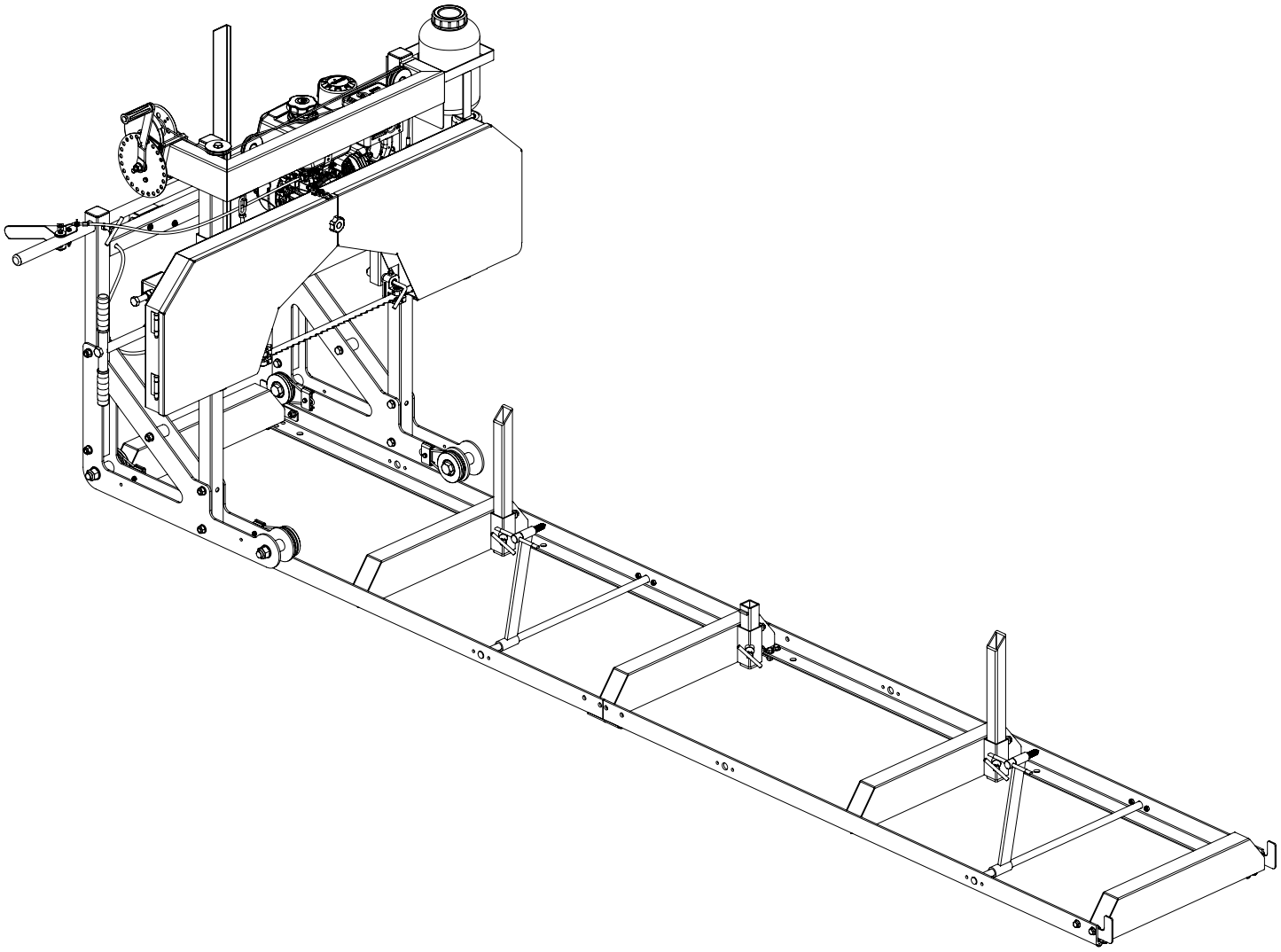
HM122 PORTABLE SAWMILL



OPERATOR'S MANUAL

HM122-MY2019: Rev A
Publication Date: 05-Dec-2018

WOODLAND MILLS

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INTRODUCTION

Congratulations on your purchase and welcome to Woodland Mills! This manual gives you the necessary information about your machine so you will be able to use it properly. The entire manual must be read and understood before you start using the machine. If any questions should arise that are not covered by this manual, please contact Woodland Mills Inc.

OWNER'S RECORD

Please take a moment to record the following information about your sawmill. If you need to call for assistance, please be ready to provide your model and serial numbers. This information will allow us to help you more quickly when you call.

MODEL NUMBER

SERIAL NUMBER

DATE OF PURCHASE

This machine is designed for certain applications only. We strongly recommend that this machine is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted us to determine if it can or should be performed on the product.

For technical questions and replacement parts, please contact Woodland Mills Inc.

INTENDED USE

Woodland Mills wood sawmills are designed for acreage owners to aid in the milling of natural, untreated wood with the mill firmly supported on the ground. Materials that are processed may contain chemicals or by-products that could corrode the machine or damage it, resulting in safety concerns.

SAFETY GUIDELINES

****SAVE THESE INSTRUCTIONS****

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 (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 regulation 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, gasses, 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

WARNING!

Internal combustion engines present special hazards during operation and fuelling. 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 refuelling the engine.
- **DO NOT** refuel a hot or running engine.
- **DO NOT** refuel the engine near an open flame.
- **DO NOT** spill fuel when refuelling 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 refuelling.
- **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 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 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. Cut-off branches from the lumber to be processed.
4. Place the lumber to be cut on the track supports.
5. Clamp the lumber firmly in place using the included log clamps and supports.
6. Fill the lubricant tank with clean water. Add a ¼ cup of liquid dish soap per full tank; add less if topping up a partially full tank. The soap helps keep the blade clean(er) when excess tree oils and sap are encountered.
7. Start and operate the engine according to the provided engine manual.
8. Depress the throttle to bring the blade up to speed—the throttle should be fully depressed while the saw is under load.
9. Roll the head assembly slowly along the track and against the lumber to make the cut.
10. Trim off the rounded sides of the log.
11. When the log is squared-off, boards or posts can be cut to standard or custom specifications.
12. 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.

WARNING!

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

WARNING!

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

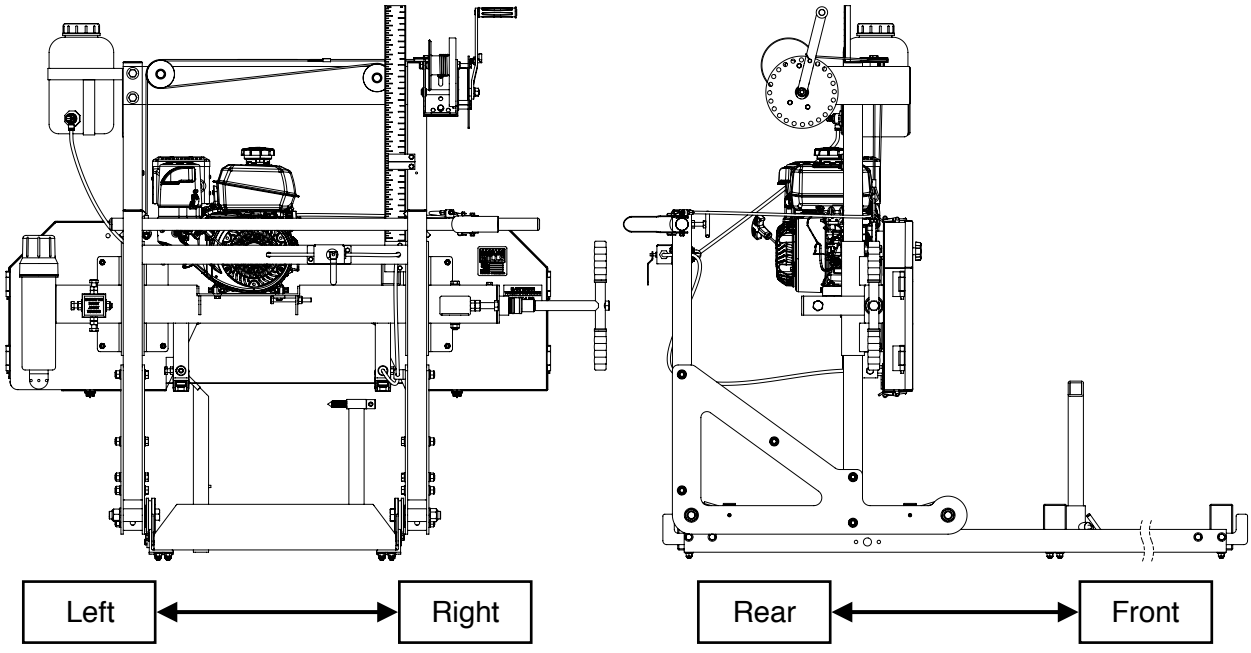
MAINTENANCE

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

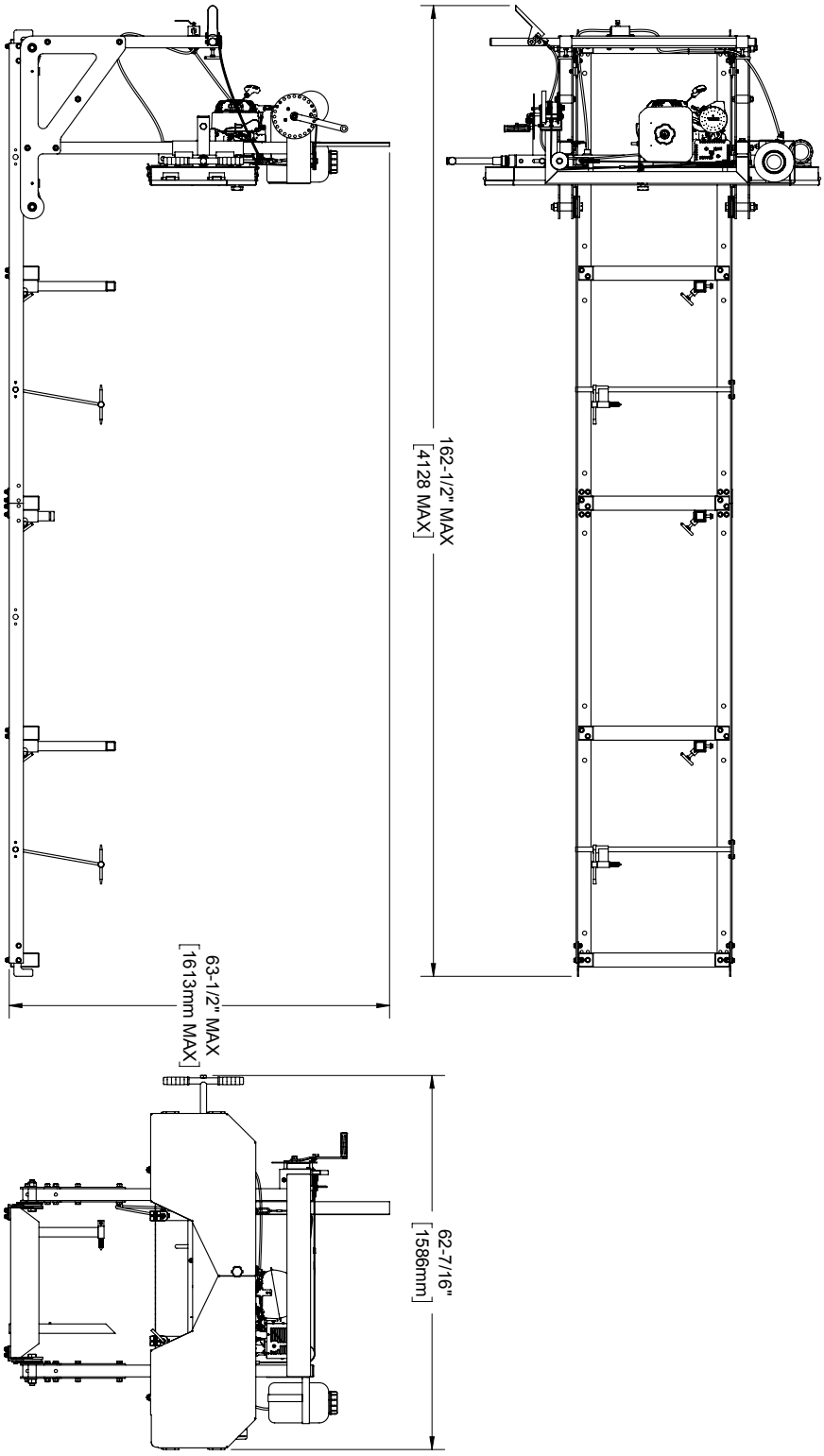
- **Band Wheel Bearings** — Inspect before use to ensure they are not worn. Bearings are sealed and do not need to be greased.
- **Blade Guide Bearings** — Inspect before use for excessive grooves or scoring in the bearing case. Replace if necessary.
- **Blade Tension** — Grease threads of tensioning T-handle when dry or as required. Use multi-purpose, extreme-pressure grease.
- **Log Clamps** — Spray the cam mechanism with dry silicone spray frequently.
- **Belts** — Periodically check the condition and wear of the drive and idler belt. Ensure that the blade does not ride on the band wheels.
- **Drive Belt** — Periodically check the tension of the drive belt.
- **Carriage Posts (Front)** — Spray posts before use with a silicone spray lubricant such as 3-in-1 or Jig-A-Loo.
- **Band Wheel Guards** — Routinely remove any build-up of sawdust that may collect inside the band wheel guards.
- **Lubricant Tank** — Only fill with a water and dish soap mixture, or in winter months use windshield washer fluid. Do not leave lubricant in tank if temperature falls below 0˚ C.
- **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 operation, replace the water lubricant with windshield washer fluid.
- **Engine** — Check the engine oil level before each use and maintain the engine per the instructions set out by the engine manufacturer in the engine manual. The engine is equipped with an oil alert system and will not start without adding oil before starting.
- **Lifting Cables** — Before, during, and after operation, regularly 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.

TECHNICAL SPECIFICATIONS

Item	Specification
Gasoline Engine	7 hp Kohler Command Pro
Log Diameter Capacity	22" (559 mm)
Log Length Capacity	10'4" (3150 mm)
Distance Between Blade Guides	18" (457 mm)
Maximum Cut Depth	6" (152 mm)
Last Cut Off Deck	1" (25 mm)
Maximum Board Width	16" (406 mm) Square Cant / 18" (457 mm) Live Edge
Maximum Board Thickness	6" (152 mm)
Band Wheel Diameter	16" (406 mm)
Blade Size	1-¼" x 125" (32 mm x 3175 mm)
Track Length	153-½" (3175 mm)
Track Width	26" (660 mm)
Log Clamps	Screw-Type (2)
Product Weight	460 lb (210 kg)
Shipping Weight	500 lb (227 kg)



OVERALL DIMENSIONS



ASSEMBLY

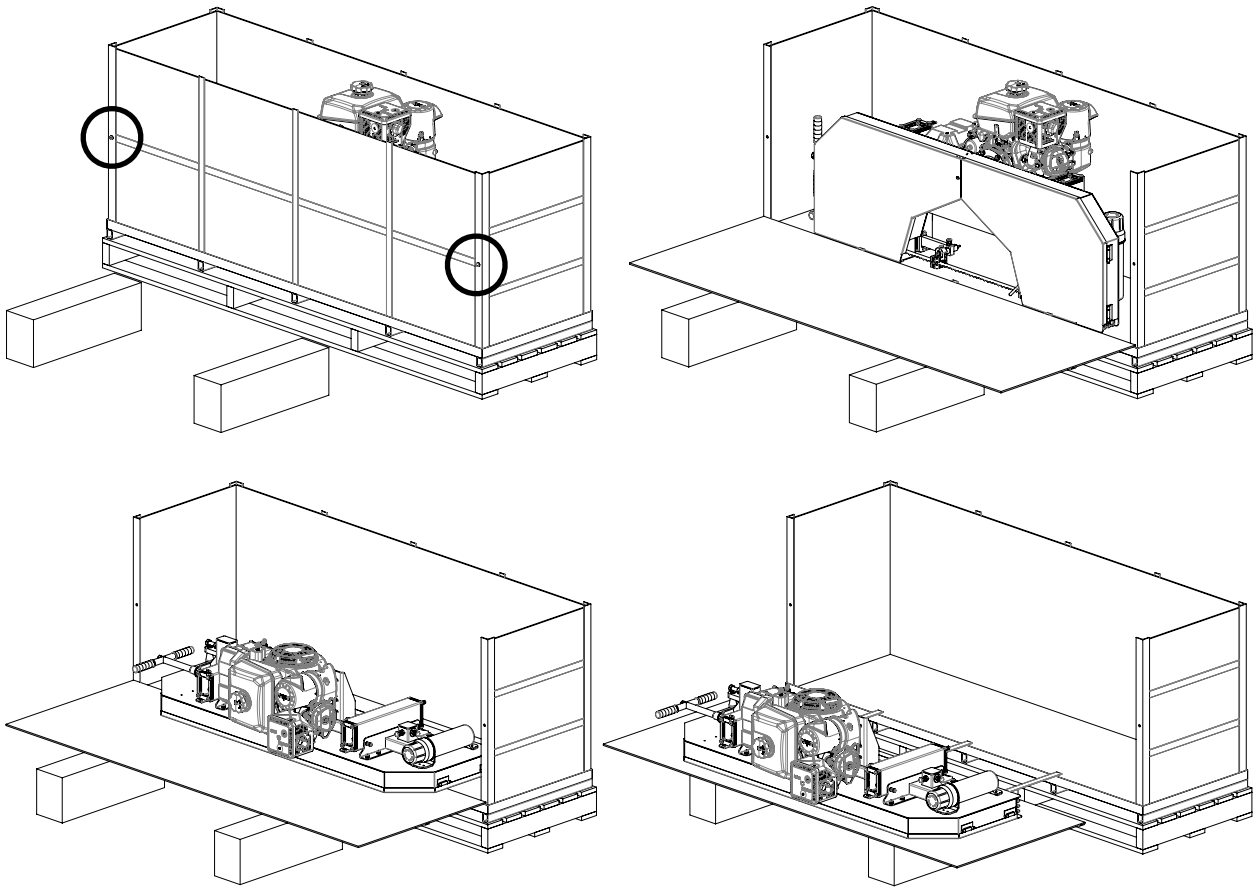
1. TOOLS REQUIRED

TOOL	SPECIFICATION
Wrench/Socket	7 mm (2X)
Wrench/Socket	10 mm (2X)
Wrench/Socket	13 mm (2X)
Wrench/Socket	14 mm (2X)
Wrench/Socket	15 mm (2X)
Wrench/Socket	16 mm (2X)
Wrench/Socket	17 mm (2X)
Wrench/Socket	18 mm (2X)
Wrench/Socket	19 mm (2X)
Wrench	24 mm or Adjustable Wrench (2X)
Wrench	30 mm or Adjustable Wrench (2X)
Hex Key	3 mm
Hex Key	4 mm
Phillips Head Screwdriver	No. 3
Torque Wrench	Capable of at least 25 ft•lb (34 N•m)
Tape Measure	Standard Inch/Metric Tape Measure

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.

2. UNPACKING

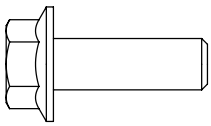
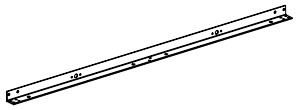
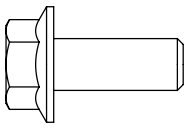
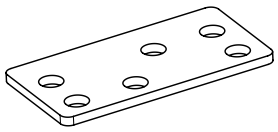
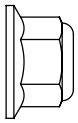
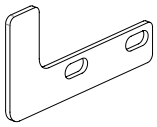
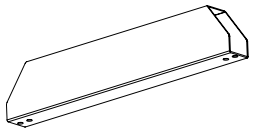
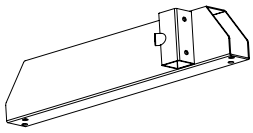
Unpack the contents of the crate except for the saw head and the two long boxes in the bottom that contain the sections of track. Unfasten the two (2) M8 bolts/nuts on the front of the crate using a socket/wrench. Place two (2) 6-8" (150-200 mm) tall support blocks in front of the crate, bend the front of the crate down, and then lay the cardboard wall over it. Carefully rotate the saw head down onto the cardboard and support blocks and slide it out of the crate as shown below.



The two long track boxes can now be removed and the crate discarded.

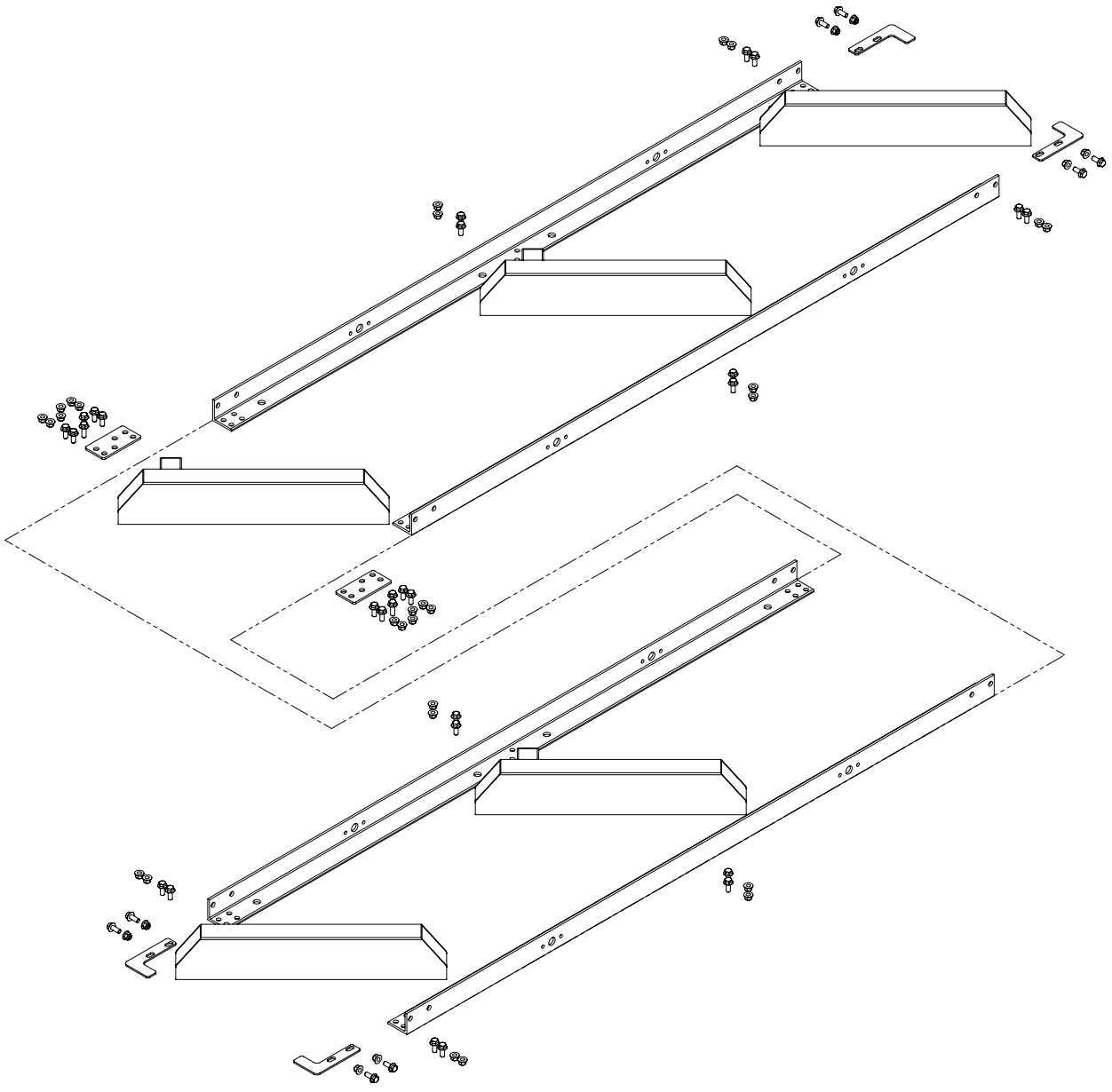
3. TRACK

Assemble the track system 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 it should ideally be a minimum of 4" (100 mm) off the ground. This will allow for easy cleanup of sawdust from under the tracks and height adjustment of the log supports.

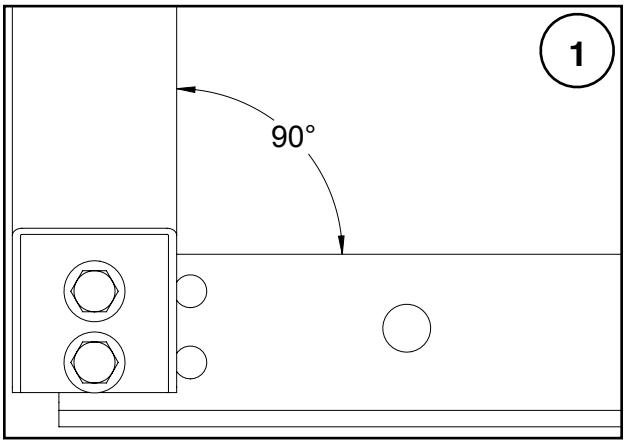
4x	M10 X 30 mm Flanged Hex Bolt		4x	Track Rail	
32x	M10 X 25 mm Flanged Hex Bolt		2x	Reinforcement Plate	
36x	M10 Flanged Lock Nut		4x	Carriage Stop	
			2x	End Bunk	
			3x	Mid Bunk	

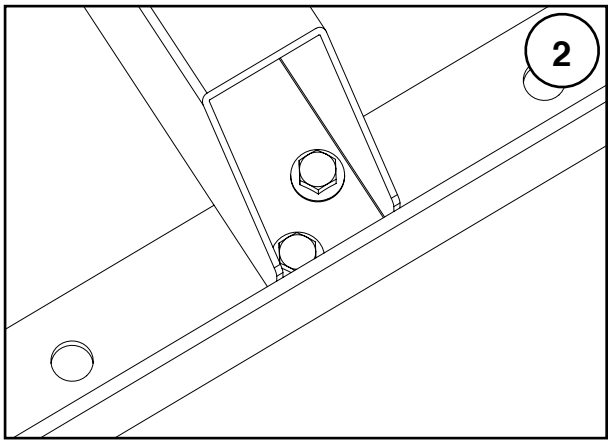
* Centre bunk incorporates four (4) mounting holes at each end

The track comes completely disassembled from the factory. Lay out all the components on a flat piece of level ground prior to assembly. See the ***TRACK*** exploded view for a more detailed part breakdown.

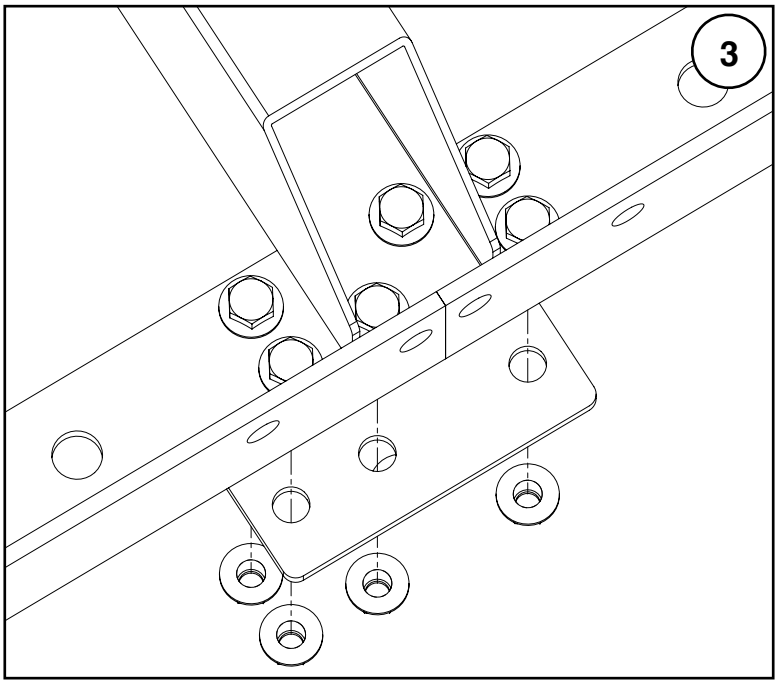


When assembling the log bunks to the rails, ensure that the two end bunks are square (90°) as shown in Figure 1. Use sixteen (16) M10 X 25 mm bolts at both end bunks and the two(2) mid bunks excluding the mid bunk at the rail joint (Figures 1 & 2).

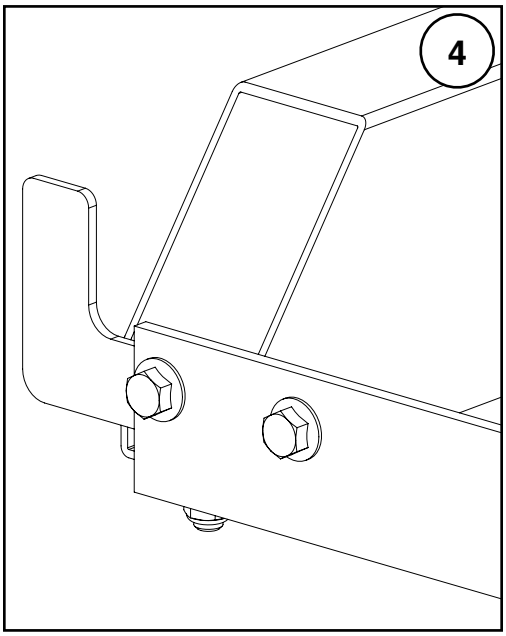




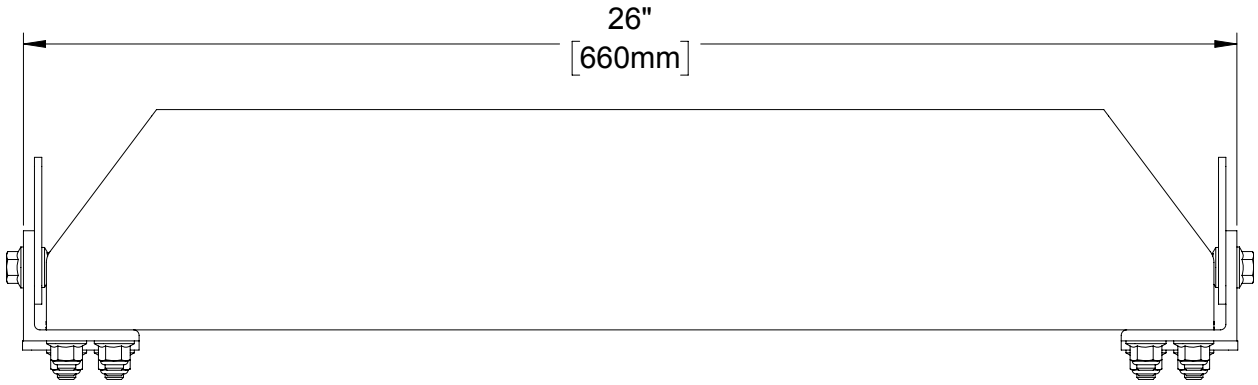
Use four (4) M10 X 30 mm and eight (8) M10 X 25 mm bolts to join the centre bunk and reinforcement plates to the rails at the rail joints. M10 X 30 mm bolts go *through* the bunk with the M10 X 25 mm bolts *outside* the bunk (Figure 3).



Assemble the four (4) carriage stops to the ends of the rails using eight (8) M10 X 25 mm bolts and tighten. Ensure carriage stops are assembled to the inside face of the rails, *not* the outside (Figure 4).

