



TRADE AND COMMERCE
CANADA

SD-GA.31

STANDARDS DIVISION

OTTAWA,..... March 6, 1953.

TYPE APPROVALROCKWELL EMCO TYPE "CD" COMBINED RECORD GAUGE

The apparatus specified and illustrated herein has been duly approved by the Standards Division under the provisions of the Gas Inspection Act, Chapter 82, R.S. 1927, as amended, and may be admitted to verification in Canada.

Apparatus Approved: Type "CD" Combined Record Gauge, manufactured by the Rockwell Manufacturing Company, Pittsburgh, Pa., and distributed in Canada by Peacock Brothers, Limited, Montreal, P.Q.

Application: In the measurement of natural, manufactured, or mixed gases at medium or high line pressures.

Rating of Apparatus: Range of Pressure(p.s.i.): - 0-10, 0-30, 0-50, 0-100, 0-250, 0-500

Description: When gas is purchased or sold at a pressure of more than a few ounces, it is normal for the billing to be based on a corrected volume reduced to a specified base pressure. The corrected volume is the metered volume multiplied by

$$\frac{\text{Line Pressure} + \text{Atmospheric Pressure}}{\text{Base Pressure} + \text{Atmospheric Pressure}}$$

The Emco type "CD" combined record gauge is a device for recording the pressure and metered volume in relation to time so that the multiplying factor indicated above can be calculated for each increment of volume.

The entire assembly can be installed on any Emco large-capacity meter by simply removing the old index plate and attaching the index plate of the recording gauge. The volume registering mechanism is also connected to the meter movement.

The pressure record is made in the ordinary manner by means of an inverted pen arm pressure coil. A cross needle valve is provided on the index plate for the purpose of connecting a dead weight tester or standard gauge for testing the pressure element.

The record of volume against time is made at the edge of the chart by means of a pen operated through a cam and lever mechanism from the meter index. On two of the index shafts carrying pointers, cams are provided in the rear of the index frame. The cam follower can be made to contact either of these cams; thus one cycle or oscillation is made on the chart for either every 1000 cu.ft. or every 10000 cu.ft. There can be no mistake made when the chart is removed from the gauge as to the number of cubic feet of gas passed per cycle because changing from one cam to another moves the pen so that the record is made in a different column on the chart in each case. Knowing from the chart the amount of gas passed during a given time interval and the average pressure at which each unit passed, the corrected volume can be computed.

The chart drive clocks may be either 24-hour or 7-day.

E. F. Power

E. F. Power,
Assistant Director (E&G),
Standards Division.

R. W. MacLeamy
R. W. MacLeamy
Director,
Standards Division.

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