National Measurement Office

UK/0126/0111

MI-006

EC type-examination certificate UK/0126/0111

Issued by:
The National Measurement Office
Notified Body Number 0126

In accordance with the requirements of the Measuring Instruments (Automatic Catchweighers) Regulations 2006 (SI 2006/1257) and the Measuring Instruments (Non-Prescribed Instruments) Regulations 2006 (SI 2006/1270) which implement, in the United Kingdom, Council Directive 2004/22/EC, this EC type-examination certificate has been issued to:

DEM Machines Ltd.
IDA Business Park
Blessington Road
Ness
Co. Kildare
Ireland

in respect of an automatic catchweighing instrument designated the WWPL and having the following characteristics:

Maximum number of scale intervals	n	≤	10,000
Minimum capacity	Min	≥	20 e
Accuracy class	Y(a)		

The necessary data (principal characteristics, alterations, securing, functioning etc) for identification purposes and conditions (when applicable) are set out in the descriptive annex to this certificate.

Issue Date: 17 August 2011
Valid Until: 16 August 2021
Reference No: T1108/0055

Signatory: P R Dixon
for Chief Executive

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UKAS PRODUCT CERTIFICATION 0135

BIS Department for Business Innovation & Skills

Descriptive Annex

1 INTRODUCTION

This pattern of an automatic catch-weighing instrument, designated the “WWPL”, operates as an automatic weight or weight/price labeller (Category Y).

It comprises three conveyors (in-feed, weigh and out-feed), a weight indicator, touch screen PC and a label printer, all mounted on a supporting frame. The instrument is designed to weigh packs statically. Pack and labelling information is stored in data files, selectable for the commodity and/or labels being processed. Labels are printed with the required transaction data and are applied to the packs manually.

2 FUNCTIONAL DESCRIPTION

2.1 Mechanical

2.1.1 The instrument (Figure 1) comprises a supporting framework on which are mounted the motorised conveyor modules (in-feed, weigh and out-feed), control and display module and printer. In addition there are package position sensor(s), optional scanner(s) and emergency stop button.

2.1.2 The weighing module, which includes the load cell, is connected to an Applied Weighing CSW-20 weight indicator located within the main instrument housing, which is connected to the PC providing the display and operational functionality for the operator. The indicator can be accessed, for verification purposes, via the door on the right hand side of the main housing. A label printer is mounted above the out-feed conveyor. Photocells and an optional scanner are used to detect the pack and control the operation of the system.

2.1.3 Load cell

Any compatible load cell(s) may be used providing the following conditions are met:

- There is a respective OIML Certificate of Conformity (R60) or a Test Certificate (EN45501) issued for the load cell by a Notified Body responsible for type examination under Directive 2009/23/EC.

- The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules (WELMEC 2, Issue 5, 2009, section 11), and any particular installation requirements. A load cell marked NH is allowed only if humidity testing to EN45501 has been conducted on this load cell.

- The compatibility of load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in the above WELMEC 2 document.

- The load transmission conforms to one of the examples detailed in WELMEC 2.4 Guide for Load Cells.

2.2 Electrical

2.2.1 The electrical hardware is located within the indicator, label printers, PC and control panel. The control panel contains the motor controls and associated power supplies.

2.2.2 The control of the instrument is provided by the PC, via I/O modules. The preset tare associated with the product is entered via the touch screen display and stored within the PC database. The PC requests weight data from the indicator to include in the data processed and provided to the label printer.

2.2.3 The CSW-20 weight indicator contains all of the electronics associated with the weighing process. The PC runs the DEM Machines Ltd “JetPack” application software. The PC provides the main operator display and interface for selecting various set up and operational modes and status signals, and is used to select the product being weighed.

2.4 Software

The weighing software is contained within the CSW-20 indicator and the identification number is PO6_xxx. The identification number is displayed at power-up along with the traceable access number (TAN).

The functional & control software, “JetPack”, is contained within the PC and the version number is V1.8.11. The software version number is displayed at power up (Figure 2) and shown permanently in the bottom right hand corner of all “JetPack” display screens.