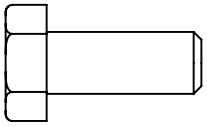
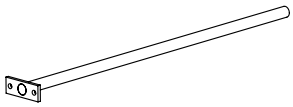
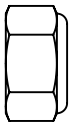
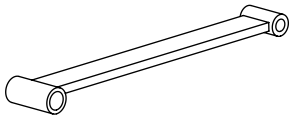
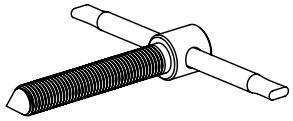
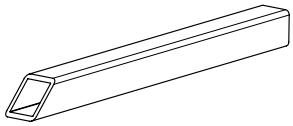
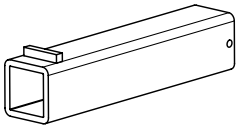


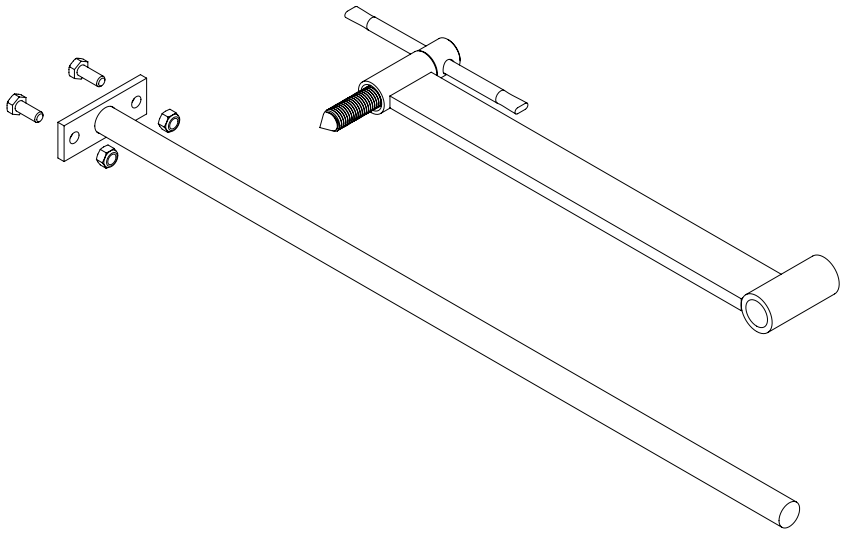
The assembled track should measure 26" (660 mm) wide when measuring from the outside faces of the rails.



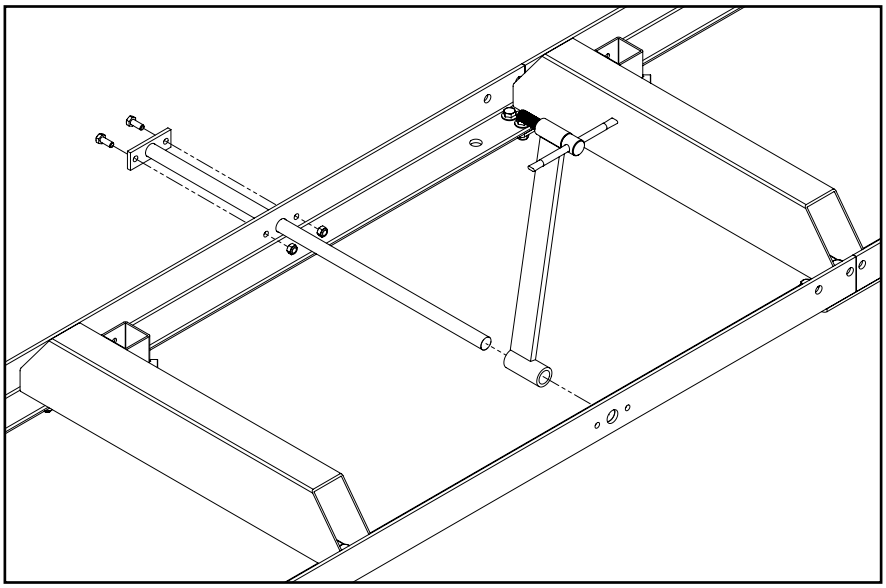
4. LOG CLAMP AND SUPPORTS

Assemble the log clamp components as shown below. Attach the completed assembly to the track using four (4) M10 X 25 mm bolts with lock nuts and tighten.

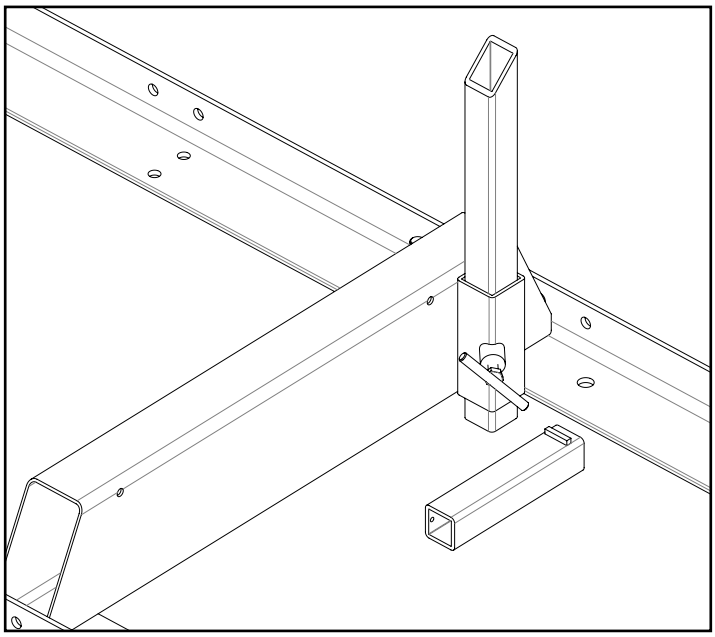
4x	M8 X 20 mm Hex Bolt		2x	Log Clamp Connecting Rod	
4x	M8 Lock Nut		2x	Log Clamp Arm	
			2x	Log Clamp	
			2x	Long Log Support	
			2x	Short Log Support	



Attach both log dog assemblies to the track as shown below using the two (2) nuts and bolts provided. Note that there are various locations along the track where the log dogs 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.



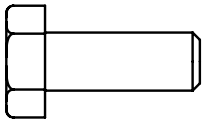
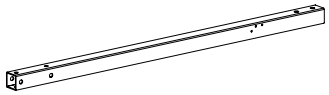
Insert log supports into track cross supports and secure with T-handles as shown in the picture below. The T-handle threads should be ***coated with grease***. The sawmill includes two sets of log supports—a short set and a long set. The long set is ideal for large diameter logs while the shorter set is better suited for small logs and square cants.



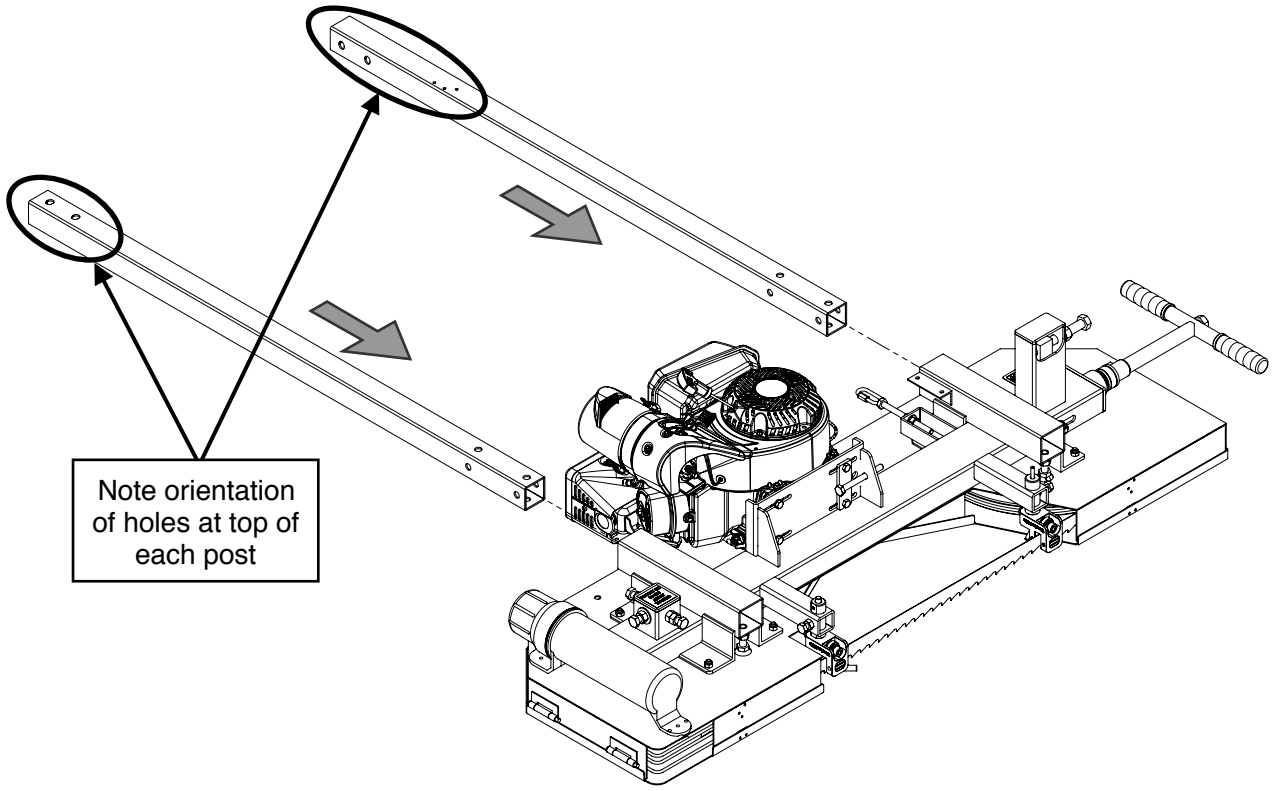
5. SAWMILL HEAD ASSEMBLY

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

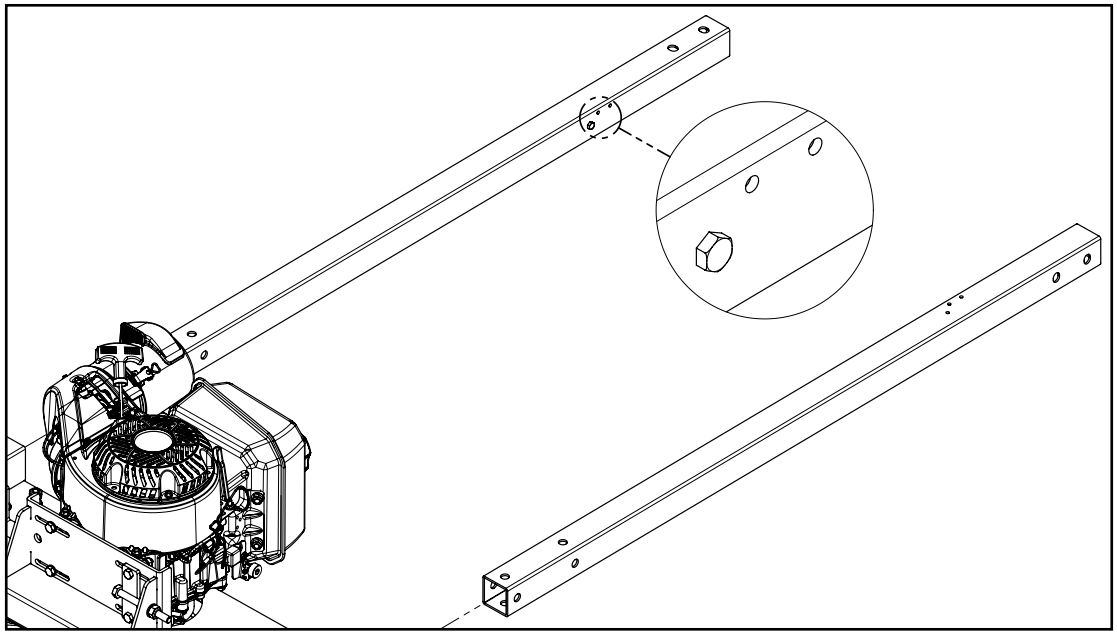
FRONT POSTS

1x	M6 X 16 mm Hex Bolt		2x	Front Post	

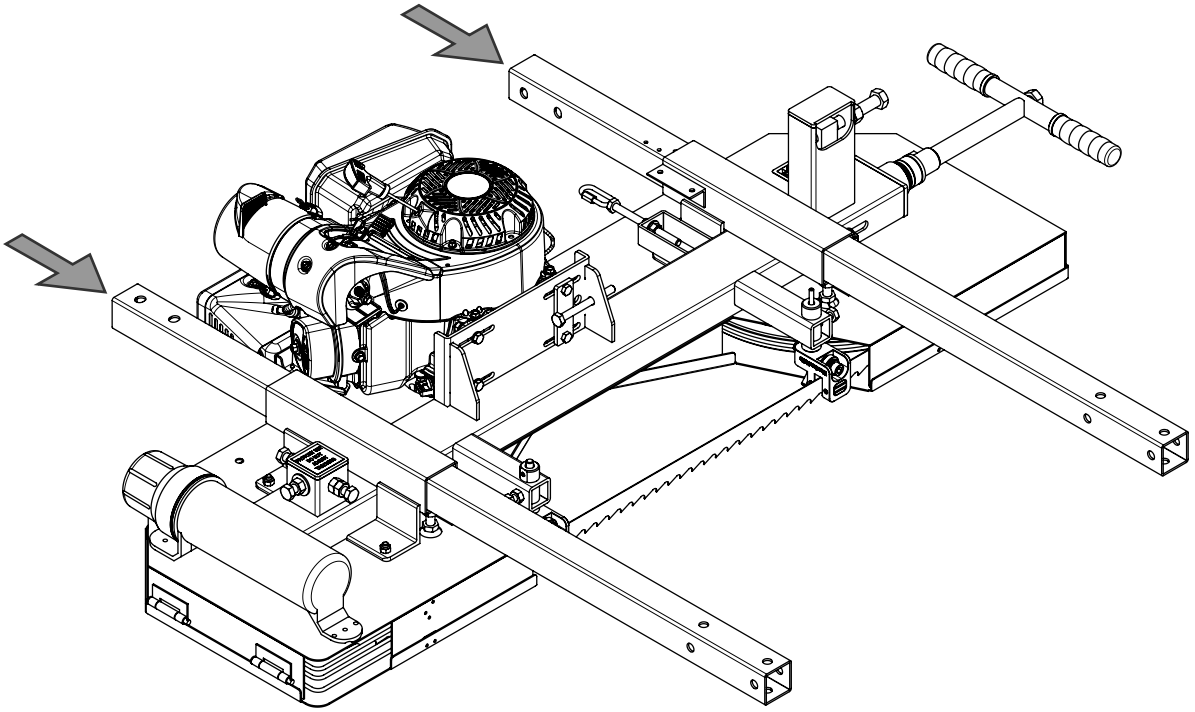
With the saw head resting approximately 6" (150 mm) above the ground, slide the two (2) front posts through the post sleeves. Orient the posts so that the right post is rotated 90° from the left post as shown below. The open top ends of the posts will be capped in a later step.



Install the M6 X 16 mm hex bolt into the threaded hole near the top of the inside of the *left* post as shown below. This will act as a stop for the saw head so it is not raised too high during operation.

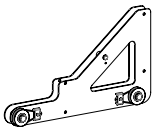


Be sure the legs are far enough through the sleeves for carriage leg assembly in the next step.

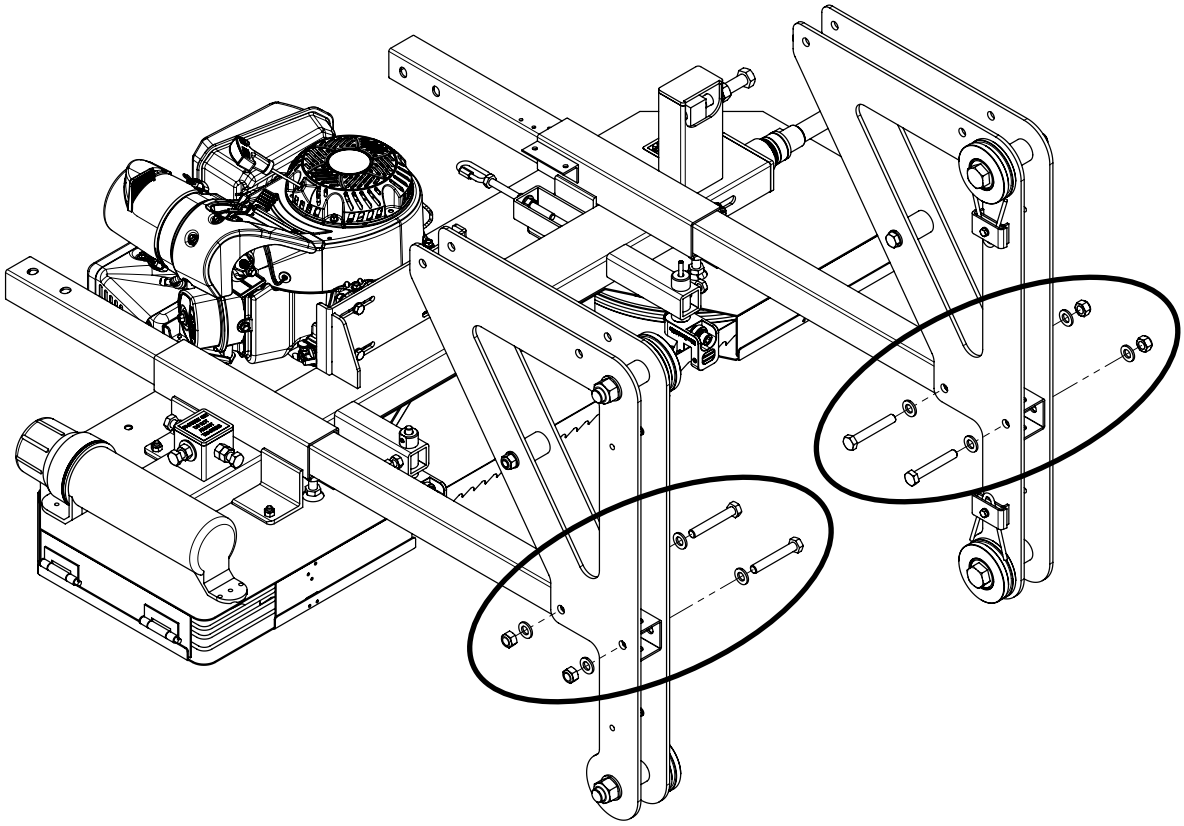


CARRIAGE LEGS

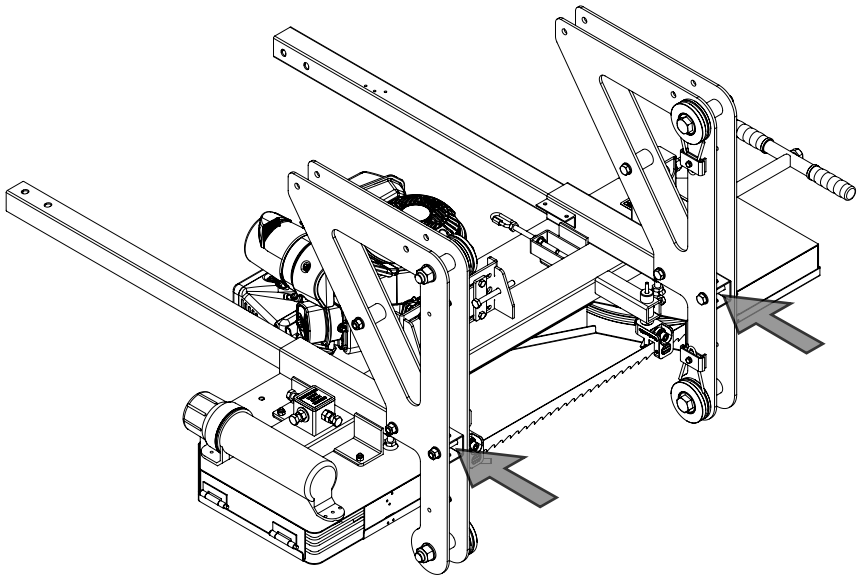
The carriage leg sub-assemblies come loosely assembled from the factory. Final tightening of these bolts will be done in a later step. See the ***CARRIAGE LEG, WHEEL, AND SWEEPER*** exploded view for a more detailed part breakdown.

4x	M12 X 80 mm Hex Bolt		8x	M12 Flat Washer	
4x	M12 Lock Nut		2x	Carriage Leg Sub-Assembly	

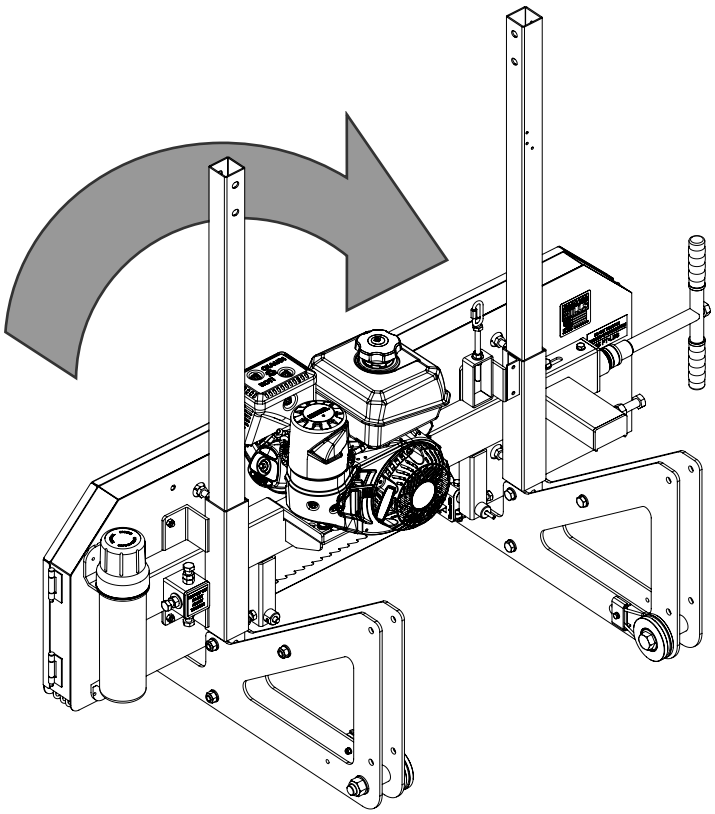
Using two (2) sockets/wrenches, attach the two (2) carriage leg sub-assemblies to the front posts with four (4) M12 X 80 mm bolts, M12 flat washers, and M12 lock nuts. Be sure the bolts point outward and the carriage wheels are positioned on the insides of the legs. Fully tighten these bolts so that the plates are firmly attached to the posts.



Slide the carriage legs and posts up until they stop at the post sleeves on the saw head.

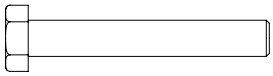
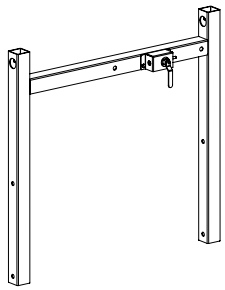
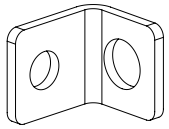


With the help of another person, stand the saw head assembly upright.

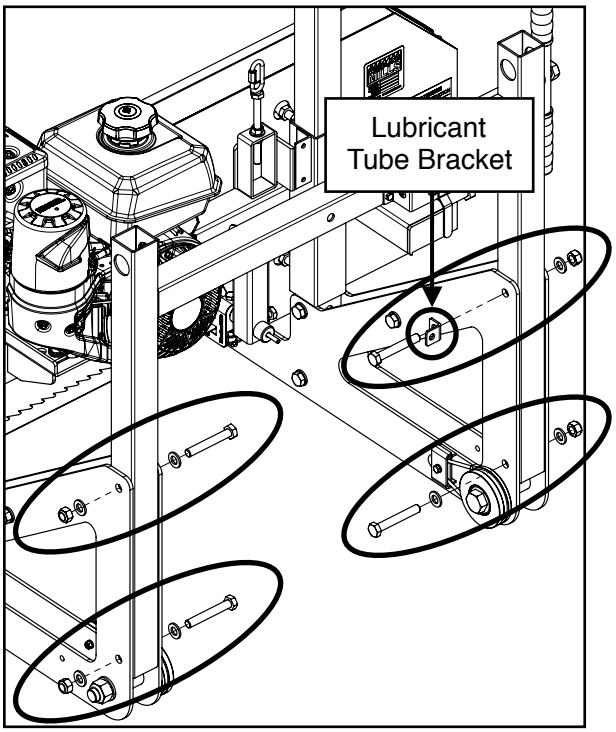


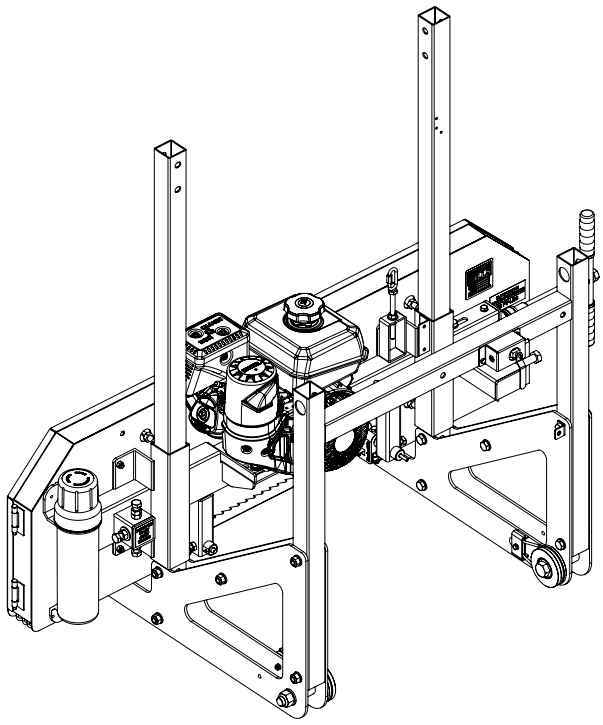
REAR H-FRAME

Use the components listed below to install the rear H-frame to the carriage legs. The H-frame comes pre-assembled with the valve and its housing bolted to the back side.

4x	M12 X 80 mm Hex Bolt		1x	Rear H-Frame	
4x	M12 Lock Nut				
7x	M12 Flat Washer		1x	Lubricant Tube Bracket	

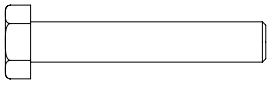
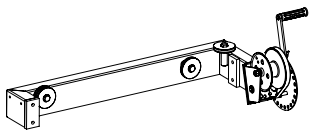
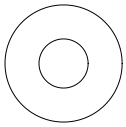
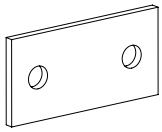
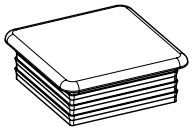
Using two (2) sockets/wrenches, attach the rear H-frame between the carriage leg plates using four (4) M12 X 80 mm bolts, seven (7) M12 flat washers, and eight (8) M12 lock nuts. Note the orientation of the four (4) bolts: they are assembled pointing outward as shown below. Assemble the lubricant tube bracket in place of a flat washer at the top of the inner right leg.





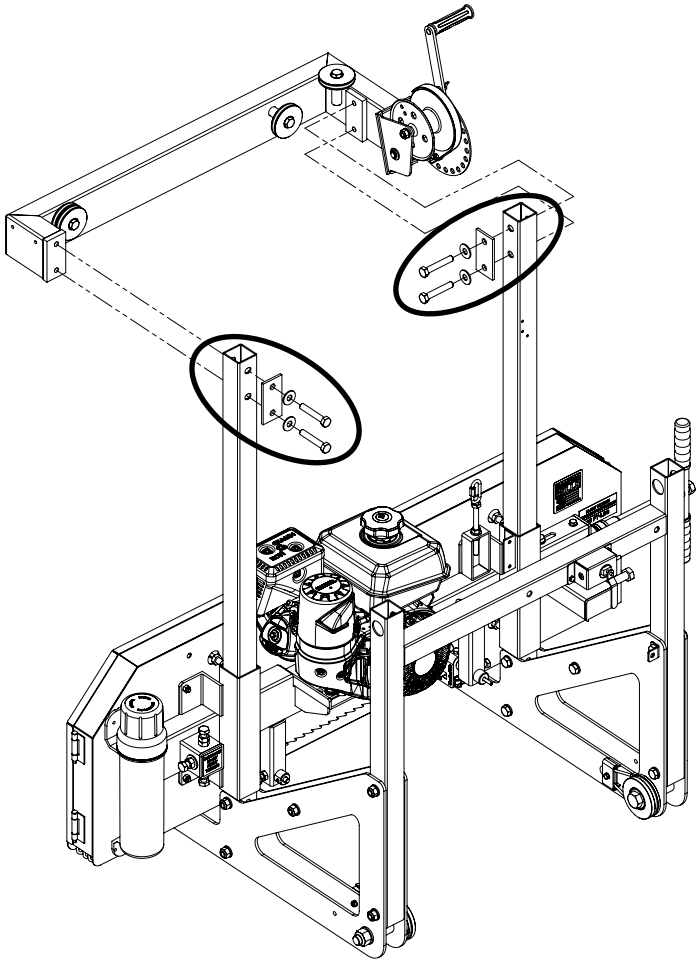
CROSS BEAM

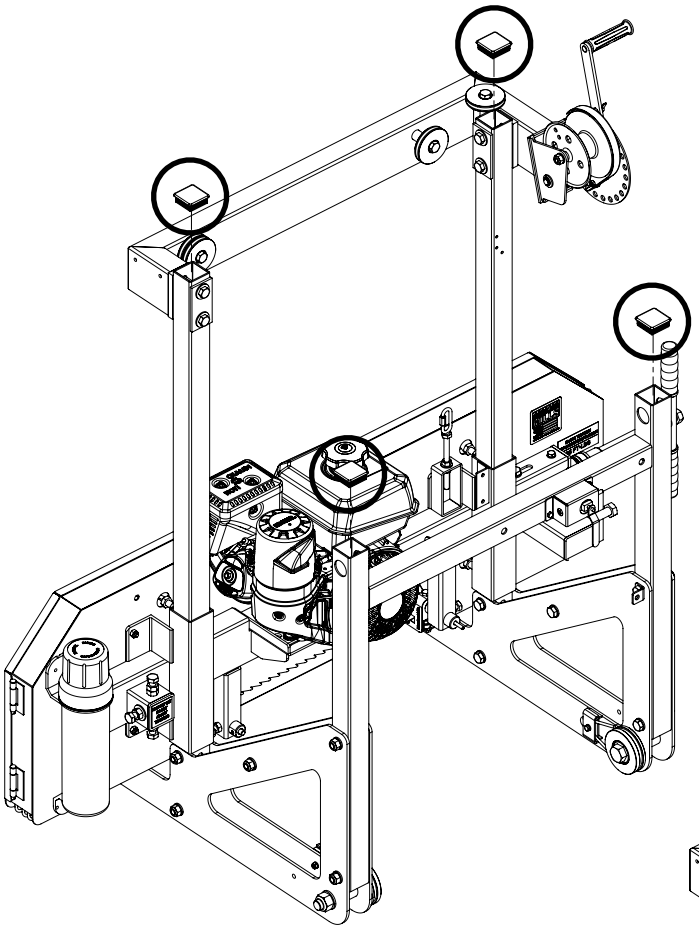
With the hardware listed below, assemble the cross beam to the carriage posts.

