HM126 PORTABLE SAWMILL

9.5 and 14 Horsepower Models



OPERATOR'S MANUAL



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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, WARNING & INFORMATION SYMBOLS

Throughout this operator's manual there are safety, warning, and information symbols. Please heed and obey all warnings.

Symbol	Description
	Refer to instruction/operator's manual
	Wear protective gloves
	Wear safety footwear
	Wear eye protection
	Wear a face shield
	Wear a mask
	Wear ear protection
3	Lift point
	Lockout electrical power (electric sawmills only)
	General warning
<u>/</u>	Electricity warning
e	Instructions are different for electric sawmills. Refer to electric sawmill manual addendum for electric sawmill-specific instructions.
e	Instructions do not pertain to electric sawmills. Instructions can be skipped and ignored when working with an electric sawmill.

Look for symbols in the upper-right corner of the page throughout the manual.



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, hearing protection, 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 lubrication tank with clean water. Add no more than a teaspoon of liquid dish soap per full tank. The soap helps keep the blade clean(er) when excess pitch builds up.
- 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 tension handle threads when dry or as required. Use multipurpose, 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 "WD-40 Water Resistant Silicone Spray," "3-in-One Silicone Spray Lubricant," or "Jig-A-Loo."
- **Band Wheel Guards** Routinely remove any build-up of sawdust that may collect inside the band wheel guards.
- Lubrication Tank Fill with clean water. Add a teaspoon of liquid dish soap if pitch builds up on the blade. In winter months windshield washer fluid can be used. Do not leave water in tank if temperature falls below 32°F [0°C].
- Blade Lubricant <u>Never use diesel fuel or kerosene as blade lubricant</u>. These substances lead to premature wear of your belts and poor sawing performance. For winter operation, replace the water 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

The HM126 sawmill comes in two variants: the *HM126-9.5* that utilizes a 9.5 horsepower engine and the *HM126-14* with a 14 horsepower engine and adjustable blade guide. Both versions are assembled and operated in the same manner. Pictures and graphics used in this manual display the HM126-14 sawmill but the instructions still apply to both.

ltem	HM126-9.5 Specification	HM126-14 Specification
Gasoline Engine	9.5 hp Kohler Command Pro	14 hp Kohler Command Pro
Max Log Diameter	26 in [6	60 mm]
Max Board Width	24 in [6	10 mm]
Max Board Thickness	7 in [17	'8 mm]
Blade Size	1-¼ x 144 in [32 mm x 3657 mm]	
Track Length	153-½ in [3900 mm]	
Track Width	30-½ in [775 mm]	
Track Height Adjustability (top of bunk)	7-7% to 10-5% in [200 to 270 mm]	
Product Weight	751 lb [341 kg]	771 lb [350 kg]
Shipping Weight	935 lb [424 kg]	955 lb [433 kg]





OVERALL DIMENSIONS





UNPACKING

Unpack the contents of the crate except for the sawhead 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 in [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 sawhead 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.



COMPONENT LISTS

Verify all component and hardware quantities are correct prior to assembling the sawmill.

4x	Track Rail [0001073]		2x	Bevelled Log Support [0001056]	
2x	Reinforcement Plate [0001072]		2x	Key Stop Log Support [0001465]	
1x	Centre Bunk [0001084]		Зх	T-Bolt M10 X 40 mm [0001059]	
2x	Mid Bunk [0001080]		2x	Front Post [0001135]	
2x	End Bunk [0001075]		2x	Carriage Leg Assembly	
4x	Carriage Stop [0001055]		2x	Back Post [0002067]	
12x	Levelling Foot Base [0001071]		1x	Cross Beam [0001139]	
1x	Log Clamp Shaft/Bracket Weldment [0001062]	Ou	5x	Pulley [0001099]	
1x	Log Clamp Shaft Bracket [0001069]		4x	Spacer (12 mm Lg) [0002812]	
1x	Log Clamp Receiver [0001061]		1x	Spacer (5 mm Lg) [0002813]	



