

Important Note: Now this is not an ultimate test of these transformers - rather it is a test of these transformers plunked into a stock diytube ST35 circuit. I didn't tweak the circuit for any of these.

The test setup was as follows for each:

- 400mVRMS input was used for tests at normal output levels (green data)
- 850mVRMS input was used for ~1% distortion output levels (red data)
- Hammond 272HX power transformer with B+ at 391VDC
- bias set at 35mA per tube
- 19.2K negative feedback from the 8ohm tap

I tested these output transformers (all purchased by me, except the MQ which is on loan from a customer):

- Hammond 1620
- Hammond 1650F
- Magnequest MQ-565
- Dynaco Z-565 (dated 1965, cloth leads)
- Handwound 7.6K PP 25W

The data columns are: frequency tested, output VRMS, gain, percentage of distortion & noise, and finally power into an 8ohm load.

Dynaco Z-565

020Hz 5.25V +22.1dB .1778% THD+N 3.458W @ 8ohm
050Hz 5.28V +22.2dB .0979% THD+N 3.551W @ 8ohm
100Hz 5.32V +22.2dB .0893% THD+N 3.538W @ 8ohm
200Hz 5.32V +22.2dB .0737% THD+N 3.525W @ 8ohm
500Hz 5.34V +22.2dB .0704% THD+N 3.564W @ 8ohm
01kHz 5.32V +22.2dB .0747% THD+N 3.525W @ 8ohm
02kHz 5.34V +22.2dB .0891% THD+N 3.564W @ 8ohm
05kHz 5.29V +22.1dB .1513% THD+N 3.498W @ 8ohm
10kHz 5.24V +22.0dB .2760% THD+N 3.432W @ 8ohm
20kHz 5.16V +21.8dB .3050% THD+N 3.315W @ 8ohm
30kHz 4.92V +21.5dB .5300% THD+N 3.014W @ 8ohm
40kHz 4.29V +20.4dB .9850% THD+N 2.279W @ 8ohm

020Hz 10.50V +21.7dB 3.43% THD+N 13.81W @ 8ohm
050Hz 10.65V +21.8dB .841% THD+N 14.18W @ 8ohm
100Hz 10.68V +21.9dB .786% THD+N 14.23W @ 8ohm
200Hz 10.69V +21.9dB .792% THD+N 14.26W @ 8ohm
500Hz 10.68V +21.9dB .783% THD+N 14.26W @ 8ohm
01kHz 10.68V +21.9dB .840% THD+N 14.23W @ 8ohm
02kHz 10.68V +21.8dB 1.07% THD+N 14.23W @ 8ohm
05kHz 10.63V +21.7dB 1.94% THD+N 14.10W @ 8ohm
10kHz 10.54V +21.5dB 3.04% THD+N 13.86W @ 8ohm
20kHz 10.27V +21.1dB 3.77% THD+N 13.13W @ 8ohm
30kHz 09.60V +20.2dB 2.67% THD+N 11.47W @ 8ohm
40kHz 07.86V +18.2dB 3.14% THD+N 7.683W @ 8ohm

Magnequest MQ-565

020Hz 5.34V +22.5dB .2685%THD+N 3.498W @ 8ohm
050Hz 5.32V +22.5dB .1384%THD+N 3.538W @ 8ohm
100Hz 5.34V +22.5dB .1096%THD+N 3.551W @ 8ohm
200Hz 5.34V +22.5dB .0856%THD+N 3.578W @ 8ohm
500Hz 5.38V +22.5dB .0799%THD+N 3.605W @ 8ohm
01kHz 5.38V +22.5dB .0820%THD+N 3.605W @ 8ohm
02kHz 5.38V +22.5dB .0970%THD+N 3.605W @ 8ohm
05kHz 5.41V +22.5dB .1460%THD+N 3.645W @ 8ohm
10kHz 5.38V +22.4dB .2355%THD+N 3.605W @ 8ohm
20kHz 5.16V +22.0dB .3350%THD+N 3.315W @ 8ohm
30kHz 4.80V +21.5dB .4640%THD+N 2.868W @ 8ohm
40kHz 4.05V +20.0dB 1.139%THD+N 2.040W @ 8ohm