4x	M12 X 70 mm Hex Bolt		1x	Cross Beam Assembly	
4x	M12 X 31 mm Fender Washer		2x	Cross Beam Mounting Plate	
			4x	End Cap	

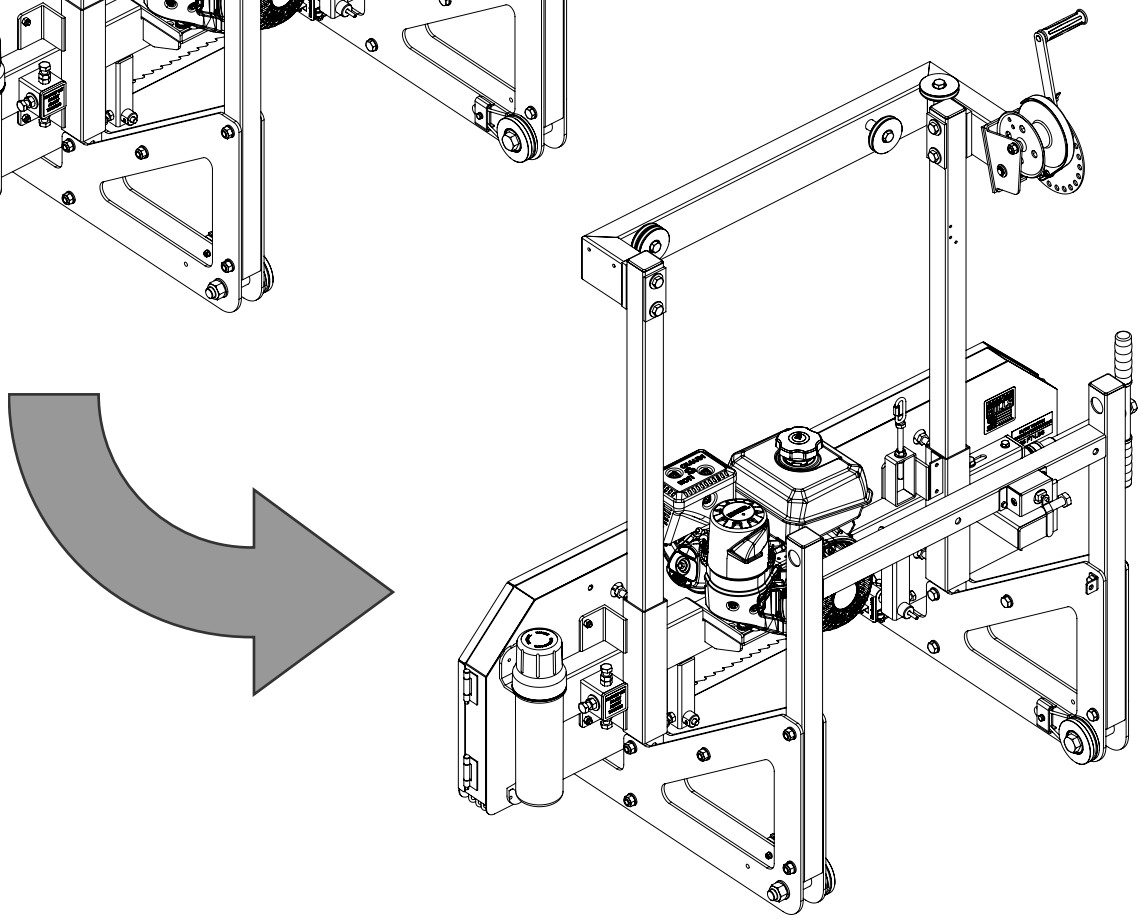
Using a socket/wrench and the help of a second person, assemble the cross beam to the front carriage posts with two (2) mounting plates and four (4) M12 X 70 mm bolts and M12 X 31 mm fender washers as shown to the left.

Do not fully tighten these bolts at this time.



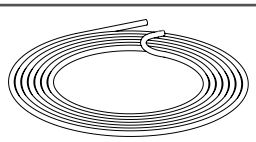


Use a mallet to assemble the four (4) plastic end caps into the tops of both front posts and the rear H-frame.

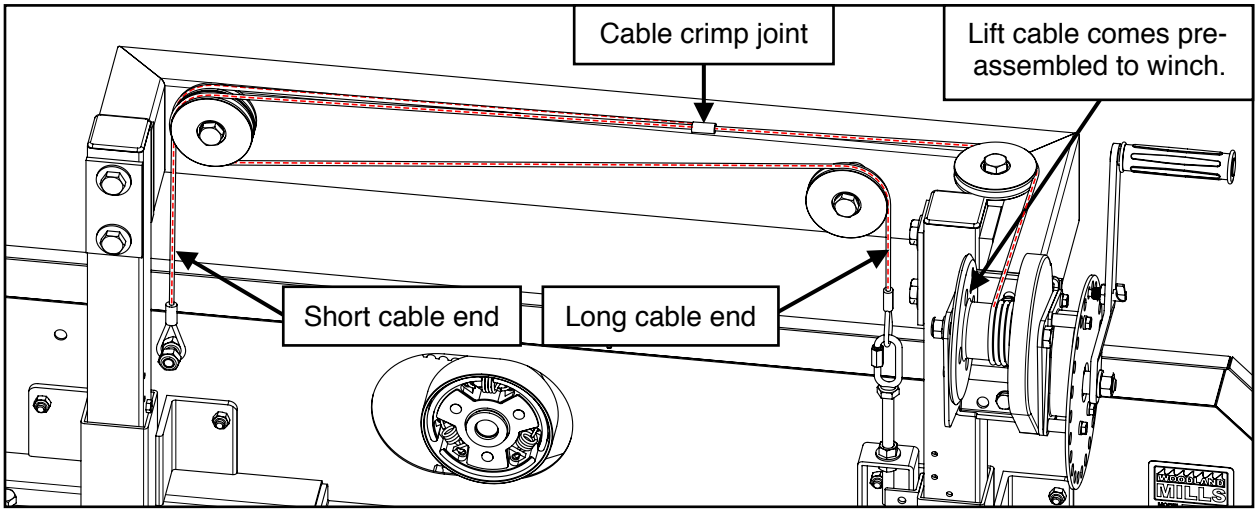


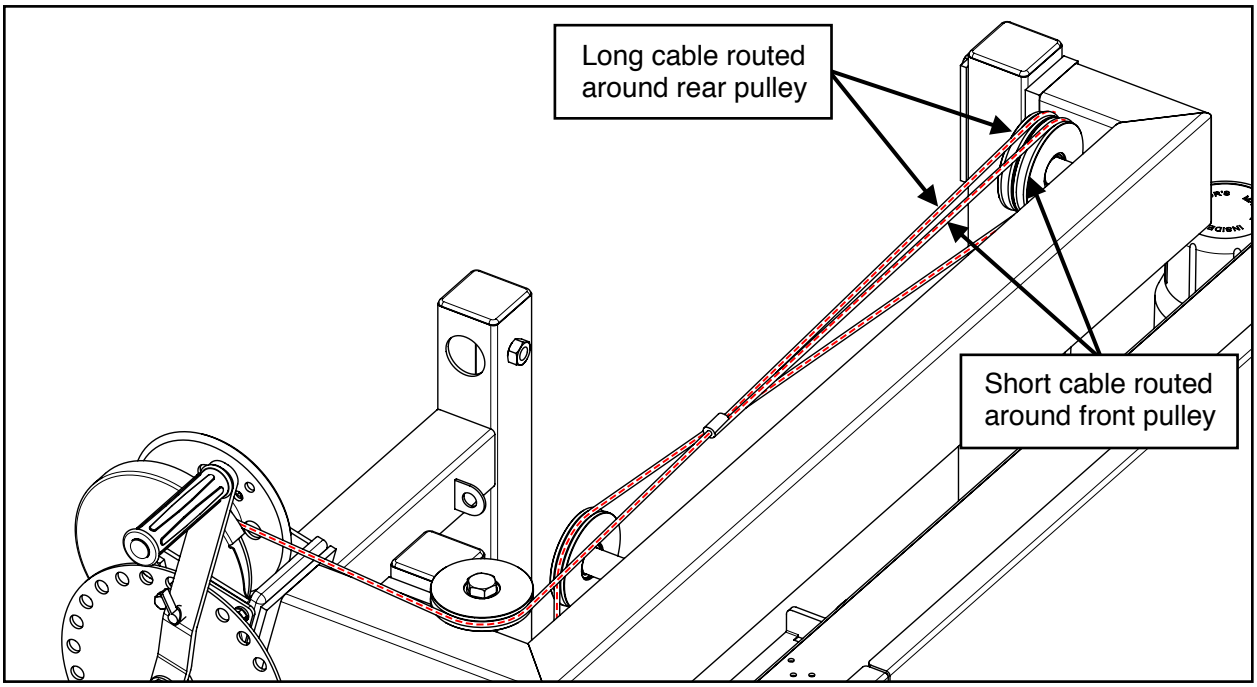
LIFT CABLE ROUTING

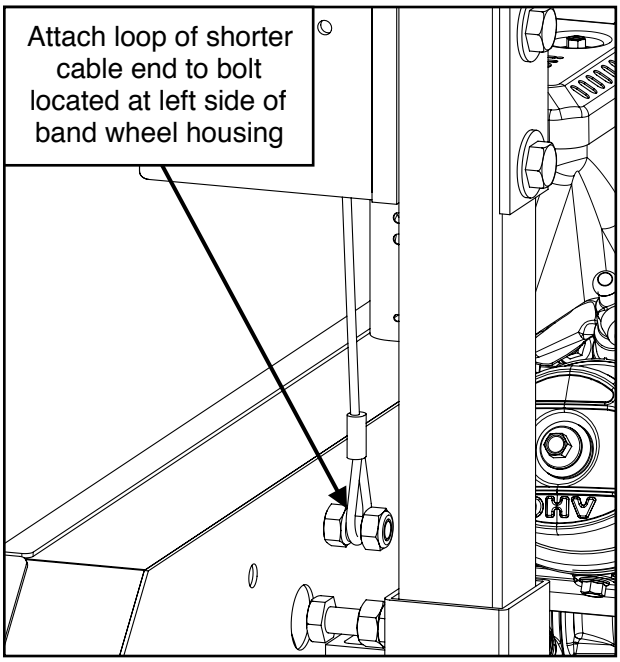
The wire rope lift cable listed below comes pre-assembled to the winch.

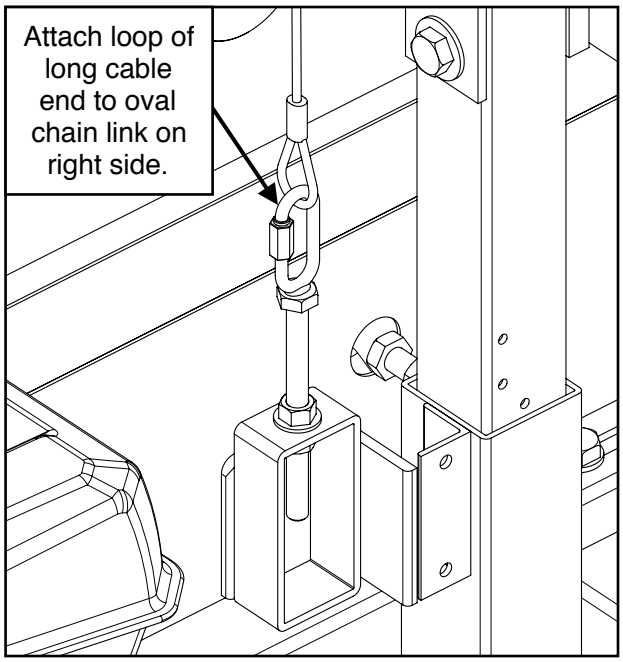
1x	Lift Cable	

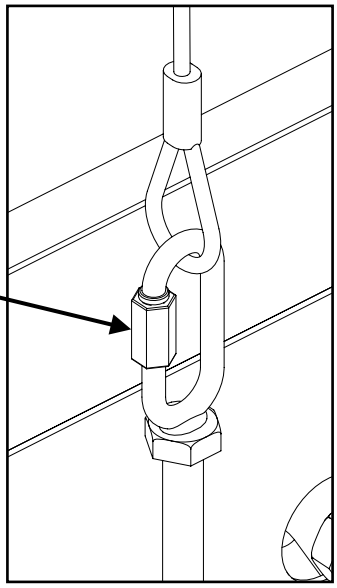
Route the lift cable as shown in the steps below. [Engine removed from some views for clarity.]







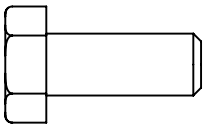
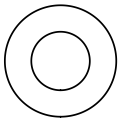
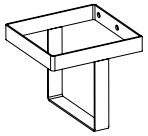
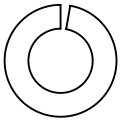
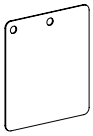




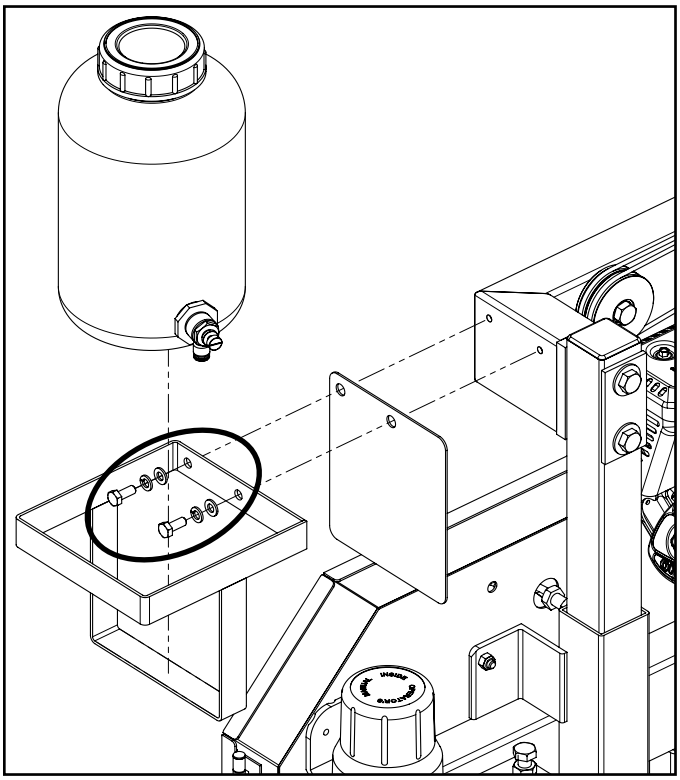
Be sure to securely tighten the oval chain link nut with a wrench after the cable loop ends have been attached.

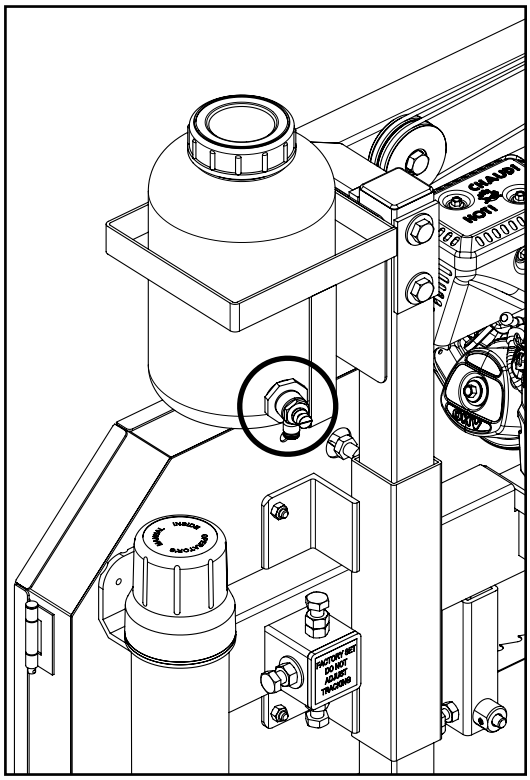
LUBRICANT TANK

With the hardware listed below, assemble the lubricant tank, bracket, and heat shield to the left side of the cross beam.

2x	M8 X 20 mm Hex Bolt		1x	Lubricant Tank	
2x	M8 Flat Washer		1x	Lubricant Tank Bracket	
2x	M8 Lock Washer		1x	Lubricant Tank Heat Shield	

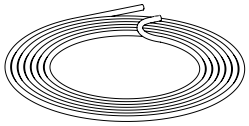
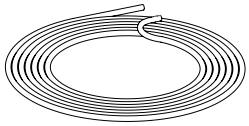
Using a socket/wrench, assemble the lubricant tank bracket to the cross beam with the heat shield between them. Use two (2) M8 X 20 mm bolts, flat washers, and lock washers. Set the lubricant tank in the bracket with the valve to the left of the vertical support (see below right).





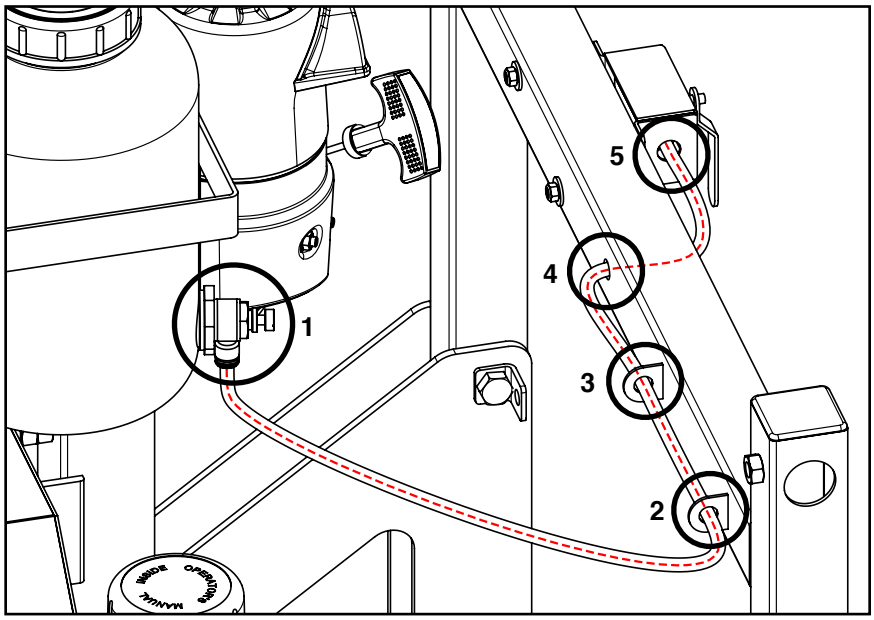
LUBRICANT TUBING

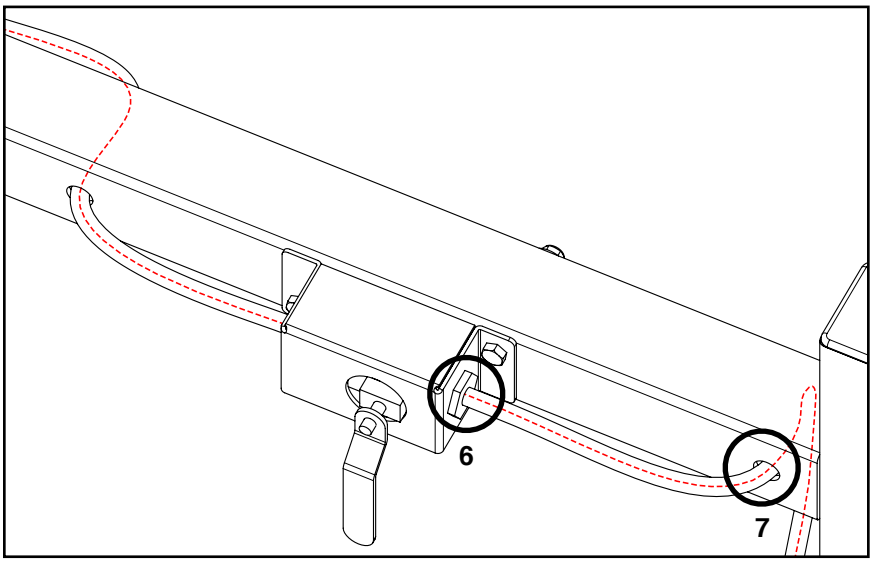
Use the tubing listed in the table below to complete the routing for the lubrication system.

1x	Tubing: Tank-to-Valve		1x	Tubing: Valve-to-Guide Block	

Insert the tank-to-valve tubing into the tank valve[1] while simultaneously pushing-in the blue collar on the valve as the tube is inserted. Once inserted, release the blue collar and the tube will be secure.

Pass the tubing through the brackets on the rear H-frame[2,3] as shown to the right. Then route it through the hole in the frame[4], connecting it to the barbed fitting on the water valve[5].



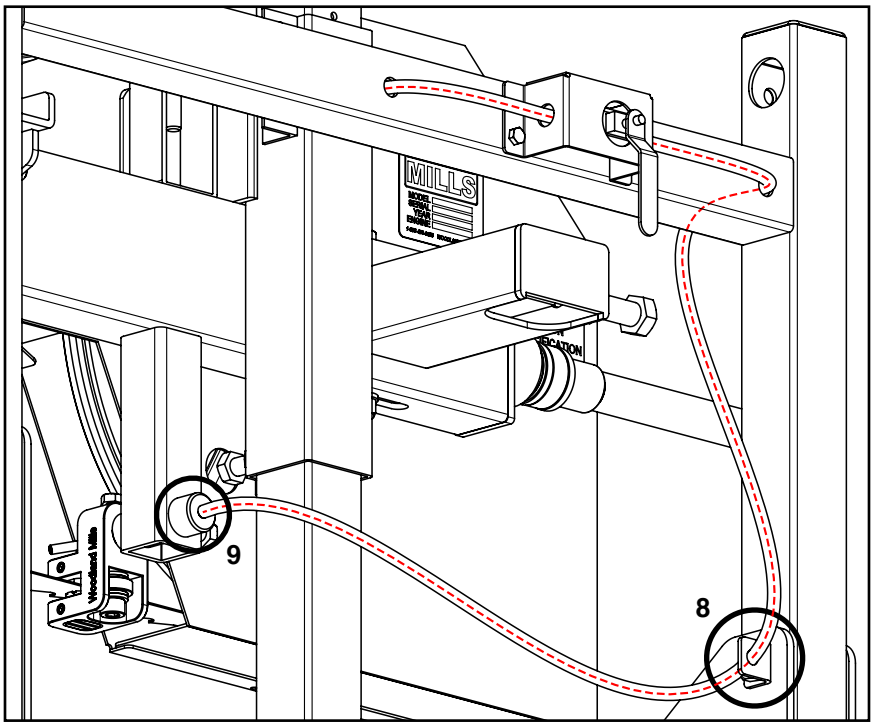


Connect the valve-to-guide block tubing to the barbed fitting on the other side of the water valve[6].

Then pass the tubing through the hole in the frame[7] as shown to the left.

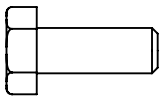
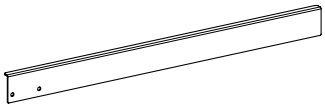
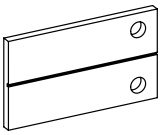
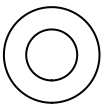
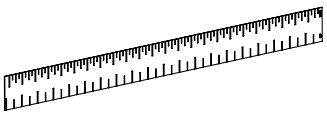
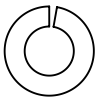
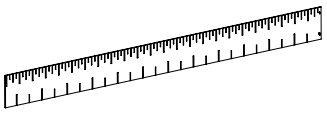
Continue routing the tubing downward, passing it through the hole in the bracket located at the top of the right-side carriage leg[8].

Finally, connect the tubing to the copper nozzle on the back side of the guide block holder[9].



LOG SCALE

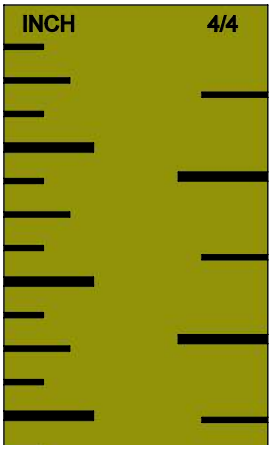
With the hardware listed below, assemble the log scale components.

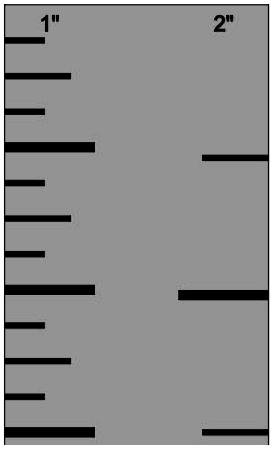
4x	M6 X 30 mm Hex Bolt		1x	Log Scale Bracket	
2x	M6 Lock Nut		1x	Log Scale Indicator	
2x	M6 Flat Washer		1x	Magnetic Scale [Yellow]	
2x	M6 Lock Washer		1x	Magnetic Scale [White]	

Note: the sawmill comes with two (2) different magnetic scales: one yellow, one white. Each with two different graduations down the left and right sides.

Yellow Scale

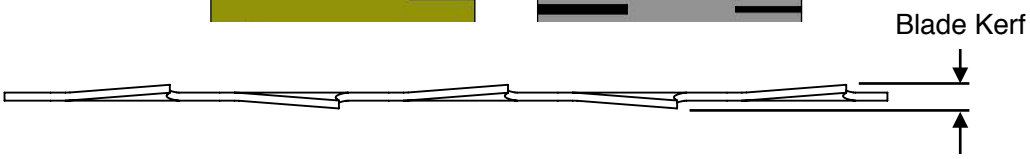
The left side is an inch scale, with the large graduations spaced at 1". The right side is "*four quarter*" (4/4) which mills the lumber ¼" oversize to allow for finish planing on each side after drying.





White Scale

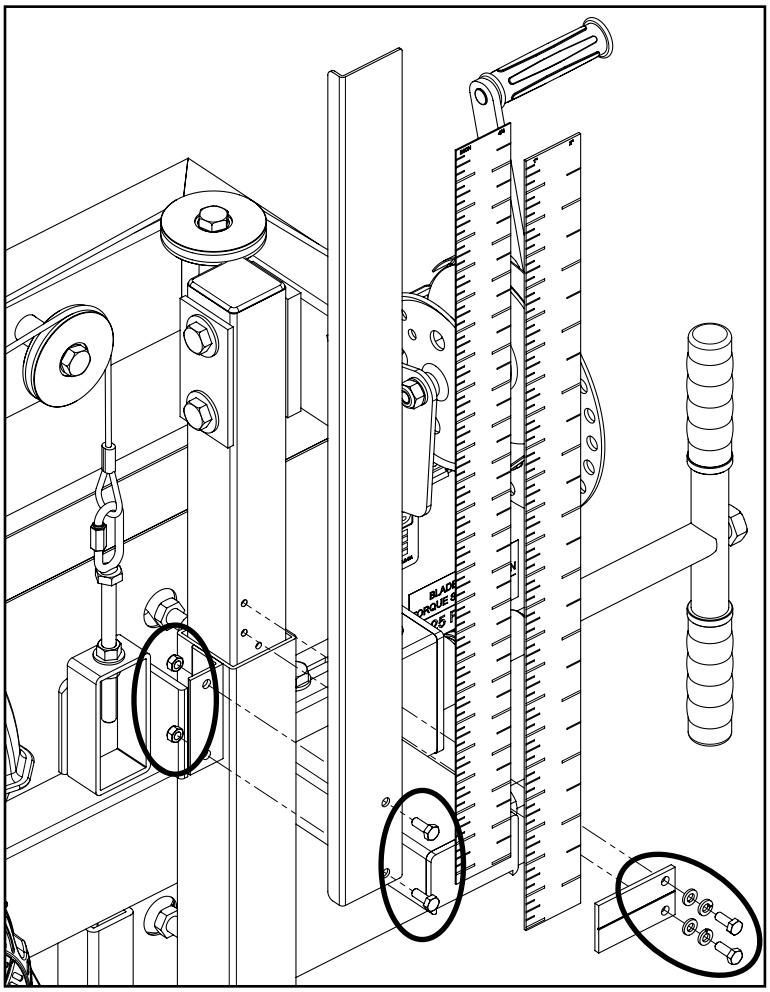
The left side is an inch scale, with the large graduations spaced at 1" + blade kerf. The right side is also an inch scale, except the large graduations are spaced at 2" + blade kerf.

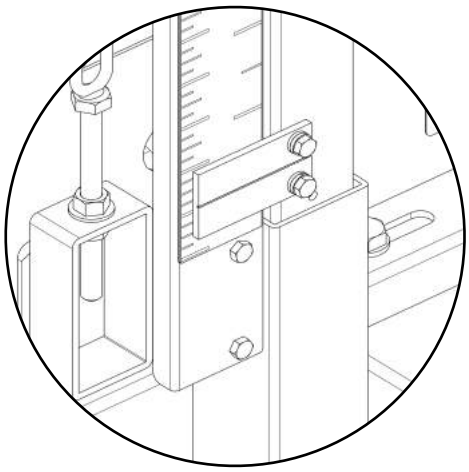


The graduations on the white magnetic scale make allowances for the blade kerf. On the yellow magnetic scale the kerf is not accounted for in the measurements.

Using two (2) sockets/wrenches, bolt the log scale bracket with two (2) M6 X 16 mm bolts and M6 lock nuts to the post sleeve as shown below. Attach the clear log scale indicator to the front right post using two (2) M6 X 16 mm hex bolts, M6 flat washers, and M6 lock washers.

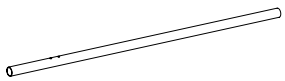
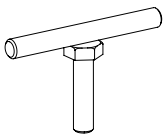
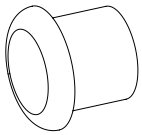
Attach one of the magnetic scales to the log scale bracket and store the other one across the top of the band wheel housing until needed.



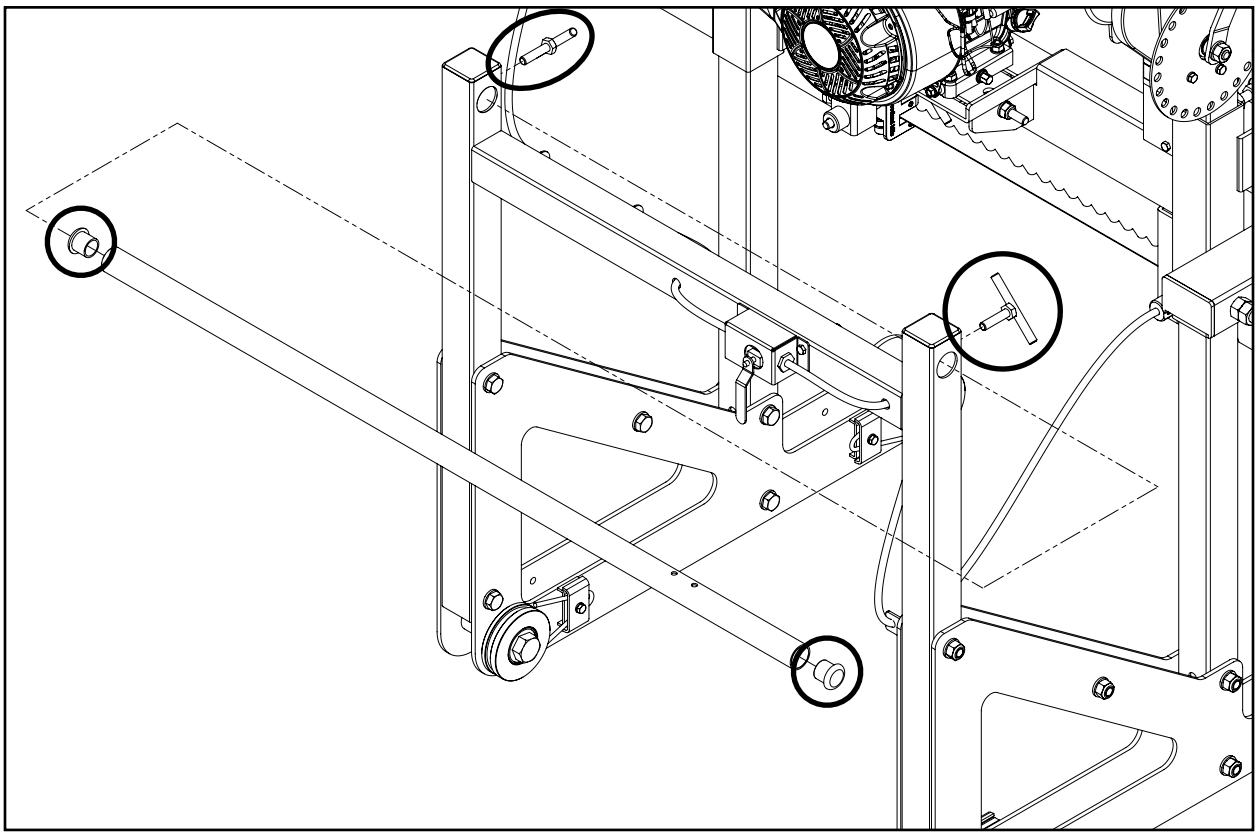


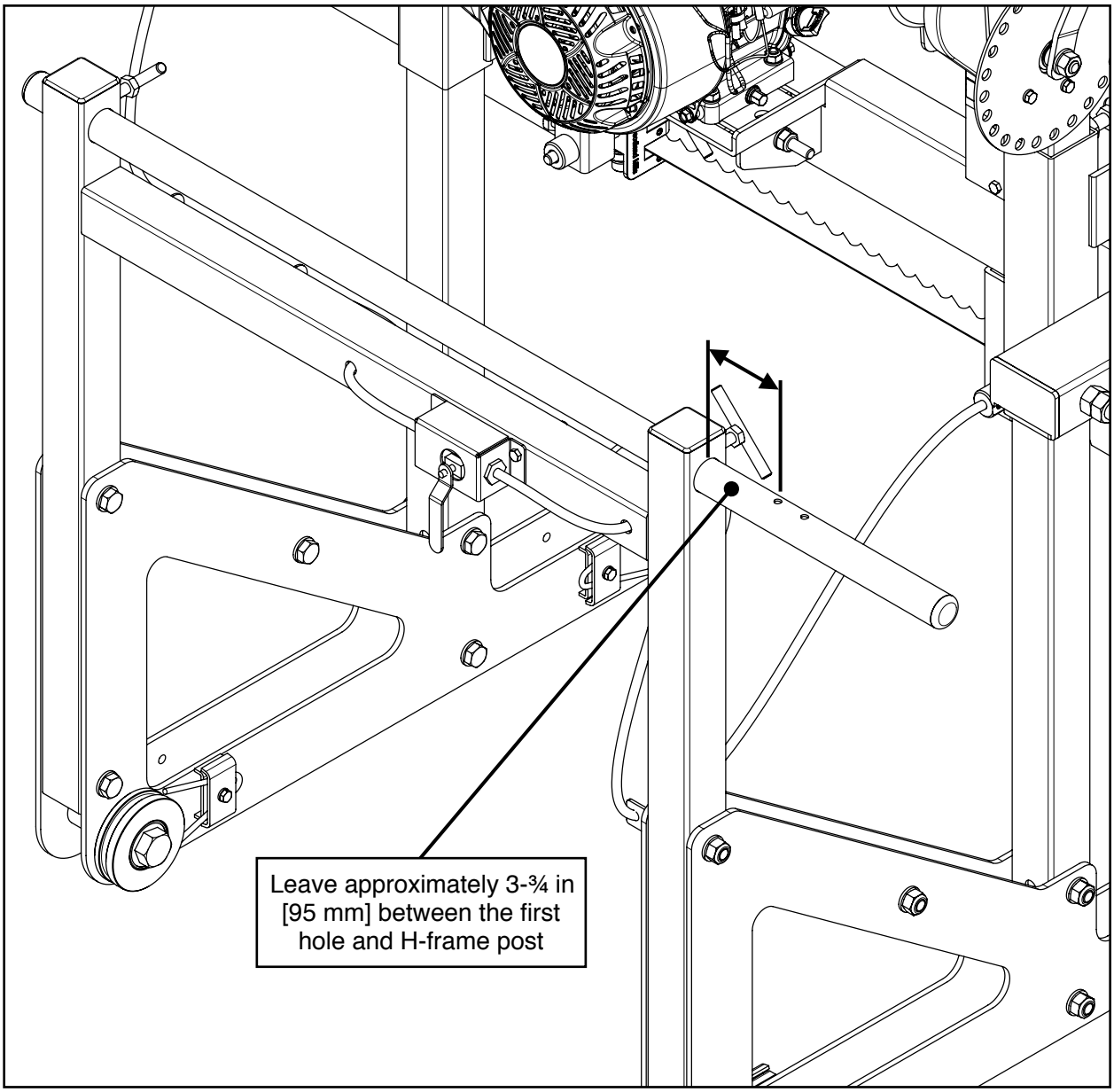
PUSH HANDLE

With the components listed below, assemble the push handle to the rear H-frame.

