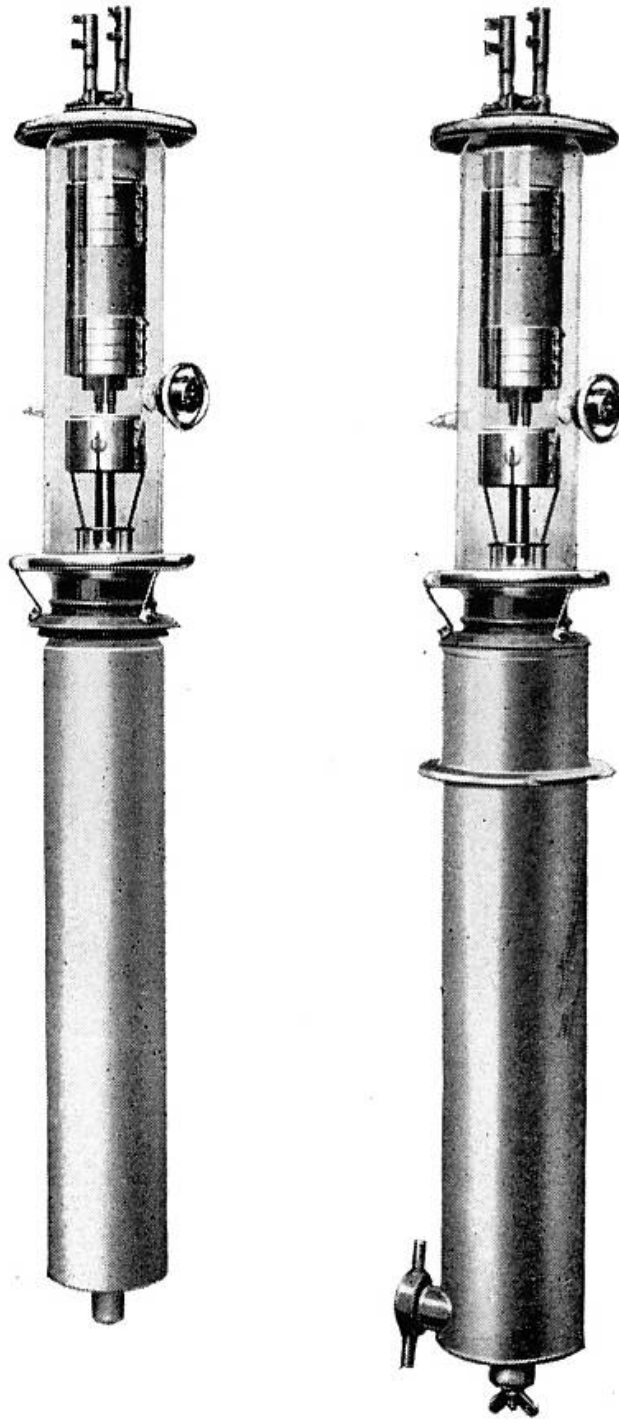


Transmitting Valve

TYPE C.A.T.10

(Cooled Anode).



3353

(Approximate overall dimensions : 1,080 × 170 m/m.)

A cooled anode valve suitable for use as a high frequency amplifier in telegraph or telephone transmitters.

The anode forms part of the valve envelope designed for cooling by a liquid circulated in direct contact with the anode. When water is used as a cooling liquid the rate of flow should be about 10 gallons per minute. The design of this valve requires water cooling of the filament seals.

Maximum input 8.0 amperes mean anode current at 10,000 to 15,000 anode volts D.C. when used in a suitable circuit under oscillating conditions on a long wave telegraphic load.

On a telephonic load using anode voltage modulation, the input should not exceed 5 amperes mean anode current at 12,000 anode volts D.C.

When used as an amplifier of modulated high frequency currents the dead loss per valve anode must not exceed 50 kw. at an anode voltage of about 15,000 D.C.

Marked Volts. Individual valves are marked with the filament voltage which gives 35 amperes emission current at 90 per cent. saturation.

