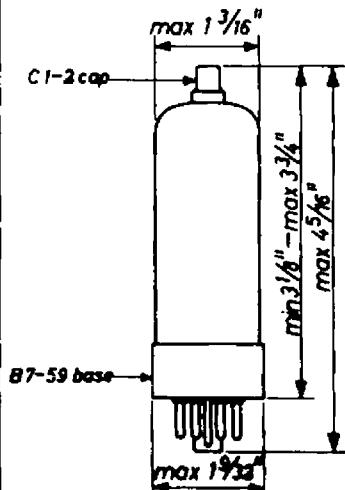


OUTPUT PENTODE for use as line output tube in television receivers.

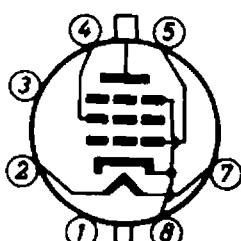
MECHANICAL DATA

Cathode	Coated unipotential
Base	B7-59
Bulb	T9
Mounting position	Any
RETMA basing designation	8GT
Top cap	C1-2

TUBE OUTLINE



BOTTOM VIEW BASE OF BASE PIN NO.



ELEMENT

1	Internal connection
2	Heater
3	Internal connection
4	Grid No.2
5	Grid No.1
7	Heater
8	Cathode, grid No.3
Top	Plate

ELECTRICAL DATA

HEATER DATA

Heater voltage	6.3 volts
Heater current	1.25 amp

DIRECT INTERELECTRODE CAPACITANCES

Grid No.1 to all other elements	17.5 $\mu\mu$ F
Plate to all other elements	7.7 $\mu\mu$ F
Plate to grid No.1	max. 1.1 $\mu\mu$ F

MAXIMUM RATINGS (Design Center Values)

Plate voltage	250 volts <sup>1)</sup>
Plate voltage without plate current	550 volts
Peak plate voltage	7000 volts <sup>2)</sup>
Peak inverse plate voltage	1500 volts <sup>2)</sup>
Plate dissipation	10 watts
Grid No.2 dissipation	5 watts <sup>3)</sup>
Plate and grid No.2 dissipation together	13 watts

<sup>1)</sup>For A.F. class B operation the maximum permissible value of the plate voltage is 300 volts

<sup>2)</sup><sup>3)</sup>See page 2

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## MAXIMUM RATINGS (continued)

Grid No.2 voltage	250 volts
Grid No.2 voltage without current	550 volts
Peak negative grid No.1 voltage	1000 volts
Cathode current	200 mamps
Grid No.1 circuit resistance	0.5 megohm
Grid No.1 circuit resistance when plate and grid No.2 dissipation together are less than 10 watts	2.2 megohms
Voltage between cathode and heater	100 volts

## TYPICAL CHARACTERISTICS

Plate voltage	100 volts
Grid No.2 voltage	100 volts
Grid No.1 voltage	-7.7 volts
Plate current	100 mamps
Grid No.2 current	7.0 mamps
Transconductance	14000 micromhos
Plate resistance	5300 ohms
Amplification factor of grid No.2 with respect to grid No.1	6

