



HFE-21 HOMESTEADER SAWMILL OWNERS MANUAL

8201 State Route 12, P. O. Box 345, Barneveld NY 13304

A N O T E F R O M H U D - S O N

Thank you for your purchase of a sawmill from Hud-Son Forest Equipment. We are pleased that you chose us as your supplier of your forestry equipment.

Hud-Son Forest Equipment has been in the forestry business since 1965 and prides itself on developing new and innovative products for the forestry business.

Our product line is always transforming, so please check us out on the web at www.hud-son.com for the up-and-coming developments we are making.

Should you have any questions about the setup of your mill or have any technical questions, please feel free to contact our technician Monday-Friday, 8:00 AM to 4:30 PM EST and on Saturday from 8:00 AM to 12:00 PM at 800-765-7297. We are always available to our customers for any questions or concerns they may have about their equipment.

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INTRODUCTION

Purchaser Agreement

By accepting the delivery of your sawmill from Hud-Son Forest Equipment, you agree that you will not modify your mill from its original assembly. This will VOID any warranty from Hud-Son Forest Equipment.

Please fill out the information for quick reference:

Dealer: _____
Phone Number: _____
Address: _____
Purchase Date: _____
Model: _____
Serial Number: _____

Safety Guidelines

The reason for this safety section is to inform the operators and maintenance personnel of the precautions you should use while operating or servicing Hud-Son sawmills. Please use good judgement and keep safety in mind when operating Hud-Son machinery. Please read and follow ALL the instructions in this manual before operating your Hud-Son sawmill. These instructions are for your benefit. Your ability to understand and follow them is essential for the safe operation of this product. Always call your service dealer if you have any doubts about the operation of your sawmill.

General Safety Procedures

Always wear safety glasses, ear protection, and gloves while operating or servicing the machine.



1. Keep all body parts and foreign objects away from all moving parts. Do not reach into the machine while it is operating. (Be Sure the Machine is OFF.)
2. Do not attempt to override any safety features on the machine.
3. Inspect the machine before every use for wear, damage, and to ensure that it is functioning correctly. If the machine has damage or is not running correctly, DO NOT attempt to operate it. Repair or replace all parts when necessary.
4. Do not wear loose clothing or jewelry while operating or servicing the machine.
5. All replacement parts should be of the same specifications as the original parts on your Hud-Son machine.
6. All guards and covers must be in place before operating the machine.
7. Before starting the machine, be sure it is set up properly.
8. DO NOT operate or service any machinery while under the influence of drugs or alcohol, while tired, or if you are unable to control your movements.
9. You should replace all worn or damaged decals.
10. Modifications to the machine without knowledge and approval from Hud-Son Forest Equipment will render any warranty and service guaranties invalid.

11. Use the machine only on level stable ground.

The safety rules are for the benefit of the persons operating and servicing the machine, to prevent injury to oneself or others. Please review all setup and operating procedures before attempting to run the machine, whether covered in this manual or not, to ensure the safest operation of this machine.

CAUTION

Before, During and After Operation

Check the engine compartment for sawdust and wood trash buildup as well as the exhaust area to prevent fires from starting due to excessive build up. Always clean the sawdust from under the machine after shutting down, and be sure there is no sawdust build up near or around the muffler area.

Hud-Son Forest Equipment is not liable for damage to property or personal injury due to the failure of any person and/or operator to follow the instructions and recommendations set forth in this manual or any other instructions or recommendations contained in other literature issued by other vendor manuals in the owner's kit.

Product Safety Decals

The below decals are used on Hud-Son sawmills to identify warnings and prohibited actions. It is especially important that you understand the meaning of the decals for your safety and the safety of others. Decals should be replaced if worn or illegible.

<p>WARNING: It is the sole responsibility of the operator to ensure they are properly trained in the set up and operation of this machine. Failure to do so may result in personal injury and damage to the machine.</p>	<p>DANGER: Serious Injury or Death – Keep hands clear when equipment is running!</p>
<p>Over 18: Must be over age 18. Under 18 increases chance of severe injury.</p>	<p>Fire Hazard: Keep Sawdust Away From Motor.</p>
<p>Caution: Do Not Operate without guards in place.</p>	



Set-Up and Operation

The HFE 21 requires a minimal amount of set-up before operation.

HFE 21 Set-Up:

Receiving and Unit Inspection

1. Upon receiving your unit do a walk around and visual inspection of the unit. Make note of any damage and contact us immediately with any issue you may have.

Note: All equipment is assembled, tested and inspected before shipping. Damage can occur during transit, which could cause the unit to not operate correctly.

Unpacking Unit

2. Flatbed trailer delivery: Remove straps or chains securing the unit.
3. Remove lag screws and strapping that secures the machine to the skid.

Moving the Unit

(Forklift is needed for track units)

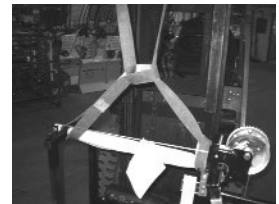


Figure 1

1. Machine needs to be lifted at the lifting point (see figure 1) for lifting points. Use a safety device for lifting to avoid any damage/injury.
2. Move unit to operator's site; lower unit and remove unit from forks.

Before operating the Hud-Son Sawmill the following procedure needs to be performed:

1. Check oil and fuel levels.
2. Check blade lubrication and hydraulic levels (if applicable)

FOR BLADE LUBE USE: To prevent pitch build up:

- In Summer months, use 1 oz. of dish soap or Pine Sol to 1 gallon of tap water. This will help keep the blade clean and cooler.
- In Winter months, use 1-gallon regular windshield washer fluid (usually blue in color) and add 1 oz. of dish soap or Pine Sol.

ADJUSTMENTS: Before starting the engine, adjust the flow of lube to the blade by adjusting the flow valve closest to the tank so there is a constant drip. If more lube is necessary, adjust the valve until there is a constant drip. If you still need more lube, continue to adjust the valve until the desired flow is acquired.

1. Be sure the blade is sharp and tight.

2. Be sure all levers and switches are in the neutral/center position before starting the engine (if applicable).
3. Be sure all people are clear of the equipment.
4. Make sure the unit is level and stable.

Do Not Use: Petroleum products, petroleum-based products, flammable products, or vegetable oil-based products. The above products mixed with water or straight will cause the blade to come off, fluid will be too slippery between the blade and the wheel belting causing the blade to come off.

Start Engine Procedure

1. Summer Use: Be sure to let the unit idle for at least 5 minutes before any use.
2. Winter Use: Be sure to let the unit idle for at least 15 minutes before any use.
3. If the unit has been sitting for a period, allow the unit to run long enough to have the oil do a complete circulation before use.

Steps for Setting-Up the Hud-Son Sawmill:

Machine Set-Up

1. For best results and easier set-up, the mill location should be level and free of obstructions.



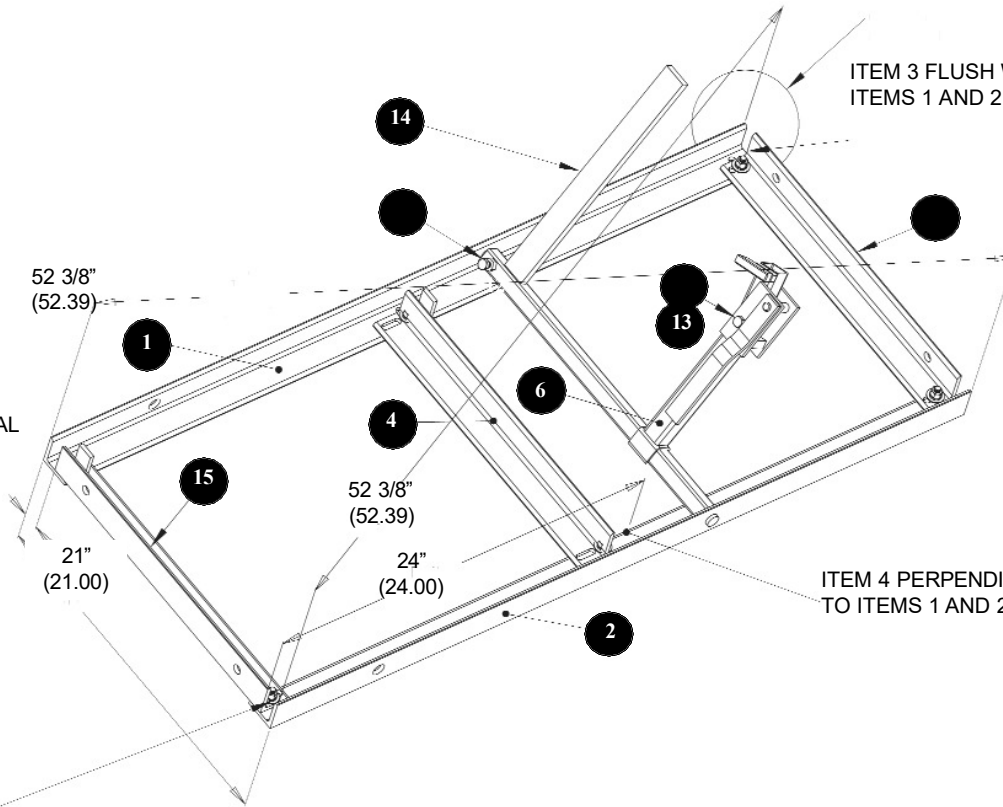
Figure 1-A

2. A level cement pad is the best option, but square timbers also work well. You will need to support the track at each joint and under each cross member.
3. You will need to be sure that the mill is level from front to back and side to side. The better the mill is supported the better the mill will work.
4. There should be a 4 ft. clear work area around the entire mill.

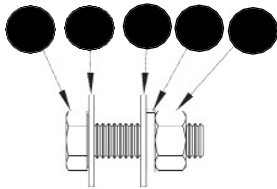
NOTE: ITEM 14 (J-BAR ASSY) INCLUDES ITEMS 5 AND 11

RIGHT ANGLE 4 CORNERS

ITEM 3 FLUSH WITH THE ENDS OF ITEMS 1 AND 2



RAILS (ITEMS 1 AND 2) MUST BE PARALLEL. 21" FACE TO FACE THE ENTIRE LENGTH.

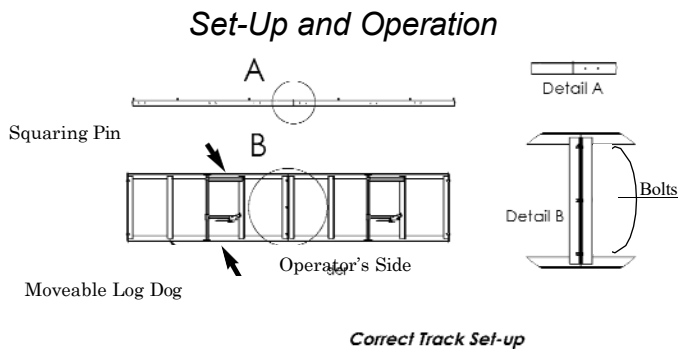
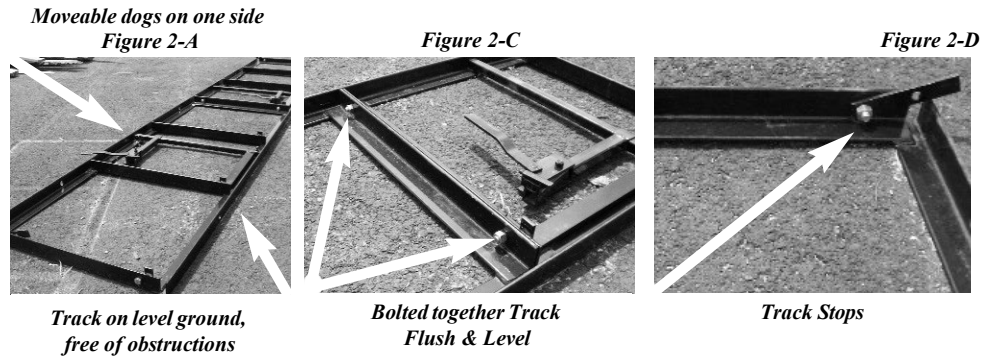


ITEM 4 PERPENDICULAR TO ITEMS 1 AND 2

SECURE WITH 3/8" FASTENERS AS SHOWN SIX PLACES

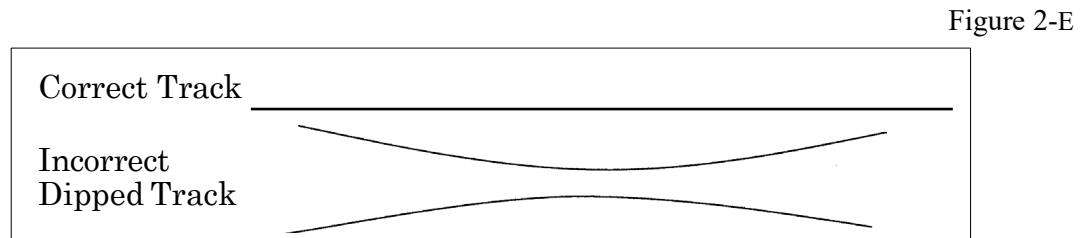
Track Assembly

1. Dogs need to be facing in the same direction. The moveable dogs need to be on the same side of the track, which is on the operator's side of the mill head. (figure 2-A).
2. There are additional holes in the track so that the dogs can be moved to different positions.
3. The tracks are bolted together using bolts and nuts. The HFE- 21 track has two end bolts/nuts per end. Line up the tracks so that the holes align. Place the provided bolts through the holes and finger tighten the nuts. Adjust the track height so that the two pieces of track meet flush and level. Work one side and then the other, until level. Check the track to see if it aligns vertically; if not, use a hammer to tap it into position. Once it is aligned, tighten the bolts securely. (figure 2-C)



a) The track comes with four track stop tabs. They consist of the track stop, tab bolt, and nut. Place the track stops in the four end corners of on the inside of the track. Place them on the inside of the track; secure them into place with the bolt and nut. The track stop tabs are placed at an angle over the track to prevent any further travel of the mill head. (See figure 2-D)

b) To saw a board accurately, the track needs to be straight and flat. To obtain this, use a string tied tight from end to end or a level. If the track/trailer has a crown or dip, you will not be able to saw a straight board. (See figure 2-E)



Machine Set-Up

1. Set-up area should be relatively level and clear of debris. The head will need to roll down the track so be sure the area is free of obstructions.
2. Once the head is set on the track, roll it down the track to be sure it is level. If the head rolls on its own, you will need to adjust your leveling. Return the head to the center of the track and relevel. Be sure to lock head into place so it cannot roll. Once the head is secure you can reset the leveling.

*****Always secure the head before re-leveling the track or trailer*****

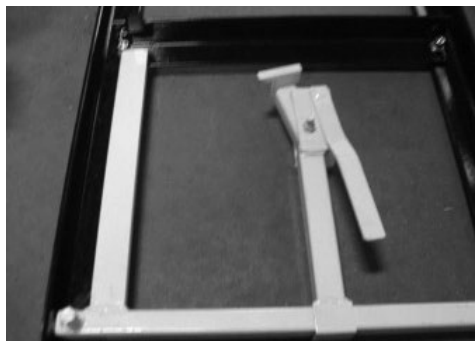
3. Once the track is level, the head should not roll on its own. If your track is not level, it will **NOT** saw your boards correctly.

Setting Head on Track

- 1) Install the head with operator's side on the same side as the moveable dog. The discharge side is the side with the squaring pins.
- 2) Raise the head 3 inches and roll from one end to the other. The head should roll smoothly along the track. If the head "thumps" when it passes over the track joint, check to make sure the tracks are level. Re-level the track and try rolling the head again. Also be sure to watch the track as you roll the head. If the track moves, you will need to support the track in that area.



