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Saber Cut Saw

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- Gear reviews and tests - Edged tools - Saws -

Publication: Tuesday 25 May 2004

Description :

An in depth test of the Saber Cut Saw, a pocket survival flexible hand saw made by Ultimate Survival.

Introduction

This saw was sent to me by our sponsor Jack from Woodland Organics, for testing purposes, you can visit him here:

[/home/www/htmlhttp://outdoors-magazine.com/ads/adview.php?what=zone:8&n=acbe6451]
[JPEG - 17.3 kb] **Saber Cut Saw** The package

Presentation

Ultimate Survival Saber Cut Saw consists of a chain saw, like the one used on motor powered chainsaws, but it is thinner, the teeth are mounted to cut in both directions, and two loops of nylon at the extremities play the role of handles. It comes in a nice and very secure cordura belt pouch.

The length of the chain is 65 cm (2 feet), and the teeth are spaced of some 7 cm, and direction of cutting reversed every tooth along the distance. It weights 176 grams with the belt. Price : Quoted at 30$ on their site, 20 UK pounds with VAT at Woodlands.
[JPEG - 33.3 kb] **Saber Cut Saw** What you get.

Tests

Hard wood

I took the chain in the garden for the first test, because I had some olive wood to cut. Olive wood even fresh is very hard, and is quite difficult to cut with any saw, motorized saws included.

The first test was on a 5 cm (2") branch, and the saw just sails trough it in a rain of chips flying around. Pretty efficient and impressive.
[JPEG - 34.5 kb] **In action** Cutting olive wood.

The next thing to try was indeed to try to cut bigger things, so I choose a 15 cm (6") log. The saw cuts very quickly through it, the effort is a bit more of what a straight saw would require. Both hands are indeed needed in order to operate the saw. The gorge created by the saw in the wood is something like a cm, so that makes more wood to remove, and therefore will certainly demand a bit more effort, but on the other side, it does not get stacked, and the power that can be applied to the saw is much more because it is really easy to pull a lot and the two arms are used.
[JPEG - 30.6 kb] **Cutting Olive.** Note the sawing marks in the log.

It shaves the wood and creates a nice tinder powder for a firesteel, if the flakes can be collected and dried, then you can get more uses from this thing then first expected, as then you have a way to make tinder as long as you can find some (preferably dry) wood.

I went up to 20 cm (8 ") diameter olive logs, and yes it is tiring but totally feasible.

So it does show an amazing efficiency in hard wood. The saw does not like too much the small curvatures encountered at the end of the sawing session, so at that moment, it works better to open the arms during the sawing

movement.

The next logical step was to try softer pine wood.

Soft wood
[JPEG - 12.5 kb] **Woods** Ah some wood I can play with!

So I went wandering in the woods and found what I was looking for, a dead tree still fresh enough to behave like a living tree.

I first choose to cut a fallen 15 cm (6") trunk, and it was cut in minutes. Very impressive indeed. Much easier in softer wood than in olive wood, much faster too.

[JPEG - 32.5 kb] **Cutting Pine** I cannot operate the saw and get a picture, but the start looks like this.[JPEG - 20.8 kb] **Cutting Pine** Almost finished.[JPEG - 9.9 kb] **Easy work.** It is really easy to cut a log.

How big
[JPEG - 15.1 kb] **And a trunk** With even some good standing stuff.

When I received the saw, I did some computations. the length of the saw is 65 cm, and it seems I need at least 15 cm to saw, so this leaves 50 cm. Alone without any other help or setting, that means that you can still cut a 30 cm diameter trunk easily (counting the saw will need to cover half the circumference = 50 cm). Let's prove this now.

I then decided to cut the part of this trunk that was still standing, that makes a tree over 30 cm diameter

[JPEG - 44.2 kb] **The big trunk** Now that is some real work. That must be one minute work.[JPEG - 43.2 kb] **The big trunk** Almost finished now.

I reckon that this size is the big maximum the saw can do, using it alone and wrapped around a tree, but I am sure that making a quick frame (by bending a thick sapling between the handles) or being two persons would allow to cut bigger tree, probably in the 40-45 cm diameter, which is huge. It took me 5 minutes to cut this trunk, counting rest time. The saw never stacked, and showed amazing efficiency. Being able to cut this size of trunks with a less than 200 grams device in less than 10 minutes is really impressive.

