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OSCAR 528 SAWMILL OPERATOR'S MANUAL

8201 STATE ROUTE 12 • PO BOX 345 • BARNEVELD, NY 13304

A NOTE FROM HUD-SON

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:	
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.
- 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.

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



Receiving & Unpacking

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

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

Moving the Unit

(Forklift is needed for track units)



- 1. Machine needs to be lifted at the lift point (see picture for 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.

Ground Track Set Up For the 528 Sawmill - Steps For Setting Up the Hud-Son Saw Mill

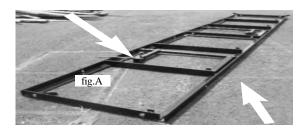
Machine Set-Up (ground track unit) (See Fig. A)

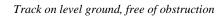
- 1. For best results and easier set-up, the mill location should be on level solid ground and free of obstructions.
- 2. A level cement pad is the best option, but square timbers also work well. You will need to support the track at each joint and under each cross member of the track.
- 3. You will need to be sure that the mill TRACK is level from front to back and side to side. The better the mill track is supported, the better the mill will work.
- 4. There should be a 4 ft. clear work area around the entire mill.

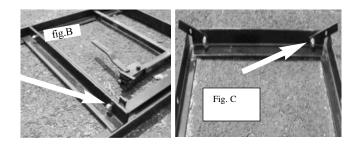
Welded Track Assembly

- 1. Dogs need to be facing in the same direction, all the movable dogs need to be on the operator's side of track.
- 2. There are additional holes in the track so that the dogs can be moved to various positions for cutting shorter or longer logs if needed.
- 3. The tracks are bolted together using the 1/2" bolts and nuts provided. The Oscar 528 mill will have 2 bolts/nuts per section of track. Line up the tracks so that the holes align. Using the provided bolts, put them through the holes and finger tighten the nuts. Adjust the track height so that the 2 pieces of track meet flush and level. Work one side then the other, once level, check the track to see if it aligns vertically at the joint. If the track does not align correctly, use a hammer to tap it into position. Do not tap on the vertical rail. Once this is done, tighten the bolts securely. NOTE: When the mill head rolls over the track joint, it should be smooth. There should be no bump or rise at the track joint. (see Fig. B)
- 4. The track comes with four yellow track stop tabs and bolts to fasten them to the track. Place the track stops at the four end corners, then bolt on the inside of the track. Place them on the inside corner of the track, secure them into place with the bolt and nut provided. The track stop tabs are placed at an angle over the track to prevent the mill head from rolling off the track at each end. (see Fig. C)
- 5. 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 Fig.D).

Moveable dogs on one side

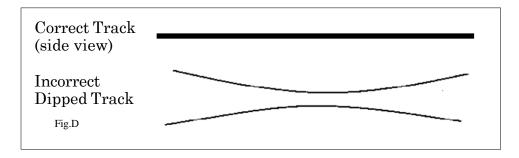




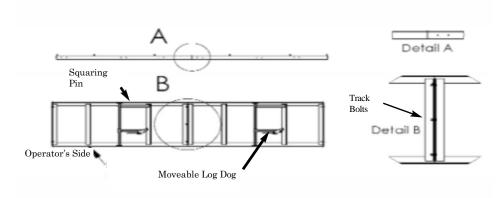


Bolted together track, flush & level Tra

Track stops



Correct Track Set-Up / Layout

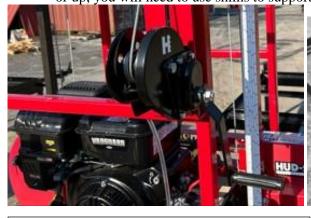


NOTE: If you set up on soft or frozen ground it's best to check the track daily for level-ness due to changing weather and temperature.

Setting Head on Track (if applicable) Ground Models

Once your track is level, you are ready to set the head on the track. Once again, be sure the area is still free and clear of obstructions. You will want the head to roll freely down the 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. Be sure to watch the track as you roll the head. If the track moves down or up, you will need to use shims to support.



Correct head placement: Operators side is on side with the scale stick And hand winch.

Squaring arm on left: adjustable dog on right.

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 on the band wheel belt. This can cause vibration and the blade to fall off the wheel. Always remember to de-tension your blade when you are done sawing for the day.

- 1. For all of our mills, make sure the blade is flush with the back of the band wheel or shive (Blade could have moved in shipping process).
- 2. To tension or loosen the blade (see below picture).
- 3. Turn the adjusting nut clockwise until 30-35 pounds of torque is achieved. The recommended tool for this is a torque wrench. By hand, rotate blade 3-4 full revolutions, this centers the blade on the wheels.
- 4. With gloves on, pull up the blade at the center guard. Allow for no more than a ¼" movement up or down on the blade.
- 5. Check that guides are not so tight they cause the blade to heat up. If this occurs readjust the guides.
- 6. 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 have attained proper tension around 30-35 pounds.
- 7. 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.

Grease the blade tension thrust bearing between the 2 cupped washers.