1x	Dashboard [0002066]		1x	Scale Indicator Bracket [Frnt] [0002098]	0
1x	Hour Meter [0002671]		1x	Scale Indicator Arrow [0002099]	٥
1x	Lift Mechanism Assembly		1x	Knob M8 X 25 mm [0002764]	
1x	Lift Cable A (Right Side) [0003016]		1x	Lubrication Tank Assembly	ENVOODELAND SER
1x	Lift Cable B (Left Side) [0003015]		1x	Drip Nozzle* [0001092] (*9.5 hp Only)	
1x	Scale Support [0002040]	· · · ·	2x	Tubing [0002692 & 0002693]	
1x	Magnetic Scale (White) [0003235]	กระการการการการการการการการการการการการการก	1x	Push Handle [0002068]	· · · ·
1x	Magnetic Scale (Yellow) [0003233]	12121212121212121212121212121212121212	1x	Throttle Handle Assembly	
1x	Scale Support Spacer Plate [0001038]	0	2x	Latch [0002248]	
1x	Log Scale Mounting Bracket [0002096]	500	1x	Knob M8 X 17 mm [0001659]	
1x	Scale Indicator Bracket [Rear] [0002097]		1x	Handle Grip* [0004199] (*14 hp Only)	



TO-SCALE HARDWARE

BOLTS & SCREWS

Hardware graphics are printed at 1:1 scale for ease of identification. Simply place the hardware over the image in the tables to verify it is the correct size.

2x	HHB-MBE080FCJ	M6 X 1 X 25 mm HEX BOLT
4x	HHB-MBJ071FCJ	M8 X 1.25 X 16 mm HEX BOLT
1x	HHB-MBM080FCJ	M10 X 1.5 X 25 mm HEX BOLT
1x	HHB-MBR090FCJ	M12 X 1.75 X 35 mm HEX BOLT
14x	HHB-MBR135PCJ	M12 X 1.75 X 80 mm HEX BOLT
6x	HHB-MBR145PCJ	M12 X 1.75 X 90 mm HEX BOLT



1x	HHB-MBR155PCJ	M12 X 1.75 X 100 mm HEX BOLT
2x	HHB-MBR165PCJ	M12 X 1.75 X 110 mm HEX BOLT
1x	HHB-MBR175PCJ	M12 X 1.75 X 120 mm HEX BOLT
12x	HHB-MCA175FCJ	M16 X 2 X 120 mm HEX BOLT
34x	FHH-MBM080FCM	M10 X 1.5 X 25 mm FLANGED HEX BOLT
16x	FHH-MBM090PCM	M10 X 1.5 X 35 mm FLANGED HEX BOLT

Ruler scales are also provided below to double-check bolt and screw lengths when necessary.

SCALES

* M12 X 1.75 X 130 mm Socket Head Cap Screw not applicable on 9.5 hp sawmill

2x	FHH-MBM125PCJ	M10 X 1.5 X 70 mm FLANGED HEX BOLT
1x	SHC-MBR185FCP*	M12 X 1.75 X 130 mm SOCKET HEAD CAP SCREW
2x	PPH-MAW085FCE	M4 X 0.7 X 30 mm PHILLIPS PAN HEAD SCREW
8x	PFH-MAW059FCM	M4 X 0.7 X 10 mm PHILLIPS FLAT HEAD SCREW





WASHERS



** Total M12 Flat Washer quantity 50x on 9.5 hp sawmill



NUTS



*** Total M12 X 1.75 Lock Nut quantity 25x on 9.5 hp sawmill



ASSEMBLY

1. TOOLS REQUIRED

ΤοοΙ	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. 2
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.



BOLT TORQUE WARNING!

When assembling the sawmill, do <u>not</u> torque the bolts to hardware Class/Grade specifications. Snug the hardware, then tighten a further $\frac{1}{4}-\frac{1}{2}$ turn. Tightening bolts to torque spec can crush metal tubing, ruining the components.



2. 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 $3-\frac{1}{2}-4$ in [90–100 mm] off the ground. This will allow for easy cleanup of sawdust and log support height adjustments.

12x	M16 X 120 mm Hex Bolt	4x	Track Rail	
16x	M10 X 35 mm Flanged Hex Bolt	2x	Reinforcement Plate	
24x	M10 X 25 mm Flanged Hex Bolt	1x	Centre Bunk*	
36x	M16 Hex Nut	2x	Mid Bunk	
40x	M10 Flanged Lock Nut	2x	End Bunk	
12x	Levelling Foot Base	4x	Carriage Stop	

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



If a Woodland Mills sawmill trailer was purchased with this sawmill, skip this track assembly section and follow the track assembly instructions in those manuals.





