

## ***Owner's manual***

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Order online at  
[www.ripsaw.com](http://www.ripsaw.com)

Refer to Ripsaw owners' information online at  
[www.ripsaw.com/owners.html](http://www.ripsaw.com/owners.html) for instructions and parts information

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## *Safety instructions*

Proper operation of The **RIPSAW** is essential to avoid serious personal injury to the operator and bystanders. Keep hands, feet, face, and clothing away from all moving parts of the saw at **ALL TIMES**.

Read through the entire manual thoroughly. If you are uncertain of any procedures in this manual, please consult S.I.R. for assistance. (256) 728-3070.

1. Always wear eye and ear protection while operating the **RIPSAW** or chainsaw.
2. If you plan to rest the log on trestles, be sure that they are steady and at a comfortable height for you to work with.
3. Before starting the saw, make sure that the log is secure and that it will not move while you are pushing the saw through it.
4. The use of the **RIPSAW** is a one-person operation. If you should require assistance in moving logs or cut lumber, ensure that the person is wearing protective equipment and keep at a safe distance from the sawmill while it is in operation.
5. For re-fueling gasoline powered sawmills, extinguish all smoking materials, stop the engine and allow it to cool. prepare the gas/oil mixture as instructed in your chainsaw owner's manual.
6. Keep the blade guard closed until just before starting a cut.
7. Keep all spectators at least 20 feet away from the milling operation.

# Stihl Chainsaw assembly/preparation

(When providing your own chainsaw)

1. Clean the mounting surface on the powerhead and remove the following parts.  
(Retain these parts for future use.)

**NOTE: Be sure that the chain brake is disengaged.**

- a. 2 bar nuts
- b. chain/sprocket cover
- c. bumper spike, bolts and nuts which fasten it
- d. snap ring from crank shaft
- e. large washer from crank shaft



2. A 7 tooth spur gear sprocket is required to run the sawmill with some Stihl models.
3. Replace the sprocket if necessary.  
(See chart below)
4. Place small washer onto crankshaft.
5. Secure washer with the snap ring you previously removed.
6. Apply liquid gasket material to shaded area in diagram below.
7. Adjust bar oiler flow to a minimum, by inserting a small screwdriver into slot located on the bottom of the powerhead and turning it counterclockwise.
8. Attach powerhead to the **RIPSAW** using the instructions on page 3.

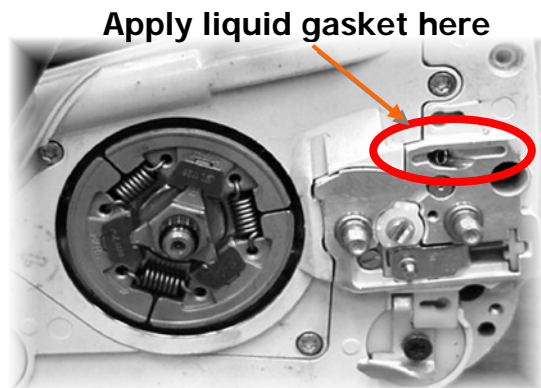
**MAKE SURE BAR OILER CONTAINS AN AMPLE SUPPLY OF OIL.  
FAILURE TO DO SO WILL RESULT IN RIPSAW GEAR FAILURE.**

Compatible chainsaws for adaptation to the  
Ripsaw portable sawmill

**Stihl models:** 028, 029, 034, 036, 036PRO, 038, 039, 044, 046, 064, and 066, MS290, MS360, MS380, MS390, MS440, MS460, MS660, E20 and MSE220 electrics  
**Jonsereds models:** 2065, 2165, 2071  
**Husquvarna models:** 365, 371, 395

## Stihl sprocket part numbers

|                        |               |
|------------------------|---------------|
| Stihl 026              | 1121 640 2003 |
| Stihl 026 w/adj. oiler | 1121 640 2004 |
| Stihl 028, MS280       | 1118 640 2003 |
| Stihl 029, MS290       | 1125 640 2004 |
| Stihl 034              | 1125 640 2004 |
| Stihl 036, MS360       | 1125 640 2004 |
| Stihl 038, MS380       | 1119 640 2000 |
| Stihl 039, MS390       | 1125 640 2004 |
| Stihl 044/046,         |               |
| MS440, 460             | 1128 640 2000 |
| Stihl 064/066, MS660   | 1122 640 2002 |



## *Assembly instructions*

*RIPSAW accessories are located inside guide beams*

1. Release blade tension by loosening tension bolt.
2. Loosen and remove cover knobs from front cover plates.
3. Remove Drive cover plate from sawmill. (plate with **RIPSAW** decal)
4. Remove bar nuts from chainsaw.
5. Position chainsaw studs through adapter block on **RIPSAW**.
6. Rotate sprocket to engage drive mechanism.
7. Re-install bar nuts into recesses in adapter and tighten them securely.
8. Re-install Drive cover plate. (Be sure that locating pins are through the holes in cover plates before installing and tightening cover knobs.)
9. Re-install cover knobs and tighten securely.
10. Tighten the tension bolt until the indicator reaches the white line.

Refer to chainsaw owner's manual for the proper oil/gasoline ratio.

