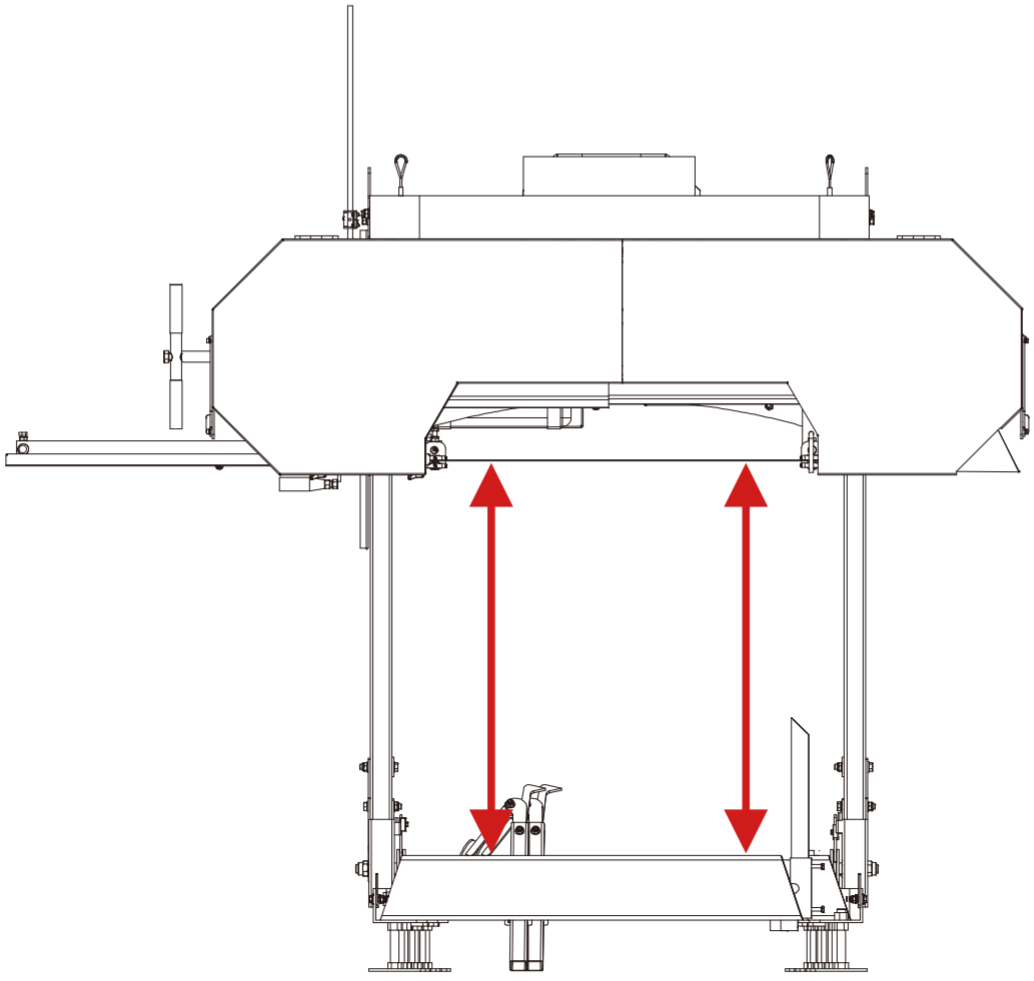
Add waterproof grease to all " ▲" handle threads on the sawmill.



Push the saw head up and down the vertical posts. Check that the saw head moves freely along the track. If it binds, the track rails may need adjustment together to achieve a consistent width along the entire track system. Once the desired width is achieved, all track and bunk nuts and bolts should be fully tightened.



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 lift cable ends at the rear handle to either raise or lower one side.

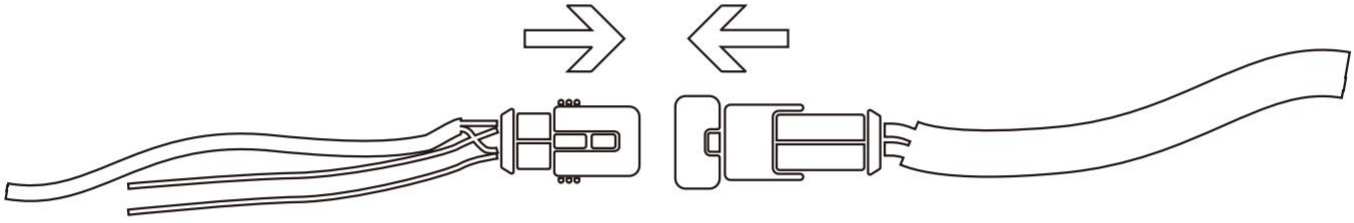


ELECTRICAL WIRING CONNECTION

Connect the wiring plugs together.



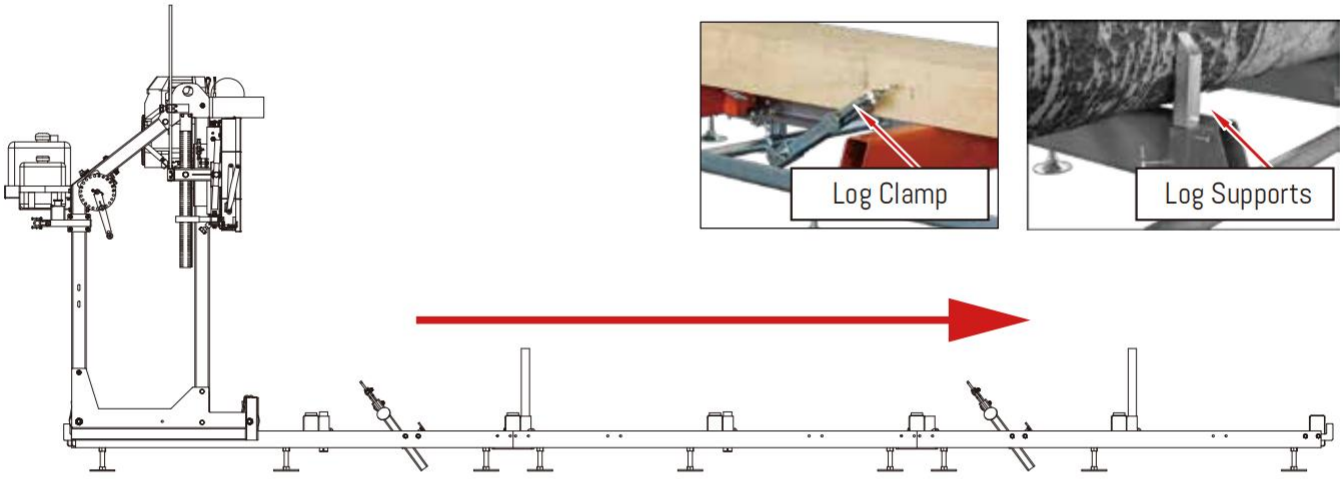




ENGINE



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.

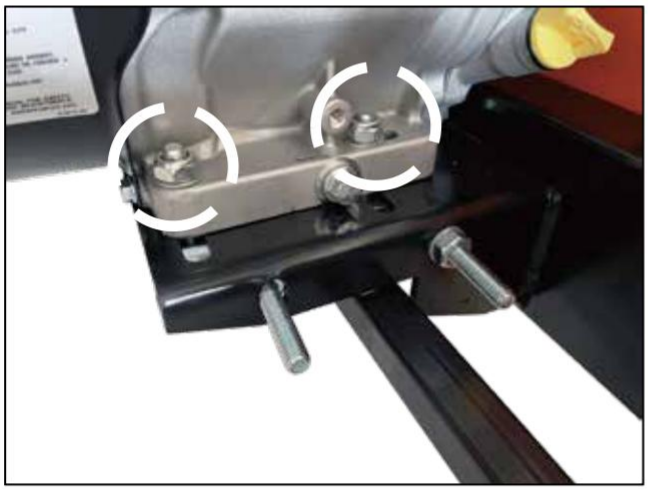
Now that your sawmill is assembled, please run through the "SAWMILL SET-UP PROCEDURES" in the following section. Failure to do so may result in poor sawing performance, damage or injury. See next page.