RAILS & CENTRE BUNK

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

16x	M10 X 35 mm Flanged Hex Bolt	4x	Track Rail	
16x	M10 Flanged Lock Nut	2x	Reinforcement Plate	00000
		1x	Centre Bunk*	

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

First, set the four (4) 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 centre bunk over the rail joints with a reinforcement plate *under* the rails on both the left and right sides. Use eight (8) M10 X 35 mm flanged hex bolts and M10 flanged lock nuts per side.

Keep the outer faces of the rails 30-½ in [775 mm] apart but do <u>not</u> 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

Assemble the mid and end bunks in the locations shown using the components and hardware listed in the table below.

16x	M10 X 25 mm Flanged Hex Bolt	2x	Mid Bunk	
16x	M10 Flanged Lock Nut	2x	End Bunk	

Use sixteen (16) M10 X 25 mm flanged hex bolts and M10 flanged lock nuts (4 per bunk) at all end & mid bunk locations. Snug the hardware in the same manner as the centre bunk.





SQUARING THE TRACK AND SETTING THE WIDTH

The assembled track measures $30-\frac{1}{2}$ in [775 mm] wide when measuring from the outside faces of the rails.

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 track length, check it for square by measuring diagonally from rail tip-to-rail tip as shown with the red arrows below.



Ensure the end bunks are square to the rails.

Once the width is correct and the track square, tighten all sixteen (16) M10 X 25 mm and sixteen (16) M10 X 35 mm flanged hex bolts and their nuts *working from the centre out towards the ends* as shown with the **black arrows** above.

Double-check the track width and squareness after tightening. Readjust if necessary.



END BUNKS SQUARE TO RAILS



LEVELLING FEET

Assemble the levelling feet using the components and hardware listed in the table below.

12x	M16 X 120 mm Hex Bolt	12x	Levelling Foot Base	
36x	M16 Hex Nut			

Assemble twelve (12) sets of levelling feet, each one with a levelling foot base, an M16 X 120 mm hex bolt, and two (2) M16 hex nuts. A third hex nut will secure the foot assembly to the rail on the next page.



Fully tighten the bottom nut and position the second nut roughly $3-\frac{1}{2}-4$ in [90-100 mm] from the bottom of the foot base. Ensure the position of the second nut is the same for all twelve (12) levelling foot assemblies.



Attach the twelve (12) levelling feet assemblies to the rails at the locations shown below.



Assemble the levelling feet up through the bottom of the rails and thread an M16 hex nut onto each of the M16 X 120 mm hex bolts. Do <u>not</u> tighten the nut. Leave it loose enough so a noticeable gap exists between the nut and the rail to allow for track levelling in a later step.



With the feet loosely assembled to the rails, remove the timber/block supports so the full weight of the track is resting on middle nuts of the levelling feet.



LEVELLING THE TRACK

Working from the middle of the track out towards each end, check the rails for level lengthwise *along* the rails and widthwise *across* the rails.



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.





CARRIAGE STOPS

Assemble the carriage stops to the *inside* face of the rails using the components and hardware listed in the table below.

8x	M10 X 25 mm Flanged Hex Bolt	4x	Carriage Stop	
8x	M10 Flanged Lock Nut			

Use two (2) M10 X 25 mm flanged hex bolts and M10 flanged lock nuts to assemble each carriage stop to the *insides* of the track rails.



Leave the carriage stops off one end if the sawmill head will be manually lifted onto the track. See section <u>PLACING THE HEAD ON THE TRACK (METHOD 2)</u>.



LOG CLAMP

Assemble the log clamps using the components and hardware listed in the table below.

4x	M10 X 25 mm Flanged Hex Bolt	1:	¢	Log Clamp Shaft/Bracket Weldment	
4x	M10 Flanged Lock Nut	1:	¢	Log Clamp Shaft Bracket	
1x	M10 X 40 mm T-Bolt	1:	¢	Log Clamp Receiver	

Slide the log clamp receiver with T-bolt over the shaft. Slide the log clamp into the receiver so that it angles away from the shaft weldment. Slide the shaft bracket over the end of the shaft.





