DANAK
PROD Reg. nr 7026

FORCE Certification

# EU Type Examination Certificate

## No. 0200-NAWI-06083 Revision 3

## TPWaa-X / ELWaa-X

### NON-AUTOMATIC WEIGHING INSTRUMENT

**Issued by** **FORCE Certification**
EU - Notified Body No. 0200

In accordance with the requirements in Directive 2014/31/EU of the European Parliament and Council.

**Issued to** **Dini Argeo S.r.l.**
Via della Fisica 20
41042 Spezzano di Fiorano
Modena
Italy

**In respect of** Non-automatic weighing instrument designated TPWaa-X / ELWAA-X with variants of modules of load receptors, load cells and peripheral equipment.
Accuracy class: III and IIII
Maximum capacity, Max: From 600 kg up to 5000 kg
Verification scale interval: $e_i = \geq 0.2$ kg
Maximum number of verification scale intervals: $n \leq 3000$ for single-interval, $n_i \leq 2 \times 3000$ for multi-range or multi-interval (however, dependent on environment and the composition of the modules).
Variants of modules and conditions for the composition of the modules are set out in the annex.

The conformity with the essential requirements in annex 1 of the Directive is met by the application of the European Standard EN 45501:2015 and OIML R76:2006.

**Note: This certificate is a revised edition which replaces previous revisions.**

The principal characteristics and conditions for certification are set out in the descriptive annex to this certificate.

The annex comprises 9 pages.

**Issued on** **2020-07-28**
**Valid until** **2029-04-30**

Jens Hovgård Jensen
2020-07-28
Digitally signed by Jens Hovgård Jensen
jhje@force.dk
Certification Manager

FORCE Certification references:
Task no.: 120-26856.90.55 and ID no.: 0200-NAWI-08851

**Signatory: Jens Hovgård Jensen**

# Descriptive annex

## Contents

# 1. Name and type of instrument and modules

The weighing instrument is designated the TPWaa-X or ELWAA-X Pallet Truck Scale System. It is a pallet truck scale consisting of four load cells in the fork shaped load receptor. The instrument may be fitted with a built-printer (optional). The instrument is a Class III or IIII, self-indicating weighing instrument with single-interval, multi-range or multi-interval, an external AC mains adapter, and an internal rechargeable battery. ). Full list of options available in Evaluation Certificate 0200-WL-5741.

The name of the instrument may be followed by alphanumeric characters for technical, legal or commercial characterization of the instrument.

The indicators consist of analogue to digital conversion circuitry, microprocessor control circuitry, power supply, keyboard, non-volatile memory for storage of calibration and setup data, and a weight display contained within a single enclosure.

# 2. Description of the construction and function

## 2.1 Construction

### 2.1.1 Indicator

The indicators used in the TPWaa-X and ELWAA-X pallet truck scales are fully described in Evaluation Certificate 0200-WL-5741.

### 2.1.2 Load Receptor for TPWaa-X Pallet Truck

The TPWaa-X Pallet Truck Scale System consists of a load receptor which is modified to be mounted below the forks and is equipped with four load cells of one of the types described in 2.1.4 below. The column supports the indicator where the load cells are connected.
There are two version of the load receptor: one with standard column and one with short column.

TPWaa-X “E-FORCE” is a variant of TPWaa-X Pallet Truck having electric traction triller.

### 2.1.3 Load Receptor for ELWAA-X Electric Pallet Trucks

The ELWAA-X Pallet Truck Scale System is an electric pallet truck consisting of a load receptor which is modified to be mounted below the forks and is equipped with four load cells of one of the types described in 2.1.4 below. The column supports the indicator where the load cells are connected.