SAWMILL SET-UP PROCEDURES

BELT TENSION



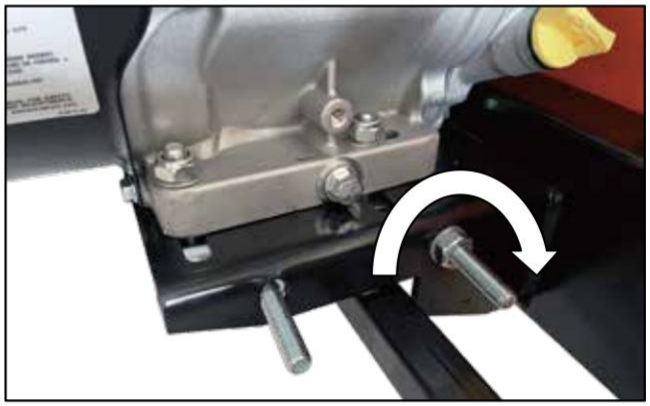
To check the belt tension, with your hand, firmly try to deflect the belt up and down. There should be no more than 1/4" of deflection in both directions (1/2" total). If the belt deflects more than this, it will need to be tightened as described below.





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

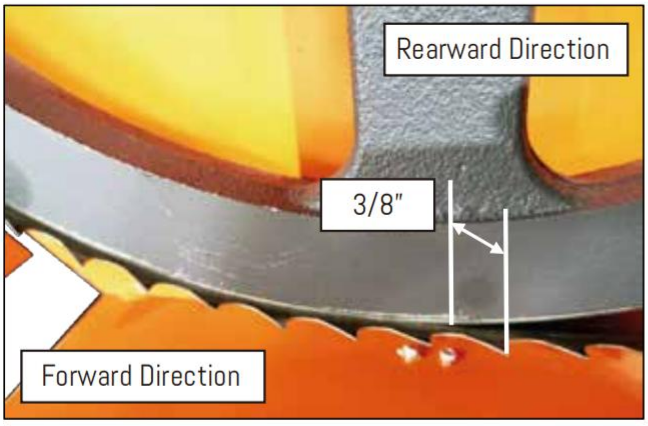
Now that the engine is free to slide on the engine mounting plate, turn the 16mm nut on the horizontal stud in the clockwise direction. This will pull the engine toward the stud and apply more tension to the belt. Do this incrementally while checking the belt for proper deflection. It is also important to ensure that the engine remains perpendicular to the drive belt. Overtightening 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.

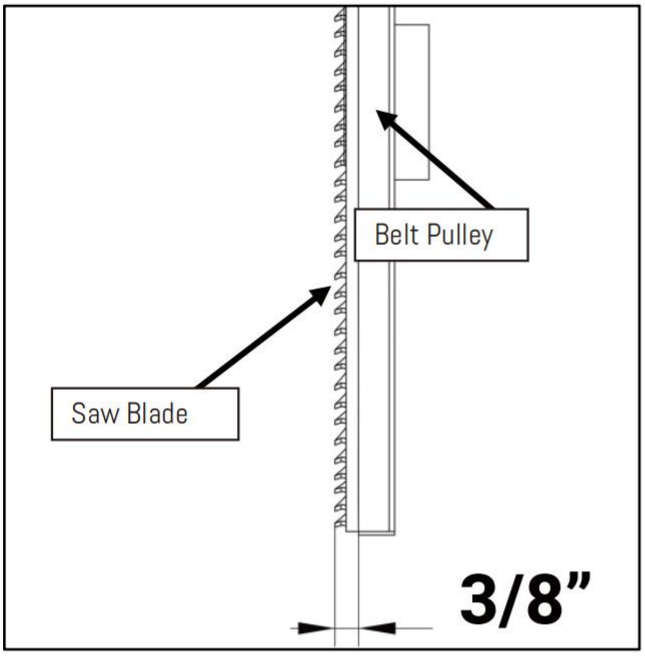


BLADE TRACKING

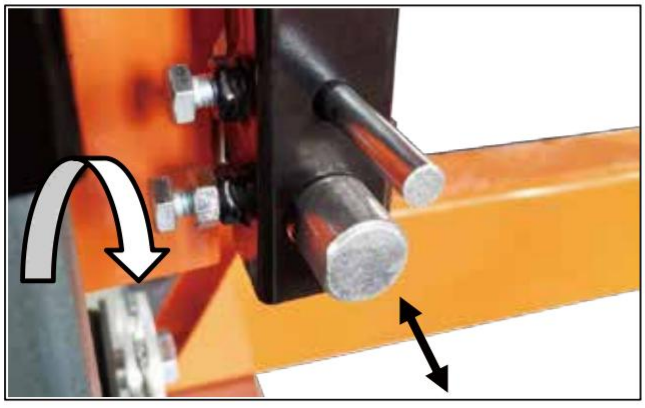
Never attempt the below with the engine running. As a safety precaution, remove the spark plug cap. It is also advised to wear gloves and safety glasses when working with the blade as it is extremely sharp.







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.

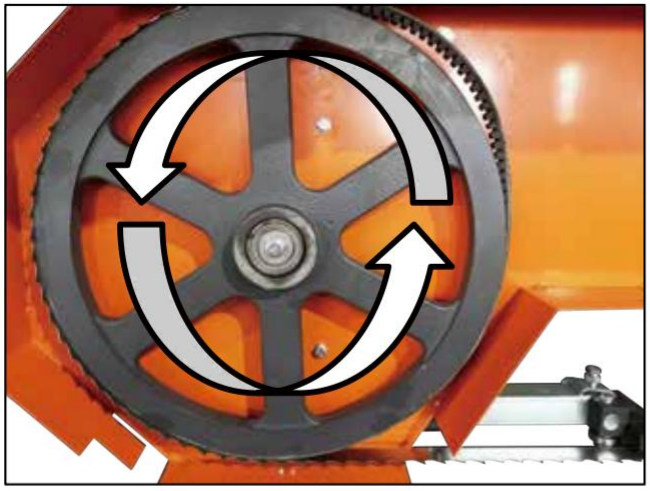
ADJUSTING THE RIGHT HAND SIDE

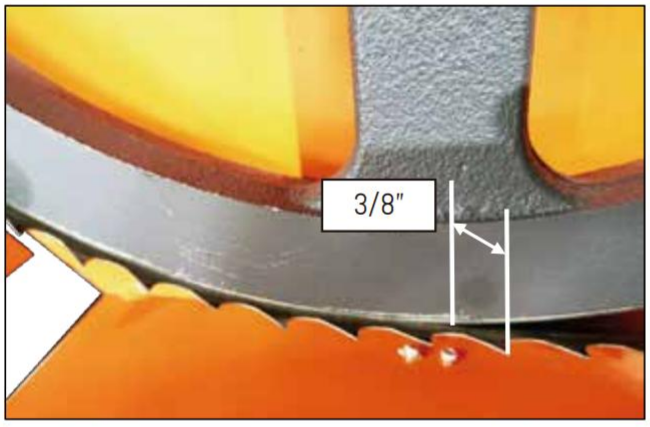


Loosen the tracking alignment locking nut with an adjustable wrench.



