Leading or Trailing Strokes

Posted by wickededge - 21 Aug 2012 16:45

I did a quick experiment with the .6 Micro-Fine Ceramic stones and edge-leading and edge-trailing sharpening. First I polished the edge .25um with the kangaroo strops. Here is the clean edge:

I didn't go for perfect, just good enough to have a clean slate.

Next I did 5 very light trailing strokes with the .6um Micro-Fines at 5 degrees wider. Here is the result:

I did another 20 strokes, edge-trailing:

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Re: Leading or Trailing Strokes

Posted by cbwx34 - 22 Aug 2012 10:02

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wickededge wrote:

Clearly a big burr (you know, about 4 microns or something) was formed.

Haha... I do forget the magnification we're looking at these sometimes...

I'm looking at them this a.m. on a big screen tv. (god bless modern technology).

Now I'm wondering if it's possible, to take a shot of the edge looking straight down... to see if that shows any differences between the edge trailing vs. edge leading edges?

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Re: Leading or Trailing Strokes
Posted by wickededge - 22 Aug 2012 10:06

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cbwx34 wrote:

wickededge wrote:

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Funny you should mention that - I was just working on it this morning and modified my jig to allow the blade to sit up vertically under the scope. It's hard to find the edge but once I do, I can focus on it fairly well. I did some measurements and got and edge thickness of between .45um and .29um with the Mirco-Fine .6 stones at 28 degrees.

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Re: Leading or Trailing Strokes
Posted by RalphHoneycutt - 22 Aug 2012 10:07

Clay, What angle did you use to clean up the edge with the 'roo and then what angle did you use with the 0.6um micro-fine ceramics?

Thanks,

Ralph

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Re: Leading or Trailing Strokes

Posted by razoredgeknives - 22 Aug 2012 10:34

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wickededge wrote:

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I've been waiting for this for a while! Thanks so much Clay! Can'twait to see different results

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Re: Leading or Trailing Strokes

Posted by cbwx34 - 22 Aug 2012 10:34

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wickededge wrote:

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Mirco-Fine .6 stones at 28 degrees.

Cool. These would be interesting to see as well.

It might be worth mentioning... this may be old news to those who have been involved in sharpening for a while, but if you're new you might not know this... that there is some debate over which method leaves a better edge, trailing or leading. There is differences in the type of burr formed, how the burr is removed and the edge it leaves, whether or not edge leading "smashes" the edge into the abrasive particles preventing it from ever getting sharp, and other factors. Many sharpeners base their whole method on these ideas, and while most seem to make common sense (on either side of the issue), little has been done to actually prove or disprove the "facts". So, while it's hard to draw conclusions from just a few photos, over time, this could prove to be very beneficial.

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Re: Leading or Trailing Strokes

Posted by wickededge - 22 Aug 2012 10:37

Hey Ralph,

I have the sharpener set at 25 degrees for the .6um and 30 for the for the roo strops.

RalphHoneycutt wrote:

Clay, What angle did you use to clean up the edge with the 'roo and then what angle did you use with the 0.6um micro-fine ceramics?

Thanks,

Ralph

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Re: Leading or Trailing Strokes

Posted by RalphHoneycutt - 22 Aug 2012 10:56

Clay, For some reason I was expecting the opposite. With the roo strops at 30 deg, would it not roll the edge over? ... and with the 0.6um at 25 deg, I would have expected it to cut somewhere on the shoulder and not the edge. I think I am missing something.

Thanks,

Ralph

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Re: Leading or Trailing Strokes

Posted by wickededge - 22 Aug 2012 11:27

Ralph, you're right I just goofed up my answer. I stropped with the roo at 25 and used the .6 ceramics at 30! Thanks for catching it.

RalphHoneycutt wrote:

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Thanks,

Ralph

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Re: Leading or Trailing Strokes

Posted by Geocyclist - 10 Dec 2012 21:48

Bumping this up. Have some questions here (actually searched the forum rather than starting a new thread).

1.) Does anyone have feedback on best performance (sharpness, edge quality) of leading vs. trailing.

2.) Does anyone do both leading and trailing? I was trying 5 each, then finishing 1 each way. After looking at Clay's photos, would alternating leading/trailing stokes clean up the burr on the bevel and the edge?

3.) Feedback on direction - tip to heel or vice versa? Do you roll the tip less by going tip to heel? (or do I just need more practice?) I did find the mixing tip => heel and heel => tip seems very rough, like going against the grain. Or is this good? Does switching directions get the scratches out or just make more/worse?

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Re: Leading or Trailing Strokes

Posted by cbwx34 - 11 Dec 2012 08:07

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Geocyclist wrote:

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Here's my .02

1. On some knives I can't tell. On knives that I have an issue with... primarily a burr that won't go away, edge leading works best for me at cleaning it up. If I'm trying to get a knife as sharp as I can, I find edge leading, especially with the ceramics, gives me a better edge.

2. On the WE I primarily do edge trailing. I never do edge leading with the coarse stones.

3. With the coarse stones I do heel to tip, seems to be the quickest way to set up the edge. From 600g on, I'll do heel to tip, then I'll do 10-20 strokes tip to heel before moving to the next stone. With the finest stone or strop I plan to finish with, the majority are tip to heel. Switching cleans up the bevel better, and finishing tip to heel sets the "teeth" for better slicing. Even with a polished finish, I see a difference. (All this is edge trailing).

Not set in stone "rules", just a general pattern I tend to follow on the WE.

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