

## Re: Transformer question

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>Having an open resistance reading on the primary is indicative there has been failure within the transformer, be it an open thermal protect device or actually a break within the actual primary wires. At that point it is not necessary to determine the condition of the secondary unless you have a specific reason for doing so, such as, determining what the shorted output valve may have damages along with the transformer.

>Specifically overheated or damaged resistors, capacitors, etc in that particular circuit. You may be able to compare the values with those on the other-side of the push-pull circuit to ascertain if indeed there is additional damages.

>FYIW the bias voltages sound normal for the operational characteristics of those particular valves. I would be interested also in the cathode current and plate voltages on each of the devices. May be best to replace both of them since one obviously has failed, trying to get a matched pair, if available at a reasonable cost. Cheers: Good luck in rectifying the initial failure and remedies.

"T N Nurse" <[tnnurseNOUCE99@hotmail.com](mailto:tnnurseNOUCE99@hotmail.com)> wrote in message [news:tnnurseNOUCE99-C4311E.14353225092004@singer.cent.gla.ac.uk...](mailto:news:tnnurseNOUCE99-C4311E.14353225092004@singer.cent.gla.ac.uk...)

>I have a 50 watt valve amp which seems to have blown its  
> output transformer. A new one is on order, but I was puzzled  
> by some of the reading I got off it and wondered if someone  
> could give an explanation. All the measurements were made  
> with the transformer \*\_completely out of circuit\_\*, both primary  
> and secondary.

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> The transformer is from a push-pull standard guitar amp (Trace  
> Elliot 50 watt combo, 2 EL34s) and one of the valves was glowing  
> red hot before the fuse popped. Checking the bias voltages, I  
> had around -46v on the grid of each of the EL34s, so that was  
> a reasonable figure. I then removed the output transformer  
> and did some resistance measurements on it. When measure from  
> the centre tap to either of the primary outer connections, the  
> reading was 69 ohms for each. But when I measured across the  
> primary outer connections, instead of the expected 138 ohms,