Attach the log clamp assembly to the rails as shown below using four (4) M10 X 25 mm flanged hex bolts and M10 flanged lock nuts.

Note that there are multiple locations along the track where the log clamp can be bolted. Depending on how many track sections are being used, select a log clamp position that will secure the log firmly against a minimum of two log supports.







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





LOG SUPPORTS

Assemble the log supports to the centre and mid bunks using the components and hardware listed in the table below.

6x	M10 X 25 mm Flanged Hex Bolt	2x	Bevelled Log Support	
6x	M10 Hex Nut	2x	Key Stop Log Support	

Assemble six (6) M10 X 25 mm flanged hex bolts and six (6) M10 hex jam nuts (2 each per bunk) into the threaded holes in the sleeves on the centre bunk and both mid bunks. These bolts are <u>not</u> used to secure the log supports—they help square the log support to the top face of the bunk if necessary. See next page for directions.



The log supports can be installed into any of the sleeves on the centre or mid bunks.



If the log support is not square (90°) to the top surface of the bunk when the T-bolt is tightened, the two (2) M10 X 25 mm flanged hex bolts can adjust the angle.



Loosen the T-bolt and push the log support into the corner of the bunk sleeve **making sure neither bolt protrudes into the sleeve**. Check for squareness. If the angle is less than 90°, turn the bottom bolt clockwise until the support is square with the bunk. If the angle is greater than 90°, turn the top bolt clockwise until the support is square with the bunk.



Once the log support is square with the top of the bunk, tighten both jam nuts. Secure the log support with the T-bolt. Repeat the process for the centre and mid bunks as necessary.



3. 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.

FRONT POSTS



With the sawhead resting approximately 6 in [150 mm] above the ground, slide the two (2) front posts through the *top* of the post sleeves—do *not* assemble them from the bottom.

There are wedge-shaped caps on the bottom of each post to help aid the assembly of the posts through the nylon post sleeve bushings.



Orient both posts so the holes are facing sideways.



Remove the wedge-shaped caps from the bottom of both posts. They are only required for front post assembly.





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 <u>CARRIAGE LEG, WHEEL, AND SWEEPER</u> 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	

Attach the two (2) carriage leg sub-assemblies to the front posts with four (4) M12 X 80 mm bolts, eight (8) M12 flat washers, and four (4) M12 lock nuts. Be sure the bolts point outward and the carriage wheels are positioned on the inside of the legs. Snug these four (4) M12 bolts just enough so that the plates are flush to the posts but do <u>not</u> fully tighten them. Push the posts all the way up until the carriage leg plates contact the post sleeves.





HEAD LOCK-DOWN PLATES

Woodland Mills sawmill trailer owners only. If a sawmill trailer was not purchased, proceed to the next step.

If a Woodland Mills sawmill trailer was purchased with this sawmill, the head lock-down plates can be loosely installed prior to standing the sawhead upright. The lock-down plates come with the sawmill trailers and are not included with the sawmill.



Disassemble each carriage wheel and discard the short spacers as they are no longer necessary. Assemble one (1) lock-down plate on each side of the long spacers—between the carriage legs—and then reassemble the carriage wheels. Do <u>not</u> fully tighten the carriage wheel bolts.



See section, *HEAD LOCK-DOWN PLATES*, in the sawmill trailer Operator Manuals to complete the lock-down plate installation once the sawmill is on the trailer.



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 <u>not</u> set the sawhead on the track until instructed to do so later in the assembly process.





REAR POSTS

Using the hardware listed below, attach the rear posts between the carriage leg plates using one (1) M12 X 80 mm bolt, two (2) flat washers, and one (1) lock nut per post.







CROSS BEAM

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

2x	M12 X 110 mm Hex Bolt		1x	Cross Beam	
6x	M12 X 90 mm Hex Bolt		1x	Log Scale Mounting Bracket	500
2x	M12 X 80 mm Hex Bolt		2x	Pulley	
1x	M12 X 35 mm Hex Bolt		2x	Spacer [12 mm Lg]	
11x	M12 Lock Nut				
22x	M12 Flat Washer	\bigcirc			

With the help of a second person, slide the cross beam over the carriage posts. Use six (6) M12 X 90 mm bolts and two (2) M12 X 110 mm bolts (with pulleys and spacers) to fasten it in place. Be sure to install the log scale mounting bracket on the right-side behind the pulley. Install all bolts so they are pointing outward. Use an M12 flat washer under every bolt head and lock nut.