1x	Push Handle		2x	T-Handle	
2x	Push Handle End Cap				

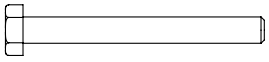
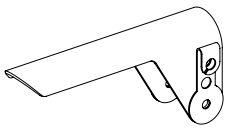
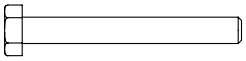
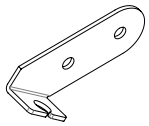
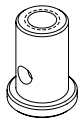
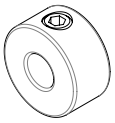
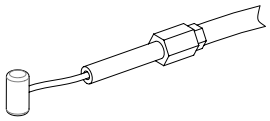
Fit an end cap into each end of the push handle and slide it through the two large holes at the top of the rear H-frame. Screw both T-handles into the back side of the H-frame vertical posts to secure the push handle in place. Be sure the end of the push handle with the two holes protrudes past the the right vertical post as shown on next page.



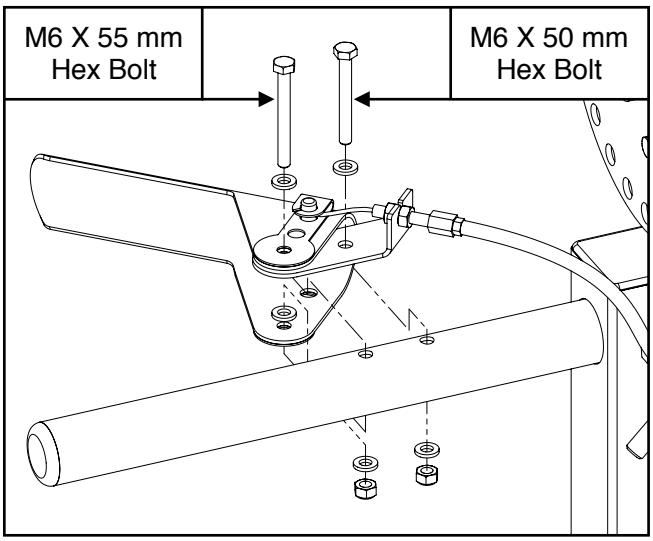

Leave approximately 3-¾ in [95 mm] between the first hole and H-frame post

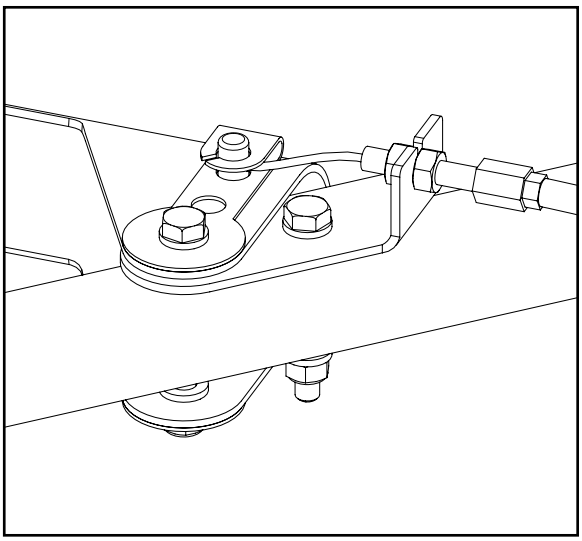
THROTTLE HANDLE AND CABLE

Use the hardware listed below to assemble the throttle handle and route the throttle cable.

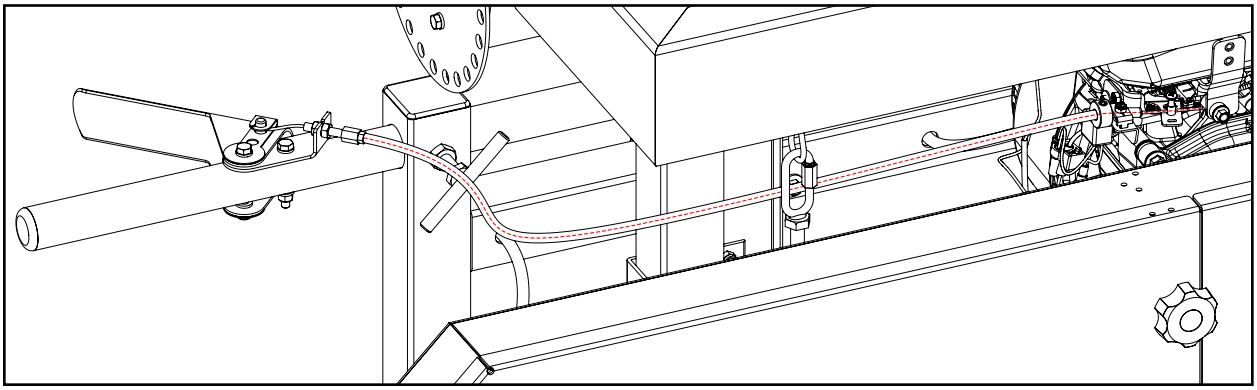
1x	M6 X 55 mm Hex Bolt		1x	Throttle Handle	
1x	M6 X 50 mm Hex Bolt		1x	Throttle Cable Bracket	
1x	M4 X 12 mm Phillips Pan Head Screw		1x	Throttle Cable Barrel Clamp	
2x	M6 Lock Nut		1x	Throttle Cable Stop Bushing	
6x	M6 Flat Washer		1x	Throttle Cable	

Using two (2) sockets/wrenches, fasten the throttle handle assembly to the push bar with one (1) M6 X 55 mm hex bolt, one (1) M6 X 50 mm hex bolt, six (6) M6 flat washers, and two (2) M6 lock nuts.

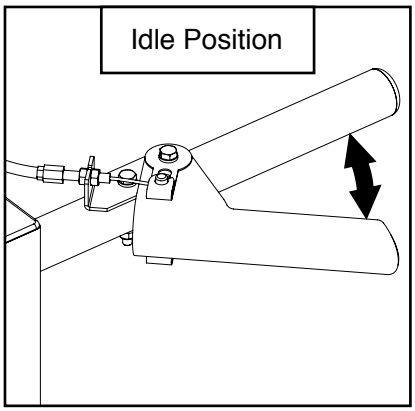


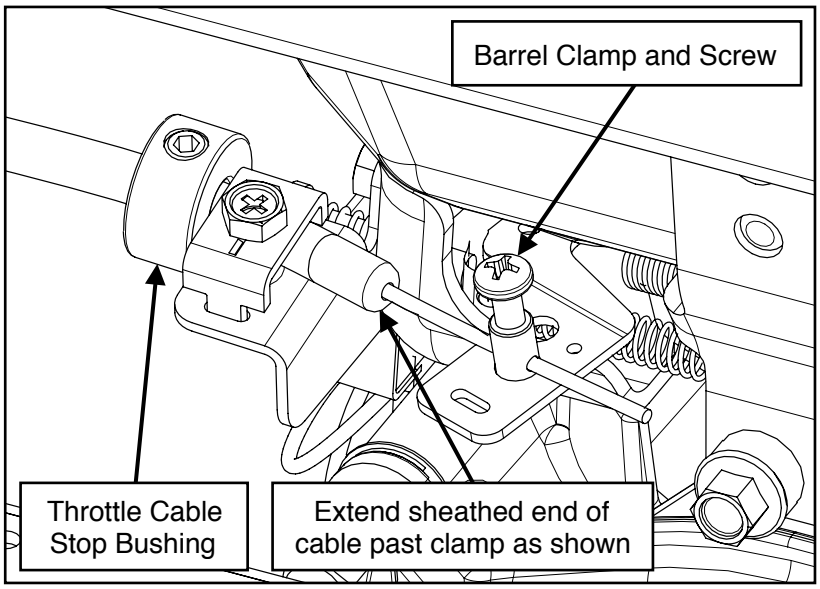


Route the throttle cable around the front of the right post and behind the lift cable hook as shown below.



With the throttle lever in the idle position (fully open), slide the *throttle cable stop bushing* over the end of the cable sheath and pull the cable tight at the engine. The sheathed end of the cable should extend past the clamp on the engine. Next, pass the unsheathed end of the cable through the hole in the barrel clamp and tighten the M4 Phillips pan head screw to secure it in place. This will take the slack out of the cable. Finally, tighten the set screw in the throttle cable stop bushing using a 3 mm hex key.



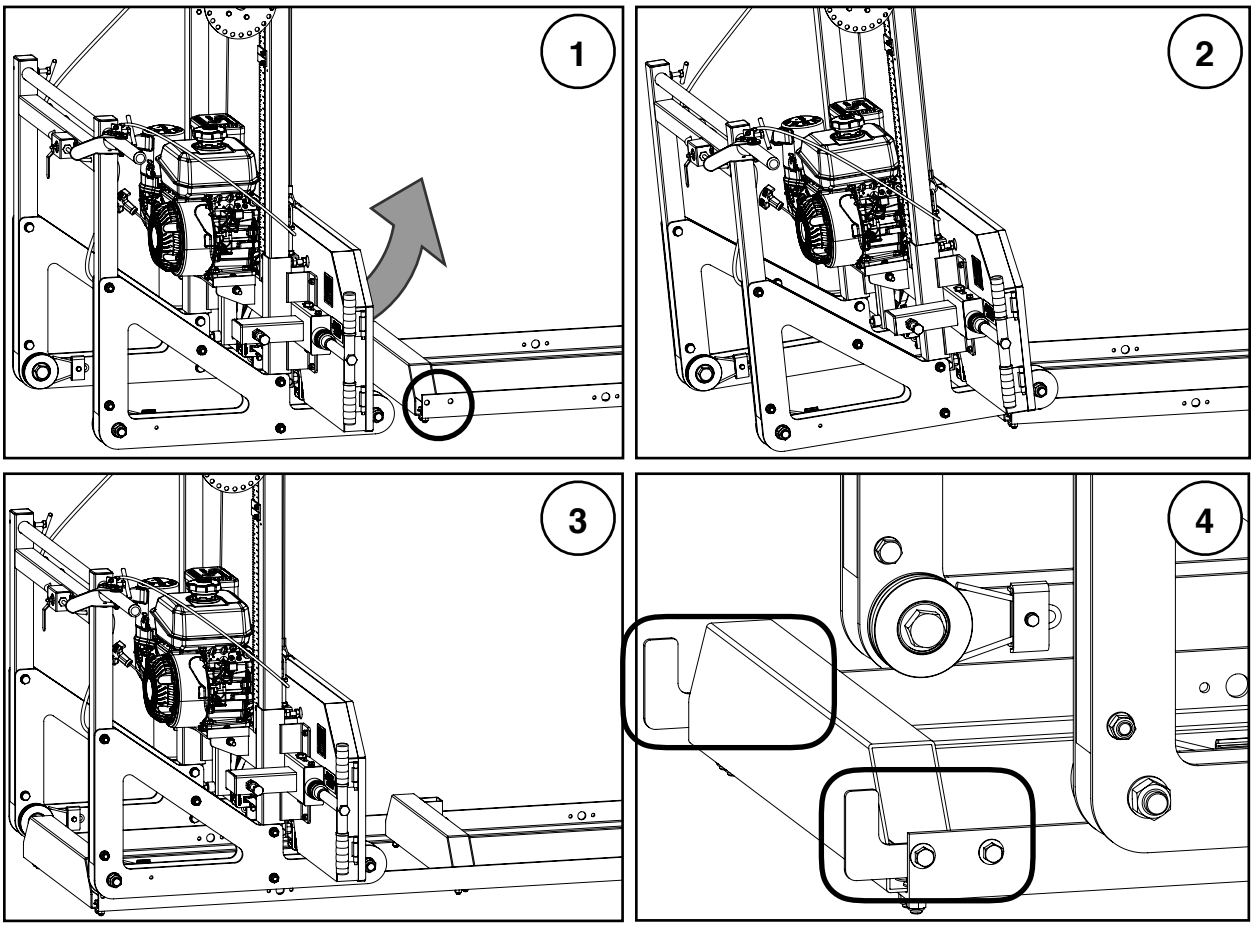


6. PLACING THE SAW HEAD ON THE TRACK

LIFTING THE SAW HEAD ASSEMBLY

At least two people are required for this step. Start by removing the two (2) carriage stops from one end of the track. The head can be walked over to the track until positioned behind it (Figure 1). Once in this position, tilt the head backwards so that the front two wheels are off the ground. Walk the head forward while the grooves in the two front carriage wheels ride along the track rails (Figure 2). Next, using at least two people, lift up the back end of the sawmill head and walk it forward until both rear carriage wheels are seated on the track (Figure 3).

Finally, reattach the two (2) carriage stops to the inner faces of the track rails (Figure 4).

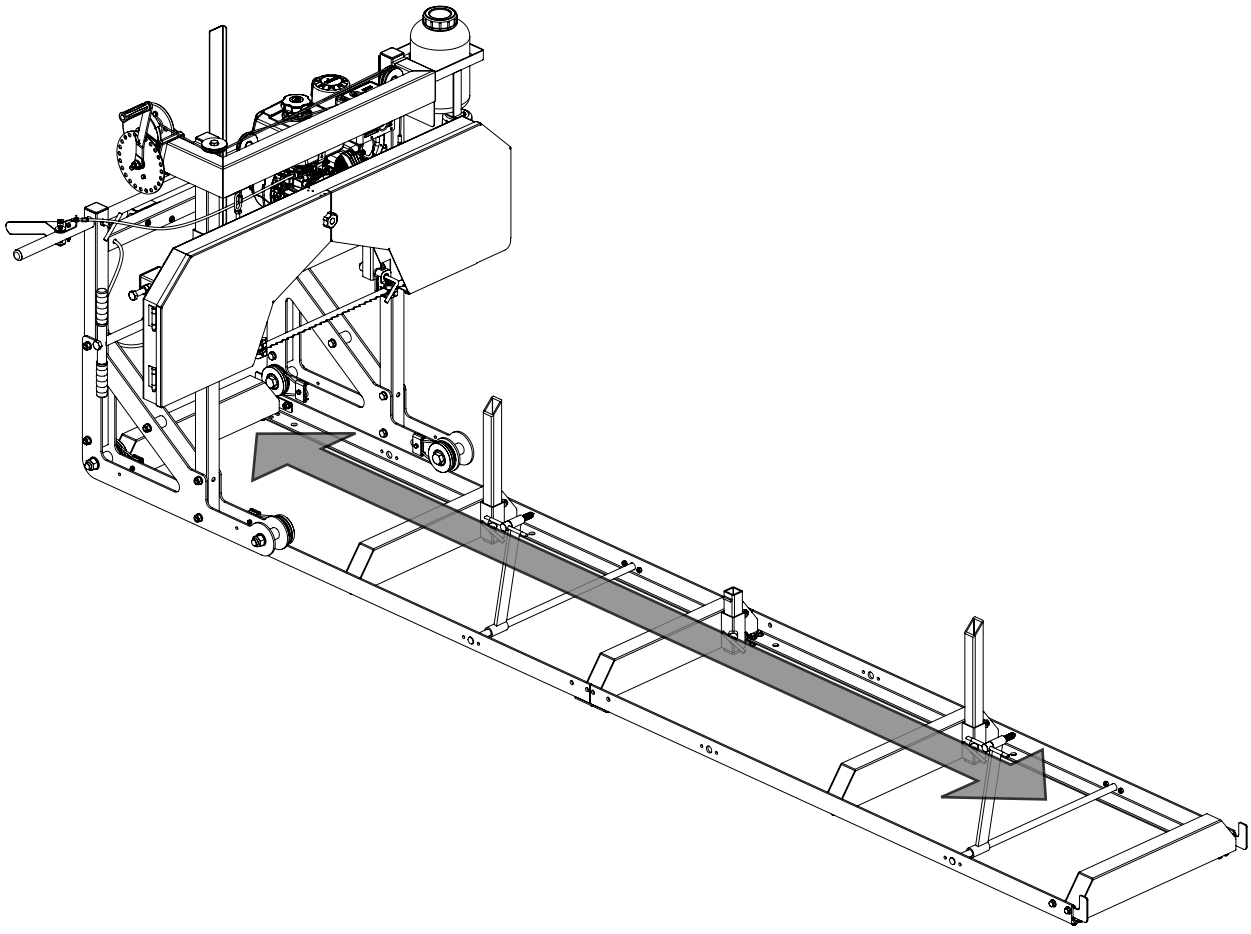


With the sawmill head assembly now resting on the track, grab hold of the one side of the cross beam and perform a shake-down of the head. Shaking the head will help settle the components into their proper position that may have become misaligned either due to tolerances during the assembly process or when the saw head was set on the track.

Afterwards, tighten all of the saw head bolts, namely the H-frame and cross beam hardware.

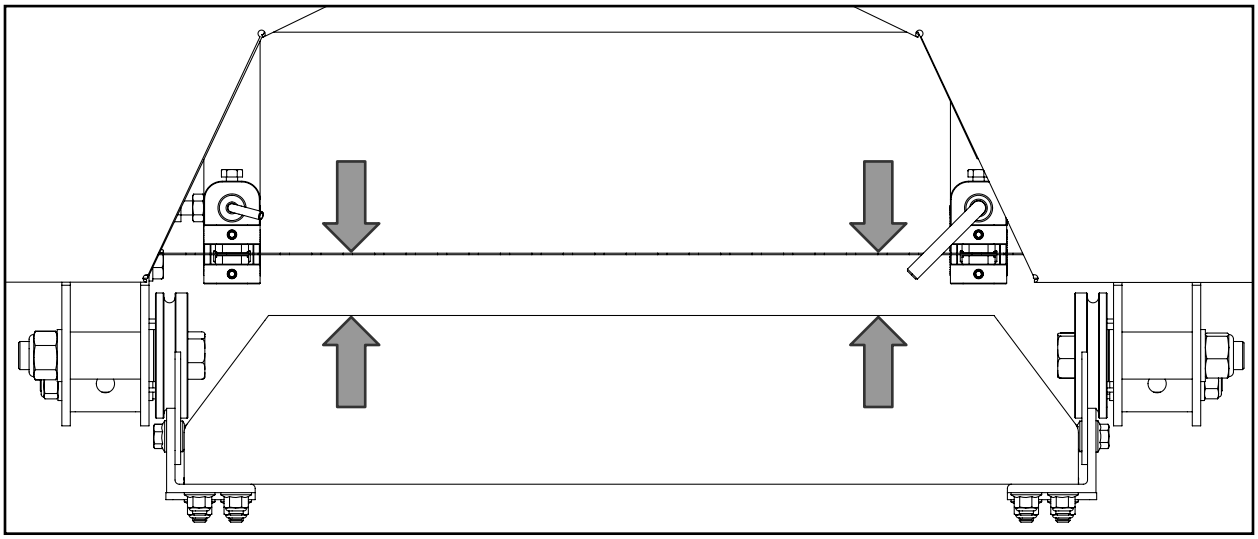
ROLLING THE SAWMILL HEAD ASSEMBLY

Roll the sawmill head assembly along the full length of the track to ensure it moves freely. If it binds or is difficult to push it is likely the track is not square, straight, and/or level. Make the necessary adjustments to the track and roll the head assembly again. Repeat the track adjustments until the head rolls freely.



LEVELLING THE SAWMILL HEAD ASSEMBLY

Using a tape measure, measure the distance from the blade to the top of the log bunk on both the left and right side. The distance must be equal. If the measurements are not equal, adjust the lift cable hook end to either raise or lower the right side until it matches the left.

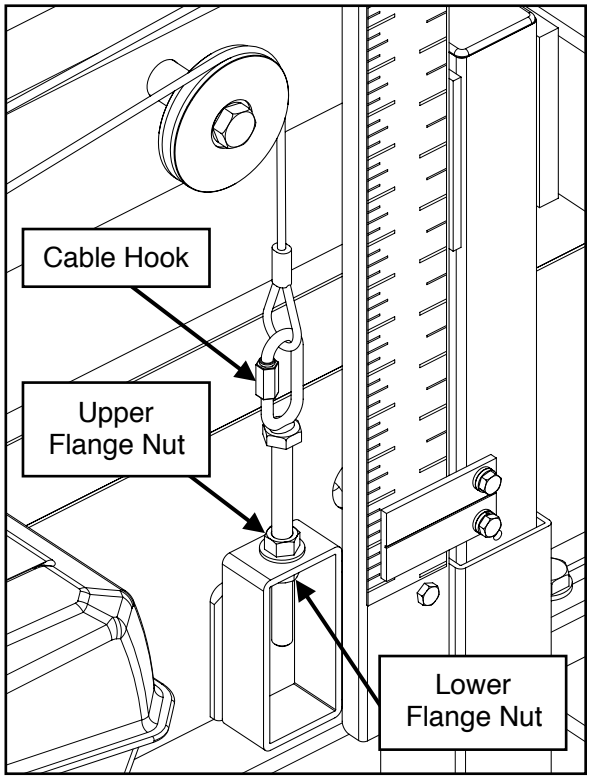


To raise the right side of the sawmill head, loosen the upper M10 flange nut with a wrench, turning it *counter-clockwise*, and spin it by hand several times until it is clear of the bracket. Then use the wrench on the lower flange nut and turn it *clockwise* to raise the saw head.

Double-check the blade-to-bunk height periodically as discussed in the previous step to ensure the saw head isn't raised too much.

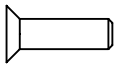
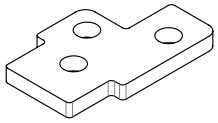
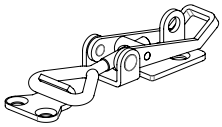
To lower the right side of the sawmill head, loosen the upper M10 flange nut with a wrench, turning it *counter-clockwise*, and spin it by hand several times until it is clear of the bracket. Then use the wrench on the lower flange nut and turn it *counter-clockwise* to lower the saw head.

Once the measurements are equal between the blade and bunk on both sides, tighten the upper flange nut to clamp the cable hook securely to the bracket.

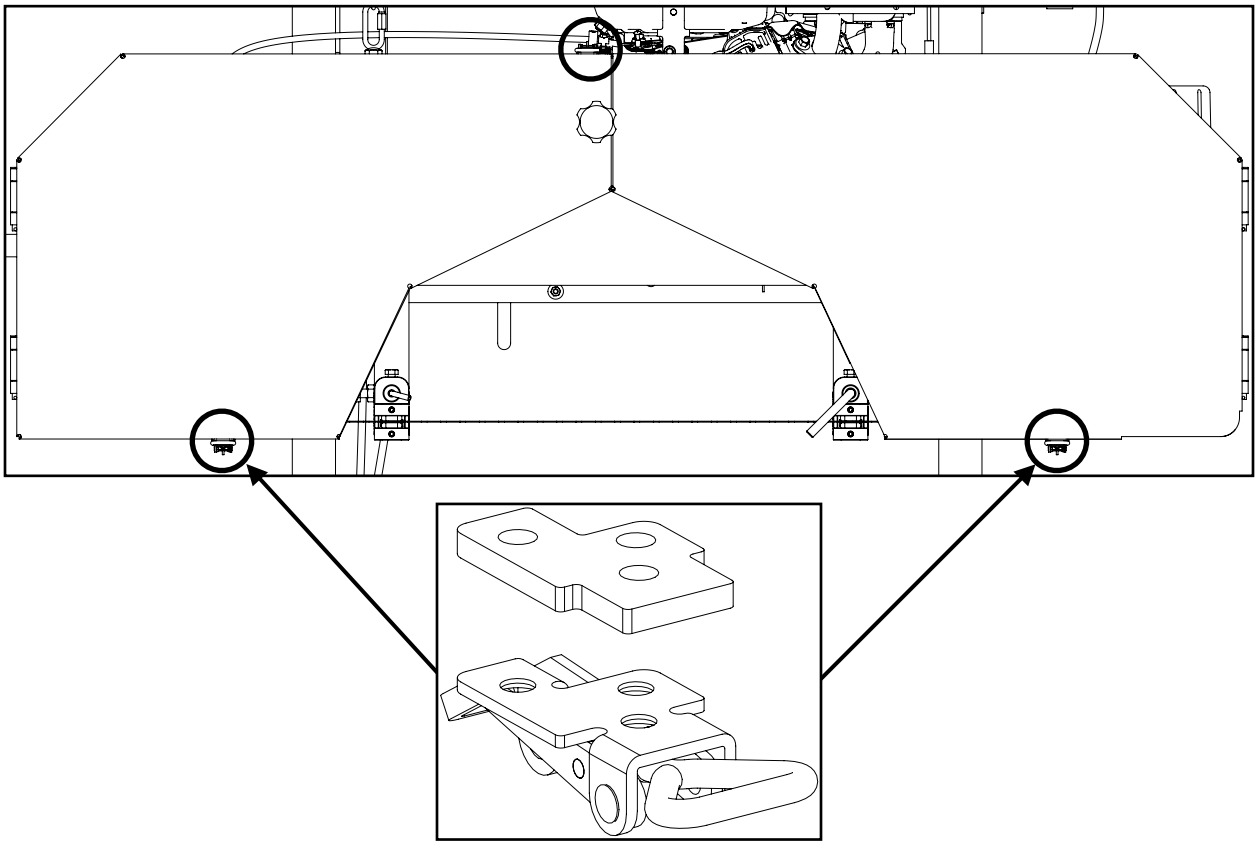


BAND WHEEL DOOR LATCHES

Using the hardware listed below, assemble the three (3) band wheel door latches.

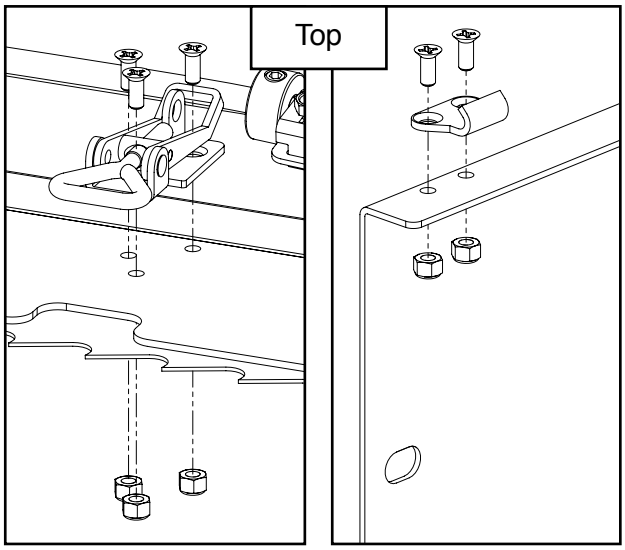
6x	M4 X 14 mm Phillips Flat Head Screw		2x	Latch Spacer	
9x	M4 X 10 mm Phillips Flat Head Screw		3x	Latch	
15x	M4 Lock Nut				

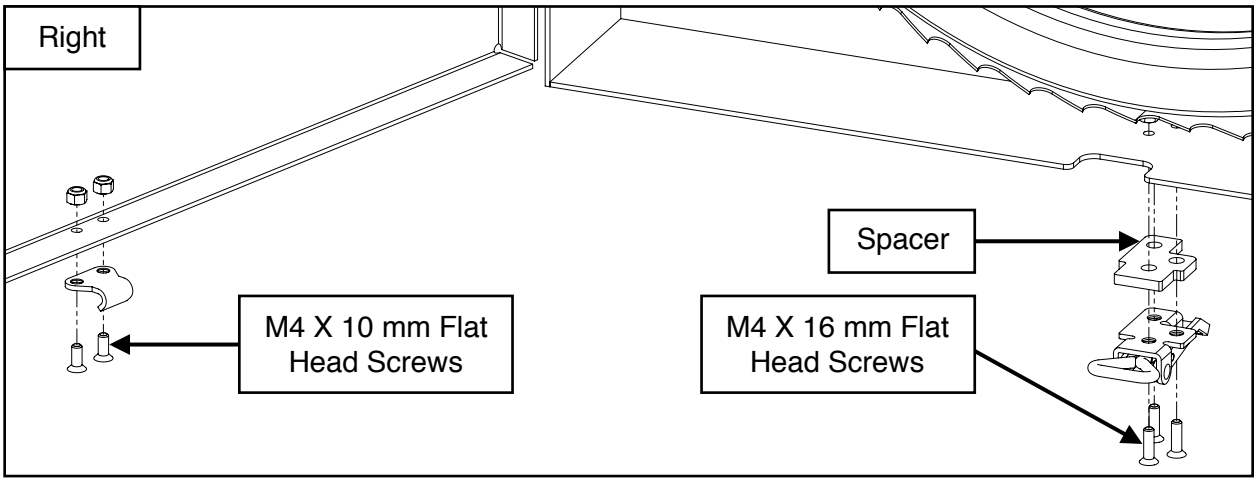
One (1) latch is installed at the centre of the top of the band wheel housing and the remaining two (2) along the bottom. The two bottom latches are installed with a spacer as shown below.

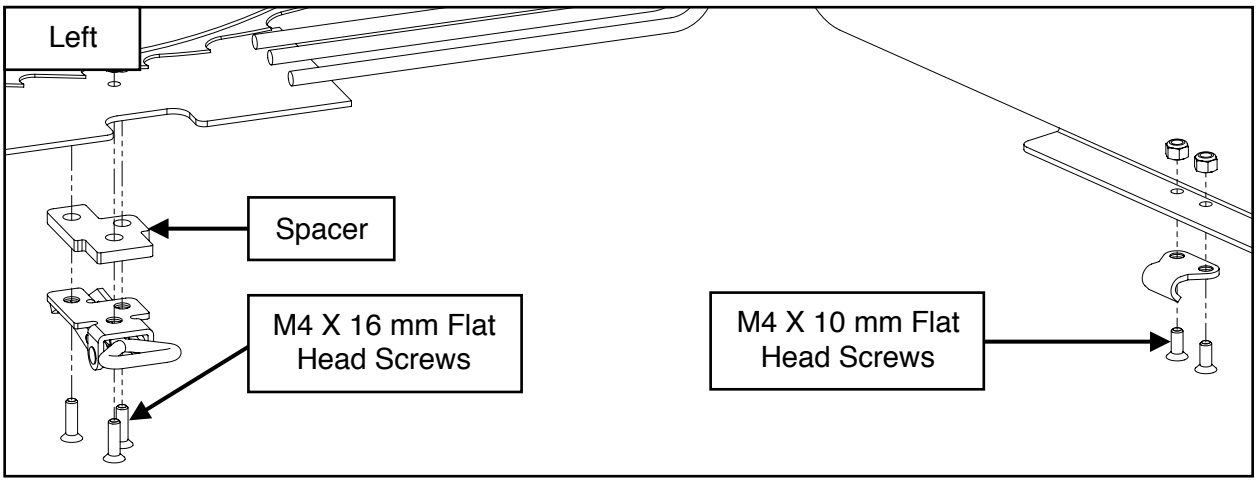


Using a Phillips head screwdriver and a socket/wrench, assemble the upper latch to the band wheel housing and the catch to the top flange of the ride-side band wheel door. Use five (5) M4 X 10 mm Phillips flat head screws and M4 lock nuts for both parts.