## OPERATING CONDITIONS AS CLASS B AMPLIFIER. Two tubes

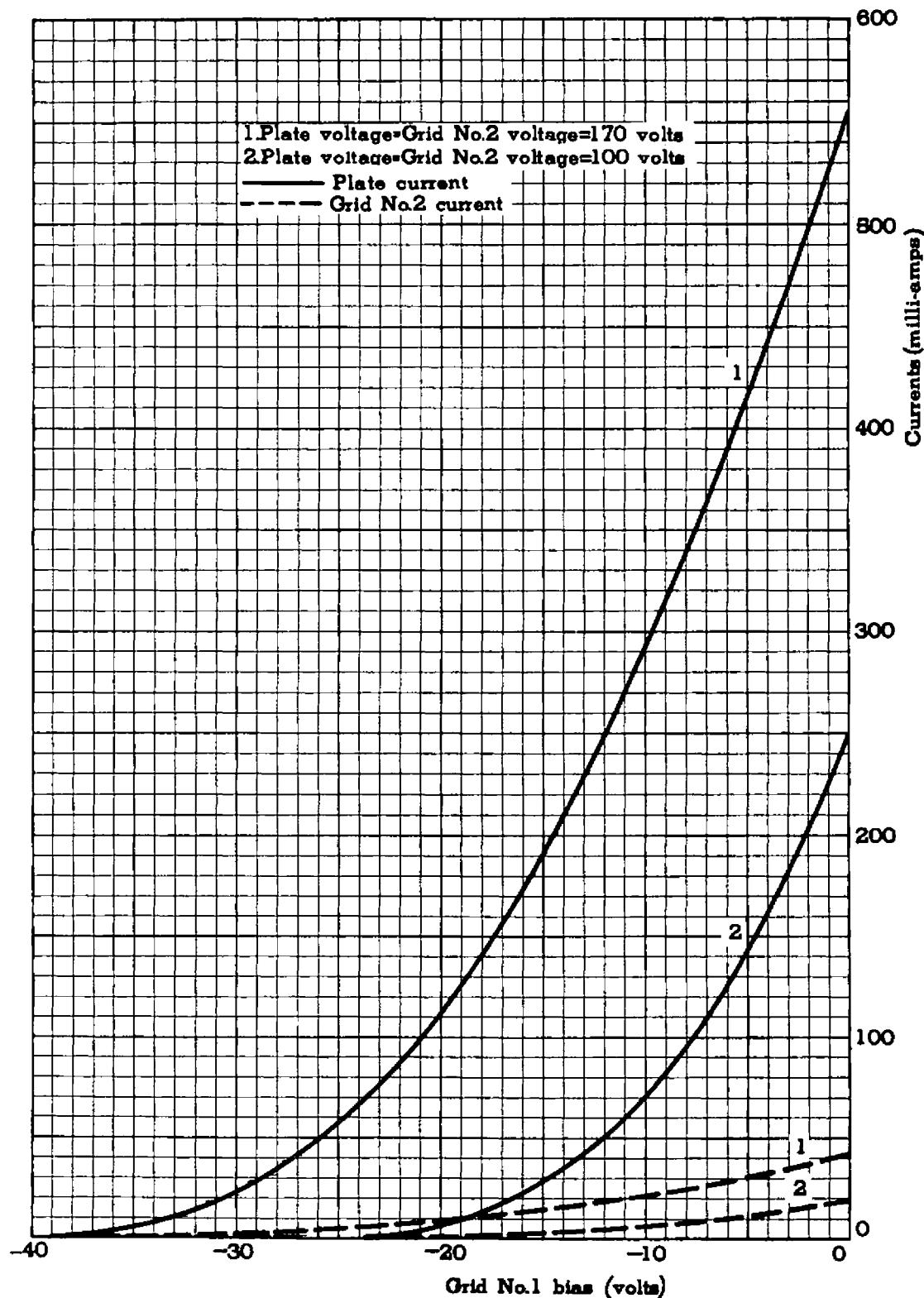
Plate voltage	300 volts
Grid No.2 voltage	150 volts
Grid No.1 voltage	-29 volts
Load resistance, plate to plate	3500 ohms
Input A.F. voltage	20 volts, rms
Zero signal plate current	2x18 mamps
Max. signal plate current	2x100 mamps
Zero signal grid No.2 current	2x0.5 mamp
Max. signal grid No.2 current	2x19 mamps
Max. signal power output	44.5 watts
Total harmonic distortion	7.2 percents

REMARK: On pages 6,7,8 and 9 plate characteristics for nominal new tubes are given. To allow for tube spread and deterioration during life the line output circuit should be designed around a current 25% lower than the values shown on pages 6 and 7 and 20% lower than the values shown on pages 8 and 9

