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Subject: Re: matchless chieftain transformers  
Posted by [Damir](#) on Sat, 20 Aug 2005 20:41:27 GMT  
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Hm, 20mH seems like pretty small choke in tube amp PS, it's more likely that it's 10-20H choke. I don't have PS schematic, but I suppose that's "guitar amp classic" - B+ for output tubes is from the first cap, then Pi-filter (choke+another cap) for screen grids (g2), then RC filters for splitter/preamp tubes. I found amp schematic, and it shows about  $U_{ak} \sim 390V$  "through" each EL34, cathode biased - each EL34 with  $R_k = 270 \text{ Ohms} + \text{cap}$ . On schematic,  $U_k = 24V$ . That means that current through the EL34  $I_{a+g2} = U_k / R_k = 24 / 270 = 88,9mA$ . And dissipation through the each tube is  $P_{a+g2} = 390 * 0,0889 = 34,6W!$  Much more than  $P_{a+g2 \text{ max}}$  for EL34. Well, maybe I found not so good schematic on the web - can you post the link of your schematic? And schematic is not everything - layout, choice of parts make much difference. IMO - if you have tons of experience, good schematic and known layout - go on with this project. But, if not - maybe first try some books by Kevin O'Connor. There are some with complete schematics, layout, etc. - see "London Power" site for more details.

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