Subject: Douglas, Damir, I did some more work on the 300bPP amps
Posted by Tre' on Sat, 17 Dec 2005 19:32:10 GMT
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Have a look. Tre'
300bPP

Subject: Re: Douglas, Damir, I did some more work on the 300bPP amps
Posted by Damir on Sat, 17 Dec 2005 20:16:11 GMT
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Thanks, looks good, but isn`t that the same picture?! We want a photo from the inside, and some more details... Huh, I just received grid chokes and now have an interesting problem... Two OPTs, two grid-chokes, six PS chokes, 11 big caps (and some little ones), etc. - all inside 2HE rack... plus PT and tubes on the top...huh P.S. - Doug received his grid-chokes too, and have a big measurements plan, see "Group Build"...

Subject: Re: Douglas, Damir, I did some more work on the 300bPP amps
Posted by Tre' on Sat, 17 Dec 2005 21:20:26 GMT
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Hey,I just worked my butt off sanding that oak The other pic was just plain aluminum chassis. I will try to do a schematic and post it soonTre'

Subject: 300bPP amps
Posted by PakProtector on Sat, 17 Dec 2005 23:30:40 GMT
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That looks really good. I have the original Red Oak bottom on my DH amp. Took a long time with a block and 400-grit, then about a week soaking in linseed oil. Darkened just a little bit, and remained smooth. I think I did an intermediate pass with 600-grit after a few days of oil application. Still on the hunt for Southern Live-Oak. I visited a woodcraft store, and saw some neat stuff. Yellowheart. Mustard yellow and fine grain. I wish I still lived next door to the DIY wood crafter in PA.I'm looking forward to seeing the schematic Tre'.cheers,Douglas

Subject: Re: 300bPP amps
Posted by Tre' on Sun, 18 Dec 2005 01:48:10 GMT
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I just sanded and waxed the red oak. I used Trewax.Schematic for my four chassis 300b power amplifier. Front end power supply not shown.Tre'
300b

Subject: Re: 300bPP amps
Posted by Damir on Sun, 18 Dec 2005 16:31:35 GMT
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Nice and simple, my only comment is rel. low B+=350V for the driver that operates at 250V.You use unbypassed common Rk - did you try to bypass it?Did you measure the amp?

Subject: Re: 300bPP amps
Posted by Tre' on Sun, 18 Dec 2005 18:51:03 GMT
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Damir, I have not measured the amp yet. I will bypass the cathode resistor at some point, tho Allen Wright does the "forced Class A" thing with his CCS in the cathode circuit. Lynn Olsen cautions against it.With 72 volts bias on the output tubes I should need 144 volts peak to peak for full Class A output. Do you think that is a problem for my driver? If I were to lower the driver cathode resistor value that would lower the plate voltage and raise the max p to p output of the stage, right?Thanks for the help...Tre'

Subject: Re: 300bPP amps
Posted by Damir on Sun, 18 Dec 2005 20:45:12 GMT
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You have about Uak=250V - good, and just 100V across the CCS anode load. Voltage "swing" is 72Vp "through" the tube, and 72Vp "through" the anode load - you are very close to the 100V "edge", not counting necessary CCS voltage drop. If you can, rise the B+ for the driver to about 400V. And yes, lower Rk - lower Uak with constant Ia, 820 Ohms would result in Uk=-8,2V, Uak=220V.

Subject: Re: 300bPP amps
Posted by Tre' on Sun, 18 Dec 2005 21:32:35 GMT
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OK, I was able to raise the B+ for the driver tubes to 386VDC. Having not taken any measurements before hand, I can only tell you how it sounds. It sounds like there is maybe more headroom. I will bypasss the output cathode resistors when I get some appropriate caps.Thanks....Tre'

Subject: What would happen if.....
Posted by Tre' on Mon, 19 Dec 2005 01:38:33 GMT
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I connect the last cap in the power supply (40uf oil) to the 300b cathodes instead of ground? Would that bypass the cathode resistor?Tre'

Subject: Re: 300bPP amps
Posted by PakProtector on Mon, 19 Dec 2005 02:06:45 GMT
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Hey-Hey!!!,While I might have done the front end a bit differently, simple is good. Did you need to DC the 6SN7's heater? I have run 6SL7>6SN7>Finals and used AC heaters w/o hum. Just curious, as another part of the eq'n is that feeding a big cap input DC filter has usually made some other noise.I've played with the phase splitter autoformer. I always go back to the balanced drive version with the LTP doing the phase splitting and a high leakage L choke. Maybe a better phase splitting choke is the key...:)If multi-grid tubes didn't keep me so entertained, I'd go and try a PP DHT amp. Cathode driven...:) PP 6CK4>2A3>IT>845maybe not-so-simple can be good too.cheers,Douglas

Subject: Re: 300bPP amps
Posted by Tre' on Mon, 19 Dec 2005 05:10:11 GMT
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I probably don't need the DC filament. Force of habit. When I built my preamp with the outboard power supply and the DC filaments. I guess I just stayed in that same mode building the front and it's outboard power supply. I should try AC.Thanks for looking....Tre'

Subject: typeO
Posted by Tre' on Mon, 19 Dec 2005 05:18:08 GMT
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That should have been "I just stayed in that same mode building the front END and it's outboard..."

Subject: Re: What would happen if.....
Posted by Damir on Mon, 19 Dec 2005 11:54:06 GMT
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In principle yes, but I never tried those clever ("Ultrapath" tricks, sorry...

Subject: Sweet!
Posted by Wayne Parham on Mon, 19 Dec 2005 14:48:26 GMT
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Subject: Last picture
Posted by Tre' on Tue, 20 Dec 2005 22:50:29 GMT
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I needed something to set the amps on. I had the fake marble so I got some 2x2s .....Tre'
300b amps and rack

Subject: Wrong URL, Sorry
Posted by Tre' on Tue, 20 Dec 2005 22:54:16 GMT
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300b amps and rack

Subject: Looks great!
Posted by Wayne Parham on Wed, 21 Dec 2005 14:52:40 GMT
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Subject: Re: typeO
Posted by PakProtector on Wed, 04 Jan 2006 01:21:32 GMT
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Sometimes it's hard to sidestep quiet habits. I was laying out a pre, and in my haste decided to wire up the 5687 cathode follower faux pentode with AC heaters.The parts truck was late delivering my late-ordered parts for the DC supply, and I was impatient. I was quite suprised when it was quiet on AC. That's a first for a 5687 pre for me.cheers,Douglas