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DATA FOLDER No. 77836

Title Results of 6000 Volt Test on FG-238-B Ignitron

By

Electronic Tube Engineering Div.

Information prepared for Electronics Dept.

Tests made by

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Countersigned by K. C. DeWalt

Date May 18, 1945

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77836

Results of 6000 Volt Test on FG-238-B Ignitron

Electronics Dept.
Tube Division

May 18, 1945

Purpose:

The purpose of this data folder is to record tests made in January to compare the high voltage load limits of recently produced FG-238-B ignitrons with the same load limits found on FG-238-A and original samples of FG-238-B tested in 1939.

Test Equipment and Connections:

The tests were made in the 1000 kva, single phase test set in Building 37. Number 1 test connection was used. This is a simple rectifier connection with transformer windings in parallel and a d-c reactor in series with a waterbox for load, as shown schematically on the attached curve sheet.

Method:

The voltage and waterbox were first adjusted to give 2000 Vdc and 300 Adc. These values were then held constant while the cooling water temperature was slowly increased until an arc-back was obtained. The temperature was then lowered a few degrees and again slowly increased to the arcback point.

This process was repeated for load currents of 200 Adc and 100 Adc, both at 2000 Vdc.

Results:

The recent FG-238-B tubes test about the same as the original tubes at the 300 A point and are definitely better at the 200 and 100-ampere points. This is shown graphically on the accompanying sheet.

Conclusion:

These tubes, having anodes of AGKT-E2 which has given arc-back trouble in the welder control tubes, are as good on voltage initially as our early tubes were. No attempt should be made to predict service life from this test, however, because high fault currents may cause rapid deterioration of these relatively soft anodes.

J. L. Zehner

5-18-45

J. L. Zehner
ELECTRONICS DEPT.
TUBE DIVISION

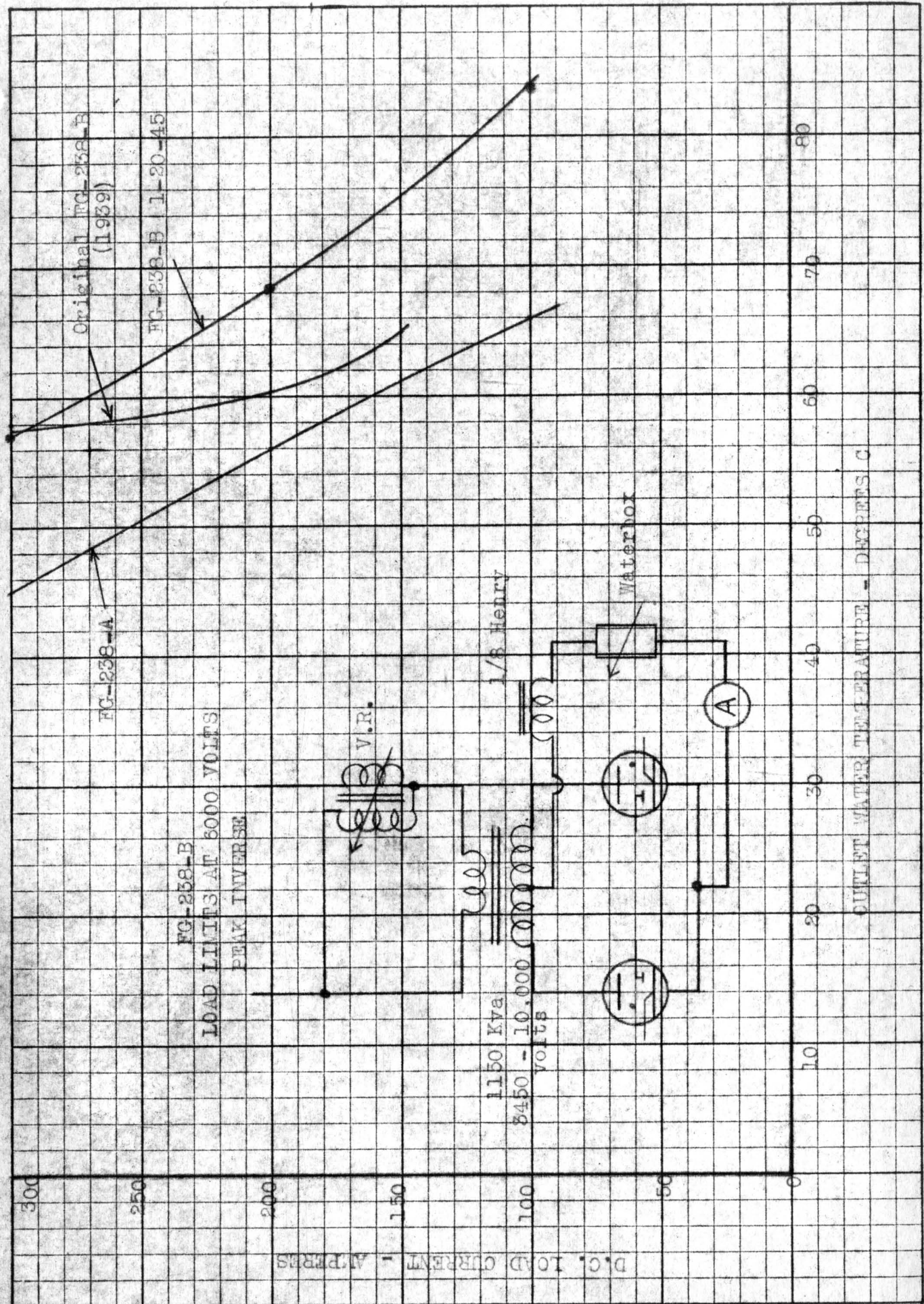
*Counterigned
May 19, 1945*

KC DeWalt

5-18-45

KC DeWalt
AC Gable
OW Pike

HC Steiner



FG-238-B
LOAD LIMITS AT 6000 VOLTS
PEAK INVERSE

D.C. LOAD CURRENT - AMPERES

OUTLET WATER TEMPERATURE - DEGREES C