When assembling the bottom latches, use a spacer between each latch and the band wheel housing, and six (6) M4 X 14 mm Phillips flat head screws with M4 lock nuts. Install a catch to the bottom flange of each band wheel housing door with four (4) M4 X 10 mm Phillips flat head screws and M4 lock nuts.

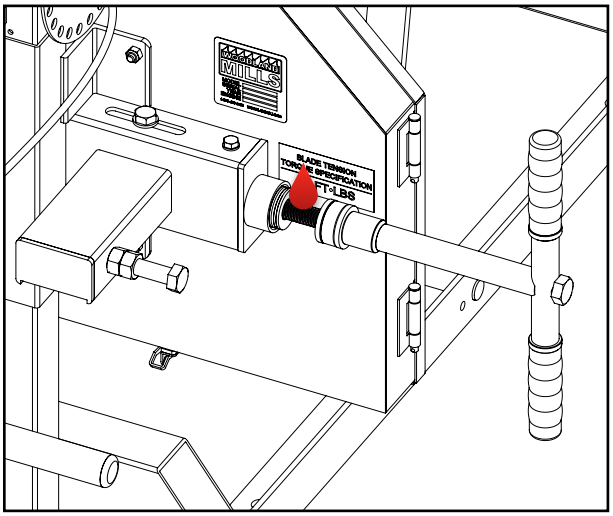


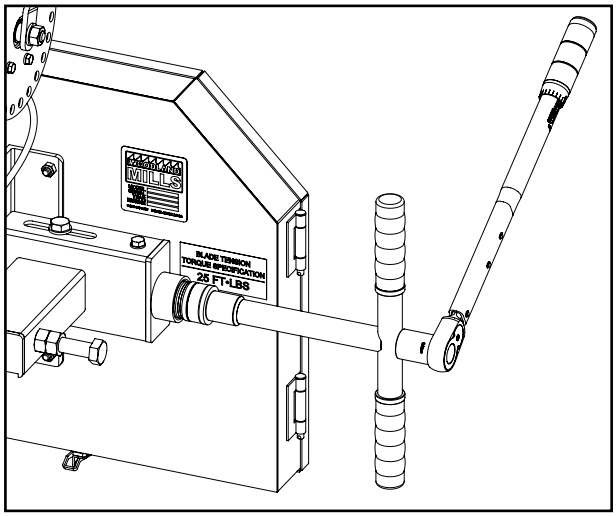




GREASING THREADS

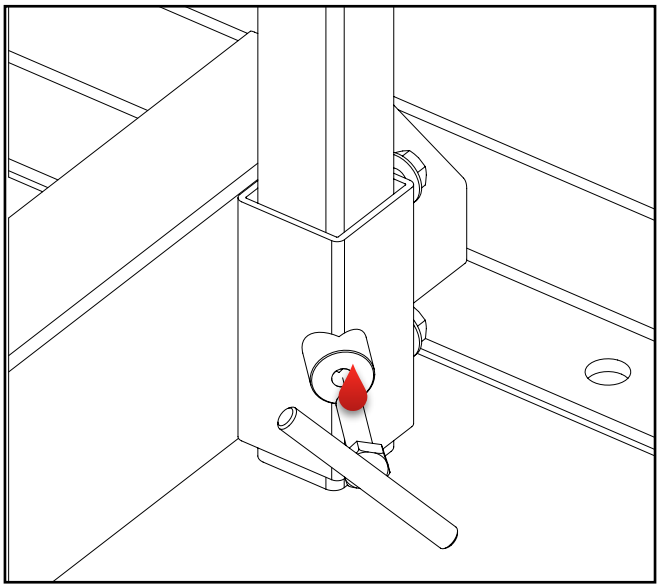
Add waterproof grease to the threads of the blade tension handle and to the mating washer face prior to use. Proper blade tension is achieved using a toque wrench with a 24 mm socket and torquing the tension handle to 25 ft•lb (34 N•m). See below right.





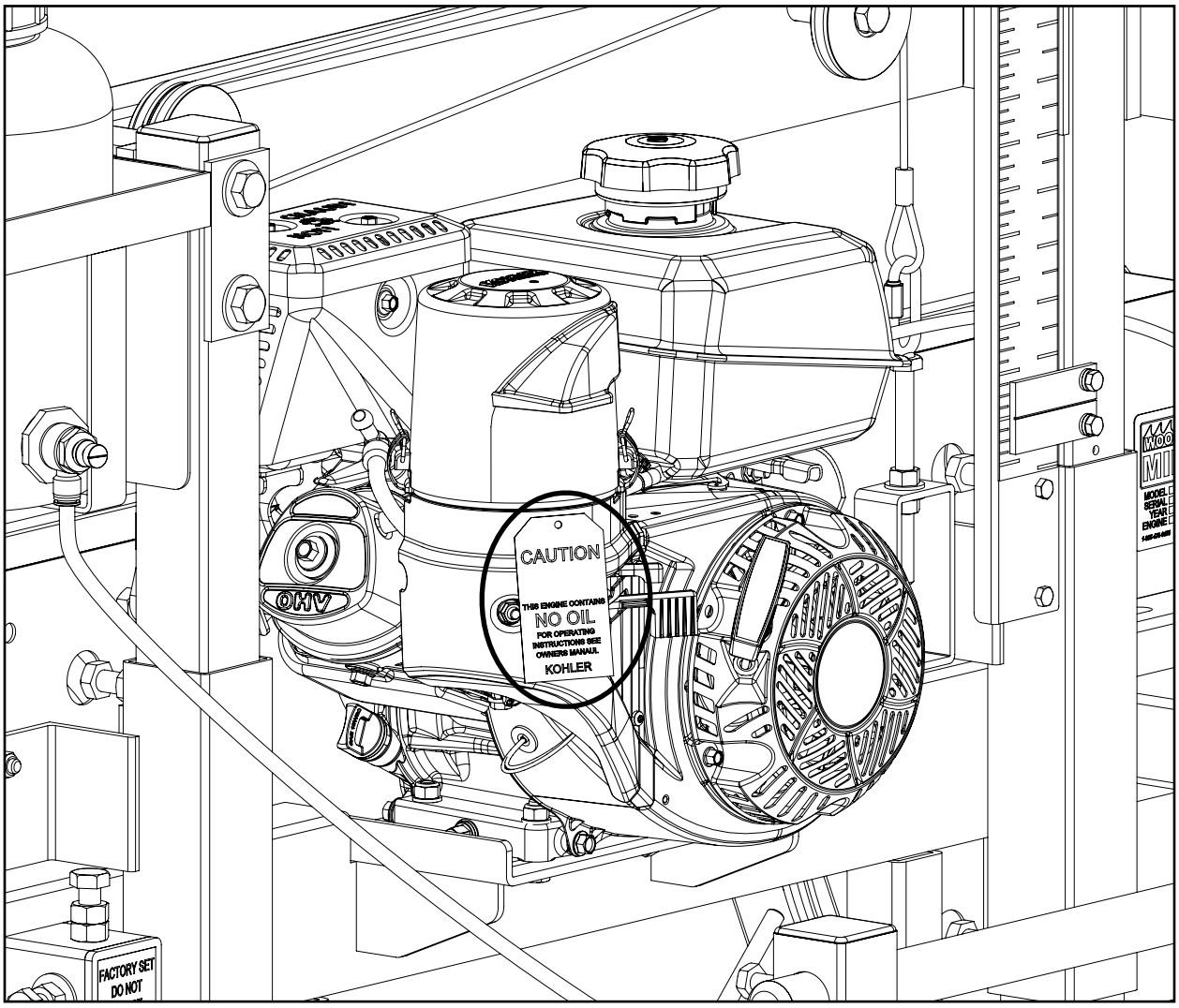
****Note: It is very important to remove the blade tension by turning the tension handle in the counter-clockwise direction when the sawmill is not in use. Failure to do so will result in flat spots on the drive and follower belts. These flat spots will cause the mill to vibrate excessively during subsequent use.****

Add grease to all three T-handle threads on the sawmill track as shown below.



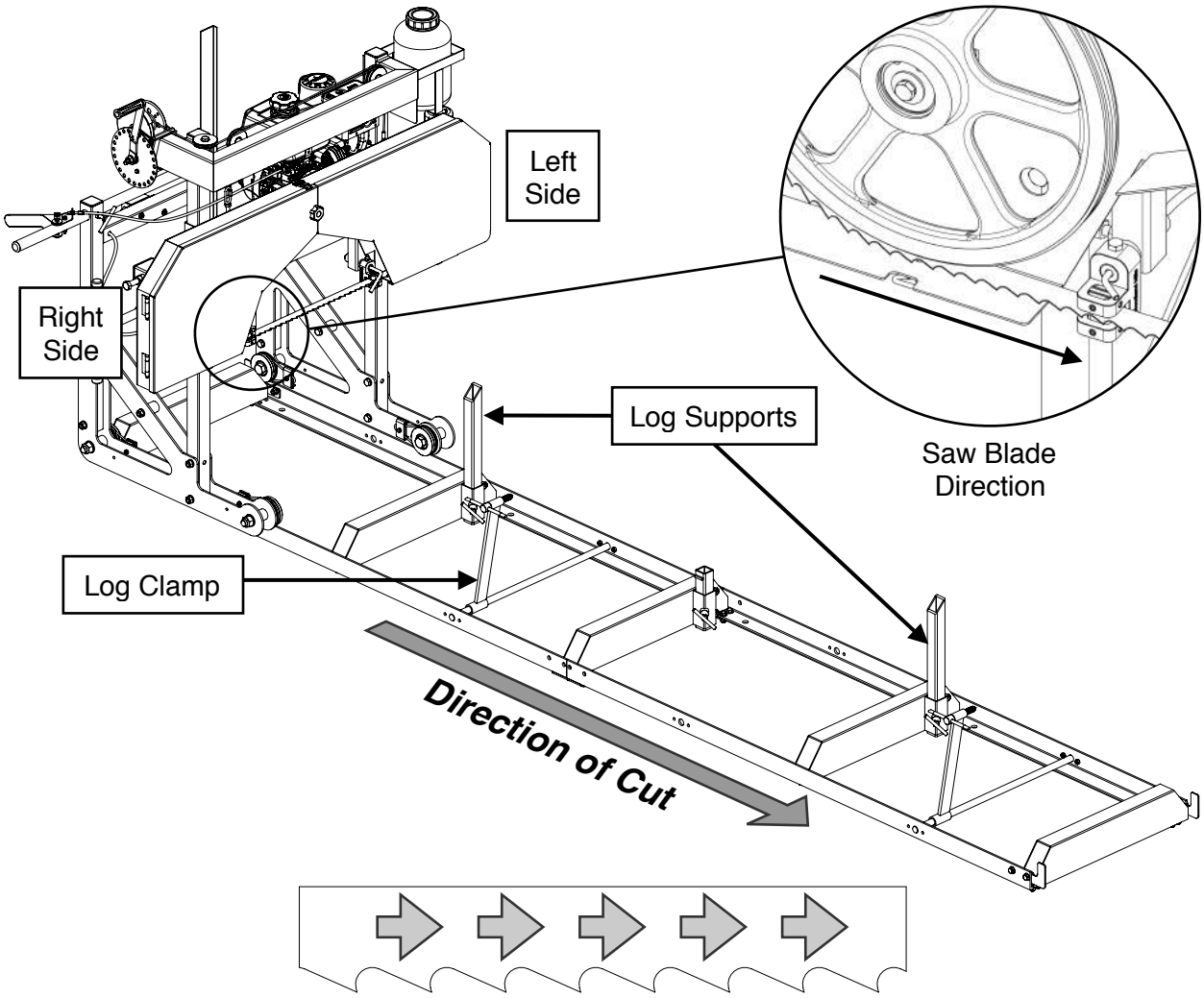
ENGINE OIL

Refer to the engine manual before using your sawmill. Please note that the engine does not contain any gasoline or 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.



DIRECTION OF CUT

Always cut in the direction shown below. The log clamps are located to the right side of the log and the log supports on the left. Failure to cut in this direction can cause the log to come loose and possibly cause damage or injury.



Saw Blade Teeth Orientation

Always ensure the saw blade teeth are orientated such that they are cutting *into* the wood and not being dragged backwards across it. Some blade manufacturers ship their saw blades inside out (backwards) due to manufacturing processes and they must be flipped prior to installation.

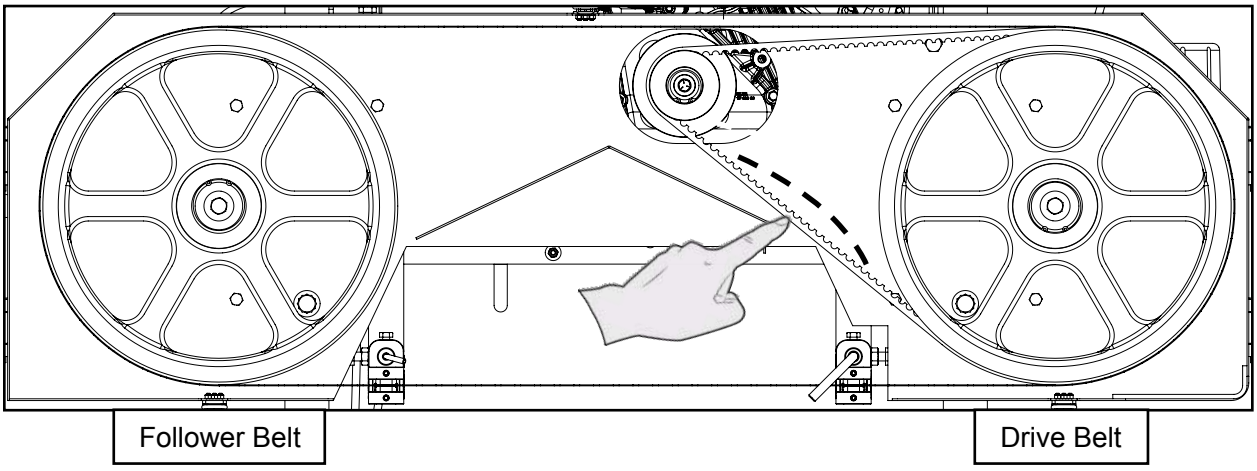
****Please follow the instructions in the *SAWMILL SET-UP PROCEDURES* section. Failure to do so may result in poor sawing performance, damage or injury.****

SAWMILL SET-UP PROCEDURES

BELT TENSION

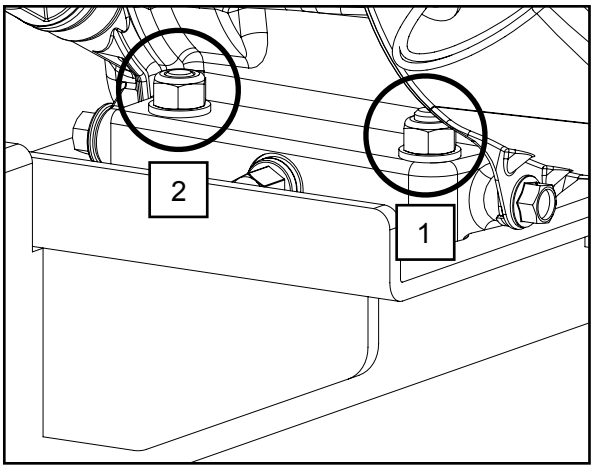
Follower Belt: Polyurethane belt that seats tightly in the V-groove around the right-side band wheel. No adjustment is required for this belt.

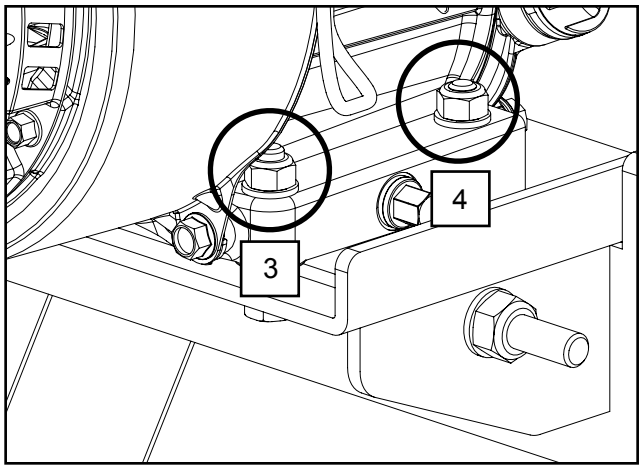
Drive Belt: BX64 fibre-impregnated cogged V-belt that runs between the left-side band wheel and clutch housing pulley on the engine. To check the belt tension using your hand, firmly try to deflect the belt up and down. There should be no more than ¼" (6 mm) of deflection. If the belt deflection exceeds this amount, it will need to be tightened as described below.



****Never attempt to adjust the belt tension with the engine running. As a safety precaution, remove the spark plug cap.****

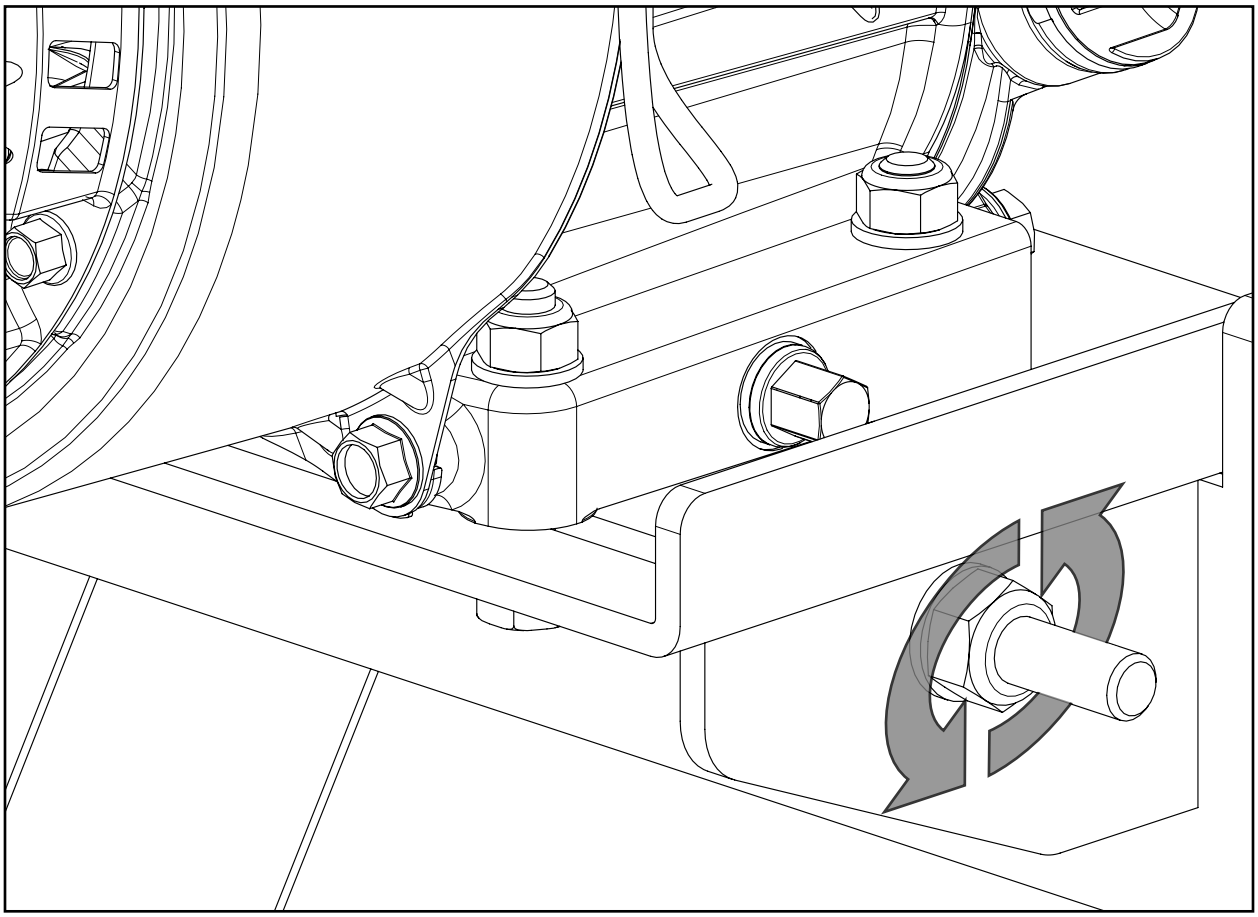
To tighten the drive belt, start by loosening the four (4) bolts that secure the engine to its mount.





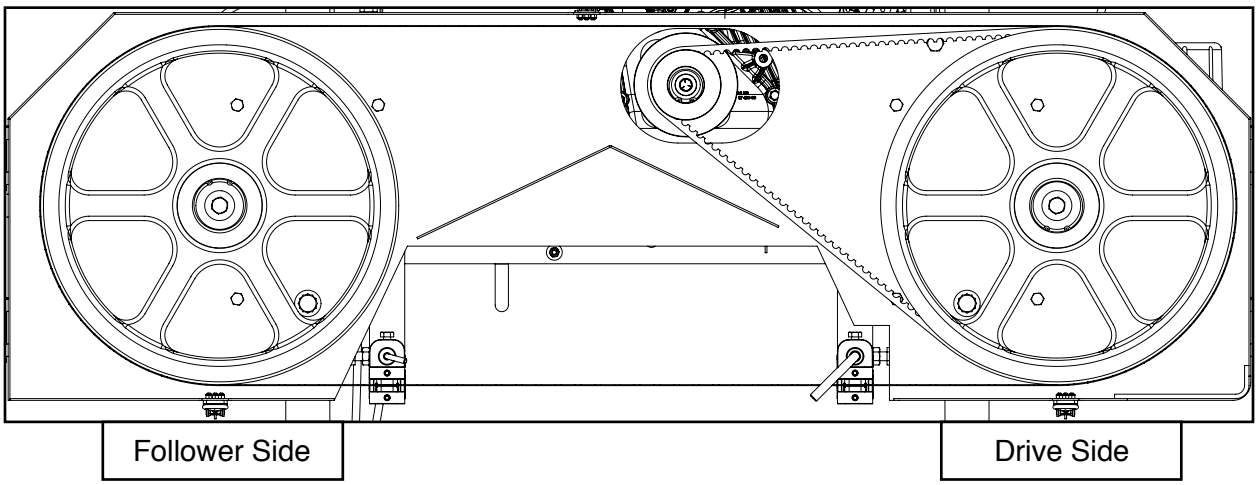
With the engine free to slide on the mounting plate, turn the nut on the horizontal stud in the clockwise direction. This will pull the engine towards the stud and apply more tension on the belt. Do this step incrementally while checking the belt for proper deflection. It is also important to ensure 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 (4) engine bolts.

Alternatively, if the drive belt is too tight, the nut on the horizontal stud can be turned counter-clockwise as shown below.

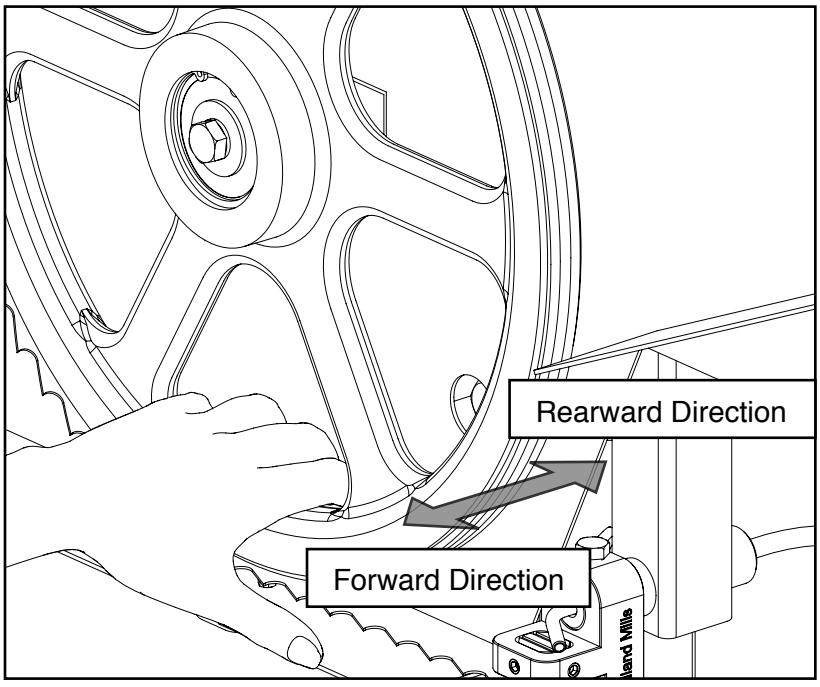


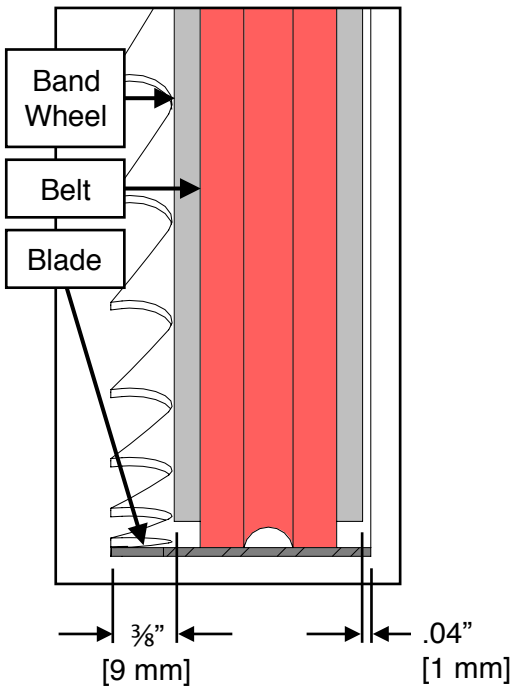
BLADE TRACKING

Never attempt to adjust the blade tracking with the engine running. As a safety precaution, remove the spark plug cap. Gloves and safety glasses should be worn when working with the blade as it is extremely sharp.



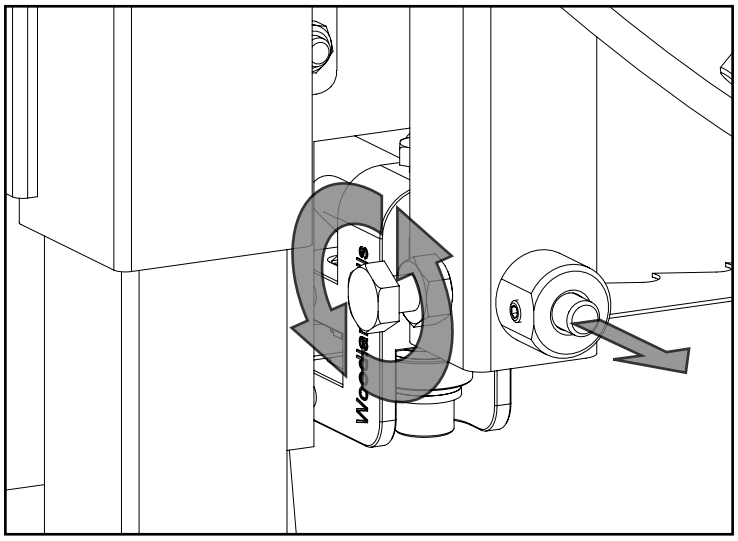
The blade should run with the same tooth-to-front band wheel face distance on both the drive and follower sides: ~⅜" (9 mm) ideally. The back of the blade will be just proud (~.04" / 1 mm) of the rear face of the band wheel at this distance and is a quicker check than using a tape measure. If an adjustment on either side is required, the steps below detail the procedure.



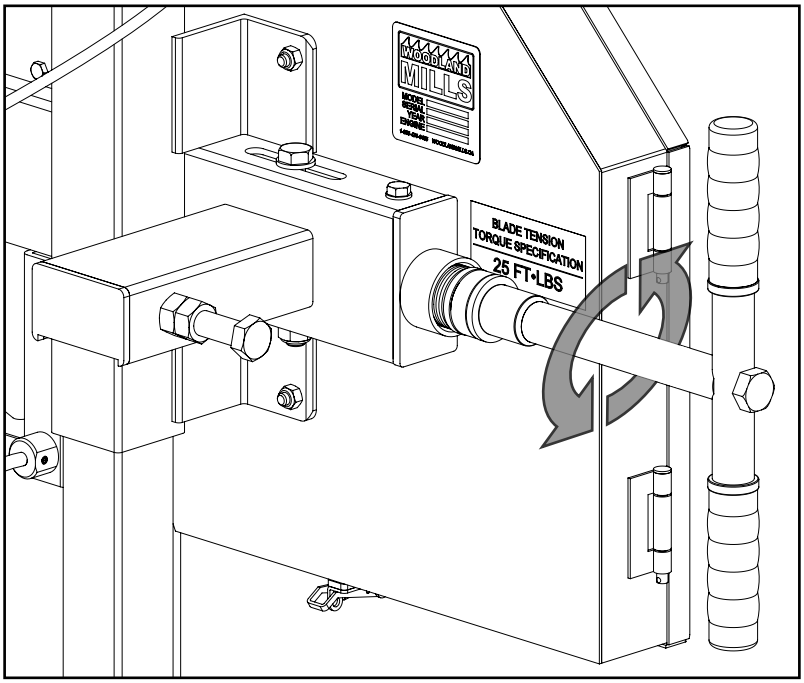


REDUCING BLADE TENSION

Loosen the blade guide holder assembly bolt using a socket/wrench. The round shaft should now be free to slide rearward and out of the way. Perform this step on both blade guide assemblies. This ensures the guide bearings will not influence the tracking of the blade whilst being adjusted.

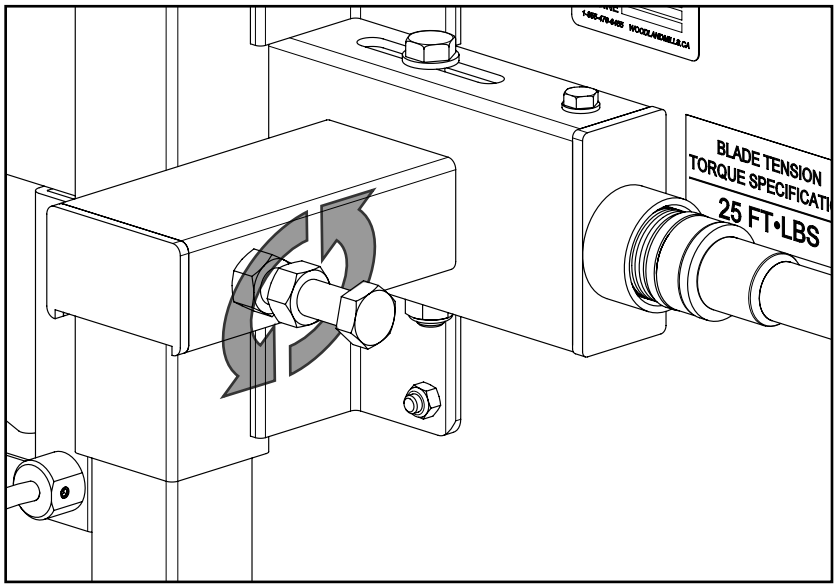


Take some tension off the blade by turning the tension handle in the counter-clockwise direction one full turn from its fully-tensioned position.

