DEPARTMENT OF TRADE AND COMMERCE

STANDARDS BRANCH

E-46

OTTAWA February 28, 67.

NOTICE OF APPROVAL

FOR

ESTERLINE-ANGUS MODEL "A601C" SINGLE PEN CURVILINEAR STRIP-CHART ELECTRODYNAMOMETER RECORDING WATTMETER

Apparatus

Voltage Rating	(1) 100, 200, 500 volts, 115, 230, 575 volts or 120, 240, 600 volts
Current Rating	(2) 5 or 10 amperes
Frequency	(3) 25 hz, 50 hz or 60 hz
Elements	2, or 3 element Y
Response	1 1/4 second
Inking System	Tubular pen producing a continuous ink line
Chart Drive	(3) Synchronous motor with separate supply
Chart Motor Supply	(3) 120 volts at 25 hz, 50 hz or 60 hz
Chart Speeds	3/4, 1-1/2, 3,6 and 12 inches per hour or per minute
Chart	(4) Single channel curvilinear, $4\frac{1}{2}$ inches calibrated width uniformly divided. 10% raised zero permitted.
Enclosure Styles	Flush switchboard, front switchboard, wall mounted, and Twin which incorporates two independent recorders in one case.
Full Scale Watts	500 per element

(1) The nameplate may be marked with multiples of 100, 115 or 120 volts but there is no change in the measuring element.

(2) The current rating marked on the nameplate may be 5 amperes or 10 amperes. A dual current rating is not available.

(3) The nameplate on the recorder apron or bottom refers to the measuring element only which also has a small nameplate to the measuring element moulded frame, visible under the inkwell handle on which are marked the serial and type numbers.

The chart drive has its own nameplate on one of the chart drive side plates.

Ordinarily both the measuring element and the chart drive nameplates will be marked with the same frequency.

It is permitted for either to be marked 25 hz, 50 hz or 60 hz provided that the frequency marked on the chart drive agrees with the system on which the recorder will be used.

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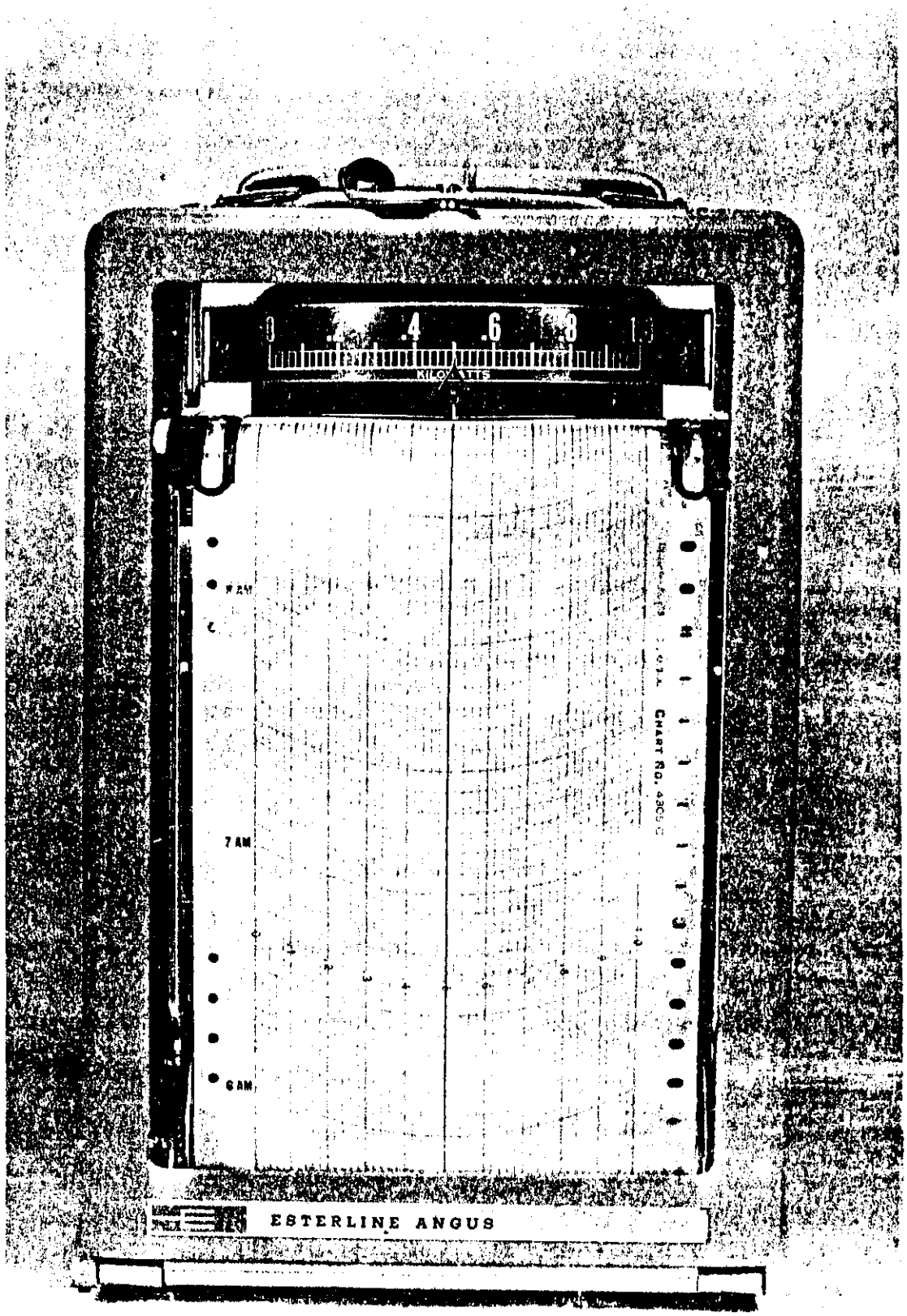
STRIP-CHART ELECTRODYNAMOMETER RECORDING WATTMETER