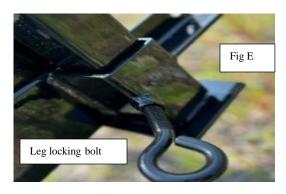


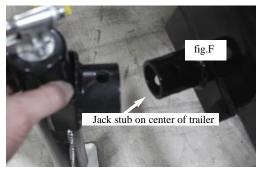
Blade tension nut – blade tension should be set at 30-35 ft. lbs.

Trailer unit set up for the Oscar 528 - For use with 20' Torsion Axle Trailers.

- 1. The set-up area should be level and clear of debris. The head will need to roll down the track, be sure the area is free of obstructions.
- 2. Lower the trailer jack and raise the jack until the coupler is free of the hitch. Once this is done, remove the unit from the vehicle. Lower the jack all the way down. Loosen the leg locking bolts and lower the rear 2 legs. Then raise the jack until the trailer is level from front to back. (see Fig. E)
- 3. Lower the front 2 legs and level the trailer. NOTE: be sure to tighten the leg bolts TIGHT so they will not move when you put a log on the trailer.
- 4. Once the trailer is level and the leg bolts are tight, remove the jack from the hitch and move it to the center of the trailer and put it on the Jack stub near the axle in the center of the mill trailer. (see Fig. F) Jack up until you have taken the stress off the torsion axle, this keeps the mill from bouncing when turning the logs. At this time, you can unbolt the trailer hitch and slide it in or remove it so it is out of the way during operation.
- 5. You will need to unbolt the head from the track. The travel bolts are located behind your guide arms at the base of the mill head.
- 6. Once the head is unbolted from the travel position, roll it down the track to be sure it is level. If your head rolls on its own, you will need to adjust your leveling legs. Return the head to the center of the trailer and re-bolt or lock the head into place. Once the head is secure you can reset the leveling legs.
- 7. Once the trailer is level, the head should not roll on its own. If your trailer is not level, it will not saw boards correctly. Refer to previous instructions for proper set up.

Always secure the head before re-leveling the trailer







Shown above is the log back stop pins for the trailer unit /use when loading logs on the mill to prevent log from tolling off. trailer/secure log with dog and back stop. Remove pins after log is secure on trailer.









When installing the travel brackets, line up holes on the side of the trailer with the center of the mill head. Slide the pin side of the travel bracket into the hole on the base of the mill frame, keeping the slotted side of the bracket next to the trailer frame (as shown on both sides). Line up the bracket with the hole in the side of the trailer frame. Insert the frame bracket bolt into the frame and tighten securely. Press down on the bracket and mill head while tightening the bolt to make sure the bracket and mill head are tight on the trailer. After tightening both brackets, grab the mill head and try moving it hard in all directions to ensure it will not move or bounce on the trailer during transport.

Mill Head is locked into place with brackets. Head will not move during transport.

Transport Instructions

- 1. Put tow hitch back in tow position, tighten bolt and safety pin, remove jack from center of trailer, put it back on tow hitch. Lock Mill head into travel position.
- 2. Raise rear legs and lock in upright position.
- 3. Raise front legs and lock in raised position.
- 4. Raise jack to desired height, hook hitch to vehicle. Remove pin and rotate to horizontal position. 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 the unit of all loose debris, including all bark, sawdust, and dirt.

Follow all the steps to safely transport the Hud-Son Sawmill Trailer Model



Correct trailer set up. All legs are level; head should not move on its own.

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.

Log Set-Up

Setting Logs

Once the track is set, the head is in place and the blade is tensioned correctly, you are almost ready to cut. Note: Always try to start your cut from the small end to the larger end of a log.

1. Place the log, determined by the mill 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" bracket supplied with your mill to hold it. (For use on the 528).

NOTE: Do not over dog the log, this will cause the log or cant to twist, you only need enough pressure to hold it flat and secure against the squaring pins.





Squaring Arm and Adjustable Dog

Getting Ready to Cut

Now is the time to debark or clean your log. You can use a chainsaw attachment, called a Log Debarker (available through Hud-Son Forest Equipment Inc.) to debark your log, 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 significantly. (see Fig F-1).

1.. Adjust the Hud-Son guides so that they are slightly wider (no more than 2 inches) than the maximum width of the log. (see Fig F-2)





Start Engine Procedure

2. With the fuel on, set the throttle to the start position, choke, if necessary, turn the key to start engine. **For Summer Use:** Be sure to let the unit idle for at least 5 minutes before any use. **For Winter Use:** Be sure to let the unit idle for at least 10-15 minutes before any use.

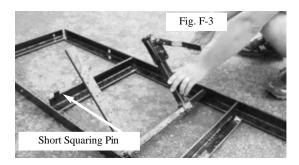
3. If the unit has been sitting for a period of time, allow the unit to run long enough to have the oil do a complete circulation before use (Hydraulic units only). **Cutting Procedure**

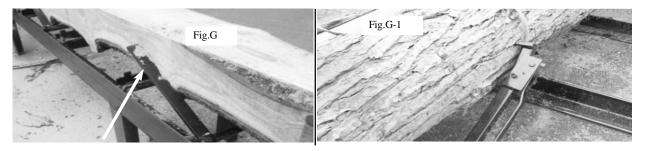
Note: As you cut slabs, boards or squares, you may need to adjust the guide to ensure the best performance and quality cuts.

