



Forklift Mod. PTE_LW

Manual for Use and Maintenance

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General:

- This manual aims at letting the operator know with texts, photos and figures, the basic prescriptions and criteria for the installation, the proper safe use of this weighing instrument and its methodical maintenance.
- Always keep this manual handy!
Always follow the instructions.
- The operator is directly in charge of the safe operation of the installation, so he must have received detailed training.
- The user must make sure that the installation complies with the rules in force.
- The device must be installed only by specialized personnel after reading and understanding this manual.
- **“Specialized personnel”** means trained and experienced personnel expressly authorized by the person in charge of the instrument safety to install, use and maintain it.
- For no reason, the user is authorized to tamper with the installation.
- Refer to the closest Service Centre in case of anomaly.
- Any attempt of disassembling, modification by the user or non-authorized personnel voids the warranty and the manufacturer is no more responsible for possible damages or injuries.
- The following information and pictures are updated at the date of issuing.
- SOCIETA' COOPERATIVA BILANCIAI keeps optimizing their products, which leads to possible modifications to some component of the installation.
- All technical information in this manual belong exclusively to SOCIETA' COOPERATIVA BILANCIAI and must be considered confidential.
- Therefore, its reproduction and disclosure, even if partial, is forbidden without the manufacturer's written authorization.
- In this manual cannot be used for any scope other than installation, use and maintenance.

- Some pictures can show the weighing system without safety protections. Do not use the installation in such conditions, just take away the safety protection for the required reparations and maintenance and then restore the safety protections.

Symbols: Here are the symbols in this manual to call the reader's attention on the different danger levels during the use and maintenance of the instrument



Information or procedure which, if not carefully carried out, cause death or serious injury



Information or procedure which, if not carefully carried out, could cause death or serious injury



Information or procedure which, if not carefully carried out, could cause light injury to people or damages to the instrument



Information or procedure giving the operator advice on how to use the instrument properly to stretch its life, avoid damages or loss of programming, optimize its operation complying with the metric rules



Important procedure or information

Purposes of this Device:

- This machine has been designed to lift and weigh items on pallet or in crates which weight does not exceed the capacity written on the identification plate.
- To lift loads which center of gravity is within the two centre lines of the forks.
- Unpackaged items can only be weighed if they are steadily and safely placed.
- Any other different use is “NOT ALLOWED”.

Forbidden Operations:

- The main purpose of this instrument is weighing goods.
- It is forbidden to operate this machine without the needed precautions for its safe use.
- It is forbidden to use these machines in places with potentially explosive atmosphere or where there is fire danger.
- It is forbidden to use the machines on sloping or not perfectly smooth surfaces.
- It is forbidden to use this machine to lift and weigh which shape and dimensions do not assure stability.
- It is forbidden to drag or pull not perfectly lifted goods.
- It is forbidden to carry people on the forks.
- It is forbidden to weigh the load on just one fork.
- It is forbidden to lift and weigh:
 - toxic substances
 - radioactive substances
 - flammable or explosive substances.
 - unpackaged food.
 - biologically or microbiologically contaminant substances.

Other uses are allowed only if expressly authorized by SOCIETA' COOPERATIVA BILANCIAI.



Carefully follow this manual to operate this device.

In case you detect something in the device not matching with this manual, ask your dealer for clarifications or get in touch with the SOCIETA' COOPERATIVA BILANCIAI customer service.

General Information

1.1 DECLARATION OF CONFORMITY

We **SOCIETÀ COOPERATIVA BILANCIAI A.R.L.**
Via S. Ferrari, 16
41011 Campogalliano - MODENA

declare upon our sole responsibility that the product

PTE-LW and its options

described in this declaration, complies with the relevant harmonised standards of the European Union:

2014/30/UE (EMC): EN61000-6-3:2007
EN61000-6-4:2007
2014/35/UE (LVD) : EN60950-1:2006
2014/31/UE (NAWI):EN45501:1992

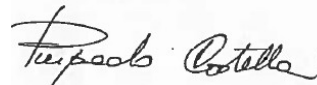
The product is also suitable for the creation of non-automatic weighing instruments approved with the "UE Type Approval Certificate" in conformance with the requirements of Directive 2014/31/EU (NAWI). .

The product bears CE marking.

Campogalliano, 2/05/2016

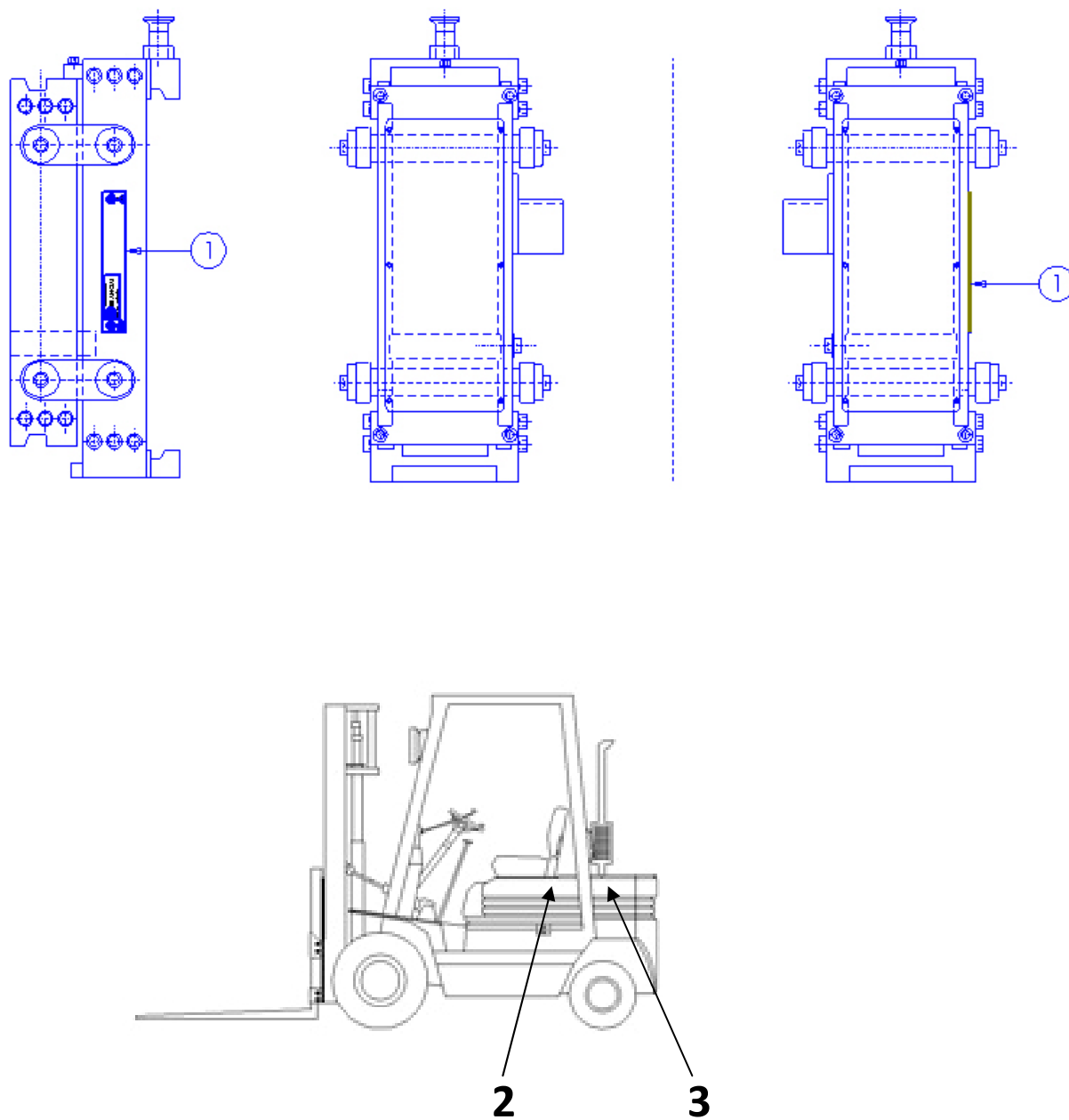
*Signed for and on behalf of
the manufacturer*

BILANCIAI GROUP
Direttore Operations
Ing. Pierpaolo Castellani



1.2

Identification Data and Capacity Plates



Key

1. Identification plate see fig. 1.2.1 page 13
2. Identification plate see fig. 1.2.2 page 14

3. Identification plate of the mechanical unit see fig.1.2.3 page 15

1.2.1 Identification Plate

In the identification plate you will find the Serial-number and the max capacity.

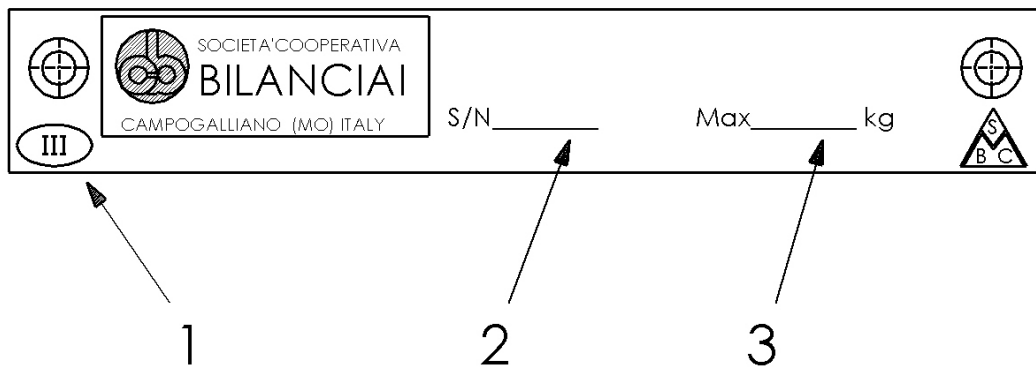


Figure 1.2.1 Identification Plate

Key

1. Accuracy Class
2. S/N serial-number
3. Maximum capacity or full scale

1.2.2 Capacity Plate

SOCIETA' COOPERATIVA BILANCI AI

CARRELLO ELEVATORE
EQUIPAGGIATO CON BILANCIA
ELETTRONICA COSTRUITA DALLA
SOC. COOP. BILANCI AI
CAMPOGALLIANO (MODENA)
mod. PTE matr. n.