### 2.1.4 Load cell(s)

The fork lift trucks approved under this certificate may only use the following approved load cells.

| Manufacturer | Model | Test Certificate | Issued by |
|---|---|---|---|
| Dini Argeo srl | SBX-1K | TC7451 | NMi |
| Dini Argeo srl | SBX | TC7451 | NMi |
| Dini Argeo srl | SBK-1K | TC7451 | NMi |
| Dini Argeo srl | SBK | TC7451 | NMi |
| Dini Argeo srl | SBZ-SBU | TC7644 | NMi |
| Dini Argeo srl | SBT | TC11226 | NMi |
| Cibe srl | SBK-1K | TC6481 | NMi |
| Cibe srl | SBK | TC6481 | NMi |
| Cibe srl | SBX | UCM 08/001-A | Ministero dello sviluppo Economico |

### 2.2 Level indicator

Either a level indicator in the form of a level bubble is placed on the frame of the pallet truck. The levelling device is accurate up to 2 % inclination longitudinal (forward or back) tilt and up to 2 % transverse (left or right) tilt. When these angles are exceeded, the pallet truck should not be used for weighing.

Or a level indicator in the form of a digital inclinometer is put in a junction box and connected to the indicator. This compensate for up to 5 % inclination longitudinal (forward and backwards) tilt and up to 5 % transverse (left and right) tilt. When these angles are exceeded, the display will show an error code with the word "TILT" on the display, and weighing will not be possible

## 3. Technical data

### 3.1 Indicator

The technical data and the software for the indicators are provided in Evaluation Certificate 0200-WL-05741.

### 3.2 Documents

The documents filed at FORCE Technology (reference No.119-24845) are valid for the weighing instruments described here.

## 4. Interfaces and peripheral equipment

### 4.1 Interfaces

The interfaces for the digital indicators are provided in Evaluation Certificate 0200-WL-05741.

### 4.2 Peripheral equipment

The following peripheral devices may be connected to the interfaces provided,

- Peripheral devices that have been issued with a test certificate by a Notified Body responsible for type approval under Directive 2014/31/EU; or
- Peripheral devices without a test certificate 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;
    - it complies with the applicable requirements of EN45501, i.e. 4.2, 4.4, 4.6 and 4.7.

A printing device may print additional information such as date or number to identify the printed weighing result(s) or sets of weighing results.

## 5. Conditions for certification

### 5.1 Measurement functions other than non-automatic functions

Measurement functions that will enable the use of the instrument as an automatic weighing instrument are not covered by this type examination.

### 5.2 Limitation on forks

The forks used in the TPWaa-X and ELWAA-X Pallet Truck Scale System are limited to the following dimensions:

- Maximum length of 1800 mm
- Maximum width of 680 mm

### 5.3 Compatibility of modules

Composition of modules, EN 45501:2015, Annex F shall be satisfied.

## 6. Special conditions for verification

### 6.1 Composition of modules

The environmental conditions should be taken into consideration by the composition of modules for a complete weighing instrument, for example instruments with load receptors placed outdoors and having no special protection against the weather.

## 7. Securing and location of seals and verification marks

### 7.1 Securing and sealing

Seals shall bear the verification mark of a notified body or alternative mark of the manufacturer according to ANNEX II, section 2 or 4 of the Directive 2014/31/EU.

The indicator based non-automatic weighing instrument shall be secured, if securing is used, and sealed according to the instructions in Evaluation Certificate 0200-WL-05741.

The inscription plate shall be sealed, unless it is of a form that is destroyed when removed.

The peripheral interfaces are “protective”; it neither allows manipulation with weighing data or legal setup, nor change of the performance of the weighing instrument in any way that would alter the legality of the weighing.

# 8. Location of CE mark of conformity and inscriptions

## 8.1 Indicator

### 8.1.1 CE mark

CE mark and supplementary metrological marking shall be applied to the indicator according to article 16 of Directive 2014/31/EU

### 8.1.2 Inscriptions

The instrument shall bear the following inscriptions on or near the display:

- $Max_i$, $Min_i$, $e_i$ =

On the inscription plate:

- Manufacturer's name and/or logo
- Postal address of manufacturer
- Model no.
- Serial no.,
- Maximum subtractive tare (if applicable)
- Type examination certificate no.
- Accuracy class
- Supply voltage.