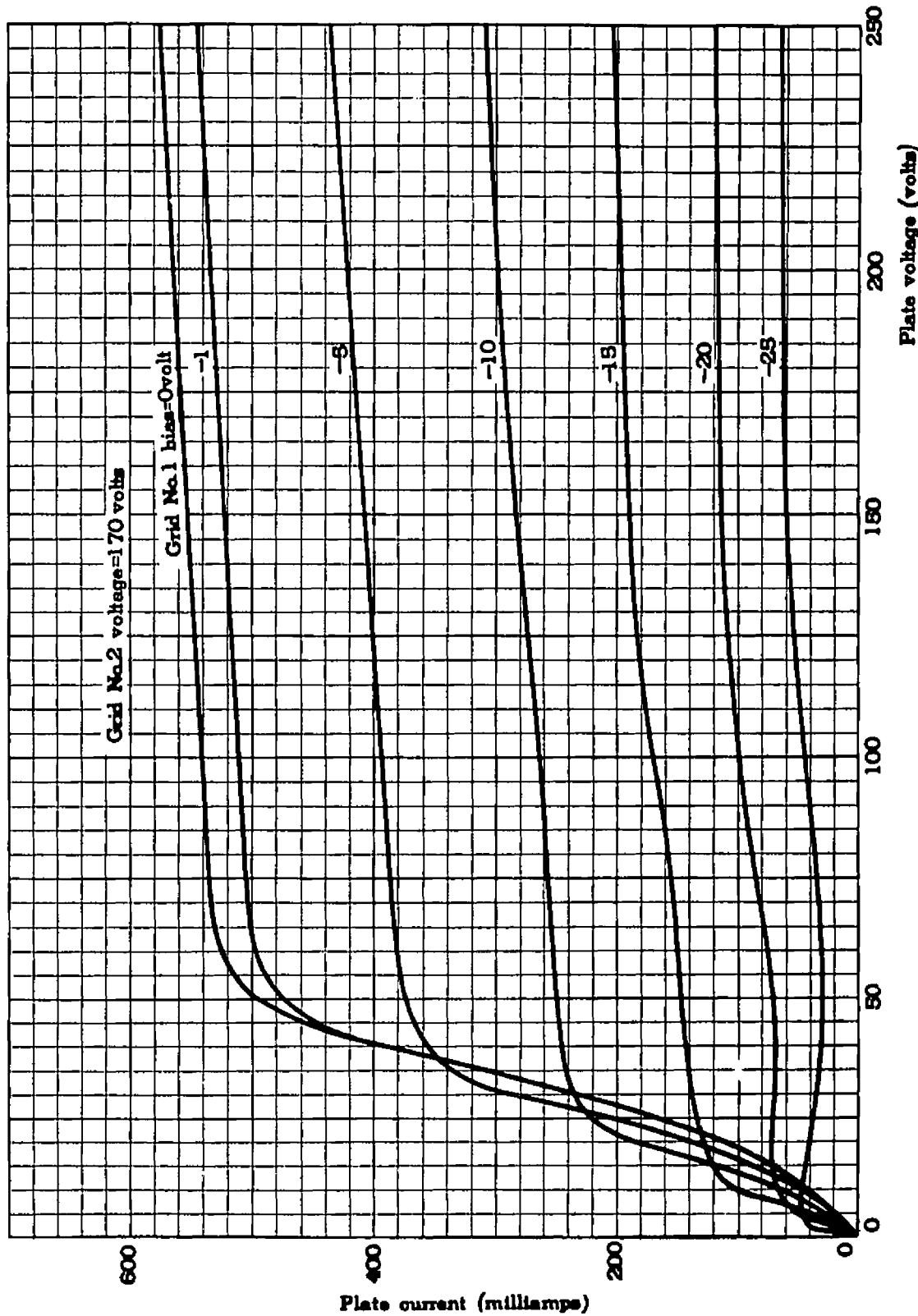
<sup>2</sup>)Valid for line time base circuits where the pulse duration is max. 18% of a cycle with a max. of 18  $\mu$ sec.

