Faraone Industrie spa

USE AND MAINTENANCE INSTRUCTIONS

AERIAL PLATFORM

□ *PKS 1200E* □ *PKS 920*

□ *PKS 720*

SECTION 0. INTRODUCTION

INDEX

ENGLISH

INTRODUCTION

The purpose of this use and maintenance manual is to supply the users with the essential information for carrying out the procedures for safe and correct operation of the machine, for the purposes for which the same has been manufactured.
All information contained in this manual must be read and understood before making any attempt to operate the machine.

THIS MANUAL IS A VERY IMPORTANT DOCUMENT; ALWAYS KEEP IT NEAR THE MACHINE.

Due to continuous improvements to the products, Faraone Industrie Spa reserves the right to amend the technical data without any prior notice. For updated information, contact Faraone Industrie Spa.

ATTENTION

REMEMBER NO EQUIPMENT IS SAFE IF THE OPERATOR DOES NOT OBSERVE THE SAFETY PRECAUTIONS

SYMBOLS AND TERMS

ATTENTION

The danger symbol recalls the attention to potential dangers that might cause injuries. To avoid possible injuries or fatal accidents, comply with all safety instructions that follow the symbol.

Arrows are used in the pictures of the machine to indicate the specific points described in the text of the manual.

Aerial Platform: A machine intended to move persons to their work position, where they carry out their tasks from the work platform.

Work platform: A platform or cage that is moved to the required work position when loaded and from which the operator can carry out construction, repairs, inspections, or other similar operations.

Stabilisers: Devices used to stabilise the mobile work aerial platform, supporting and levelling it in its entirety.

Extending structure: A structure connected to the frame that supports the work platform and enables movement from the platform to the required work position.

Frame: Machine Base. It can be a pushed or self-propelled type.

TECHNICAL ASSISTANCE - WARRANTY

Before contacting the Manufacturer, the Customer must make sure he has the following information:

- Serial number of the machine;
- Name and surname of the person requesting the information;
- Telephone or fax number of the person requesting the information;
- Accurate description of the problem or of the information to be transmitted.

The warranty period is of 12 (twelve) months from the date of the purchase invoice.

Such warranty covers faulty components and the labour required for the intervention, given this is carried out at the Manufacturer's premises.
Transport of the machine is at the purchaser's expense.

The warranty is valid as long as all Standards envisioned for the correct use of the machine are observed.

NOTICES

For machines sold in Italy:

According to art. 71, paragraph 11 of the (Italian) Legislative Decree 81/2008, the employer/owner of the machine platform is obliged to report commissioning of the same to the local department of INAIL (National Institute for the Prevention of Accidents at Work).

He must also arrange for the machine to be given an ANNUAL inspection of its condition and working order.

For machines sold in other countries:

The owner of the machine must decide whether to report installation of the machine and/or assess the need for periodic inspections by specific relevant entities.

SECTION 1. SAFETY PRECAUTIONS

GENERAL INFORMATION

This section illustrates the necessary precautions for the correct and safe use and for machine maintenance. To guarantee correct use of the machine, it is essential to establish a daily routine procedure based on the instructions provided in the manual. Also, to guarantee safe operation of the machine, it is necessary for a qualified person to establish a maintenance programme based on the information provided in this manual; such programme must be scrupulously followed.

The owner/user/operator/company granting in leasing/person receiving in leasing the machine, must not accept responsibility of its operation before having carefully read the manual and completed the training and the functioning procedures, guided by an experienced and qualified operator.

For further information relating to safety, training, inspection, maintenance, application and operation, contact Faraone Industrie Spa.

ATTENTION

THE NON COMPLIANCE WITH THE SAFETY PRECAUTIONS LISTED IN THE MANUAL MAY CAUSE DAMAGES TO THE MACHINE AND TO THE PROPERTY AND INJURIES OR FATAL ACCIDENTS.

PRELIMINARY PROCEDURES

Operator training and know-how

- Carefully read the manual before using the machine.

- Use the machine only after complete training by authorised personnel.
- The use of the machine is allowed exclusively to authorised and qualified personnel.
- Read carefully and follow all the WARNING statements and the operational instructions reported on the machine and in the manual.
- Use the machine for the applications falling within those envisioned by Faraone Industrie Spa.
- All operational personnel must familiarise with the emergency operations and controls of the machine, as specified in the manual.
- Carefully read and comply with all company, local and government Standards in force, relating to machine operation.

Inspection of the work place

- Before using the machine, the operator must take the necessary precautions to avoid any danger in the work place.
- Do not activate the machine on lorries, trailers, railway wagons, boats, scaffolding or similar, unless Faraone Industrie Spa has approved the operation in writing.
- The machine can be switched on at temperatures between -15°C and 40°C. Contact Faraone Industrie for values relating to machine operation at temperatures not within the indicated range.

- The machine cannot be started in environments declared ATEX, unless specifically indicated in the EC certificate of conformity delivered with the machine in question.

Machine inspection

- Use the machine only after having carried out the functional verifications and inspections. For further instructions, consult *Section 2* of this manual.
- Activate the machine only after having carried out all assistance and maintenance interventions envisioned by the requirements specified in this manual.
- Make sure all safety devices work properly. Any amendments to such devices constitute violation of the safety Standards.
- Do not activate the machine whose signs or adhesives indicating the safety Standards or instructions are illegible or missing.
- Avoid the accumulation of debris on the floor of the machine. Avoid mud, oil, grease and other slippery substances coming into contact with shoes and with the floor of the machine.

ATTENTION

ANY AMENDMENTS OR ALTERATIONS TO THE MACHINE MAY ONLY BE APPLIED EXCLUSIVELY WITH PRIOR WRITTEN AUTHORISATION FROM THE PRODUCER.

OPERATION

General information

- Only use the machine to lift personnel with the relative tools and equipment.
- Do not activate a faulty machine. If a fault occurs, switch-off the machine.
- Do not suddenly move the control switches or levers from one position to the opposite one, going via the neutral position; always bring the switch to neutral position before moving it in the position corresponding to the next function. Activate the controls by applying slow and even pressure.
- If there are people on the work platform, enable personnel to activate the machine from the ground exclusively in the event of an emergency.
- Completely lower the extending structure and disconnect the power supply before moving away from the machine.
- When welding is carried out with the machine, take precautions to protect all machine components from contact with sprays generated from welding or with the melted metal.
- Ensure that the electric tools are put back correctly, avoiding leaving them hanging on the cables in the work area of the platform.
- You are reminded to charge batteries in a well-ventilated area.

Risk of falls

- Before using the machine, ensure all rails and gates are fixed in the correct position.

