

TRADE AND COMMERCE  
CANADA

STANDARDS BRANCH

S-GA.191

OTTAWA, May 24, 1960.

TYPE APPROVALAMERICAN "GASCLOK" PRESSURE-OPERATED CHART DRIVE

The apparatus specified and illustrated herein has been duly approved by the Standards Branch under the provisions of the Gas Inspection Act, Chap.129, R.S. 1952, and may be admitted to verification in Canada.

Apparatus Approved: Pressure-operated "Gaslok" Series 50, Model A, manufactured by the American Meter Company, Erie, Pa., U.S.A., and distributed in Canada by the Canadian Meter Company Limited, Box 470, Milton, Ontario.

## Rating of Apparatus:

Operating Pressure ..... 5 p.s.i. ( $\pm$  0.5 p.s.i.)  
 Volumetric consumption ..... 5 cu.ft. per hour  
 Output shaft average speed ..... 2 r.p.m.

Description: The "Gaslok" consists of three basic sections: (i) the timing mechanism, located at the lower portion, has a conventional spring-wound clock-type escapement; (ii) the pneumatic section in the middle portion carries the pressure connections and an escapement-actuated flapper; and (iii) the power cylinder section with a spring-loaded piston, drive cam and the double-ended output shaft. In operation the gas (or air) enters the cylinder and if the exhaust is at the time closed by the flapper, the pressure lifts the spring-loaded piston causing the output shaft to advance 60 degrees. After a calibrated time, derived from the timing mechanism, the flapper is opened, pressure released and the piston returns to the original position, advancing again the output shaft by 60 degrees in the same direction. This 60 degrees shaft advance is repeated every 5 seconds. The push-pull action of the piston is changed into rotary motion by a drive cam arrangement. The double-ended output shaft, through suitable gearing, winds the escapement spring by the predetermined amount corresponding to the spring unwind during the cycle operation. The spring is pre-wound and the escapement mechanism is self-starting with the application of pressure. Approval is granted for the "Gaslok" to be used as a chart drive on approved recording instruments with either circular or strip chart assemblies.

Application: Measurement in distribution service of heating gases.

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Ref: A-831



AMERICAN "GASCLOCK" PRESSURE-OPERATED CHART DRIVE



