

CERTIFICATE OF APPROVAL No 5/6E/2
VARIATION No 1

This is to certify that the following modification of the pattern of the

Compteurs Schlumberger (Milk) Flowmeter

approved in Certificate No 5/6E/2 dated 16 March 1977

submitted by Anderson Equipment Co-operative Ltd,
Wetherill and Egerton Streets,
Lidcombe, New South Wales, 2141,

has been approved under the Weights and Measures (Patterns of Instruments)
Regulations as being suitable for use for trade.

Date of Approval: 21 December 1977

The approved modification, described in Technical Schedule No 5/6E/2 -
Variation No 1 and in drawings and specifications lodged with the Commission,
provides for the instrument in a fixed location.

The approval is subject to review on or after 1 January 1981.

Approval is granted on condition that:

1. The flow rate is limited to a maximum of 300 l/min.
2. The outlet of any farm milk tank connected to the system is below the suction inlet of the pump.
3. The acceptance tolerance is $\pm 0,5\%$.
4. The service tolerance after three months from initial verification is 1,5 times the acceptance tolerance.
5. The system is either primed with milk before commencing the first pick-up each day or, if the system is not primed before commencing the first pick-up, the priming quantity marked on the instrument data plate is added to the quantity measured on the first pick-up.
6. The instrument data plate is marked in whole litres with a priming quantity which is not less than the maximum quantity required to prime the system.
7. All instruments conforming to this approval are marked "NSC No 5/6E/2".

Signed



NATIONAL STANDARDS COMMISSION

TECHNICAL SCHEDULE No 5/6E/2

Pattern: Compteurs Schlumberger (Milk) Flowmeter*

Submittor: Anderson Equipment Co-operative Ltd,
Wetherill and Egerton Streets,
Lidcombe, New South Wales, 2141.

Date of Approval: 23 December 1975

This Technical Schedule replaces Technical Schedule No 5/6E/2 dated 5 February 1976.**

Conditions of Approval:

Approval was granted on condition that:

1. The flow rate is limited to a maximum of 300 l/min.
2. The outlet of any farm milk tank connected to the system is below the suction inlet of the pump.
3. The acceptance tolerance is $\pm 0,5\%$.
4. The service tolerance after three months from initial verification is 1,5 times the acceptance tolerance.
5. The system is either primed with milk before commencing the first pick-up each day or, if the system is not primed before commencing the first pick-up, the priming quantity marked on the instrument data plate is added to the quantity measured on the first pick-up.
6. The instrument data plate is marked in whole litres with a priming quantity which is not less than the maximum quantity required to prime the system (refer Special Tests).
7. All instruments conforming to this approval are marked "NSC No 5/6E/2".

* Instrument is also known as Compagnie des Compteurs (CdC) (Milk) Flowmeter.

** Figures 5/6E/2 - 1, 2 and 3 form a part of this Technical Schedule and should be retained. The text of Technical Schedule 5/6E/2 dated 5 February 1976 should be destroyed.

Description:

The pattern (see Figures 1 and 2) is a vehicle-mounted instrument for the pick-up of milk.

The flowmeter comprises the following:

1. Hose — up to 15 metres of 32 to 50-mm bore hose.
2. Positive displacement pump mounted on the assembly so that it is higher than the outlet of any storage vat from which it measures milk.
3. Pump motor — interlocked with a float switch in the gas purger to stop the pump motor when the level of the milk in the gas purger falls to a preset height.
4. Milk sampler — consisting of a substantially constant-flow-rate drip-tube. The calibration of the meter takes into account the quantity of the milk sample.
5. Gas purger — consisting of a tank fitted with a float-operated switch, a float-operated vent valve and a solenoid-operated vent valve. During a pick-up the float-operated vent valve allows air to bleed from the gas purger. At the end of a pick-up the large quantity of air drawn in by the positive displacement pump exceeds the capacity of the bleed valve and consequently the liquid level falls. At a preset height the float switch opens the solenoid vent valve and stops the pump motor.
6. Meter — CdC Polyflu 5 (see Figure 3).
7. Indicator and ticket printer — CdC Model ITP. The ticket printer has 0,1-litre increments and the indicator has 1-litre graduations; the first element of the indicator is marked with ten graduations numbered 0 to 9 with nine interpolation marks between each graduation (see Figure 3).
8. Non-return valve.
9. Outlet — the metering system discharges the milk above the maximum level of the milk in the receiving tank; the outlet is at a height above the top of the air purger.
10. Marking — an instrument data plate sealed to the instrument is marked "approved for milk only", and "maximum priming quantity litres".

11. Sealing — a lead-plug seal is provided on the instrument.

Special Tests:

The instrument should be tested with milk.

Priming quantity and the instrument calibration may both be checked using a single measure with, say, four proving runs, the first run with the metering system unprimed. The difference between the primed and unprimed readings should be not greater than the priming quantity marked on the instrument data plate.