**Maintain an ample supply of bar and chain oil in the reservoir to lubricate the drive mechanism of the RIPSAW.**

## Dimension plate assembly

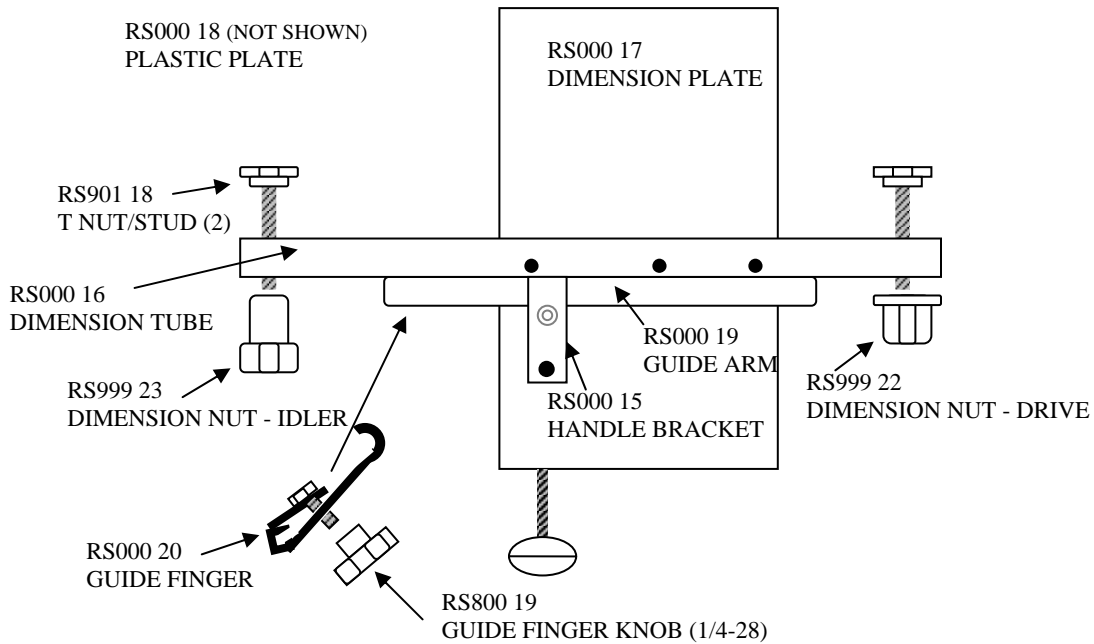


Figure 1. Dimension plate assembly

1. Remove dimension plate and parts from box.
2. Slide guide arm under handle bracket with square pin facing downward.
3. Install and tighten handle to secure guide arm.
4. Remove T nut studs from dimension plate.
5. Slide T nut studs through slots in rear drive and idler plates, with the threaded stud pointing towards you.
6. Attach dimension plate by putting studs through holes in dimension tube.
7. Install Dimension plate nuts.
8. Slide guide finger onto guide arm (*Figure 1*) and tighten knob.
9. Adjust guide arm and finger to accommodate the size of each log you cut.

