Stock stone/strop progression (Lots of Pics!!)

Posted by razoredgeknives - 20 Feb 2012 19:36

Hey guys, quick question... I can't seem to find any info to this effect... when going through the process of sharpening a straight razor I have found that the jump between the 1k stock diamond to the 14m pasted strops is too large... after 500 strokes per side w/ the 14m strop it has not removed any of the scratches. Which leads me to my question, what is the logical progression if I am sticking with all stock stones/strops (i.e. no chosera/shapton stones)? I just ordered the 1200/1600 ceramic stones as an "in-between" before I go to the 14m strops. Any suggestions or should I be good?

According to the grit chart in the sticky, it would actually be a step back going from the 1k to the 14m pasted strop (as the 1k is supposed to be 7m).

Thanks for your help!

** Updated **

I compiled this as a reference for those of you who are interested in the progression photos but not all the discussion in between. I left my original OP above so you can see the problem I was having.

Tom's series (pg. 1 - scroll down)

Tom from Jende industries does a series of photos trying to re-create the problem I was having (which he does successfully). In this series he jumps between the 1k stock diamond stones to the 14m WE pasted strops. H**e found that the jump between the 1k stock diamond stones to the 14m strops is too large of a leap.** After 600-800 passes/side, and after adjusting the angle to where he was only hitting the very edge of the edge w/ the strops, he finally made some progress.

Clay's Series (pg. 2-6)

Pg. 3 – Clay does a series of photos going from the 10k chosera stones polishing all the way down to

.125m on CBN strops (final photo post # 2025). Pg. 4 - After having a nice mirror polish on the edge, he backs out to the 3.5m pasted strops to check out the scratch pattern left by that paste, and then goes even further out to the 5m pasted strops, which were really effective. On Pg. 6 Clay goes to the following progression: 10>14>10>5>3.5>1>.5>.25>1 microns. He did this while changing directions with each different grit so you could really see what each grit is doing… This was an excellent series!

Clay's Series (pg. 7-9)

Here clay conducts an edge progression with all stock stones on Aus 8 steel, starting with 100 grit and going all the way up. He actually re-starts the progression in post #2059 (pg. 14 after taking a little detour (i.e. jumping straight from the 600 grit stock to the 14m paste). He re-starts it with the 600 grit and, on Pg. 9, goes up through the stock ceramics (1200/1600) and then jumps to the 14m pasted strops from there. He goes all the way down to the 3.5m pasted strops. This does seem like much softer steel then we are used to, however (keep this in mind).

Another one of Clay's series (different thread) - You can check out this other thread started by Mark76 , in which Clay shows photos of an edge at 510x while playing around with lapping films, strops, and paste vs. spray. Excellent info! See what happens to your edge w/ each subsequent grit!

Stone Comparison (pg. 11) – new stones vs. broke in stones

A picture (by Holymolar) similar to **Clay's microscope setup** on how to consistently recapture the same exact spot on an edge when sharpening (Pg. 14 , post # 2185).

My Series =) (pg. 16 , post # 2409) – I progressed up from the 5k/10k choseras all the way to .5m Hand American sprayed leather strops. I post my observations here.

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Re: Stock stone/strop progression

Posted by wickededge - 13 Mar 2012 17:52

At this point, I was unsatisfied with the polish level and decided to drop back down and repeat the following progression: 1 boron carbide> .5 micron chromium oxide> .25 micron diamond> .125 CBN

I didn't photo each step, just worked quickly through the progression to get back to .125 microns. Now we're getting somewhere!

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Re: Stock stone/strop progression

Posted by wickededge - 13 Mar 2012 17:55

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Here is where things get really interesting - I decided that the bevel was polished sufficiently and we'd be able to examine the scratches from the strops in question, so I began a descending progression, starting with the 3.5 micron diamond and top grain leather strops:

Go figure....

The sedge/chicken foot shaped scratch is almost gone.

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Re: Stock stone/strop progression

Posted by wickededge - 13 Mar 2012 17:57

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Descending yet further to the 5 micron diamond and top grain leather strops, stroking in the opposite direction. Note what has happened to our little sedge shaped scratch:

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Re: Stock stone/strop progression

Posted by wickededge - 13 Mar 2012 18:02

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On to the 10 micron diamond and top grain leather strops. We've lost our sedge/chicken foot scratch but we now have an odd little hole for reference:

Still alternating strokes so we can see the new scratches clearly.

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Re: Stock stone/strop progression
Posted by wickededge - 13 Mar 2012 18:04

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Finally the 14 micron diamond and top grain leather strops:

Still switching stroke directions.

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Re: Stock stone/strop progression
Posted by wickededge - 13 Mar 2012 18:11

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Climbing back up the ladder, switching stroke direction on each grit:

10 micron diamond and top grain leather strops -

5 micron diamond and top grain leather strops -

3.5 micron diamond and top grain leather strops -

So far so good. More to come.

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Re: Stock stone/strop progression

Posted by wickededge - 13 Mar 2012 18:19

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Now it gets weird again:

1 micron diamond and top grain leather strops (Wicked Edge paste)-

This looks good. Onto the next - .5 micron and top grain leather strops (Hand American spray)-

weird?!? And the next - .25 micron diamond and split grain leather strops (Hand American spray)-

weirder still. Next are the .125 micron CBN and split grain leather strops (Precise Sharpening spray)-

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Re: Stock stone/strop progression

Posted by wickededge - 13 Mar 2012 18:22

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Contamination? Maybe something to do with the split grain leather.... My guess is that the top grain leather really does move the metal around the surface and the leather is doing most of the work. With the split grain leather, the diamonds are doing more work than the leather. Lots more testing to be done here!

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Re: Stock stone/strop progression

Posted by wickededge - 13 Mar 2012 18:24

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I decided to go back to the 1 micron diamond paste and top grain leather strops since that was where I had my last, best result:

It was a worthwhile move, the bevel cleaned right up again.

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Re: Stock stone/strop progression

Posted by wickededge - 13 Mar 2012 18:29

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Finally I put a 17° micro bevel on the blade with the 5k Chosera stones. This knife is going to get used, ostensibly for deboning meat, so a slightly toothy, slightly wider micro bevel will be just the thing:

and then I did about 20 strokes per side with the 3.5 micron strops to put a final touch on the edge. I hope Krystina's customer likes it:

I'd love to hear everyone's thoughts.

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