

6. Milk Meter Calibration Function 1976.

Note:

The settings in each individual milk meter must be calibrated before being put into operation. The calibration must take place on each farm as each meter must be calibrated individually and on the site they are going to be in operation. The meter must also be recalibrated after any service work.

CAUTION: The vacuum must be on when calibrating the meter to get a proper calibration reading.



Figure 37 Cap on load cell housing.

1. Remove the cap from the load cell housing. Figure 37 Cap on load cell housing



Figure 38 Calibration weight.

2. Enter the calibration mode. To enter the calibration mode for each individual meter, press the



key, then type in



then press



again.

3. Edit the calibration setup values.



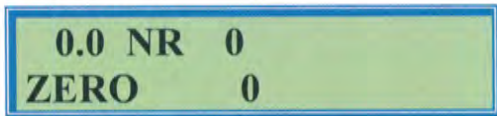
Press to move through the

calibration setup values, the only values that can be edited here are : *Comms En 1*, This is always 1 so that the meters will be able to talk to each other, i.e. using the comms wire.

This Address on each meter has to have a unique address so that the PC can communicate with it. (meter + 10).

i.e. meter 2 +10 = address 12
meter 3 +10 = address 13 etc...

4. Calibration parameter zero is then arrived at.



Ensure the meter is in a steady position.


Then press the  key and keep it pressed for 20 seconds, release the




This is the number of counts of the load cell that corresponds to zero weight.

5. Press Enter again, the display screen should now have *span* on display. Hang the known test weight from the calibration hook and make sure it is not moving, swinging or touching anything i.e. keep it steady.



Keep the  key pressed for 20 seconds. Release the Function key. The meter now knows the effect of 500g on the load cell.



6. Then press  again, *cal factr* should now be on display. Key in the appropriate *cal factr* value.

Note:

Zero, span and cal factr values are used by the meter to automatically calibrate itself and give an accurate reading when milk recording.



DAIRYMASTER WEIGHALL MILK METER

General

- The test procedure with water should be carried out with milk meters that are cleaned properly.

Test liquid

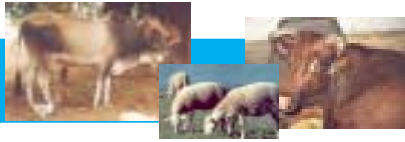
- Plain water, temperature not critical, no addition of salt or acids.

Reference values and principle of the test method

- The reference value is settled at the installation test with milk.
- Fill a bucket with approximately 14-15 kg test liquid (water).
- Weigh the bucket with test liquid.
- Absorb a quantity of water till ± 10 kg on the display.
- For sucking up the water, a suction tube is used with a suction opening of 5mm and an air inlet of 1 mm.
- Read the display value.
- Weigh the amount of residual water in the bucket.
- Calculate the amount of test liquid which passed the meter.
- Calculate the difference between the display value and the sucked quantity of test liquid.
- Repeat the measurement and calculate the difference between the display value and the sucked quantity of test liquid.
- The two values should be within 0.1 kg. If not, proceed to a third measurement.
- The reference values is the average of the calculated differences.
- The reference value for each meter is noted and will be used for the next routine tests, to compare with.

Routine test

- Fill a bucket with approximately 14-15 kg test liquid (water).
- Weigh the bucket with test liquid.
- Absorb a quantity of water till ± 10 kg on the display by using the suction tube.
- Read the display value.
- Weigh the amount of residual water in the bucket.
- Calculate the amount of test liquid which passed the meter.
- Calculate the difference between the display value and the sucked quantity of test liquid.
- If the difference is less than 0.1 kg from the reference value: the meter is correct.



Periodic checking of approved and provisionally approved meters

- If the first measuring value deviates more than 0.1 kg from the reference value, proceed to a second measurement.
- If the duplicate measurements have an average deviation of 0.2 kg or less from the reference value: the meter is correct.
- If the duplicate measurement have an average deviation of more than 0.2 kg: the meter is not correct. Meter should be repaired, recalibrated with milk followed by adjustment of the calibration factor.

Visual check

- During the routine check, the meters should also be checked on cleanliness, fixation of the meter, correct operation of valves, leakage and so on.
- Also check the sample flasks.

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