## Guide beam assembly

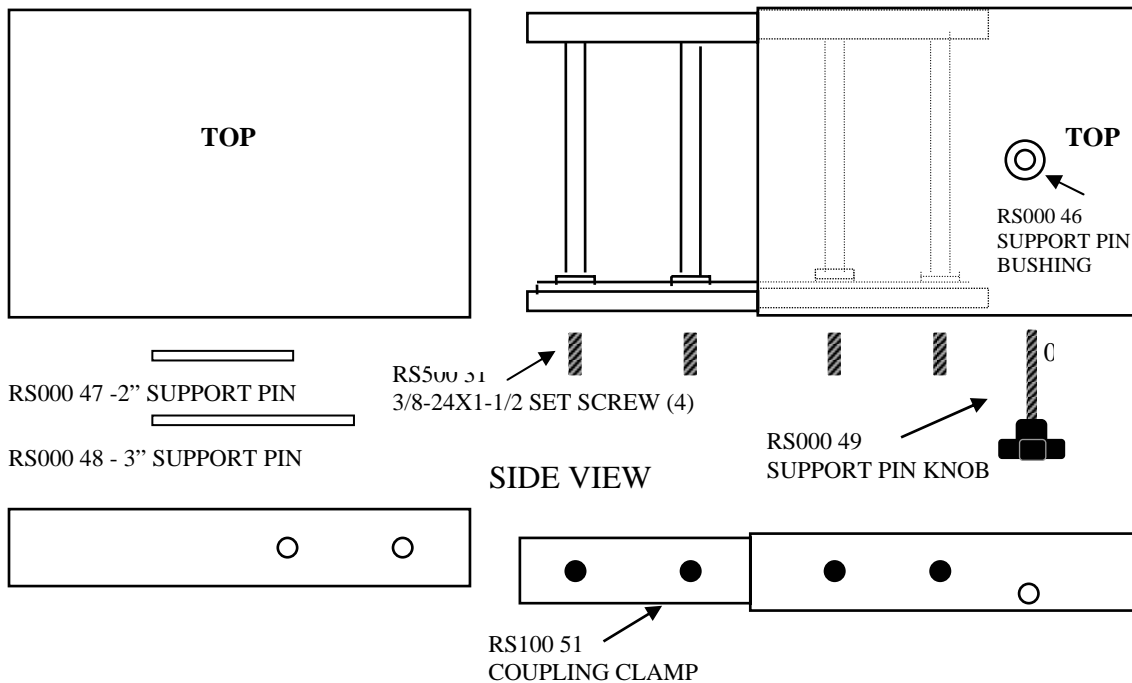


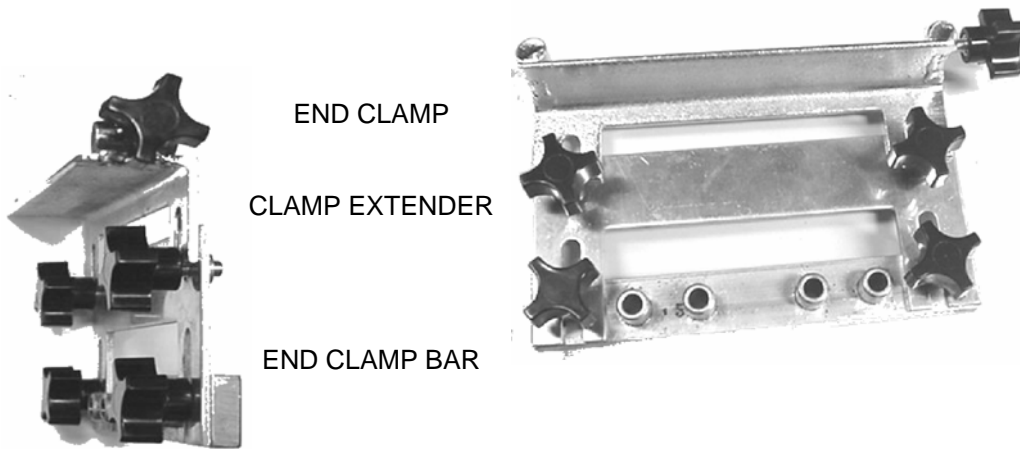
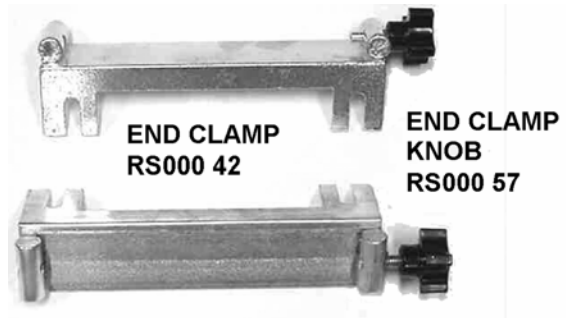
Figure 2. Guide beam assembly

1. Remove coupling clamp and other accessories from guide beam.
2. Install coupling clamp half way into guide beam with bushing. (Align set screws with holes.)
3. Lightly tighten the last setscrew to keep clamp from moving.
4. Place the end of the main guide beam onto clamp lining holes up with setscrews.
5. Secure guide beams by tightening all four setscrews.
6. Install proper support pin into bushing after placing beam on top of log. (The pin should not be above the top surface of the guide beam.)
7. Insert support pin knob and tighten it.

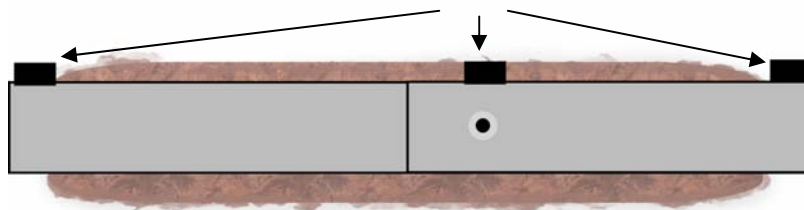
**Please note:**

Both the Guide Beams and End Clamps are made to be affixed on either the left or right side. It is imperative that you set up the machine with all of the knobs on the same side of the unit to avoid interference during the cutting process.

## *End clamp assembly*



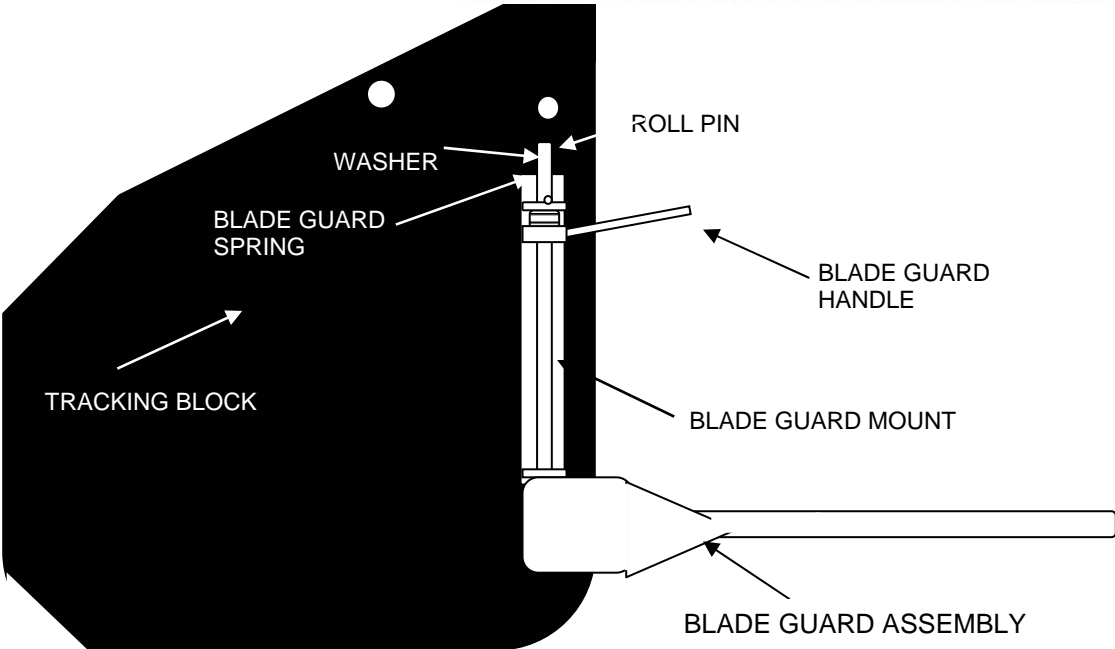
Install all knobs on the same side of log to avoid interference during the cutting process