- Keep both feet firmly on the floor of the work platform. Do not arrange ladders, boxes, steps, planks or similar items on the platform to increase the range of action.
- Do not use the extension unit to climb on or off the platform.
- Pay maximum attention when entering or coming out of the platform. Ensure the extending structure is completely lowered. Face the machine when entering or coming out of the platform. Always maintain "three contact points" with the machine, ensuring both hands and one foot or one hand and both feet are continuously in contact with the machine when entering and exiting.

Danger of electrocution

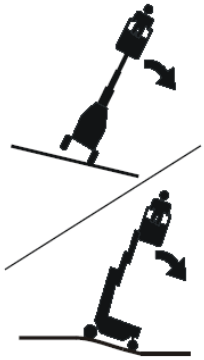
Maintain a distance of at least 3 m between the machine parts and the occupants with its tools and equipment, and an electric line or equipment provided with an electric charge of up to 50,000 Volt. It is necessary to add 0.3 m for every increment that is equal to or less than 30,000 Volt.

Voltage range (from phase to phase)	Minimum safety operational distance [m]
From 0 to 50 kV	3
From over 50 to 200 kV	5
From over 200 to 350 kV	6
From over 350 to 500 kV	8
From over 500 to 750 kV	11
From over 750 to 1000 kV	14
NOTE: such minimum safety operational distance is applied except in cases where the company, local and government Standards are more rigid.	

Table 1-1: Minimum safety operational distance

It is possible to reduce the minimum safety operational distance in presence of insulating barriers installed for preventing contacts and if such barriers are regulated on the voltage of the electric line to be protected. The barriers must not be part of the machine nor be connected to it. The minimum safety operational distance must be reduced within the operational dimensions envisioned by the insulating barrier. This distance must be determined by a qualified person in accordance with the company, local and government Standards relating to work carried out near powered equipment.

Danger of overturning



- Before driving the machine, the user must be familiar with the work area surface. While driving, do not exceed the admitted transversal and longitudinal slopes.
- Do not lift the work platform on a slope or on irregular or soft surfaces.
- Before driving the machine on floors, bridges, lorries and other surfaces, check their maximum capacity values.
- Do not exceed the maximum capacity of the machine. Evenly distribute the loads on the floor of the work platform as best as possible.
- Keep the machine chassis at a minimum distance of 0.5 m from holes, unevenness, descents, obstacles, debris, hidden holes and other potential dangers found at ground level.
- Do not attempt to use the machine as a crane. Do not tie the machine to an adjacent structure.

- Do not increase the dimension of the working platform with unauthorised extensions or by extending the platform.
- If the extending structure or the work platform remains jammed so that one or more wheels are lifted from the ground, the operator is required to climb off the working platform before attempting to free the machine. To stabilise the machine and have personnel climb down from the work platform, use a crane, forklift trucks or other adequate equipment.

Danger of crushing and impact

- When using the machine or lifting or lowering the work platform, check the distances above, at the sides and below the said platform.
- Do not lean out of the rails of the work platform when the machine is running.
- Always pay maximum attention to avoid any obstacles from hitting the operational controls and people on the work platform or from interfering with them.
- Make sure the operators of other machines, overhead or at ground level, are informed of the presence of the machine.
- Warn personnel not to work, stand or transit underneath the lifted platform. Mark off the floor area with appropriate barriers, as required.
    - When driving in areas where visibility is limited by obstacles, always have a person precede the vehicle to signal any dangers.
    - While driving, always keep non-operational personnel at a minimum distance of 1.8 m from the machine.
    - Adjust the driving speed according to the following conditions: ground surface, traffic, visibility, slope, location of the personnel and other factors that represent danger of collision or injuries to personnel.

- Take into account braking distances, regardless of the speed of the machine.
- Do not drive at high speed in reserved or tight areas or when reversing.

TOWING, LIFTING AND CARRYING

- Do not allow personnel to stand on the work platform while towing, lifting and carrying.
- Tow the machine exclusively in case of emergency, fault, power supply cut-off or to load/unload it. Consult the "Emergency procedures" section in this manual.
- Before towing, lifting and carrying, make sure that the working platform is completely retracted and emptied.
- Do not pull or push a blocked or disabled machine.
- While lifting the machine by means of a forklift, arrange the latter exclusively in correspondence of the appropriate areas of the same machine. Lift by means of a lifting device with adequate capacity.

For information regarding lifting, refer to the relative section in the manual.

SECTION 2. GENERAL TECHNICAL DATA

ATTENTION

THE AERIAL PLATFORM PKS 1200E-920-720 IS A LIFTING MACHINE INTENDED TO MOVE PERSONS TO THEIR WORK POSITIONS, FROM WHERE THEY ARE TO CARRY OUT THEIR TASKS FROM THE WORK PLATFORM.
THE AERIAL PLATFORM PKS 1200E-920-720 MUST BE USED ONLY FOR THE PURPOSES FOR WHICH IT WAS CONCEIVED.
ANY OTHER USE IS CONSIDERED IMPROPER.

ATTENTION

THE USER MUST OBTAIN APPROVAL AND GUIDELINES FROM THE MANUFACTURER ON SPECIAL OPERATING METHODS OR CONDITIONS NOT COVERED IN THOSE SPECIFIED BY THE MANUFACTURER.

The general technical features of the PKS Aerial Platform in the different possible configurations are as follows:

Table NOTE:

* : Maximum pressure of the stabiliser considering the weight of the platform plus the maximum load on the cage are fully distributed on only one side of the platform (fully asymmetrical load)

MODEL PKS 1200E GENERAL TECHNICAL DATA	Value
Weight of the machine: (Overall)	2100 kg
Machine height: (in transport position)	245 cm
Maximum resting pressure on ground: per wheel/stabiliser (*)	840 daN
Maximum passable slope: (in transport position)	15% - 9°
Maximum longitudinal work slope:	1.5°
Maximum transversal work slope:	1.5°
Machine base: (length x width)	192 cm x 98 cm
Manual maximum horizontal side force:	400 N
Maximum hydraulic plant pressure:	90 bar
Capacity of the hydraulic tank:	~ 8 Litres
Power supply	2 12V 130 Ah Lead batteries
Operators inside the working platform:	2
Maximum capacity in the working platform:	200 kg
Maximum working height: (from the ground to the floor of the work platform)	10.2 m
Selfmoving up to the max. height of: (from the ground to the floor of the work platform)	6.0 m
Internal dimensions of the working platform: • Minimum dimensions • Maximum dimensions	 114 cm x 86 cm 177 cm x 86 cm
Permitted use	EXTERNAL
Max working platform rising speed:	0.27 m/s
Max working platform descending speed:	0.2 m/s