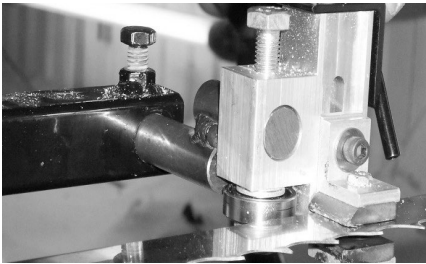
Correct head placement; Operators side is on side with the scale stick.



Squaring arm on left, adjustable dog on right.

Guide Adjustment

1. Set the guide bracket so that the back bearing is on the same plane as the blade (so if the blade was to wander back it would hit the back bearing evenly across the middle of the roller). If the bearing needs to be adjusted up or down, loosen the bolt that holds it to the guide bracket and space it in either direction using the washers that are on either side of the bearing.
2. Once the bearing is set, position the guide bracket so that the bearing is spaced 1/8" behind the back of the blade. Once the bearing is in position, tighten the bolt on the top of the guide bracket into place. Be sure the guide is 90° to the blade.
3. The guide shoes are to be set using a sheet of paper to gauge the spacing. Place the paper between the shoe and the blade; slide the shoe so that it is pinching the paper, and tighten the bolt so that the shoe is set in place. Do the same on the bottom of the blade. Note that you do not want the shoes to be pinching the blade so hard that they are prohibiting blade travel.
4. Make sure that all nuts and bolts are tightened firmly.



Pictured is a close-up of the guide. It shows all the bolts and bearings that can possibly be adjusted. Note how the teeth are outside of the guide.

Tools that will be needed:

1. 17 mm wrench
2. 17 mm socket
3. 9/16" wrench
4. 3/16" Allen wrench

Adjusting Sawmill Guides

Purpose of the Guides

1. Superior Hud-son guide design allows support on the top, bottom and back of the blade. This guide design limits the chance of blade wander.
2. The lower guide shoe holds the blade up and decreases the chance of “diving.” Most companies only use top support.
3. All guides are aligned and set at the factory; however, occasionally they get moved out of adjustment in shipping or after a period of usage. It is important that they are checked often for proper alignment and adjusted correctly.

Set-Up and Operation

Tensioning the Blade on all Models

NEVER tension your blade with the engine running. Your mill is shipped to you without any tension on the blade. If there is tension left on the blade for a period, it can cause flat spots in the wheel belts. This will cause the blade to fall off the wheel. Always remember to de-tension your blade when you are done sawing for the day.

1. To tension or loosen the blade, see figure below.
2. Turn the adjusting bolt or stud clock- wise until 30-35 pounds of torque is achieved. The recommended tool for this is a torque wrench. Rotate the blade by hand 3-4 full revolutions--this centers the blade on the wheels.
3. With gloves on, pull up on the blade at the center guard. Allow for no more than a ¼" movement up or down on the blade.
4. Blade guides must not be so tight that they cause the blade to heat up. If this occurs, refer to page 11 and re-adjust the guides.
5. Perform a simple test called the "Flutter" test. Put the guards on and then run the engine at full RPM's (be sure the blade is not in a cut during this test) and watch the blade under the blade guard. The blade must run straight. If it does not, shut the engine down and apply more tension. Keep in mind that over tensioning will also cause the blade to flutter. You should obtain proper tension around 30- 35 pounds.
6. A tensioned blade should come off the bottom of the band wheel and run straight across to the other band wheel so there is NO sag in the blade between the two wheels
7. Once the track is set, the head is in place and the blade is tensioned correctly. You are almost ready to cut.



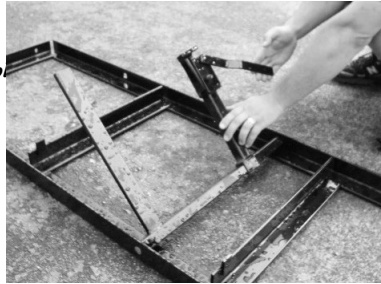
Tension nut for smaller units

Setting Logs

Place the log, determined by the mills size, on the center of the track. Using the log dogs, secure the log to the track. Be sure to dog the log high enough (1/2" way up the log) to ensure the log does not move. If the log is too big for the log dog to hold in place, but your sawmill head still rolls unobstructed use the "Cheater" to hold it.



Cheater



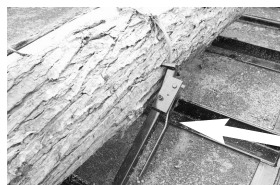
Getting Ready to Cut

Now is the time to debark or clean your log. This can be achieved by the simple chainsaw attachment, called a Log Debarker (available through Hud-Son Forest Equipment Inc.) or you can pressure wash or use whatever method available to remove any mud or bark from the logs. By debarking and cleaning your log, it will extend the life of your blade.

1. Adjust the Hud-Son guides so that they are slightly (no more than 2 inches) wider than the maximum width of the log.
2. Find the top of the log with the blade. Remember, that you may have cheaters in place so be sure these are clear when making the first cut. You will be removing the top portion of the log. (top slab)
3. Crank your head down to the desired height and click up one notch to set the head. Make sure your blade will clear your dog assembly.
4. Start your engine and let it idle for at least 5 minutes. (Refer to the engine manual for proper engine maintenance)
5. With the engine in idle position, increase the throttle to start the blade. Sawing should always be done with the engine in full throttle.
6. Gently push the saw head through the log, pushing on the head frame. If the engine starts to labor, you are going too fast, so slow down. Go slow through burls and knots as the engine may bog down through these parts of a log.
7. When you are at the end of the log,
8. power down the engine, crank the head up so that will clear the log and roll back to the front of the log. For ease of operation, put the slabs on the operator's side of the mill, this way you will not have to dig through sawdust for your lumber.
9. You now have a flat surface on top of your log, remove the cheaters (if applicable), you will no longer need them, as long as the log dogs will hold the log in place.
10. Set your log dog assembly so that they are standing in the track. Turn the cut side of the log, using a cant hook, $\frac{1}{4}$ of a turn. The flat side must be flush against the squaring pin to assure a square cant.
11. Adjust the log dog at an angle to the track so that the blade can pass over the top, but so that the dogs are effective in securing the log.
12. Once again, increase the engine throttle to start the blade, and saw another slab. You will repeat step (i) until your log is squared into a cant. You may now saw your dimensional lumber.
13. Steps (i-k) may not be applicable if a cant is not desired.

Debark the log.

Place flat side, flush against squaring pin to ensure a square cant.