<sup>3</sup>)During the heating time of the booster this value is max. 7 watts

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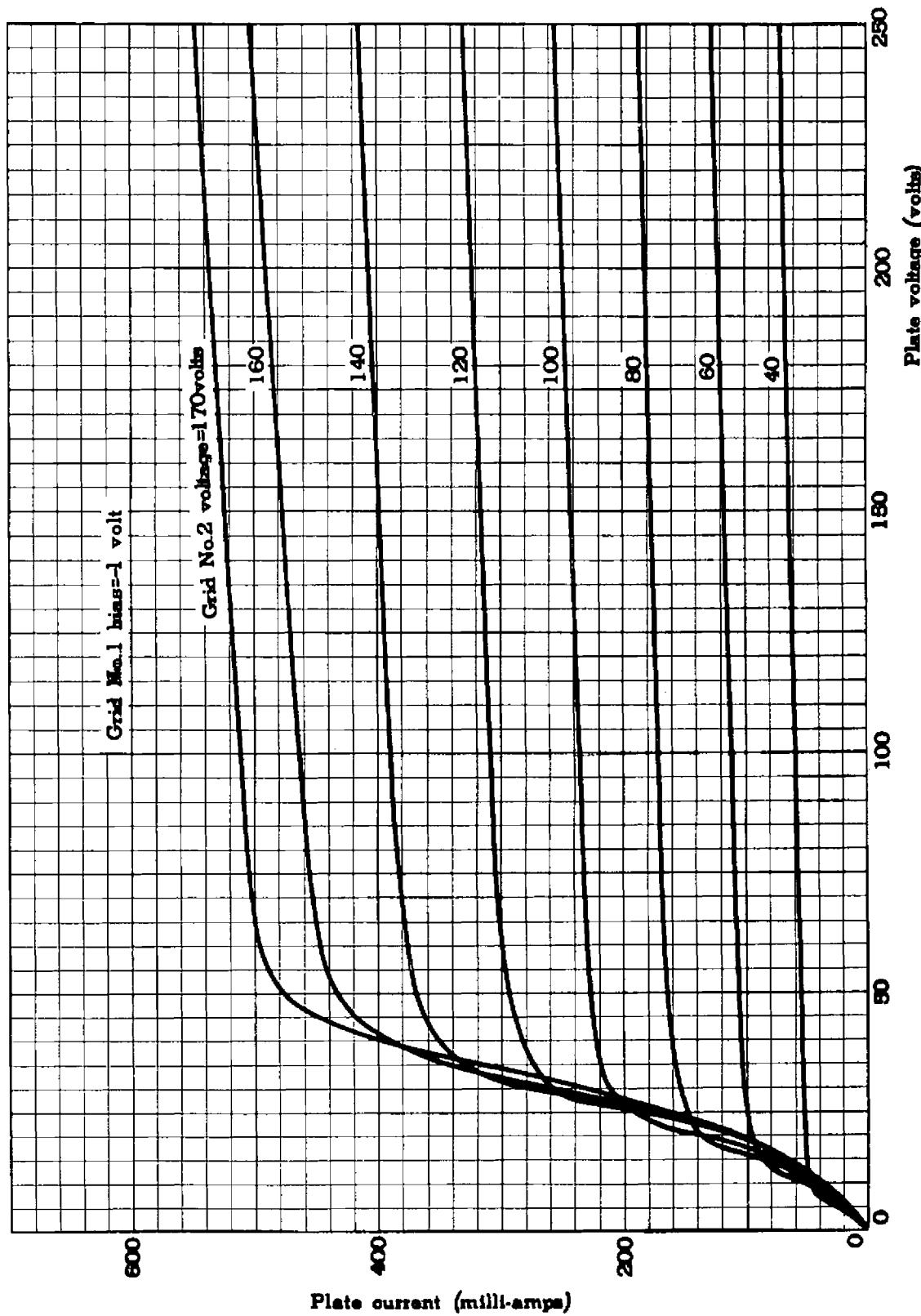