Max shifting speed in transport position:	1.25 m/s
Maximum self-propelled movement speed at a height:	0.12 m/s

MODEL PKS 920 GENERAL TECHNICAL DATA	Value
Weight of the machine: (Overall)	1970 kg
Machine height: (in transport position)	189 cm
Maximum resting pressure on ground: or wheel/stabiliser (*)	760 daN
Maximum passable slope: (in transport position)	15% - 9°
Maximum longitudinal work slope:	1.5°
Maximum transversal work slope:	1.5°
Machine base: (length x width)	192 cm x 98 cm
Manual maximum horizontal side force:	400 N
Maximum hydraulic plant pressure:	90 bar
Capacity of the hydraulic tank:	~ 8 Litres
Power supply	2 12V 130 Ah Lead batteries
Operators inside the working platform:	2
Maximum capacity in the working platform:	200 kg
Maximum working height: (from the ground to the floor of the work platform)	7.2 m
Selfmoving up to the max. height of: (from the ground to the floor of the work platform)	7.2 m
Internal dimensions of the working platform: • **Minimum dimensions** • **Maximum dimensions**	 114 cm x 86 cm 177 cm x 86 cm
Permitted use	EXTERNAL

Max working platform rising speed:	0.3 m/s
Max working platform descending speed:	0.22 m/s
Max shifting speed in transport position:	1.3 m/s
Maximum self-propelled movement speed at a height:	0.27 m/s

MODEL PKS 720 GENERAL TECHNICAL DATA	**Value**
Weight of the machine: (Overall)	1150 kg
Machine height: (in transport position)	187 cm
Maximum resting pressure on ground: per wheel/stabiliser (*)	470 daN
Maximum passable slope: (in transport position)	15% - 9°
Maximum longitudinal working slope:	1.5°
Maximum transversal working slope:	1.5°
Machine base: (length x width)	179 cm x 78 cm
Manual maximum horizontal side force:	400 N
Maximum hydraulic plant pressure:	90 bar
Capacity of the hydraulic tank:	~ 8 Litres
Power supply	2 12V 130 Ah Lead batteries
Operators inside the working platform:	2
Maximum capacity in the working platform:	200 kg
Maximum working height: (from the ground to the floor of the work platform)	5.3 m
Selfmoving up to the max. height of: (from the ground to the floor of the work platform)	5.3 m

Internal dimensions of the working platform: • Minimum dimensions • Maximum dimensions	 106 cm x 66 cm 162 cm x 66 cm
Permitted use	INTERNAL
Max working platform rising speed:	0.25 m/s
Max working platform descending speed:	0.15 m/s
Max shifting speed in transport position:	0.7 m/s
Maximum self-propelled movement speed at a height:	0.1 m/s

BASIC CONSTRUCTIVE DATA

MACHINE FRAME: The frame of the machine (called base) is built completely with galvanised iron profiles with rectangular section. All essential components are installed on the frame for normal machine operation in stable conditions.

EXTENDING STRUCTURE:

The extending structure is made of special extruded aluminium alloy profiles that slide along each other on sliding blocks with nylon wheels. The kinematic connection between profiles is set up using chains.

A fluid power cylinder is installed between the first and second profile that, powered by the hydraulic control unit, enables to lift the structure. The chains connect the extendible structure elements to each other so that these can simultaneously lift.

WORK PLATFORM: The work platform is completely made of extruded aluminium profiles. The base floor is made of an aluminium sheet coated with a non-slip protection.

EXPOSURE TO VIBRATIONS: The machine does not produce vibrations such as to endanger the health of the operators. The weighted acceleration to which the entire body is subjected is less than 0.5 m/s^2

ACOUSTIC EMISSIONS: The A-weighted emission sound pressure level is below 70dB

ATTENTION

ACCORDING TO STANDARD OF REFERENCE (UNI EN 280:2015), THE AERIAL PLATFORM PKS 1200E-920-720 HAS BEEN TESTED BY THE MANUFACTURER THROUGH:

- **STATIC STABILITY TESTS (Section 6.1.4.2.1);**
- **DYNAMIC STABILITY TESTS (Section 6.1.4.2.2);**
- **OVERLOAD TEST (Section 6.1.4.3);**
- **OPERATION TESTS (Section 6.1.4.5).**

SECTION 3. PREPARATION AND INSPECTION

PERSONNEL TRAINING

The machine is a transport device for personnel; therefore, it must be used and submitted to maintenance exclusively by trained personnel.

The machine cannot be used by persons under the influence of alcohol or drugs or subject to epileptic attacks, dizziness or loss of physical control.

Operator training

Operator training must include the following:

1. Use and limits of the platform and emergency controls, on the ground, and of the safety systems;
2. Signs/labels for controls, instructions and warnings on the machine;
3. Regulations defined by the employer and government standards;
4. Use of the approved protective device against falls (if required);
5. Knowledge of the mechanical operation of the machine sufficient to enable recognising of a fault;
6. Safe methods for using the machine in presence of overhead obstacles, other moving equipment and obstacles, depressions, holes and descents;
7. Methods to avoid dangers due to unprotected electric conductors;
8. Requisites of a particular work or particular application of the machine.

Training supervision

Training must be carried out under the supervision of a qualified person, in an open space and free from obstacles and must continue until the trainee is able to safely activate and use the machine.

Operator responsibility

The operator must be trained with regard to responsibility and authority to switch-off the machine in case of fault or in presence of other unsafe conditions, both relating to the machine and to the work area.

NOTE: *the owner shall provide qualified personnel for training both at the time of delivery of the first units and later, if requested by the user or by personnel.*

COMPLETE DAILY INSPECTION

Start the "complete" inspection from point (a), as shown in the following list. Proceed around the machine checking all listed conditions in sequence.

ATTENTION

TO AVOID POSSIBLE INJURIES, ENSURE THE MACHINE POWER SUPPLY IS OFF DURING "COMPLETE INSPECTION".
DO NOT USE THE MACHINE BEFORE HAVING REPAIRED ALL FAULTS.

DO NOT LEAVE OUT A VISUAL INSPECTION OF THE LOWER PART OF THE BASE FRAME. MAKE SURE THE AREA IS CLEAR OF OBJECTS OR DEBRIS THAT MIGHT CAUSE SERIOUS DAMAGE TO THE MACHINE.