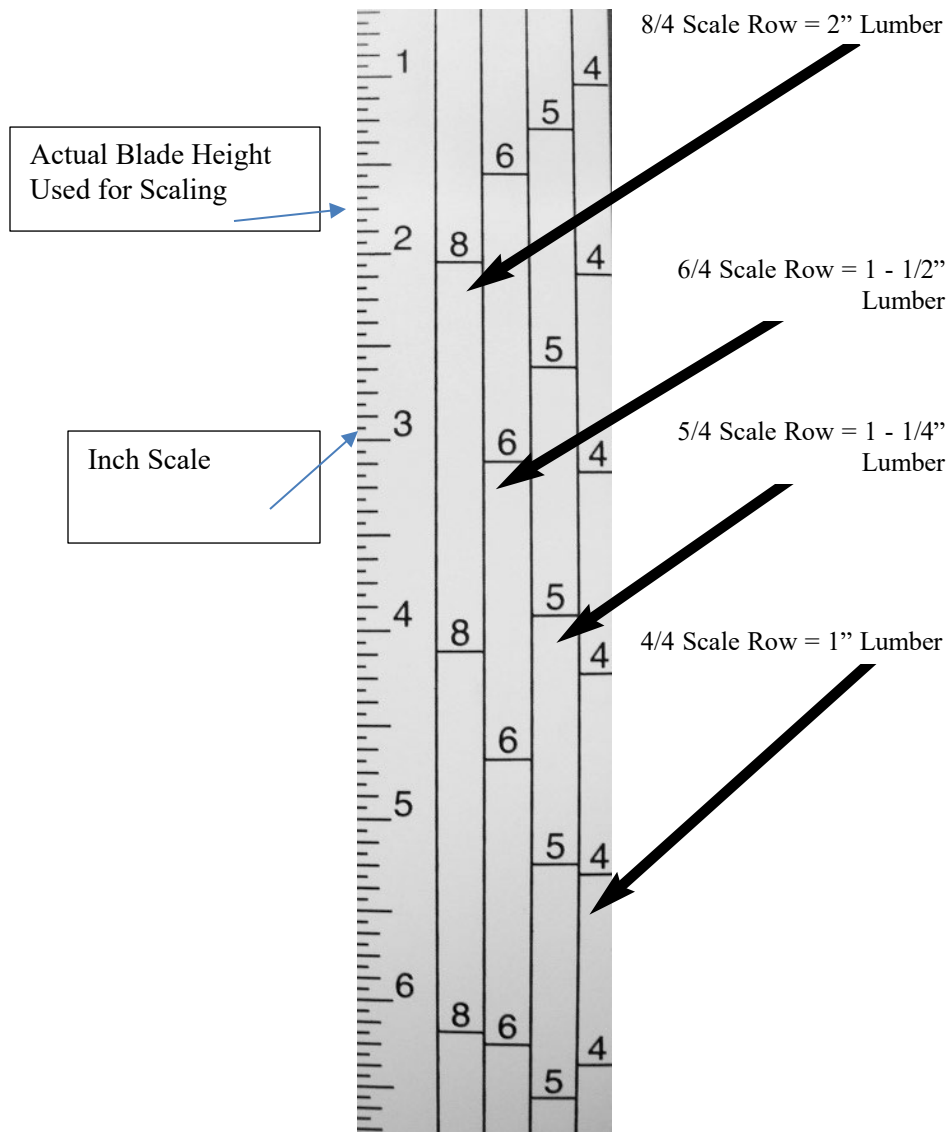
Adjustable dog, set at an angle so that log can be sawed without interference.

Using the Lumber Scale

All Hud-Son sawmills are equipped with a Lumber Scale. The scale is used to make the dimensioning process simple. The scale incorporates 4 separate scales with the blade kerf factored in for each increment.

1. Scale	2. Resulting Thickness
4/4	1"
5/4	1 - 1/4"
6/4	1 - 1/2"
8/4	2"

Note: The 1" standard ruler does NOT account for kerf. When using this scale be sure to plan on kerf. 1" increments will result in approximately a 7/8" end result, depending on what blade is being used.



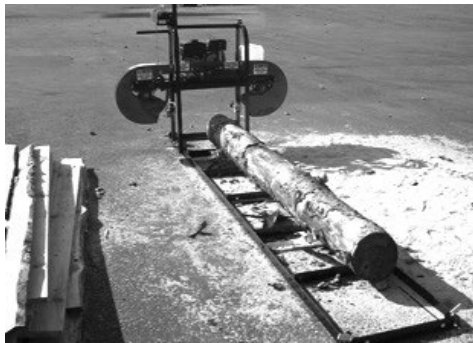
I. Cutting Dimensional Lumber

You can cut down to a 1" thick bottom board. To achieve this you will use the move- able side of the dog and the short squaring pins welded in the track.

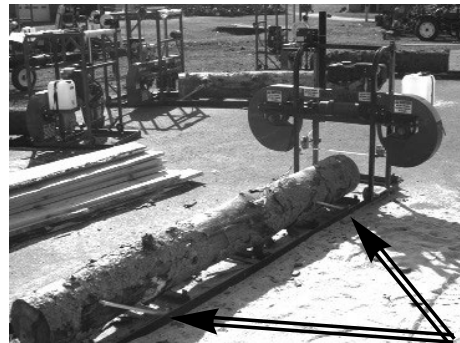
a) You will need to determine the size lumber that can be cut and how many, then using the scale start sawing your lumber. Lower the blade to desired thickness and saw your board. Repeat this process until all lumber is cut.

b) You may need to turn your cant to make the desired lumber.

c) See pictures 1-5 on the following page.



#1. Place log on track.



#2. Use log dogs to hold log in place.



#3. Adjust blade height, rev engine.



#4. Start cutting.

#5. *Cut log into desired dimensional lumber.*



End of Processing Lumber

- a) Completely decrease engine throttle and turn engine switch to off position.
- b) The blade will continue to turn automatically and will coast to a stop.
- c) If you are done sawing for the day, de-tension the blade so that you do not cause damage to bandwheel belts. Lower the mill head so that the lift cable has slack.

Replacing the Blade

No matter how well you care for your blade, they will dull after time and need to be changed. Longevity of your blade depends on how well you maintain it.

- a) The engine needs to be stopped, turned off and the key removed. To ensure that it can not be accidentally turned back on. Engines with a manual start, will need the spark plug wire removed prior to servicing. On electric motors, a lockout/tagout should be used.
- b) Loosen and remove the guard retainer nuts so you can remove the outside and center guards.
- c) Loosen band blade tensioner bolt until adjusting bolt is flush with threaded plate.
- d) With a gloved hand, put hand on the top of the band blade and push down (Use extreme CAUTION, dull blades are still sharp and may be hot).
- e) Remove band blade from both band wheels and take out of carriage.
- f) Inspect new or sharpened blade, be sure blade teeth are facing in correct direction. Teeth should always point away from the operator. (Towards discharge chute). Be sure to wipe blade clean of all oily substance prior to installing. A clean, dry rag or cloth works best.
- g) Starting from your stationary wheel set the blade on the wheel, and then thread through your guides. Work the blade over the tensioning wheel until it is set.
- h) Lightly tension the blade to remove the slack, and then turn the wheel in the direction of travel (towards the operator) 3-4 rotations to be sure the blade is tracking properly on the wheel.
- i) Once the new blade is tracking properly, replace the guards and re-tension the blade.

Blade Maintenance

Longevity of band blades depends on how well they are cared for. Using a lube tank, log debarker, band blade sharpener, and/or tooth setter, all will help keep your blade in top condition. Be sure to clean your logs by using a pressure washer or debarker to keep them free of mud and debris.

Blade suggestions

- a) Never force a dull blade, this will result in overheating of the blade and result in wavy lumber.
- b) Overuse of a blade jeopardizes the ability of the saw blade to be re-sharpened.
- c) A new blade may stretch after cutting and may have to be re-tensioned to assure quality lumber.
- d) De-tension the band blade after each day of cutting.
- e) Never operate the mill without the guards in place.

Changing Band Wheel Belts

To Change the Belt on the Idler Side of the Sawmill (operator side):

*Make sure you are on the idler side of the mill (side with the tensioner bolt).

1. Remove All Guards.
2. Remove the old belt from the band wheel.
3. Mark the bearings in two spots from the frame to the bearing with a scribe or fine marker. Be sure the marks are visible on the mill and bearing. This will help you realign the band wheel when you put it back together.
4. Loosen and remove the two bolts that hold the bearing on the sawmill frame. **Loosen only one side.** Once the bolts are removed, the band wheel should tip down so you can remove the old band wheel belt from the shaft.
5. Slide the new band wheel belt onto the shaft and insert the bolts back into place and snug them up. Realign the bearings to the frame using the marks you created to help you get the bearing in its original position.
6. Retighten the bearing bolts and torque to 86 lbs.
7. Run the new band wheel belt onto the band wheel as you would if you were changing a bicycle tire. Some belts will go on hard, so use soap and water to help it slide onto the pulley and into the groove.
8. Make sure the band wheel belt is seated properly all the way around the pulley.
9. Recheck for alignment from band wheel to band wheel using a string or straight edge.
10. Reinstall the blade, making sure that it is tracking properly after installing the new band wheel belt or belts.

NOTE: Some of the time after installing a new band wheel belt, you may have to adjust the tracking slightly. If your marks were accurate on the frame, the belt should track the same as before. If it doesn't, then realign the band wheels.

To Change the Belt on the Drive Side of the Sawmill:

*Make sure you are on the drive side of the mill.