- 1. 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).
- 2. With the manual lift models, crank your head down to just past the desired height mark and then crank up to the height mark for the next cut. This ensures that the head is set equal on both sides. Make sure your blade will clear your log dog assembly.
- 3. Start your engine. (Refer to the engine manual for proper engine maintenance).
- 4. With the engine in the idle position, increase the throttle to full speed to engage the blade. Sawing should always be done with the engine at Full Throttle. Start the blade in the log slowly, DO NOT ram it into the log!
- 5. Once started in the log, gently push the saw head through the log, pushing on the head frame. If the engine starts to labor, you are going too fast, slow down. Go slow through burls and knots as the engine may bog down through these parts of a log.
- 6. When you are at the end of the log, power down the engine, crank the head up so that it will clear the log and roll the mill head 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.
- 7. You now have a flat surface on top of your log. Remove the cheaters (if applicable) you will no longer need them, if the log dogs will hold the log in place.
- 8. Raise the log dog assembly so that they are standing in the track. Turn the cut side of the log, using a cant hook, ¼ of a turn. The flat side must be flush against the squaring pin to assure a square cant. (see Fig. G)
- 9. Adjust the log dog at an angle to the track so that the blade can pass over the top so that the dogs are effective in securing the log. (see Fig. G and G-1)
- 10. Once again, increase the engine throttle to start the blade, and saw off another slab. You will repeat these steps until your log is squared into a cant. Once you have obtained the dimension you need to make lumber, then start sawing your dimensional lumber.

11. *NOTE:* All logs have some tapper to them. For the best production method, use a shim under the small end of your log to compensate for the taper. The shim should be half the thickness of the difference in diameter of the two ends of your log. (Example: Log is 12" on small end and 15" on the big end, use a shim of 1 1/2" thick under the small end of the log) You will do that for the first two face cuts on the log.

The short squaring pins welded in the track can be used once you have a good square corner on your cant. When using the short squaring pins, you do not need to have the long squaring pins up on the cant. Use the movable dog and pinch it to the short squaring pins to cut down to the last inch. (see Fig F-3)





Flat side must be flush and Flat against the squaring pins to assure a square cant.

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

Cutting Dimensional Lumber

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

- 1. 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.
- 2. You may need to turn your cant to make the desired lumber width.

End of Processing Lumber

- 1. Completely decrease engine throttle and turn engine switch to off position, or if equipped with fuel shut off, turn that to the off position.
- 2. The blade will continue to turn and will coast to a stop.
- 3. If you are done sawing for the day, de-tension the blade, so that you do not cause flat spots on the band wheel. Lower the mill head so that the lift cable has a little slack.

Replacing the Blade

No matter how well you care for your blades, they will dull after time and need to be replaced. The longevity of your blade depends on how well you maintain it, including cleaning the dirt off the log before cutting.

- 1. The engine needs to be stopped, turned off and the key removed. This will ensure that the engine is not accidentally turned back on. For engines with a manual start, you will need to remove the spark plug wire prior to servicing. *Note: For electric motors, use lockout/tagout procedures.*
- 2. Loosen and remove nuts so you can remove the outside and center guards on all models.
- 3. Loosen band blade tensioner nut until adjusting bolt nut is flush with threaded end of the bolt.
- 4. 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.**
- 5. Remove band blade from both band wheels and take out of carriage.
- 6. Inspect new or sharpened blades--be sure blade teeth are facing in the correct direction. Teeth should always point away from the operator. (Towards discharge chute). Be sure to wipe the blade clean of all oily substances prior to installing. A clean, dry rag or cloth works best.
- 7. Starting from your stationary wheel, set the blade on the wheel then thread through your guides. Work the blade over the tensioning wheel until the blade is set.
- 8. 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 band wheels.
- 9. Once the new blade is tracking properly, replace the guards and re-tension the blade as previously stated.

Blade Maintenance

The longevity of band blades depends on how well they are cared for. Using a lube tank, log debarker, band blade sharpener, and tooth setter, 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

- 1. Never force a dull blade, this will result in overheating of the blade and result in wavy lumber.
- 2. Over use of a blade jeopardizes the ability of the saw blade to be re-sharpened.
- 3. A new blade may stretch after cutting and may have to be re-tensioned to assure quality lumber.

- 4. De-tension the band blade after each day of cutting.
- 5. Never operate the mill without the guards in place.

The Hud-Son Forest Equipment, Inc. sawmill comes with a band blade, and we have an excellent re-sharpening program for your band blades.

Adjusting Sawmill Guides

Superior Hud-Son guide design.:

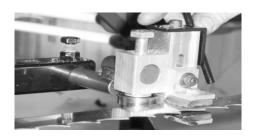
- 1. Supports on the top, bottom and back of the blade. Where can the blade go? This guide design limits the chance of the blade wandering.
- 2. The lower blade guide holds the blade up and decreases the chance of "diving". Most companies only use top support.
- 3. The closer to the log the guides are, the better support the blade has as it cuts.