NOTE FOR INSPECTION: *for each component, besides complying with the other quoted criteria, ensure all parts are present, securely fixed and not loose and that there are no visible damages, leaks or signs of excessive wear.*

- **(a) Drive wheels/free wheels and adjustable wheels** – Check there is no debris on the wheels or around them;
- **(b) Base frame** – Check there are no loose wires or cables that hang underneath the base, check for dents on the aluminium profiles, breaks or cracks;
- **(c) Manual descent control valve** – See note in the execution of the functional verification;
- **(d) Tank/pump/engine unit** – No evident hydraulic leak, hydraulic oil filling level corresponding to the "full" line;
- **(e) Batteries** – If necessary, charge them;
- **(f) Work platform unit and gate** – Correct blocking of the work platform, rails, bar or gate working properly;

(g) Control console of the work platform – Controls, signs, securely fastened and legible, emergency stop switch in the reset position for operation, legible control signs;

(h) Ground control station – Main power supply selection switch working, signs securely fastened and legible, emergency stop switch operation;

(i) Extendible structure unit – Structure profiles, sliding inserts, chains, sequential activation cables, pulleys able to turn freely.

Figure key symbols, as follows:

1. Drive wheels/free wheels and adjustable wheels
2. Base frame
3. Engine/pump/tank/battery unit
4. Manually extendable work platform unit
5. Work platform control console
6. Manual descent control valve
7. Ground control station
8. Upright unit (extendible structure)
9. Main power switch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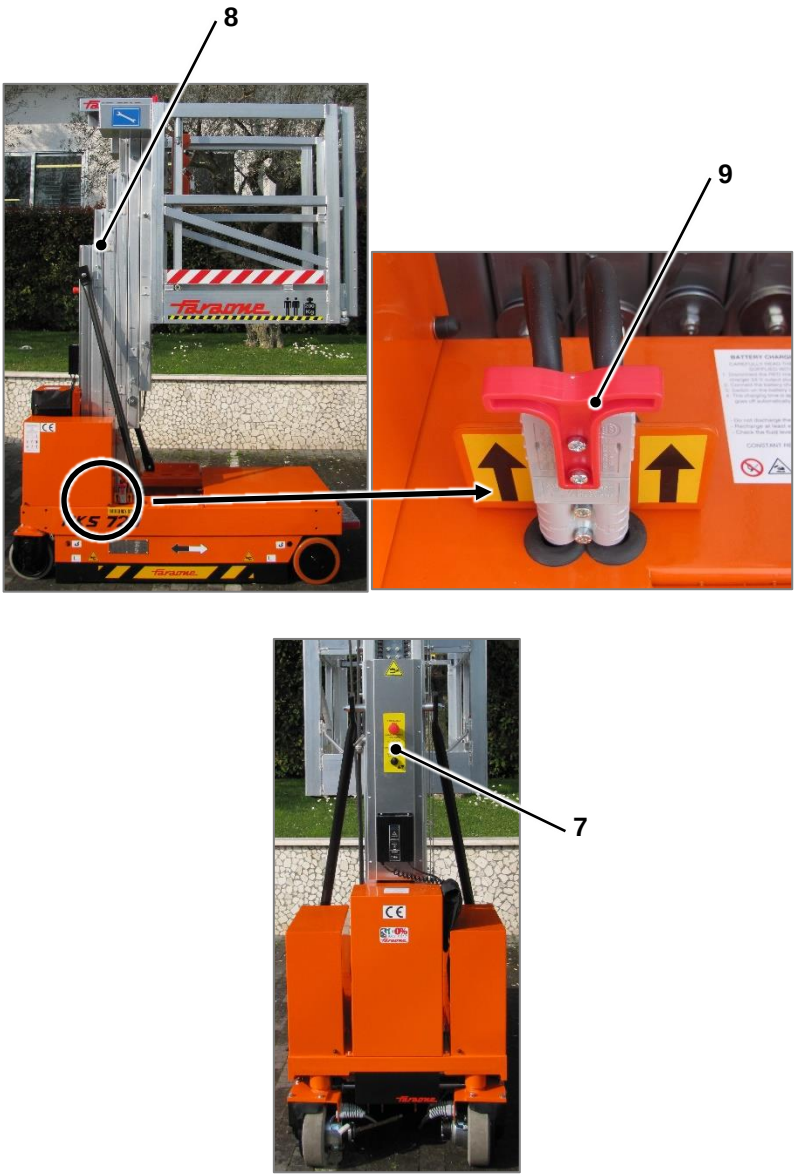


Figure 2-1: Complete daily inspection of the machine

FUNCTIONAL TEST

At the end of the "complete inspection", carry out a functional test of all plants in an area free from overhead obstacles and at ground level.

WARNING

IF THE MACHINE DOES NOT WORK PROPERLY, SWITCH IT OFF IMMEDIATELY. WARN MAINTENANCE PERSONNEL OF THE PROBLEM. DO NOT USE THE MACHINE UNTIL IT IS DECLARED SAFE TO USE.

Carry out a functional test as detailed below.

1. **Carry out the operations as instructed, from the ground controls, without any load in the cage.**
   - **a.** Activate the ground control, the lifting and the lowering of the work platform;
   - **b.** Ensure all machine functions are disabled when activating (pressing) the emergency stop button;
   - **c.** Check the correct operation of the manual descent valve.
2. **From the control console of the cage, carry out the detailed operations.**
   - **a.** Ensure the control console is correctly assembled and securely fastened;
   - **b.** Lift and lower the work platform checking that lifting and lowering happen regularly;
   - **c.** Activate all functions and check the correct operation of all end run switches, main and activation switches:

- **Machine brakes** – Drive the machine on a slope (not exceeding the nominal functioning capacity on a slope) and stop it to ensure the brakes hold it;
- **Inclination alarm limit switch** – With the platform completely lowered, drive the machine on a surface with a slope greater than that designed in any direction (do not exceed the maximum nominal operational capacity on a slope). Any attempt to lift the cage makes the machine signal an inclination that exceeds the maximum allowed;
- **Transmission speed reduction limit switch** – When the platform is lifted, the transmission speed is reduced compared to the speed with platform lowered;
- **Transmission interruption limit switch** –When the platform is extracted horizontally, transmission is interrupted and the machine cannot shift;

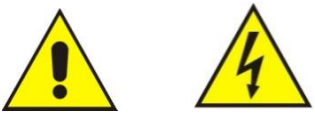
d. Ensure all machine functions are disabled when activating (pressing) the emergency stop button.

SAFETY WARNINGS FOR THE OPERATORS

Do not install and use the machine in the following cases:

OUTDOORS AND IN THE PRESENCE OF WIND UNLESS THE MACHINE HAS BEEN DESIGNED FOR OUTDOOR USE

(DANGER OF STABILITY LOSS AND OVERTURNING)



NEXT TO AERIAL OBSTACLES (electric lines, protrusions, etc.)

