



CANADA

DEPARTMENT OF TRADE AND COMMERCE
STANDARDS BRANCH

S-EA.600

OTTAWA.

January 9, 1964.

TYPE APPROVAL

CANADIAN WESTINGHOUSE MOULDED DRUM 5-DIAL CYCLONETER
REGISTERS FOR USE ON TYPES "D2" and "D3" WATTHOUR METERS

The apparatus specified and illustrated herein have been duly approved by the Standards Branch under the provisions of the Electricity Inspection Act, Chapter 94, R.S. 1952, and may be admitted to verification in Canada.

Apparatus Approved: 5-dial Moulded Drum Cyclometer Registers for use on Types "D2" and "D3" single phase watthour meters, manufactured by Canadian Westinghouse Company Limited, Hamilton, Ontario.

Rating of Apparatus:
Register Ratios 555-5/9, 277-7/9, 111-1/9, 27-7/9 and 13-8/9*
Dial multiplier 1

* 5-dial only, other ratios may be 5-dial or 4-dial through use of a mask over the 5th reading drum.

Description: On this register, the test dial is placed on the right side of the register where it can be observed through the side of the cover. The test dial pointer and the first reading drum are gear driven from the take-off gear so that they follow the disc revolutions closely.

A dog inside the first reading drum makes contact with a weight attached to a disc that turns about the drum shaft.

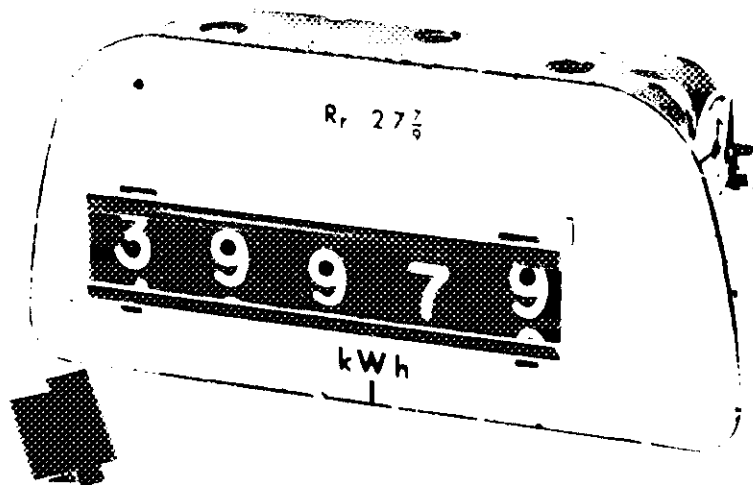
Rotation of the first drum raises this weight until it reaches top dead centre when it falls and in so doing advances the second drum one digit.

Because there is approximately $\frac{1}{2}$ of a revolution of backlash between the dog and the weight, it is possible to manipulate the register, or the meter with the register attached, in such a manner as to swing the weight backward or forward thus causing the second reading drum to advance or fall back one digit depending upon the initial positions of the weight and first reading drum.

The correct zero reading should be re-established when the meter is restored to its operating position.

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2.

Description (cont'd):

It is possible with the weight behind the dog, as would happen if the 1st drum were to be rotated backward, that the 1st drum may pass through zero in normal operation without adding a digit to the 2nd drum. This is characteristic of the design and is not a defect.

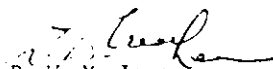
A register that has been removed from a meter may be reset to zero in two operations. First, the two right hand drums can be reset to zeros by turning the 1st drum. Secondly, the main drum shaft extension on the right hand end is depressed to disengage the 3rd, 4th and 5th drums from the first two. Then the released 3rd drum can be turned in either direction to most easily reset all three drums to zeros, making sure when remeshing these drums that the numbers are properly located in the window and that the gearing is fully meshed.

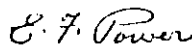
The test dial pointer may be aligned with the reference line by slipping it on its shaft.

This register is basically a 5-dial and has slots adjacent to the 1st and 5th drums to take the prongs of a mask that can be installed to cover one or the other. This can be done either in the factory or in the field.

This approval covers the use of this register either as a 4-dial x 1 with the mask over the 5th drum, or as a 5-dial x 1 without the mask. Meters with a 200 ampere rating must be presented with the register as a 5-dial.

The use of this register with the mask over the 1st drum is not permitted.


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