CARATTERISTICHE

PESO M = kg
SPESSORE S = mm
BARICENTRO CG = mm

PORTATA RESIDUA CARRELLO

ALTEZZA DI SOLLEVAMENTO (m)	PORTATA RESIDUA (kg)
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

DISTANZA DAL BARICENTRO DEL CARICO (mm)

cb0046.hpg

Figure 1.2.2 Capacity Plate

(See Key on page 12)

Installing a PTE_LW on a forklift modifies the machine, so the capacities written by the forklift manufacturer must be properly reduced. (see paragraph 3.9 on page 38)

The capacity plate (above) applied by the installer of the scale (close to the one by the forklift manufacturer) enlists the actual capacities of the forklift with the PTE_LW weighing system on board.

1.2.3 Identification Plate of the Mechanical Unit

 SOCIETA' COOPERATIVA BILANCI AI CAMPOGALLIANO (MO) ITALY		
DISPOSITIVO DI PESATURA ELETTRONICO		Modello
S/N		Massa kg Baricentro mm
Portata Nom. kg	Spess. mm	Press. di es. bar
AVVERTENZE: Rispettare la portata del complesso carrello/attrezzatura		

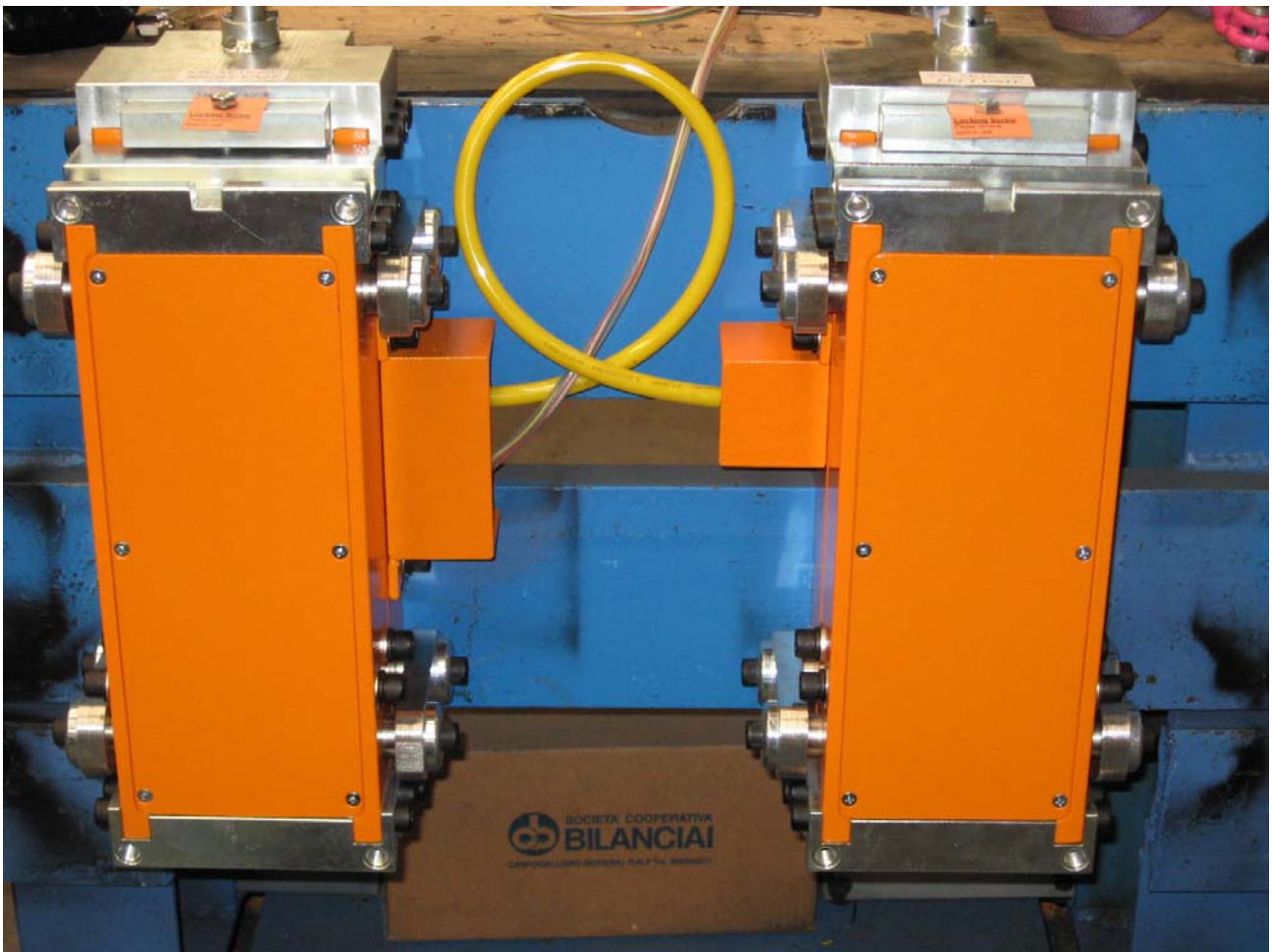
Figure 1.2.3 Identification Plate of the Mechanical Weighing Unit

(See Key on page 12)



For no reason the data on the plates can be modified or removed.

In case of tampering or removal the warranty is void and the manufacturing company is no more in charge of any possible material and economic damage that may be caused.



1.3

Description

PTE_LW is an electronic weighing system.

The weight is displayed on an electronic instrument on board and connected to an autonomous power supply.

The weight is detected by two load cells.

1.4

Contacting the Technical Customer Service.

When specialized technicians are needed because of operating anomalies or failures, please directly contact the manufacturer or the closest Service Centre by fax.

1.4.1 Spare Parts

All spare part orders shall be directly addressed to the manufacturer or the closest Service Centre by fax.

1.5

Warranty

The warranty terms are specified in the sale contract.

Safety Prescriptions

2.1

Disclaimer

This machine has been manufactured taking into account the accident prevention regulations in force, so the constructor is not liable for:

- Improper use of the machine
- Use of the machine by untrained and unauthorized personnel
- Poor maintenance
- Unauthorized modifications or interventions
- Total or partial failure to comply with the instructions
- Non-genuine or non proper spare parts for the model
- Extreme environmental events which are not specified in the conditions of use

2.2

Safety Prescriptions for the Mechanical Part

Before transporting, operating, maintaining the machine, read carefully the information in this manual; in case of doubts, contact the closest Service Centre or directly the manufacturer.

- The employer or the person in charge of safety shall provide the operators with individual protections such as gloves, masks, suitable shoes complying with the laws and rules concerning safety and hygiene in the workplace.
- This machine shall be operated by personnel deemed suitable for working reliably and with the physical features and skills and attitude needed to carry the work out.

- Use the weighing machine for goods on pallets; in case the goods are not on pallets or are not in containers or crates, make sure about their stability and, if needed, secure them properly.
- The pallet length shall not exceed the forks.
- Never overload the lifting and weighing unit; the maximum allowed loads are in the plates of the reduced capacities (see fig. 1.2.2 on page 14).
- Respect the viability signs in the company.
- Keep the safety distance from the bench edges.
- Do not use faulty forklift and PTE_LW weighing system together.
- Be extremely careful while lifting the load.
- In case forks or lifting columns are tilting (rotating), before weighing, place the forks perfectly horizontal and the lifting columns perfectly vertical.
- Do not lift or weigh the load on just one fork but distribute it uniformly on both forks.
- Do not leave the machine unattended when the load is lifted.
- Do not park the machine along the transit lanes, safety and emergency exits, and keep clear fire extinguishers.
- While lowering the forks, be extremely careful about things or people transiting or standing close to the forklift.

3

Test, Delivery and Installation

3.1

Test

All products from Coop Bilanciai are checked and tested in every component.

During such test they undergo a repetitive series of complete working cycles.

In that phase, possible failures due to defective components are pointed out.

This procedure guarantees a working and reliable product as far as all its components are concerned.

3.2

Delivery of the Weighing System



Carefully respect the instructions on the packaging of the instrument.

Both the transport and the storage must be carried out with particular care.

All the goods Coop. Bilanciai delivers have been checked before leaving the company.

The instruments are delivered in a special packaging and properly protected.



CAUTION!!

When receiving the weighing system, make sure there are no damages occurred during transport. If there are, complain to the carrier.

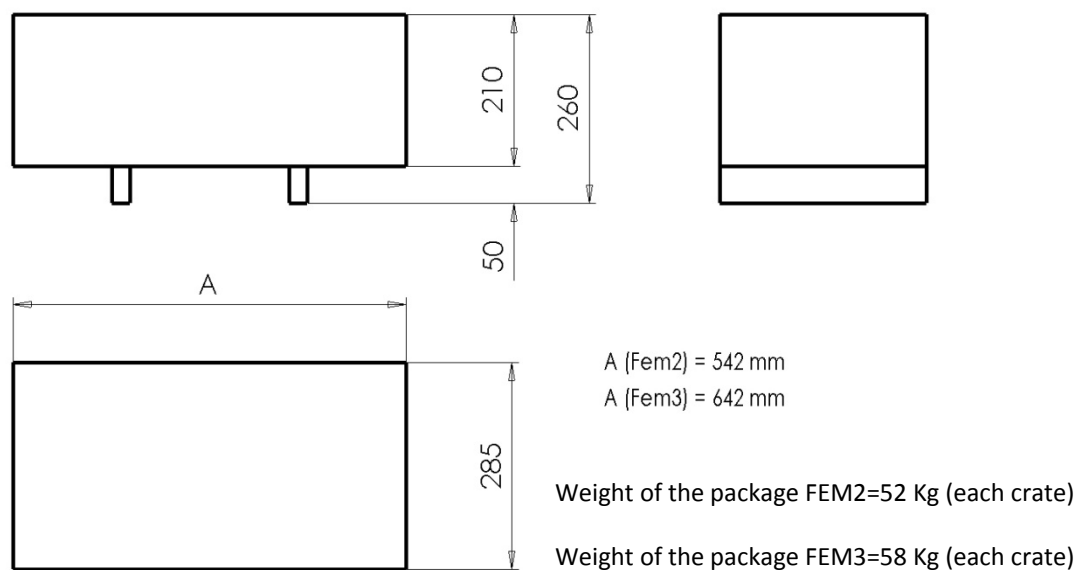
3.3

Dimensions and Weight of the Packaging

The kind of packaging is defined just before the delivery depending on the selected mean of transport.

This electronic instrument and/or its accessories are packed in special carton boxes.