(DANGER OF ELECTROCUTION AND IMPACT)

WITH EXCESSIVE CAPACITIES COMPARED TO ADMITTED LIMITS

(DANGER OF STABILITY LOSS AND OVERTURNING)

ON FLOORING WITH MINOR RESISTANCE OF THE WEIGHT OF THE MACHINE

(DANGER OF STABILITY LOSS AND OVERTURNING)

IN ALL CIRCUMSTANCES NOT EXPRESSLY INDICATED AMONG THE USE CONDITIONS INDICATED IN THIS MANUAL

(GENERAL DANGER)

ATTENTION

THE ELECTRICAL SYSTEM OF THE PLATFORM IS NOT IN ANTI-EXPLOSIVE EXECUTION (NO ATEX): THEREFORE YOU SHOULD CAREFULLY AVOID ITS USE IN AREAS SUBJECT TO ATEX RISK.

During the moving phase (on ground and at a height):

- ✓ Cautiously move the machine avoiding sudden manoeuvres;
- ✓ **DO NOT TRANSPORT PERSONS on the base frame of the machine and in any other position except for in the work position inside the platform;**
- ✓ Check the structural condition and cleanliness of the surfaces on which the machine is used (verify the surface is suitable for the weight of the machine in work conditions).

During the ascent and descent phase:

- ✓ Observe the maximum admissible capacity weights for the work platform;
- ✓ Ascertain overhead obstacles are not present along the trajectory, in vertical;
- ✓ Do not induce dangerous vibrations and/or oscillations such to entail stability loss of the machine and cause an eventual overturning.

ATTENTION

THE AERIAL PLATFORM IS PROVIDED WITH AN AUTOMATIC BASE LEVELLING VERIFICATION SYSTEM. WHEN THE MACHINE EXCEEDS THE MAXIMUM SLOPE ALLOWED BY THE MANUFACTURER, IT EMITS A WARNING SOUND. IN THESE CONDITIONS, WITH PLATFORM IN STAND-BY POSITION, THE MACHINE CAN STILL MOVE WHEREAS, WITH THE WORK PLATFORM EXTENDED (VERTICALLY AND HORIZONTALLY), EACH MOVEMENT IS PREVENTED APART FROM WORK PLATFORM DESCENT.

Prohibition signs:

Prohibition to overload the work platform beyond the limits indicated

Prohibition to use the machine as lifting equipment (forklift truck)

Prohibition to remove or tamper with the stability devices of the machine (sensors, ballasts, etc.)

Prohibition to remove or tamper with the safety and protection devices of the machine

Prohibition to climb on or off the work platform in places other than the arranged gate

Prohibition to increase outreach or work height of the mobile work aerial platform using additional equipment (for example, ladders)

Prohibition to induce oscillations on the machine so as not to make it unstable

Prohibition to install any addition device that increases the wind load on the mobile work aerial platform (for example, warning signs)

Prohibition to come into contact with live electrical conductors

Prohibition to climb up/down from the work platform when it is lifted

Prohibition to lift/lower the work platform without operator on board

When using the machine, the manufacturer recommends using the following personal protective equipment:

Protection of the lower limbs

SLIP-PROOF SHOES

ATTENTION

THE USE OF ANY OTHER SPECIFIC PERSONAL PROTECTIVE DEVICES MUST BE CHECKED BASED ON THE ASSESSMENT OF SPECIFIC RISKS, CARRIED OUT BY THE EMPLOYER

ATTENTION
FOR MACHINES SOLD IN ITALY

REGARDING ITALIAN LEGISLATION, THE LEGISLATIVE DECREE 81/2008 REQUIRES THE USE OF SUITABLE SAFETY BELTS IN THE CASE OF ALL EXTENDING BRIDGES AND SIMILAR.
THIS MEASURE APPLIES ALSO TO VERTICAL EXTENDING WORK PLATFORMS.
A SPECIFIC RISK ASSESSMENT MUST BE CARRIED OUT BEFOREHAND TO DETERMINE THE NEED FOR A FALL PREVENTION SYSTEM.

SECTION 4. CONTROLS, LIGHTS AND MACHINE OPERATION

INTRODUCTION

ATTENTION

THE MANUFACTURER DOES NOT HAVE ANY DIRECT CONTROL OVER MACHINE APPLICATION AND OPERATION. THE USER AND THE OPERATOR ARE REQUIRED TO OBSERVE THE CORRECT SAFETY PROCEDURES.

The PKS 1200E-920-720 model lifting appliances are electric machines provided with an aerial work platform, assembled on a lifting mechanism with aluminium upright.

the lifting device is **INTENDED TO MOVE PERSONS TO THEIR WORK POSITIONS, FROM WHERE THEY CAN CARRY OUT THEIR TASKS FROM THE WORK PLATFORM.**

The main control station is located on the work platform. The operator can drive the machine and lift, lower and horizontally shift the work platform from the control console of the platform.
If the operator on the platform is unable to lower it, use the ground control station's commands when servicing the machine or in an emergency. Vibrations generated by machines do not constitute any danger for the operator who is on the work platform. The level of continuous sound pressure (A measurement) on the work platform is less than 70 db (A).

MACHINE OPERATION

Preliminary operations

It is necessary for the following control conditions to be satisfied before activating the machine from the work platform controls.

- The voltage of the batteries must be sufficient to activate the machine.
- The main power switch on the ground control station must be switched on (plug inserted correctly).
- The emergency stop switches located on the control console of the platform and on the ground control station must be set at RESTORE.

CHARGING THE BATTERY

The machine is equipped with a battery charger with a.c. voltage input/d.c. voltage output. The battery charger stops charging automatically when the batteries are fully charged.

ATTENTION

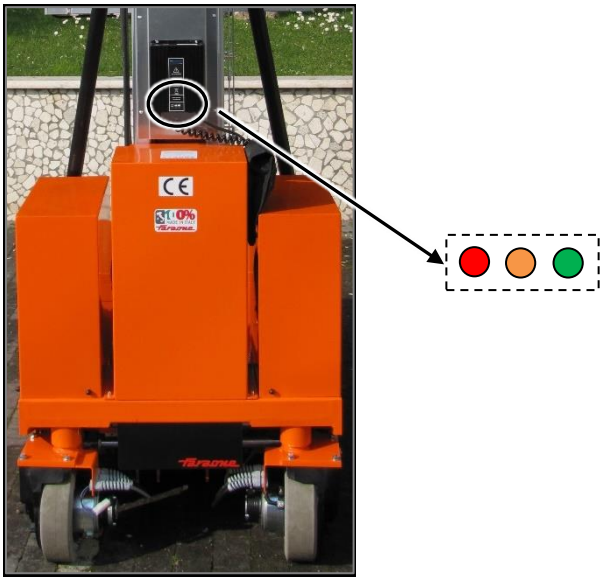
KEEP SPARKS, OPEN FLAMES OR LIT TOBACCO AWAY FROM THE BATTERIES. PROVIDE ADEQUATE VENTILATION DURING CHARGING. DO NOT CHARGE A FROZEN BATTERY.