Finally, install two (2) M12 X 80 mm bolts at the top of each carriage leg. Do *not* fully tighten these bolts at this time.







LUBRICATION TANK

With the hardware listed below, assemble the lubrication tank to the front of the cross beam.

4x	M8 X 16 mm Hex Bolt		1x	Lubrication Tank	Ewoodbland series
4x	M8 Lock Nut				

Assemble the lubrication tank to the cross beam with four (4) M8 X 16 mm bolts and lock nuts. Ensure the bolts point inward.







DASHBOARD & HOUR METER

With the hardware listed below, assemble the dashboard to the rear carriage posts.

1x	M12 X 100 mm Hex Bolt		1x	Dashboard	
5x	M12 X 80 mm Hex Bolt		1x	Pulley	
2x	M4 X 30 mm Pan Head Screw		1x	Spacer [12 mm Lg]	
6x	M12 Lock Nut		1x	Hour Meter	
2x	M4 Lock Nut				
12x	M12 Flat Washer				
4x	M4 Flat Washer	\bigcirc			

Assemble the dashboard to the rear carriage posts with five (5) M12 X 80 mm bolts and one (1) M12 X 100 mm bolt (with pulley and spacer) as illustrated on the next page. Use an M12 flat washer under every bolt head and lock nut. Do *not* fully tighten these bolts at this time.





Assemble the hour meter to the right-side of the dashboard through the two (2) small holes. Use two (2) M4 X 30 mm pan head screws, four (4) flat washers (2 per screw), and two (2) lock nuts. Once the entire sawmill has been assembled, snip the wire loop at the top of the meter with either a razor or sharp knife. This will activate the meter to start measuring the vibration of the machine, recording the hours of use on the engine.





Cut wire loop on hour meter after sawmill is assembled



LIFT MECHANISM

1x	M12 X 120 mm Hex Bolt	1x	Lift Mechanism Sub-Assembly	
1x	M12 X 80 mm Hex Bolt	2x	Pulley	
1x	M10 X 25 mm Hex Bolt	1x	Spacer [12 mm Lg]	
2x	M12 Lock Nut	1x	Spacer [5 mm Lg]	
1x	M10 Lock Nut			
4x	M12 Flat Washer			

With the hardware listed below, assemble the lift mechanism to the carriage.

Attach the lift mechanism assembly to the underside of the right-rear carriage post as shown on the next page.

Use one (1) M12 X 120 mm bolt (including the pulleys and 2 spacers—5 mm spacer *between* pulleys) and one (1) M12 X 80 mm bolt. Use an M12 flat washer under each bolt head and lock nut. Fasten the centre tab to the inside of the dashboard using an M10 X 25 mm bolt and nut.

Do not fully tighten these bolts at this time.







LIFT CABLE ROUTING

Route the lift cables listed below.



Each wire rope lift cable comes connected to the back beam at one end and a threaded eyebolt with two (2) M10 flange nuts at the other end. The cable lengths are unique to each side so do not swap them.

Route lift cable A (right side) as shown below.







Route lift cable B (left side) as shown below.

Unthread one (1) M10 flanged nut from each eyebolt, then insert the eyebolt into the bracket on the bottom side of the lift mechanism housing. Secure the eyebolt to the bracket with the M10 flange nut that was removed, sandwiching the bracket between both flange nuts. Repeat the process for the other lift cable. Do not fully tighten this hardware.





LOG SCALE

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

2x	M6 X 25 mm Hex Bolt		1x	Scale Support	· ·
2x	M6 Lock Nut		1x	Magnetic Scale [White]	
2x	M6 Flat Washer		1x	Magnetic Scale [Yellow]	ngnanangngngngngngngngngngngngngngngngn
			1x	Scale Support Spacer Plate	0
			1x	Scale Indicator Arrow Bracket [Rear]	
			1x	Scale Indicator Arrow Bracket [Front]	0
			1x	Scale Indicator Arrow	0
			1x	M8 X 25 mm Knob	



Bolt the scale support and spacer plate to the band wheel housing with two (2) M6 X 25 mm bolts, flat washers, and lock nuts as shown below.