Minimum Pick-up:

1. The non-flow-dependent errors are up to:
 - (a) 0,1-litre reading error for the ticket printer with 0,1-litre increments.
 - (b) 0,2-litre reading error for the indicator with 1-litre graduation.
 - (c) 1-litre variation in the quantity contained upstream of the meter after a pick-up.
 - (d) 1-litre variation in the priming quantity.
2. The minimum pick-up for which the relative error from all sources would not exceed 1,5% is 200 litres.

Operator Tests:

As damage may occur when the instrument is disassembled for daily cleaning or during use, the following procedures carried out on a regular basis by the user of the instrument will check that the instrument calibration remains correct:

A verified measure containing not less than 1500 litres of milk is connected to the primed system to simulate a typical pick-up from a farm milk tank, and the milk pumped through the instrument.

The meter calibration is correct if the reading on the meter is the quantity which was contained in the measure, say, 1500 litres, $\pm 0,5\%$.



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TECHNICAL SCHEDULE No 5/6E/2

VARIATION No 1

Pattern: Compteurs Schlumberger (Milk) Flowmeter

Submittor: Anderson Equipment Co-operative Ltd,
Wetherill and Egerton Streets,
Lidcombe, New South Wales, 2141.

Date of Approval of Variation: 21 December 1977

The modification described in this Schedule applies to the pattern described in Technical Schedule No 5/6E/2 dated 16 March 1977.

Conditions of Approval:

1. The flow rate is limited to a maximum of 300 l/min.
2. The outlet of any farm milk tank connected to the system is below the suction inlet of the pump.
3. The acceptance tolerance is $\pm 0,5\%$.
4. The service tolerance after three months from initial verification is 1,5 times the acceptance tolerance.
5. The system is either primed with milk before commencing the first pick-up each day or, if the system is not primed before commencing the first pick-up, the priming quantity marked on the instrument data plate is added to the quantity measured on the first pick-up.
6. The instrument data plate is marked in whole litres with a priming quantity which is not less than the maximum quantity required to prime the system.

All instruments conforming to this approval are marked "NSC No 5/6E/2".

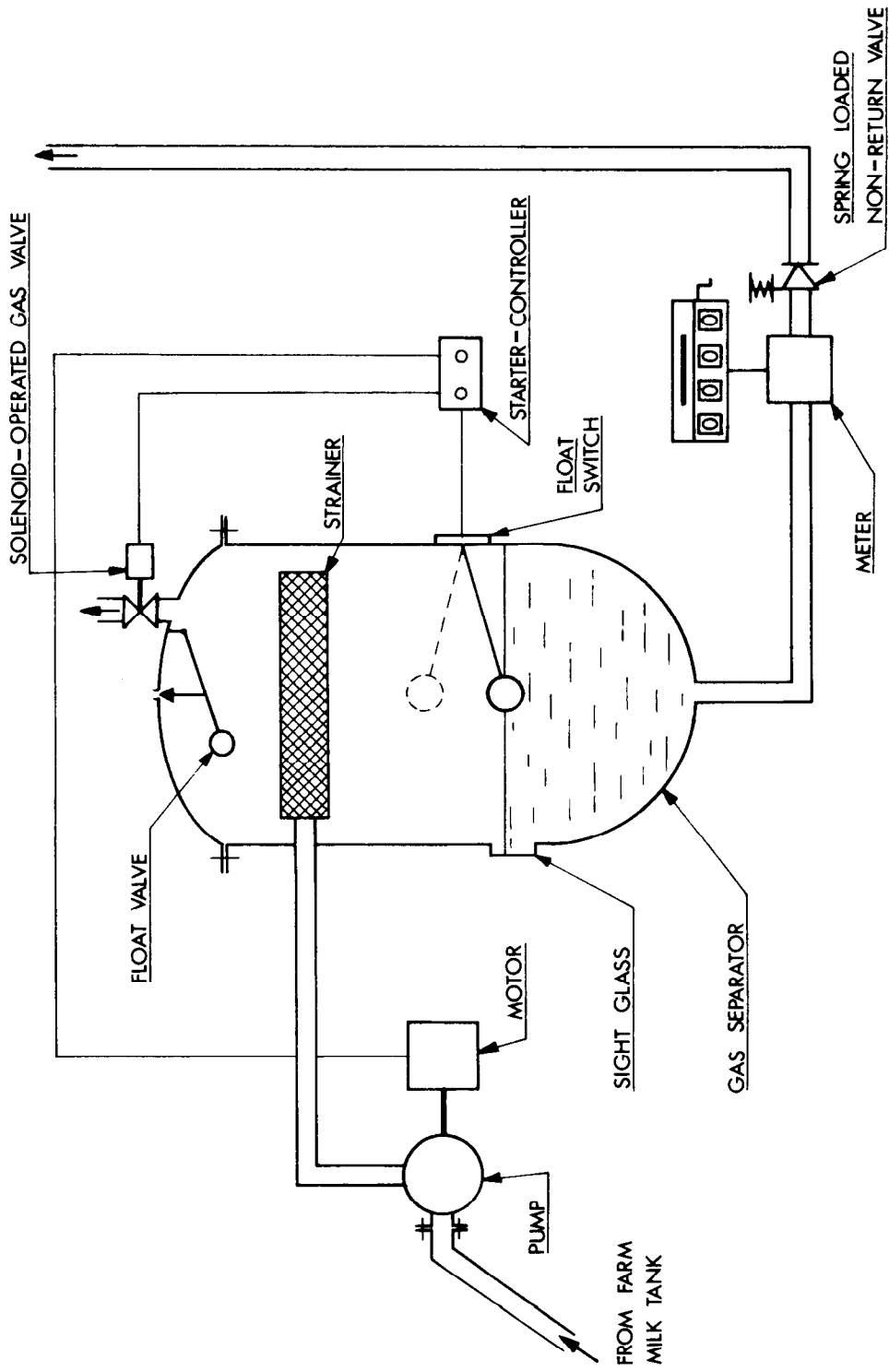
Description:

The approved modification provides for the instrument to be installed in a fixed location.

Special Tests:

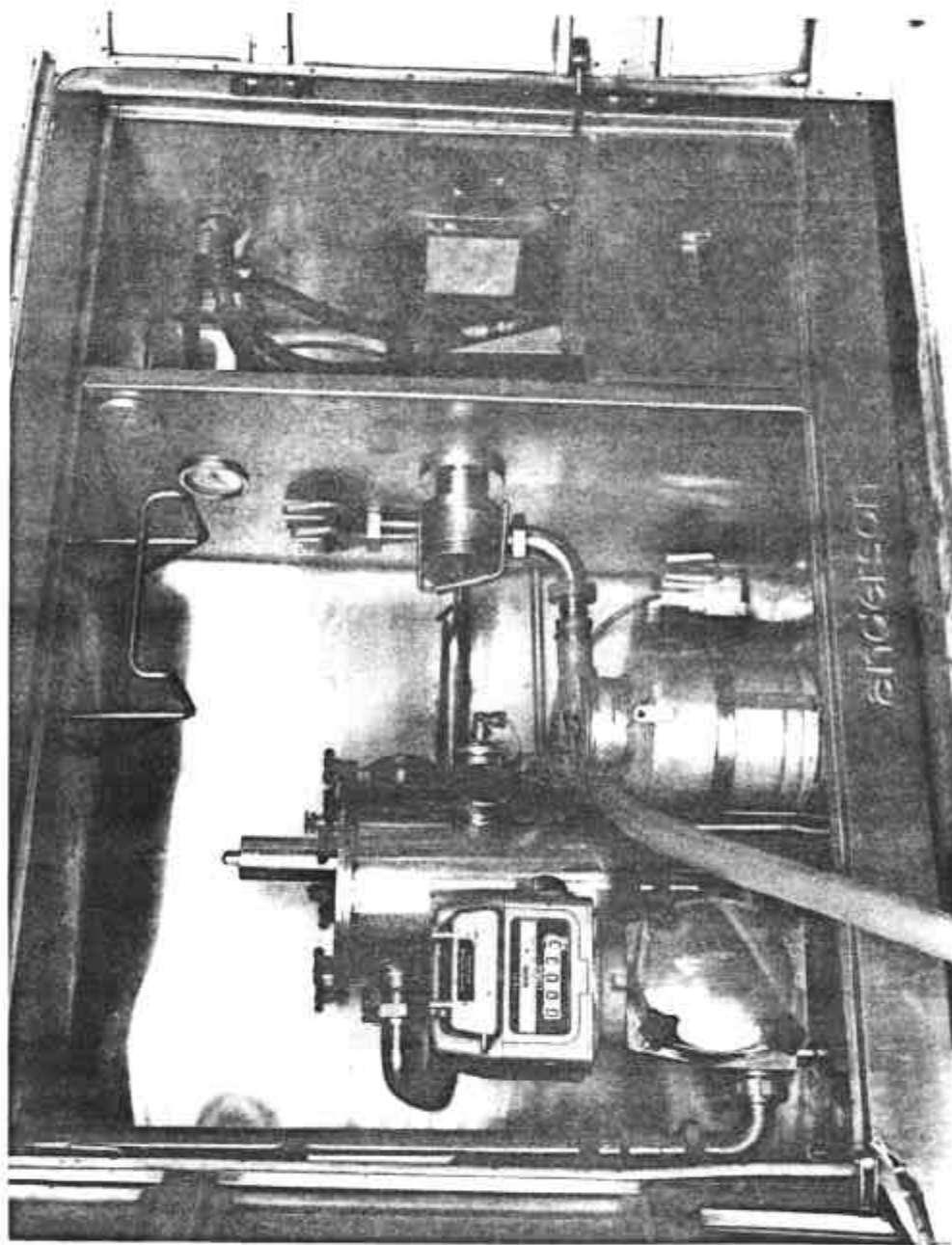
The special tests described in Technical Schedule No 5/6E/2 dated 16 March 1977 are applicable to this variant.