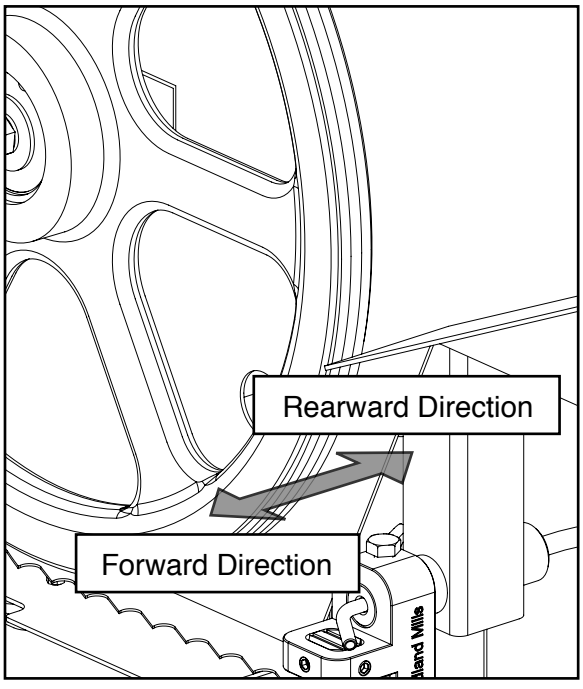


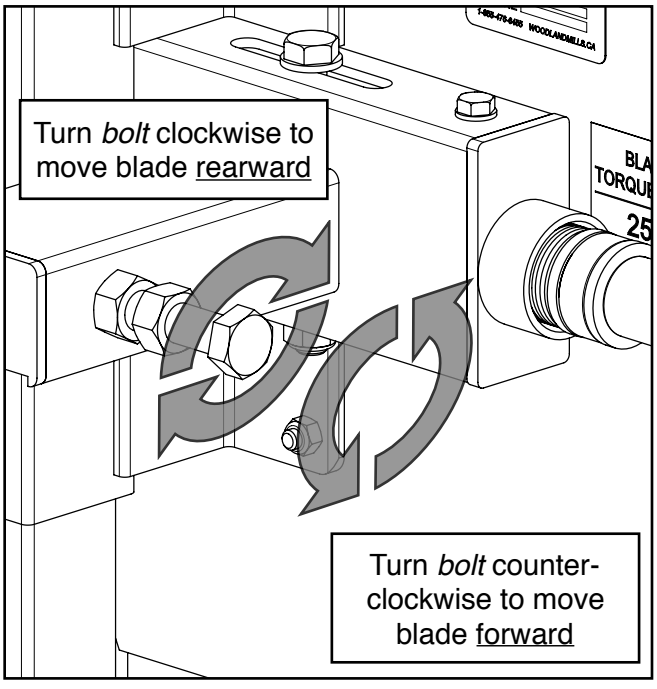
ADJUSTING THE FOLLOWER SIDE (RIGHT SIDE)

Loosen the tracking alignment locking *nut* with a 24 mm wrench or an adjustable wrench.

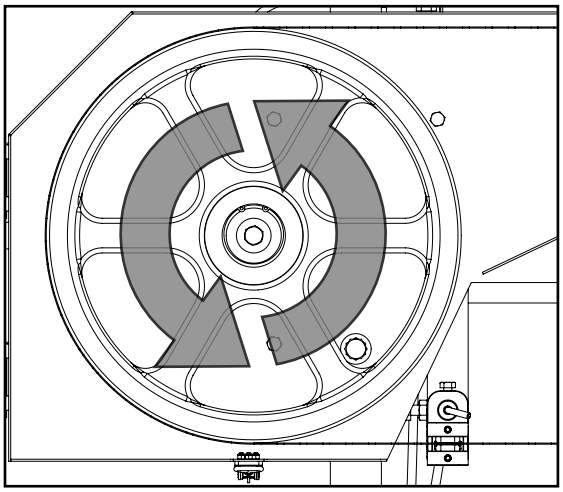


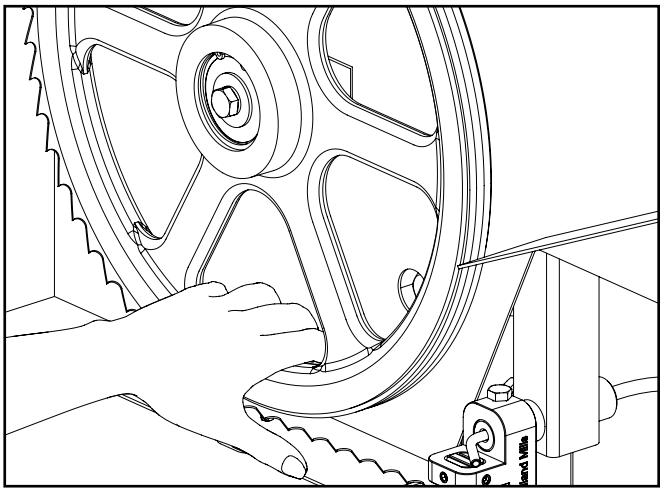
The alignment *bolt* can now be turned to change the angle of the band wheel and track the blade. To move the blade more rearward on the band wheel, turn the bolt clockwise. Alternatively, turning the bolt counter-clockwise will force the blade to run more forward on the band wheel. Turn the bolt ½ turn and re-tension the blade.



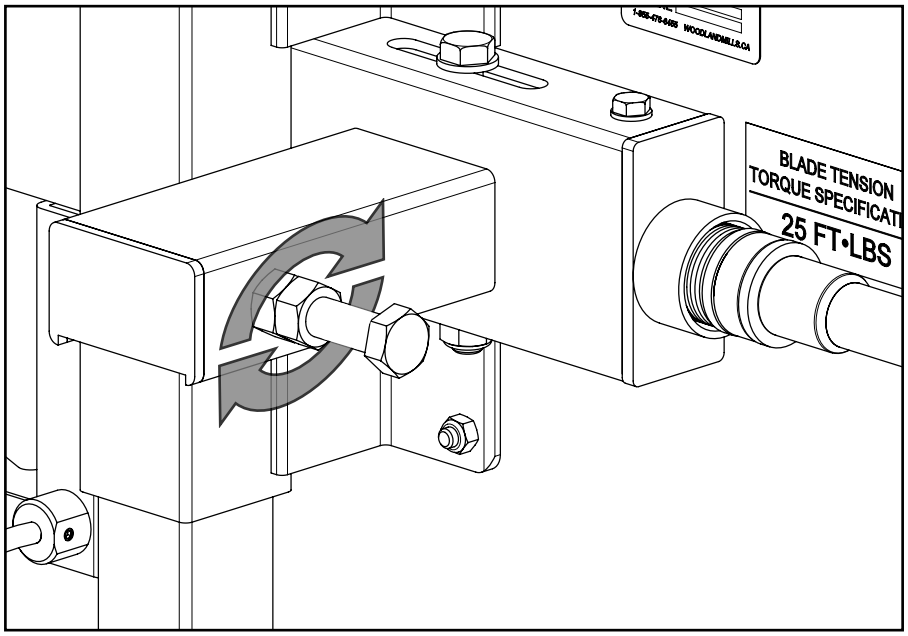


Tighten the blade tension back to 25 ft•lb (34 N•m). While wearing gloves, spin the band wheel with your hand and observe how the blade tracking has changed. Measure the distance again and repeat the above step to further compensate if required. The ideal measurement is ⅜" (9 mm) or check that the back of the blade is just proud of the back of the band wheel.





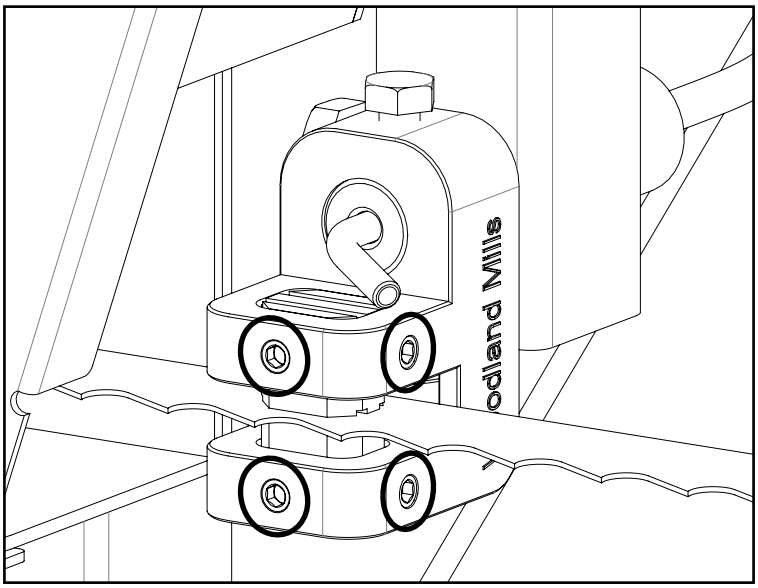
Once satisfied with the measurement, tighten the locking *nut* clockwise and readjust the blade guide holder assemblies as outlined in the ***next section***.



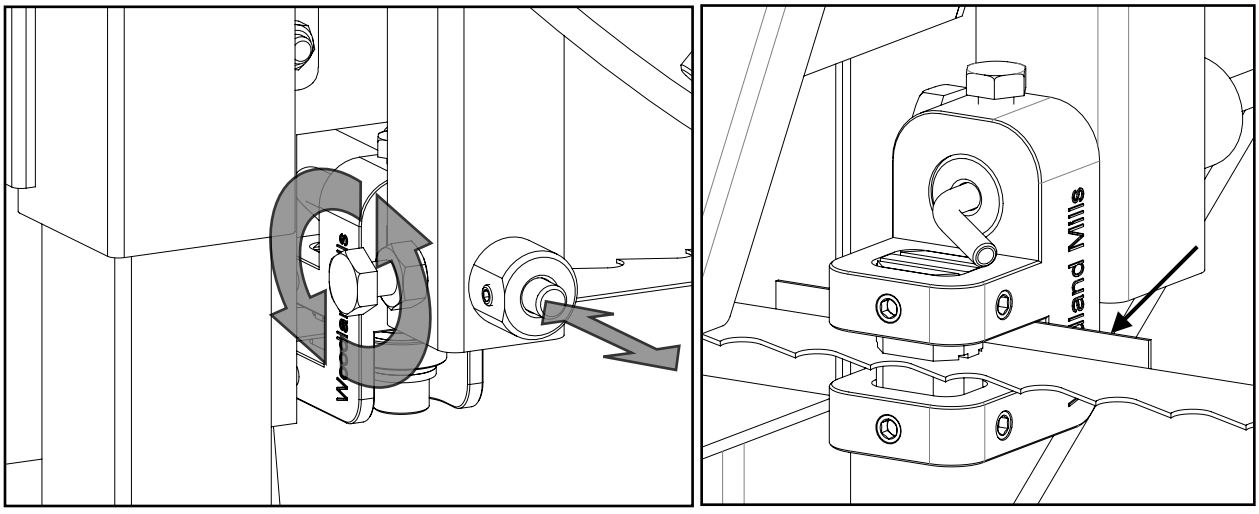
****Never attempt to adjust the *drive side* (left side) blade tracking without contacting Woodland Mills first. This is set from the factory and should not be adjusted.****

BLADE GUIDE ADJUSTMENT

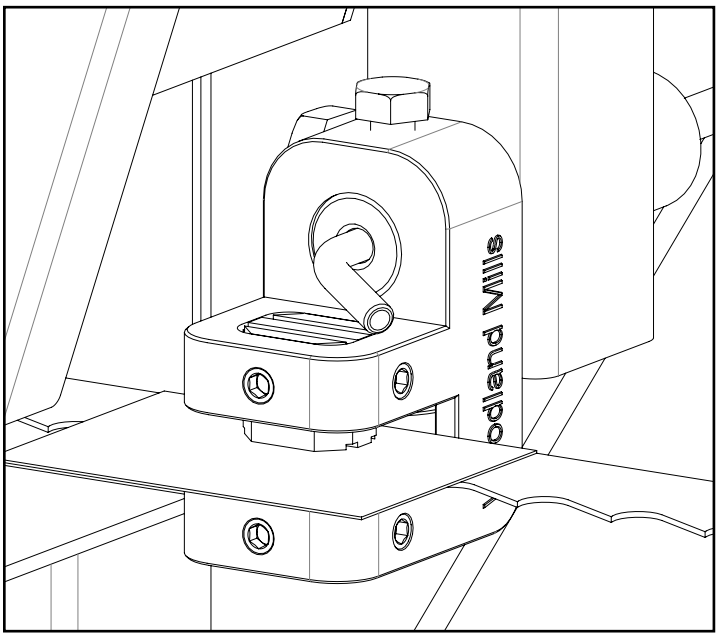
Never attempt to adjust the guide blocks or the guide bearing with the engine running. As a safety precaution, remove the spark plug cap. It is also advised to confirm that the blade is tracking properly before performing the steps below. Blade tracking is covered in the ***previous section***. Using a 4 mm hex key, loosen the blade guide blocks on both the left and right sides. They should be free to slide up and down.

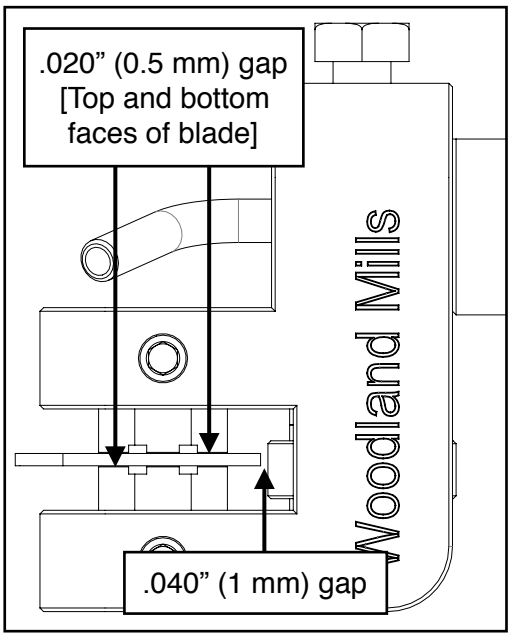


Loosen the blade guide assembly bolt using a socket/wrench. The round shaft should now be free to slide back and forth. Position it so that there is a thick paper-sized gap (.040" or 1 mm) between the bearing and the back of blade. Tighten the bolt against the flat on the shaft to secure the assembly back into position.



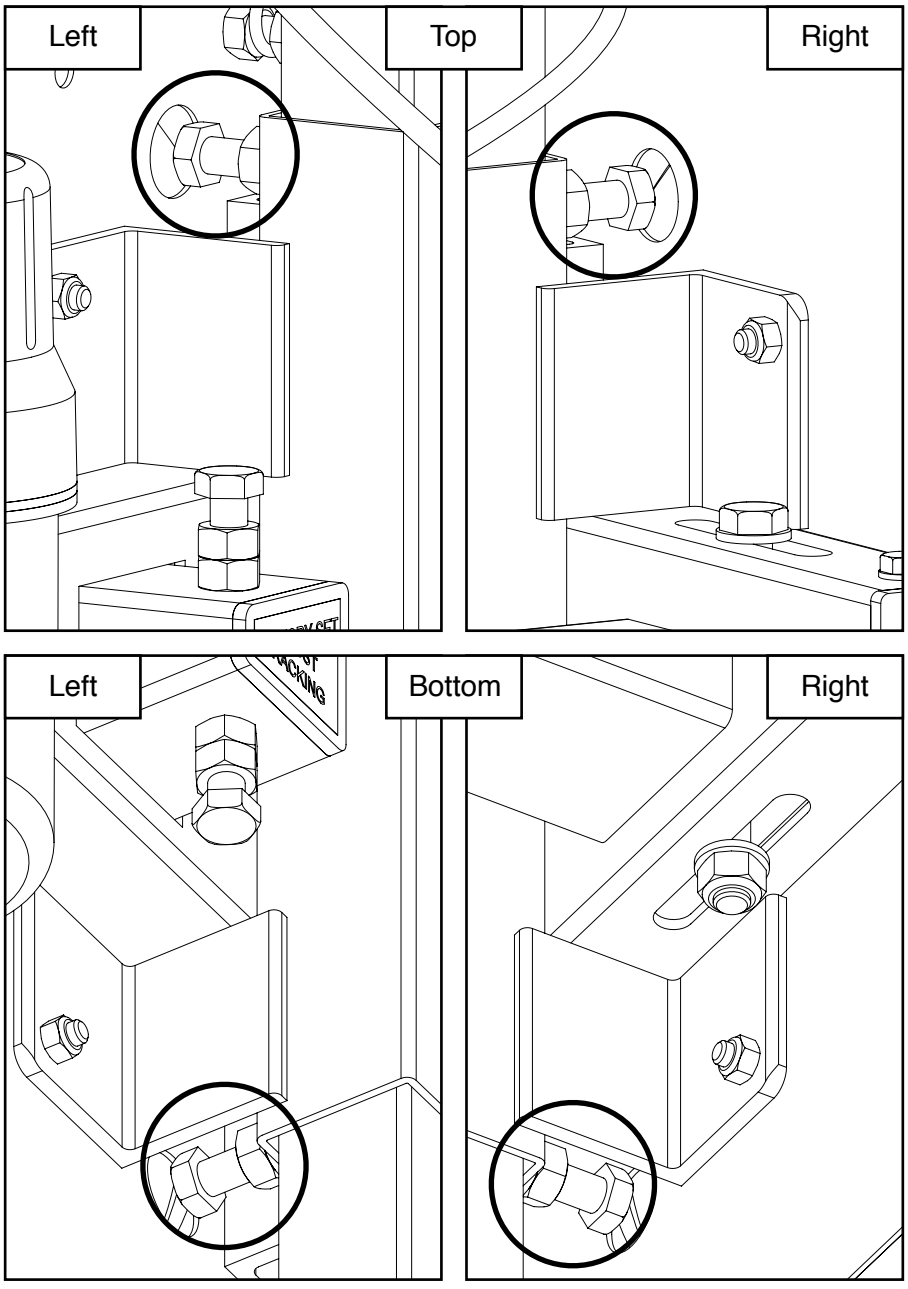
Using feeler gauges or thick pieces of paper (.020" / 0.5 mm), place them between the blade and both the upper & lower guide blocks, and then tighten the set screws.





FRONT POST ADJUSTMENT

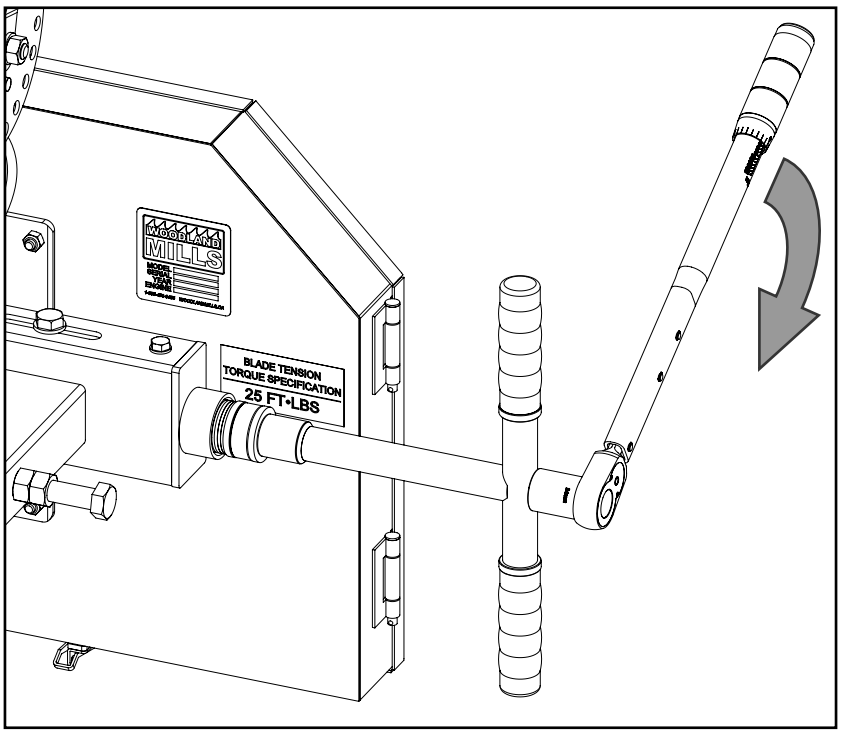
There are four (4) nylon bolts, two on each post sleeve—top & bottom—that control how loose or tight the saw head slides up-and-down the front posts. Snug the bolts to the posts only finger-tight so that the saw head does not struggle when making vertical height adjustments between cuts. Take care not to leave the bolts too loose or the saw head could vibrate excessively.



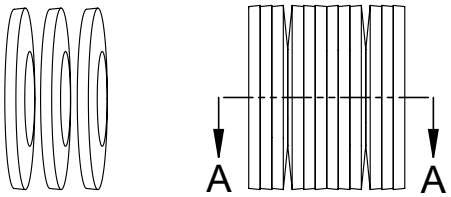
SAWMILL MAINTENANCE

BLADE TENSION

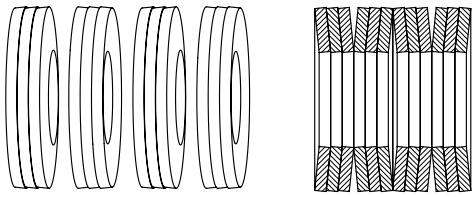
Proper blade tension is achieved using a torque wrench with a 24 mm socket to torque the tension handle to 25 ft•lb (34 N•m).



Ensure the belleville washers are oriented and installed as shown in the picture below.



3 Washers
Back-to-Back-to-Back

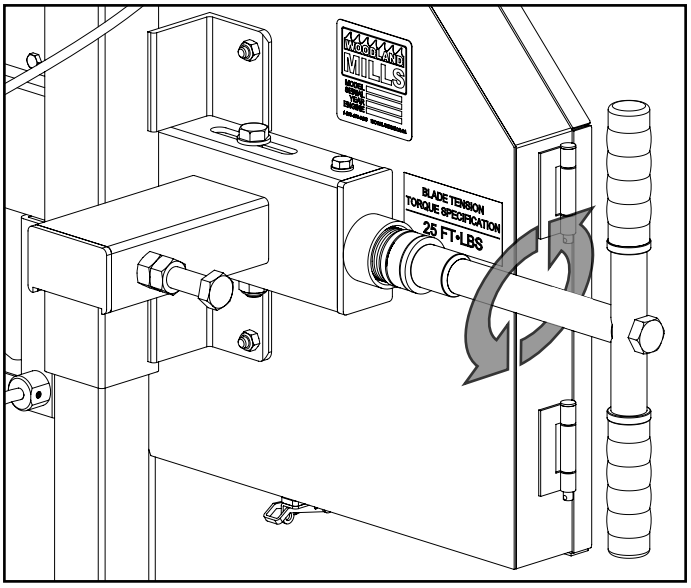


4 Sets of 3 Washers
Back-to-Front-to-Back-to-Front

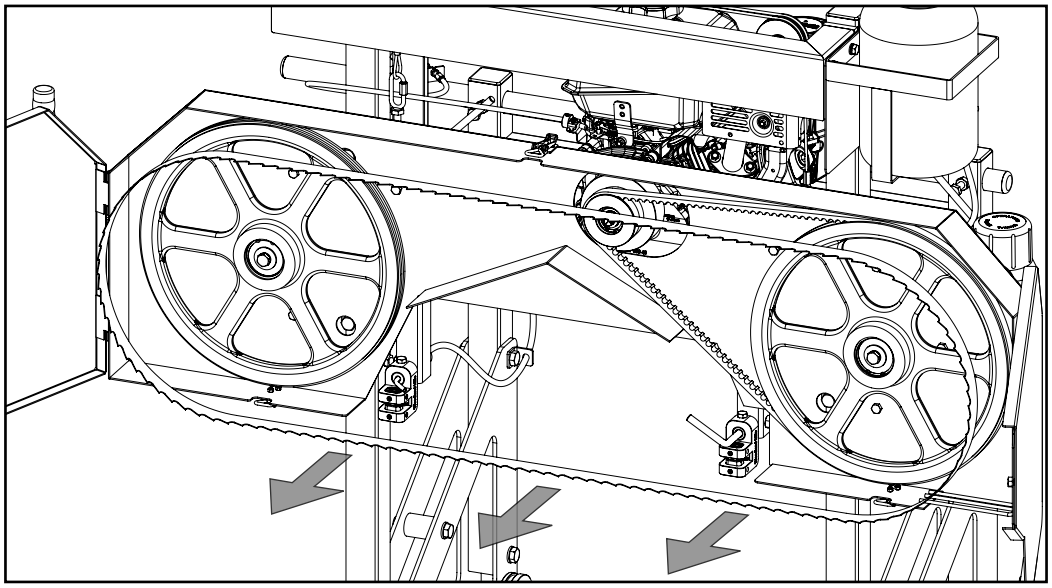
CHANGING THE BLADE

Never attempt to change the blade 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 blade tension by turning the tension handle counter-clockwise.

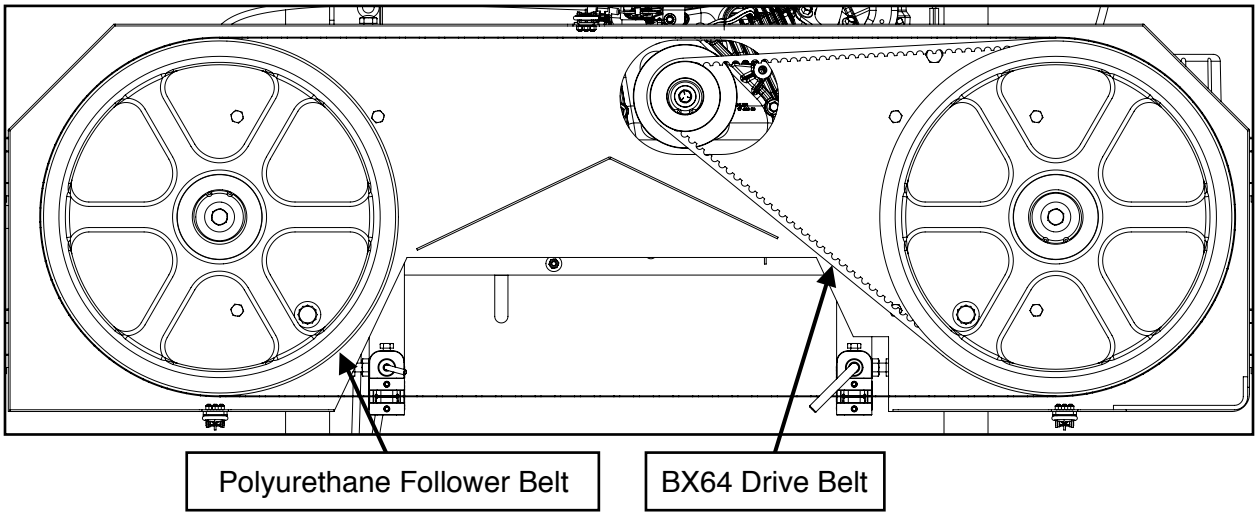


Open the band wheel housing doors. The blade should now be sufficiently loose and easily removable by pulling it straight out the front. Install the new blade, close the doors, and re-set the proper blade tension.

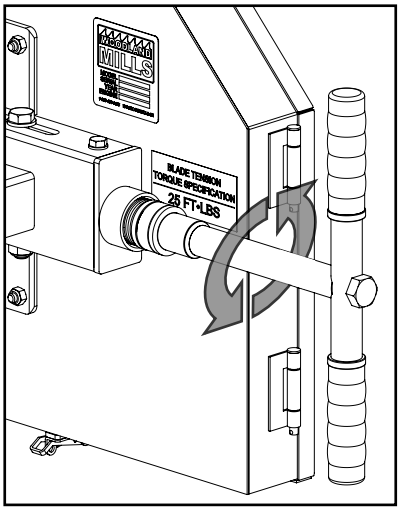


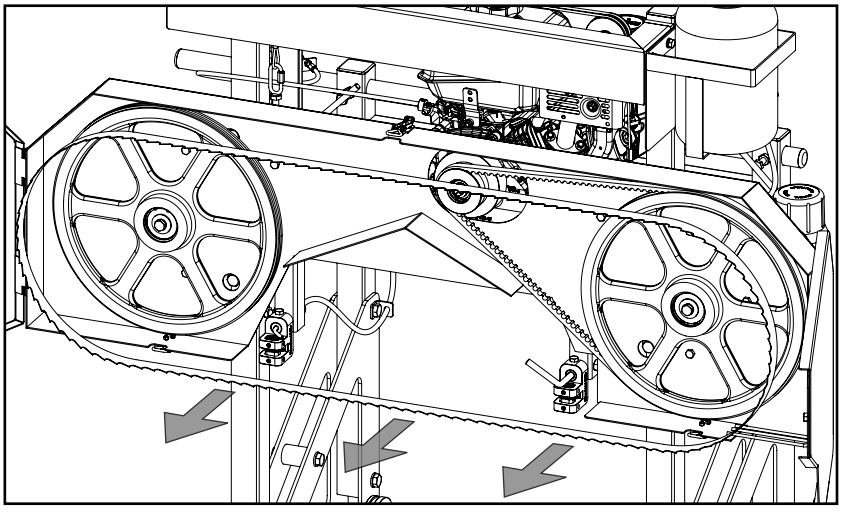
REPLACING BELTS

Never attempt to replace the belts 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 V-belts on the sawmill. It is recommended to to use a BX64 cogged belt for the drive side and a Woodland Mills polyurethane belt on the follower side.

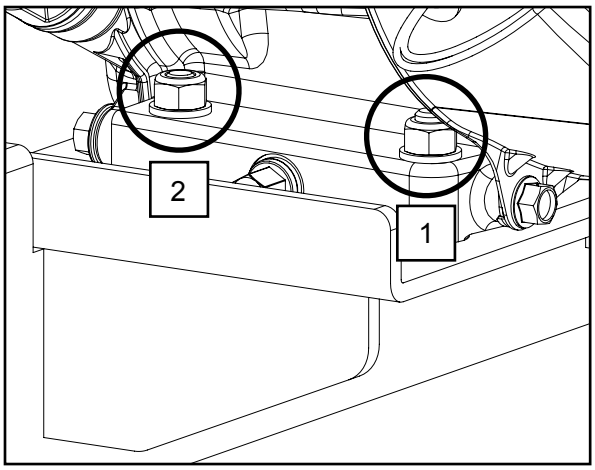


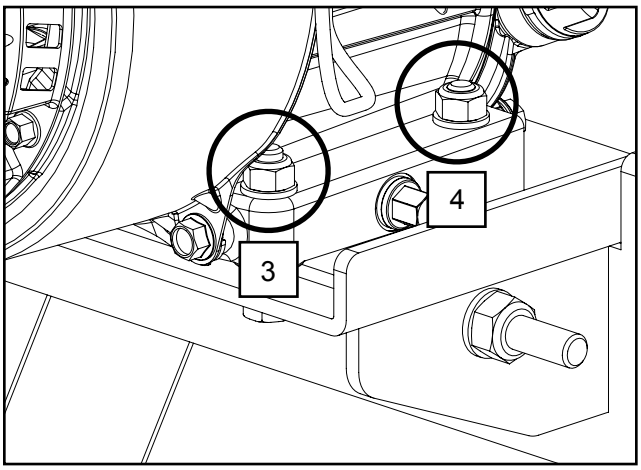
Remove the blade tension by turning the tension handle in the counter-clockwise direction and then open the band wheel housing doors. The blade should now be loose and free to pull straight out the front.



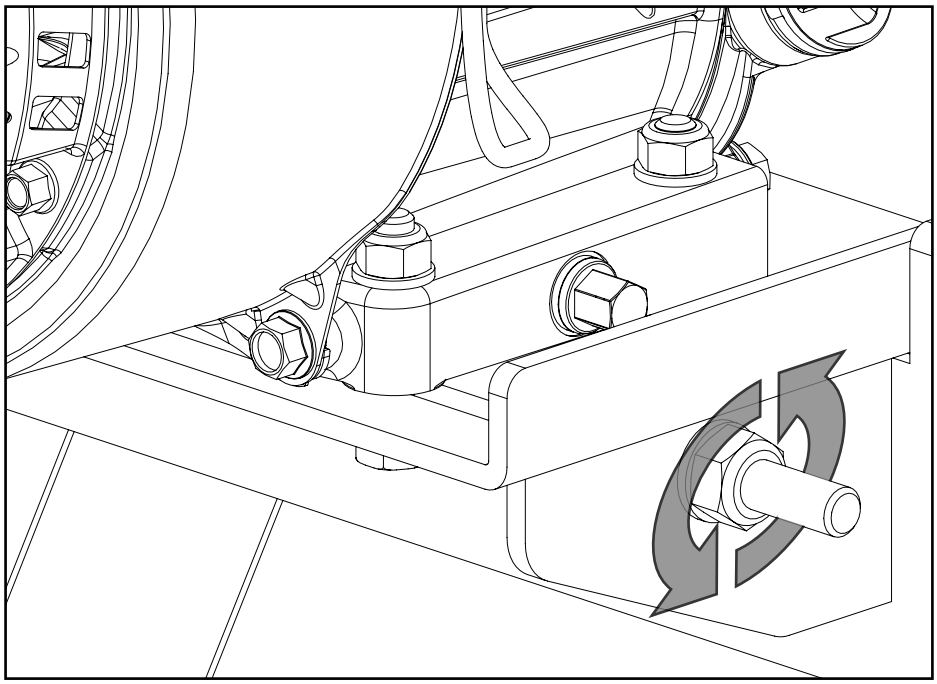


To change the drive side belt, loosen the four bolts that secure the engine to its mount using two (2) sockets/wrenches.