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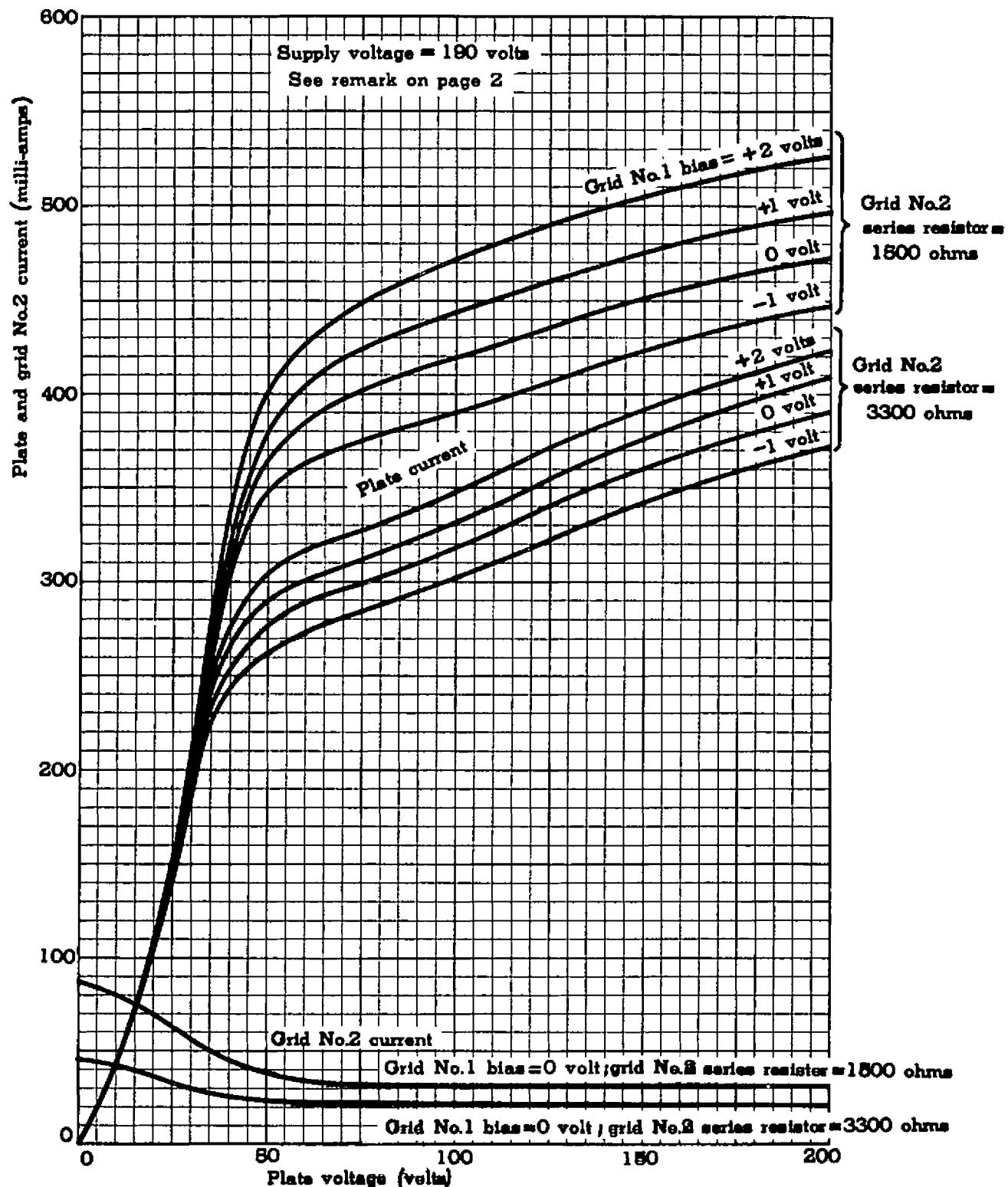
March 6, 1966