(4) Charts will normally be supplied with a L.H. zero but a raised zero up to 10% of full scale is approved.

Note: The company makes a spring operated chart drive which is not covered by this approval.

Description

The single channel curvilinear strip chart recording electrodynamometer wattmeter was formerly designated a type "AL" Graphic Wattmeter and as such received approval under N.R.C. 163 of February 7, 1946.

The design and construction of the measuring system is the same, but the model numbering system and the enclosures have been changed.

Each element of this instrument consists of two fixed current coils and one movable potential coil. The potential coils of all the elements are mounted vertically, one above the other, on an insulated metal shaft. A pen fork is attached to the upper end of this shaft into which the writing pen sits and a steel pivot resting in a spring loaded jewel is fitted into the lower end of the shaft.

The pen is a length of tubing having one end dipping into a plastic inkwell, and on the other end are mounted the writing pen and the scale indicator.

The chart drive assembly is a self-contained unit attached to the instrument proper by four screws.

The damping of the moving element is provided by a vane fixed to the lower end of the shaft and moving in the field of two friction mounted permanent magnets which can be pivotted to vary the degree of damping.

Zero setting is accomplished by moving the zero adjusting lever located over the nameplate and should be made with the pen correctly balanced and filled with ink.

These instruments are manufactured by the Esterline-Angus Instrument Company Inc., Indianapolis, Indiana, U.S.A.

Approval granted to: W. Hobson & Associates,
1024 Notre Dame Street,
Lachine, Quebec.

W J.S. Fraser

W.J.S. Fraser,
Chief, Standards Laboratory,
Standards Branch.

K Cryer

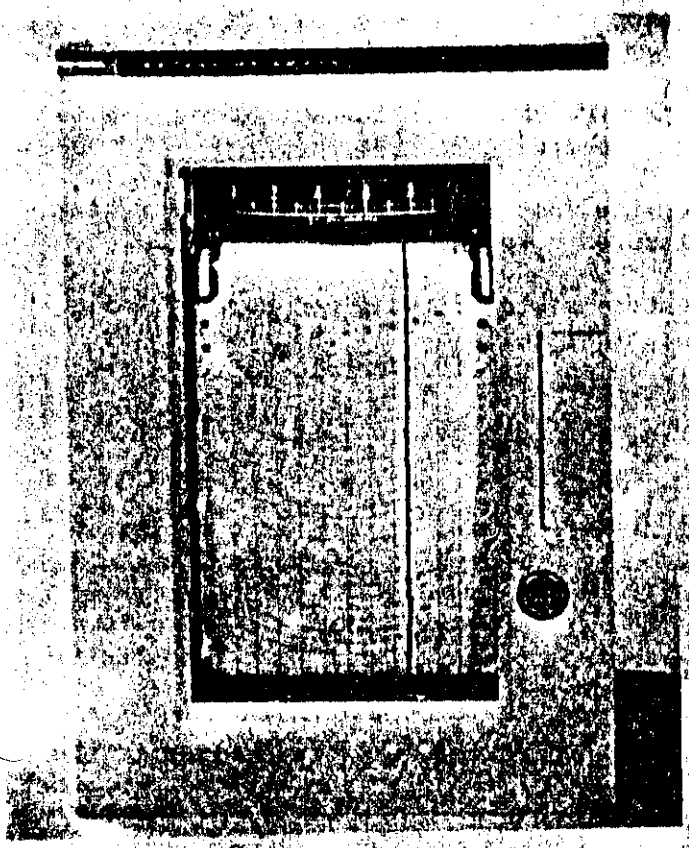
K. Cryer,
Chief, Electricity & Gas Division,
Standards Branch.

Ref: SL-100-999

Note: The illustration on the back of page 1 of this circular shows an approved measuring element in a portable style case. This portable case is not covered by this approval. All approved enclosures are equipped with door locks.

The illustrations on the back of page 2 of this circular show three of the four approved styles of enclosures. The measuring elements shown in each enclosure are not covered by this approval.

Flush Switchboard



Front Switchboard

Twin (twin flush case illustrated)