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.



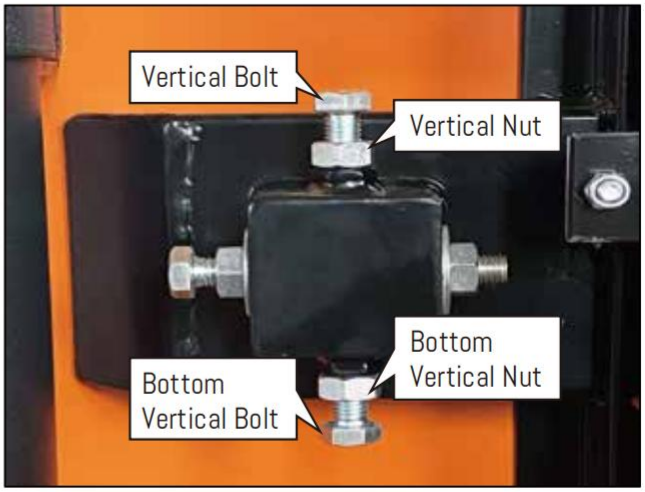


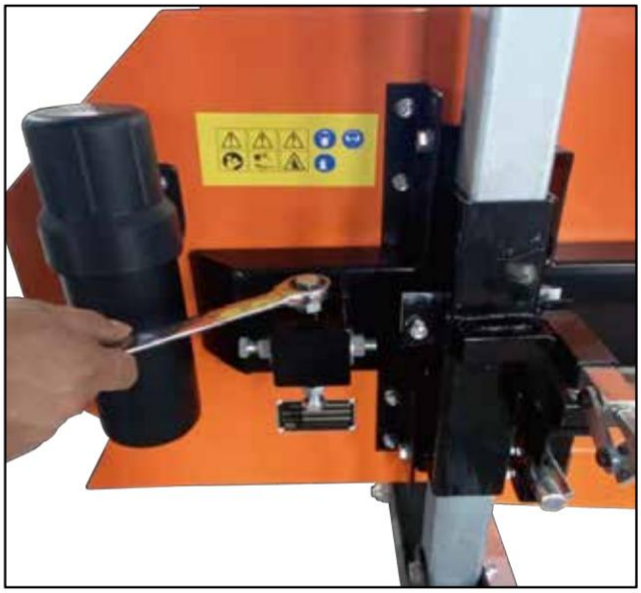
Wearing gloves, spin the bandwheel with your hand and observe how the blade has changed tracking. Measure the distance again and repeat the above step to further compensate if required.The ideal measurement is 3/8".



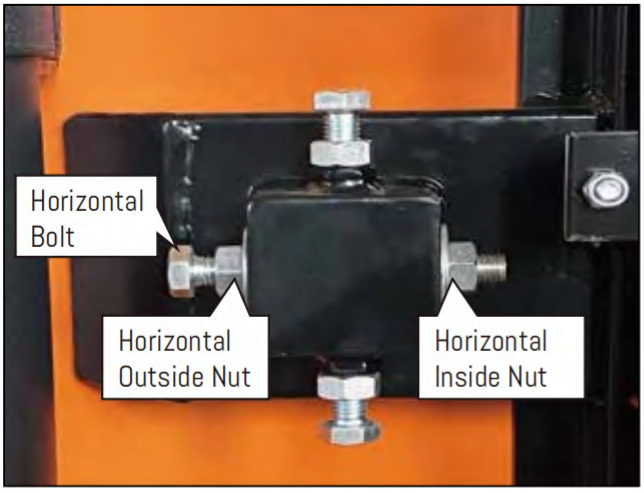
Once satisfied with the measurement, tighten the locking nut clockwise.

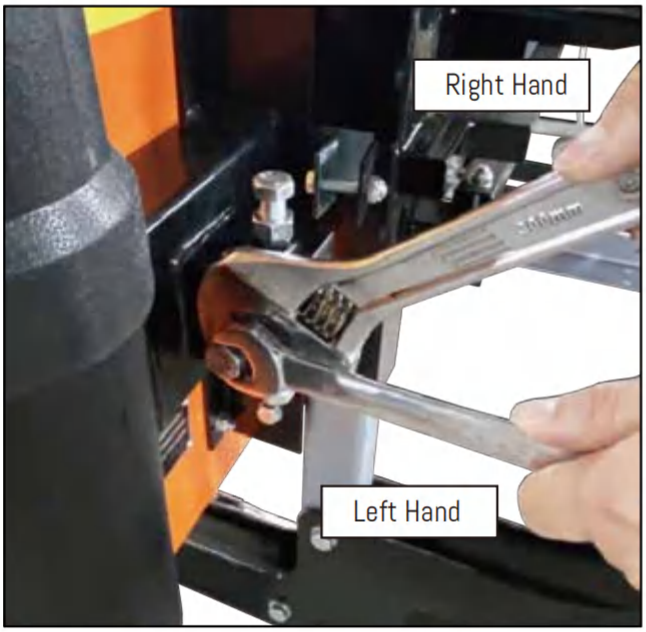
ADJUSTING THE LEFT HAND SIDE





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 ½ 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.



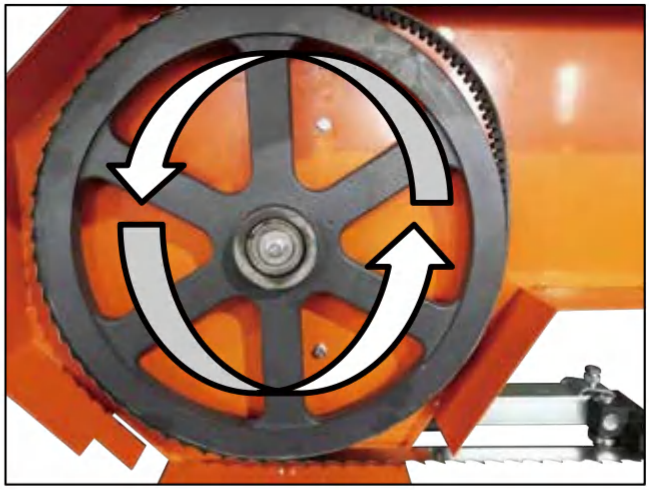


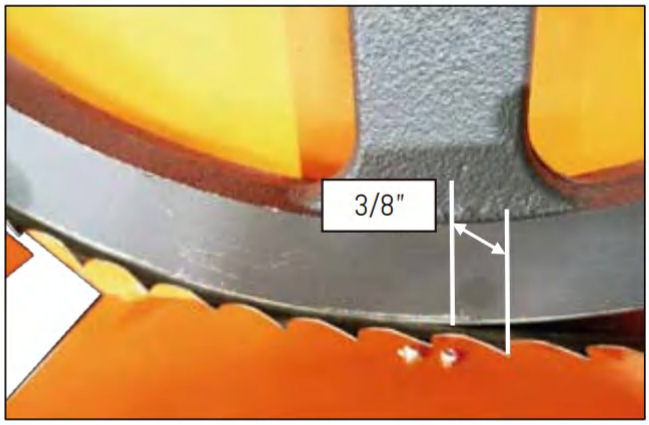
MOVING THE BLADE FORWARD

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 its vertical position.