**6CM5**

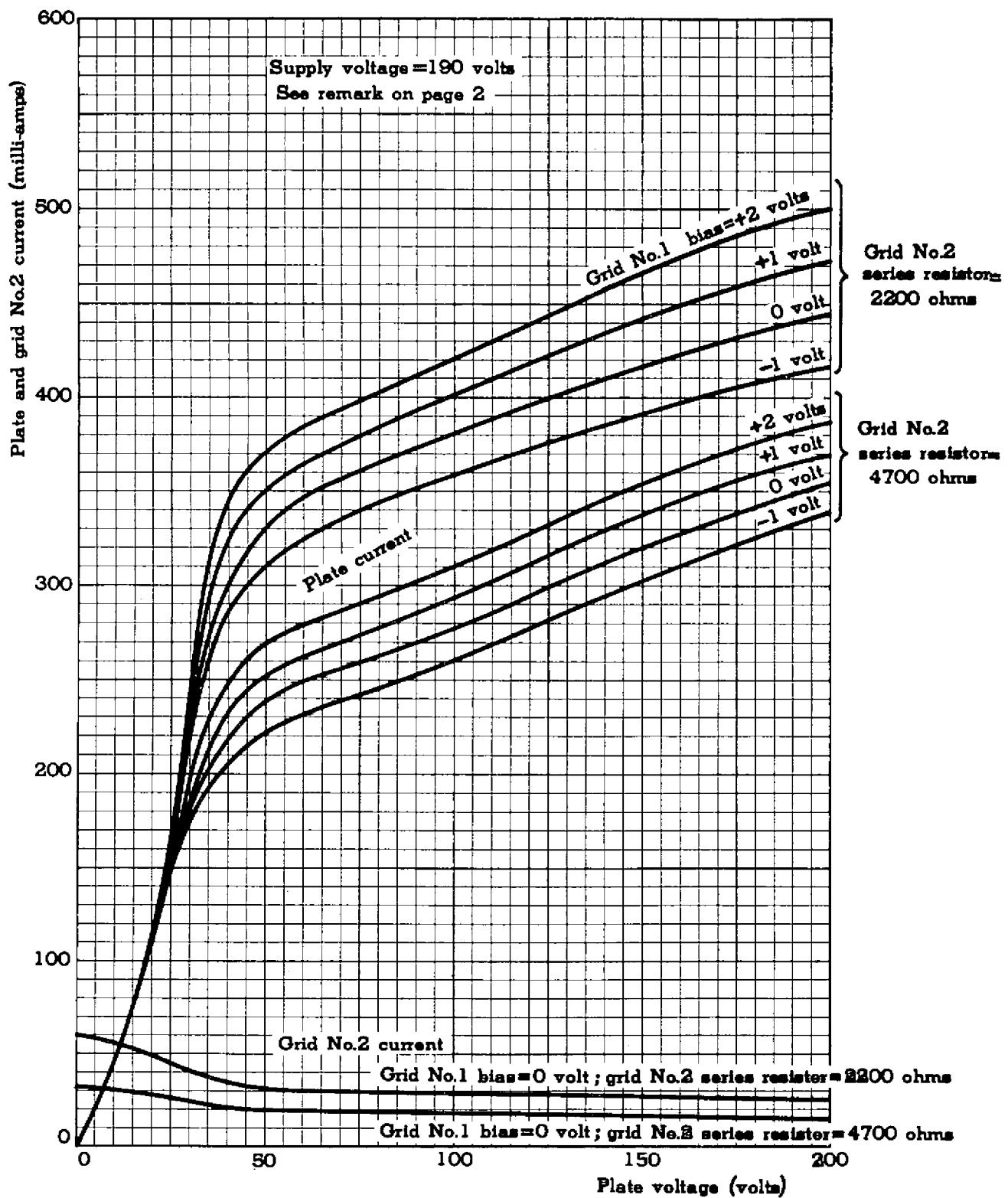


March 6, 1956

