CANADA

DEPARTMENT OF TRADE AND COMMERCE

STANDARDS BRANCH

S-GA.264

OTTAWA, August 1, 1963.

TYPE APPROVAL

TAYLOR "TRANSCOPE" TELEMETERING SYSTEM

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: The Taylor Transcope Transmitters Type 210T (INDICATING) and Type 211T (NON-INDICATING), and the Taylor Transcope Receiving Recorder Type 90J (SINGLE-PEN), manufactured and distributed in Canada by the Taylor Instrument Companies of Canada Ltd., Toronto, Ontario.

The Taylor Transcope Transmitters are only approved for use when equipped with Barton Model 224 Differential Pressure Unit, manufactured by the Barton Instrument Corporation, Monterey Park, California, U. S. A. and supplied to the Taylor Instrument Companies of Canada.

Rating of Apparatus:

Differential Pressure Ranges*	0-100, 0-150, 0-200, 0-250, 0-300, 0-350 inches water gauge.	
Working Pressure	Brass	500 P.S.I.
	Brass Mil Spec B-994-B	1000 P.S.I.
	COLD ROLLED STEEL C1018	1500 P.S.I.
	COLD ROLLED STEEL C1018	3000 P.S.I.
	COLD ROLLED STEEL C1018	6000 P.S.I.
Air Supply Pressure (Filtered and Dried)	18-25 P.S.I.	
Air Signal Pressure	3-15 P.S.I.	
Length of signal pressure tubing between transmitter and receiver	maximum length 200 feet	
Ambient Temperature limits for Recorder	-15°F to +140°F	
Ambient Temperature limits for Transmitter	-20°F to +150°F	

(Note: These limits should not be exceeded so as to ensure the accuracy of the transmitter under low temperature conditions).

Chart Drive	115 volt 60 cycle, Synchronous Motor	
Chart Speeds	1, 2, 4, 6, 9, 12, 15, 18, 30 inches per hour	
Connections: Tubing	¼" O.D. Copper	
Fittings	(Transmitter & Recorder) Female ¼" NPT, bottom connected	

*Note: The standard ranges are listed, however, other ranges between 0-40 and 0-400 inches water gauge are approved.

Description: The transmitter is housed in a universal type, die-cast aluminum case with the Barton Manometer attached at the rear. Both case and manometer are weatherproof. The recording receiver is housed in a universal type of steel case for indoor panel mounting.

Operation: Both transmitter and Recorder are pneumatically operated and when suitably placed and connected, provide an air-operated telemetering system for recording and indicating the differential pressure of flowing gas.

In operation, the Barton manometer measures the varying differential pressure, transfers the measurement to a motion of its torque tube shaft, which in turn, through suitable linkage, actuates the servo relay unit in the transmitter. When the servo relay unit is actuated, it produces a varying signal pressure from 3 to 15 P.S.I., corresponding to the range of zero to maximum differential pressure. This varying signal pressure which is proportional to the varying differential pressure is then transmitted to the receiving recorder via connecting tubing.

The transmitted signal pressure operates a servo-matic motor in the receiving recorder, which converts the varying signal pressure to a motion of a driving pulley, which in turn operates the pen/pointer via a connecting pulley and cable system. The travel of the pen/pointer is proportioned to the signal pressure and therefore records and indicates the original differential pressure applied to the Barton manometer on the Transmitter.

E. F. Power,
Chief, Electricity and Gas Division,
Standards Branch.

R. W. MacLean,
Director,
Standards Branch.

Ref: A-966

"TAYLOR TRANSCOPE RECEIVING RECORDER TYPE 90J"