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Subject: amp design...

Posted by [PakProtector](#) on Sat, 19 Feb 2005 18:58:30 GMT

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Hey-Hey!!!,before one can design what could be loosely categorized as a kit, you should decide what it is going to be good for. Some example question:How upgrade/modify-able should it be?---major parts upgrades, circuit upgrades, component flavourWhat is the price-point?---no sense laying out an 845 amp for an EL84 crowdParts availability?---new production parts, or shall we do some hunting for vintage stuff?I personally don't like the idea of needing new Iron to take a design to the next level. Aside from initial cost, there don't seem to be any real down sides to going after the good stuff.Excluding vintage stuff seems like a reasonable idea, good new production for all but some of the valves is pretty easy to specify.Where would \*YOU\* start?regards,Dogulas

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Subject: Some thoughts... :-)

Posted by [Damir](#) on Sat, 19 Feb 2005 19:53:17 GMT

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IMO:-there's no sense in cheap, low power compromises designed with bad parts (OPT and PT MUST be good, even chokes, etc.). To find "the best value for the money" is a good route.-simple design, but without compromises (huh?)-we can specify, say Raa=8k OPT of your choice (and give some suggestions, especially if someone has good experience with some product). But, PT specifications are somewhat harder, let's say 360-0-360V/0,2A, etc. But, it's hard to recommend some PT without testing it - R<sub>w</sub> and quality can be very different, for example some PT can have magnetic coupling between the windings, heats a lot, radiate magnetic fields 3m in the left, etc. Then, maybe is a good idea to follow "Guinevere/Heyboer" route - custom PT, test, prototype - then project. Huh...-Parts - we are DIY-ers. We don't need super-exclusive-hard to find tubes. Everybody needs 6SN7 - we don't, when there are many 7N7, 14N7, 12SN7, 6J5GT, etc. - for example. I think that's self-understandable, but just in case...:-)-Upgrades - hmm... I think, let's do it "right" for the first time, like "Guinevere V2.0", and skip the (too)simple V1.0. But, we can leave the room for expansion (this "RIAA" thing, for example). What can I try to say - it's no sense to build 6V6 PP amp on 250V in the hope that we'll use KT88 some day...Huh, I talk pretty obvious things, better to stop now...

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Subject: Re: Some thoughts... :-)

Posted by [Manualblock](#) on Sat, 19 Feb 2005 20:01:02 GMT

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I like the custom trans route; over designed for the projected application.The old guys favored certain tubes. Assuming we eliminate the financial reason and the ease of getting that tube then

we must assume they had solid reasons for using the more common tubes. What are those reasons? KISS as always. Size; I like big amps. They always sound better. Not in total watt output but in physical size. Triode wired choke input. I like PP amps but I also have heard nice SE designs; so that's a wash. My 2c. (Must work well with G)

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Subject: Re: Some thoughts...tubes

Posted by [Damir](#) on Sat, 19 Feb 2005 20:23:54 GMT

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"They have solid reasons for using the more common tubes." Well, everybody in commercial Hi-Fi tube world needs 12AU7, for example. We don't. We'll use, say 5687 or ECC99, or maybe E182CC, 6463, etc. Why? Good NOS 12AU7/ECC82 is harder and harder to find, price is higher and higher, and "good" 12AU7 is an oxymoron, anyway. IME - not in the same "league" like the tubes I mentioned (less linear). Alright, if we'd use 300B (I hope so!), nobody can stop someone to use WE... or if we'd use 6S45P as a driver, someone can try expensive and hard-to-find similar "western" versions, like 437A and EC8020, haha... Just some winter evening blablah:-)

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Subject: ...tubes

Posted by [PakProtector](#) on Sat, 19 Feb 2005 21:15:01 GMT

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Just out of curiosity, what is a pair of matched pairs of 300B going for these days? I know WE is ~\$1k/pair. Seems sort of nuts, I'd rather build an 845 amp. The other end of the spectrum is where? ~\$200/pair? more or less? I have no problem with building for 300B's. The only thing I keep running into is a perception based issue. 4k is a reasonable (and WE specified) anode load for a SE 300B. Extending our 'double the SE load for PP', means we wind up at a 8k a-a OPTx. Not that this is altogether bad. I can think if a few really good OPTx's in this general neighborhood. According to WE between 6 and 8k is a reasonable PP load for this valve. I do put in my vote for higher a-a load. Power output goes from 20W for a 4k a-a to ~13 for a 10k load. 6k comes in at ~16 Watts. Almost splitting hairs at the higher loads, hence the vote for better damping afforded by a bigger (higher numeric) load. Individual valve filament TX is easy, so is a -100V fixed bias supply. PS will be a big L-C supply no matter what amp we decide to put behind it. regards, Douglas  
some WE tube specs

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Subject: Re: ...tubes

Posted by [Manualblock](#) on Sat, 19 Feb 2005 23:08:41 GMT

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845/211 might be nice.

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Subject: Re: ...tubes

Posted by [PakProtector](#) on Sat, 19 Feb 2005 23:21:16 GMT

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it would be my preference to use the 845. With out getting into grid current, the 845 will deliver more power and be slightly easier to drive( in A1 ).regards,Douglas

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Subject: Re: ...tubes

Posted by [Damir](#) on Sun, 20 Feb 2005 06:57:01 GMT

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I didn't try, but now there's good (Shuguang/SuperTnT) 845 on the market - but 700-1000V is only for very experienced players.PP 300B - I agree, in all the charts for any tube, SE is something like  $R_a=4k$  and PP  $R_{aa}=3k$  or so?! Probably - more power, distortion cancelation, NFB loop, AB class thinking.

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Subject: Re: ...tubes

Posted by [Manualblock](#) on Sun, 20 Feb 2005 12:54:17 GMT

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Good points. The sound I heard from 211 triodes was the magical one. Therefor I favor the big boy.

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Subject: I got your WE 300B

Posted by [colinhester](#) on Sun, 20 Feb 2005 21:49:16 GMT

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\$1000 won't even come close.....Colin

<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&rd=1&item=5751015540&ssPageName=STRK:M EWA:IT>

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Subject: with Mayor Quimby accent: That was un-expected...  
Posted by [PakProtector](#) on Sun, 20 Feb 2005 22:53:28 GMT  
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Goes to show how much I know about that sort of thing. Thanks for the education.  
regards,Douglas

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Subject: Re: I got your WE 300B  
Posted by [DRC](#) on Thu, 24 Feb 2005 21:03:11 GMT  
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Well . . . those are NOS - aged and venerable. Current production isn't nearly as painful.

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Subject: Re: I got your WE 300B  
Posted by [DRC](#) on Thu, 24 Feb 2005 21:07:26 GMT  
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Duh. Didn't mean to post so fast. Prs of 300B's start around \$170 and the new WE's are \$900/pr.

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Subject: Here's one for the record books  
Posted by [colinhester](#) on Thu, 24 Feb 2005 21:28:35 GMT  
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Still two days to go.....Colin

<http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&rd=1&item=5753318811&ssPageName=STRK:M>  
EWA:IT

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Subject: Re: Here's one for the record books  
Posted by [Wayne Parham](#) on Thu, 24 Feb 2005 21:38:28 GMT  
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Found it in dad's attic, did he?

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