FIGURE 5/6E/2 - 1



Compagnie des Compteurs (CdC)
Milk-metering System — Schematic Diagram

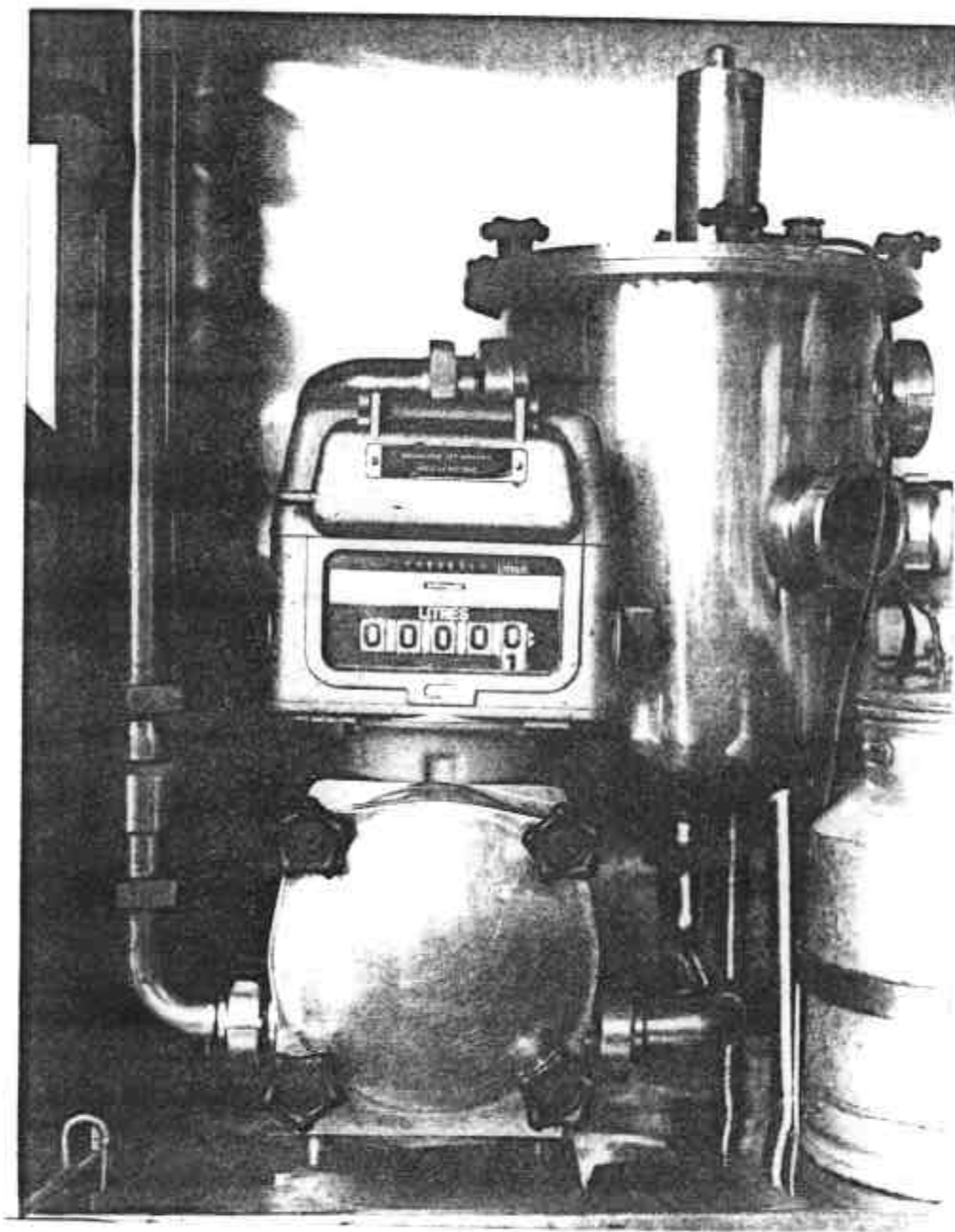
FIGURE 5/6E/2 - 2



Compteurs Schlumberger Milk-metering System

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FIGURE 5/6E/2 - 3



Comptours Schlumberger Meter,
Gas Separator, Indicator and Ticket Printer

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