1. Remove drive belt guard. Using a wrench or screwdriver, run the drive belt off the large drive pulley. **If your mill has an idler pulley, Do Not Loosen the belt by moving the idler tension pulley. Use the same procedure.**
2. Repeat steps #1 through #7 above.
3. Run the new band wheel belt onto the band wheel as you would if you were changing a bicycle tire. Some belts will go on hard, so use soap and water to help it slide onto the pulley and into the groove.
4. Repeat steps #8 through #10 above.

Care and Maintenance

NOTE: Hud-Son Sawmills require a certain amount of care and maintenance, so they continue to perform at their best. If you are not confident in your ability to perform the maintenance that is required, please investigate having a professional come in and perform the work for you.

Cleaning your Sawmill:

- ✓ Using an air hose, blow off all loose debris that builds around the unit. Use extreme caution when cleaning the mechanism.
- ✓ Never use flammable or combustible materials to clean the mill. Be in a well-ventilated area. Always wear protective equipment to prevent injury.
- ✓ Properly dispose of waste materials.
- ✓ Wipe down the idler and pulley wheels using an air hose, brush, or rag.
- ✓ Clean and inspect blade guides.

Preventative Maintenance

- ✓ For electrical engines, follow the correct Lockout/Tagout procedures.
- ✓ Check for correct blade tension guaranteeing that 30-35 pounds of torque is on tensioning bolt/nut.
- ✓ Check the track to make sure it has not moved and make sure it is level.
- ✓ Check blade tracking, a 1 - ¼" blade should be centered on the band wheels and the back of the blade should be flush with the band wheel.
- ✓ Check bearing, idler and pulley wheels for signs of wear.

Signs of wear are:

- ✓ Excessive heat
- ✓ Squeaking sounds
- ✓ Looseness

If these signs occur:

- ✓ Grease idler, pulley wheels, and bearings.
- ✓ Grease blade tensioner shaft.
- ✓ Grease the lift tubes.
- ✓ Check all belts for wear and to make sure the belt tension is "taut". Belt should have no more than ½" deflection.

MAINTENANCE SCHEDULE CHART
Service Recommendations for Hud-Son Sawmills

Service Item	Daily	40 Hours	See Manual
Check Engine Oil Level	√		
Check/Clean Engine Air Filter			√
Check Hydraulic Oil Level (fill 1" from top) if applicable	√		
Clean Unit of Bark, Sawdust, and other Debris	√		
Lubricate Grease Fittings and Oil Points (see Diagram for location)		√	
Check Tire Pressure – Upon transport (if applicable)		√	
Check Cylinders and Seals for Leakage	√		
Check Feed Chains for Tension (if applicable)	√		
Clean Battery Connections		√	
Check Wiring and Connections for Corrosion and Decay		√	
Lubricate Chains (if applicable)		√	
Check Blade Sharpness	√		
Fuel – Fill as needed	√		
Blade Lubricant – Fill as needed – Refer to Fig. 2A	√		
Check hoses/gauges for damage, cracks, leakage (chaffing, dry rot, cracks) – Replace hoses if applicable	√		

FOR BLADE LUBE USE:

In the Summer months, use 1 oz. of dish soap or PineSol to 1 gallon of tap water to prevent pitch build up on the blade. This will help keep the blade clean and cooler. In the Winter months, use regular windshield washer fluid (usually blue in color) with 1 oz dish soap or PineSol.

** Change engine oil after 8 hours of operation on a new engine (break -in period)*

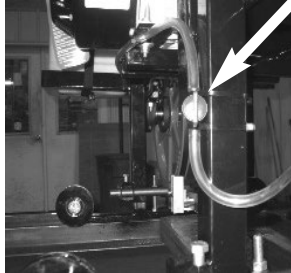
CAUTION!

Maintenance procedures requiring special training or tools should be performed by a trained technician. A routine inspection of the entire machine is encouraged. Check to see if all fittings are tight and secure. Make sure all nuts are tightened. Look for any damage that may need to be repaired. Routinely checking the equipment and proper maintenance will keep the Hud-Son Saw Mill running to the best of its ability.

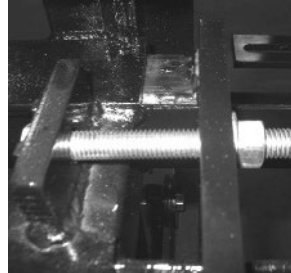
LUBE ORDER



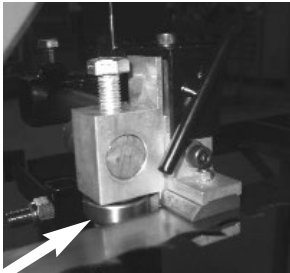
Lube tank for blade lube.



Blade lube on/off and flow adjustment. Adjust flow as needed.



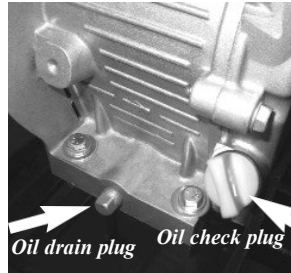
Bandblade tensioner bolt, keep threads clean and lubed.



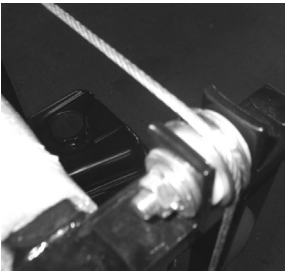
Blade guide bearings. Oil lightly after each use to prevent rust. DO NOT OIL BLADE.



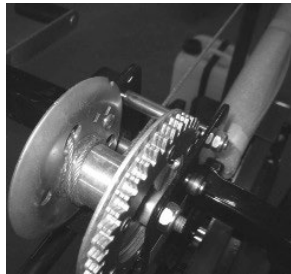
Remove guard nuts to remove blade guards to change blade.



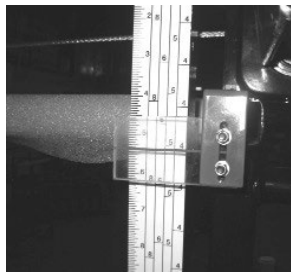
Engine oil check#1, Engine oil drain #2, 10 W - 30 Wt oil.



Cable pulley (light oil)



Winch - oil lightly on gears and cogs



Sight Glass (clean daily)



Tensioner slide, (grease weekly)



Gasoline fuel tank



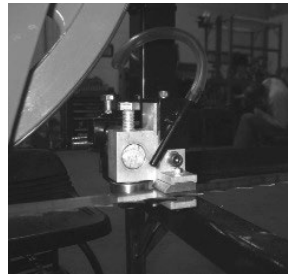
Owners manual tube



Engine throttle lever, always run engine full throttle when cutting.



Air filter cover



Blade lube tube, keep end clean and open.



Choke lever



Drive wheel belt tensioner



On/off switch



Grease all bearings weekly or as needed.



Lift tubes: keep Clean and oil lightly daily.



Guide assembly, keep clean and lightly oil all parts.



Track wheel, keep groove clean and lightly oiled.



Electric mill, 220 volts, on/off switch.



Electric mill plug in.

Parts and Warranty

Outsourced components will be warranted by the respective company for a period equal to the warranty in place at the time of shipping, as shown below from date of purchase.