A PTE_LW usually comes in n.2 metal crates with the following dimensions.



EACH SCALE INCLUDES N.2 PACKAGES

3.4

Handling

PTE_LW



PTE_LW devices need to be handled with extreme care, especially when not in the package.

3.5

In the Package

The PTE_LW weighing system is made up of:

- n.1 mechanical weighing instrument (made up of n.2 metal packages).
- n.1 electronic weighing instrument
- n.1 bag (containing a set of accessories and a manual for “use and maintenance”).

3.5.1 Environmental Conditions

The environmental conditions are basic for this weighing system.

- Room Temperature:
 - Minimum -10 °C
 - Maximum +40 °C
- Humidity 85% U.R. not condensed

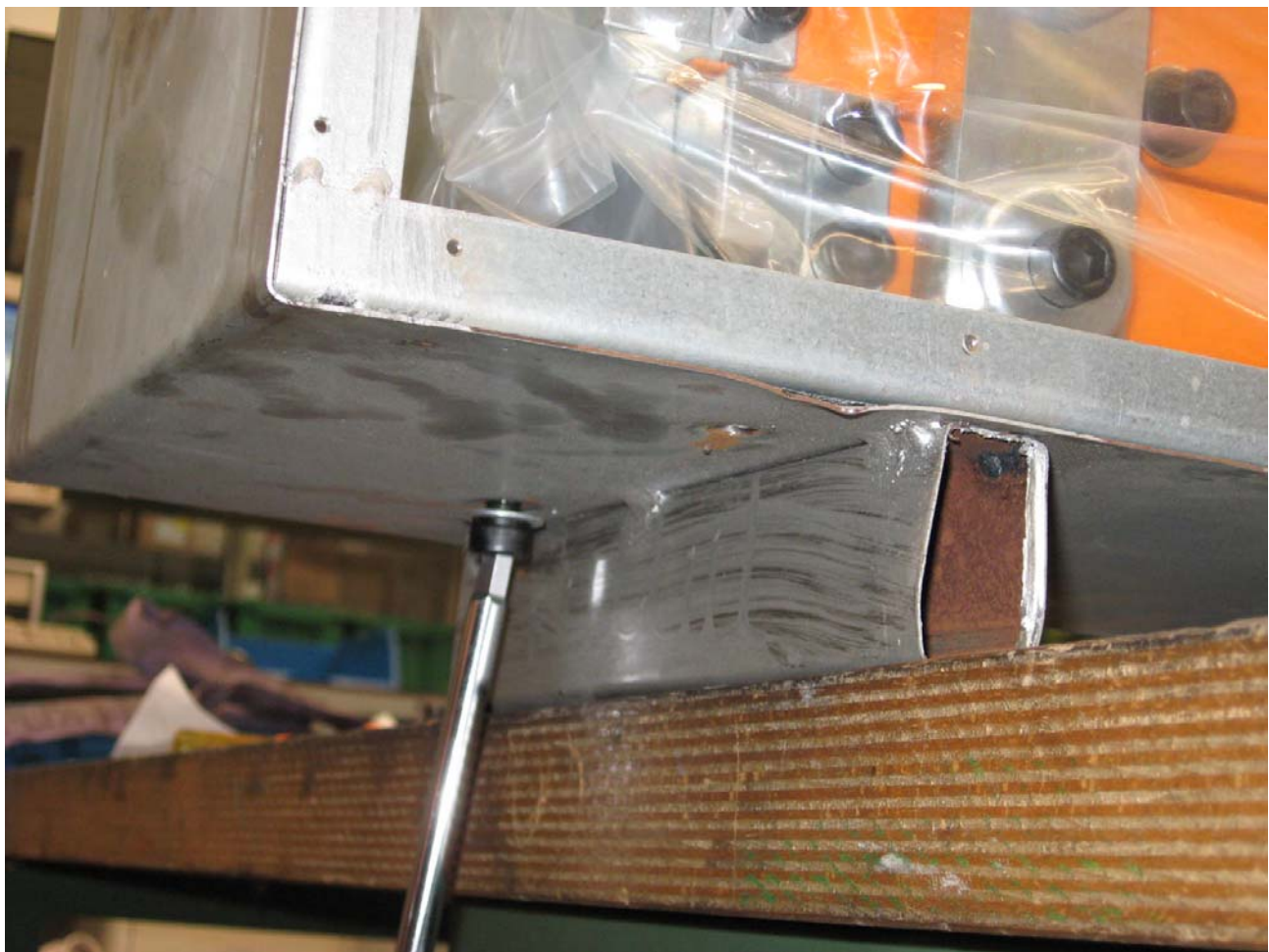
3.6

Installation

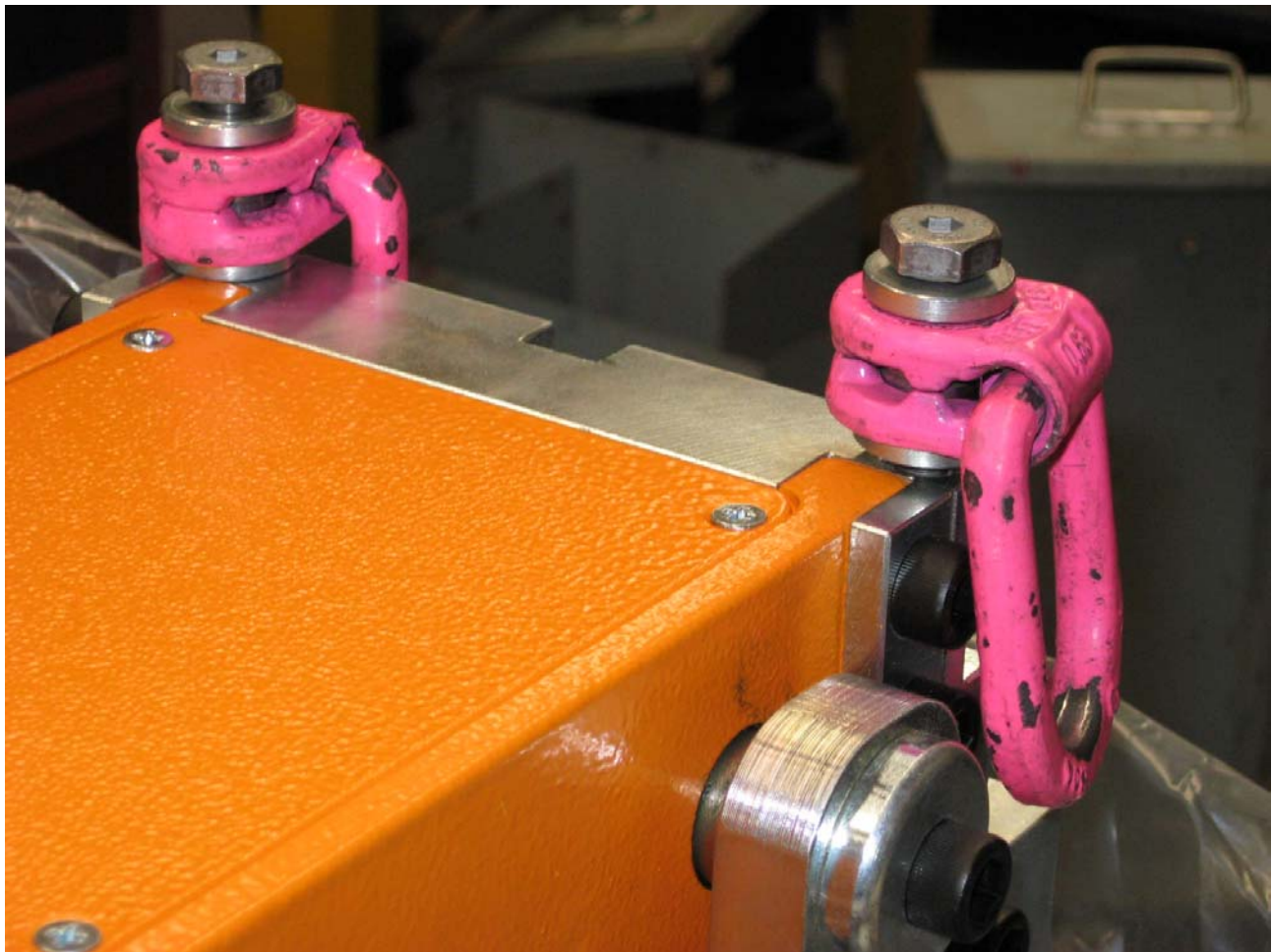


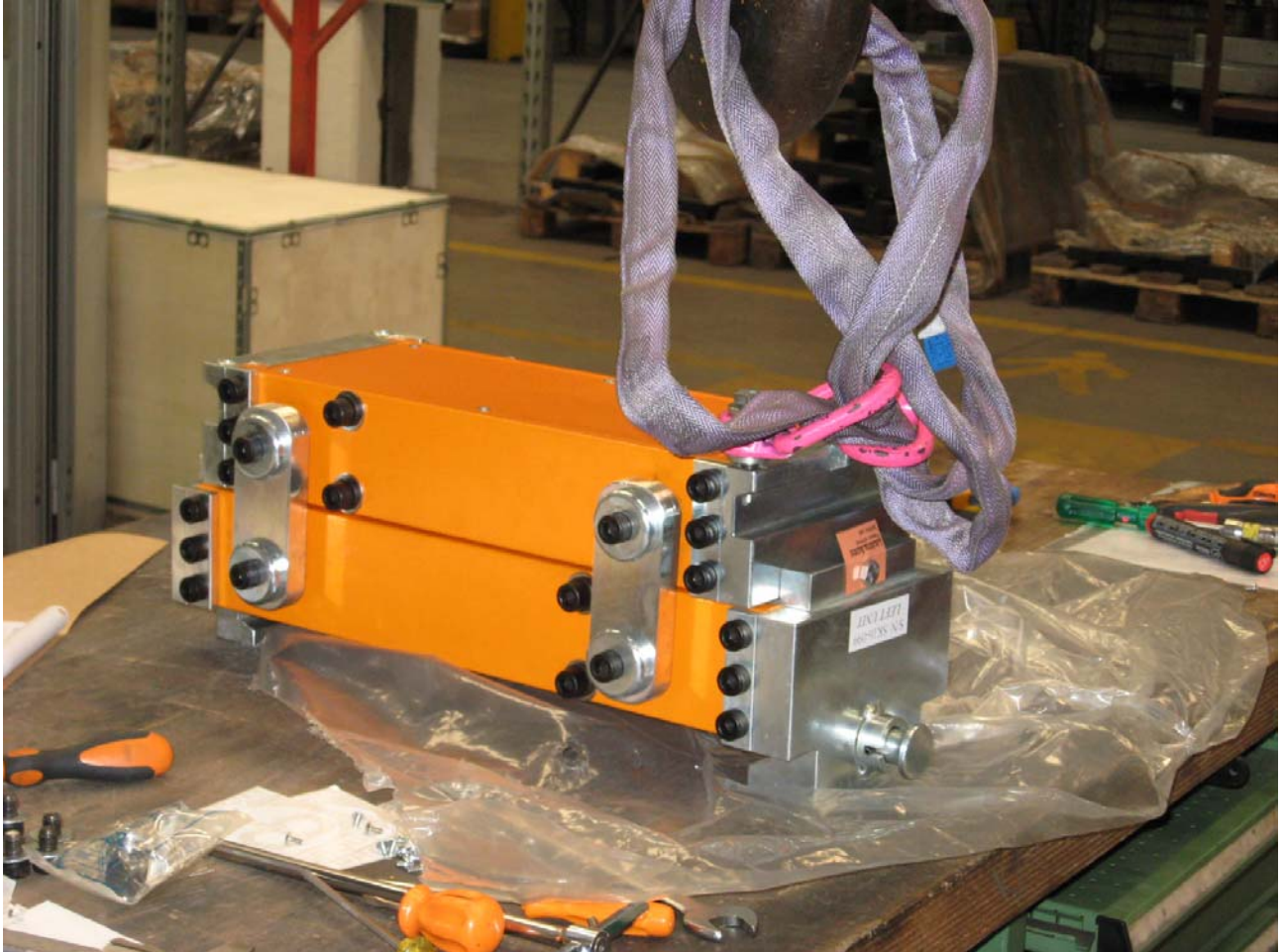
The installation shall be carried out by specialized and properly trained personnel.