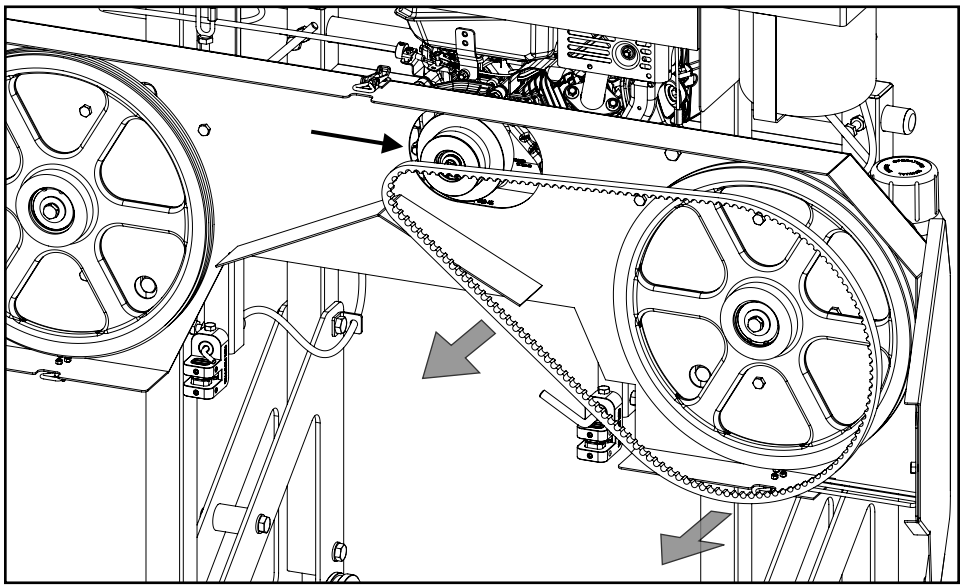




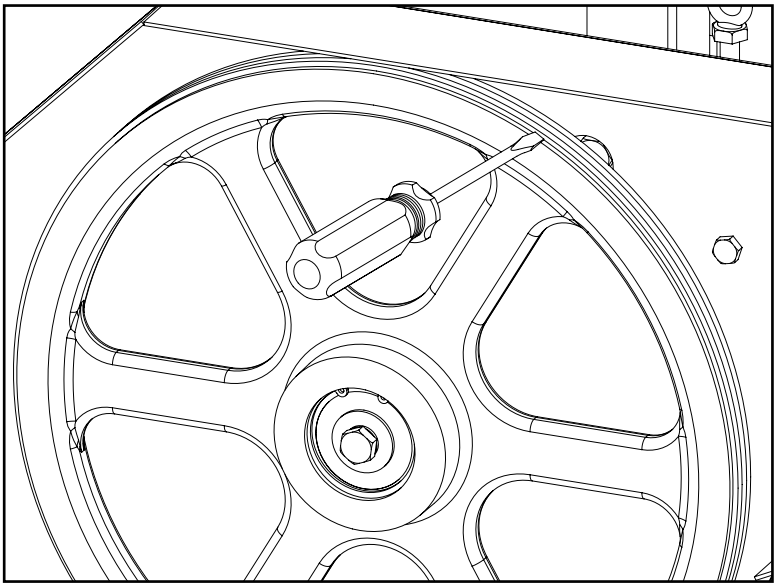
Now that the engine is free to slide on the mounting plate, turn the nut on the horizontal stud (located beneath the engine on the right side) in a counter-clockwise direction. This will move the engine to the left and will remove tension from the belt.



The old drive belt can now be removed and the new belt installed. Tension the new belt and refer to the ***BELT TENSION*** instructions described in the ***SAWMILL SET-UP PROCEDURES*** section of the manual.



The follower belt is changed by prying it off and installing the new one with the aid of a slotted screwdriver. With the new belts properly fitted and tensioned, the blade can now be re-installed, doors 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. Refer to page 55. 2. Gap between guide blocks and blade are incorrect. Refer to page 52. 3. Adjust blade tracking. Refer to page 48. 4. Install new blade. Refer to page 56. Always use blade lubricant. 5. Install new blade. Refer to page 56. 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. Track needs to be checked with level and adjusted to be square. Track needs to be set up on a firm, sturdy base so deflection does not occur from logs or the rolling saw head assembly.
Blade dulls quickly	1. Logs are not clean. 2. Foreign objects in log.	1. Logs may contain dirt/sand causing blades to wear prematurely. 2. Tree may contain nails, staples, old fencing etc.
Blade comes off band wheels	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. Refer to page 55. 2. Gap between guide blocks and blade are incorrect. Refer to page 52. 3. Adjust blade tracking. Refer to page 48. 4. Install new belts. Refer to page 57. 5. Install new blade. Refer to page 56. 6. Slow feed rate down and push head slower through log.
Blades are breaking	1. Too many blade sharpenings. 2. Inadequate blade tension. 3. Improper blade guide set up. 4. Improper blade tracking. 5. Pushing mill too quickly.	1. Replace blade. Refer to page 56. 2. Binding between guide blocks when blade is too loose. Tighten blade. Refer to page 55. 3. Gap between guide blocks and blade are incorrect. Refer to page 52. 4. Adjust blade tracking. Refer to page 48. 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. Refer to page 55. 2. Belts are worn or too loose. Replace. Refer to page 57. 3. Slow feed rate down and push head slower through log.
Mill is not cutting or cutting very slowly	1. Dull blade. 2. Blade is on backwards.	1. Install new blade. Refer to page 56. 2. Remove blade and flip it inside out. The teeth tips always point towards the log supports.
Mill is vibrating excessively	1. Log is not clamped securely. 2. Belts are deformed. 3. Band wheel 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. Refer to page 57. 3. Inspect and replace the band wheel bearings if worn. 4. Slow feed rate down when milling. 5. Check all bolts to ensure they are tight.

PARTS LIST

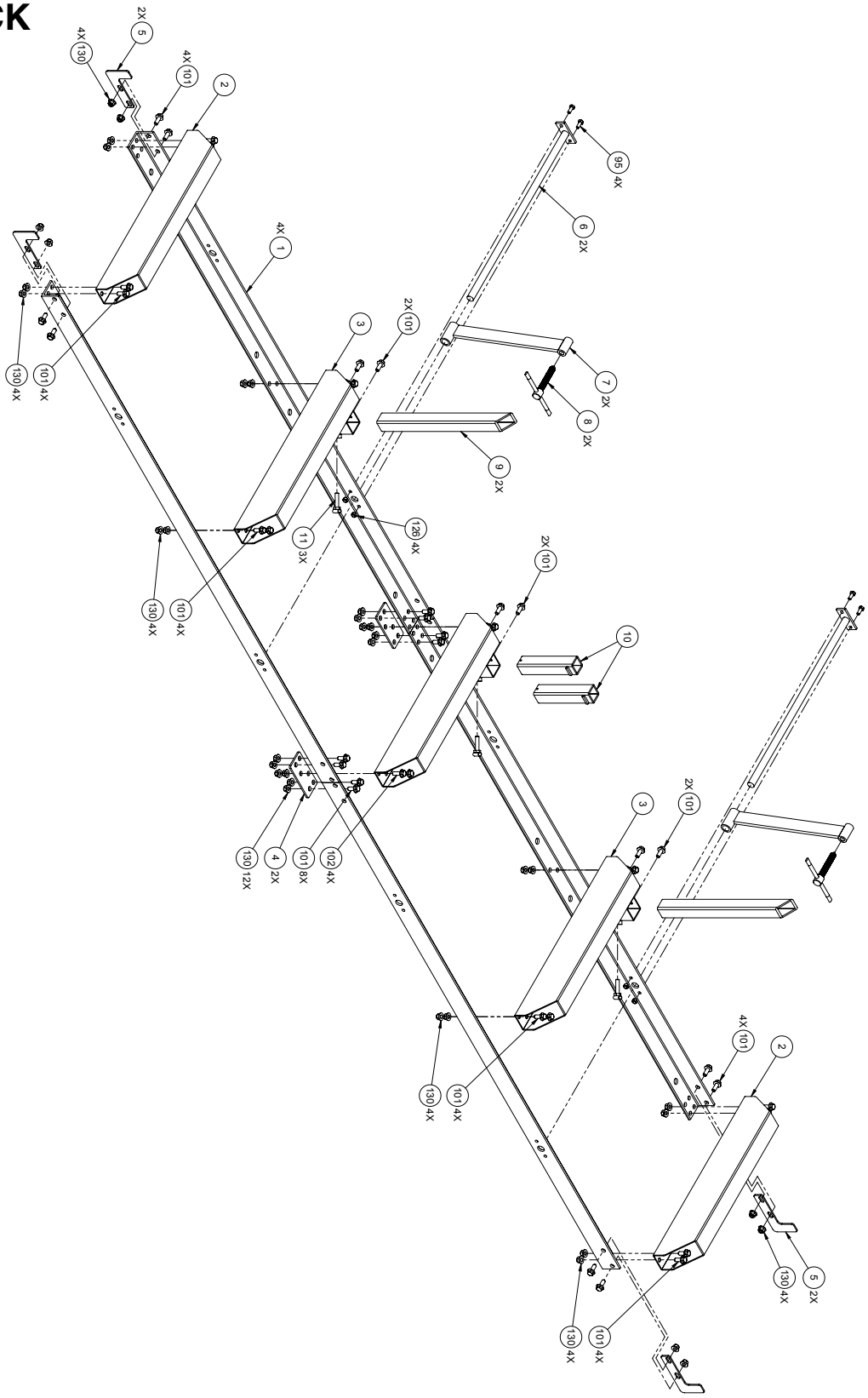
Item	Qty	Part No.	Description
1	4	0001459	TRACK RAIL
2	2	0001457	LOG BUNK, END
3	3	0001458	LOG BUNK
4	2	0001463	REINFORCEMENT PLATE
5	4	0001055	CARRIAGE STOP
6	2	0001460	LOG CLAMP CONNECTING ROD
7	2	0001461	LOG CLAMP ARM
8	2	0001462	LOG CLAMP
9	2	0001056	LOG SUPPORT, LONG
10	2	0001465	LOG SUPPORT, SHORT
11	5	0001059	T-HANDLE
12	1	0001495	BACK BEAM
13	1	0001025	TENSION BAR
14	1	0001033	TENSION HANDLE SHAFT
15	2	0001030	TENSION HANDLE GRIP
16	1	0001484	SPRING WASHER HOLDER, 100 X 50 mm
17	2	0001046	FLAT WASHER, CUSTOM, 42 OD X 20 ID X 5 mm THK
18	1	0001487	TENSION PLATE
19	2	0001093	GUIDE BLOCK HOLDER
20	1	0001096	GUIDE BLOCK HOLDER SHAFT A
21	1	0001091	GUIDE BLOCK HOLDER SHAFT B
22	4	0001090	GUIDE BLOCK
23	1	0001092	DRIP NOZZLE
24	1	0001095	SAW BLADE STOPPER
25	1	0001476	BAND WHEEL HOUSING
26	1	0001478	BAND WHEEL DOOR, LEFT
27	1	0001477	BAND WHEEL DOOR, RIGHT
28	4	0001097	HINGE PIN
29	2	0001001	DOOR LATCH SPACER
30	3	0001656	ADJUSTABLE DRAW LATCH, PADLOCKABLE
31	1	0001659	KNOB, MULTI-LOBE, 48 mm OD, M8 X 1.25, 17 mm LG
32	1	0001104	DRIVE SHAFT
33	1	0001108	FOLLOWER SHAFT
34	1	0001782	BLADE TRACKING ADJUSTMENT BOLT, M16 X 2, 100 mm LG, TAPERED
35	2	0001482	BAND WHEEL, 16 in
36	1	0001483	V-BELT, FOLLOWER, B46, 16 in DIA
37	1	0001508	CLUTCH ASSEMBLY, 3/4 in [19.05 mm] BORE, 80 mm DIA PULLEY
38	1	0001877	PARALLEL KEY, 3/16 X 3/16 X 7/8 in LG
39	1	0001486	COGGED BELT, BX64
40	1	0001485	SAW BLADE, 7/8 in PITCH, 142 TEETH, 1-1/4 WD X 125 LG X .042 in THK
41	1	0001655	MANUAL TUBE
42	2	0001471	FRONT POST
43	1	0001467	REAR H-FRAME
44	4	0001466	CARRIAGE SIDE PLATE
45	4	0001037	CARRIAGE WHEEL
46	4	0001101	SPACER, 33.5 OD X 20 ID X 50 mm LG
47	2	0001102	SPACER, 33.5 OD X 13 ID X 50 mm LG
48	4	0001019	WHEEL SWEEP BRACKET
49	4	0001017	WHEEL SWEEP HOLDER
50	4	0001018	WHEEL SWEEPER
51	1	0001468	CROSS BEAM

Item	Qty	Part No.	Description
52	2	0001474	CROSS BEAM MOUNTING PLATE
53	1	0001470	PUSH HANDLE
54	4	0001660	PLASTIC END CAP, RECT, 50 X 50 mm
55	2	0001662	PLASTIC END CAP, CIRCULAR, 32 mm OD
56	1	0001021	THROTTLE HANDLE
57	1	0001514	THROTTLE CABLE BRACKET
58	1	0001515	THROTTLE CABLE
59	1	0001112	THROTTLE CABLE BARREL END CLAMP
60	1	0001111	THROTTLE CABLE STOP
61	1	0001480	SCALE BRACKET
62	1	0001473	SCALE INDICATOR SIGHT
63	1	0001129	MAGNETIC SCALE, 24 in, YELLOW
64	1	0001835	MAGNETIC SCALE, 24 in, WHITE
65	1	0001469	LUBRICANT TANK HEAT SHIELD, 3 L [0.8 gal]
66	1	0001472	LUBRICANT TANK BRACKET, 3 L [0.8 gal]
67	1	0001475	LUBRICANT TANK, 3 L [0.8 gal]
68	1	0001845	LUBRICANT TANK VALVE ADAPTER, LH THD
69	1	0001658	VALVE, ON/OFF, M20 X M20, 6 mm TUBE FTG
70	1	0001496	VALVE HOUSING
71	1	0001433	LUBRICANT TUBE BRACKET, BENT
72	1	0001490	LUBRICANT TUBING, VALVE-TO-TANK
73	1	0001489	LUBRICANT TUBING, VALVE-TO-NOZZLE
74	1	0001497	WINCH, 1200 lb
75	1	0001500	CRANK HANDLE INDEX PLATE
76	3	0001499	WINCH SPACER, 7 ID, 11 OD, 25mm LG
77	1	0001498	WINCH HANDLE, 1200 lb
78	1	0001889	INDEX PLUNGER, M12 X 1.5
79	4	0001099	CABLE PULLEY
80	1	0001100	CABLE HOOK
81	1	0001492	LIFTING CABLE
82	1	CH270-3152	ENGINE, KOHLER COMMAND PRO HORIZONTAL, 7 hp
83	1	SLS-03-8	FLOW CONTROL VALVE, RA, 1/2 NPT, 8 mm QUICK-CONNECT TUBE
84	4	5204-2RS	BALL BEARING, ANG-CONTACT, SEALED, 5204-2RS, 20 mm BORE, 47 mm OD, 20.6 mm WD
85	2	6000-2RS	BALL BEARING, DOUBLE SEALED, 6000-2RS, 10 mm BORE, 26 mm OD, 8 mm WD
86	4	6001-2RS	BALL BEARING, SEALED, 6001-2RS, 12 mm BORE, 28 mm OD, 8 mm WD
87	4	6305-2RS	BALL BEARING, SEALED, 6305-2RS, 25 mm BORE, 62 mm OD, 17 mm WD
88	1	51204	THRUST BEARING, SINGLE DIR, 51204, 20 mm BORE, 41.5 mm OD, 15 mm WD W/ HSG
89	5	HDW	HEX BOLT, M6 X 1, 16 mm LG
90	4	HDW	HEX BOLT, M6 X 1, 35 mm LG
91	2	HDW	HEX BOLT, M6 X 1, 45 mm LG
92	2	HDW	HEX BOLT, M6 X 1, 50 mm LG
93	1	HDW	HEX BOLT, M6 X 1, 55 mm LG, 18 mm LG THD
94	2	HDW	HEX BOLT, M8 X 1.25, 12 mm LG
95	17	HDW	HEX BOLT, M8 X 1.25, 20 mm LG
96	2	HDW	HEX BOLT, M8 X 1.25, 40 mm LG
97	2	HDW	HEX BOLT, M8 X 1.25, 45 mm LG
98	2	HDW	HEX BOLT, M8 X 1.25, 65 mm LG, 22 mm LG THD
99	4	HDW	HEX BOLT, M10 X 1.5, 25 mm LG
100	1	HDW	HEX BOLT, M10 X 1.5, 30 mm LG
101	38	HDW	HEX BOLT, FLANGED, M10 X 1.5, 25 mm LG
102	4	HDW	HEX BOLT, FLANGED, M10 X 1.5, 30 mm LG
103	2	HDW	HEX BOLT, M12 X 1.75, 20 mm LG
104	1	HDW	HEX BOLT, M12 X 1.75, 30 mm LG
105	4	HDW	HEX BOLT, M12 X 1.75, 40 mm LG, NYLON

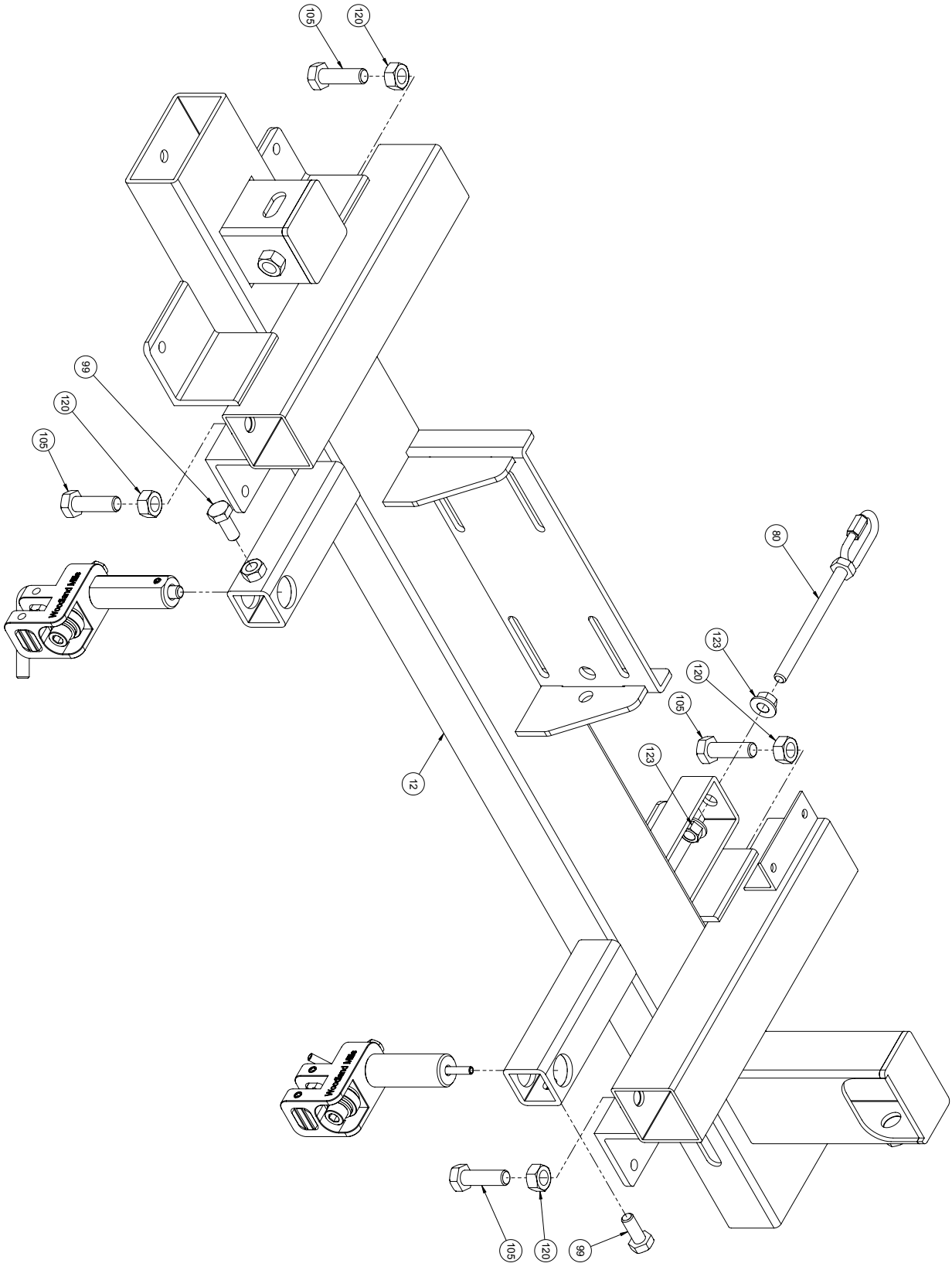
Item	Qty	Part No.	Description
106	2	HDW	HEX BOLT, M12 X 1.75, 45 mm LG
107	4	HDW	HEX BOLT, M12 X 1.75, 70 mm LG, 30 mm LG THD
108	10	HDW	HEX BOLT, M12 X 1.75, 80 mm LG, 30 mm LG THD
109	1	HDW	HEX BOLT, M12 X 1.75, 100 mm LG, 30 mm LG THD
110	1	HDW	HEX BOLT, M12 X 1.75, 120 mm LG, 30 mm LG THD
111	4	HDW	HEX BOLT, M20 X 2.5, 120 mm LG, 46 mm LG THD
112	1	HDW	HEX BOLT, 5/16-24, 5/8 in LG
113	1	HDW	SCREW, PPH, M4 X 0.7, 12 mm LG
114	9	HDW	SCREW, PFH, M4 X 0.7, 10 mm LG
115	6	HDW	SCREW, PFH, M4 X 0.7, 14 mm LG
116	2	HDW	SHCS, M10 X 1.5, 25 mm LG
117	2	HDW	SET SCREW, FLAT TIP, M6 X 1, 8 mm LG
118	8	HDW	SET SCREW, FLAT TIP, M8 X 1.25, 8 mm LG
119	1	HDW	HEX NUT, M6 X 1
120	8	HDW	HEX NUT, M12 X 1.75
121	1	HDW	HEX NUT, M16 X 2
122	1	HDW	HEX NUT, THIN, M12 X 1.5, 6 mm H
123	2	HDW	HEX NUT, FLANGED, M10 X 1.5
124	15	HDW	LOCK NUT, M4 X 0.7
125	8	HDW	LOCK NUT, M6 X 1
126	19	HDW	LOCK NUT, M8 X 1.25
127	3	HDW	LOCK NUT, M10 X 1.5
128	11	HDW	LOCK NUT, M12 X 1.75
129	4	HDW	LOCK NUT, M20 X 2.5
130	36	HDW	LOCK NUT, FLANGED, M10 X 1.5
131	16	HDW	FLAT WASHER, M6
132	14	HDW	FLAT WASHER, M8
133	9	HDW	FLAT WASHER, M10
134	21	HDW	FLAT WASHER, M12
135	13	HDW	FLAT WASHER, M20
136	1	HDW	FENDER WASHER, M8, 24 mm OD
137	2	HDW	FENDER WASHER, M10, 34 mm OD
138	6	HDW	FENDER WASHER, M12, 31 mm OD
139	12	HDW	BELLEVILLE WASHER, 20.4 ID, 40 OD, 2.5 THK, 3.45 mm H
140	5	HDW	SPLIT LOCK WASHER, M6
141	3	HDW	SPLIT LOCK WASHER, M8
142	2	HDW	SPLIT LOCK WASHER, M10
143	4	HDW	RETAINING RING, INTERNAL, 28 mm BORE (29.4 mm GROOVE)
144	2	HDW	RETAINING RING, INTERNAL, 62 mm BORE (65 mm GROOVE)
145	1	HDW	SPACER, 13 ID X 18 OD X 5 mm LG

