Subject: Re: Parafeed vs transformer coupled
Posted by Bill Epstein on Sun, 18 Nov 2007 20:01:43 GMT
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Reserching my article on the Simple 45 amp I Googled an article by Steve Bench and included this:The "parafeed" (parallel feed) uses a large choke to provide the DC voltage to the anode (of the power tube, bold characters are mine). This choke must be large in value, and provides a relatively high impedance (a good thing) at audio frequencies. The output transformer is capacitively coupled to the anode (of the power tube)... The advantage of this kind of mechanism is the choke and the transformer can be individually optimized: the choke for saturation capability, and capacitance; whereas there is no DC in the transformer, so it can be made relatively smaller, providing both lower capacitance and leakage inductance with respect to its primary inductance. This is a long-winded way of saying that it is possible to achieve wider frequency response (especially in the bass which is why the Robin Hoods work so well). There are four other advantages to this circuit. First, the capacitor inserted allows a low frequency "extension" … The second is that additional low frequency poles can be more easily controlled…The third is reduced "hum". ..The fourth advantage of this circuit is since the transformer has no high voltage DC on it, the transformer can be replaced with an "autoformer" (a single tapped winding) allowing the output autoformer to be further optimized.“In regard to the possible disadvantage of a large capacitor in the parafeed output, Mike Lefevre has this to say, ‘the power supply is also in series with the output and it has of necessity very large capacitors. An additional one that has the merit of reducing hum and blocking DC really isn’t all that bad a thing’The full article is on the net somewhere.