



DEPARTMENT OF TRADE AND COMMERCE
STANDARDS BRANCH

OTTAWA, January 5, 1965.

APPROVAL LISTING

A.O. SMITH - SINGLE CASE BULK LIQUID METERS

Under the provisions of the Weights and Measures Act, Chapter 292, R.S.C. 1952, and Regulations thereunder (P.C. 6894), the apparatus specified herein have been listed as approved devices and may be used in Canada in accordance with the conditions applicable.

Apparatus Listed: Liquid meters for measuring petroleum products in bulk quantities. All of these meters have been previously approved on SD-WA.249, but for a lower maximum rated capacity. The manufacturer has increased the meter rating and changed the model number; the old and new model numbers and corresponding maximum rated capacities are as tabulated below:

<u>Old Model</u>	<u>Capacity</u>	<u>New Model</u>	<u>Capacity</u>	<u>Flange</u>
<u>Number</u>	<u>GPM</u>	<u>Number</u>	<u>GPM</u>	<u>Size</u>
S-12	100	S-13	108	2"
S-24	200	S-28	233	2½"
AS-35	290	S-42	350	3"
AS-50	425	S-60	500	4"
S-75	625	S-100	832	6"

Suffix Designation

- S - Single case, cast iron, straight through pattern.
- AS- Single case, cast iron, outlet 90° from inlet.
- B - Single case, cast steel, straight through pattern.
- AB- Single case, cast steel, outlet 90° from inlet.

These meters may be equipped with small cumulative registers, small resettable registers, large cumulative registers, large resettable registers with ticket printers, etc., as illustrated on SD-WA.249.

Manufactured by A.O. Smith Corporation, Meter and Service Station Equipment Division, 1602 Wagner Ave., Erie, Pennsylvania.

Rating of Apparatus: Maximum capacities are as listed above, minimum capacities are 20% of maximum, including service on LPG.

Application: Metering of bulk quantities of liquids, especially petroleum products, in wholesale trade.

Conditions: As prescribed in P.C. 6894. It is expected that for most applications a register with 1/10 gallon wheel will be required on models S-13, S-28 and possibly S-42. The gallon wheel should be subdivided into 1/10ths on registers on model S-60 and S-100 meters that are regularly used for deliveries of less than 1000 gallons.

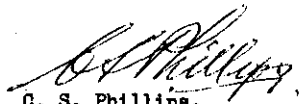
As combination air-eliminator-strainer units are not supplied as standard meter accessory, bulk type air eliminators and strainers will generally have to be installed.

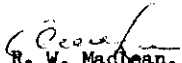
In installations where reverse flow could occur, a check valve to prevent this must be installed in a suitable location.

Description: These meters are of the rotary, positive displacement type; for a description of the principle of operation refer to SD-WA.248.

For operation at the higher re-rated flows, the meter shaft and bearings were redesigned. It is possible to convert older meters in the field to permit operation at the higher capacities; however, this is not too likely to be done with the smaller sizes of meters encountered during routine inspections.

Testing: The standard tests for a bulk meter shall apply. The Inspector should check that a register with 1/10th gallon wheel is used on meters regularly used for deliveries of less than 1000 gallons.


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