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.



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.



Assemble the indicator arrow brackets and arrow to the log scale mounting bracket using the M8 threaded knob. Adjust the position of the mounting bracket forwards or backwards if the arrow locking plates bind on the log scale bracket as the sawhead is raised and lowered.



Store the other magnetic scale on the front side of the scale support when not in use.





PUSH HANDLE

With the hardware listed below, assemble the push handle to the right rear carriage leg.



The push handle is installed in an upward position when the sawmill is ground-mounted (**below-left**). Or it can be rotated 180° if the sawmill is high above the ground on a sawmill trailer or on a purpose-built stand (**below-right**).



Sawmill Trailer Push Handle and Throttle Handle Recommended Position



When a desired push handle orientation has been decided upon, attach the push handle to the side of the post using two (2) M10 X 70 mm bolts and M10 flanged lock nuts as shown below. Fully tighten these bolts.



The push handle can be adjusted/rotated forwards or backwards to suit the ergonomics of the operator in either ground-mount or sawmill trailer configurations.



THROTTLE HANDLE AND CABLE

The throttle handle and its mounting hardware come loosely assembled. The throttle cable is already connected between the handle and throttle lever on the engine.



Before assembling the throttle handle to the push handle, ensure the throttle cable routes from the engine and then between the log scale support and the front-right carriage post as shown below.



The hardware needs to be unthreaded from the throttle handle prior to assembly. There are two (2) M6 hex bolts, two (2) lock nuts, and six (6) flat washers.



Assemble the throttle handle to the uppermost pair of holes in the push handle as shown. Fully tighten all the hardware.



To take the slack out of the throttle cable, first loosen the M4 Phillips pan head screw where the unsheathed portion of the cable is attached to the engine. Pull the throttle handle all the way up until it stops (Idle Position). Ensure each end of the throttle cable is fully nested into both adjustment screws. Then use pliers to pull the unsheathed end of the cable until it is tight.

Tighten the Phillips pan head screw while the cable is being pulled tight to secure it.





BAND WHEEL DOOR LATCHES

Using the hardware listed below, assemble the two (2) bottom band wheel door latches.

8x	M4 X 10 mm Phillips Flat Head Screw		2x	Latch	
4x	M4 Lock Nut				

Use two (2) M4 X 10 mm flat head screws per latch. Assemble the latches to the pre-installed spacers on the bottom of the band wheel housing. On each band wheel door, install the hook-shaped catch using two (2) M4 X 10 mm flat head screws with lock nuts.





ADJUSTABLE BLADE GUIDE HANDLE

14 horsepower models only. If the 9.5 horsepower model was purchased, proceed to the next step.

Using the hardware listed below, assemble the handle to the aluminum adjustable blade guide arm.

1x	M12 X 130 mm Socket Head Cap Screw	2x	M12 Flat Washer	\bigcirc
1x	M12 Lock Nut	1x	Handle Grip	

Assemble the handle by passing the M12 X 130 mm socket head cap screw through one (1) M12 flat washer and the handle, and thread it into the aluminum blade guide arm. Then secure it on the back side of the arm using the other M12 flat washer and M12 lock nut.





LUBRICATION TUBING

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



Route the shorter *tank-to-valve* tubing from the blue ring fitting on the tank to the <u>vertical</u> barbed fitting on the auto-lube valve.

Route the longer *valve-to-guide block* tubing from the <u>horizontal</u> barbed fitting on the auto-lube valve, down through the bracket on the post sleeve, then to either the barbed fitting (14 hp) or the copper drip nozzle (9.5 hp) on the guide block holder shaft.





9.5 horsepower models only. However, if the optional adjustable blade guide kit was purchased for the 9.5 hp sawmill, ignore these steps.

The copper drip nozzle comes assembled to the shorter *valve-to-guide-block* tubing. Remove the tubing from the copper drip nozzle and assemble it into the *follower-side* guide block holder as shown below. Other sawmill components have been removed for clarity.





TIGHTEN CARRIAGE WHEEL BOLTS

Tighten the four (4) M20 X 120 mm bolts that fasten the carriage wheels to the carriage side plates.