EXPLODED ASSEMBLY VIEWS

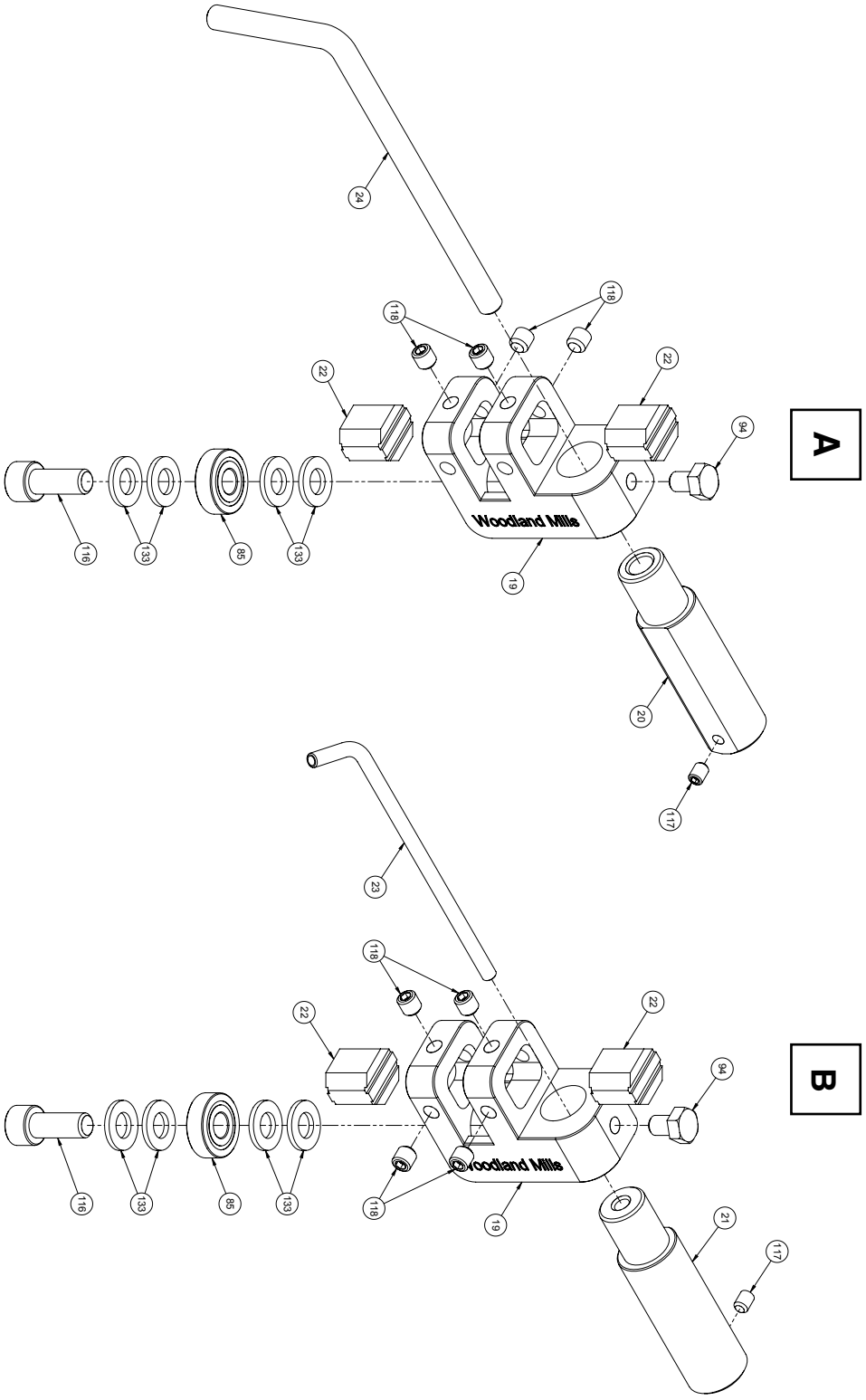
TRACK



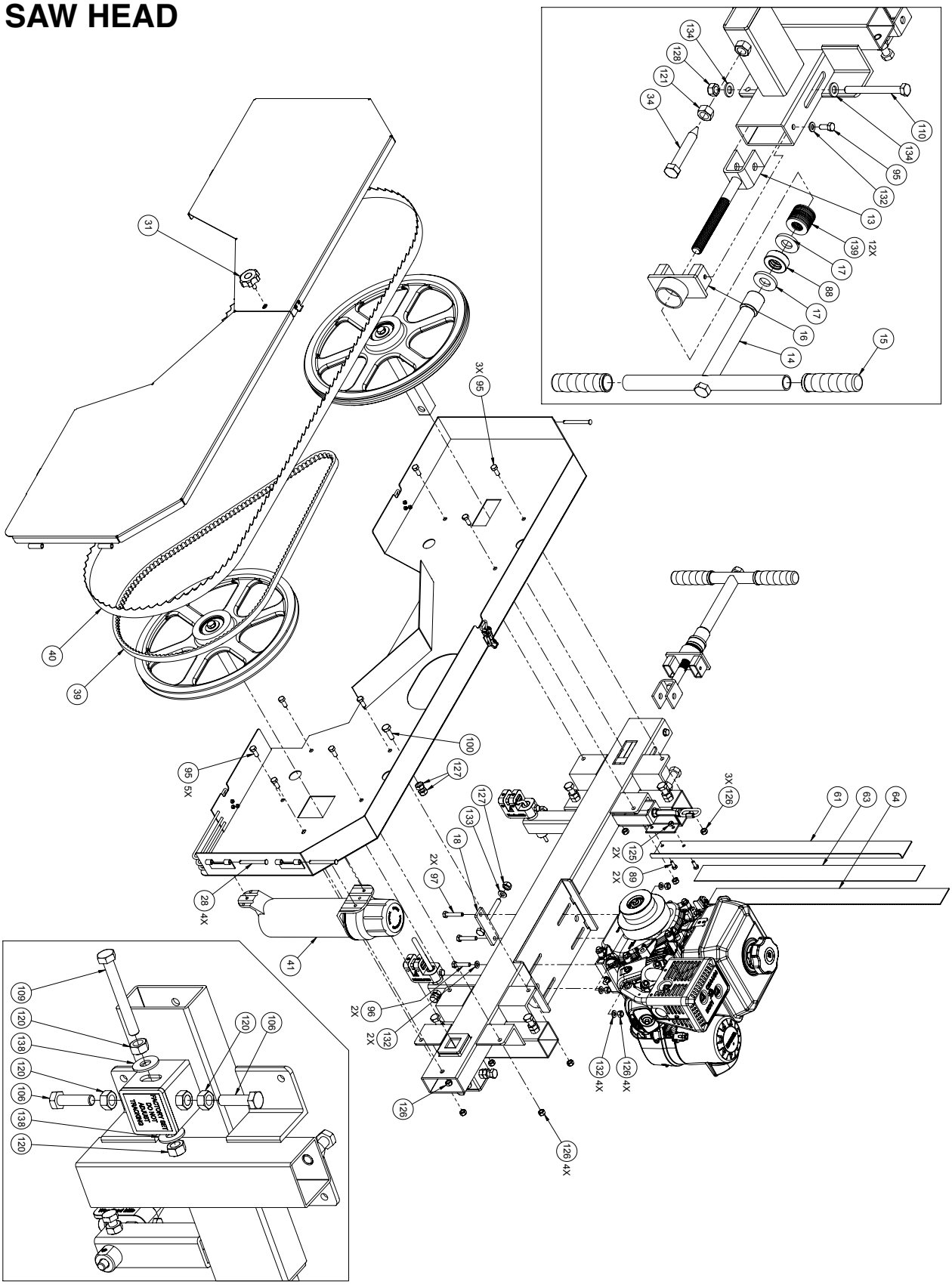
BACK BEAM



GUIDE BLOCKS A & B



SAW HEAD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110
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95
132
13
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139
17
88
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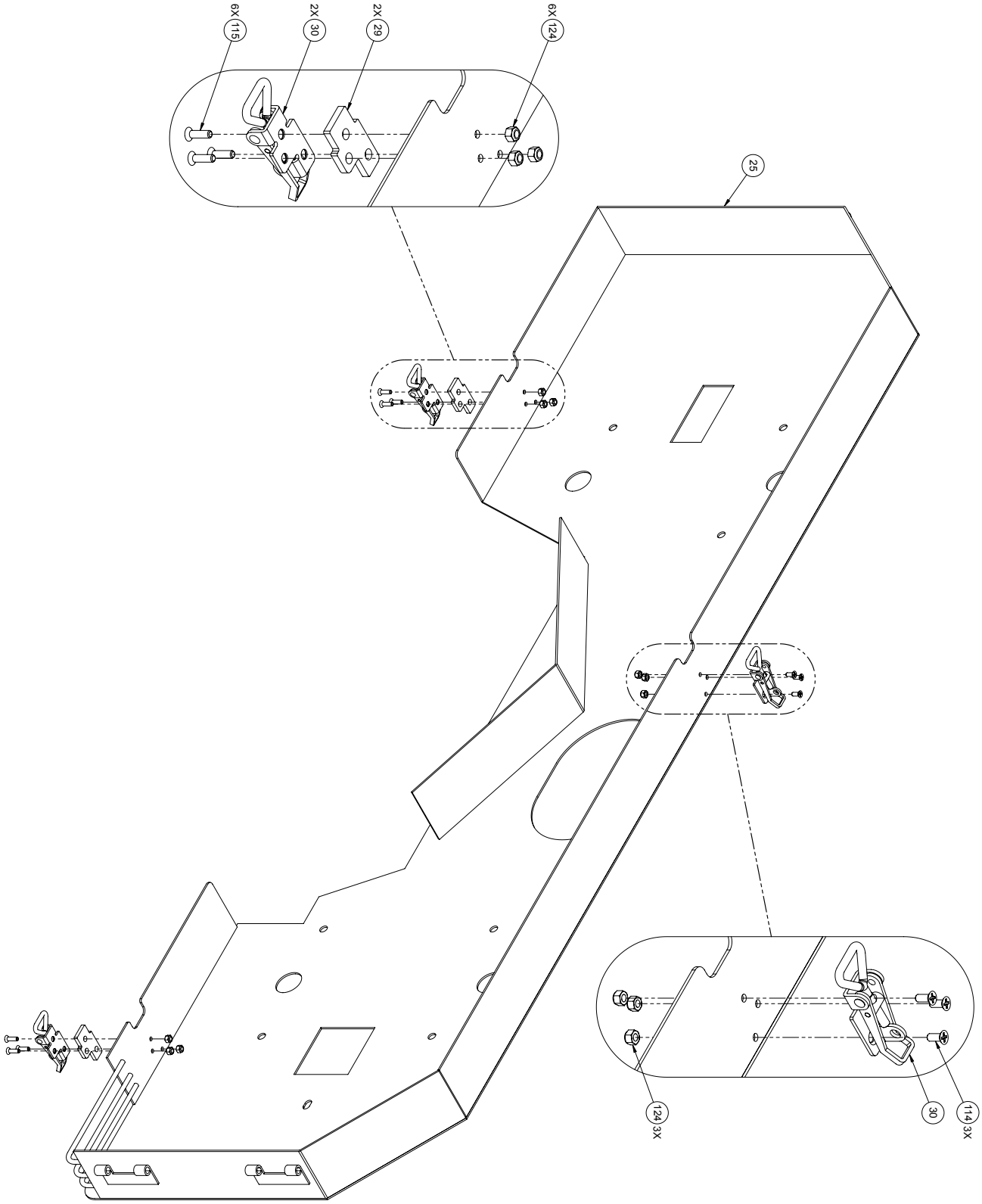
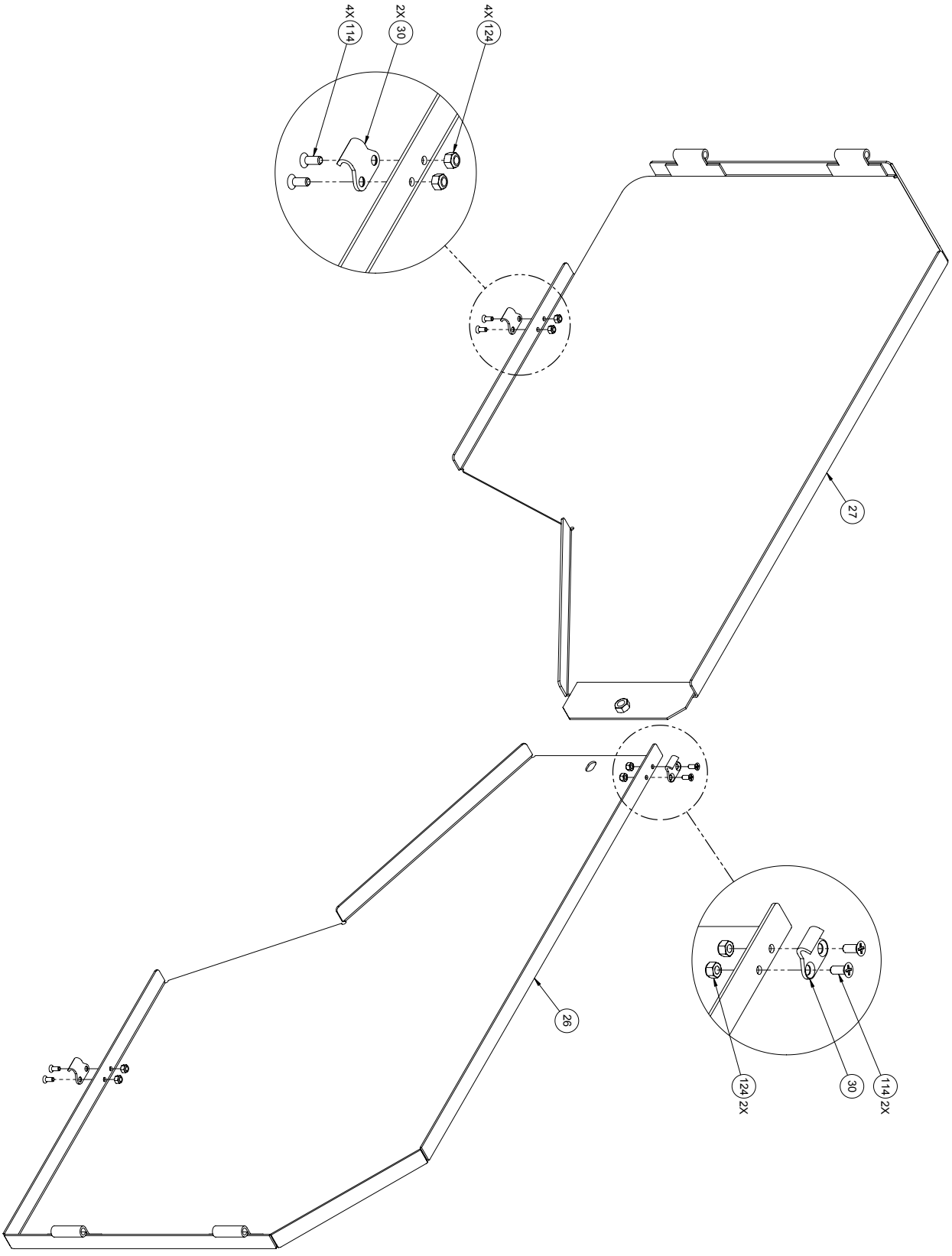
16
14
15
31
3X 95
40
39
100
95 5X
127
127
133
18
2X 97
28 4X
41
3X 126
61
63
64
2X 125
2X 89
96 2X
132 2X
132 4X
126 4X
126
126 4X
109
120
138
120
106
138
120
120
106
PROPERTY SET DO NOT ADJUST RECORD

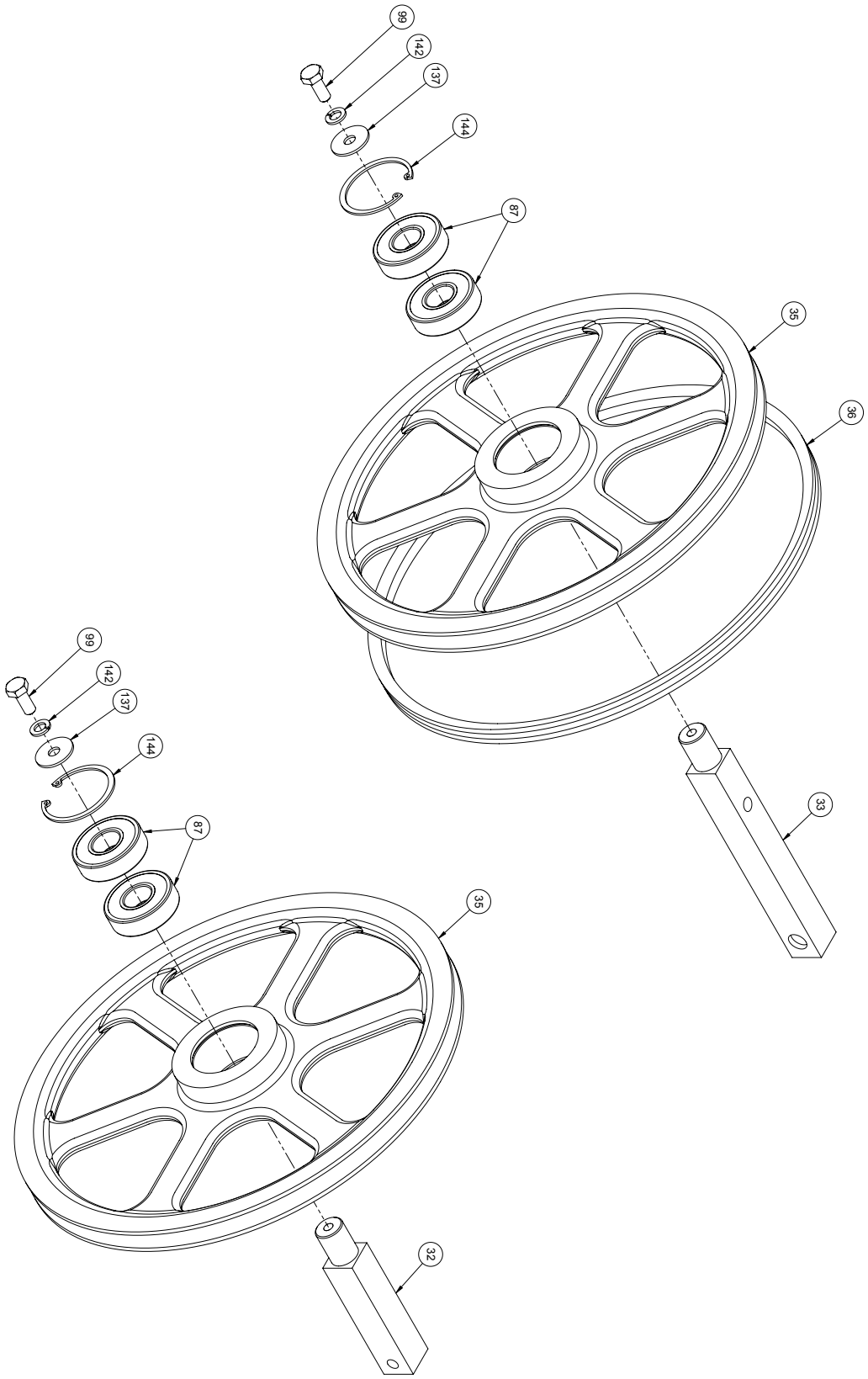
BAND WHEEL HOUSING



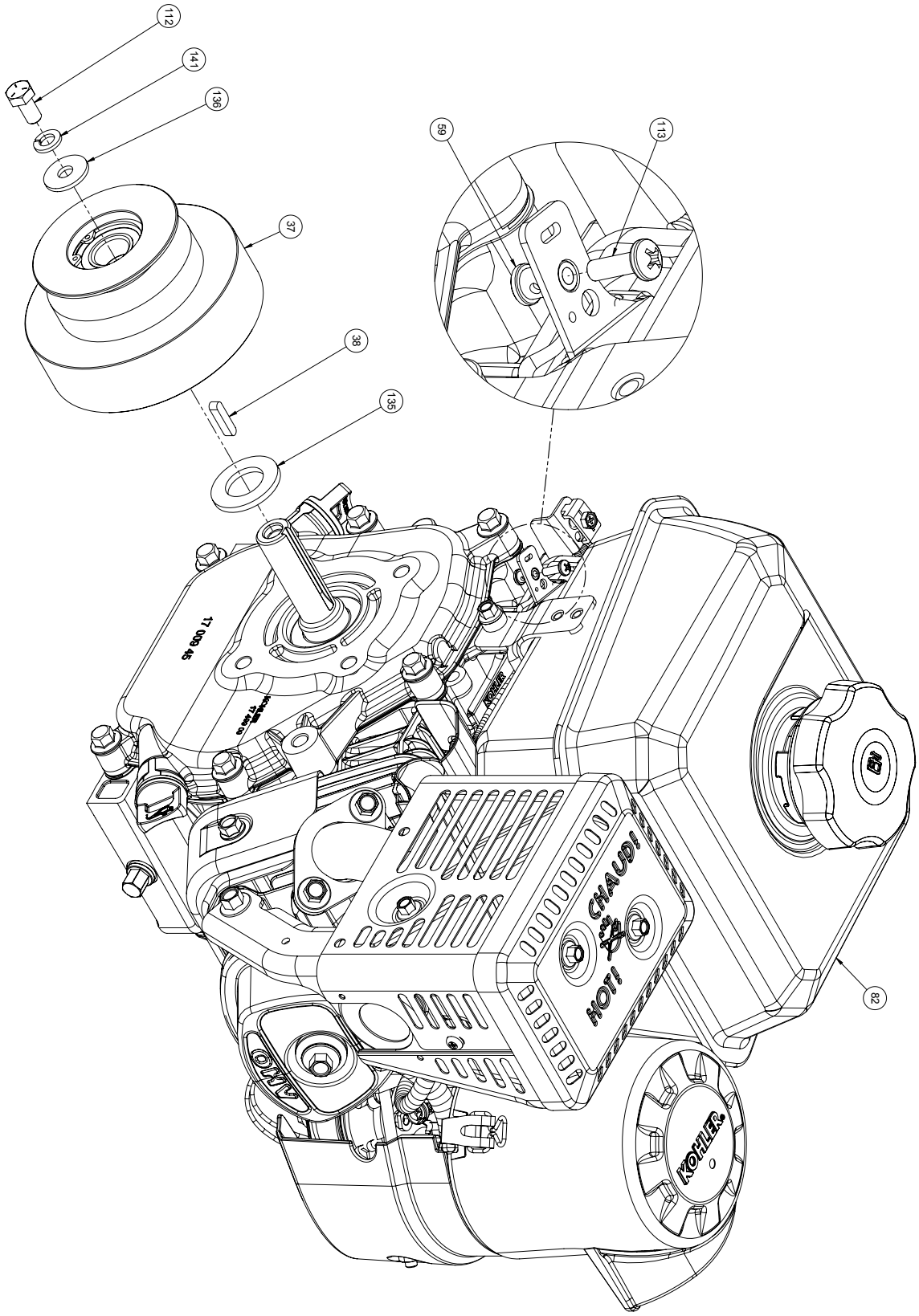
BAND WHEEL HOUSING DOORS



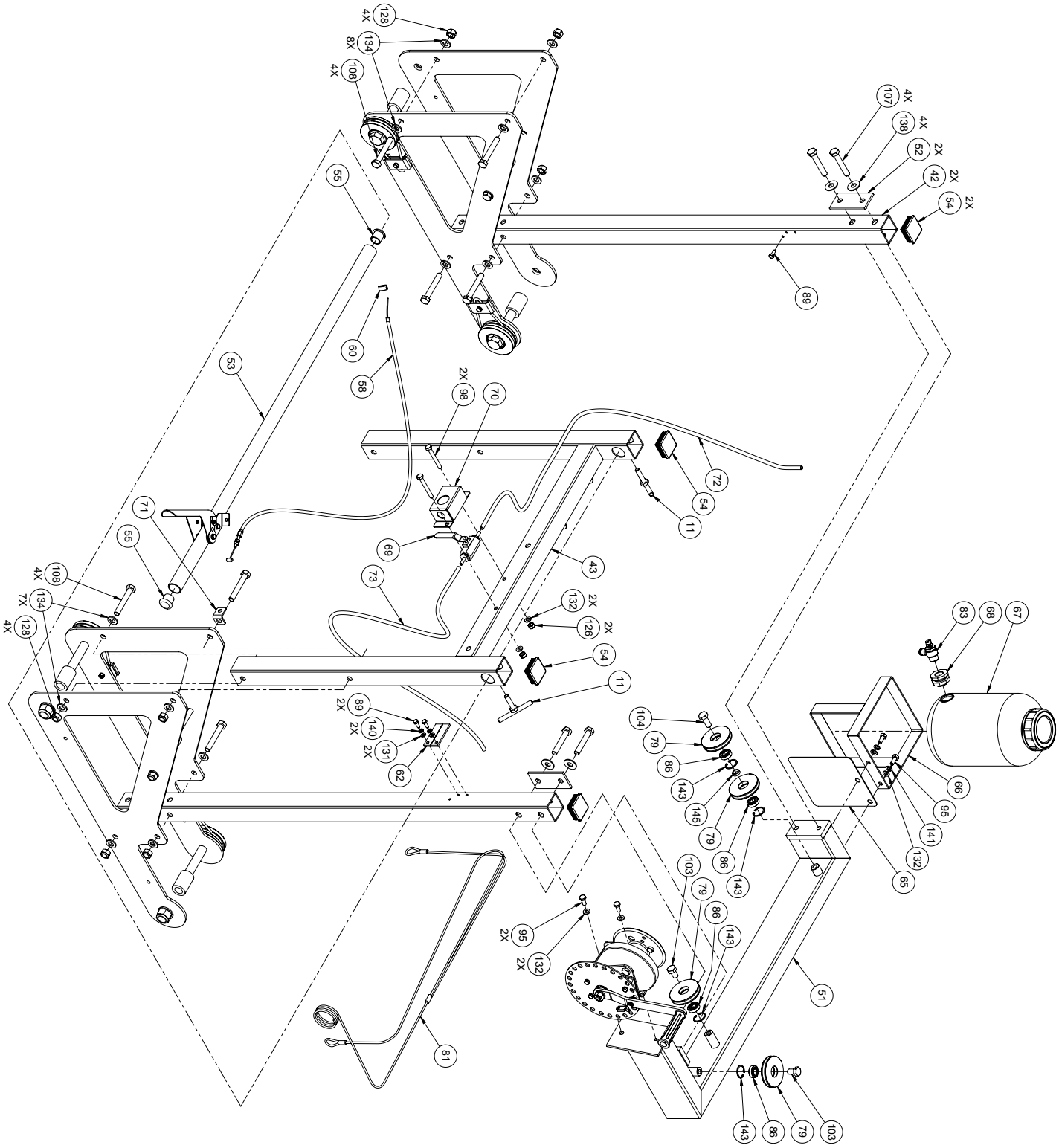
BAND WHEELS



ENGINE



CARRIAGE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58
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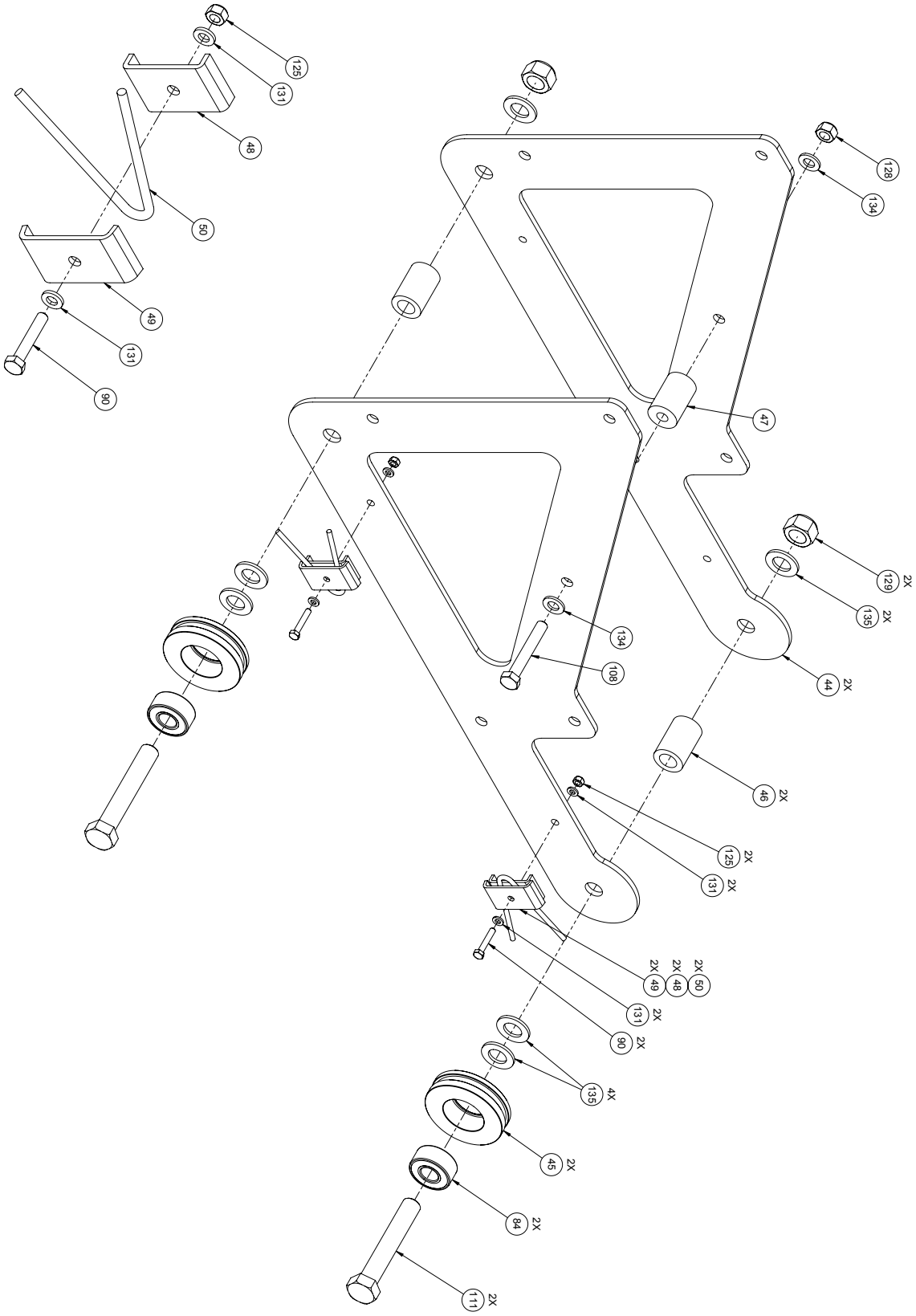
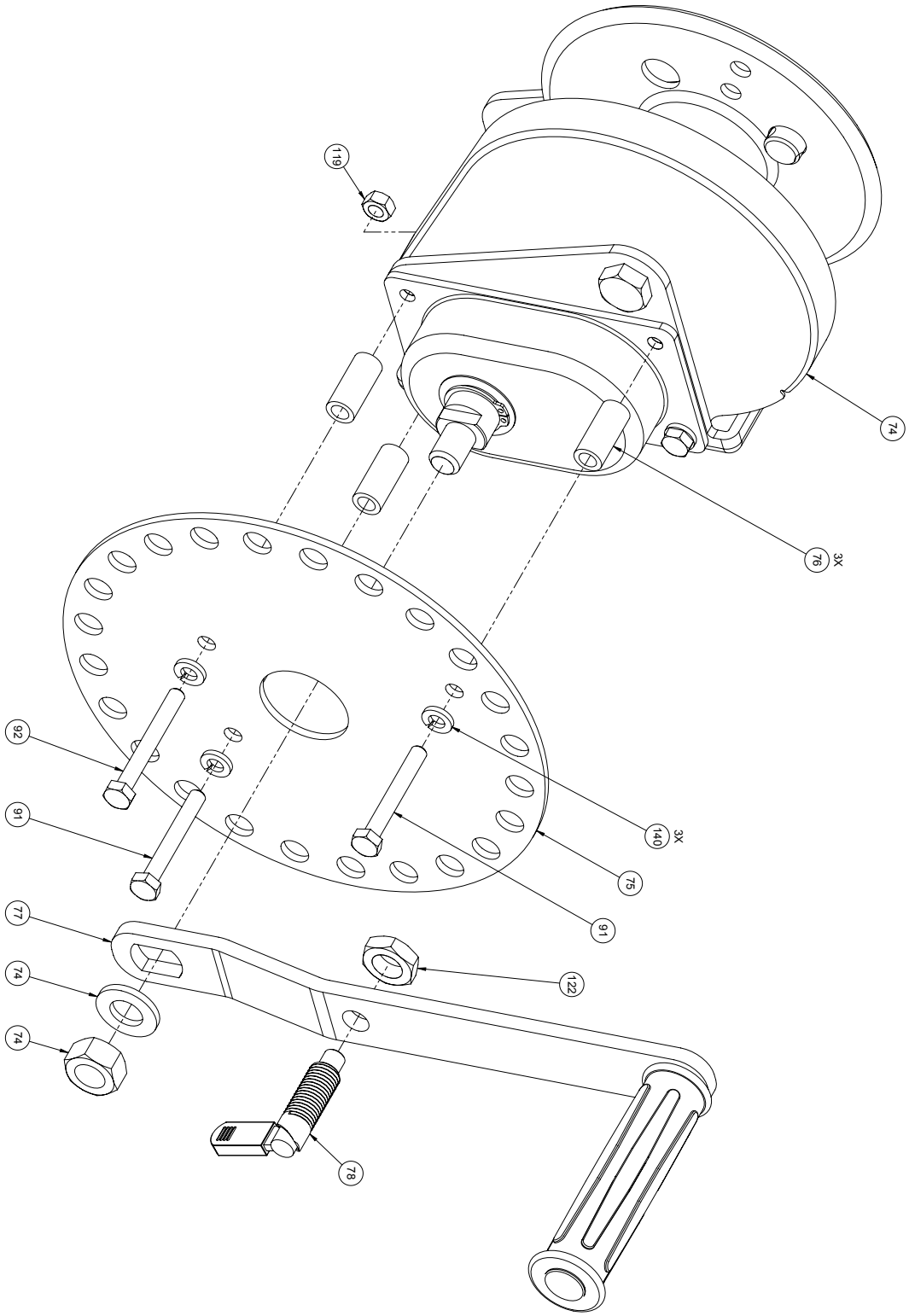
72
54
11
71
55
69
43
73
4X 108
7X 134
4X 128
132
2X
126
2X
54
11
2X 89
2X 140
2X 131
62
104
79
86
143
145
79
86
143
66
95
141
132
65
83
68
67
103
79
86
143
2X 95
2X 132
51
81
143
86
79
103

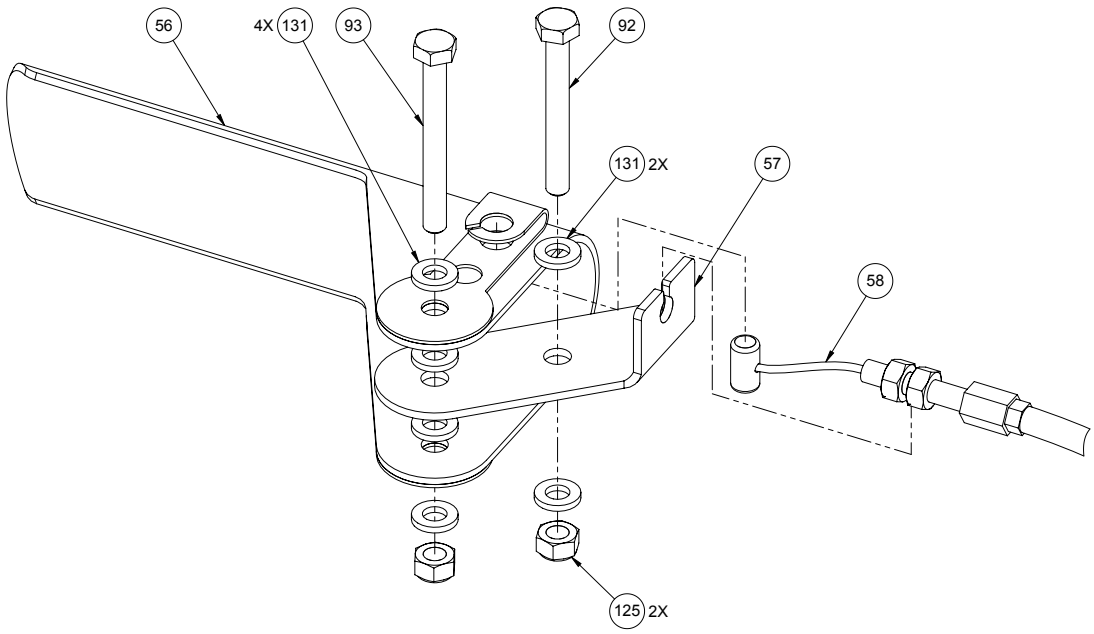
CARRIAGE LEG, WHEEL, AND SWEEPER

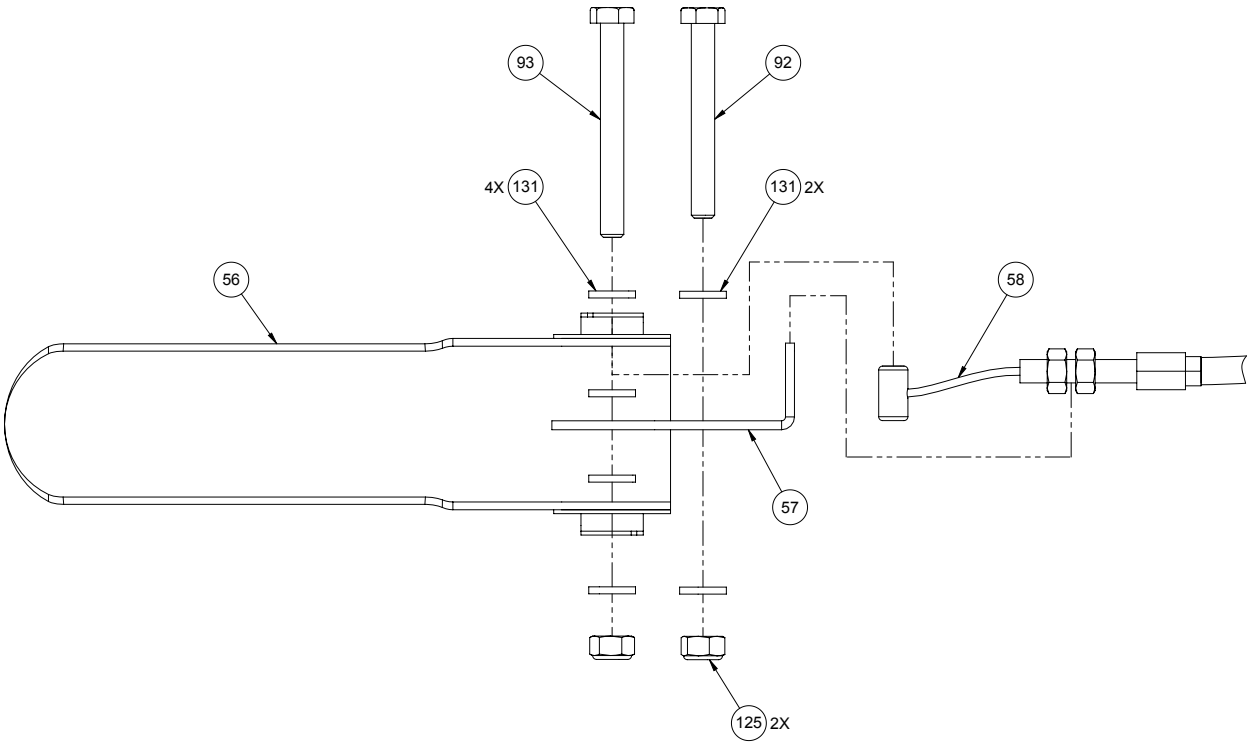


LIFT WINCH



THROTTLE HANDLE





NOTES

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WOODLAND
MILLS