- Remove the securing screws in the protection of the package.
- Remove the upper part
- Remove the clamping screws from the lower part of the package.



- To lift the PTE_LW from the package, use suitable eyebolts with adjustable bracket (NOT in the package)
The eyebolts must be fixed in the 2 holes (M10) on the PTM_LW plate

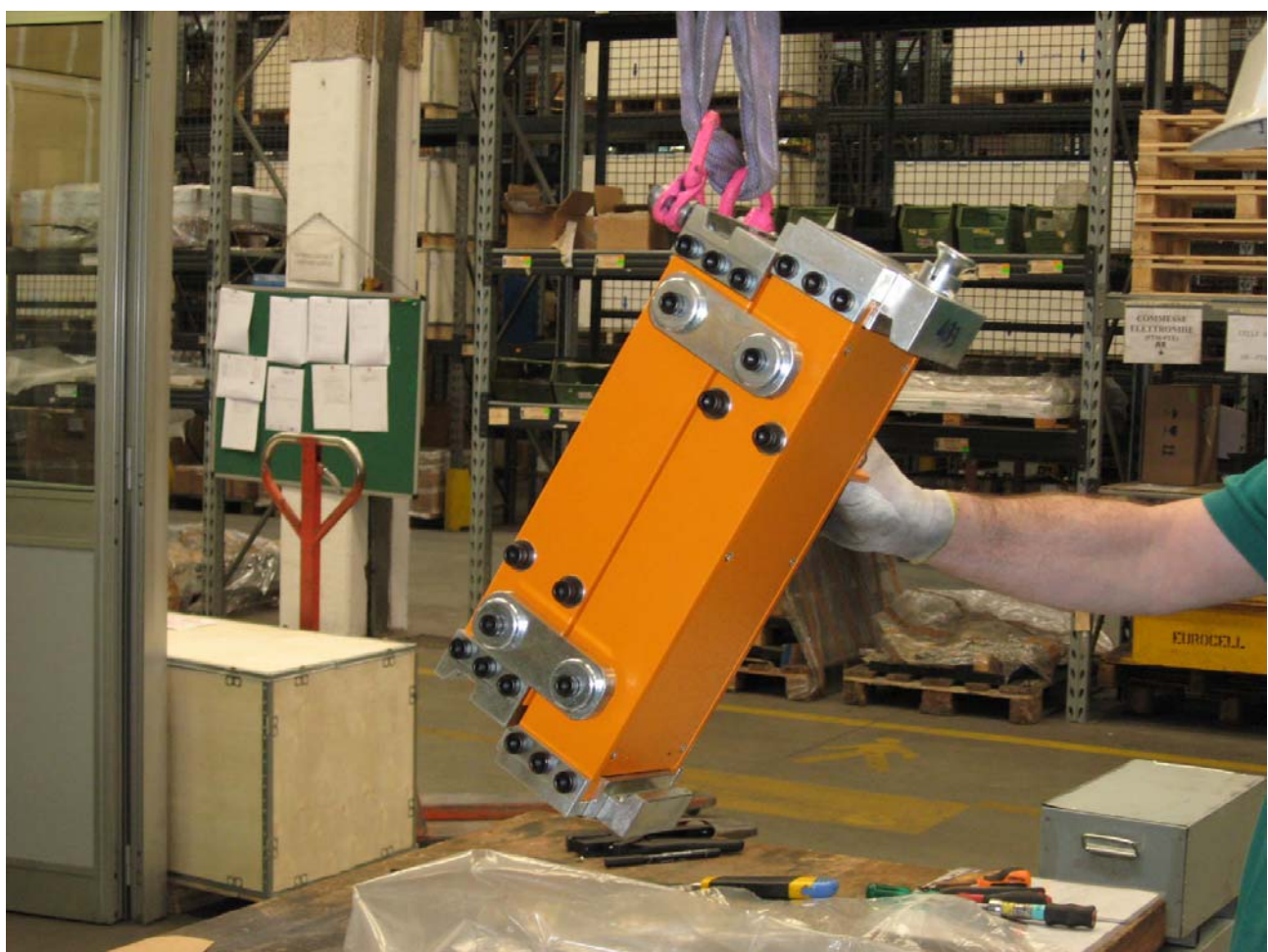


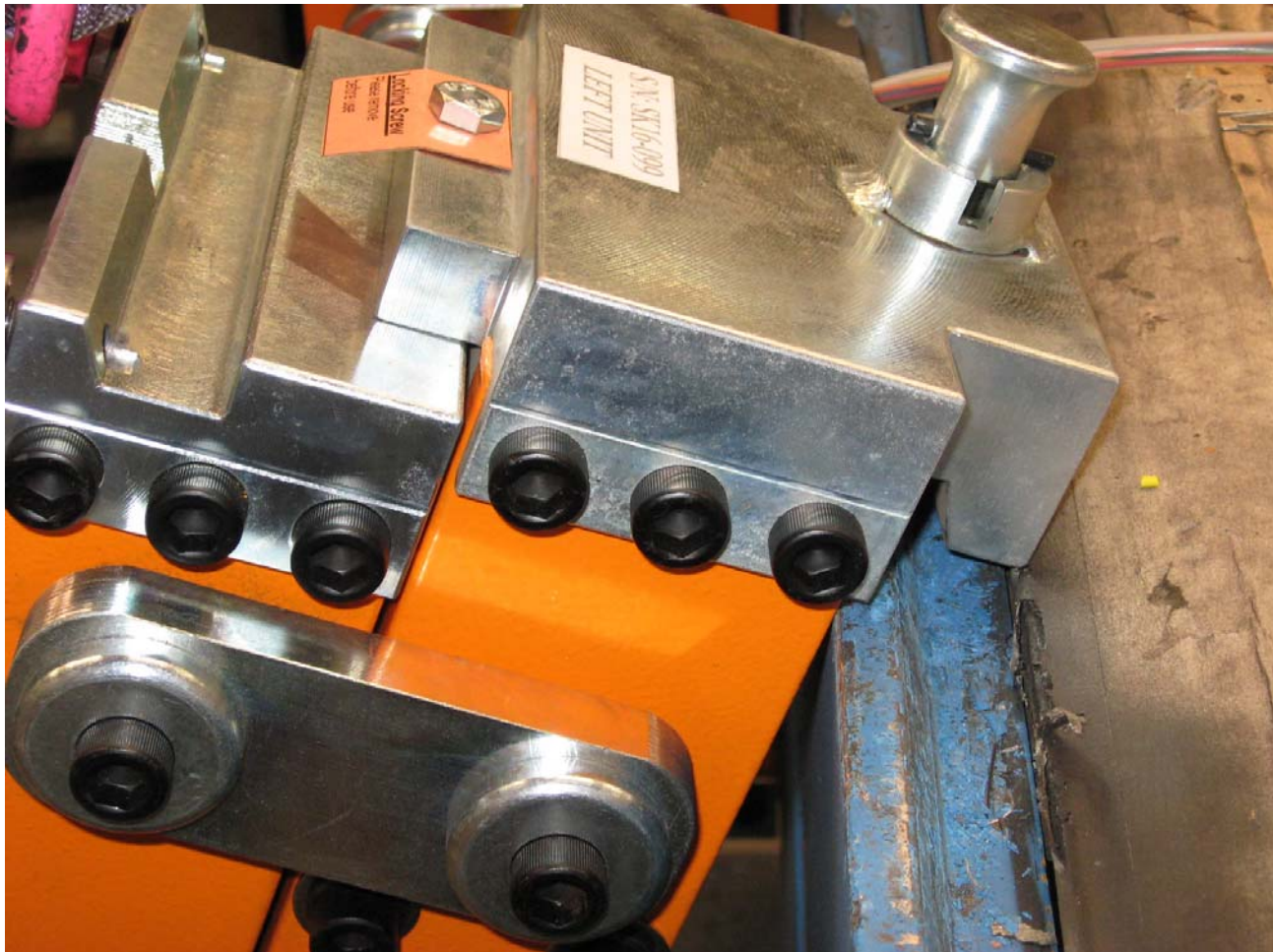


- Remove the forks from the forklift front
- Clean carefully the front part and the coupling rail of the scale.
- Place the pillar of the forklift perfectly vertical and lift the front of the forklift enough to allow the coupling of the PTE_LW with the upper brackets.



- Lift very carefully the scale, place it on the forklift rails.





- During such operations, use all means and precautions to avoid injury to the installer.
Be particularly careful so that the PTM_LW is perfectly coupled with the forklift rails, thanks to the upper brackets, preventing the PTM_LW to fall off.

