Why am I rolling edges
Posted by Buford T Justice - 04 Dec 2012 20:44

I sharpen my EDC's at about 19 degrees per side. If I cut anything other than hair or paper I seem to roll the edge.

2 cases recently were my Spyderco Chaperal (S30V) and a Benchmade Bone Collector (D2). Both rolled cutting stuff like plastic and cardboard. They aren't cheapo knives, so the steel shouldn't be the issue.

Is my angle just too low for EDC tasks, or could I be forming a wire edge that I'm not taking off with the finer stones / strops.

I generally finish my sharpening with the 1200 / 1600 ceramic then 5 / 3.5 micron leather strops. I then usually do a few very light passes freehand on a strop at a higher angle. I know that's overkill for everyday cutting tasks, but I like showing off the arm hair shaving ability when somebody tries to tell me how sharp their knife is.

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Re: Why am I rolling edges
Posted by leomitch - 04 Dec 2012 21:36

My first question would be, how were you sharpening before using the WEPS. You may have caused the heat treatment to suffer by using some tool that created a lot of heat like a grinder or some other motor driven tool. Also it is not unheard of that some knives come from the factory with their heat treatment less than satisfactory.

I certainly don't think your angles are too acute, although if it were me, I would set the angles at a tougher 22 degrees or so per side. If your blade steel's heat treatment is intact, I can assure you an edge of 44 degrees inclusive will out perform an edge of 38 degrees inclusive in the area of edge strength. I have a folder of D2 steel and I have never had an edge roll on me...chip yes a little, but roll never.

My two cents worth.

Leo

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Re: Why am I rolling edges
Posted by razoredgeknives - 04 Dec 2012 21:52

I guess it could be that you didn't take the burr off all the way... But some rolling is normal when yousstartttalking about things like zip ties and stuff. But it shouldn't be rolling after just cutting a little cardboard :- I touch my edc's up on my 1um strop everyfew ddays due to the edge rolling in certain places...

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Re: Why am I rolling edges
Posted by Buford T Justice - 04 Dec 2012 22:11

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I haven't done anything to effect the heat treatment. The D2 knife had previously only been sharpened on a Lansky and / or crock sticks. The Spyderco only on the WEPS.

I say one rolled after cardboard, but in the same use I cut some plastic banding on the package. The plastic is more likely the culprit.

My gut tells me I'm only straightening my burr and not removing it. I've noticed in videos most people spend more time doing one side at a time rather than alternating strokes. I'm pretty ambidextrous so I generally go straight to alternating strokes after establishing a burr. Maybe doing more strokes per side would help.

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Re: Why am I rolling edges
Posted by xuzme720 - 05 Dec 2012 07:38

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Maybe try a microbevel on the order of 22-23 degrees. Might help if you're constantly rolling the edge. Give it a shoulder to lean on, so to speak. Just a thought...

If you do have just a straightened burr, that would be a much more likely culprit than bad heat treatment or misuse with those steels. My EDC's have never shown a tendency to roll, and they are all in the same 18-22 degree range.

One thing to try as well, once you get a burr formed on both edges so you know both sides are at the apex, take at least a few strokes to make sure the burr is gone before starting side to side. I had that problem at first where I was just pushing the burr back and forth. I think it was one of jdavis882's videos that solved it for me.

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Re: Why am I rolling edges
Posted by cbwx34 - 05 Dec 2012 08:08

I think your gut is right. One thing you can try, at the end of the sharpening session, is to set the angle 4-5 degrees higher, and make one or two very light, edge leading passes with the ceramics. You're not creating a microbevel, just removing the burr. You can then drop down to your sharpening angle, make a couple more light passes to clean up the edge, then strop if you want.

You can also just set a microbevel as xuzme720 suggested. Do this with your finest stone that you want to finish with, and just enough to set the bevel (usually only 1/2 dozen passes)... otherwise you'll just start a new burr. The idea of pushing the burr to one side, then "cutting it off" on that side, is also a good method to try.

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