Description	Part Number	Warranty
Gasoline Engine	ENG-01-6.5	2 Years - Call your servicing Hud-Son Dealer.
Electric Engine		1 Year - Call your servicing Hud-Son Dealer.
1.5" Pillow Block Bearing, 1" Pillow Block Bearing	BEA-01-24	6 Years - Call your servicing Hud-Son Dealer.
Drive Belt	BEL-01-24, BEL-02-58-077, BEL-02-58-085, BEL-02-58-092	1 Year - Call your servicing Hud-Son Dealer.
Rubber Wheel Belting	BEL-02-58-049, BEL-02-58-56.5	
Urethane Wheel Belting	BEL-04-58-049, BEL-04-58-56.5, BEL-04-58-077	1 Year Defect - Not Melted
Tapper Lock, SK Bushing	BUS-01-24-44	1 Year
Drive Belt Tensioner (Idler Pulley)	WHE-03-06-48-1250	1 Year
Guide Assembly Left/Right (See breakdown for parts list)	BLG-02-01	30 Days - Call your servicing Hud-Son Dealer.
Scale Sticker	DEC-36-01	1 Year

Site Glass Assembly	KIT-001-01	1 Year
Cable Lift Kit Assembly	CAB-01-0532A	1 Year
Band Blade	BLA-132-20 (BLA-LENGTH WIDTH IN 16THS)	1-800-765-SAWS
1-1/2" Shaft	BLA-132-20 (SHA-01-LENGTH IN INCHES)	6 Years - Call your servicing Hud-Son Dealer.
Bolt for Track Wheel	HAR-12-12-64	2 Years - Call your servicing Hud-Son Dealer.
Track Sections	MIL-15-01-21	1 Year - Call your servicing Hud-Son Dealer.
Axles (Trailer Models)		1 Year - Call your servicing Hud-Son Dealer.
Hydraulic Motors, Pumps, Valves, Hose & Fittings		1 Year - Call your servicing Hud-Son Dealer.
Sprockets & Chain		90 Days - Call your servicing Hud-Son Dealer.
Clutch	(HFE-121) CLU-02-12 (HFE 30/36, OSCAR MODELS) - CLU-02-16 OSCAR 52/60 CLU-02-18	30 Days - Call your servicing Hud-Son Dealer.
Band Wheel	WHE-02-44-288	1 Year - call your servicing Hud-Son Dealer.
Log Dog w/ Back Stop	Dog -21 - Dog 228 Dog (30/36)	2 Years - Call your servicing Hud-Son Dealer
Log Dog Only	MIL-15-02S	2 Years - Call your servicing Hud-Son Dealer.
Track Wheel w/ Replacement Bearing	WHE-40-12-53	2 Years - call your servicing Hud-Son Dealer.

Replacement Bearing for Track Wheel	BEA-03-12-24t	2 Years - call your servicing Hud-Son Dealer.
Pulley for Lift Cable	CAB-01-0532	1 Year - Call your servicing Hud-Son Dealer.
Cheater	MIL-15-06-221	2 Years - Call your servicing Hud-Son Dealer.
Guide Pins	MIL-10-0000-001	2 Years - Call your servicing Hud-Son Dealer.
Modular Guide Tube	TUB-20-09, TUB-20-20, TUB-20-35	2 Years - Call your servicing Hud-Son Dealer.
Winch	WIN-01-2000	1 Year - Call your servicing Hud-Son Dealer.

This manual contains the latest information and specifications at the time of publication. We have the right to make changes as needed. Any of the changes to our product may cause a variation between the illustrations and explanations in the manual and the item that you have purchased.

DISPUTES

For all disputes, claims and causes of action arising out of the delivery, use, or warranty claims for personal injury and/or property damage must:

1. Claimant must provide a written notice of the claim or dispute to the company (at the address below) at least 30 days after the claim arose prior to commencement of any action.
2. The company has 60 days to make a decision on the claim and will provide a written response to the claimant.
3. No action may commence until after the company has provided its decision on the claim.
4. All claims against the company for any cause related to delivery, design defects, repairs, use of the equipment or warranty shall be filed in Supreme Court, Oneida County, State of New York. The parties may file for Arbitration in Oneida County New York after consent by both parties.
5. Construction and interpretation of this agreement and all claims shall be subject to the Laws of the State of New York.
6. The address for submission of claims is:
Hud-Son Forest Equipment
PO Box 345
State Route 12
Barneveld, NY 13304
7. Notices under this agreement must be in writing and sent by certified or registered mail.

Warranty

Warranty registration cards must be completed and returned to Hud-Son Forest Equipment, Inc. within 30 days of purchase. Failure to do so will void the warranty. Altering the mill in any way will void the warranty. Warranty claims must be registered with the Dealer/Distributor. Defective parts must be returned to the Dealer/Distributor at the owner's expense. The Dealer/Distributor will assume the cost of the shipping one way regarding any warranty claim. Freight is standard UPS ground. Any expedited services are at an additional charge and must be paid in full before shipping at the owner's expense. The shipping of warranty/parts out of the continental USA will not be covered under the warranty. The labor charge out of the continental USA is also not covered under the warranty.

Fuel system problems caused from failure to use fresh fuel (less than 30 days old); gummy deposits; varnish; and/or corrosion due to old gas are not covered by the warranty. Since we have no control over the quality of gasoline, and we know it deteriorates with age, the warranty defines "fresh" fuel as less than 30 days old.

Warranty Claim Procedure:

All warranty claims that are done in the field must be handled as follows:

- 1. Customer must call the Dealer/Distributor and acknowledge the problem.**
- 2. If the problem can be solved in the field, new parts will be shipped, invoiced and paid for. A credit will be given once the old parts are returned, if covered by the warranty.**
- 3. Parts to be replaced must be returned at the owner's expense within 30 days to receive credit.**
- 4. If the problem is deemed too severe to be fixed in the field by the customer, then the customer must take the sawmill, at the owner's expense, to the closest Hud-Son Dealer/Distributor for repair. If the Dealer/Distributor is not qualified to make the repairs, then the equipment must be returned to Hud-Son Forest Equipment, Inc at the customer's expense.**
- 5. If the problem is not a warranty problem, the customer will be charged for the parts replaced and the labor time spent repairing the mill.**
- 6. Any modification to the band mill that is performed by any person other than Hud-Son Forest Equipment, Inc direct staff voids the warranty.**
- 7. Any parts that are replaced without the direction of the Dealer/Distributor voids the warranty on the part the customer is replacing, and no reimbursement will be made.**
- 8. Parts purchased by the customer from an outside source, without prior approval from Hud-Son Forest Equipment, Inc will NOT be reimbursed.**
- 9. All mills have a 1-year Commercial and 3-year Consumer Home Owner warranty against manufacturer defects.**

Always Call your Servicing Dealer First!!

Dealers/Distributors carry parts and are knowledgeable with the inner workings of your sawmill. Remember that modifying your mill or using parts that are not Hud-Son Forest Equipment, Inc. approved can VOID your warranty.

CE Approved Models:European Mills – Warranty on Parts ONLY.

No Warranty on labor or shipping.

Warranty/Service Information:

Please contact our warranty department with any issues or to reorder parts.

315-896-4316 or 1-800-765-SAWS

Hours of Operation are Monday – Friday 8:00 AM – 4:30 PM EST

Saturday 8:00 AM – 12:00 PM EST

IF NOT IN THE CONTINENTAL UNITED STATES, HUD-SON DOES NOT PAY FREIGHT OR SHIPPING ON WARRANTY OR LABOR.

Transport Instructions For Trailer Kit

Follow all the steps to safely transport the Hud-Son Saw Mill Trailer Model:

- 1 - Lock head into travel position.
- 2 - Raise extension legs and lock in upright positions.
- 3 - Raise rear legs of frame and pin in raised position.
- 4 - Raise jack to desired height, remove pin and rotate to horizontal position, hook hitch to vehicle. Plug in lights and brakes. Hook-up safety chains and break-away switch. (If applicable)
- 5 - Lift front legs and lock in transport position.
- 6 - Be sure to clean unit of all loose debris, including all bark, sawdust and dirt.

