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Non Automatic Weighing Devices	Issued: 2008-01-01	Revision Number: 2	

STP-17 AGREEMENT OF REGISTRATION

REFERENCE

Sections 18 of the *Specifications Relating to Non-automatic Weighing Devices (1998)*.

PURPOSE

The purpose of this test is to establish the accuracy and reliability of communication among all means of indication and registration of a device. The means of indication and registration include primary and secondary indications, printers, computers and other recording means directly interfaced to the primary weight indicating element.

PROCEDURE

- Zero the device.
- Verify the agreement between indications and registrations at zero load (or the minimum load that can be printed).
- Apply a load to the load receiving element and print.
- Repeat the test with different loads (e.g. close to zero load, at mid capacity, close to capacity).
- Verify the agreement of all indications and registrations, including the printouts.

INTERPRETATION OF RESULTS

The device complies with the requirements when the quantities indicated and/or printed are in agreement within the following limits:

- Electronic digital values having the same actual scale interval **d** must be in exact agreement;
- Analogue values having the same interval must agree within 0.25 times the value of the interval;
- Mechanical digital values, electronic digital values having different intervals, and combined digital and analogue values must agree within 0.6 times the value of the largest interval.

Calculated and derived values must be accurate and be based upon the correct measured values.

The agreement of registration requirements are applicable when indications and registrations of weight values are in the same weighing mode (net, gross or tare). Indicated and registered net weights must therefore agree, within the above limits, as must indicated and registered gross weights and indicated and registered tare weights. However, this requirement is not intended to apply when a device indicates a gross weight and prints a net weight, as is the case with some POS systems.

POINT OF SALE (POS) SYSTEMS

POS systems used at retail grocery front end checkouts may have built in tare features. These systems are not designed with conventional weight displays when tare is in use. In order to ensure accurate measurement and allow tare to be taken, the indication of a gross weight and the printing of a net weight is acceptable on these POS systems.

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POS systems may use any compatible secondary display (customer pod), to meet customer visibility requirements, as long as the display contains no metrological functions. Remote pod functions such as Zero are not considered metrological if they simply access an external parameter available on the approved weighing element.

NOT FOR DIRECT SALE APPLICATIONS

The indication of a gross weight and the printing of a net weight is acceptable on systems used in "Not For Direct Sale" applications provided these systems are appropriately marked as per STP 3.7 *Markings*.

SCOREBOARDS AND SECONDARY DISPLAYS

Scoreboards and other secondary displays must meet all of the requirements of primary displays including Gross, Net, Tare, Zero, Units of Measure, etc.

Newer Scoreboards (often referred to as Smart Scoreboards) may be capable of providing other features to the user of the device, including axle weighing, stop/proceed indicators, etc. Agreement between these scoreboards and the primary indicating element is not required during loading of the load receiving element. Once the load (i.e. the vehicle) is fully supported upon the load receiving element, agreement between the scoreboard and the primary indicating element must be restored. In addition, a return to zero indication must be provided to ensure the vehicle operator is aware the device is on zero before initiating a weighing cycle.

WEIGHT CLASSIFIERS

The minimum interval of a recording device (i.e. a computer or printer) may be larger than the verification scale interval e of the weight classifier to which it is interfaced. In addition to the "agreement of registration" test described above, a test at the turning points of price ranges is performed to ensure that in all circumstances packages are classified accurately.

Example - Weight classifier 10 kg x 5 g

The interval of the printing device is 10 g
Price ranges: 0 - 30 g (inclusive) = \$1.00
Greater than 30 g = \$2.00

- Apply a load so that the weight indication is 25 g.
- Print the weight and price. The ticket may print 20 or 30 g, and must print \$1.00
- Apply a load so that the weight indication is 30 g.
- Print the weight and price. The printed weight must be 30 g, and the price must be \$1.00.

A weight of 40 g and a price of \$2.00 (second price range) may not be printed before the weight classifier indicates 35 g.

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REVISION

Rev 2.

- remove 'verification scale' from agreement sections as auxiliary equipment does not have verification scale intervals.
- added Smart Scoreboard section.
- added and clarified POS agreement and use of secondary indicators (PODs).
- moved Not for Direct Sale applications to its own separate section (previously contained in POS systems).
- minor changes to terminology in Weight Classifier section.
- correct references to *Specifications Relating to Non-automatic Weighing Devices (1998)*.

Rev 1.

- elimination of the 10 x 1*d* load registration agreement test.