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Subject: Retubing the Cayin

Posted by [colinhester](#) on Thu, 06 Apr 2006 18:43:04 GMT

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Well, after swapping out the stock Chinese EL34s for the Svetlana Wing-Cs (thanks to BOI) I got the bug to put new tubes in the amp's front section and CDP. The amp is getting Mazda chrome plates (platinum grade) in the 12AX7 and 12AU7 sockets. The ShengYa CDP is getting a NOS Ediswan CV2492/6922. I don't know if the new tubes will "tickle my balls," as one reviewer recently told me about his mods, but there's always hope.....Colin  
[http://www.upscaleaudio.com/view\\_category.asp?cat=38](http://www.upscaleaudio.com/view_category.asp?cat=38)

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Subject: Re: What did the Wings do for your Gonads? nt

Posted by [Bill Epstein](#) on Fri, 07 Apr 2006 20:54:48 GMT

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Subject: The 'nads are fine.....

Posted by [colinhester](#) on Sat, 08 Apr 2006 06:51:30 GMT

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The new tubes seems to breaking in nicely. Let me get a few more hours on them, but, so far, a very involving, three dimensional sound.....Colin

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Subject: Re: What did the Wings do for your Gonads? nt

Posted by [colinhester](#) on Tue, 11 Apr 2006 02:26:29 GMT

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The Svetlana Wing-Cs are breaking in nicely. Installed the Mazda chrome plates (12ax7) and the Ediswan 6922 today. Still waiting for a set of Mazda 12au7s. So far: my love life is much better; I think my hair is growing back; and the kids are doing better is school. I really need others' opinions about what to do next; so, I feel a wrongsideofthetracks coming on shortly. Do you have a list of your reference music (CD) somewhere?.....Colin

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Subject: Re: You're gonna hate me for this!  
Posted by [Bill Epstein](#) on Tue, 11 Apr 2006 08:42:55 GMT  
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I'm wrapping up the listening to the KR Audio VA 340 amplifier and finally switched the 300BXLs tubes for the 842VHD. Both types output 20 watts. But where the 300BXLs is a very good but more powerful 300B, the 842 is a brand new listening experience. Forget about every other tube or designer: 45, 845, 811, Yamamoto, Breneman, Welborne.... I'm listening to Eva Cassidy Songbird and Joni Mitchell's Hits over and over for the pure joy of it. Got \$6800 U.S.? You need one of these!

I talked Alfred into letting me keep it another month

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Subject: 842VHD  
Posted by [Damir](#) on Tue, 11 Apr 2006 09:04:59 GMT  
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Interesting tube - although not cheap, quick calculation showed that with reasonable OP (300B-like), 450V/100mA/-95V and  $R_a=4k$ , we can expect about 17W of SE power in a new designed (DIY) amp...twice as "normal" 300B.

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Subject: Update/correction (specs)  
Posted by [Damir](#) on Tue, 11 Apr 2006 11:45:06 GMT  
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On the second look, the specs on the link you provided doesn't seem quite right - in OP 450V/-95V/100mA we'd have  $r_p=700$  Ohms,  $\mu=4,8$  and  $S=4,8$  mA/V (?!). Barkhausen said  $r_p=\mu/S$ , and I found another (probably right) specs on "kraudio.cz" site:  $U_a=450V$ ,  $I_a=100mA$ ,  $U_{gk}=-94V$ ,  $\mu=3,7$ ,  $S=5,7mA/V$ . From that,  $r_p = \mu / S = 3,7 / 5,7 \sim 650$  Ohms. Then we can use the primary load  $R_a=(U_{gk}*\mu/I_a) - r_p = (94*3,7/0,1)-650 = 2828$  Ohms, we'd use the "standard" 3k primary. Voltage "swing" on the anode load is:  $U_a = U_{gk}*\mu / (1+r_p/R_a) = 94*3,7/(1+650/3000) = 285,9$  V  $V_p = 202$  Vrms. And max. power in class A1 is  $P_a=U_a^2/R_a = 202^2/3000 = 13,6W$ . If we assume 10% losses, then we can expect about 12W of power, still respectable, but not 17W. Verification - tube is "biased" with 100mA, it means AC 100mA<sub>p</sub>, or  $100/1,4142 = 70,7$  mA<sub>rms</sub> max. And it "allows"  $P_a=I_a^2*R_a=0,07^2*3000 = 15W$  of AC anode power, but limited voltage "swing" gave us "just" the 13,6W anode, or ~12W output power.  
<http://www.kraudio.cz/>

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Subject: Re: You're gonna hate me for this!  
Posted by [colinhester](#) on Tue, 11 Apr 2006 14:37:08 GMT  
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Just think what it would sound like if you wern't using a second rate CD player

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Subject: Re: You're gonna hate me for this!  
Posted by [Wayne Parham](#) on Tue, 11 Apr 2006 17:56:01 GMT  
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Sounds like a beaut!How 'bout bringing it to GPAF?

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Subject: Re: Yeah, Barkhausen was a hell of a player, wasn't he?  
Posted by [Bill Epstein](#) on Tue, 11 Apr 2006 22:14:46 GMT  
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Saw him beat the Heat once, single-handed.I'll take your word for the math. Feels like the amp is about 40% more powerful than the "normal" Audio Note 300B.

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Subject: Re: Yeah, Barkhausen was a hell of a player, wasn't he?  
Posted by [Damir](#) on Wed, 12 Apr 2006 18:18:02 GMT  
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The math is correct if the specs are correct - can you check this specs "confusion" with the distributor?"You electricians think you`re so cool. Then you die."  
<http://www.lyricsbox.com/stranglers-lyrics-peasant-in-the-big-shitty-31h3g4c.html>

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