020Hz 10.58V +21.8dB 3.570%THD+N 13.97W @ 8ohm
050Hz 10.74V +22.0dB 1.047%THD+N 14.47W @ 8ohm
100Hz 10.80V +22.0dB .9680%THD+N 14.55W @ 8ohm
200Hz 10.81V +22.0dB .9250%THD+N 14.61W @ 8ohm
500Hz 10.86V +22.0dB .9480%THD+N 14.72W @ 8ohm
01kHz 10.87V +22.0dB .9920%THD+N 14.77W @ 8ohm
02kHz 10.87V +22.0dB 1.241%THD+N 14.74W @ 8ohm
05kHz 10.85V +21.9dB 2.147%THD+N 14.72W @ 8ohm
10kHz 10.74V +21.7dB 3.110%THD+N 14.42W @ 8ohm
20kHz 10.24V +21.1dB 3.040%THD+N 13.08W @ 8ohm
30kHz 9.550V +20.2dB 2.088%THD+N 11.35W @ 8ohm
40kHz 7.410V +17.6dB 3.570%THD+N 6.845W @ 8ohm

Hammond 1650F

020Hz 5.27V +22.2dB .2742%THD+N 3.419W @ 8ohm
050Hz 5.25V +22.2dB .1219%THD+N 3.445W @ 8ohm
100Hz 5.26V +22.3dB .0980%THD+N 3.458W @ 8ohm
200Hz 5.27V +22.3dB .0768%THD+N 3.485W @ 8ohm
500Hz 5.31V +22.3dB .0745%THD+N 3.525W @ 8ohm
01kHz 5.31V +22.3dB .0764%THD+N 3.525W @ 8ohm
02kHz 5.30V +22.3dB .0913%THD+N 3.498W @ 8ohm
05kHz 5.26V +22.1dB .1563%THD+N 3.458W @ 8ohm
10kHz 5.06V +21.8dB .3180%THD+N 3.188W @ 8ohm
20kHz 4.52V +20.8dB 1.139%THD+N 2.543W @ 8ohm
30kHz 3.91V +19.6dB 2.830%THD+N 1.901W @ 8ohm
40kHz 3.07V +17.6dB 5.570%THD+N 1.170W @ 8ohm

020Hz 9.910V +21.2dB 10.08%THD+N 12.20W @ 8ohm
050Hz 10.58V +21.8dB .7360%THD+N 14.07W @ 8ohm
100Hz 10.65V +21.9dB .6800%THD+N 14.15W @ 8ohm
200Hz 10.66V +21.9dB .6690%THD+N 14.15W @ 8ohm
500Hz 10.69V +21.9dB .6950%THD+N 14.28W @ 8ohm
01kHz 10.70V +21.9dB .7210%THD+N 14.28W @ 8ohm
02kHz 10.68V +21.9dB .8840%THD+N 14.23W @ 8ohm
05kHz 10.58V +21.7dB 1.500%THD+N 13.97W @ 8ohm
10kHz 10.27V +21.4dB 2.061%THD+N 13.16W @ 8ohm
20kHz 9.290V +20.3dB 3.070%THD+N 10.76W @ 8ohm
30kHz 8.120V +18.8dB 8.520%THD+N 8.222W @ 8ohm
40kHz 6.370V +16.3dB 18.05%THD+N 5.040W @ 8ohm