Adjusting the guides

Tools needed:

- 3/4" wrench
- 3/4" socket
- 9/16" wrench
- 3/16" Allen wrench

NOTICE: If the blade is in contact with the guide bearing during the full cut or most of the cut, you may be pushing too fast or the blade is dull. Slow down or change the blade.



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

See Blade Guide Kit in back of manual.

Guide Care and Maintenance

- 1. All guides are aligned and set at the factory. However, occasionally they move out of adjustment in shipping or after a period of usage. It is important the guides are checked often for proper alignment and adjusted correctly.
- 2. To adjust your guides correctly, you must first tension the blade properly as previously described. A tensioned blade should come off the bottom of the band wheel and run straight across to the other, so there is NO sag between the two wheels.
- 3. Now that the blade is tight, slightly loosen the Allen head that holds the guide shoes so that they slide up and down freely. Loosen the bolt that fastens the aluminum guide bracket to the guide rod so that the guide bracket can be moved in and out and can be rotated in either direction.
- 4. Set the guide bracket so that the back bearing is on the same plane as the blade. If the blade were to wander back, it would hit the back bearing evenly across the middle of the roller. If the bearing needs adjustment 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 bearings.
- 5. Once the bearing is set, position the guide bracket so that the bearing is 1/8" behind the back of the blade. Once the bearing is in position, tighten the bolt on top of the guide bracket. Be sure the guide is 900 to the blade.
- 6. 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 to set the shoe in place. Do the same on the bottom of the blade. Note that you do not want the shoe to be pinching the blade so hard that it is prohibiting blade travel.
- 7. Be sure all nuts and bolts are firmly tightened.

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.

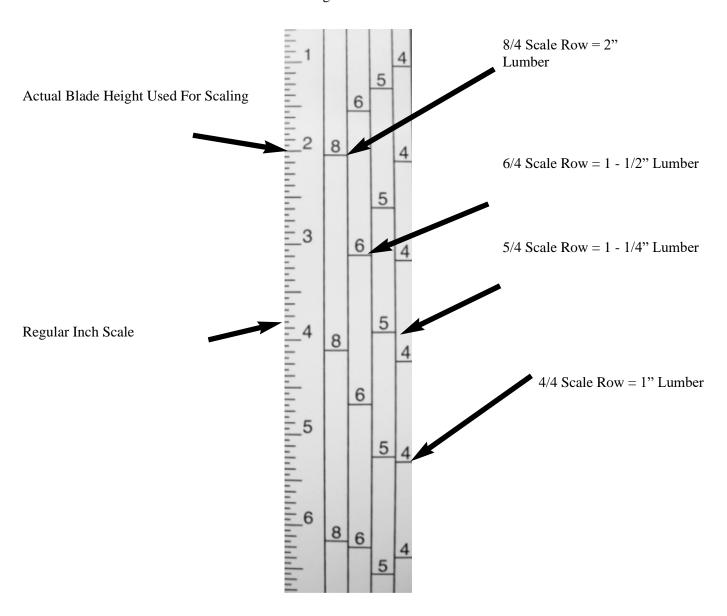
Using the Lumber Scale

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

Scale	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 an approximately 7/8" end result, depending on what blade is being used. (See Fig. H)

Fig. H



Changing Band Wheel Belts

To Change the Belt from the Idler Side of the Sawmill:

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

- 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: Most of the time after installing a new band wheel belt, you will 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 the drive belt guard, then using a wrench or screwdriver, run the drive belt off the large drive pully. 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.

CLEANING & PREVENTATIVE MAINTENANCE CHECK LIST For Hud-Son Sawmills

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			V
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)		$\sqrt{}$	
Check Tire Pressure – Upon transport (if applicable)		$\sqrt{}$	
Check Cylinders and Seals for Leakage	$\sqrt{}$		
Check Feed Chains for Tension (if applicable)	√		
Clean Battery Connections		$\sqrt{}$	
Check Wiring and Connections for Corrosion and Decay		$\sqrt{}$	
Lubricate Chains (if applicable)		$\sqrt{}$	
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.

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.

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

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	25V3370012F1	2 Years - call your servicing Dealer.
Electric Motor		1 Years - call your servicing Hud-Son Dealer.
1.5" Pillow Block Bearing, 1"	BEA-01-24	6 Years - call your servicing Hud-Son Dealer.
Drive Belt	B79	1 Year - call your servicing Hud-Son Dealer.
Rubber Band Wheel Tire	B49	1 Year - call your servicing Hud-Son Dealer.
Urethane Wheel Belting	hf-49	1 Year Defect - Not Melted
Tapper Lock, SK Bushing	BUS-01-24-44	1 Year
Drive Belt Tensioner (Idler Pulley)	FX02235B0002	1 Year
Guide Assembly, Left/Right (see breakdown for parts list)	976-072	30 Days Call your servicing Hud-Son Dealer.
Scale Sticker	DEC-36-01	90 Days
Site Glass Assembly	UG-100	1 Year
Cable Lift Kit Assembly	CABLE-OSCAR-528	1 Year
Band Blade	WM 132	NO WARRANTY Order Online at www.hud-son.com
1 -1/2" Shaft	SHA-01-8.5 (SHA-01-LENGTH IN INCHES)	6 Years - Call your servicing Hud-Son Dealer