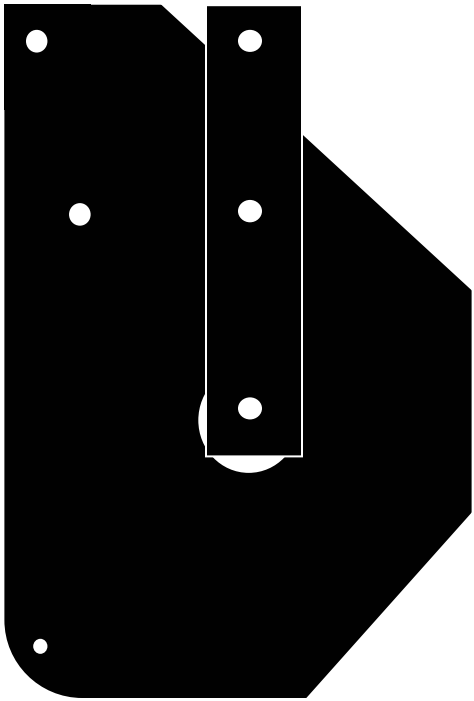
# Front Drive Cover

RS000 05 - Front Drive Cover with Blade Guard  
RS900 05 - Front Drive Cover without Blade Guard



# Front Idler Cover

RS000 03  
FRONT TENSION ARM



RS800 17  
COVER KNOB

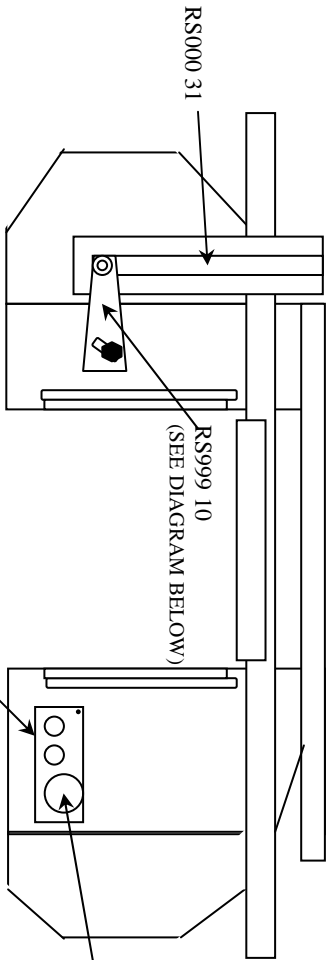
## RIPSAW PARTS LIST

|            |                       |          |                                 |
|------------|-----------------------|----------|---------------------------------|
| RS000 01   | TOP TUBE              | RS100 53 | COUPLING CLAMP BASE             |
| RS000 02   | MAIN TUBE             | RS100 54 | COUPLING CLAMP NUT BAR          |
| RS000 03   | TENSION ARM-FRONT     | RS100 55 | END CLAMP BAR W/BUSHINGS        |
| RS000 04   | TENSION ARM.-REAR     | RS100 56 | WHEEL SCRAPER - IDLER           |
| RS000 05   | FRONT DRIVE COVER     | RS100 63 | END CLAMP KNOB                  |
| RS000 06   | REAR DRIVE PLATE      | RS500 11 | 5/16 -18X1-3/4 COUPLING NUT     |
| RS000 07   | FRONT IDLER COVER     | RS500 12 | 1/16 -18X3 SOC CAP BOLT         |
| RS000 08   | REAR IDLER PLATE      | RS500 14 | 1/4X3/4 ROLL PIN                |
| RS000 09   | REAR DRIVE COVER      | RS500 15 | 10-32/3/8 FLAT HD SCREW         |
| RS000 10   | REAR IDLER COVER      | RS500 16 | 10-32/3/8 BUT SOC CAP SCREW     |
| RS000 11   | LOCATING PIN          | RS500 17 | 1/4-28X1 SET SCREW W PATCH      |
| RS000 12   | HEX PIN               | RS500 18 | 1/4-20X3/4 FLAT HD SCREW        |
| RS000 13   | PIVOT PIN             | RS500 19 | 5/32X3/8 ROLL PIN               |
| RS000 14   | AXLE                  | RS500 20 | 1/4-20X1/2 HEX BOLT             |
| RS000 15   | HANDLE BRACKET        | RS500 21 | 1/4-20X1-1/4 HEX BOLT           |
| RS000 16   | DIM. PLATE TUBE       | RS500 22 | 1/4-20 HEX NUT                  |
| RS000 17   | DIMENSION PLATE       | RS500 23 | 10-32X1/4 PAN HD SCREW          |
| RS000 18   | DIM. PLATE PLASTIC    | RS500 24 | 10-32X5/8 PHIL PAN HD SCREW     |
| RS000 19   | GUIDE ARM             | RS500 25 | 10-32X5/16 PAN HD SCREW         |
| RS000 20   | GUIDE FINGER          | RS500 26 | 1/4-28X3/4 HEX BOLT             |
| RS000 22   | BLADE GUIDE BLOCK     | RS500 27 | 10-32 KEP NUT                   |
| RS000 26   | GUARD WIRE - DRIVE    | RS500 28 | 1/4-20X5/8 HEX BOLT             |
| RS000 27   | GUARD WIRE - IDLER    | RS500 29 | 1/4 ID FLAT WASHER              |
| RS000 28   | GUARD WIRE MOUNT      | RS500 31 | 3/8-24X1-1/2 SET SCREW          |
| RS000 29   | TENSION ASSEMBLY      | RS500 32 | 10-32X3/8 PHIL PAN HD SCREW     |
| RS000 30   | TENSION BOLT          | RS500 33 | 1/4-20X1 SET SCREW              |
| RS000 31   | TENSION INDICATOR     | RS500 34 | 3/8-16X2 SET SCREW              |
| RS000 36   | WHEEL SCRAPER - DRIVE | RS500 35 | 1/4-20X1-1/4 SET SCREW          |
| RS000 38   | BLADE GUARD PIVOT     | RS500 36 | 1/4-28X1 SET SCREW              |
| RS000 40   | BLADE GUARD HANDLE    | RS500 37 | 3/16X3/8 RIVET                  |
| RS000 42   | END CLAMP             | RS500 38 | BLADE GUARD PIVOT               |
| RS000 46   | SUPPORT PIN BUSHING   | RS500 39 | 1/4-20X7/8 SET SCREW            |
| RS000 47   | SUPPORT PIN - 2"      | RS500 40 | FENDER WASHER 5/16 ID           |
| RS000 48   | SUPPORT PIN - 3"      | RS500 42 | 5/16-18X1-1/4 SLOT FLT HD SCREW |
| RS000 49   | SUPPORT PIN KNOB/STUD | RS500 43 | 5/16-18 STOP NUT                |
| RS000 51   | TRACKING BLOCK        | RS500 44 | 10-32X1-3/4 PAN HD BOLT         |
| RS000 57   | END CLAMP PIN         | RS500 45 | 10-32X1-1/2 PAN HD BOLT         |
| RS000 59   | GUIDE BEAM W/BUSHING  | RS500 46 | 10-32 HEX NUT                   |
| RS000 60   | MAIN GUIDE BEAM       | RS500 47 | 5/16 NUT                        |
| RS000 68   | UPPER BLADE GUARD     | RS500 70 | BEARING - WHEEL/PINION          |
| RS000 81   | CLAMP EXTENDER        | RS500 71 | BEARING - BLADE GUIDE           |
| RS001 01   | DRIVE WHEEL           | RS500 72 | CARBIDE INSERT                  |
| RS001 02   | IDLER WHEEL           | RS700 01 | TRIM HATCHET                    |
| RS100 28   | AXLE BUSHING          | RS700 02 | LOG CLEANING BRUSH              |
| RS100 37   | BLADE GUARD ASSEMBLY  | RS700 03 | FRAMING SQUARE                  |
| RS100 51   | COUPLING CLAMP        | RS700 04 | SAFETY GOGGLES                  |
| 8 RS100 52 | COUPLING CLAMP SPACER | RS700 05 | BLADE SHARPENER                 |

