

# Swingmill Blade Maintenance

Part 5 of a 5-part series on what you need to know about swingmill blades

## This Issue's Focus: Maintenance & Running Costs

A swingmill has a single circular blade that pivots; it moves forward in a horizontal position to make the first cut, pivots to vertical at the end of the log, and then moves back to its starting position as it saws in vertical. Your dimensional board can now be removed from the log completely edged and square. The log remains completely still, so there's no log turning, edging or resawing involved.

Swingmills are the sawmill of choice in the countries they originated from, and around most of the Pacific and Africa. Petersons in New Zealand were the first in 1989, then Lucas in Australia started manufacturing around 1995. But swingmills are still in the 'gaining popularity' phase in many northern-hemisphere countries such as the US, Canada, and Europe, mostly because of lack of information. There are some great internet forums that share a wealth of knowledge on all types of sawmills, including swingmills. Try places like [www.forestryforum.com](http://www.forestryforum.com) and [www.woodweb.com](http://www.woodweb.com) for owners who are more than happy to help you with feedback on the swingmills they run.

### Blade Maintenance Time & Costs

Setting aside for the moment the arguments between bandsaws and swingmills regarding production rates and recovery rates, lets look at typical blade maintenance costs only. This is assuming both mills cut exactly the same amount of timber (1900bft or 4.5cubes) in an 8-hour day, and that neither hit metal. Here is a pretty comprehensive table that has been drawn up from data from two operators using the two different machines in the field. Typical blade maintenance costs and usage periods like these can also be found on the forums mentioned above.

Typical Blade Maintenance Costs & Time Spent *	Swingblade		Bandsaw	
	Board Foot	Cubic Metres	Board Foot	Cubic Metres
Quantity <sup>#</sup> of Sawn Timber between <b>Sharpen</b>	636bf	1.5m <sup>3</sup>	400bf	.94m <sup>3</sup>
Sharpening Time & Cost (\$20 p/hr labour cost value)	5 mins (\$1.66)	5 mins (\$1.66)	5 mins change, 20 mins sharpen (\$8.30) + transport (\$2.50)	5 mins change, 20 mins sharpen (\$8.30) + transport (\$2.50)
Quantity of Sawn Timber between <b>Re-Tip</b> (circular) or <b>Replace</b> (band)	Re-Tip at 33920bf	Re-Tip at 80m <sup>3</sup>	Replace at 1600bf (4 sharpens per blade)	Replace at 3.78m <sup>3</sup> (4 sharpens per blade)
Re-Tip/Replace Cost	\$70	\$70	\$20 per band	\$20 per band
Quantity of Sawn Timber between <b>Retension</b> (circular) or <b>Reset</b> (band)	67840bf	160m <sup>3</sup>	800bf	1.88m <sup>3</sup>
Retensioning/Resetting Time (\$20 p/h) or Sawdoctor Costs	\$10 as part of re-tip service	\$10 as part of re-tip service	20 mins (\$6.67)	20 mins (\$6.67)
<b>Total Blade Maintenance Costs per...</b>	<b>Per 1000bf = \$4.81</b>	<b>Per 1 cubic metre = \$2.03</b>	<b>Per 1000bf = \$47.83</b>	<b>Per 1 cubic metre = \$20.28</b>
<b>Blade Maintenance Costs per DAY (1900b/ft or 4.5m<sup>3</sup>)</b>	<b>\$9.14</b>	<b>\$9.13</b>	<b>\$90.88</b>	<b>\$91.00</b>
* Workings based on 8-hour day in medium density wood, sawing 4.5 cubes or 1900bft, time costs at \$20 p/h.				
<sup>#</sup> There is around 424bft in 1 cubic metre of sawn timber				

## Re-tipping

Most swingblade manufacturers supply re-tipping jigs that will assist you in replacing tips in your own garage. You can purchase pre-shaped and pre-tinned tips (with solder and flux on them) to weld on yourself with a basic oxy-acetylene welding set. Basically you need to compare the cost of the jig and tips, versus the downtime getting your blades to a sawdoctor, especially if the nearest one is more than a couple hours away!

## Hitting Metal

When you hit metal with a bandsaw, the blade is usually a write-off. Hence the requirement to have a couple boxes of spare bandsaw blades on hand at any one time. So that's around \$20 a pop plus your downtime changing blades in the middle of your job.

When you hit metal with a swingblade, you will usually chip 1-4 teeth. One or two missing teeth still leaves you 4-8 good ones that you can still finish the job with. In most cases you can carry on fine. Take the blade home with you at night, and replace the one or two damaged tips yourself with a retipping jig. Or, you can drop the blade into your sawdoctor. Retipping costs will be anywhere from \$4 for a DIY single tip to \$70 for re-tipping and servicing an entire blade.