Trouble Shooting

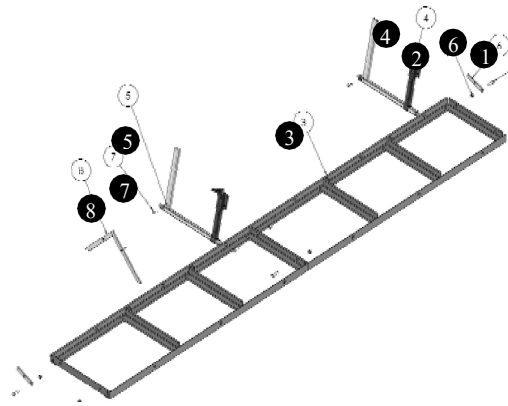
<i>Problem</i>	<i>Cause</i>	<i>Solution</i>
<i>Blade is Diving/ Rising</i>	Dull Blade • RPM's Not High Enough • Blade Not Tensioned Properly • Sawing Soft Pitch Wood • (Pitch Build-Up in Blade Gullets)	Sharpen or Replace Blade • Saw at Full Throttle • Check Torque on Tensioning Bolt • (Perform "Flutter" Test) • Use Lubricant on Blade PETROLEUM PRODUCTS, MINERAL OIL OR VEGETABLE OIL SHOULD NOT BE USED ON OUR MILLS - Saw Tree from the Top to the Bottom (small end to wide end) Slow Down • Reset Teeth to Proper Set
<i>Mill Sawing Hard</i>	RPM's Not High Enough on Engine • Belt is Slipping • Sawing Hardwood Dull Blade • Bark or Sawdust Build-up on Wheels or Track	Always Saw at Full Throttle • Adjust Belt Tension Slow Down your Sawing Speed • Sharpen or Replace Blade • Clean Wheels and Track
<i>Clutch Slipping</i>	Dull Blades • Debris and/or Oil can cause slippage • Pushing the saw too fast through log	Sharpen or Replace • Clean out clutch bell Inspect/repair springs and shoes • Slow down
<i>Engine Powers Down Losing RPM's</i>	Pushing the Mill too Fast • Dirty Air Filter Dull Blade	Slow Down your Sawing Speed • Clean/Change Sharpen/Replace Blade
<i>Mill not Sawing Square</i>	Over Dogged • Track Not Level & Square • Cables are Out of Line • Guides are Out of Adjustment • Not Putting Flatside of Cant Flush with Squaring Post on the First Turn • Bad Trolley Bearing	Loosen Dog Pressure • Level Track • Re-adjust Cables • Re-Adjust Blade Guides Put Cant on Flatside, Flush with Squaring Post • Replace Trolley Wheel
<i>Log Moves When Dogged</i>	Over Dogged, too Much Pressure on Dogs	Loosen Dog Pressure
<i>New Blade Will Not Cut</i>	Blade Could Be Turned Inside Out	Turn the Blade So That the Teeth are Pointing to the Discharge Direction
<i>Boards have Fine or Large Lines in them Every Several Inches in a Repeating Pattern</i>	A Tooth in the Blade is Out of Set	Reset Tooth in Blade

HFE - 21 Homesteader Mill Parts List

Item No.	Part No.	Description	Qty.
1	HFE-30002	HFE-21 WELDED ASSEMBLY	1
2	11343-00644	NYLON WASHER 1/2 X 1.25 X .062 (LARGE)	2
3	976-004	CABLE PULLEY - 00158	1
4	976-010	SHOULDER BOLT FOR 158 PULLEY (SHORT)	1
5	F-93372	1/2 FW	3
6	F-58952	3/8" ZHB	1
7	T2000	WINCH	1
8	HFE-30005	HANDLE	1
9	DH-1098-Z	GUIDE PIN	2
10	976-072	BLADE GUIDE	1
11	DH-1007	LUBE LINE BRACKET	1
12	UCP208-24B	PILLOW BLOCK 1 1/2"	4
13	F-93372	1/2"ZFW	16
14	F-42933	1/2"-13 X 4"ZHB	4
15	F-42927	1/2"-13 X 2 1/2"ZHB	4
16	F-93482	1/2"ZLW	8
17	F-58954	1/2"ZHB	8
18	SHAFT-8.5CG	8.5" SHAFT	2
19	FW-800G	2"KEYSTOCK	2
20	1B160SK	16" SHEAVE	2
21	SK-1-1/2	1 1/2" Q BUSHING	2
22	HF-49	GROOVED B-CROWN CLEAR BELT	1
23	WM132	132" BAND BLADE	1
24	B77	V BELT	1
25	DH-2523	"HUD-SON" CENTER GUARD	1
26	75051	2.5 GALLON LUBE TANK	1
27	F-42808	3/8"-16 X 2 1/4" ZNB	1
28	F-93370	3/8 ZFW	4
29	FA3002SB0002	3" FLAT BELT IDLER W/BUSHING	1
30	91877	3/8" FNW	1
31	4075P007	CLUTCH	1
32	13818	3/8" - 13 X ZHB	2
33	F-58952	3/8" ZHN	4
24	976-006	EYE BOLT	2
35	F-93372	1/2" FLATWASHER	4

36	F-93482	1/2" ZLW	1
37	F-58954	1/2"-13 ZHN	1
38	F-58952	3-8"-13 ZHN	2
39	F-45224-Y	1/2"-13 X 5" ZHB	1
40	F-58952	1/2"-13 ZHN	1
41	PG1-CARDINAL RED	PLASTIC END GUARDS	4
42	HOS-02-04	1/4" LUBE LINE	2
43	UG-100	SITE GLASS BRACKET	1
44	KIT-001-01	SITE GLASS	1
45	HAR-51-03-438-047	#6 P FW	2
46	38655	HCS 10 MM - 1.5 X 25 8.8 Z	1
47	90702	M10 - 1.5 FLANGE NUT ZP	1
48	RULER	SCALE STICKER RULER	1
49	B1SB5841	VALVE	2
50	13L3320122F8-AV1001	6.5 GP BRIGGS ENGINE	1
51	HOU0279	TANK STRAP	1
52	F-94854	5/32"GALVANIZED CABLE	1
53	067670	OWNER'S MANUAL TUBE	1
54	F-93391	5/16" ZFW	5
55	F-42837	5/16"-13 X 2 1/4" X 1" ZHB	2
58	F-93479	5/16" ZLW	2
59	F-58861	5/16"-13 ZHB	2
60	F-42863	3/8 - 16 X 1" ZHB	2
61	F-60307P	3/4"-10 TOP LOCK NUT	4
62	F-93397	3/4" ZFW USS	4
63	33092	3/4 ZFW SAE	8
64	976-019	TRACK WHEEL	4
65	976-026	TRACK WHEEL SHOULDER BOLT	4
66	F-45066	3/8"-16 X 2" ZHB	2
67	410-803	3/8 X 1 1/2 Z SER WASHER	1
68	F-93479	5/16" ZLW	1
69	F-42832	05/16"-24 X 1" ZHB	1
70	FW-7207	3/16" X 3/4" KEYSTOCK	1
71	F-93368	1/4" ZFW	1
72	1123164	SELF-TAPPING SCREW	1

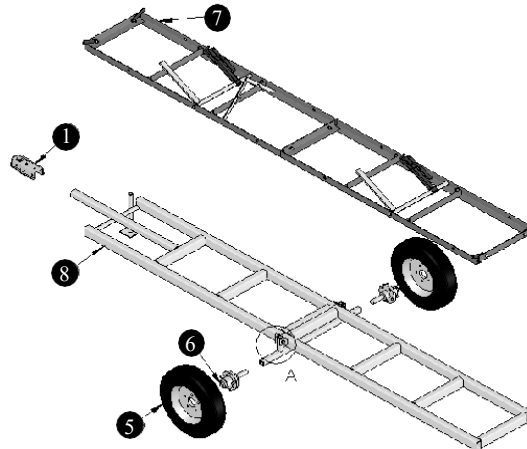
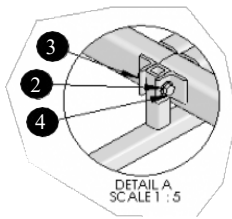
Track Assembly HFE 21



Track Parts List HFE 21

Item No.	Part No.	Description	Qty.
1	F-42823	1/2 - 13 X 1 1/2 ZHB	6
2	F-58954	1-2"-13 ZHN	6
3	O18-005-00-1	HFE-21 TRACK WELDMENT	2
4	MIL-15-028	SMALL LOG DOG	2
5	O30,O36-004-00-3	HFE-21 J-BAR WELDMENT	2
6	DH-0939	TRACK STOPS	4
7	F-42863	HCS 3/8 - 16 X1 Z5	2
8	O18-003	CHEATER	1

