

## SECTION 5 TROUBLESHOOTING

Our Resharp blade technicians have spent years evaluating blades sent to us by our customers. The advice provided in these sections can help you avoid common mistakes and maximize sawing performance and blade life.

### 5.1 Blade Breakage

Following is a list of some of the most common preventable causes of premature blade breakage:

Action	Result	Solution
Sawing too long with a dull or damaged blade	Stress in the band	Change the blade at regular intervals.
		Change the blade immediately after striking a foreign object or material.
Flat spots worn on blade guide roller surface	Vibration and heat in blade	Replace blade guide rollers as necessary.
Grooves in blade guide roller flange	Damage to back edge of blade	Replace blade guide rollers as necessary. Adjust for proper clearance between flange and blade.
Frozen or worn blade guide roller bearings	Heat buildup	Lubricate or rebuild roller bearings as necessary.
Chipped/broken blade guide wear pads	Damage to blade surface	Hone or replace wear pads as necessary.
Misaligned blade guides	Damage to blade surface	Check blade guide alignment at regular intervals and adjust as necessary.
Blade guide wear pads adjusted too close to blade	Heat on blade surface	Adjust wear pads for proper clearance.
Worn blade wheel belts	Heat caused by blade contacting blade wheel	Replace blade wheel belts.
Loose or damaged drive belts	Vibration	Adjust or replace drive belts
Sawdust between blade wheel and blade wheel belts	Vibration, blade slippage	Inspect blade wheels for sawdust at regular intervals and remove as necessary.
Improper blade tension	Stress in band	Regularly check blade tension while sawing and adjust to recommended range as necessary.

## 5 Troubleshooting

### Blade Breakage

Dropping a tensioned blade down on a log or cant	Kinks	Replace the blade.
Excessive sap buildup on blade or blade wheel belts	Heat buildup	Use waterlube to prevent buildup. Remove blade and clean if necessary. Scrape buildup from belts.
Ramming blade into end of log or other stationary objects	Kinks in blade	Replace the blade.
Excessive pitch buildup on sides of the teeth	Heat, wavy cuts	Clean or replace blade.
Burning gullet of blade during sharpening	Breakage point	Use coolant during grinding. Use multiple passes through sharpener, removing smaller amounts of material each pass.
Large burrs created during sharpening	Breakage point	Use coolant during grinding. Use multiple passes through sharpener, removing smaller amounts of material each pass.
Too much or too little hook angle in tooth	Vibration and/or stress in the blade and slow cutting speed	Adjust sharpener to provide proper hook angle for material to be sawn.
Incomplete sharpening of tooth profile	Dull blade, breakage point	Sharpen complete profile.
Missing the outside corners (cutting tip) of set teeth	Dull blade	Sharpen complete profile.
Removing too little material from gullet	Fails to remove stress fractures	Adjust sharpener to take more material from gullet of blade.
Worn grinding wheel	Steel buildup in wheel reduces its grinding ability	Replace grinding wheel.
Incorrect grinding wheel shape	Sharp radius at base of tooth is conducive to stress fractures	Redress grinding wheel with proper profile.
Too much or too little set in blade	Vibration and/or stress in the blade and slow cutting speed	Adjust toothsetter to provide proper set for material to be sawn.
Toothsetter setting point strikes tooth too low	Distorts blade body, creating a place for fractures to occur	Adjust toothsetter so setting point contacts tooth properly.
Stored blades allowed to rust		Wipe blades dry before storing.
Storing blades without removing sawdust/sap residue	Oxides and acids can cause microscopic damage to the blade surface	Clean blade before storing.

## 5.2 Blade Performance

Using the appropriate blade for the species and condition of the wood your sawing is crucial to any sawing operation. Using blades with the wrong profile can cause the blade to chatter, too much sawdust, slow feed rates, premature blade breakage and premature dullness. If the appropriate blade is used, sawing performance problems can usually be attributed to the common causes listed below:

Problem	Cause	Solution
<b>Wavy cuts</b>	Sawing too fast	Use slower feed rate.
	Sawing too slow (increases sawdust that isn't cleared from the cut fast enough)	Use faster feed rate.
	Undertensioned blade	Check and adjust blade tension.
	Sawdust or pitch buildup on blade or blade wheels	Clean or replace blade and/or blade wheel belts.
	Blade not properly tracked on blade wheels	Check and adjust blade tracking.
	Blade guide misalignment	Check and adjust blade guides.
	Incorrect drive belt tension	Check and adjust drive belts.
	Worn/damaged blade wheel belts	Replace blade wheel belts.
	Worn blade wheel crown (beltless steel blade wheels only)	Replace blade wheels.
	Loose or worn blade wheel bearings	Replace blade wheel bearings.
	Improperly adjusted mast pads	Adjust mast pads properly.
	Blade not parallel to sawmill bed	Align sawhead and bed rails.
Loose blade guide arm	Adjust blade guide arm rollers.	

## 5.3 Special Problem Wood Types or Conditions

### Cutting extremely hard wood

- Use the 375 Series (.045 x 1-1/4") blade
- Keep set to a minimum - .017" to .019"
- Use hook angles between 4° and 10°
- After using the blade, measure the set on the tooth setter. If inconsistent, the teeth are flexing (bending) while cutting.
- Sometimes will require large quantities of lube to keep the blade free of sap buildup. This sap buildup will cause a blade to cut inaccurately and break prematurely.

### Cutting hardwoods high in *silica*

- Use bi-metal blades or 4° hook angle blades with lubrication.

### Cutting extremely pitchy woods

Will sometimes require a chemical agent to be brushed or sprayed on the blade periodically. (Dishwashing detergent and Pine Sol are popular.)



**WARNING!** Use ONLY water, Wood-Mizer Lube Additive or windshield washer fluid with the water lube accessory. Never use flammable fuels or liquids such as diesel fuel. If these types of liquids are necessary to clean the blade, remove it and clean with a rag. Failure to do so can damage the equipment and may result in serious injury or death.

### Cutting extremely dry wood

- Use no water. If water is necessary, use as little as possible because water will cause the wood to swell. You can also try using water between cuts to clean the blade and shutoff the water while making the cut.

**Cutting varied density softwood**

- Add more hook angle to the blade
- Sharpen so the teeth are a minimum 1/4" tall.
- Use .050" or .055" thick blades.