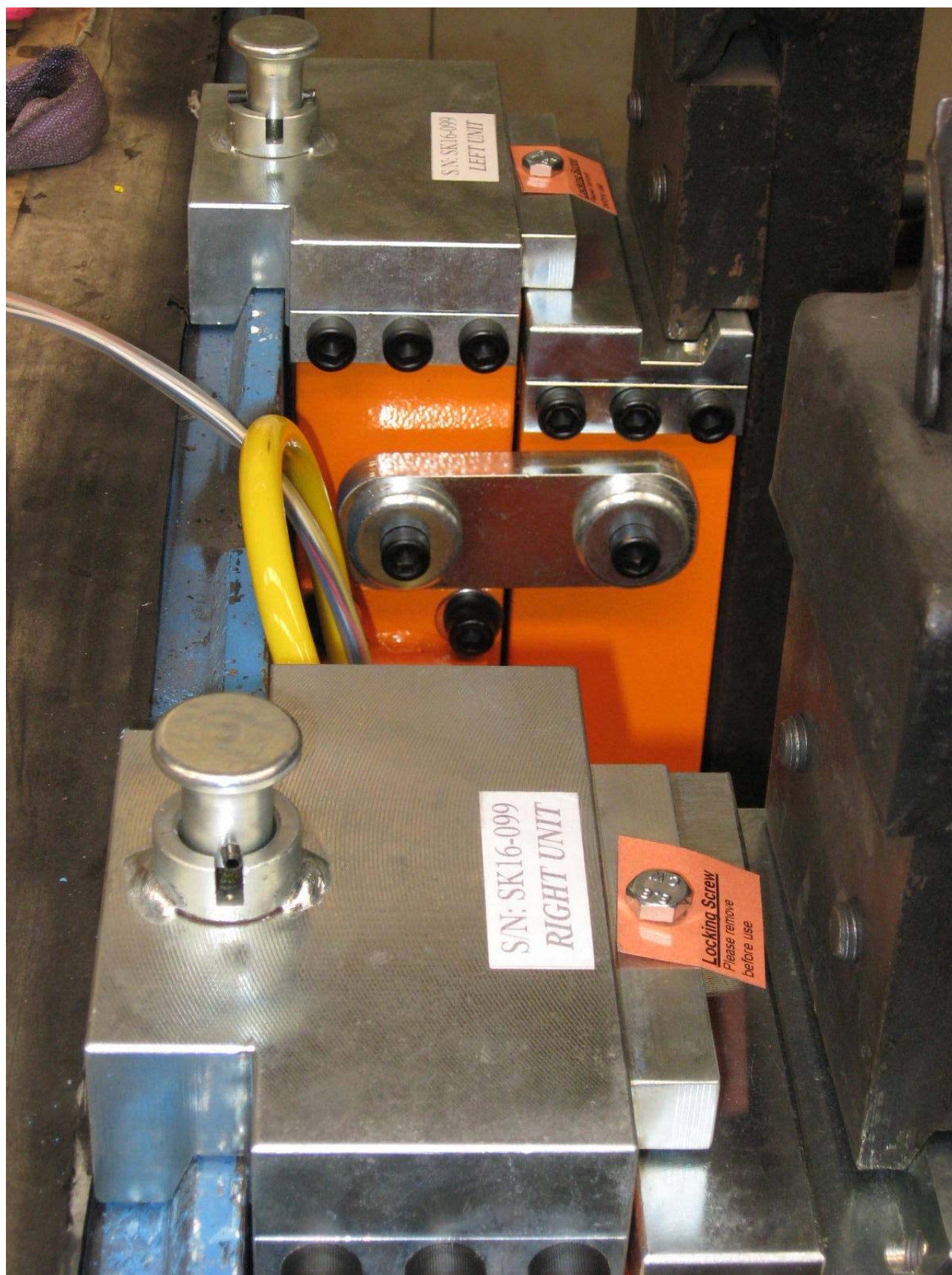


The lifting eyebolts of the scale must be removed to prevent the operators to use them for towing or any other purpose.



