Stropping pressure
Posted by cbwx34 - 14 Feb 2013 17:33

Ran across this video posted in another forum... thought it might spark a little conversation...

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What'd ya think???

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Re: Stropping pressure
Posted by mark76 - 14 Feb 2013 18:26

That's funny. I'd also seen this video somewhere else. So when I saw the topic title, my first thought was that I'd have to post the link to that video here.

I'm partly with this guy. When I strop with a medium or coarse compound (say >1 mu) I often use quite a bit of pressure. Only when I use fine compounds (< 1 mu), I usually use light pressure, as is often recommended. But this guy makes me want to experiment with heavy pressure always...

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Re: Stropping pressure
Posted by wickededge - 14 Feb 2013 18:35

Great video, thanks Curtis. I'm with Mark - I often use a lot of pressure with my coarser strops and then lighten up in the finer grits.

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Re: Stropping pressure
Posted by Geocyclist - 14 Feb 2013 22:10

Nice video. This confirms my thoughts that if you strop often you are just straightening out the edge. Meaning it is not completely deformed. When it is deformed then you have to sharpen with stones.

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Re: Stropping pressure
Posted by PhilipPasteur - 15 Feb 2013 08:48

Geocyclist wrote:

Nice video. This confirms my thoughts that if you strop often you are just straightening out the edge. Meaning it is not completely deformed. When it is deformed then you have to sharpen with stones.

I would go with that if you were using straight leather with no compound on it. When you add diamonds, you are removing metal. This means you are sharpening, at least to an extent. It also means that you are doing more than simply stra9ightening the edge, such as what you might do with a smooth steel hone. Of course, if the edge gets too bad, the stones are needed... unless want to strop for a very long time.

As to the video, he is showing the same thing. The edge was pretty bad to begin with. Adding pressure will make the compound cut faster. If you already have a refined edge, I think that it is not really required to add that much pressure. He could have done the same thing using more light strokes.

For instance, if you already have a screaming sharp edge that you ended a stone progression with the 10 K Chosera stone on (just under 2 microns), you really would not likely benefit mush from applying the kind of pressure illustrated in the video when you go to you one micron coated strops.

I suppose that if you are trying to remove 1K diamond scratches with 10 micron paste on leather, some additional pressure would shorten the process some, but would not really be requred, especially if edge refinement was all that you wanted.

Phil

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Re: Stropping pressure
Posted by leomitch - 15 Feb 2013 09:04

That is interesting. In my case, I always work my edges to near polished with the ceramic stones so I have a very refined edge. For this I use my 'brush as softly as a summer breeze' recommendation. A much less refined edge would benefit from pressure I guess when moving to use the pastes.

My edges have improved so much since I started using gentle strokes after raising the burr, that I never thought of using pressure again, let alone with the strops, until this video. Thanks for posting that.

Leo

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Re: Stropping pressure
Posted by cbwx34 - 15 Feb 2013 16:52

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These videos were made by BluntCut, who I believe is a member here.

I still haven't watched all 4 parts... but in the 3rd part (guess I'm going backwards) he talks about abrasive size being the reason for not rounding an edge...

Here's part of what he said in the video comments...

This part III shows/conjectures the face of the abrasive move the inflection/give/curl point forward away from the edge, which is the reason for not rounding the edge inspite of excessive pressure. There must be enough abrasive density present to maintain this behavior. So when the strop is caked with swarf or the resulting edge begun to yields more burr or wire. It's time to scrape/sand down the strop and put a fresh layer of white compound.

Instead of white compound, you can use or experiment with other type of abrasives. I tried diamond & SiC. Diamond work OK with particle size as small as 12 micron; however once the strop is fairly loaded with swarf, rounding/burring occurred. At 6 micron diamond, the rounding so severe that my edge angle had double from 30* to 60*. Albeit I used about 0.5 lbs of pressure.

Now I gotta go look thru some of the microscope pictures with this in mind.

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Re: Stropping pressure
Posted by Geocyclist - 15 Feb 2013 19:39

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Phil,

I have to agree with you. With abrasive you are removing material. Just not as much as with stones.

When I think of a rolled edge and you hit it with a stone you take the rolled part off (depending on the grit). With a strop it is straightened (hopefully). It's like a bur. With a stone you grind it off from the other side.

This is all based on my feel of the edge after using strops. I have never used a microscope to see what is actually happening on a rolled/deformed edge after stopping alone.

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Re: Stropping pressure

Posted by PhilipPasteur - 15 Feb 2013 20:39

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Geocyclist wrote:

Phil,

I have to agree with you. With abrasive you are removing material. Just not as much as with stones.

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This is all based on my feel of the edge after using strops. I have never used a microscope to see what is actually happening on a rolled/deformed edge after stopping alone.