NOTE: *when the battery charger is connected to an a.c. socket, the transmission function of the machine is deactivated.*

Battery charging procedure

1. Park the machine in a well-ventilated area, near an a.c. electric socket;
2. Switch the machine off by pushing the emergency stop on the control console of the work platform and remove the enabling key;
3. Connect the battery charger to a correctly installed socket and earthed according to current regulations.

Battery charge status lights



The **RED LED**, indicating the battery charging phase, flashes twice and then stays on (the red LED on indicates the charging phase).

Charging finishes automatically without warning the operator, and is indicated by a **GREEN LED** coming on.

While using the forklift, the battery status will switch from completely charged (*indicated by the green LED*), to the partially charged (*indicated by the orange LED*) to low battery (*indicated by the red LED*).

Carry out the following operations carefully:

- ✓ Charging must be carried out in a well-ventilated area, where it is forbidden to smoke and use open flames;
- ✓ It is recommended to avoid using any possible source of sparks near batteries charging.
- ✓ We recommend using anti-static clothing;
- ✓ Do not lift or tilt the batteries;
- ✓ Do not attempt to start the machine;

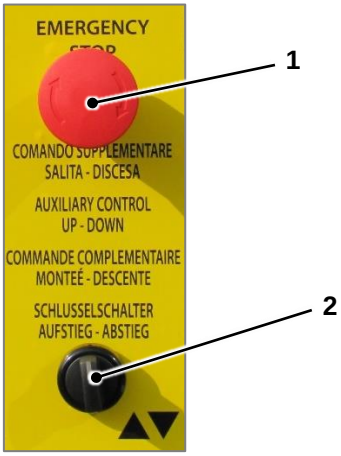
ATTENTION

IT IS RECOMMENDED NOT TO LET THE BATTERIES GO COMPLETELY FLAT.

ATTENTION

WHEN THE MACHINE IS PUT OUT OF SERVICE FOR A LONG PERIOD, THE BATTERIES MUST BE COMPLETELY AND EVENLY CHARGED AT LEAST ONCE A WEEK AND KEPT WITH THE PLUG DISCONNECTED TO AVOID THE SAME BATTERIES GOING FLAT.

GROUND CONTROL STATION



1. Emergency stop/switch-off button
2. Ascent/descent control of the work platform.

General information

Before actuating the machine from the ground control console, the following conditions of the controls must be satisfied:

- Ground control station – The main power supply switch must be switched on (plug inserted correctly).
- Ground control station - The Emergency stop/switch-off button must be in RESTORE position (POWER SUPPLY CONNECTED).
- Platform console - The emergency stop/switch-off button must be in RESTORE position (POWER SUPPLY CONNECTED).

- Work platform console - The control selector must be set at "CONTROLS AT BASE".

Emergency stop/switch-off button

NOTE: *in order for the machine to operate, the emergency stop/switch off button on the machine must be on RESTORE.*

POWER SUPPLY DISCONNECTION

PUSH INWARDS to engage the emergency stop.

POWER SUPPLY CONNECTION

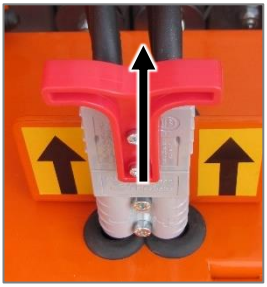
TURN CLOCKWISE AND RELEASE to restore the emergency stop.

Ascent/descent control switch

TURN the switch to the RIGHT to make the work platform DESCEND.
TURN the switch to the LEFT to make the work platform ASCEND.

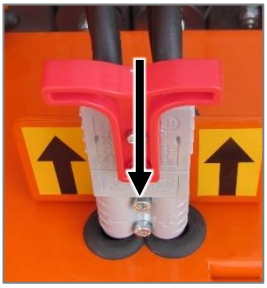
Main power switch

NOTE: *the switch must be on (plug inserted correctly) for the machine to operate.*



POWER SUPPLY DISCONNECTION

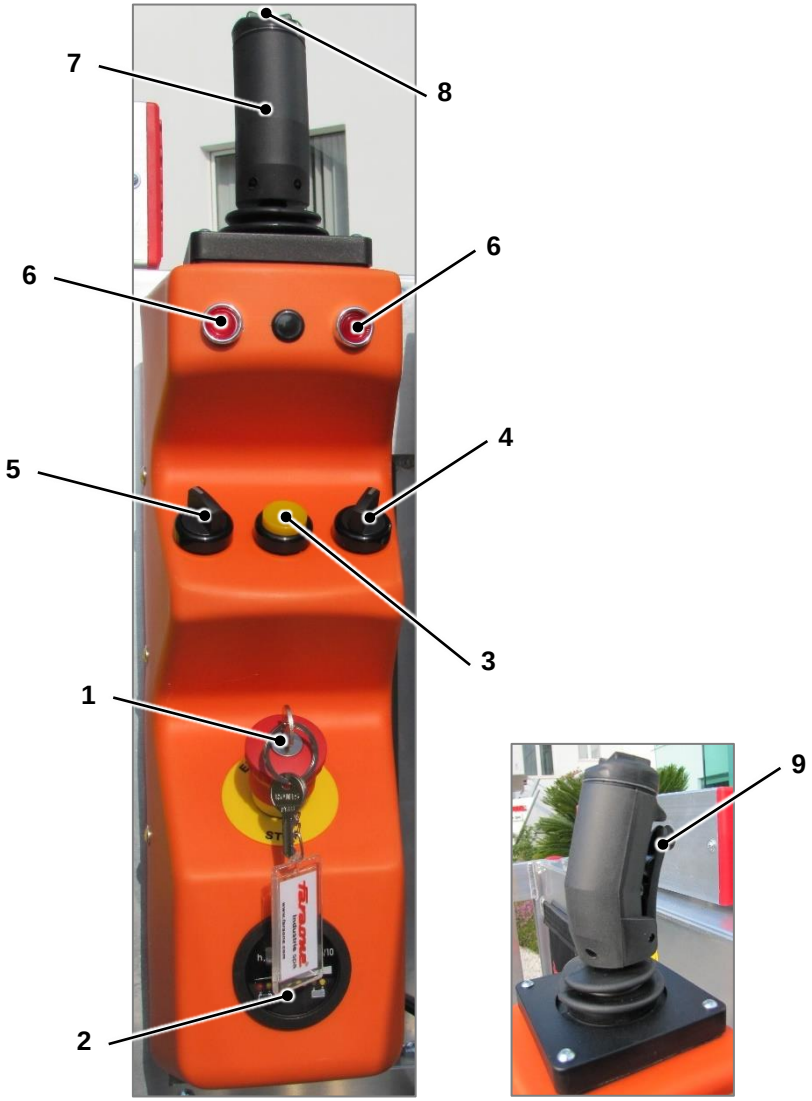
PULL UPWARDS to remove the plug.