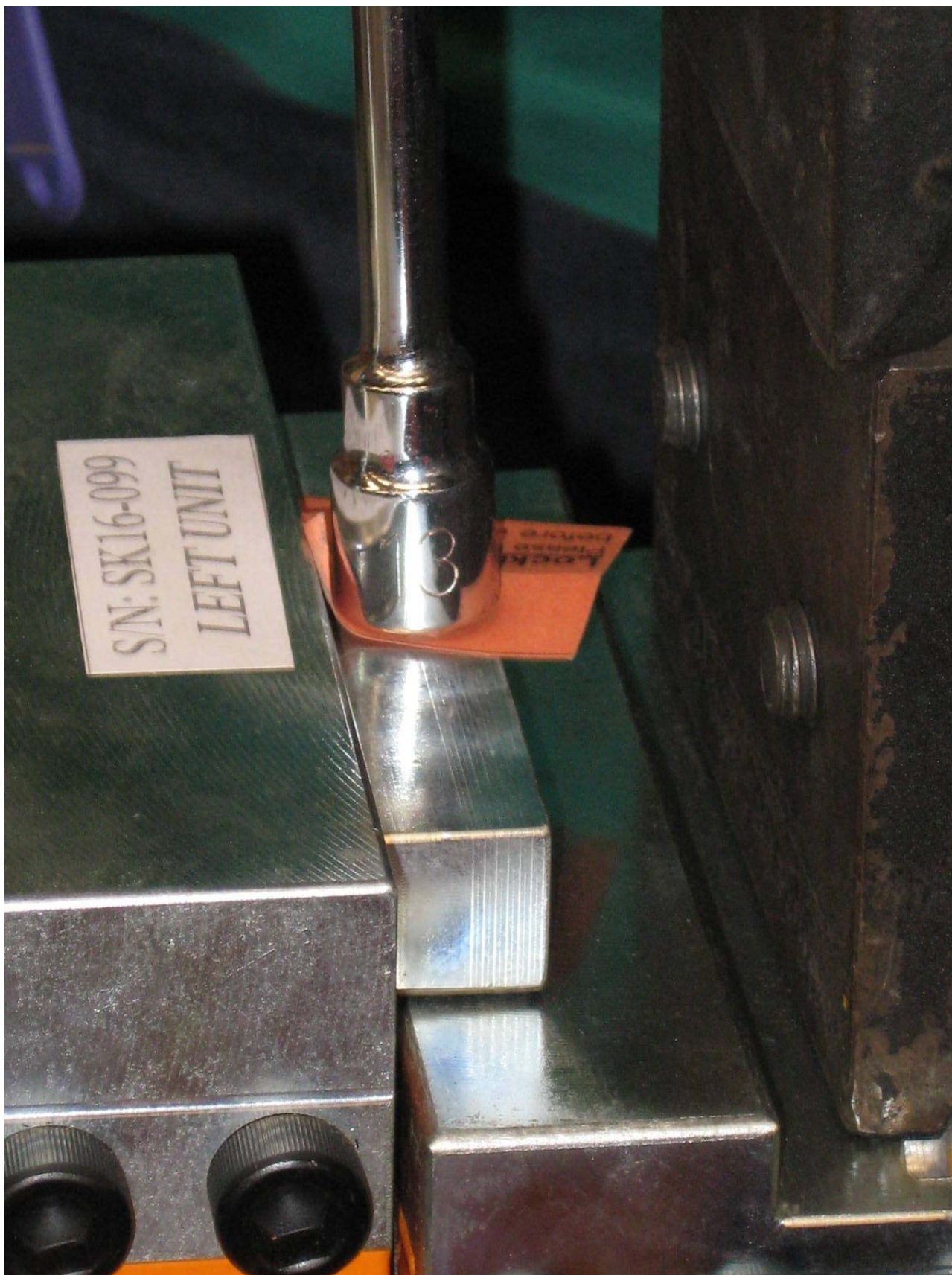
3.7 Installing Forks on PTE_LW Plates





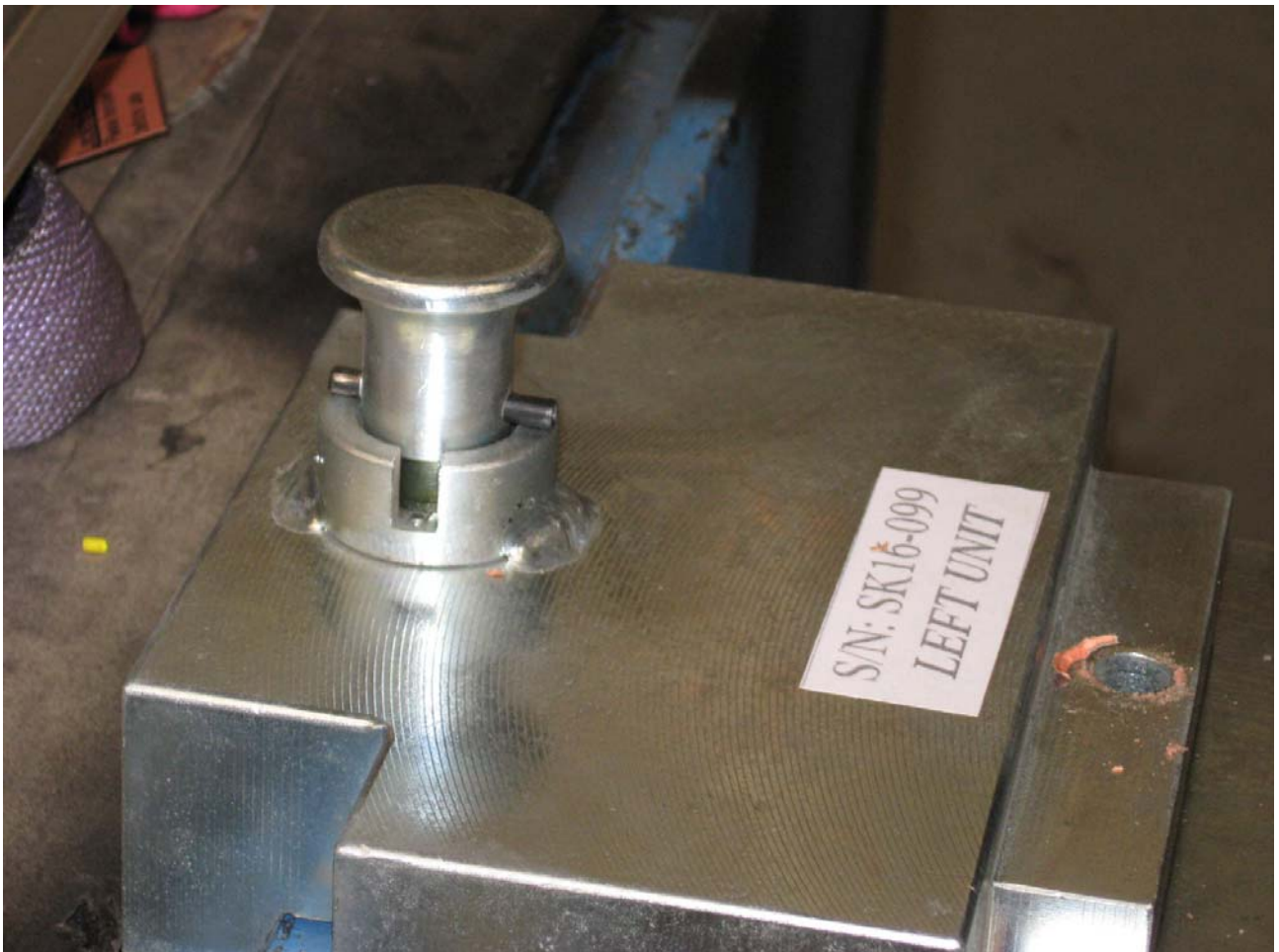
- Remove the Locking/Safety Screws

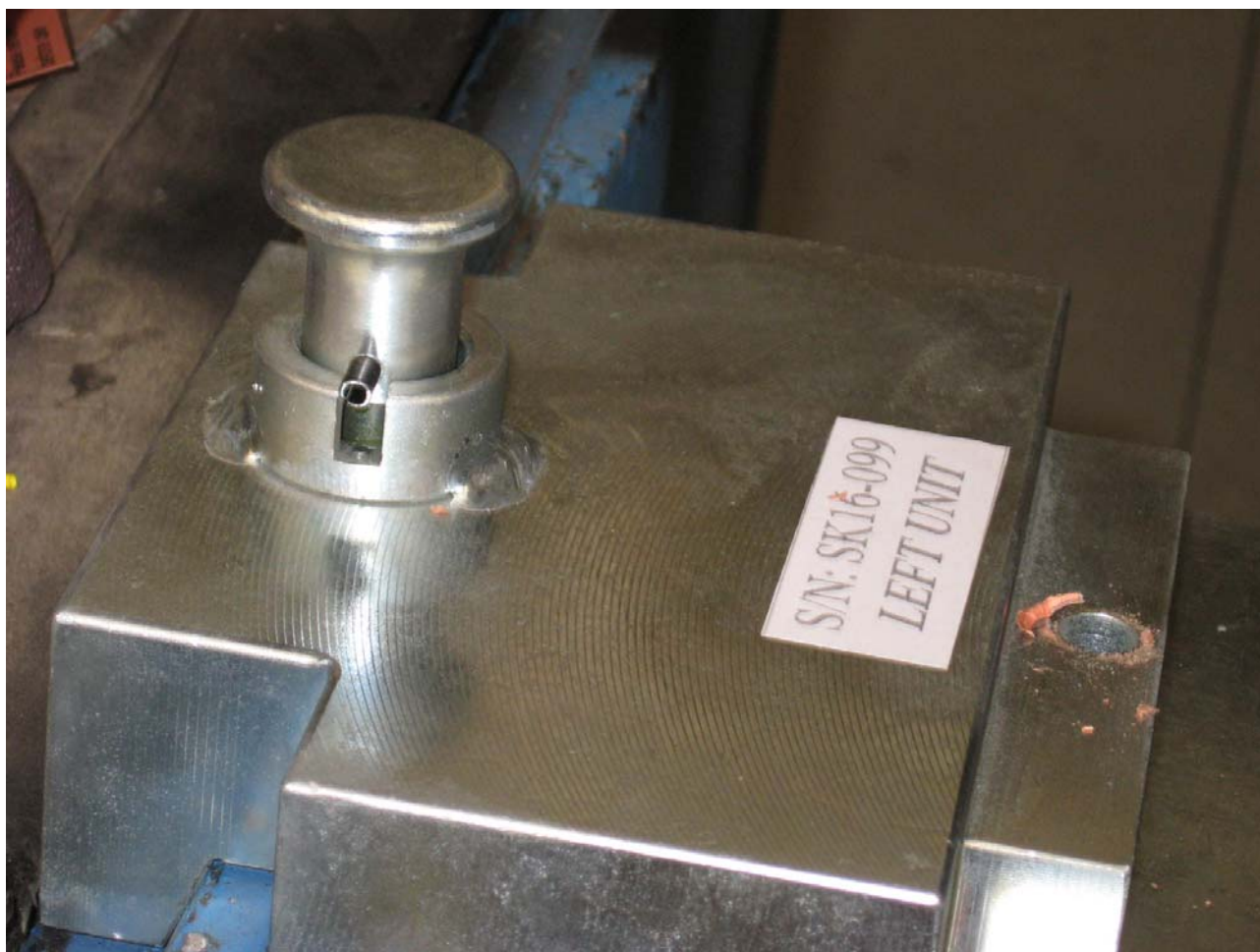




- To move the crosswise PTE_LW on the forklift plate, make use of the locking knobs on the scale upper side.

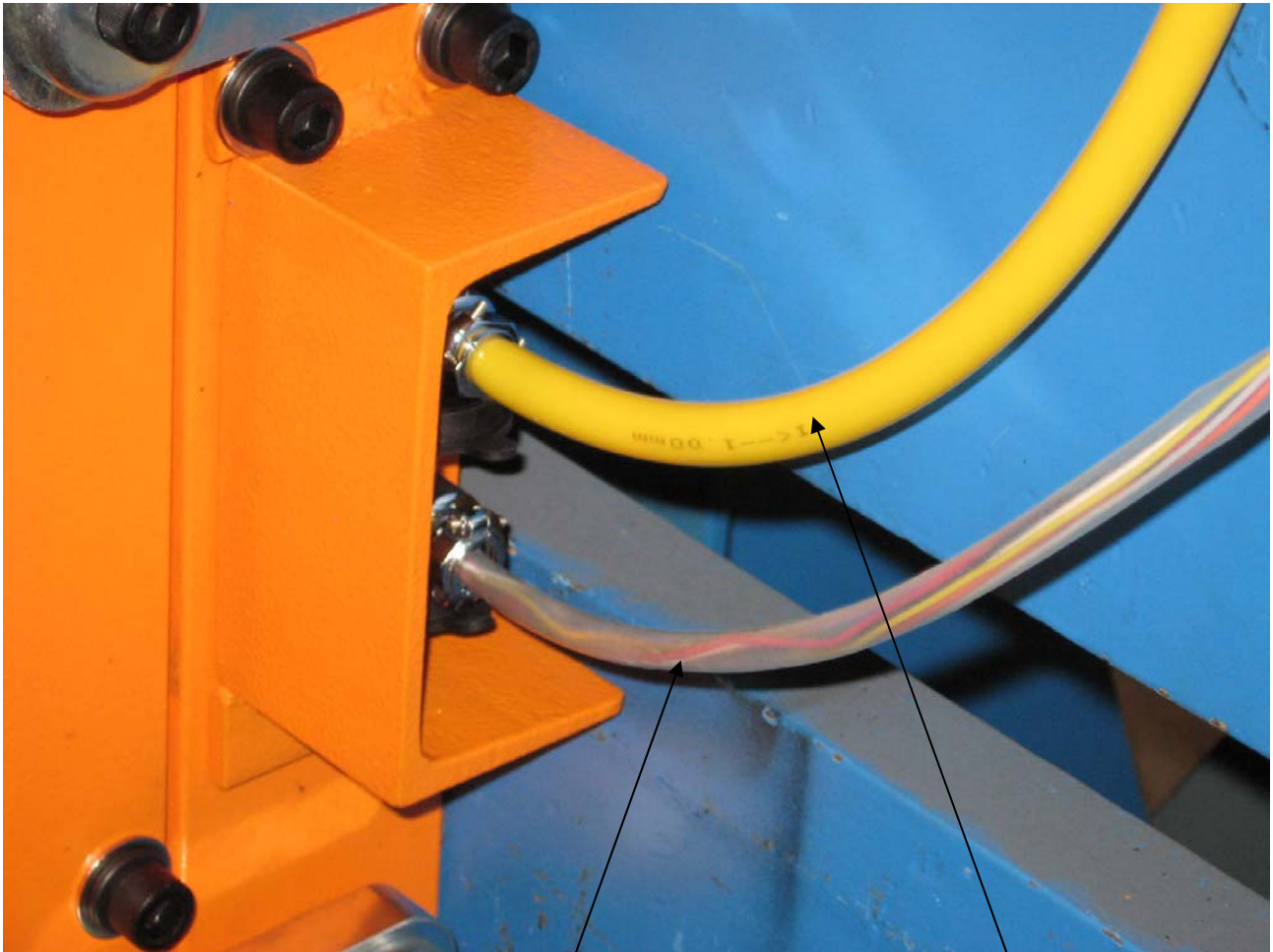
Unlocked Scale - (it is possible to move it crosswise)



Locked Scale**Note:**

Carry out the checks and, if needed, the related adjustments when the forklift is on a leveled surface and when the pillars are perfectly vertical.