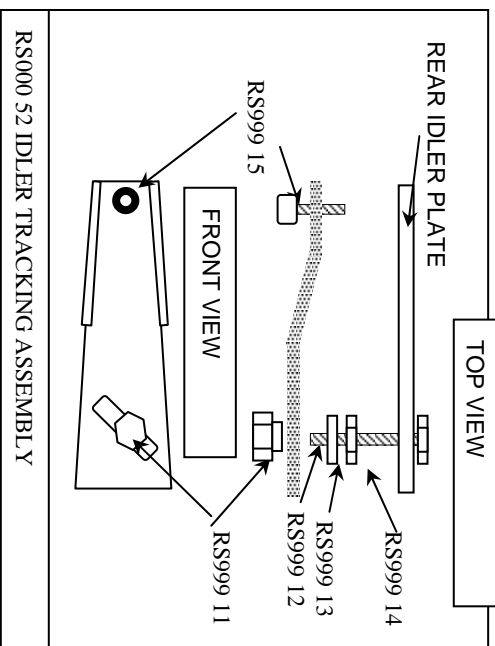
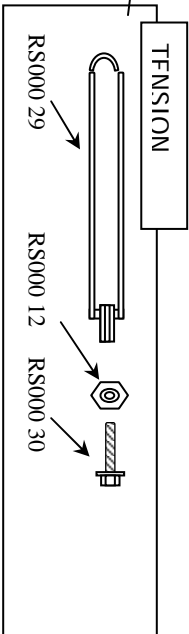
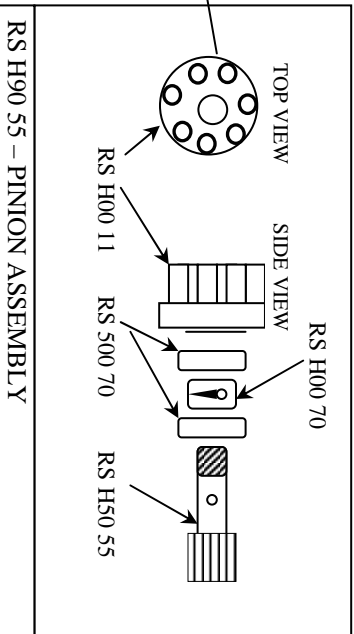
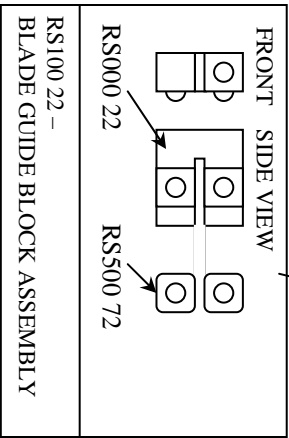
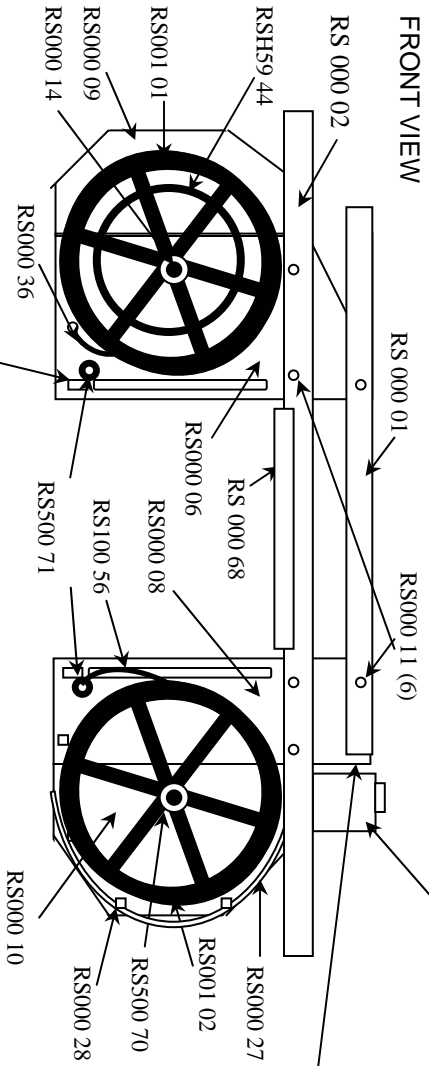
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|----------|-----------------------------|----------|-----------------------------|
| RS700 06 | DIAMOND SHARPENING STONE    | RS999 15 | ¼ -20 ALLEN BOLT (TRACKING) |
| RS700 80 | BLADE                       | RSH00 11 | DRIVE COUPLING              |
| RS700 83 | BLADE GUARD SPRING          | RSH00 12 | DRIVE DISK - ELECTRIC       |
| RS700 84 | ANTI-VIBRATION PAD          | RSH00 13 | ADAPTER BLOCK               |
| RS800 11 | DIMENSION PLATE KNOB        | RSH00 15 | PINION COVER                |
| RS800 15 | EXTENDER KNOB               | RSH00 70 | PINION SPACER               |
| RS800 17 | COVER KNOB                  | RSH50 44 | RING GEAR                   |
| RS800 19 | KNOB - GUIDE FINGER         | RSH50 55 | PINION GEAR                 |
| RS800 28 | 3/16 ALLEN WRENCH           | RSH70 38 | 038 SPROCKET                |
| RS800 37 | 1/8 ALLEN WRENCH            | RSH70 39 | 064 SPROCKET                |
| RS800 46 | VIDEO                       | RSH70 47 | 036 SPROCKET                |
| RS901 18 | T NUT / STUD                | RSH70 48 | 044 SPROCKET                |
| RS999 22 | DIMENSION PLATE NUT – DRIVE | RSH70 49 | 20" BAR - STIHL             |
| RS999 10 | IDLER TRACKING BRACKET      | RSH70 50 | CHAIN FOR 20" BAR           |
| RS999 11 | IDLER TRACKING NUT          | RSH70 51 | STIHL WASHER                |
| RS999 12 | ¼ -20 X 2 STUD              | RSH70 52 | 2.6 STIHL ENGINE OIL        |
| RS999 13 | TRACKING WASHER             | RSH70 53 | STIHL BAR NUT               |
| RS999 14 | ¼ - 20 NUT                  | RSH70 54 | STIHL SNAP RING             |
|          |                             | RSH90 55 | PINION ASSEMBLY             |
|          |                             | ST800 99 | STIHL-20" BAR & CHAIN       |