All legally relevant parameters within the “JetPack” application are contained in the “legal information” software menu, a non-editable counter increments every time the parameters are changed. The counter’s value is displayed on the “indicator settings” menu icon (Figure 3).

2.5 Printer

2.5.1 The printer is a Datamax 4208. Alternatively, any printer as described in section 4.2 may be used.

2.6 Devices

The instrument is provided with the following devices:

- Semi-automatic zero-setting device (not operable during automatic operation)
- Zero-tracking device
- Zero indicator
- Preset tare device (not operable during automatic operation)
- Net indicator
- Real time clock
- Device to determine when stability criteria are fulfilled

The instrument shall not be used in a multi-interval or multi-range configuration.

2.7 Operation

2.7.1 Packs are delivered to the weighing conveyor by the in-feed conveyor. The user can select the type of product via the touch screen, or alternatively, the optional barcode scanner reads the code and the system automatically selects the associated PLU data. Provided there are no products on the weigh conveyor, the product is moved forward to be

weighed. There are additional operational functions available within the “JetPack” software to manage and control product through the process. Once the weigh conveyor/”JetPack” software has determined a stable weight value the necessary data is transmitted to the printer and the product is transported to the out-feed conveyor where it is stopped and the label applied manually.

2.7.2 If an error is detected by the barcode scanner, or if the pack is outside predefined weight limits, an error signal is generated and the instrument stops. The pack must then be removed from the system and the error acknowledged.

3 TECHNICAL DATA

3.1 The WWPL has the following technical characteristics:

Power supply	220-240 Vac 50/60 Hz
Maximum number of scale intervals	10,000
Load cell excitation voltage	5 Vdc
Minimum load cell impedance	43 Ω
Minimum input voltage per verification scale interval	1 µV
Fraction of maximum permissible error	P_i = 0.5
Climatic environment	0 °C to 40 °C Non-condensing (closed)
Electromagnetic environment	E2
Accuracy class	Y(a)
Load cell cable	6 core with braided outer screen Maximum length = 150 m/mm^2

3.2 Documentation and drawings

Document / Drawing No.	Description
WWPL (v 3.2)	WWPL Operator and service manual
WWPL Dimensions.jpg	Dimensions (2215Lx1029Wx1675H)
WWPL Wiring.pdf	Electrical schematics
30-M-1166	13-E-1131 Key Component Locations
30-M-1167	13-E-1131 ADC Components
30-M-1168	13-E-1155 Key Component Locations
30-M-1169	13-E-1155 ADC Components
30-M-1225	13-E-789 Key Component Locations
30-M-1217	5001/LUCI-CSW Block Diagram
30-M-1218	5002/LUCI-CSW Block Diagram
30-M-1163	LUCI-CSW Assembly
30-M-1164	LUCI-CSW(5002) Assembly
30-M-1220	LUCI-CPI Assembly

4 PERIPHERAL DEVICES AND INTERFACES

4.1 Interfaces

The instrument may have the following interfaces:

- Load cell 6-wire connection
- 3 x RS232
- Analogue output
- Control I/O

4.2 Peripheral devices

The instrument may be connected to any peripheral device that has been issued with a test certificate or parts certificate by a Notified Body responsible for Annex B (MI-006) under Directive 2004/22/EC in any Member State and bears the CE marking of conformity to the relevant directives; or

A peripheral device without a test certificate may be connected under the following conditions:

- it bears the CE marking for conformity to the EMC Directive;
- it is not capable of transmitting any data or instruction into the weighing instrument, other than to release a printout, checking for correct data transmission or validation;
- it prints weighing results and other data as received from the weighing instrument without any modification or further processing; and
- it complies with the applicable requirements of Paragraph 8.1 of Annex I.