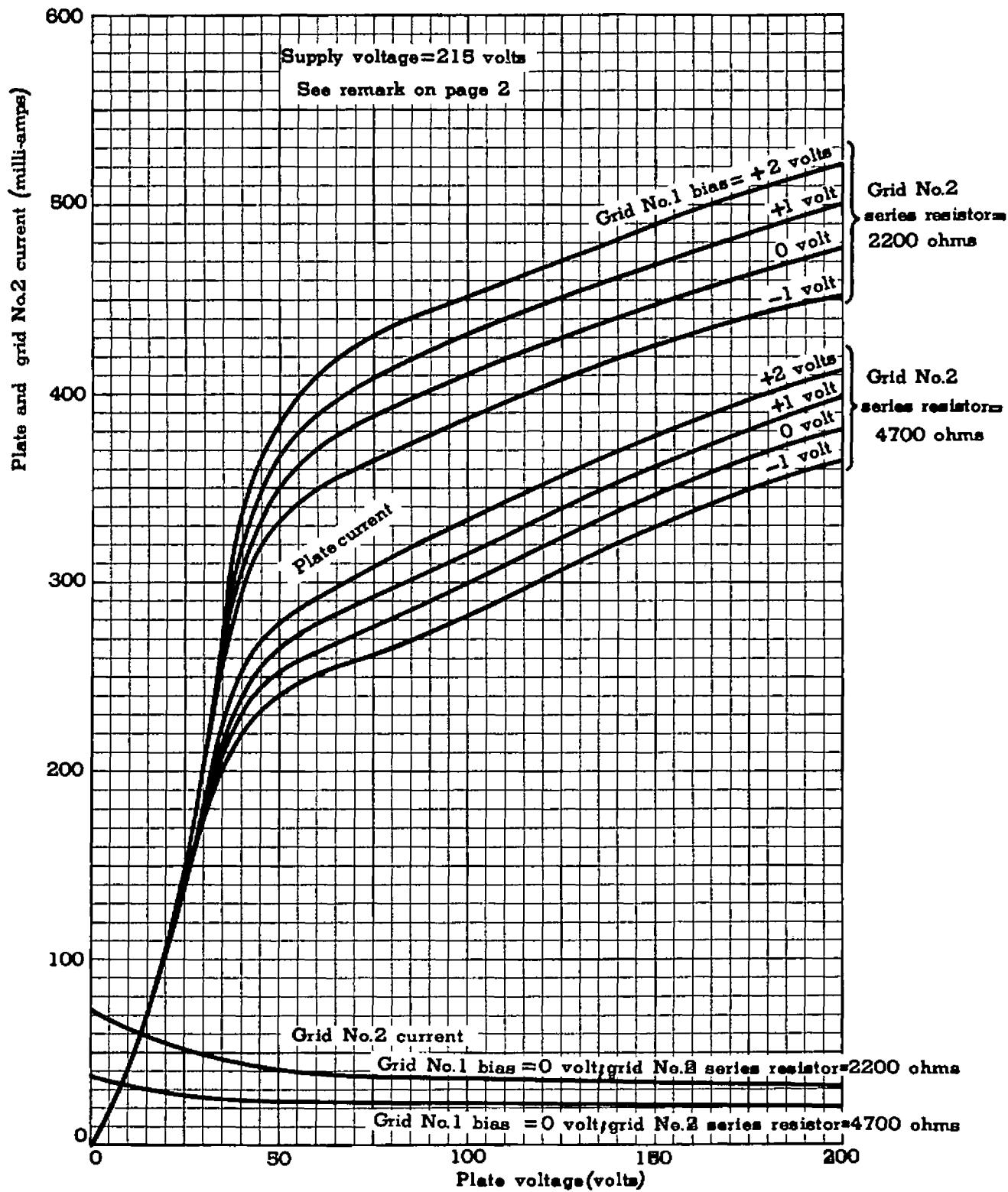
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