I guess the first thing that you need to know is, what is the reason that your edge it not sharp after use. In some cases it is wear from abrasion. This means that your V is worn to where it is truncated or rounded. Of course this type of dulling is why we look for wear resistant steels for our blades.

I have looked with the Veho as well as I could and I think that this is the major reason my knives lose their edge over time.

Then there is what you are talking about which it edge rolling. This is where the edge fails by folding over on itself. Some say that in this case you can use a steel to simply straighten the edge. Of course you can get chipping, but again this is a failure of the steel and means a trip to the stones as wll.

In the first case, stropping would result in restoring the edge of the edge to the desired V shape through abrasion. In the second, I think it is back to the stones. Even if you straighten the rolled part, it will be very weak. I think this is why butchers will steel regularly. It is a quick way to get the knife to cut, but it doesn't last very long.

The Bluntcut videos are very interesting. I watched all four of them. In the second one he shows how to get an edge with more conventional stropping. That is all good. I now that this works! In the third and forth, he either flails on the knife, or uses lots of pressure (I have to believe that, if I did what he did...flailing away without looking, the results would not be at all pretty). Apparently it works at some level, at least to cut paper. We know nothing about durability or the ability to perform some of the other sharpness tests.

I also think that the eplanation that he give about grit size protecting from rounding the edge sounds plausible, but I can't say I am buying it with what I know now. Too much time on bench strops that has given me results that simply do not support his ideas.

Then you have people like Cliff Stamp out there that insist that stropping is counterproductive and weakens the edge. He also insists that if you have a genuinely great edge after using stones, nothing you can do with a strop will make it better, only worse.

I am not quite buying that either.

In the mean time, I am not sure how what he is doing relates much to the WEPS. At least, nothing I saw is going to make me rethink my techniques using the WEPS. I have never used 8 pounds of force while stropping, and really don't think I want to start.

BTW, I use bench strops regularly with from 10 microns down to 0.25 micron abrasives. Nothing I have been able to detect leads me to believe that the edge of the edge is going from 15 to 30 degrees per side after using these strops. I can't see a burr at 400X, nor can I feel anything that seems like a burr. When I am done, I can definitely push cut phone book paper against the grain and tree top arm hair. I would like to know how he got the measurements to justify his claims.

Again, intersting stuff, but it raises more questions than it answers, for me. OTH, I may just make a strop on a paint stick with white compound and stick it in my pack next time I will be away from my sharpening supplies for a period of time. I am pretty sure that I can restore a decent edge using such a device in an emergency (as long as I don't wait too long...or have a few hours to burn getting there:)).

One other thing, Curtis, did you happen to catch any explanation for why he is calling this strop a "Balanced Strop" ?

Maybe Bluntcut will read this and join the discussion. I have lots of questions for him.

Phil

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Re: Stropping pressure
Posted by cbwx34 - 16 Feb 2013 08:32

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PhilipPasteur wrote:

The Bluntcut videos are very interesting. I watched all four of them. In the second one he shows how to get an edge with more conventional stropping. That is all good. I now that this works! In the third and forth, he either flails on the knife, or uses lots of pressure (I have to believe that, if I did what he did...flailing away without looking, the results would not be at all pretty). Apparently it works at some level, at least to cut paper. **We know nothing about durability or the ability to perform some of the other sharpness tests.**

Good point!

I also think that the eplanation that he give about grit size protecting from rounding the edge sounds plausible, but I can't say I am buying it with what I know now. Too much time on bench strops that has given me results that simply do not support his ideas.

I too wonder if it's a case of... "I got a better edge off the coarse strop", and then tried to come up with a reason why? Seems it would be a hard theory to prove, based on just the results of stropping... there could be many reasons.

Then you have people like Cliff Stamp out there that insist that stropping is counterproductive and weakens the edge. He also insists that if you have a genuinely great edge after using stones, nothing you can do with a strop will make it better, only worse.

I am not quite buying that either.

Me neither.

In the mean time, I am not sure how what he is doing relates much to the WEPS. At least, nothing I saw is going to make me rethink my techniques using the WEPS. I have never used 8 pounds of force while stropping, and really don't think I want to start.

I thought it was interesting, since we occasionally talk about how much pressure to use with the strops.

BTW, I use bench strops regularly with from 10 microns down to 0.25 micron abrasives. Nothing I have been able to detect leads me to believe that the edge of the edge is going from 15 to 30 degrees per side after using these strops. I can't see a burr at 400X, nor can I feel anything that seems like a burr. When I am done, I can definitely push cut phone book paper against the grain and tree top arm hair. I would like to know how he got the measurements to justify his claims.

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One other thing, Curtis, did you happen to catch any explanation for why he is calling this strop a "Balanced Strop" ?

No idea!

Maybe Bluntcut will read this and join the discussion. I have lots of questions for him.

Phil

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