Please note that cutting a weighted tree this size brings the necessity of at least two cuts (cut and undercut), and would be quite hazardous working alone as the position is quite near the trunk. Making a frame saw out of the saw, or working with another person would make this safe enough to fell a tree that big. The trunk I did cut here was straight, and the top had fallen, thus allowing some straight cut fantasies which would not be safe and even claim your life with a full weighted tree.
[JPEG - 45.8 kb] **The big trunk** finished. the saw never stuck.

Another small tree
[JPEG - 21.9 kb] **Dead tree.** Tree for the speed test.[JPEG - 16.5 kb] **On the ground** 2 minutes later.

I did another test on another dead tree, just to see how fast I could get it down. This 12cm (5") went down in exactly two minutes, rest time and dragging it included.

A good thing is that the cut is actually done on the opposite place you stand, so if it goes, if you took care about where you placed the cut, it is relatively safe. *Unless indeed the falling area is not clear, or there is any condition that could cause the base of the trunk to lift and hit you back. I did make only one cut, to 2/3 rd of the tree, with a very small stress relieve on the other side, the tree only felt after a good kick. Beware of kicks though because if you kick too low over the cut, the tree will fall on you rotating around it's gravity center...*

So yes, you can see this saw is not a survival gadget, like the SAS wire saws recommended for survival, but a real working woodsman tool!

Compare with something else
[JPEG - 8 kb] **A laplander** Could we do it with a laplander?

I had my Bahco laplander with me. On a 12 cm trunk the bahco is faster and slightly less tiring, but would have got stuck on a standing small tree. On the bigger trunk, the comparison is void, the Bahco cuts branches and saplings, not trees.

damage check
[JPEG - 8.5 kb] **A tooth** From the reflection, you can see that it needs some sharpening.

The teeth show they could get some sharpening. Some dents can be seen. But I think I made these dents at a moment when I thought the saw was straight , but it had a made a loop, and it took me a few goes before I understood it had looped in the part which is behing the trunks and that was what was stacking the saw. Nothing bad, The two later trunks, including the bigger one, were cut with the saw in that state, so there is a lot of margin in terms of sharpness. The teeth seem to be self cleaning, and never got blocked with chips or particles.

Sharpening

This is sharpened like a chain saw, which means that a minimum of a sharpening stick is required. At home, a dremmel will do it if care is taken. It took me ten minutes with a diamond rod to make the chain terribly sharp again.

Tips

[JPEG - 15.7 kb] **Storage** Roll the chain to avoid damaging the teeth against each other.

[-] Check the saw is straight, and check it did not loop when you passed it behind the tree.
[-] When you arrive at the end of the cut, the diameter to cut gets smaller, open your arms, so that the saw has less of a curve to make.
[-] For storing, I recommend to roll it like on the picture, but with the teeth inside.
[-] Use it with gloves, or wrap a tissue around the handles. They are light and resistant, but slightly aggressive on the finger, in places other than the palm, so I got two small blisters between the fingers of my left hand.
[-] Do not strap yourself to the saw in any way.
[-] If you must fell a weighted tree, take all relative risk assessment, be aware of land bumps, other trees, high branches interlacing, lack of undercut, your cutting position with this saw, or woods which have a tendency to split,

leaning trees, trunks bending, vibrating, and the other thousand of traps that await any man felling a tree...

Conclusion

This is a neat piece of equipment, well worth its price, and it makes a really decent replacement of an axe in my opinion. It is so light and so easy to carry, yet so powerful, that I can only recommend it. It takes no place in a bag, and in conjunction with a knife will allow some real wood working, wether it is for cleaning a path, a road, of building shelter or camp. If you are used to carry an axe, this saw is clearly as powerful, if not more, for a fraction of the weight. If you never carry an axe, this is a great emergency tool for the woods. It stands as useful as a Bahco Laplander can be, but it can cut more than branches, trunks!

Post-scriptum :

All tests presented here were led on dead trees (or branches that were cut for maintaining), as I do not like the idea of felling a living tree unless there is a good reason.

The gear for this review was provided for free by courtesy of Woodland Organics in exchange of a banner to their site in the article. But the whole test is totally independant, and has in no way been censured or altered because of this. Jack would not send me bad gear, he does not seem to have any, anyway.

Updated 13-Jun-2004, to clarify about tree felling. This article is not about felling a tree, but testing a saw.