		2 Years - call your
Bolt for Track Wheel	HAR-12-12-64	servicing Hud-Son Dealer.
Track Sections	TE-28	3 Year - call your servicing Hud-Son Dealer.
Axles (Trailer Models)	TK-28	1 Year - call your servicing Hud-Son Dealer.
Hand Winch	WINCH-1200LB-SH	1 Years - call your servicing Hud-Son Dealer.
Clutch	1600021	30 days - call your servicing Hud-Son Dealer.
Band Wheel	WHE-02-44-256	1 Year - call your servicing Hud-Son Dealer.
Log Dog Only	976-027	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	976-004	1 Year - call your servicing Hud-Son Dealer.
Cheater Bracket	Cheter-528	2 Years - call your servicing Hud-Son Dealer.
Guide Pins	DH-10982	2 Years - call your servicing Hud-Son Dealer.
Bolt on Lube Tank	MIL-07-001	1 Year - call your servicing Hud-Son Dealer.
	1	

Trouble Shooting

Problem	Cause	Solution
Blade is driving/rising	Dull Blade RPMs Not High Enough Sawing Soft Pitch Wood (Pitch build-up in Blade Gullets) Guides not Adjusted Properly	Sharpen or Replace Blade Saw at Full Throttle Check Torque on Tensioning Bolt (Perform "Flutter" test) Use Lubricant on Blade—DO NOT Use any Type of Petroleum Products for Blade Lube Adjust Guides Saw Tree from the Top to the Bottom (small end to wide end) Slow Down Reset Teeth to Proper Set
Mill Sawing Hard	RPMs Not High Enough on Engine Belt is Slipping Sawing Hardwood Dull Blade Bark or Sawdust Build-up on Wheels or Track Blade on Backwards	Always Saw at Full Throttle Adjust Belt Tension Slow Down your Sawing Speed Sharpen or Replace Blade Clean Wheels and Track Turn Blade Around – Flip Inside-Out
Clutch Slipping	Debris and/or Oil can cause Slippage Pushing too Hard	Clean out Clutch Bell Inspect/Repair Springs and Shoes Push Lighter
Engine Powers Down (Loosing RPMs)	Pushing the Mill too Fast Dirty Air Filter Dull Blade	Slow down your Sawing Speed Clean/Change Sharpen/Replace Blade
Mill not Sawing Square	Over Dogged Track not Level & Square Cables are out of Height Adjustment Not putting Flat Side of Cant Flush with Squaring Post on the First Turn Bad Trolley Bearing Uneven Cut Cable is not wrapping evenly Push Cables together on the Lift Bail Tube and are wrapping close together	Loosen Dog Pressure Level Track Readjust Lift Cables Off Deck Adjustment Readjust Blade Guides Put Cant on Flat Side, Flush with Squaring Post-Replace Trolley Wheel
Log Moves When Dogged	Over Dogged, Too Much Pressure on Dogs Under Dogged	Loosen Dog Pressure Tighten Dog Pressure

New Blade will not Cut	Blade Could be Turned Inside- Out	Turn the Blade so that the Teeth are Pointing to the Discharge Direction
Boards have Fine or Large Lines in them Every Several Inches in a Repeating Pattern	A tooth in the Blade is Out of Set	Reset Tooth in Blade

Oscar 528 Sawmill

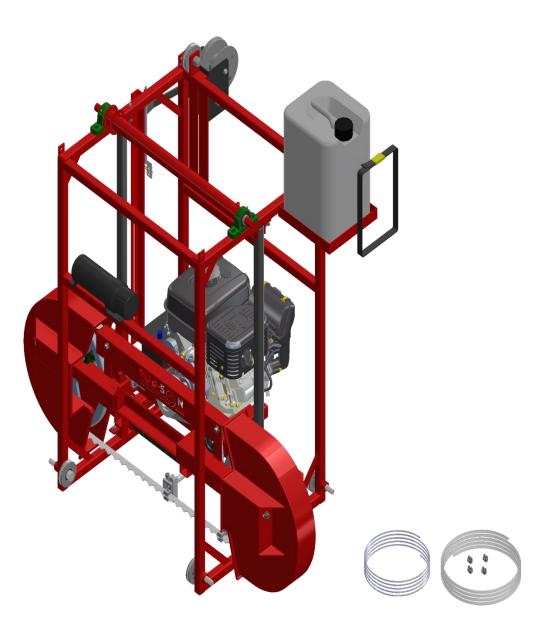
NOTE:

5/32" GALVANIZED STEEL AIRCRAFT CABLE 94"OF CABLE ON WINCH SPOOL 64" SECONDARY LIFT CABLE

1/4 " LUBE LINE

3' FROM BUILT IN LUBE TANK TO LUBE BRACKET ON BLADE GUIDE

4' FROM 2.5 GALLON LUBE TANK TO BUILT-IN LUBE TANK ON MILL HEAD

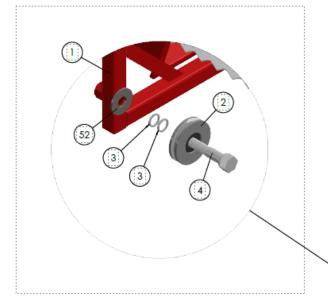


Oscar 528 Mill Parts List

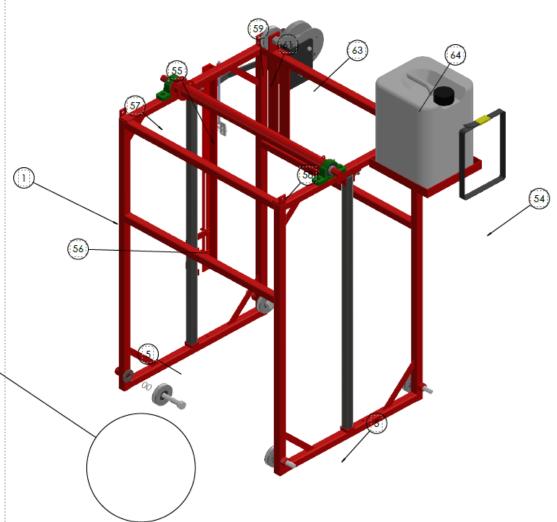
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	OSC-31428	OSCAR 428 CAGE WELDMENT	1
2	WHE-04-12-53	TW3 TRACK WHEEL	4
3	HAR-55-12-1000-125	3/4 X 1 X 1/8 ZNFW	12
4	UNI-60326	TRACK WHEEL SHOULDER BOLT	4
5	TUB5-20-41	LIFT TUBE	2
6	HAR-01-06-16	HB 3/8"-16 X 1" Z Hex Bolt	4
7	OSC-37428	Powder Coated 528 HEAD ASSEMBLY	1
8	BEA-01-24	1.5" PILLOW BLOCK BEARING	4
9	TUB-20-22	22" SLIDE TUBE ASSEMBLY	1
10	MIL-10-0000-001	Off set Guide Pin	2
11	BLG-20001-1	Simplified Blade Guide upstream Assy	1
12	BLG-20001	Simplified Blade Guide discharge side Assy	1
13	SHA-01-8.5	Keyed Shaft 1-1/2" Dia- 8.5" Lg	2
14	WHE-02-44-256	16" Sheave for 1B belt and QD SK 1-1/2" mounting	2
15	BUS-01-24-44	QD size SK 1-1/2" Bushing	2
16	HAR-05-05-32	HB 5/16"-18 x 2" Full Thread G8 Plain Hex Bolt	6
17	KEY-01-06-32	3/8 X 3/8 X 2 KEYSTOCK	2
18	BEL-04-58-49	Belt clear for 16" sheave	1
19	UNI-70024	OSCAR 221/428 CENTER GUARD	1
20	BAT-02-230	230 CCA BATTERY	1
21	FIT-04-03	3/16 drive ZERK FITTING	2
22	HAR-76-#8-16	1" #8 SELF DRILLING SCREW	3
23	Regular FW 0.375	3/8 Z FW	7
24	XXX	SW 3/8 Z Split Lock Washer	5
25	HNUT 0.3750-16-D-S		7
26	MIL-10-0000-002	T HANDLE Weldment	1
27	HAR-52-06-1000-063	3/8" Nylon FW	4
28	Regular FW 0.5	Washer 1/2" USS [Large]	16
29	HAR-56-08-R	SW 1/2 Z Split lock washer	8
30	HNUT 0.5000-13-D-S	Hex Nut 1/2"-13 Z	9
31	HBOLT 0.5000- 13x2.25x2.25-S	1/2-13 x 2 1/4 ZHB	4