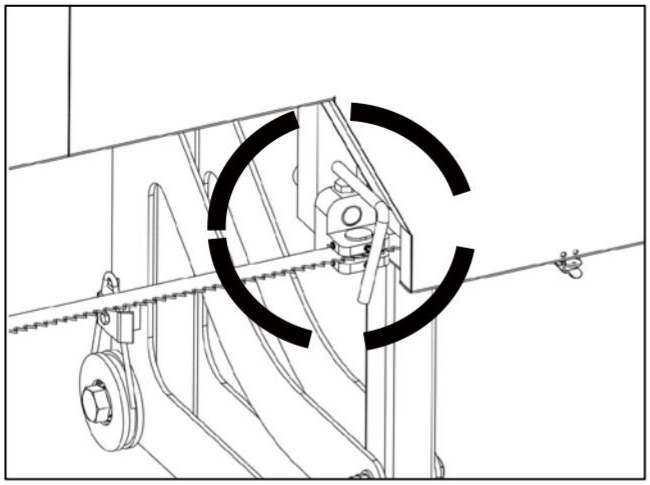
Re-tension the blade by turning the T-handle a full turn in the clockwise direction. Wearing gloves, spin the bandwheel with your hand and observe how the blade has changed tracking. Measure the distance again and repeat the above step to further compensate if required. The ideal measurement is 3/8".

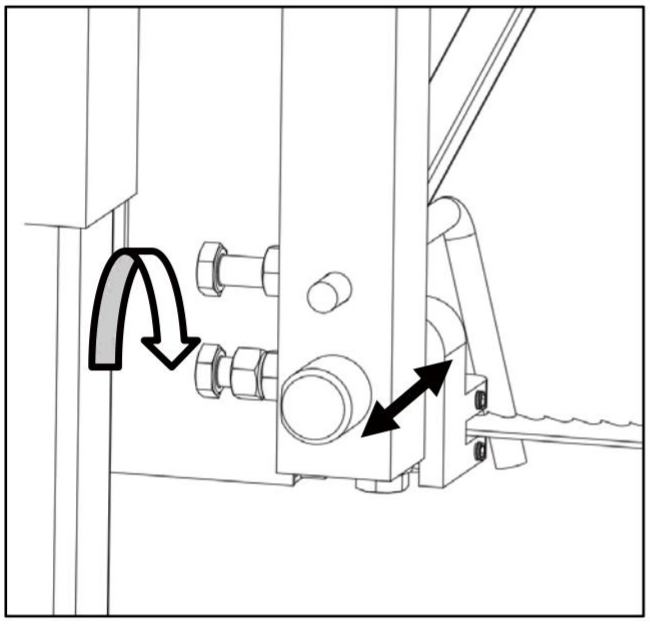
Once the blade is tracking true, bring the blade guide assemblies back up to the blade. Keep a paper width distance between the blade guide bearing and the back of the blade. More information on this setup can be found in the next section – "BLADE GUIDE ADJUSTMENT"

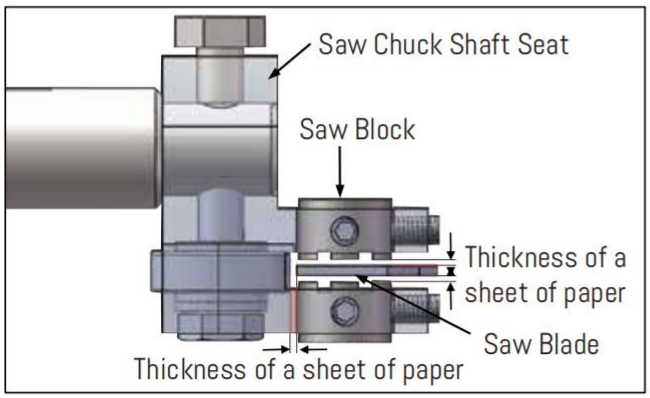
BLADE GUIDE ADJUSTMENT

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 pages.

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.

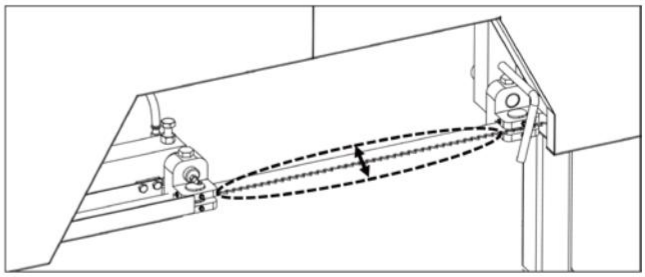






Loosen the blade guide assembly bolt with a 16mm socket. The round shaft should now be free to slide back and forth. Position it so that there is a paper width gap between the bearing and the back of the blade. Tighten bolt against the flat on the shaft to secure assembly back in position.

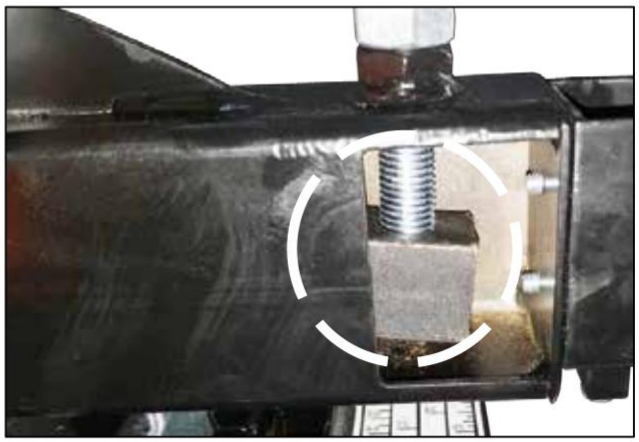
BLADE TENSION



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 between the blade guide blocks. Turning the blade tension "T" handle in the clockwise direction will add tension to blade.

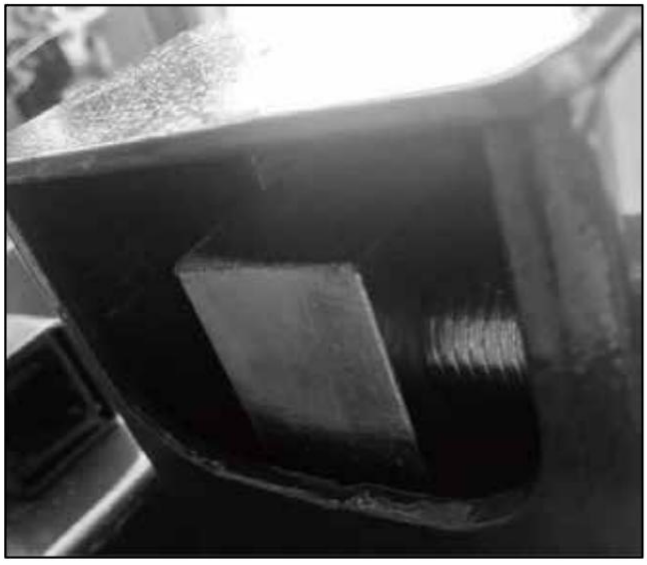


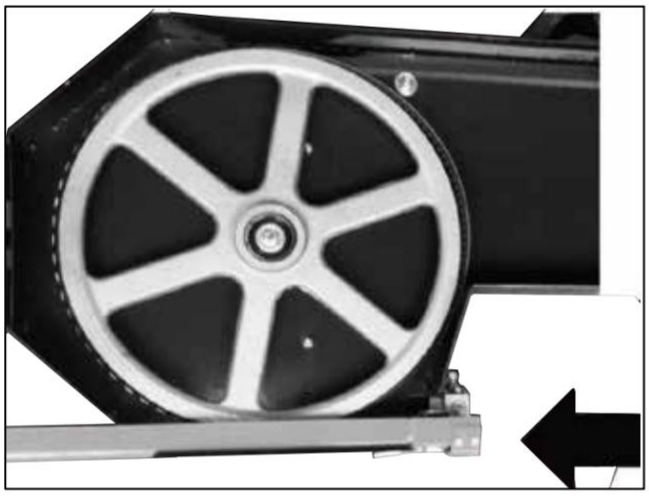
When tensioning the blade, make sure the tracking adjustment bolt sitting behind the T-handle (pictured) is sitting back in its recess after you have finished and before the mill is run. Failure to do this will result in the blade being thrown and possibly broken.