3.8 Installing Connecting Cables

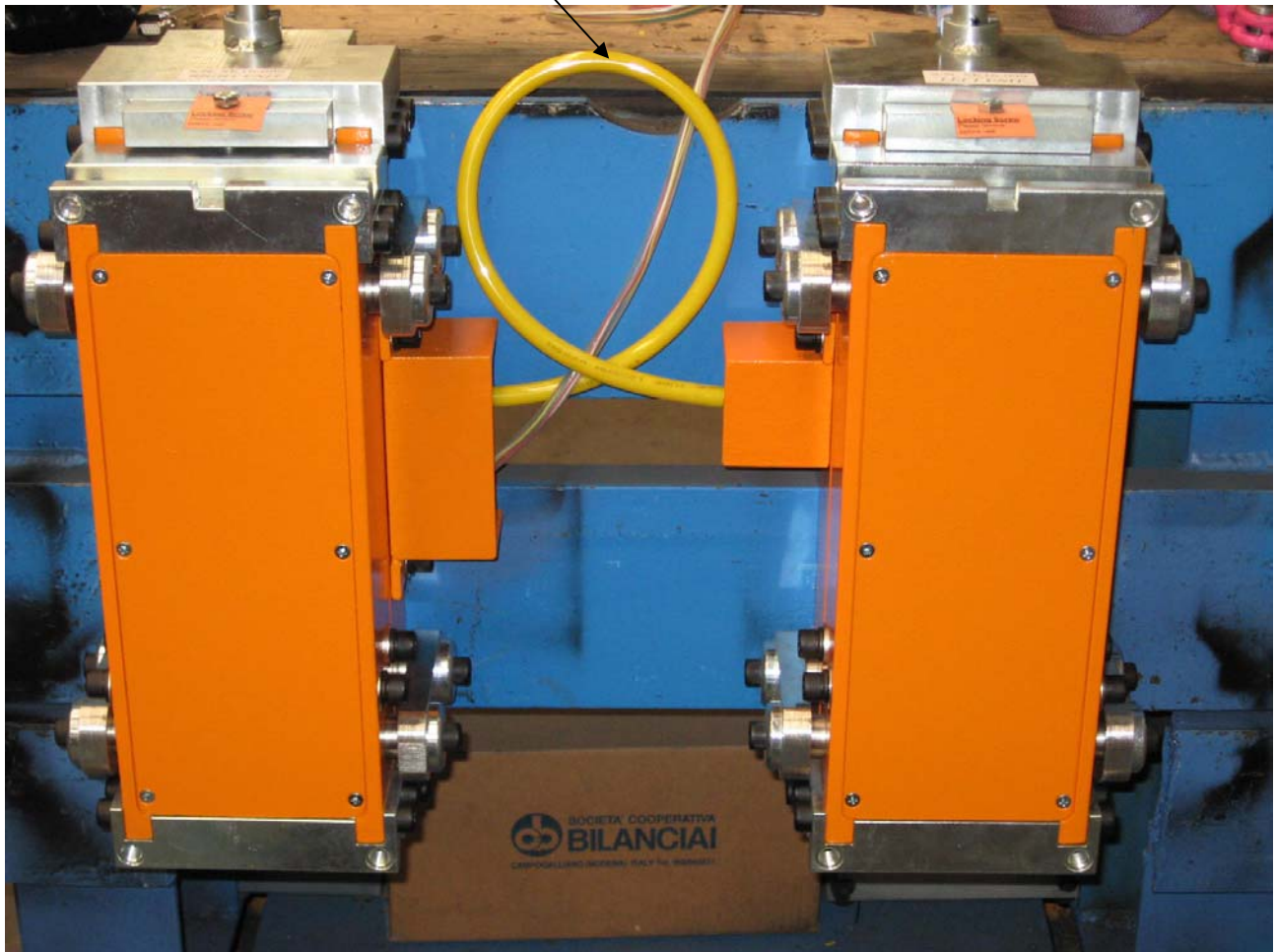


Connecting cable to instrument

Connecting cable between plates

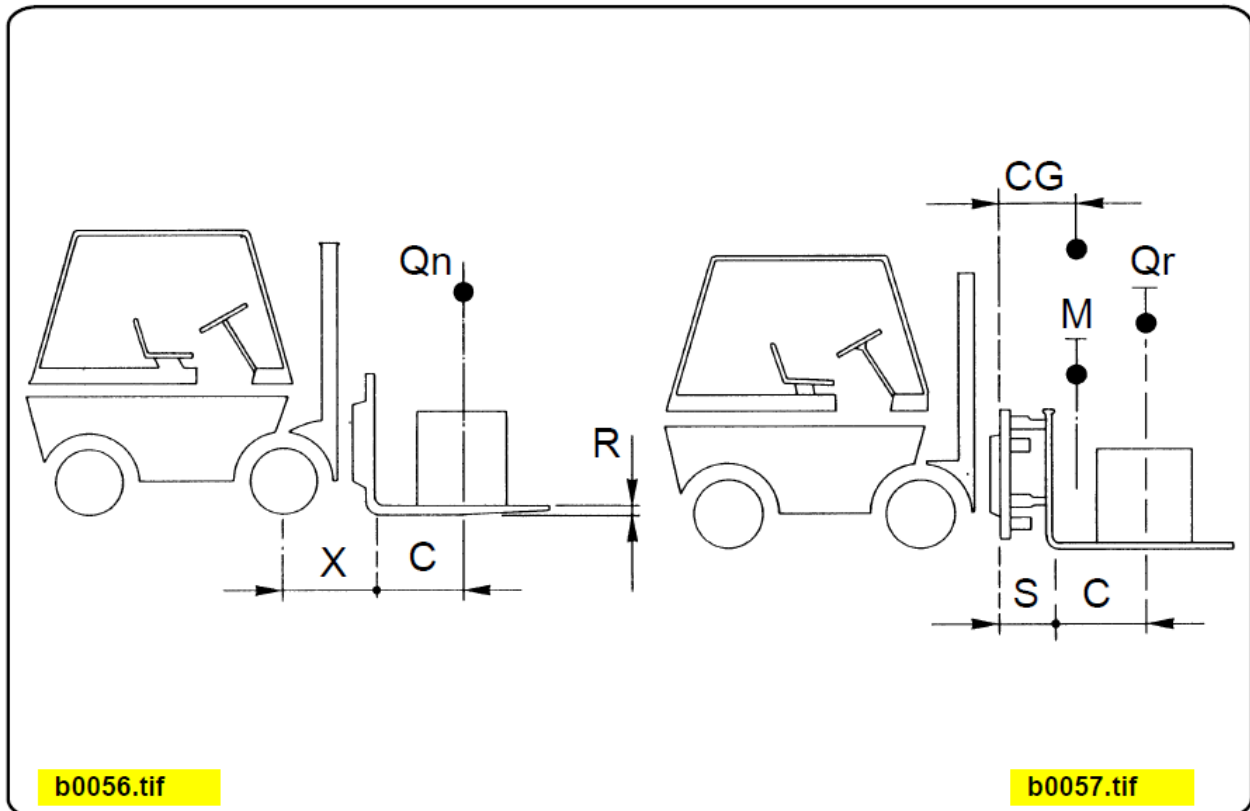
**Note:**

Refer to the manual of the electronic device for its connection.

Connecting cable between plates

3.9

Procedure for the Calculation of the Residual Capacity of a Forklift with a Scale Mod.PTE_LW



X = distance between front plane of the forks to axle of the wheels.

C = distance between front plane to estimated centre of the load.

Q_n = forklift nominal capacity.

R = fork thickness.

CG = scale centre of gravity.

M = weight of the scale.

S = scale thickness.

Qr = residual capacity of the forklift (in Kg)

Formula to calculate the residual capacity of the forklift.

$$Q_r = \{[Q_n * (X+C)] - [M*(X-R+CG)]\} / (X+S+C)$$

where PTE LW fem2

CG = 75 in standard version

M = 90 in standard version

S = 152 in standard version

where PTE LW fem3

CG = 75 in standard version

M = 98 in standard version

S = 152 in standard version



Notes:

This formula can be used just in case the forklift shows the manufacturer's plate with nominal capacity (Qn) determined by the load height and its position on the forks (C).

Without such data it is not possible to calculate the residual capacity of the forklift

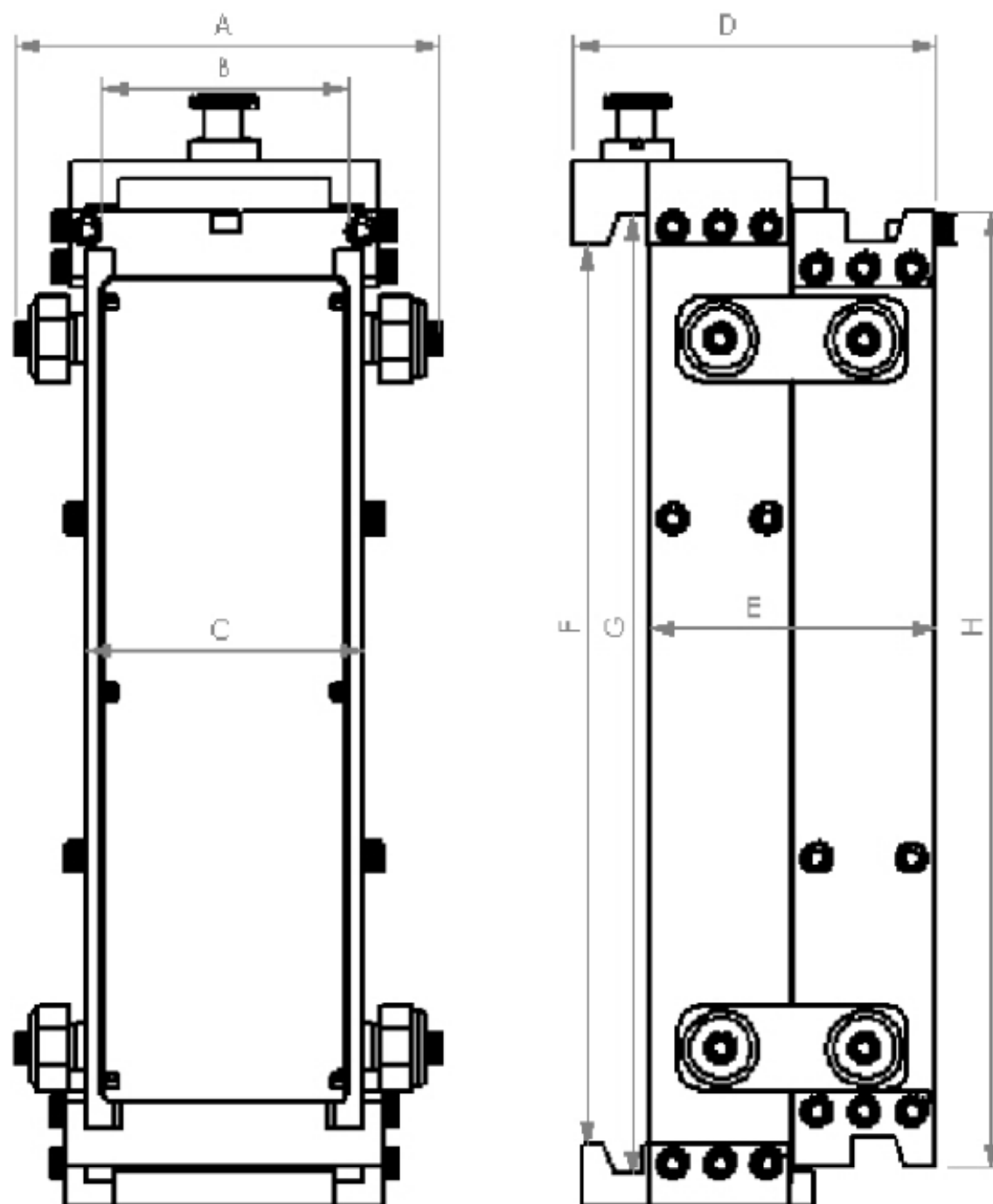
Another plate shall be applied above or close to said "manufacturer's plate" showing the value of the residual capacity.