5 APPROVAL CONDITIONS

The certificate is issued subject to the following conditions:

5.1 Legends and inscriptions

5.1.1 The instrument bears the following legends:

'CE' marking
Supplementary metrology marking
Notified body identification number
Accuracy class
Serial number
Manufacturers mark or name
Certificate number
Power supply
Temperature range
Maximum speed and pack rate

5.2 The value of the counter described in section 2.4 must be written on a tamper-evident label located on or near the rating plate.

5.3 If the instrument is not permanently installed it shall be provided with a level indicator.

5.4 The printed labels shall comprise all three primary indications (weight, unit-price, price-to-pay) with associated units of measurement. Printing below minimum capacity shall be prevented. Additional information may be printed on the labels provided the primary indications remain clearly and unambiguously readable.

5.5 It shall be checked at initial verification that the stability of equilibrium parameter is chosen so that the instrument meets the accuracy requirements at all speeds. In this case the speed control device does not need securing.

6 LOCATION OF SEALS AND VERIFICATION MARKS

6.1 The "CE" marking, supplementary metrology marking and certificate number are located on the mounting plate bracket which is fixed to the main structure of the conveyor stand. The CE mark shall be impossible to remove without damaging it. The data plate (Figure 3) shall be impossible to remove without it being destroyed.

The markings and inscriptions shall fulfil the requirements of Paragraph 9 of Annex I of the Directive 2004/22/EC.

6.2 Components that may not be dismantled or adjusted by the user (load cell) must be secured by either a wire and seal or a tamper evident label and securing mark. The securing mark may be either:

- a mark of the manufacturer and/or manufacturer's representative, or
- an official mark of a verification officer.

7 ALTERNATIVES

There are currently no alternatives.

8 ILLUSTRATIONS

Figure 1 WWPL instrument
Figure 2 "JetPack" Software Identification
Figure 3 Legally relevant counter

9 CERTIFICATE HISTORY

ISSUE NO.	DATE	DESCRIPTION
UK/0126/0111	17 August 2011	Type examination certificate first issued.