POWER SUPPLY CONNECTION

PUSH DOWNWARDS to insert the plug.

PLATFORM CONTROL CONSOLE



1. Emergency STOP with removable key
2. Battery charge/operating hours display
3. Buzzer
4. Controls at base/controls on console selector
5. Work platform run/movement selector
6. Indicator LED
7. Cloche control
8. Right/left wheel rotation button
9. Dead man enabling control

General information

Before actuating the machine from the control console on the work platform, it is necessary to satisfy the following conditions of the controls:

- Ground control station – The main power supply switch must be switched on (plug inserted correctly).
- Ground control station - The Emergency stop/switch-off button must be in RESTORE position (POWER SUPPLY CONNECTED).
- Work platform console - The control selector must be set at "CONTROLS ON CONSOLE".
- Platform console - The emergency stop/switch-off button must be in RESTORE position (POWER SUPPLY CONNECTED).

Emergency STOP button with removable key

The emergency button located inside the control console of the work platform is provided with a removable key to prevent the machine from being used by unauthorised personnel. Press the button and remove the key to disconnect general power.

POWER SUPPLY DISCONNECTION

PUSH INWARDS to engage the emergency stop.

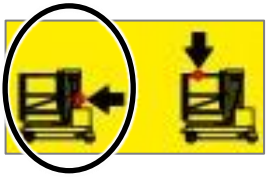
POWER SUPPLY CONNECTION

TURN clockwise and RELEASE to restore the emergency stop.

ATTENTION

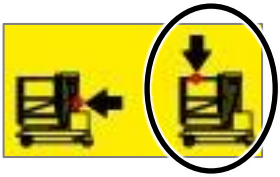
PREVENT UNAUTHORISED USE BY SWITCHING OFF THE MACHINE AND REMOVING THE KEY WHEN THE AERIAL PLATFORM IS NOT IN USE.

Controls at base/controls on console selector



CONTROLS AT BASE mode

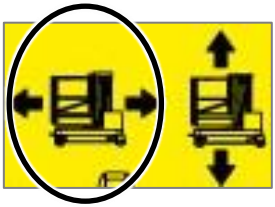
TURN the selector to the LEFT to enable the controls at the BASE.



CONTROLS ON CONSOLE mode

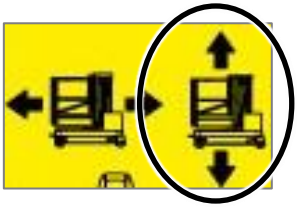
TURN the selector to the RIGHT to enable the controls on the CONSOLE.

Work platform run/movement selector



RUN mode

TURN the selector to the LEFT to enable the machine RUN mode.



Work platform MOVEMENT mode

TURN the selector to the RIGHT to enable the work platform MOVEMENT mode (up/down).

Run forward/backward

After having selected the machine running mode, move the cloche forward/backward to move the machine.

NOTE: *The cloche acts proportionally on machine advancement speed. The transmission power is applied in proportion to the movement of the cloche from the centre.*

PRESS THE DEAD MAN ENABLING CONTROL ON THE CLOCHE, then push the cloche in the required direction of movement.

Right/left wheel rotation button

Press the RIGHT button to turn the wheels to the right.
Press the LEFT button to turn the wheel to the left.

Lifting/lowering work platform

After having selected the movement mode of the work platform, move the cloche forward/backward to move the work platform up/down.

NOTE: *The cloche acts proportionally on work platform movement speed. The movement power is applied in proportion to the movement of the cloche from the centre.*

PRESS THE DEAD MAN ENABLING CONTROL ON THE CLOCHE, then push the cloche in the required direction of movement.

Indicator LED

The indicator LED's switch on both after a function has been activated by means of the "work platform run/movement" selector and after an alarm has been triggered (also signalled by an intermittent buzzer).

The possible alarm conditions are indicated below:

LED ON

Machine forward/backward run enabling

LED FLASHING

Maximum inclination allowed by machine exceeded

BOTH LED'S ON

Lifting chain broken/faulty

BOTH LED'S FLASHING

Maximum load allowed by machine exceeded

LED ON

Work platform up/down movement enabling

LED FLASHING

Safety stabilisers did not come out

ATTENTION

IF THE MACHINE INCLINATION OR EXCEEDING MAXIMUM ALLOWABLE LOAD ALARM IS TRIGGERED, THE ONLY MOVEMENT ALLOWED BY THE MACHINE IS TO DESCEND THE WORK PLATFORM.
PAY THE UTMOST ATTENTION DURING THE DESCENT PHASE.

ATTENTION

TO PREVENT UNAUTHORISED PERSONNEL FROM USING THE MACHINE'S GROUND CONTROL WHEN THE OPERATOR IS INSIDE THE WORK PLATFORM AT HEIGHTS, THE OPERATOR MUST ALWAYS KEEP THE CONTROLS ENABLING SELECTOR SWITCHED TO "CONTROLS ON CONSOLE".

PARKING THE MACHINE

1. Drive the machine in a well-protected and ventilated area.
2. Make sure that the work platform is completely down and retracted, press the emergency button on the control console and remove the enabling key.

NOTE: *if necessary, charge the batteries in preparation for the following work day.*

ATTENTION

PREVENT UNAUTHORISED USE BY SWITCHING OFF THE MACHINE AND REMOVING THE KEY WHEN THE AERIAL PLATFORM IS NOT IN USE.