COOP BILANCIAI refuses any responsibility in case this plate is not applied.

Notes:

- **X** and **R** must be measured on the forklift.
- **C** and **Qn** are on the manufacturer's plate.
- **CG** , **M** and **S** are supplied by Coop Bilanciai.

Technical Data



4.1 Dimensions

Mod.	A	B	C	D	E	F	G	H
Fem 2	231	126	148	188	152	383	409	406

Fem 3	231	130	148	191	152	478	510	508
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5

Maintenance

5.1

Foreword



The area for maintenance must always be dry and clean.

Immediately remove any trace of oil.

Do not allow non authorized personnel to work on the forklift and weighing instrument unit.

Do not modify any part of the machine with welding and piercing as they can affect the operation and the safety conditions.

-

To allow a constant and regular operation of this weighing system and avoid the invalidation of the warranty, every part shall be replaced with genuine spare parts only.

Only technicians authorized by Coop. Bilanciai shall maintain this unit.

5.2

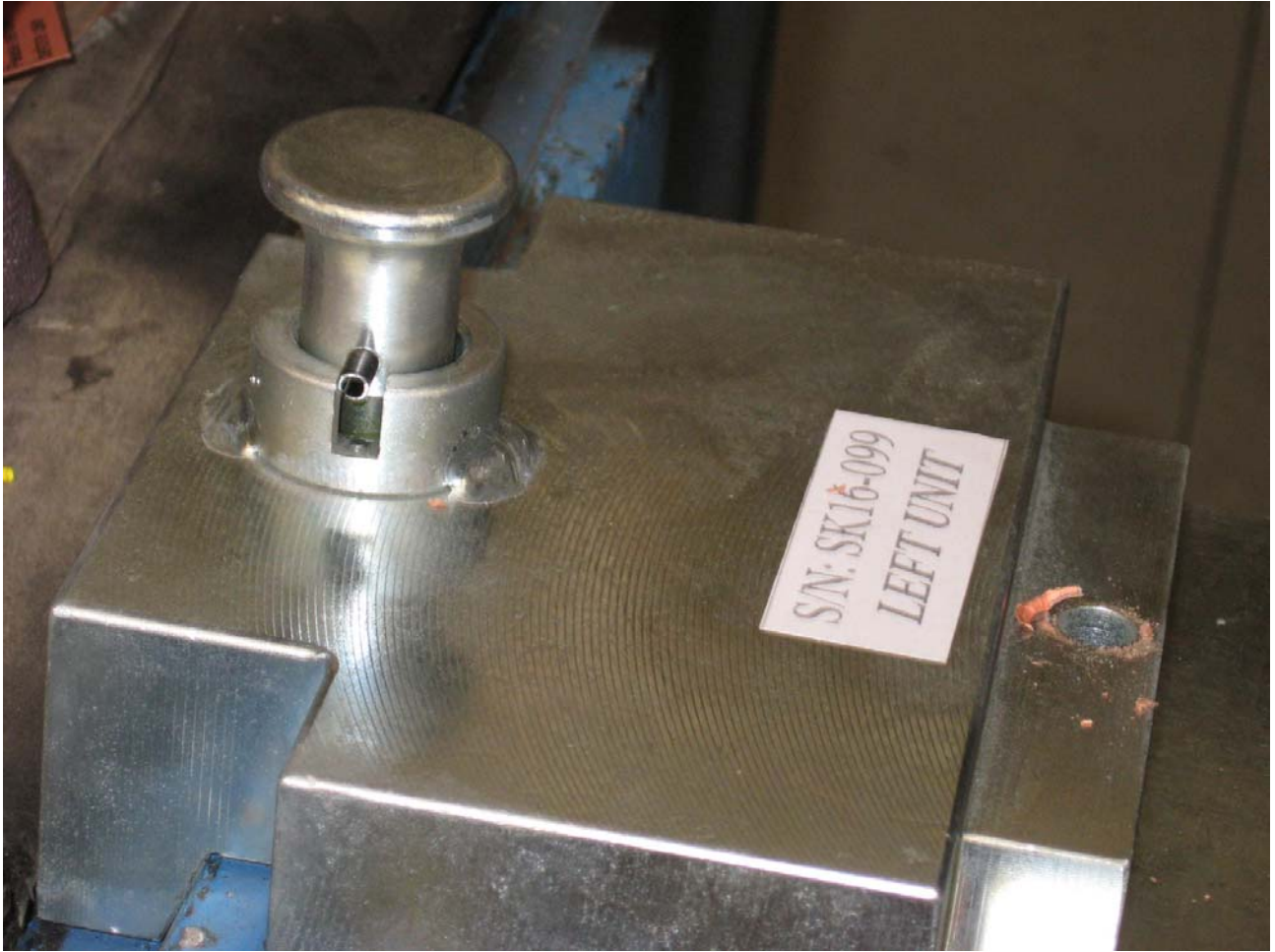
Maintenance of Mechanical Parts

5.2.1 Before every Working Routine

The operator must make sure the operative safety through visual and functional checks.

The visual check is positive if:

- Forks are not visibly damaged, curved or severely worn
And do not have cracks or fissures.
- The scale must be locked on forks.



Locked Scale

5.2.2 Every Working Week

Clean the machine.

5.2.3 Cleaning the Machine



WARNING!!

Never clean the machine with petrol, solvents or other flammable liquids. Instead use a non toxic and non corrosive detergent.

Do not spray the machine with water to avoid damages to electrical and electronic components.

Waste products, after maintenance and cleaning, must be disposed of respecting the law in force.

5.2.4 Greasing

This scale does not need greasing but its forks which must be greased periodically to make their motion easier.

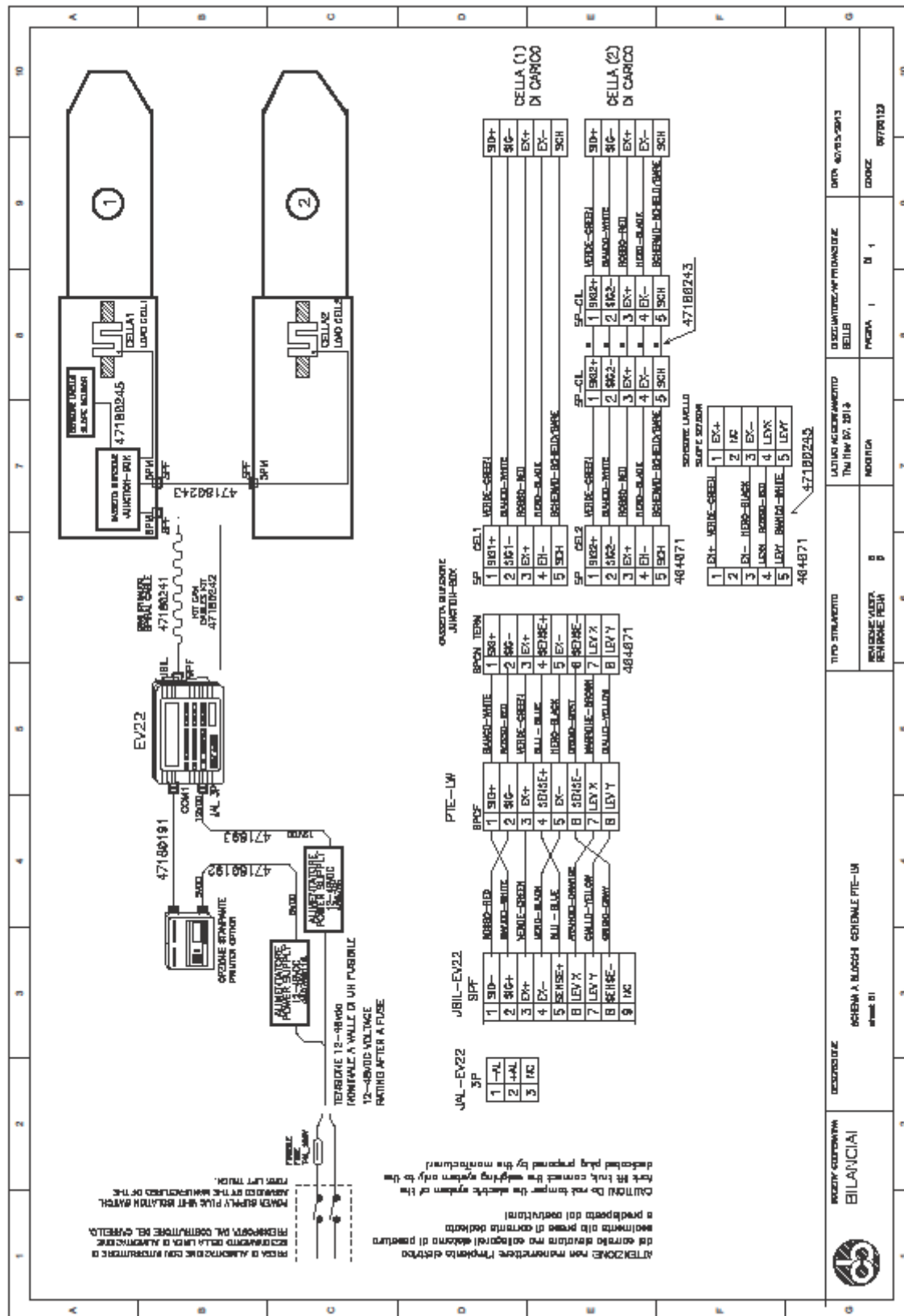
Use proper grease for this purpose.

5.2.5 Disposal

According to the EU Directives or the law in force in the countries where the machine is operated, the user is in charge of the disassembly and disposal of the components of the machine.

Attachments

6.1 Connection Diagram



Connection Diagram