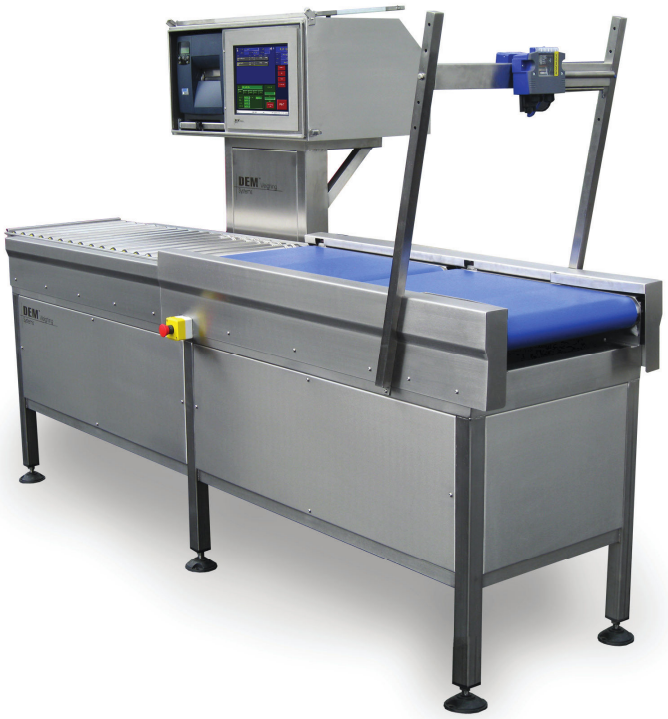

Figure 1 WWPL instrument

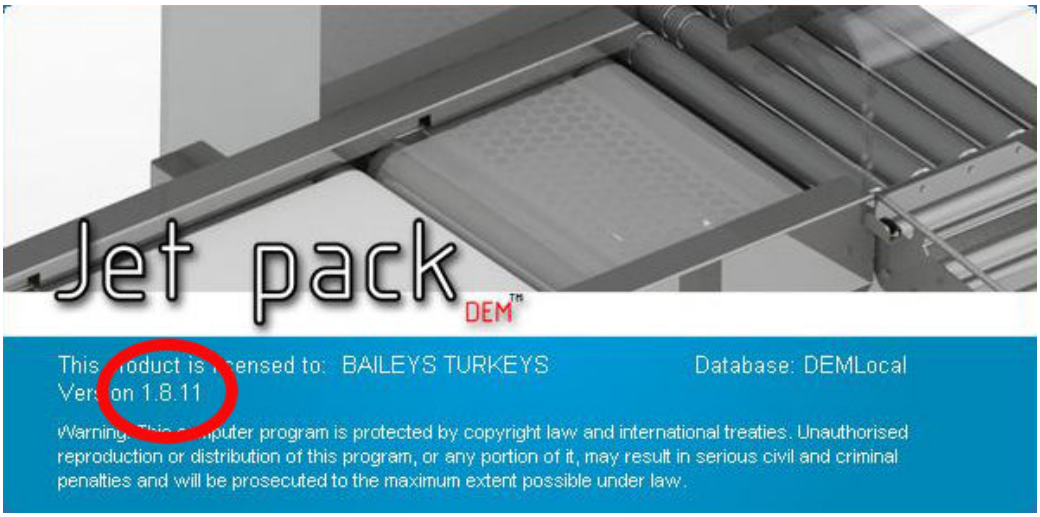

Figure 2 'JetPack' Software Identification

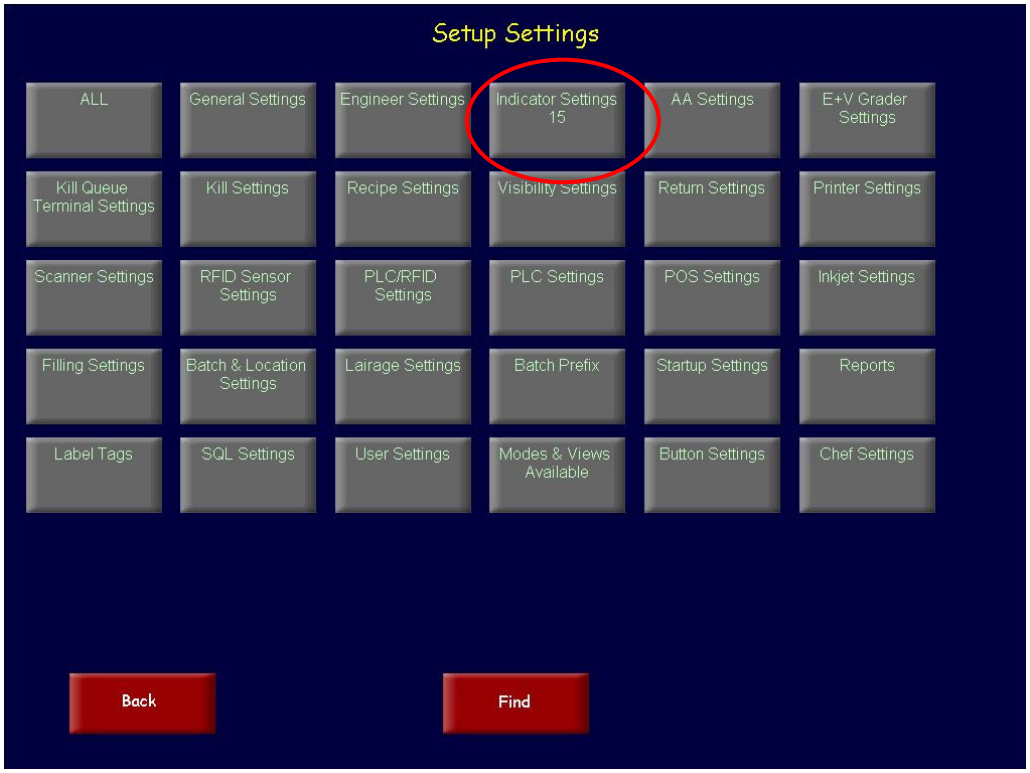

Figure 3 Legally relevant counter