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.



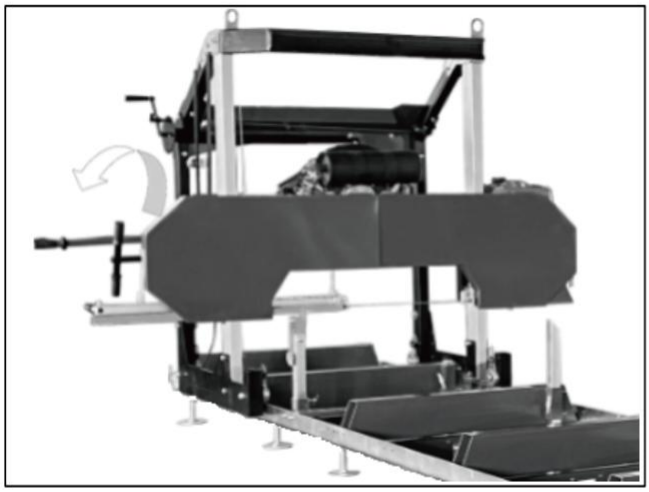


Ensure the blade support arm is locked into place after tensioning the blade.

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.

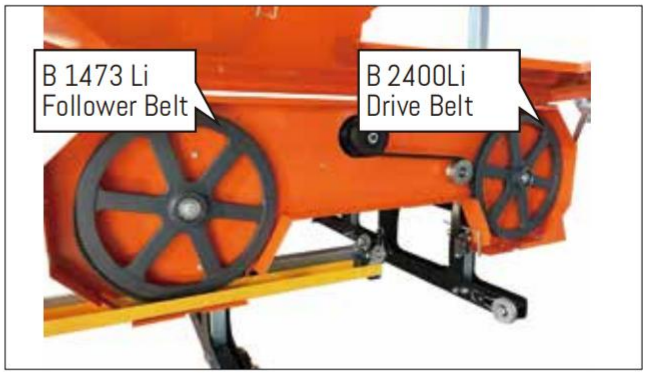




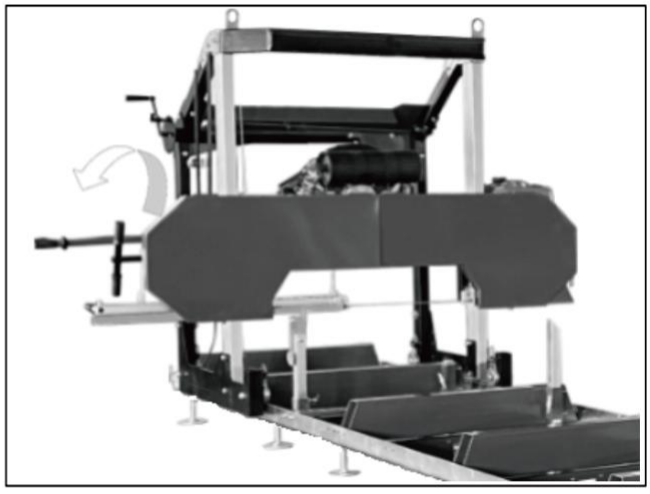
Remove the tension in the blade by turning the T-handle in the counter-clockwise direction and then open the blade guard covers. The blade should now be loose and free to pull straight out the front. The new blade can now be installed, guards closed and proper blade tension set.

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.

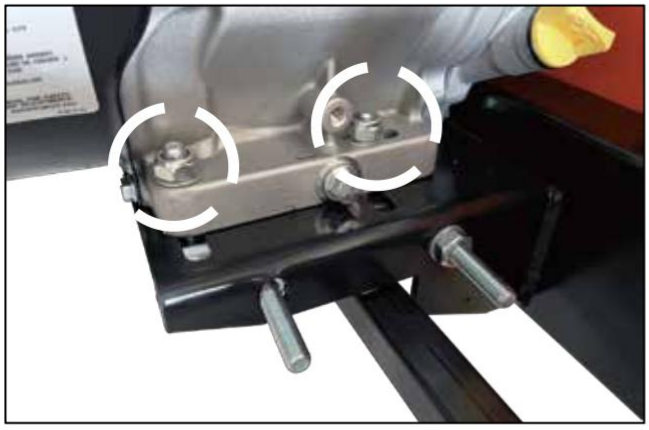


There are two rubber "V" belts on the sawmill and they should be replaced as a set. It is not advised to replace individual belts separately. It is recommended to use a B 2400 Li drive belt for the drive side and a B 1473 Li follower belt.





Remove the tension in the blade by turning the T-handle in the counter-clockwise direction and then open the blade guard covers. 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 themanual.

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.

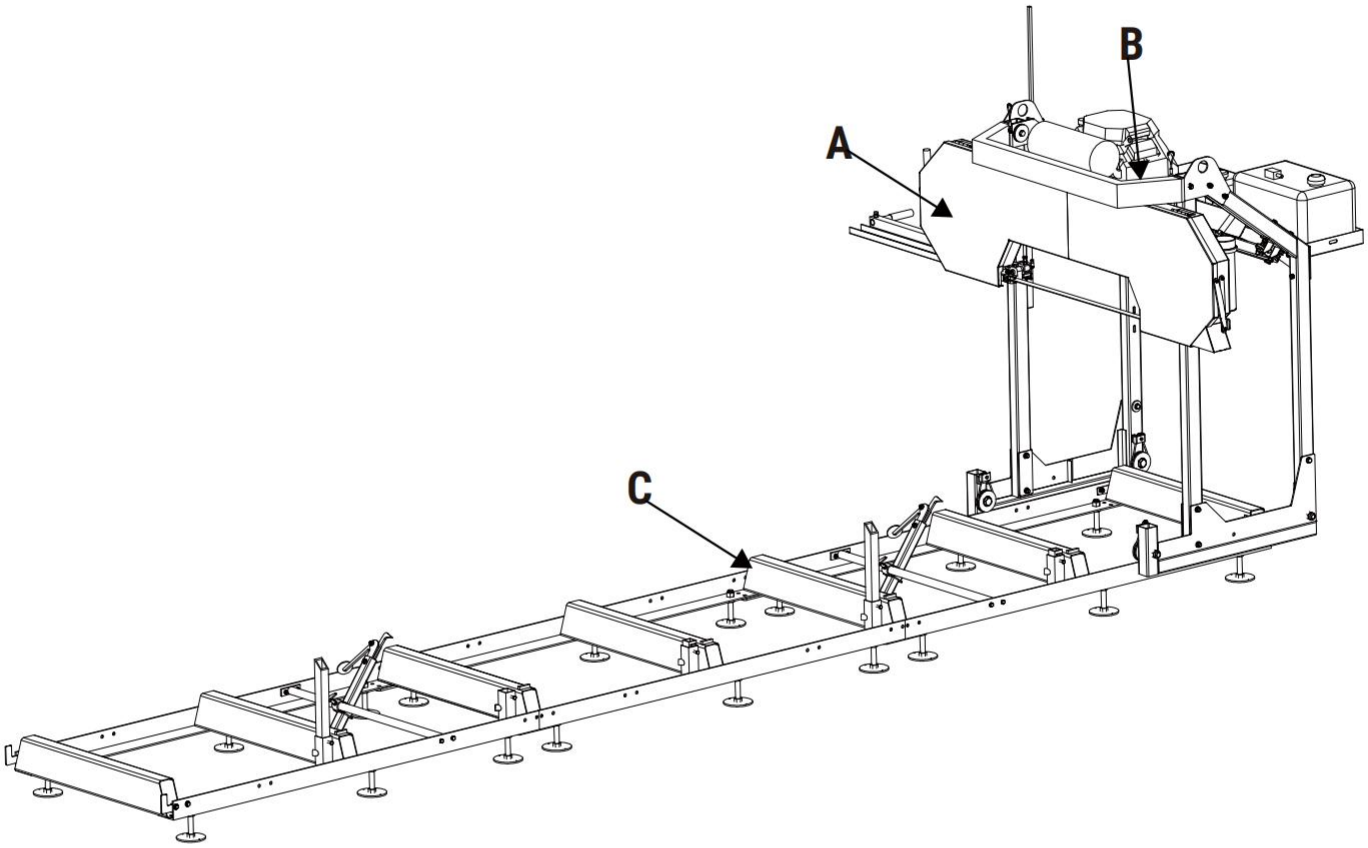
Note that blade tracking is likely to change and need adjusting when new belts are installed. Refer to "BLADE TRACKING" for more information.