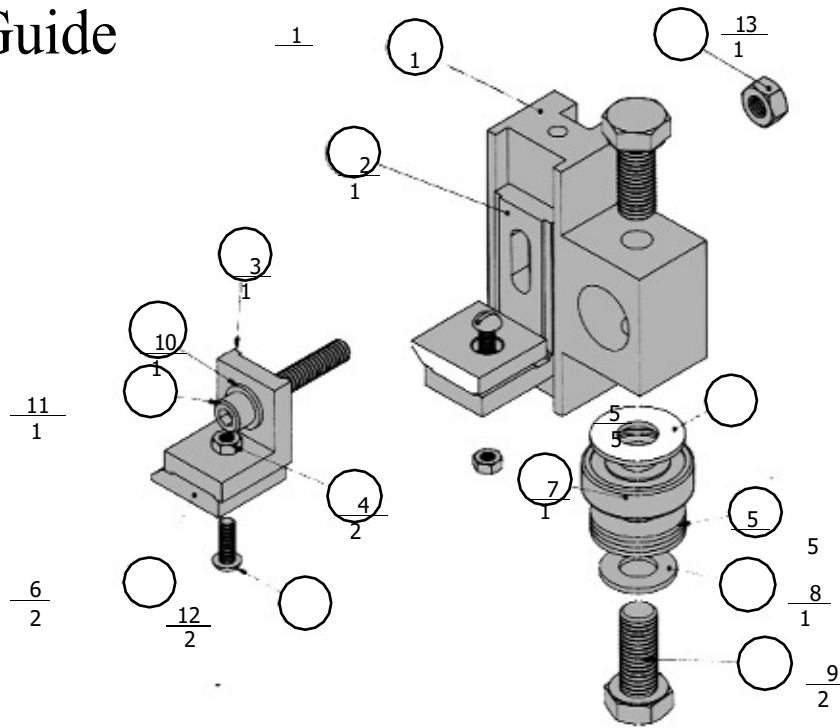
Trailer Assembly HFE-21 Homesteader



Trailer Parts List HFE-21 Homesteader

Item No.	Part No.	Description	Qty.
1	0091060	COUPLER	1
2	F-93372	1/2 ZFW	2
3	F-58954	1/2"-13 ZHN	2
4	HAR-25-08	1/2-13 ZHN	2
5	TIR-01-08-40	TRAILER TIRE	2
6	4-150-04-00	TRACK STOPS	2
7	O18-005-00-1	4 1/2" HUB	1
8	O18-006-00-1	HFE-21 TRAILER FRAME WELDMENT	1

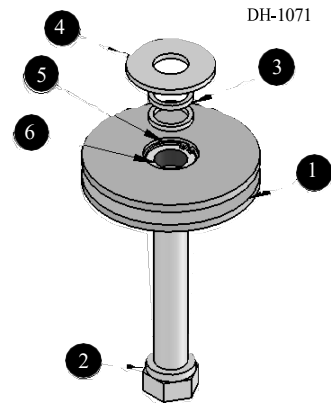
Blade Guide



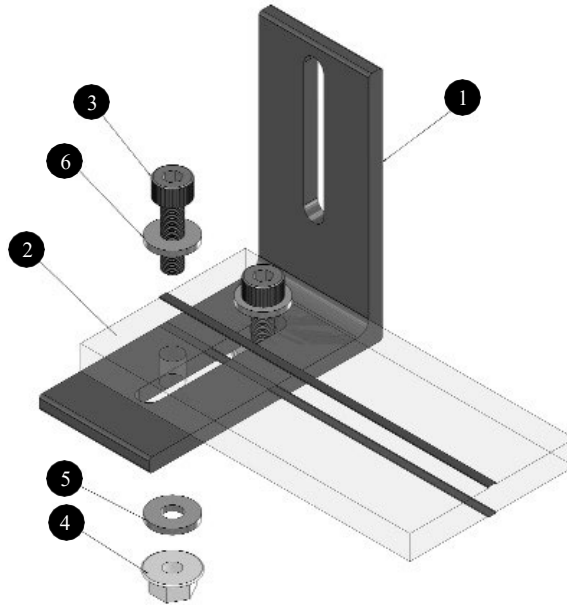
Item No	Part No	Description	Qty.
1	976-001-01	S Guide Body	1
2	976-072-1	Long Shoe Holder	1
3	976-072-2	Short Shoe Holder	1
4	F-59351	M4 x .7 Metric Hex Nut	2
5	F-93392	3/8 flat washer USS larger, zink finish	5
6	CP20-10A	Guide Shoe (sold as pairs)	2
7	6200-2RS	6200-2RS Bearing	1
8	F93370	3/8" flat washer, SAE small	1
9	F-42033	Hex cap screw, M10 x 1.5 x 25 -- 25S	2
10	33074	Flat Washer Selected Narrow 0.25	1
11	F-73168	SHCS 0.25-20x1.5x1.5-S	1
12	F-65622	Slotted RDHD Screw #8-32x 1/2"	2
13	F-59756	1/4" Course Thread Zinc Finish Hex Nut	1

Track Wheel Assembly Parts List

Item No.	Part No.	Description	Qty.
1	976-019	TRACK WHEEL	1
2	976-026	SHOULDER BOLT	1
3	FW-6801	3/4" X1" X1/8" NFW	2
4	33092	3/4" ZFW	1
5	1168060	C-CLIP	1
6	6203-2RS	3/4" BEARING	1



Site Glass Assembly Parts List

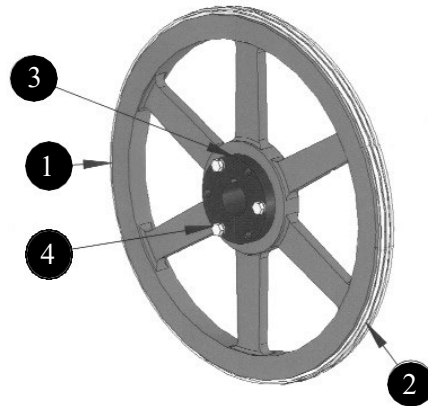


Item No.	Part No.	Description	Qty.
1	UG-100	SIGHT GLASS BAR	1
2	UG-100	SIGHT GLASS BAR	1
3	38655	10MM-1.5X25 8.8 Z	2
4	90702	10M-1.5 FLANGE NUT	2
5	UG-100	030-36 SIGHT GLASS BRACKET	1
6	HAR-51-03-438-047	#6 P FW	4

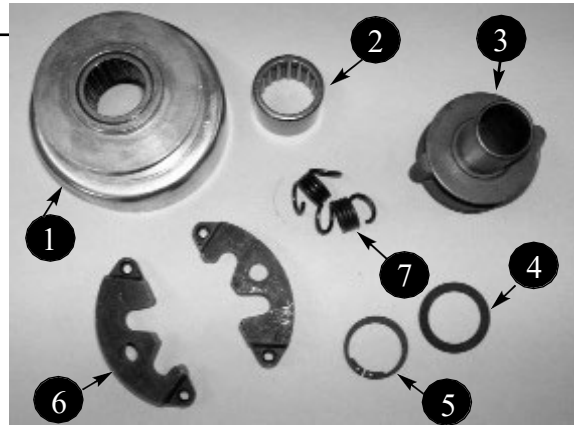
Sheave Assembly Parts List w/Belting for HFE-30 Homesteader

DH-1078

Item No	Part No	Description	Qty
1	1B160SK	18" SHEAVE (RED)	1
2	HF-49	Belting Crown Top	1
3	SK-1-1/2	Q-BUSHING	1
4	F-42836	Bolt	3



Clutch Breakdown Parts List for HFE-21 Homesteader



Item No	Part No	Description	Qty
1	11061199	DRUMS	1
2	J-1416 ALT # 03000015	BEARING	1
3	11301005	HUB	1
4	02400066	WASHER	1
5	01900004	SNAP RING	1
6	01200153	SHOE	2
7	0100012	SPRING	2

Thank you for choosing



Hud-Son Forest Equipment, Inc.
8201 State Rt. 12, PO Box 345 Barneveld, NY 13304

We have an on-side technician available to answer any questions Monday - Friday 8:00
AM to 4:30 PM EST and Saturday from 8:00 AM to 12:00 PM

WWW.HUD-SON.COM/CONTACT