## 9. Pictures

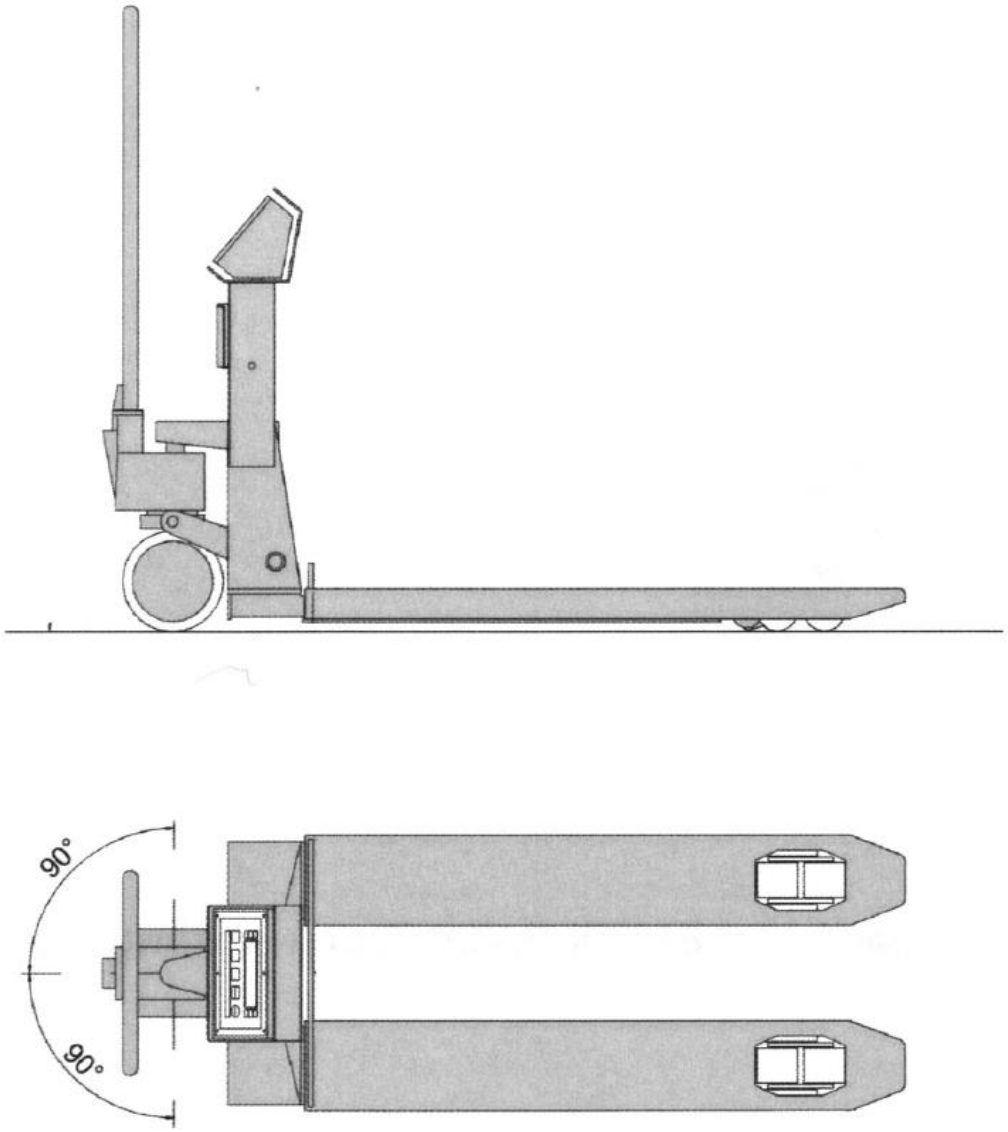


**Figure 1** TPWaa-X Pallet truck Scale – standard column.

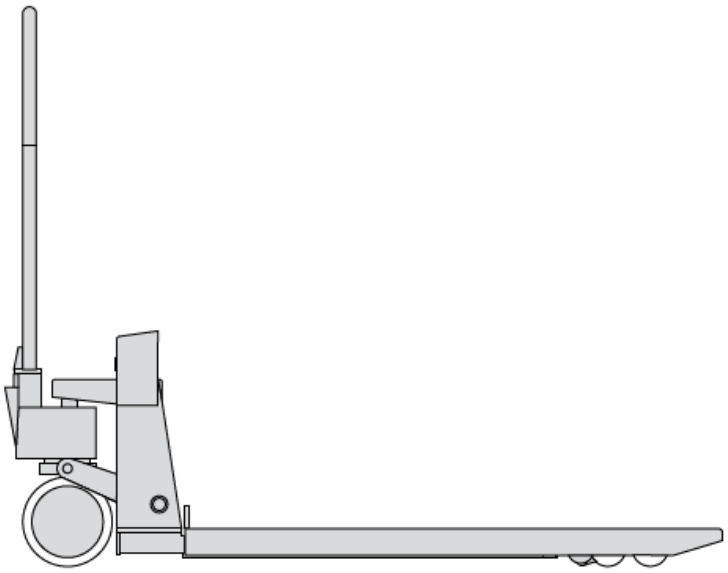