TROUBLESHOOTING

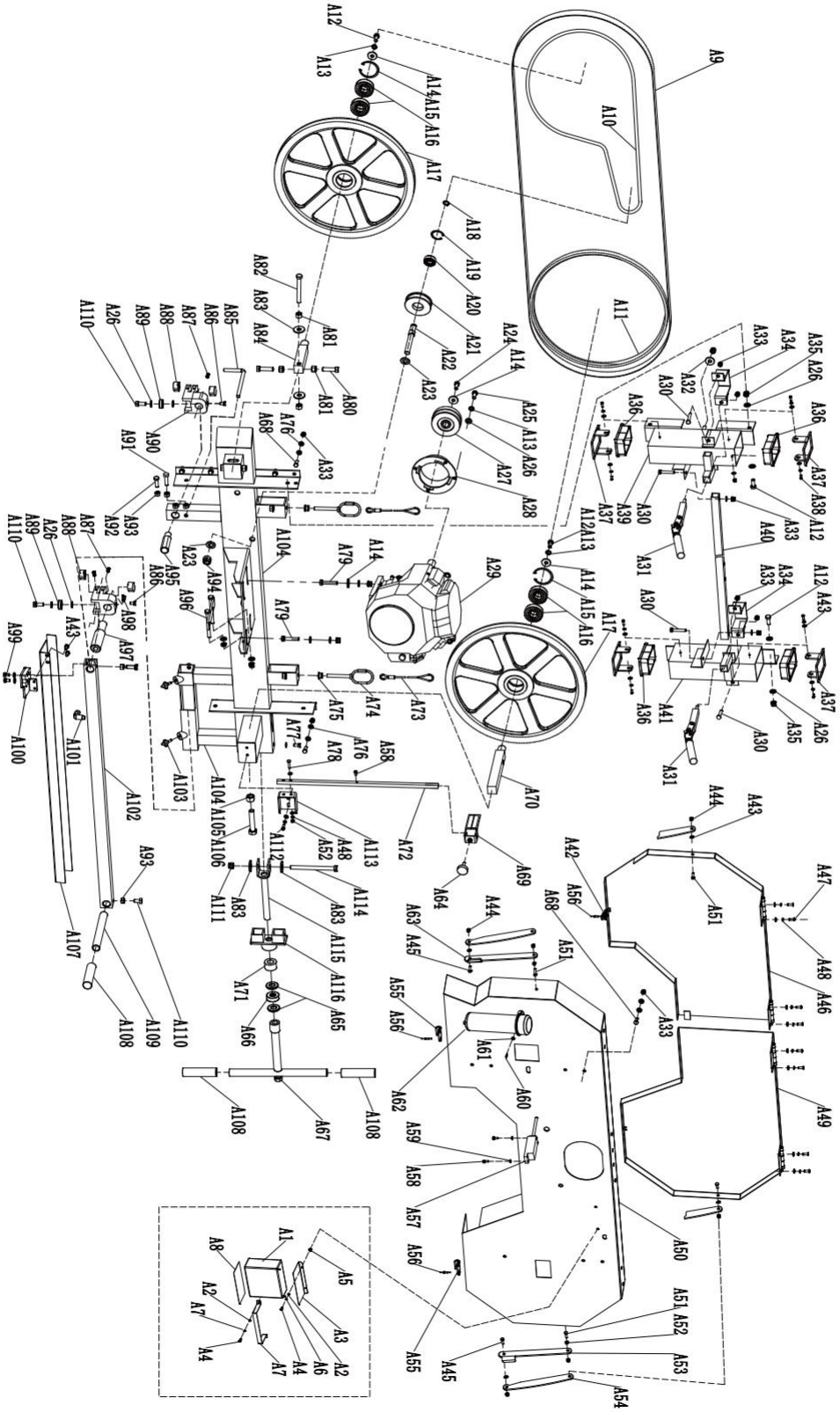
Problem/Issue	Possible Causes	Resolution Options
Producing wavy cuts.	1. Inadequate blade tension. 2. Improper blade guide set up. 3. Improper blade tracking. 4. Sap build up on blade. 5. Dull blade. 6. Pushing mill too quickly.	1. Tighten blade. 2. Gap between guide blocks and blade are incorrect. 3. 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 level and adjusted to be square. They also need to be set up on firm, sturdy ground/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 are 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 are 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 clampedsecurely. 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-ENSEMBLE



