



( Suggested by yours truly )

### Jefferson, 2A3 PP. 1933

I could just as well have chosen yet another WE design, but WE never used the 2A3 workinghorse.

Jefferson uses an active biased 56 triode to drive the transformer phase splitter, then two 56's coupled in balanced PP to transformer drive the 2A3's PP output stage. I do think that the active bias of the input 56 is slightly overkill. I would change it to the sweeter sounding autobias and at the same time get rid of the input cap. A cathode resistor of about 1k2 – 1k8 will decoupled by 22-47u will do fine. The 56 triode is an extremely linear and good sounding triode, very close in data and performance to 6J5 and 6SN7. The u of 56 is a low 12-14, but that is plenty in this fine circuit. Note that the secondary of the driver transformer are divided into two windings. This allows individual bias for the two 2A3's. Jefferson has one fixed and the other adjustable for DC balance.

The PSU is made of a strong 83 mercury rectifier choke input and another choke to smooth the DC, yet a diode coupled 26 triode to rectify and another choke to smooth the bias Voltage. Very nice indeed. Today we can swap the 6u paper capacitors to something a little larger. 22-47u would not hurt. The two interstage transformers could be about 1:1 or 1:3. The output transformer is 4-6 kOhm. 250-300VDC will drive the whole thing in a nice and proper manner.

This is a pretty advanced design for the time, guys, a 80 year old circuit that would be considered as extravagant High End today. ( with the input modified that is )

Hats off to **Jefferson**, Gentlemen.....