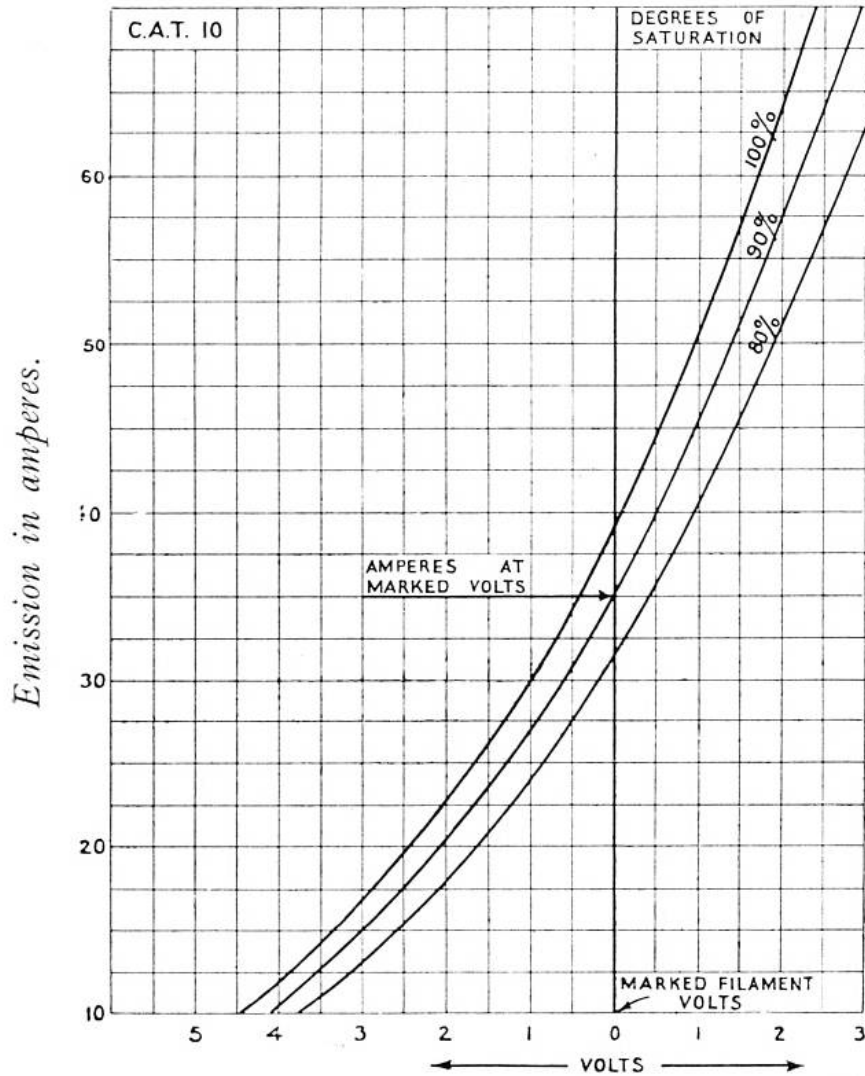
Approximate Data :

| | | | | | | | |
|----------------------|-----|-----|---------------|---------------------------|-----|-----|-------|
| Filament volts ... | ... | ... | 30 | Emission (amperes) ... | ... | ... | 35 |
| Filament amperes ... | ... | ... | 220 | *Impedance (ohms) ... | ... | ... | 3,500 |
| Anode volts ... | ... | ... | 10,000-15,000 | *Amplification factor ... | ... | ... | 45 |

* Taken about anode volts 12,000 and grid volts 0.

Code Word : IVUOK.

Variation of emission with filament volts as related to marked filament volts for various degrees of saturation of emission current.

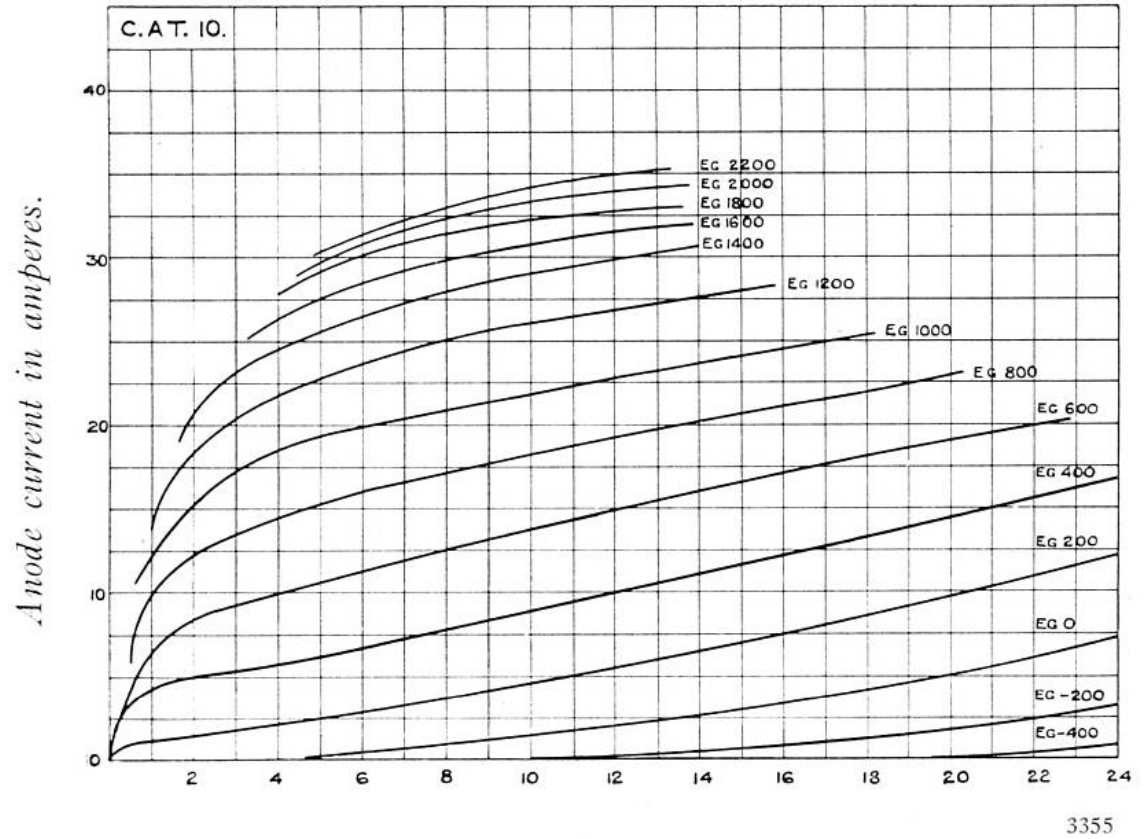


Marked volts to be decreased by above amount.

Marked volts to be increased by above amount.

Characteristic curves of average valve.

TYPE C.A.T.10.



Anode potential in kilovolts.

Taken at filament volts to give 35 amperes emission at 90 per cent. saturation.