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Subject: Re: Demagnetizing Tung Sol 6550, Penta KT88s

Posted by [positron](#) on Fri, 28 Jun 2024 16:28:59 GMT

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gofar99 wrote on Fri, 21 June 2024 20:50Hi, Personally I prefer the JJs. In class A amps (like all my designs) they have a solid and clean bass with good mids and nice extension on the top end. They are also really consistent and stay "biased" over a long time. I use them at about 35-36 watts dissipation (each tube A+S). For a seemingly "crisper" sound the JJ EL34s are great at about 25 watts (A+S) dissipation. But my go to now in the amps are TS KT120s running at 25 watts dissipation (A+S) into 8K load. Magical IMO. Obviously class A U/L P-P is not efficient. A good source of heat in the winter though.

Hi Go,

Don't get me wrong Go. The JJ KT88 is right at the top of tubes I prefer. The only issue I have is the bass, although very tight, just seems a little light in my system. Playing Moody Blues at Royal Albert Hall, the music sounds 30 feet behind the front wall, a little more than I like. The russian Tung Sols sound 15 feet or so. Could be old/used JJ tubes that I am using though.

I did some checking and found out that JJ uses lead free solder in their pin connections (EU law) so I added some quad solder with lead. Not many can perform such adjustments though.

Bass increased some as well as the harmonic structure. The JJ KT88s are still highly favored.

The JJ E88CC (similar to 6DJ8) is the only tube I use in my monoblocks, preamps, and phono stage. The HD is the lowest I have ever measured in any small signal tube, ~1/9th, some 18db less.

I just started performing some cathode testing by lowering the filament voltage to see if I can lengthen tube life.

For newbies, cathode life is mainly determined by:

1. residual gas which forms positive ions which strikes/destroys the oxides
2. high filament voltage evaporates oxides. Some transfers to the grid etc.
3. low filament voltage tends to deplete the space cloud protecting the oxides

4. cathode sleeve impurities poison the oxides

5. Even the temperature of the Plate structure affects the oxide temperature (reference for given filament voltage).

Pt 3 is important. If we operate at reduced maximum/peak cathode current, we may also reduce the cathode temperature and still retain a descent space cloud, and lessen the oxide evaporation.

Since each tube manufacturer is different (including NOS tubes) I hope the experiment allows me to determine if cathode temperature is the main culprit in new JJ tube life span or another point listed above is more important.

cheers

pos