DIAGRAM(A)-BAND WHEEL HOUSING



PARTS LIST(A)-BAND WHEEL HOUSING

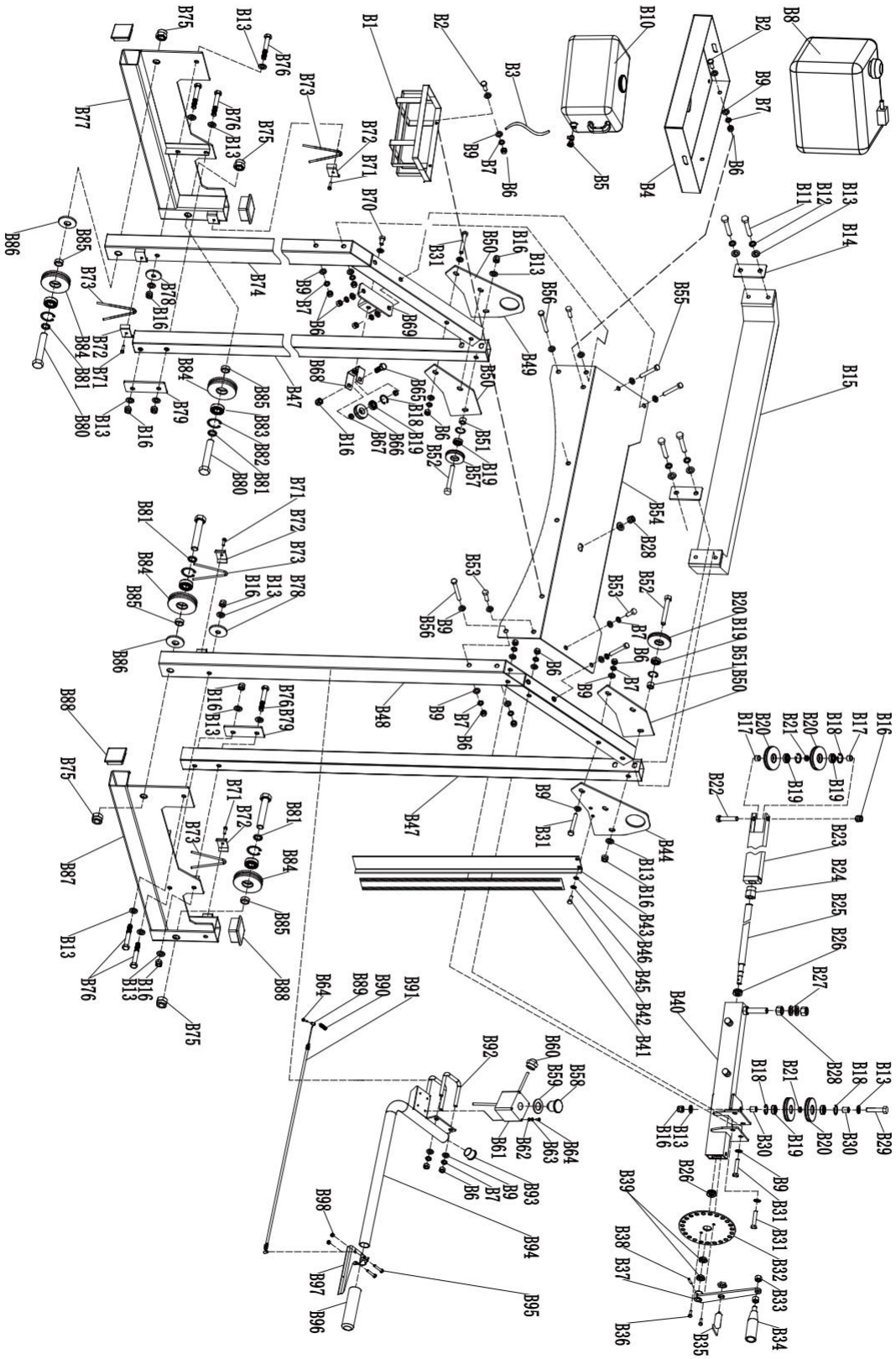
REF	DESCRIPTION	QTY
A1	Battery	1
A2	Flat washer 5	4
A3	Cover for battery box	1
A4	Allen bolt M5x16	4
A5	Self locking nut M5	4
A6	Spring washer 5	4
A7	bracket	1
A8	Battery washer	1
A9	GT40G saw blade 4440	1
A10	Bi 2400 driving V Belt	1
A11	Bi1473 follower belt	1
A12	Hexagon bolt M10X25	7
A13	Spring washer 10	7
A14	Big washer (Φ10*35*3.0)	5
A15	C ring 62 for hole	2
A16	Bearing 6305	2
A17	Belt pulley	2
A18	C ring 17 for shaft	1
A19	Cring 40 for hole	1
A20	Bearing 6203-2RS	1
A21	Tension wheel	1
A22	Shaftfor tension wheel	1
A23	Flat washer 16	1
A24	America 3/8X24X25	1
A25	America 3/8X16X25	4
A26	Flat washer 10	22
A27	Clutch	1
A28	Cover for clutch	1
A29	Gasoline engine	1

REF	DESCRIPTION	QTY
A30	Hexagon M8x40	4
A31	Quick locking handle	2
A32	Big washer 10	5
A33	Self locking nut M8	16
A34	Self locking M10	2
A35	Locking plate	11
A36	Nylon Bushing	4
A37	Cover for Nylon Bushing	4
A38	Carriage bolt M6X12	8
A39	Right locking tube	1
A40	GT40G-43 Pull the tube	1
A41	Left locking tube	1
A42	Upper lockfor door	2
A43	Flat washer 6	20
A44	Self locking M6	4
A45	Hexagon M6x16	6
A46	Right cover door welded	1
A47	Cross pan head screw M6X16	8
A48	Spring washer 6	18
A49	Left cover door welded	1
A50	Shield body welding (extra)	1
A51	Hexagon bolt M6X20	2
A52	Hex nut M6	4
A53	Door support plate no. 3	1
A54	Door support plate no. 1	2
A55	Lower door locking	2
A56	Rivet 4x10	8
A57	Limit Switch YBLX	1
A58	Cross pan head screw M5X12	3

REF	DESCRIPTION	QTY
A59	Spring washer 5	2
A60	Rivet 4x16	3
A61	Big washer 4	3
A62	Containerfor Instruction manual	1
A63	Door support plate No. 2	1
A64	Flower handle M8X40	1
A65	Tension gasket (φ21*38*4.5)	2
A66	Thrust ball bearing 51204 for automotive steering	1
A67	Pull the handle and weld	1
A68	Hexagon bolt M8 x 20	4
A69	Pointer base for ruller	1
A70	Shaft for driven blade wheel	1
A71	cushion	1
A72	Support for pointer	1
A73	Steel rope	2
A74	Holderring	2
A75	Hexagon flange nut M10	4
A76	Flat washer 8	17
A77	Hexagon bolt M8 x16	1
A78	Hexagon bolt M6 x 25	2
A79	Hexagon bolt M10 x 55	4
A80	Hexagon bolt M12 x 45	2
A81	Hexagon nut M12	4
A82	Hexagon bolt M12 x 100	1
A83	Big washer Φ12*35*3.0	4
A84	Shaft for drving blade wheel	1
A85	Stop for blade	1
A86	Hexagon bolt M10 x 12	2
A87	Setscrew M6X12	12
A88	Blade guide plate	4
A89	Ball bearing 6200-2RS	1

REF	DESCRIPTION	QTY
A90	Base for blade guide plate	2
A91	Hexagon bolt M10 x 35	1
A92	Hexagon bolt M10 x 30	2
A93	Hexagon nut M10	5
A94	Selflockingnut M16	1
A95	Right shaft for blade guide plate	2
A96	Push-pull plate	1
A97	Left shaft for blade guide plate	1
A98	Grease fitting	1
A99	Hexagon bolt M8 x 20	2
A100	Blade protection cover no. 1	1
A101	1/4 elbow external connection	1
A102	Sliding tube	1
A103	Locking knob M10X40	2
A104	Beam weldment (extra)	1
A105	Hexagon nut M16	1
A106	Hexagon bolt M16 x 80	1
A107	Blade protection cover no. 2	1
A108	Rubber bush	3
A109	Push pull handle	1
A110	Hexagon bolt M10 x 20	3
A111	Allen bolt M6x14	1
A112	Self-locking nut M12	2
A113	Mounting base plate	1
A114	Hexagon halfthread bolt M12X150	1
A115	Pull shaft	1
A116	Base for pullshaft	1

