

HT32/37 PLATE CURRENT MONITOR MOD

A few years back I had a run of 32's and 37's through the shop and the setting of the bias became a 'curiosity' point for me. I thought it was arbitrary at best.

I modified several rigs, copying the method used in the PS 150 and 500. I inserted test jacks and a metering resistor in the high voltage line between L16 and L26. Using 4 sets of matched pairs in one rig I found that setting the bias for -49vdc yielded idle currents from 35ma to 190ma in the different pairs. I also found that optimal performance was achieved with the bias set for an idle current between 50 and 70ma. I settled on 65 mills as a standard. (I think it was suggested by someone at the time that a setting of 75 mills was proper. I did not follow up on that statement.) I went on to discover that with the bias adjusted for 65 mills if the bias voltage was lower than -47v, one or both the tubes had low GM. If the resulting bias was in excess of -52v one or both of the tubes were gassy.

It is a simple mod. It will give you the ability to tune for the plate current dip for a true resonant plate tank ckt which will minimize the plate dissipation. It also allowed a simple check on neutralization.

The value of the metering resistor is 10ohm/5w. Just like the PS-150 and PS-500. One volt measured = 100 milliamp plate current. Adjust the bias pot for 0.650 volts and you have 65 milliamps of plate current. All the data I could find at the time indicated the idle current should run anywhere from 35mills to 68mill for a pair of 6146's.

