
Subject: barbecued bits

Posted by [lon](#) on Sun, 24 Apr 2005 19:09:28 GMT

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Ok, I admit it: I bought one of those Vermont Mfg \$4.00router bits. I think I started my depth too deep-- close to a quarter inch in 1/2 in. MDF. I'm using a rototool with this bit and worked pretty well the first few passes. Then on about the 4th usage (on one of Bill Fitmaurice's designs that have rabbeted or dadoes slots) I got a lot of smoke and a black channel where the bit overheated. There was a hot cinder down in the shavings too. I kept an eye on the whole work area not knowing if there was another hotty around. So my question is: Is the speed too high or low, the motor not powerful enough (I had all those good passes) or is the bit so poor it can only take a couple uses?

Subject: Re:Smoky the Bear, says".....

Posted by [Bill Epstein](#) on Sun, 24 Apr 2005 20:42:59 GMT

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I've started fires with 3 1/2 HP routers and 3/4" carbide bits turning at 22k. The culprit is the heat that builds up in the compressed wood fibers and transfers to all that getting-denser-by-the-minute dust. For dadoes use an upshear bit or clear the cut (back up the bit) every few inches. Rabbets should be ok. It's when the dust has nowhere to go trouble starts.

Subject: May I offer one other note?

Posted by [wunhuanglo](#) on Sun, 24 Apr 2005 21:10:10 GMT

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I'm thinking that a \$4 VA bit is HSS - which means that it'll cut about 4 linear feet before it's so dull you could run it against places the sun don't shine without fear of significant harm

Subject: Re:Smoky the Bear, says".....

Posted by [lon](#) on Mon, 25 Apr 2005 04:24:46 GMT

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Fires? Jeez. :-/ I've avoided that but there still is noticeable burnt smell in the shop from the workpiece. There was a good breeze and the smoke got let out a window. Smell hangs on though. My rate of progress on this has been pretty slow. I should let the workpiece air out someplace. Next time I'll keep my kitchen fire extinguisher handy.

Subject: Re: May I offer one other note?
Posted by [lon](#) on Mon, 25 Apr 2005 04:29:30 GMT
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This is the craftsman forum, but, well until I know I can do something, I'd rather experiment with entry level product. Getting through all those zig zags on one of Fitz's designs has been a big challenge for me.

Subject: Re: Smokey the Bear, says "How True, Mr. Lo"
Posted by [BillEpstein](#) on Mon, 25 Apr 2005 07:53:55 GMT
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The advantage to HSS is the ability to sharpen. So, Lon, sharpen that thing! And let the Sun shine in.....

Subject: You might be in a Catch-22
Posted by [GarMan](#) on Mon, 25 Apr 2005 17:05:46 GMT
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Lon, I understand completely. You don't want to invest in quality tool until you're sure you're able to do it and enjoy it enough to continue to do this. BUT ... you're making it harder on yourself by using entry-level tools and it doesn't sound like it's much fun. Do you know someone with a good quality router and bits that you can borrow from? Believe me, it makes the job a whole lot easier and more enjoyable. Gar.

Subject: Re: Smoky the Bear, says"

Posted by [GarMan](#) on Mon, 25 Apr 2005 17:09:17 GMT
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This might be an urban legend, but I've heard stories where smothering ember, started by hot router bits, is sucked into a vacuum, burning down an entire shop.

Subject: Re: Smoky the Bear, says"

Posted by [lon](#) on Tue, 26 Apr 2005 04:28:56 GMT

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It's probably true, not legend. I had to look in the waste to see where the ember was that I had to poke out. Where there was that much smoke, there had to be some fire. The router spins at around 17,000 rpm. First few passes went ok. I'll have to upgrade the bit and take a smaller pass. Hell, it's a hobby-- no rush. But setup on this job for a bunch of zig zags is a drag. I'm leaving it go for a few days.

Subject: Re: You might be in a Catch-22
Posted by [lon](#) on Tue, 26 Apr 2005 04:33:24 GMT
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Do you know someone with a good quality router and bits that you can borrow from? No. Believe me, it makes the job a whole lot easier and more enjoyable. It's good advice, but I live alone and in an apartment at that. No friends with tools. When I meet somebody, I ask them if they have tools, no kidding. No takers. Gar.

Subject: Unrelated, but I was impressed
Posted by [wunhuanglo](#) on Tue, 26 Apr 2005 08:50:49 GMT
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I had a job in a US Gov't metallurgical laboratory when I was in school. They had a bench-mounted belt sander - very old and beautiful cast iron machine. The sander was vented into a 4" galvanized smokepipe vacuum line that ran up the wall about 10 feet then overhead about 40 feet until you lost sight of it. One day I decided to put an edge on a knife using the belt sander. What I didn't know is that the guy who generally worked in that lab used the belt sander exclusively for magnesium. All across the ceiling the bottom of the tin pipe glowed a brilliant orange - very impressive. Zinc dripped like condensation onto the floor. Oops.

Subject: Re: You might be in a Catch-22
Posted by [GarMan](#) on Tue, 26 Apr 2005 15:57:46 GMT
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I think my local HD rent routers, but you have to supply your own bits. If you're routing MDF in your apartment, be careful of the dust. Breathing that stuff in can't be good for you. I love the workability of MDF, but the dust it generates is a real pain. Sticks to plastic surface like iron filling to a magnet.

Subject: Re: Smokey the Bear, says "How True, Mr. Lo"

Posted by [lon](#) on Sun, 01 May 2005 04:07:59 GMT

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What's HSS anyways? Anyway I am back in this thread because I did touch up up myone bit with some 100 sandpaper and it looks smoothe and shineyagain. I am not ready to spend \$16 on a Porter Cable bit for this job.Gotta try it with what I have again. And I rechucked the thing to about half of the total3/8 in cut and will make 2 passes.
