Taylor CUSTOM BUILT Tubes

T-55

55 WATTS PLATE DISSIPATION

Carbon Anode

The TAYLOR T-55 is a tube of medium power capable of **efficient power output** at **frequencies as high as 120 megacycles** yet it operates at reasonable values of plate voltage and plate current. Its medium low inter-electrode capacities and efficient flat form of construction result in low losses across the elements avoiding the necessity for high voltages for good efficiency and **reducing the grid drive requirements.** The T-55 will give more power output for a given amount of grid drive than any other high frequency tube of the same comparative class. The unique design of this tube permits use of ceramic internal insulators. The misalignment of elements (which so often develop in tubes with self-supporting elements) is impossible in the **T-55.**

GENERAL CHARACTERISTICS

Filament Voltage, volts	7.5
Filament Current, amps	3.0
Plate Resistance, ohms	9000
Mutual Conductance, uMhos	2200
Amplification Factor (Mu)	20

Thoriated Tungsten Filament—NONEX GLASS

OVERALL DIMENSIONS

Maximum Length, inches	7
Maximum Diameter, inches	2⅝

INTERELECTRODE CAPACITIES

Plate to Grid, mmf	3.75
Grid to Filament, mmf.	4.0
Plate to Filament, mmf.	1.5

CLASS "C" OSC AND POWER AMP

Max. Operating Plate Volts	Class C	OSC.
Unmodulated DC, volts	1500	1250
Modulated DC, volts	1500	1000
Max. DC Plate Current, mils	150	125
Max. DC Grid Current, mils	40	40
Max. Plate Dissipation, watts	55	55
Max. RF Grid Current, amps	5	5
RF Output, watts	168	66
Percentage of Efficiency	75%	40%

NORMAL OPERATION—Class C

Ep = 1500 v. Eg = — 200 v. Ef = 7.5
Ip = 150MA Ig = 25MA

The improved T-55 may be used interchangeably with previous T-55's in all applications.

T-55

AMATEUR'S FAVORITE TUBE!
OVER 9000 IN USE

Improved
$6.00

Now the T-55 has been further improved. No basic changes have been made but small improvements have resulted in superior characteristics, which even more than in the past, will make the T-55 stand head and shoulders above others in its price range. Throughout the world, many commercial companies, as well as amateurs, acclaim the T-55 as "the champion" of all transmitting tubes. The T-55 is the fastest selling transmitting tube of reasonable size because it is designed to permit efficient operation at the highest frequencies used by Amateurs—because the rating of 55 watts plate dissipation is conservative—and because the tube will operate at normal efficiency with a minimum of grid drive. Its low price, of course, fulfills the TAYLOR slogan, **"More Watts Per Dollar."**

While the rated plate dissipation is 55 watts, no color shows until the dissipation amounts to 75 watts. To obtain best efficiency with a minimum of harmonic content, we recommend that certain values of capacity be used in the plate tank and the tank coils should be proportioned to hit resonance at the operating frequency wih the proper amount of capacity in the circuit. These capacities should be the actual amount of tank condenser in the circuit across the entire plate tank. A higher value of C will result in lower tank impedance and lower efficiency. A lower value of C will result in slightly higher efficiency, but this will be offset by increased harmonic content as well as poor linearity when the stage is modulated. These values will hold for both plate neutralized single ended and push pull amplifiers operated at the rating of 1500 volts 150 MA per tube. (Single ended 1500 volts 150 MA—push pull 1500 volts 300 MA.)

1715 KC — 160 Mmfd	14000 KC — 20 Mmfd
3500 KC — 80 Mmfd	28000 KC — 10 Mmfd
7000 KC — 40 Mmfd	56000 KC — 5 Mmfd

Under these conditions with an input of 1500 volts 150 MA per tube, the efficiency should be approximately 75% and the output approximately 170 watts per tube. For one tube the recommended grid bias resistor would be 8000 ohms. Half that value or 4000 ohms would be correct for two tubes parallel or push pull. For CW or buffer operation the rectified grid current should be 17 MA or more and for phone operation should be 25 MA or more per tube. Under no conditions should the rectified grid current exceed the rated value of 40 MA. Expressed in terms of power approximately 7.5 watts of drive are required for efficient CW or buffer operation or 15 watts for phone operation.