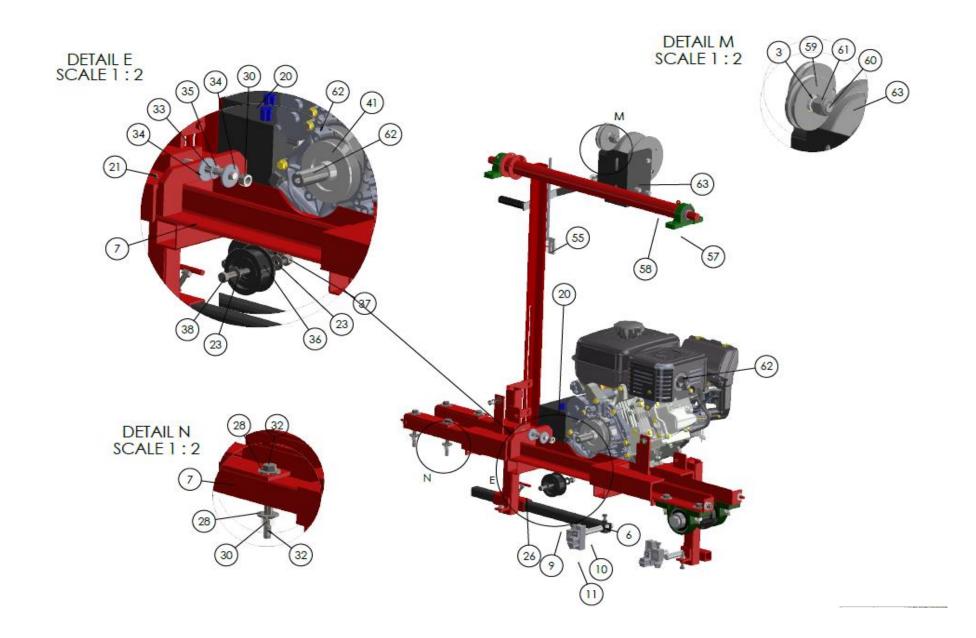
32	HBOLT 0.5000- 13x4.5x1.25-\$	1/2-18 X 4 1/2 X 1 1/2 ZHB	4
33	HAR-02-08-72	HB 1/2-13 X 4.5" Z Hex Bolt	1
34	HAR-58-08-1500-160	1/2 PCW	2
35	BUS-06-08-15	THRUST BEARING	1
36	WHE-03-06-048	3" FLAT BELT IDLER W/BUSHING	1
37	B18.2.4.2M - Hex nut, Style 2, M10 x 1.5, with 16mm WAFD- S	M10-24 ZHB	1
38	B18.2.3.5M - Hex bolt M10 x 1.5 x 6026S	HB M10 - 1.5 X 60 Z G8.8 Hex Bolt	1
39	BEL-02-58-80	B80 V-BELT	1
40	COL-01-16-25	1" SHAFT COLLAR	1
41	CLU-02-16	CLUTCH	1
42	BLA-01-132-20	132" BAND BLADE	1
43	Regular FW 0.3125	FW 5/16 Z USS	6
44	Regular LW 0.3125	5/16 Z SW	4
45	HNUT 0.3125-18-D-S	HN 5/16-18 Z Hex Nut	4
46	HBOLT 0.3125- 18x1.75x0.875-S	HB 5/16"-16 X 1-3/4" X 7/8 Z Hex Bolt	2
47	TAN-03-001	OPERATORS MANUAL TUBE	1
48	HAR-01-06-32	3/8-18 X 2 ZHB	1
49	CAB-01-0532	Cable, 5/32	1
50	HOS-02-04	Lube Tubing 1/4", [by the foot]	9
51	CLA-04-02	Wire Rope Clamp 1/8"	4
52	Regular FW 0.75	FW 3/4" USS Z Flat washer	4
53	MIL-03-2128-01P	PLASTIC BLADE GUARD 21/28	2
54	ACC-01-01	LASHING STRAP	1
55	UNI-20004	SITE GLASS ASSEMBLY	1
56	OSC-45008	Scale Stick 528	1
57	BEA-01-16	1" PILLOW BLOCK BEARING	2
58	OSC-35001	OSC-528 Lift Bail welded Assy	1
59	WHE-04-12-53X	TRACK WHEEL	1
60	92865A845	HB 3/4-10 x 2-1/2" Hex Bolt	1
61	90640A320	NLN 3/4-10", Nylon insert nut	1
62	ENG-02-14	Engine	1
63	WIN-01-2000	Brake Winch 2000	1
64	TAN-02-05	5 gal. Lube tank, white	1