DIAGRAM(B)-CARRIAGE



PARTS LIST(B)-CARRIAGE

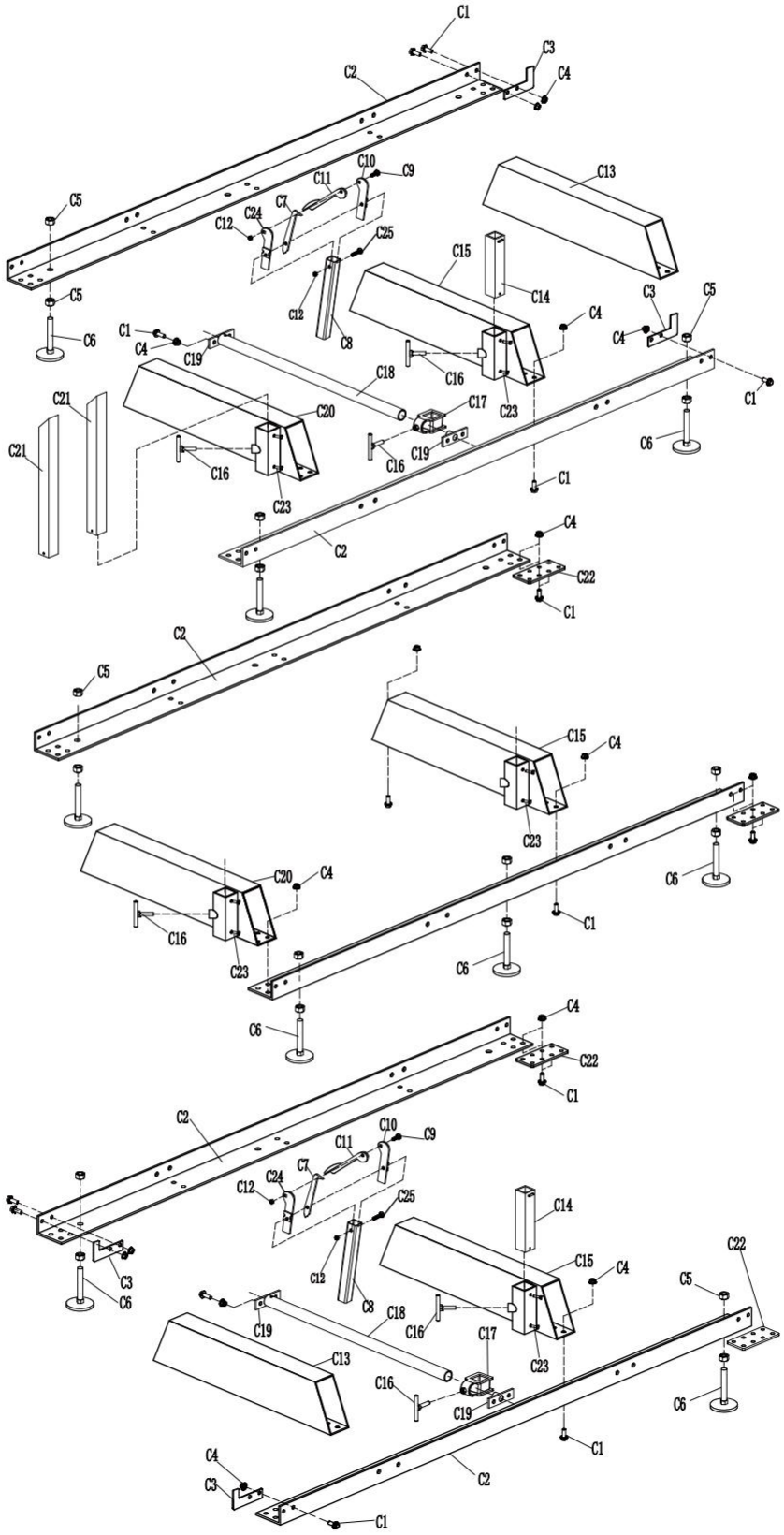
REF	DESCRIPTION	QTY
B1	Welding of bucket frame	1
B2	Hexagon head bolt M10X20	4
B3	PU high-pressure air pipe 8* 5 transparent	1
B4	bracket	1
B5	Quick connect CSL8-04	1
B6	Hexagon nut M10	20
B7	Spring washer 10	20
B8	Tank for gasoline, 2 Liter	1
B9	Flat washer 10	35
B10	Lubrication Tank	1
B11	Hexagon bolt M12X95 half thread	4
B12	Spring washer 12	4
B13	Flat washer 12	20
B14	Clamping plate	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	7
B20	Lifting wheel	5
B21	Spacer sleeve 2	2
B22	Hexagon bolt M12X65 half	1
B23	Welding of expansion pipe 1	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	1

REF	DESCRIPTION	QTY
B30	Reversing wheel sleeve	2
B31	Hexagon bolt M10X80 half	6
B32	Dial	1
B33	Hexagon nut M12	2
B34	13 hole handle	1
B35	PLUNGER AS-KNOB	1
B36	Hexagon head bolt M6X16	2
B37	Crank welding	1
B38	Elastic straight pin 5X24	1
B39	Small round nut M14X1.5	2
B40	Welding of expansion pipe 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	Spring washer 8	2
B46	Flat washer 8	2
B47	Hexagon nut M8	2
B48	Lifting square tube	2
B49	Welding of left rear support	1
B50	Connection plate no.1	3
B51	Spacer	2
B52	Hexagon bolt M12X110 half thread	2
B53	Hexagon bolt M10X25	3
B54	Upper arch cover	1
B55	Hexagon bolt M10X100 half thread	2
B56	Hexagon bolt M10X90 half thread	4
B57	Right lifting wheel	1
B58	Mushroom head emergency stop button	1

REF	DESCRIPTION	QTY
B59	Emergency stop sign	1
B60	Unable to pull off M20	1
B61	One hole of button box CA-BX1	1
B62	Flat washer 4	4
B63	Spring washer 4	4
B64	Cross pan head screw M4X12	5
B65	Hexagon bolt M12X30	1
B66	7001-230040 pulley 2	1
B67	7101-240040 Spacer	2
B68	7001-230010 pulley frame	1
B69	Pulley frame seat	1
B70	Hexagon head bolt M10 x 20	1
B71	Hexagon head bolt M6X20	4
B72	Clamping plate 2	4
B73	Wire rope brush	4
B74	Welding of right rear support	1
B75	Self locking nut M20	4
B76	Hexagon bolt M12X80 half thread	6
B77	Welding of right bottom wheel	1
B78	Rear gasket of bottom wheel frame	2
B79	Right clamping plate of bottom wheel frame	2
B80	Hexagon bolt M20X110 half thread	4
B81	Bottom wheel spacer 1	4
B82	Circlip for hole 42	4
B83	Deep groove ball bearing 6004	4
B84	Bottom wheel	4
B85	Bottom wheel spacer 2	4
B86	Washer for bottom wheel	2
B87	Welding of left bottom wheel frame	1
B88	60* 60 square pipe plug	4
B89	clamp	1

REF	DESCRIPTION	QTY
B90	drag spring	1
B91	Accelerator cable	1
B92	U-bolt	2
B93	33 Round pipe plug	1
B94	Pusher welding	1
B95	Hexagon socket head cap screw M5x30	2
B96	7001-201040 Handle cover φ thirty-two	1
B97	Throttle handle	1
B98	Hexagon nut M5	2

DIAGRAM(C)


C1
C2
C3
C4
C5
C6
C7
C8
C9
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C11
C12
C13
C14
C15
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C17
C18
C19
C20
C21
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C23
C24
C25

PARTS LIST(C)

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 M20	36
C6	Leveling Feet M20	18
C7	Hook	2
C8	Telescopic tube welding	2
C9	Hexagon socket head screw M10X35	2
C10	Telescopic left plate welding	2
C11	Eccentric compression welding	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 welding	3
C16	T-Bolt M10x40	7
C17	Log clamp receiver	2
C18	Slide tube	2
C19	Sliding socket welding	4
C20	Four-hole rail beam welding	2
C21	Log support	2
C22	Rail connecting plate	4
C23	Hex Bolts M8*30	10
C24	Telescopic right plate welding	2
C25	Carriage Bolt M10x35	2

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