**Figure 2** TPWaa-X Pallet truck Scale – short column.

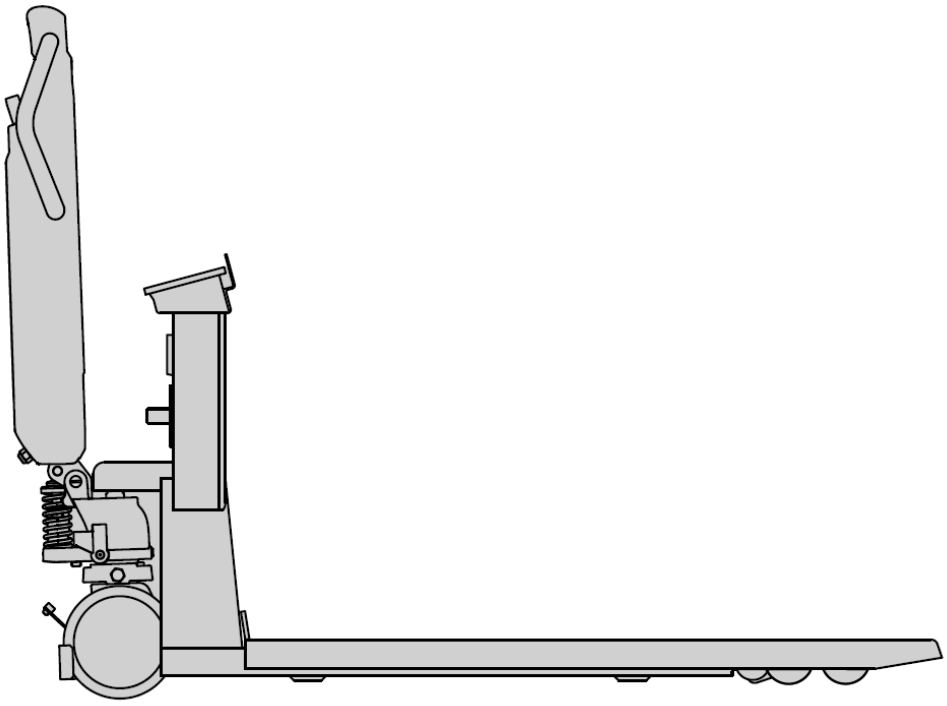

**Figure 3** TPWaa-X "E-FORCE" Pallet truck Scale – standard column.