# RIPSAW DIAGRAM

REAR VIEW



FRONT VIEW



## *Changing blades*

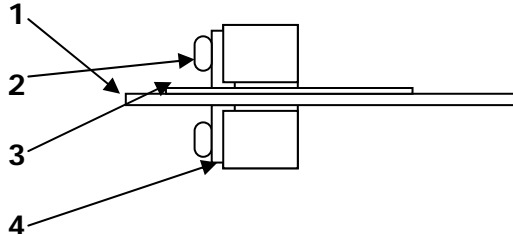
Wear gloves and eye protection while handling blades.

1. Release blade tension. (Turn tension bolt counter-clockwise.)
2. Remove cover knobs.
3. Remove front tension arm, Drive cover and Idler cover.
4. Slide blade toward front of saw and out of guide blocks.
5. Slip blade over the edges of the bottom of the Drive and Idler wheels by tipping it up and outward.
6. Rotate blade up and out of safety guard.
7. To replace blade perform above procedures in reverse. Make sure that locating pins are through the holes in the front covers before installing and tightening cover knobs.
8. Tighten the tension bolt until the tension indicator reaches the white line on the rear tension arm.

## **Carbide guide replacement/adjustment**

Carbide guides may need to be adjusted occasionally. If your sawmill is making wavy cuts adjusting the carbide guides may solve the problem.

If using blades of thicknesses other than .025" you will need to adjust the carbide guides.

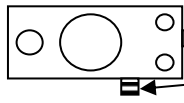


1. Install blade if necessary
2. Loosen screws
3. Place a piece of paper between blade and top carbide
4. Using vise grips or pliers, squeeze the carbides tother
5. Tighten screws while holding carbides in place

## Blade tracking

### Drive wheel...

The tracking set screw is located on the front drive cover at the wheel hub. Turning the set screw will move the wheel, which in turn will move the blade forward and backward. The smooth side of the blade should track approximately 1/32" from the rear rim of the Drive wheel.



