Linkage play--your technique for consistency?

Posted by dgriff - 25 Feb 2012 14:28

Not mentioned much, if ever, is the effect of axial arm/paddle play and linkage play on the angle. Using the Angle Cube one can see fully a 1.5° angle change on my WEPS depending on how one holds the paddle.

The variation is the sum of the paddle and linkage play when you push the paddle in or pull the paddle out at the bottom. I think the best method is to push in, because it takes less effort, and if you relax your concentration, your hands will naturally fall inward.

When I want to check the nominal angle symmetry during setup--knife edge centered--I let the paddle drop all the way down so the link snuggles into the paddle's concave recess. This becomes my nominal angle, but likely not the exact angle depending on how I handle the handle....

How do others *handle* this? (no pun intended)

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Re: Linkage play--your technique for consistency?

Posted by wickededge - 25 Feb 2012 21:25

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dgriff wrote:

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I do much the same thing and find that it stays very consistent throughout use. Of course I'm always happy to perform the modification for eliminating the play if you'd like to send your rods in.

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Re: Linkage play--your technique for consistency?
Posted by dgriff - 25 Feb 2012 22:24

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Thanks, but I'm not complaining about anything, just wondered what others do, and what would you fix? You can't change the OD of the arm nor the ID of the paddle. I suppose the taper pins could be removed with a drift punch and small diameter non-metallic washers installed to take up the gap between the arm and link. Which end of the pin is the small end? 🙂

Otherwise, no worries.

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Re: Linkage play--your technique for consistency?
Posted by wickededge - 25 Feb 2012 22:34

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dgriff wrote:

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Otherwise, no worries.

The big end is fluted so it cuts grooves in the aluminum when it's pushed in. For the mod, I push the pins out, tap one side and replace the pin with a #8-32 button head cap screw and some very little washers. You're right that there is not much to do about the OD of the arm vs. the ID of the paddle.

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Re: Linkage play--your technique for consistency?
Posted by mr.cheapguy - 26 Feb 2012 05:22

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If you will be doing this mod for someone in the near or even distant and unforseeable future, could you make a video of it please?

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Re: Linkage play--your technique for consistency?
Posted by babo - 26 Feb 2012 09:21

Clay,

If you want to mod a set of swing arms for me I'll call Kay and get the order placed.

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Re: Linkage play--your technique for consistency?
Posted by CAWalter - 26 Feb 2012 22:33

Due to the arm's tab width I stayed with the .125" hole and use a 5-40 bolt with enough unthreaded shaft to ride on, and a nylock nut. The tab thickness tapers, so that was squared up. Now there isn't any play and the action is smooth. Haven't addressed the paddle to arm, but reaming the paddle and pressing in a bronze bushing would do. Not going there for a while as it really is very little.

CAW

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Re: Linkage play--your technique for consistency?
Posted by BruceGuignard - 27 Feb 2012 06:44

Am I correct is assuming that the modification is something I need to have done if I want a mirror finish but not necessarily for everyday sharpening? Can I get a mirror finish without it but using the consistency mentioned here?

Thanks.

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Re: Linkage play--your technique for consistency?
Posted by babo - 27 Feb 2012 08:42

You can get a mirror finish without this modification easily.

In my opinion this mod is for the OCD guys like me that want absolute precision out of the WEPS. The play in the swing arms and paddles can leave you working two slightly different bevel angles while sharpening your knife. I have found myself applying a slight "torque" on the paddles to force all of the play out. I'm going to call and order a set of the modified swing arms so I can continue to use my WEPS. Regarding the play between the arm and the paddles; I have wrapped my arms in a single layer of blue painters tape. I estimate this removed 2/3 to 3/4 of the play. There is a bit of friction due to the tape but it's not bad and seems to decrease the longer it's on.

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Re: Linkage play--your technique for consistency?

Posted by DevL - 02 Mar 2012 02:12

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1. What would the arm mod cost?

2. Do you think it is possible to do a core charge based swap where we can pay for the mod but keep our arms... then when we get the modded arms, send our originals back to you to avoid a core charge... or just pay the core charge to get a complete new set of arms?

I really don't want to be without arms for any period of time.

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