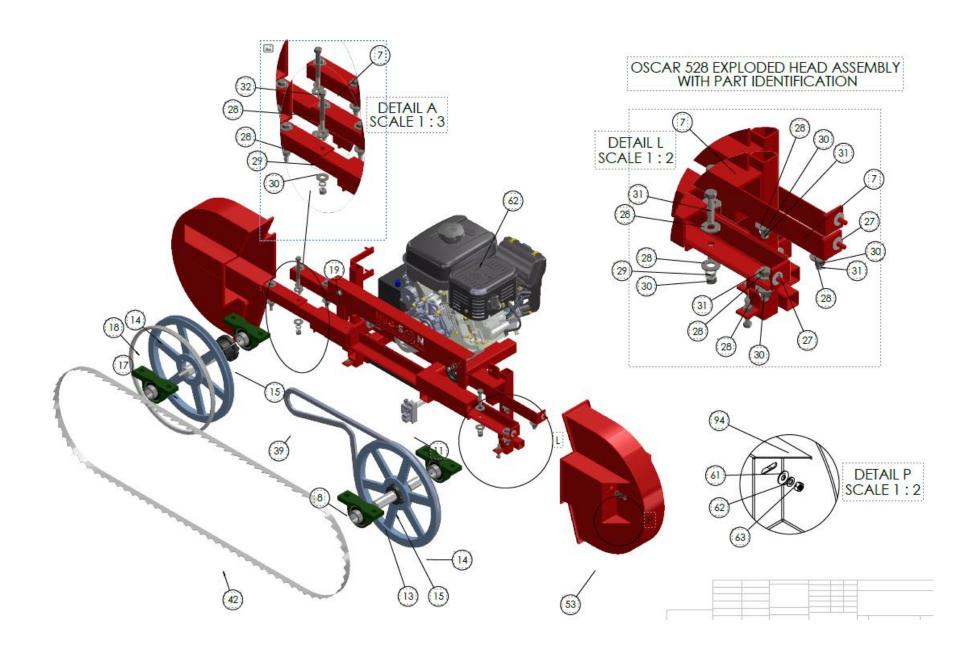




OSCAR 528 EXPLODED CAGE ASSEMBLY WITH PART IDENTIFICATION

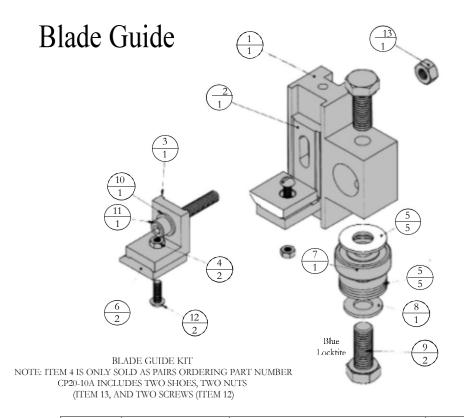






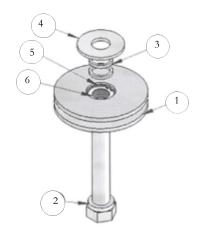


Item No.	Part No.	Description	Qty.
1	TRA-01-002	1/4"-20 ZHN	2
2	HAR-25-08	1/2"-13 ZHN TRACK BOLTS	6
3	HAR-01-04-16	1/4 - 20 X 1 ZHB J- BAR PIN BOLT	2
4	HAR-01-08-24	1/2 - 13 X 1 1/2 ZHB NUTS	6
5	MIL-15-02S	SMALL LOG DOG	2
6	MIL-15-03	TRACK STOP BRACKETS	4
7	MIL-15-01-528	528 TRACK WELD-MENT	2
8	MIL-15-05	J-BAR	2
9	O228-003-00-3	LOG SUPPORT	2



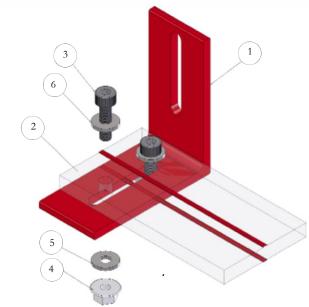
Item No	Part No	Description	Qty.
1	BLG-01-06	S Guide Body	1
2	BLG-01-05	Long Shoe Holder	1
3	BLG-01-04	Short Shoe Holder	1
4	HAR-33-M4	M4 x .7 Metric Hex Nut	2
5	HAR-50-06- 1000-82	3/8 flat washer USS larger, zinc finish	5
6	BLG-01-01	Guide Shoe (sold as pairs)	2
7	BEA-03-06-16	6200-2RS Bearing	1
8	HAR-50-06-822- 68	3/8" flat washer, SAE small	1
9	HAR-03-M10-24	Hex cap screw, M10 x 1.5 x 25 - 25S	2
10	HAR-50-05-500- 046	Flat Washer Selected Narrow 0.25	1
11	HAR-03-08-24	SHCS 0.25-20x1.5x1.5-S	1
12	HAR-79-#8-08	Slotted RDHD Screw #8-32x 1/2"	2
13	HAR-25-04	1/4" Course Thread Zinc Finish Hex Nut	1

Track Wheel Assembly Parts List



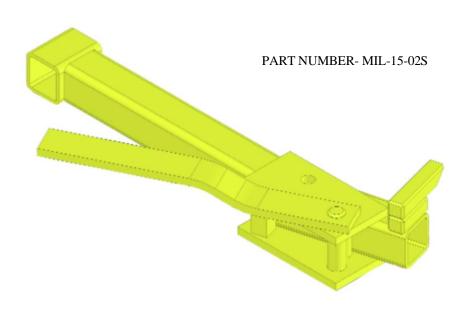
Item No.	Part No.	Description	Qty.
1	WHE-04-12-53	TRACK WHEEL	1
2	HAR-12-12-64	SHOULDER BOLT	1
3	HAR-55-12-1000-125	3/4"X1"X1/8" ZNFW	2
4	HAR-50-12-1166-76	3/4" ZFW FLAT WASHER	1
5	PIN-08-25	C-CLIP OR SNAP RING	1
6	BEA-03-12-24T	3/4" BEARING	1

Site Glass Assembly



SITE GLASS PART NUMBER UG-100

Small Dog Assembly



Sheave Assembly Parts List w/Belting for Oscar 528

			4
Item No	Part No	Description	Qty
1	WHE-02-44-288	18" SHEAVE (RED)	1
2	BEL-04-58-056.5	Belting Crown Top	1
3	BUS-01-24-256	Q-BUSHING	1
4	HAR-01-05-32	Bolt	3

Clutch for Oscar 528



Item No	Part No	Description	Qty
1	16002	CLUTCH	1

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 per- formed 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.

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.

Thank you for choosing



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

www.Hud-Son.com/contact

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