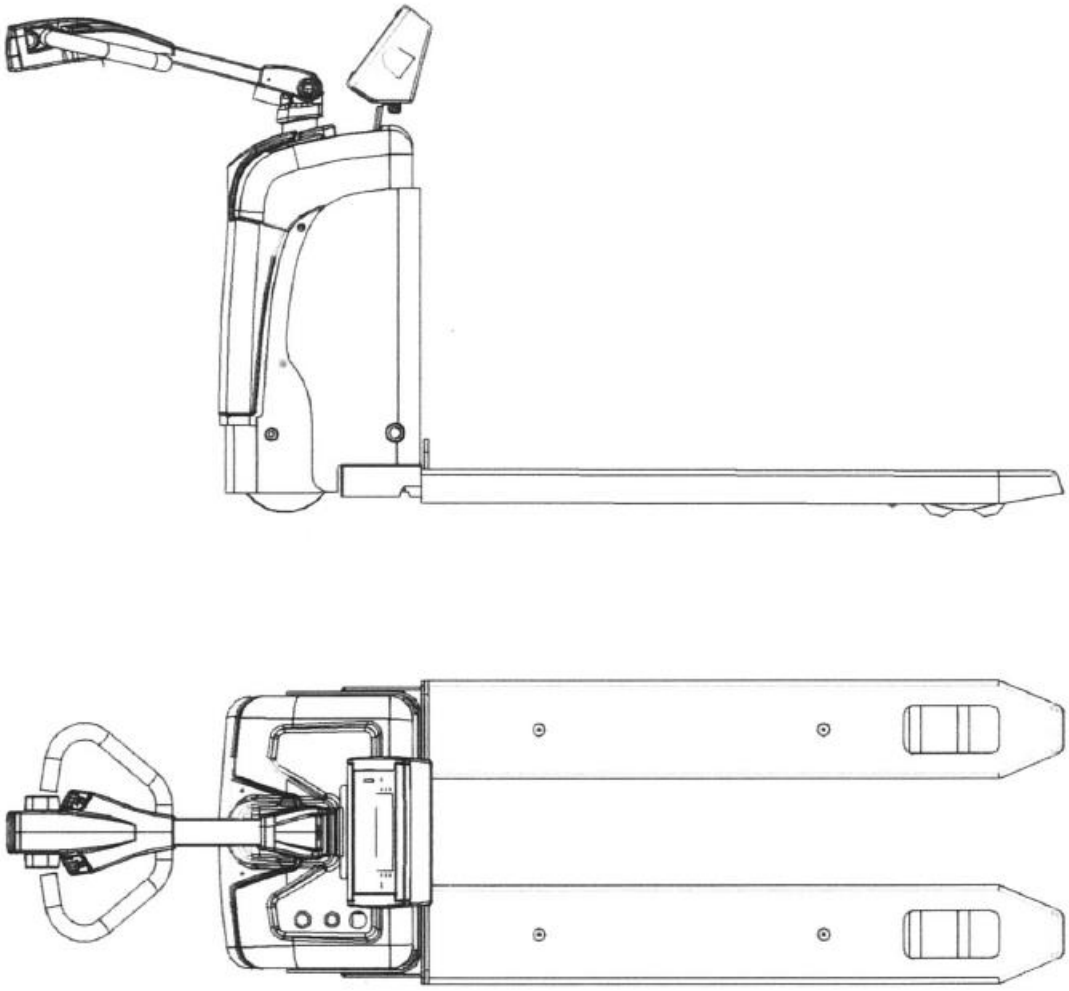

**Figure 4** ELWAA-X Pallet Truck Scale.

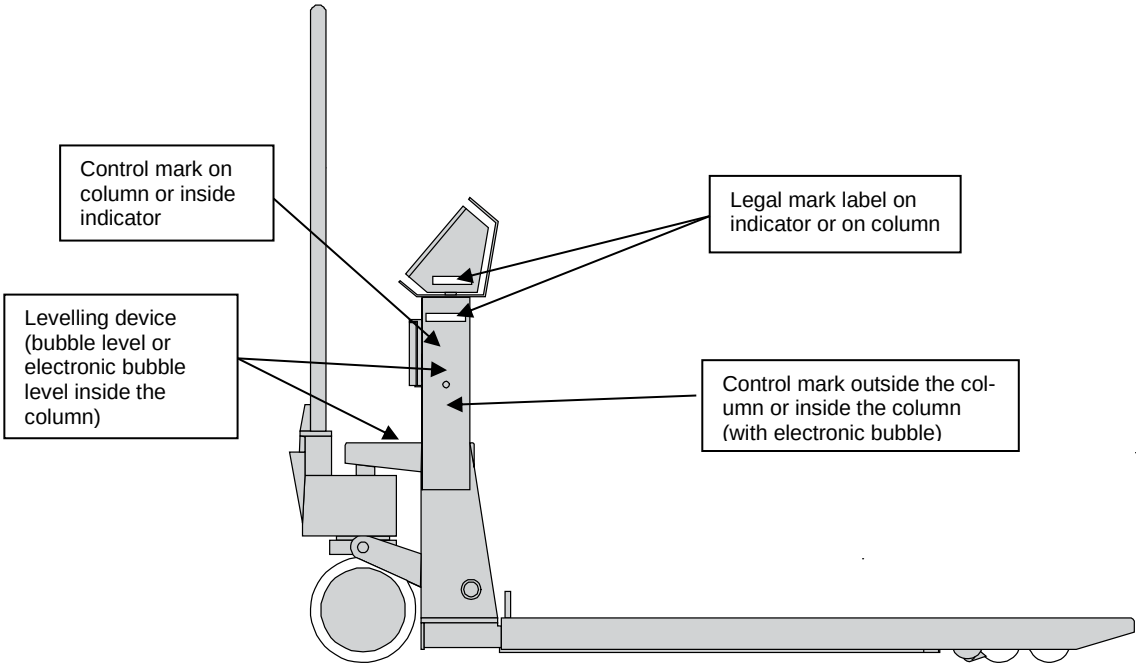