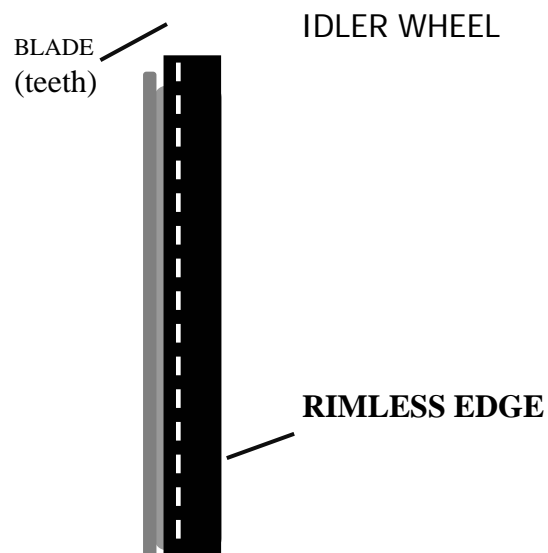
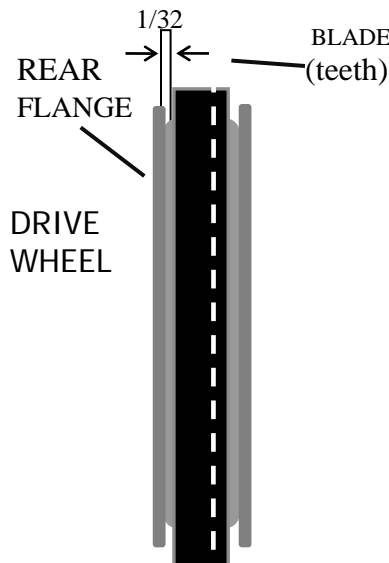
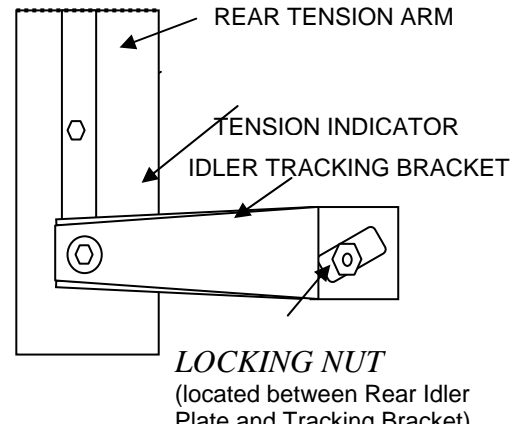
- a) Install a new blade if necessary.
- b) Loosen tracking lock screw.
- c) Adjust the Drive wheel tracking screw all the way in.
- d) Tighten the blade so that the indicator reaches the white line.
- e) Rotate the blade by hand to make sure that it will not come off the wheel when the saw is jogged (Jogging the saw consists of starting the motor and running the saw intermittently).
- f) Jog the saw while turning the tracking screw counterclockwise, until the blade leaves the back flange of the Drive wheel.
- g) Continue jogging the saw while adjusting the Idler wheel tracking bolt.
- h) Lock the Idler tracking bolt by tightening the 1/4-20 nut.

### Idler wheel...

The tracking adjustment for the idler wheel is located on the rear side of the sawmill.

1. Loosen locking nut, using a 7/16" open-end wrench.
2. Make tracking adjustment using a 3/4" wrench by turning tracking nut clockwise to move blade backwards (towards you) and turning nut counter-clockwise to move blade forward. (Away from you) You will need to follow the tracking nut with the lock nut to achieve the proper results.
3. Tighten locking nut.

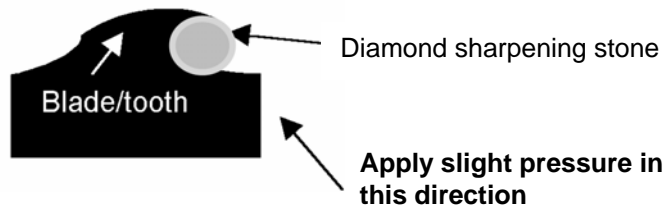
The smooth side of the blade should track evenly with the rear edge of the Idler wheel.



## Sharpening blades

**W**EAR SAFETY GOGGLES, FACE PROTECTION AND GLOVES WHILE SHARPENING BLADES

- 1) You will first need to remove the steel guide from the Oregon sharpener for sharpening Ripsaw saw blades.
- 2) It is recommended that you sharpen the blade while it is on the **RIPSAW**. Unplug electric chainsaw from power source. Make sure chainsaw switch is in the off position. Shut off gas powered chainsaw before attempting to sharpen the blade.
- 3) Move the dimension plate to at least a three-inch depth.
- 4) Lay the **RIPSAW** on its side with the front side facing upward.
- 5) Insert diamond stone into gullet of each tooth. While applying slight pressure upward so that , move the stone in and out (Forward and backward) in short strokes under the cutting tip of the blade.



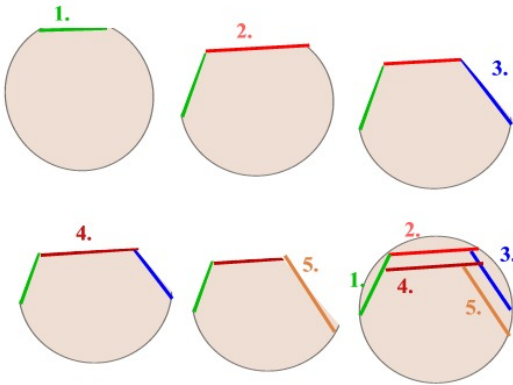
- 6) Keep the stone perpendicular or square to the blade. Two or three strokes will sharpen each tooth. (oversharpening will shorten the blade life.) Move upward on the stone as the diamond wears away to maximize stone life.