Hammond 1620

020Hz 5.20V +22.2dB .3350%THD+N 3.354W @ 8ohm
050Hz 5.23V +22.2dB .1172%THD+N 3.406W @ 8ohm
100Hz 5.24V +22.2dB .0983%THD+N 3.432W @ 8ohm
200Hz 5.24V +22.2dB .0764%THD+N 3.432W @ 8ohm
500Hz 5.24V +22.2dB .0731%THD+N 3.419W @ 8ohm
01kHz 5.24V +22.2dB .0773%THD+N 3.419W @ 8ohm
02kHz 5.23V +22.2dB .0930%THD+N 3.406W @ 8ohm
05kHz 5.17V +22.0dB .1501%THD+N 3.341W @ 8ohm
10kHz 5.00V +21.7dB .2470%THD+N 3.125W @ 8ohm
20kHz 4.49V +20.8dB .3950%THD+N 2.509W @ 8ohm
30kHz 3.91V +19.6dB .7880%THD+N 1.901W @ 8ohm
40kHz 3.13V +17.8dB 4.340%THD+N 1.217W @ 8ohm

020Hz 09.27V +20.6dB 16.18%THD+N 10.65W @ 8ohm
050Hz 10.48V +21.7dB 1.266%THD+N 13.83W @ 8ohm
100Hz 10.56V +21.8dB 1.183%THD+N 13.94W @ 8ohm
200Hz 10.57V +21.8dB 1.140%THD+N 13.97W @ 8ohm
500Hz 10.61V +21.8dB 1.183%THD+N 14.07W @ 8ohm
01kHz 10.62V +21.8dB 1.279%THD+N 14.10W @ 8ohm
02kHz 10.61V +21.8dB 1.560%THD+N 14.02W @ 8ohm
05kHz 10.50V +21.7dB 2.431%THD+N 13.76W @ 8ohm
10kHz 10.13V +21.2dB 2.909%THD+N 12.83W @ 8ohm
20kHz 08.98V +20.0dB 2.550%THD+N 10.06W @ 8ohm
30kHz 07.77V +18.4dB 2.828%THD+N 7.547W @ 8ohm
40kHz 05.87V +15.6dB 11.80%THD+N 4.278W @ 8ohm

Handwound 7.6K Push-Pull 25W

020Hz 5.12V +22.0dB .3610%THD+N 3.239W @ 8ohm
050Hz 5.17V +22.1dB .1563%THD+N 3.328W @ 8ohm
100Hz 5.18V +22.1dB .1190%THD+N 3.354W @ 8ohm
200Hz 5.19V +22.1dB .0882%THD+N 3.354W @ 8ohm
500Hz 5.19V +22.1dB .0809%THD+N 3.354W @ 8ohm
01kHz 5.19V +22.1dB .0834%THD+N 3.367W @ 8ohm
02kHz 5.19V +22.1dB .1654%THD+N 3.354W @ 8ohm
05kHz 5.19V +22.1dB .9550%THD+N 3.354W @ 8ohm
10kHz 5.14V +21.9dB 3.560%THD+N 3.290W @ 8ohm
20kHz 4.78V +21.3dB 6.660%THD+N 2.844W @ 8ohm
30kHz 3.97V +19.8dB 4.540%THD+N 1.960W @ 8ohm
40kHz 3.15V +17.8dB 2.325%THD+N 1.232W @ 8ohm

020Hz 09.76V +21.1dB 6.260%THD+N 11.83W @ 8ohm
050Hz 10.23V +21.5dB 1.881%THD+N 13.18W @ 8ohm
100Hz 10.32V +21.6dB 1.769%THD+N 13.31W @ 8ohm
200Hz 10.35V +21.6dB 1.677%THD+N 13.39W @ 8ohm
500Hz 10.37V +21.6dB 1.647%THD+N 13.44W @ 8ohm
01kHz 10.38V +21.6dB 1.757%THD+N 13.47W @ 8ohm
02kHz 10.40V +21.6dB 2.257%THD+N 13.52W @ 8ohm
05kHz 10.38V +21.5dB 4.710%THD+N 13.47W @ 8ohm
10kHz 10.15V +21.2dB 10.72%THD+N 12.90W @ 8ohm
20kHz 08.17V +19.1dB 25.39%THD+N 8.364W @ 8ohm
30kHz 08.00V +18.7dB 16.62%THD+N 7.920W @ 8ohm
40kHz 06.16V +16.0dB 7.950%THD+N 4.728W @ 8ohm