**Figure 5** Sealing and levelling of TPWaa-X and ELWAA-X Pallet Truck Scales.

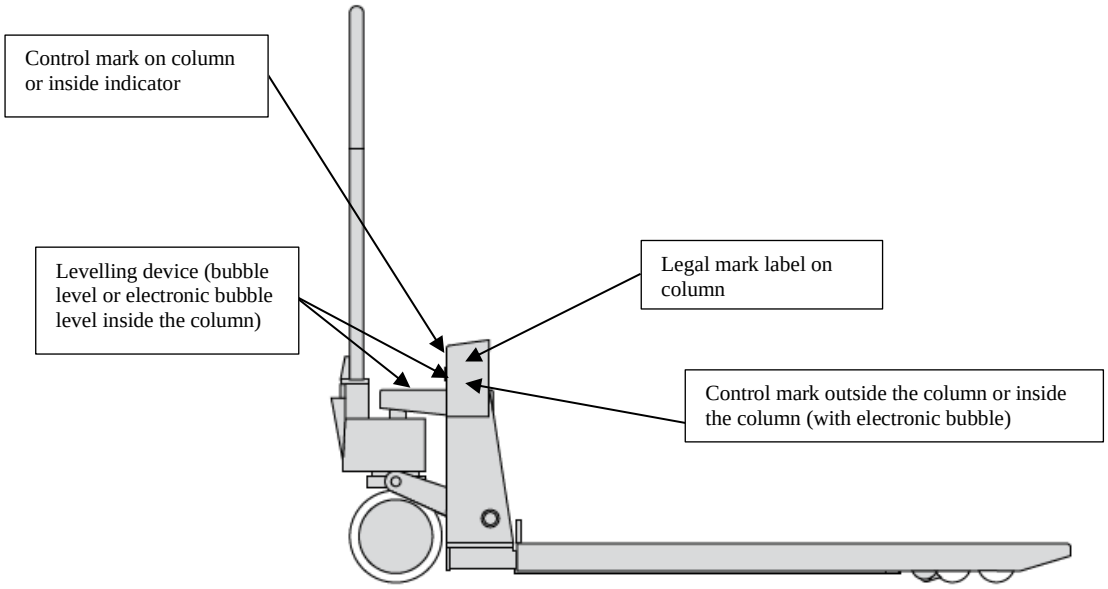


**Figure 6** Sealing and levelling of TPWaa-X (short column)