Bottom line, invest in a good metal detector - they will save you money on ANY type of sawmill.



## Sawdoctors (Blade Maintenance Service Providers)

When you take your blade in for it's first re-tipping, you will need to give your sawdoctor the manufacturer's specification sheet which will show the correct tooth size and width required, and the hook and rake angles. When the blade comes back, compare it to the other one you have. Then take note of the blade's performance on the mill, and give your sawdoctor some feedback. He might not get it perfect for you the first time 'round, so he does need to know what to change to get it just right. And once you gain confidence in your sawdoctor, it would be great to recommend him to other swingblade mill owners.

Here are just some of the many sawdoctors that swingmill customers use for their blades, and whom they have referred to us as all-round good service providers. I'm sure there are many more, but at least this is somewhere to start!

### **Acme Saw & Supply**

1204 E Main Street  
Stockton, CA 95205  
Ph: (209) 948 6735

### **Saw Performance Specialist Inc.**

5322 Hwy 2 East  
Columbia Fall, MT  
Ph: (406) 756 7297

### **Chris Cringle's Saw Shop**

131 U Street  
Eureka, CA  
Ph: (707) 442 6431

### **Ray Lynn (works AH from home)**

205 Wiggins Road  
Tallicon Plains, TN  
Ph: (423) 253 7239

### **Country Saw & Knife Inc.**

1375 W. State Street  
Salem, OH, 44460  
Ph: (330) 332 1611  
Tollfree: (888) 639 7297  
Email:[sales@countrykaw.com](mailto:sales@countrykaw.com)

### **Service Saw & Tool Corp.**

1621 University Avenue  
Des Moines, IA 50314  
Ph: (515) 282 7038  
Email:[servicesaw@hotmail.com](mailto:servicesaw@hotmail.com)

### **Byrne Sawmill Services**

18 Old D'Evereaux St.  
Natches, MS 39121  
Ph: 601-442-7363

### **Allen Guilliams**

156 Cole Road  
Winnfield, LA  
Ph: (318) 628 5461 (BH + AH)

**U-CUT ENTERPRISES INC**

4800 Solvay Rd  
Jamesville, NY 13078  
1-800-952-8288 (TOLL FREE)  
1-315-492-9316  
1-315-492-4044 (fax)  
[u-cut@u-cut.com](mailto:u-cut@u-cut.com).

**Nashville Saw Division**

861 A Springfield Hwy.  
Goodlettsville, TN 37072  
**Ph:** 615.859.1800  
**Fax:** 615.859.0808  
**Website:**[www.alcuttingtech.com](http://www.alcuttingtech.com)

**McGuinness Saw Service**

Mayer, AZ  
**Ph:** (928) 632 9405

**Carolina Cutting Tools**

150 Park Avenue  
Newberry, SC 29108  
**Ph:** 803 321 1915  
**Tollfree:** 1888 887 SAWS  
**Cell:** 803 824 7392  
**Fax:** 803 276 0915

**Alabama Saw Company**

112 Chula Vista Drive, PO Box 770  
Pell City, AL 35125  
**Ph:** 205.884.4971  
**Fax:** 205.338.3386  
**Website:**[www.alcuttingtech.com](http://www.alcuttingtech.com)

**B.H. Payne & Company, Inc.**

1657 Taylor Ave., East Point, GA 30344 USA  
Tel: (404) 761-8711, Fax: (404) 761-5398  
Toll Free: 1-800-752-0627  
Email: [info@paynesaws.com](mailto:info@paynesaws.com)

**Oregon Carbide Saw Corp**

1713 South East 7th Ave  
Portland, OR 97214  
**Ph:** 503-235-8559  
**Fax:** 503-235-8550

**Portland Saw Works**

2005 SE 8th AVE  
Portland, OR 97214  
**Ph:** 503 236 8191

**Jorson & Carlson Co.**

1510 Ohio St  
Des Moines, IA, 50314  
**Ph:** 515-282-7038  
**Email:** [khahn@jorsonandcarlson.com](mailto:khahn@jorsonandcarlson.com)  
**Website:**[www.jorsonandcarlson.com](http://www.jorsonandcarlson.com)

**Memphis Saw Division**

8529 Aaron Lane  
Southaven, MS 38671  
**Ph:** 662.393.0488  
**Fax:** 662.393.1161  
**Website:**[www.alcuttingtech.com](http://www.alcuttingtech.com)