You should see that the tip of the tooth is shiny when it is dull and you should see a sharp line after it is sharpened.

Blade sharpening instructions are also located on the front of your **RIPSAW**

## ***Log Capacity***

Larger than 20" diameter logs can be cut by using the following procedure.



1. Make one flat trim cut as deep as possible.
2. Make a second trim cut at approximately a 30° angle to the first cut.
3. Make a third cut at a 30° angle to the second cut.
4. Cut a board off the flat from the second cut.
5. Alternate cutting surfaces until the log is small enough to be cut straight through.

The resulting boards will have to be trimmed to obtain square edges. The board thickness will be limited until the log is trimmed to at least the rated maximum capacity.

## ***Special cuts***

### ***Clapboards***

Starting with an oversized plank, clapboards can be cut by setting the dimension plate at an angle.

### ***Curved boards***

A curved board can be cut by placing a 2"x 6" board over a curved log. Cutting with the 2"x 6" as a guide will yield a curved top which can be duplicated.



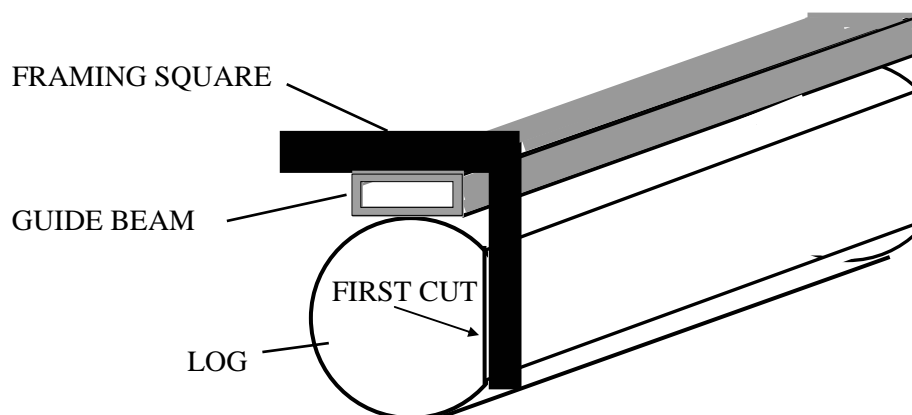
## Sawing wood

1. Plan the use of your log to allow for maximum use.
2. Place the log securely on a stand or position it securely on the ground with the side you want to cut, facing upward. Having the log in an incline position will make it easier to push the mill through the log.
3. Trim off any high spots on the log using another chainsaw or the trim hatchet.
4. Position the guide beam on top of the log and secure it with the end clamps ( Keep all knobs on the same side of the log to avoid interference during the cutting process.. Adjust the height of the end clamps to accommodate any protrusions on the log. (Clamp extenders may be required. See *Figure 3*.)
5. Turn the end clamp pins so that the edges are radial to the center of the log.
6. Drive the end clamp pins into the end of the log using the hammer end of the hatchet.
7. Tighten extender and end clamp knobs.
8. Install support pin and support pin knob.
9. In setting the depth of first cut, make sure that the blade will clear the end clamps and extenders.
10. Open blade guard.
11. Gasoline powered sawmills should be started and warmed up on the ground. Electric units should be plugged into the proper size extension cord and electrical supply.
12. Place sawmill on top of guide beam and adjust guide finger to enable it to ride along the side of the guide beam.

### **Never move the RIPS AW backwards while the blade is in motion**

13. Position the **RIPSAW** at a 45° angle to the end of the log to start the cut.
14. Start cut in to log slowly.
15. Rotate sawmill to 90° after guide finger comes in contact with guide beam or log.
16. Feed the sawmill into the wood, (**Do not force**) Allow the saw to maintain a good blade speed.(This will give the best cut and will prevent overloading.)
17. Cut through the end of the log.
18. Close the blade guard and remove sawmill from the guide beam.
19. Remove the support pin from guide beam.
20. Loosen end clamp knobs and remove guide beam.
21. Wiggle end clamps to free the end clamp pins from the end of the log.
22. Remove the waste slab.
23. Rotate the log 90° (see *figure 4-framing square*)
24. Repeat the previous procedures.

This will give you your second trim cut. To yield boards with finished edges you will need to trim cut another side by dropping the dimension plate down to the maximum depth you can obtain and either guide the saw off the surface of the side you just cut or place a guide beam on top of it first. Once you have three trim sides you are now ready to cut boards with finished edges.



## ***Warranty***

### ***6 Month warranty on RIPS AW parts***

Every **RIPS AW** is thoroughly inspected and tested before leaving the factory. Should any trouble develop with the saw or its components, please contact our office AT 256-728-3070 for further instructions. Returns will not be accepted without prior authorization. Upon the completion of any warranty work, the items repaired will be shipped back to you, freight pre-paid.

The RIPS AW warranty does not apply under these conditions:

1. Repairs are necessary due to normal wear.
2. Repairs have been attempted or made by someone other than S.I.R. personnel.
3. The unit has been in an accident.
4. Misuse is evident. (Such as: overloading or operating beyond rated capacity)
5. The unit has been operated after partial failure.
6. The unit has been used with an improper accessory.

## ***Guarantee***

Southeastern industrial Resources stands behind each of its **RIPS AW** portable sawmills with a 30-day, money-back guarantee. Authorization must be obtained prior to the return of any S.I.R. product. Refunds will be less shipping and a 20 % restocking charge.