Subject: Finally did a little testing
Posted by Russ57 on Sun, 30 Apr 2006 15:15:58 GMT
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Amp in question is basically Joel Tunnah's 6V6. I had not tested it prior to adding the grid chokes so keep that in mind. Voltage out of signal generator was kept at 1/2vac as measured by a Fluke 87 RMS meter. Voltage out of the amp was measured across a Radio Shack 8 ohm 20 watt non-inductive resistor with a Fluke 189 RMS meter. Singal generator is an crappy old heathkit and required a lot of adjusting to keep voltage a constant.Basically the amp was flat from 40 hertz to 1,000 hertz with an output voltage of 2.24vac. At 30 hertz it was 2.264, 20 hertz 2.294, 10 hertz 2.336 so clearly the 0.47uF caps need to be made larger. This is audible. Now from 1khz to 2khz output rose from 2.24X to 2.25vac and stayed flat to 9khz (I heard the amp "sing at 7khz and 8khz). At 10khz it was up a little to 2.256vac. From 10khz to 20khz it fell about 0.001 volts per 1,000 hertz and by 15khz I was back to my 2.25vac. At 18khz it was 2.24vac, 20khz/2.232, 30khz/2.115, 40khz/2.02, 50khz/2.09, 60khz/1.97, 70khz/1.68, 80khz/1.592, 90khz/1.615, and 100khz/1.6.So it looks like "maybe" the grid chokes bring me a little extra gain in the 2khz to 18khz range. The amount is very slight and considering the amp has no intentional feedback other than omitting the cathode bias cap on the voltage amp I am happy with the results (cathodyne phase inverter though). Square wave looked good with just a tad of overshoot and ringing. Joel has scope pics on his site and they are comparable.So if anything it looks to me like the grid chokes give me a little extra output from 1ksomething to 18khz. The amount is small and gradual but given the signal generator 3 place accuracy is to be considered suspect. But it is the best I can do with what I have and hope it is of some use. When I get around to it I'll look a little closer at the 1khz to 2khz range and try again at higher output levels and repost if anything of interest is discovered.Russ