WORK PLATFORM CONFIGURATION

WORK PLATFORM WITH VERTICAL OPENING SIDE ENTRY

Model	Maximum capacity
Extending work platform	200 kg – 2 people

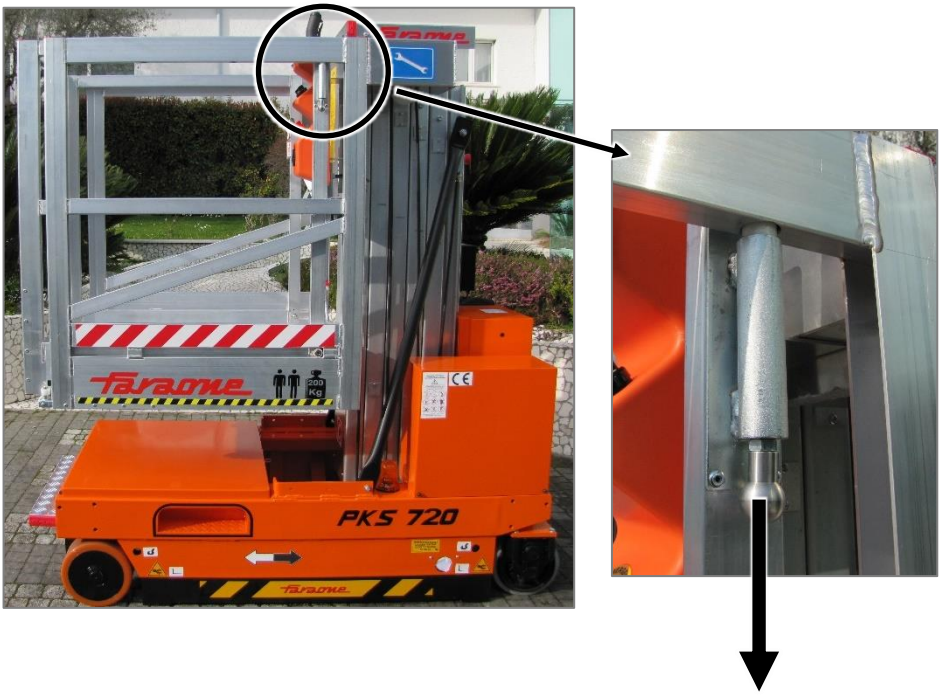
1. Vertical opening rail
2. Control console of the machine
3. Safety belt connection
4. Objects holder tray (max 5 kg)

The work platform can be lengthened to increase its surface. It is lengthened manually by the operator.

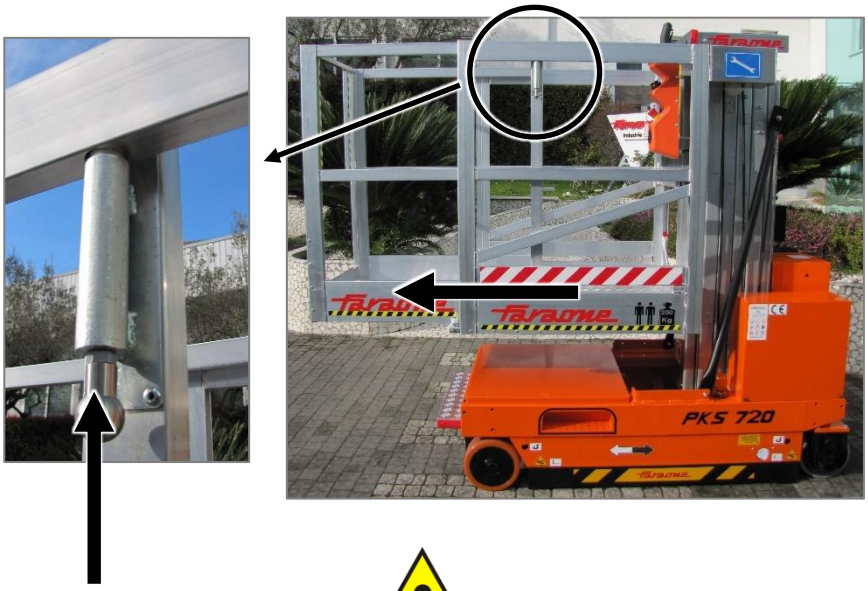
NOTE: *When the work platform is brought to the all open position, all the machine controls are inhibited.*

Proceed as follows:

1. Simultaneously pull down the two stops on the right and left side of the work platform and lengthen the basket (the stops can be released while the basket is being lengthened).



2. Lengthen the work platform until the stops are blocked at the all open position.



ATTENTION

CHECK THAT THE STOPS ARE CORRECTLY INSERTED WITH THE WORK PLATFORM COMPLETELY OPEN.

ATTENTION

IT IS ABSOLUTELY FORBIDDEN TO WORK INSIDE THE WORK PLATFORM IN AN INTERMEDIATE OPEN POSITION, WITHOUT THE STOPS BEING EITHER IN THE ALL CLOSED OR ALL OPEN POSITION.

ATTENTION

WHEN THE WORK PLATFORM IS BROUGHT TO THE ALL OPEN POSITION, ALL THE MACHINE CONTROLS ARE INHIBITED.

ATTENTION

MAKE SURE THERE ARE NO OBSTACLES STOPPING THE WORK PLATFORM RAILING FROM CLOSING PROPERLY

ATTENTION

DO NOT RAISE/LOWER THE WORK PLATFORM IF THE RAILING ON THE WORK PLATFORM DOES NOT APPEAR TO CLOSE PROPERLY AND HAVE IT REPAIRED (CONTACT THE MANUFACTURER, IF NECESSARY)

TRANSPORT AND LIFTING PROCEDURES

General information

It is possible to transport the machine on to work premises using one of the following methods:

- By driving the machine along the route on its base wheels, if the surface it is travelling on allows it
- By moving it with a forklift *(check the gross weight of the machine in the Operational Technical Data Table for the machine)*

ATTENTION

LOAD THE MACHINE ONTO A HEAVY DUTY VEHICLE HAVING A USEFUL LOAD CAPACITY ABLE TO SUPPORT THE TOTAL WEIGHT OF THE MACHINE (CHECK THE GROSS WEIGHT OF THE MACHINE IN THE OPERATIONAL TECHNICAL DATA TABLE OF THE MACHINE)

ATTENTION

FASTEN THE MACHINE SO THAT IT WILL NOT GET DAMAGED DURING TRANSPORT.

Handling with a forklift truck

The machine can be lifted with a forklift truck. In this case, it must be held from the side part of the machine in order to position it in a stable way onto the forks (see following figure).

ATTENTION

LIFT THE MACHINE ONLY WITH WORK PLATFORM FULLY LOWERED.

SECTION 5. EMERGENCY PROCEDURES

This section shows the operations to be carried out in the event of an emergency during machine operation.

EMERGENCY OPERATION

Operator unable to control the machine

CONDITIONS IN WHICH THE MACHINE OPERATOR IS IMMOBILISED, TRAPPED OR UNABLE TO ACTIVATE OR CONTROL THE MACHINE.

- The other personnel must only operate the machine from the emergency controls on the ground in case of absolute need.
- The machine controls must only be used by qualified personnel. INTERRUPT MACHINE ACTIVITY IF THE CONTROLS DO NOT FUNCTION CORRECTLY.
- In case of incorrect operation of the controls or interruption of the electric power supply, the emergency stop must be activated and, if necessary, a qualified operator must carry out the EMERGENCY DESCENT phases from the ground. Proceed as follows:

  1. Activate the emergency button (Emergency STOP) to disconnect the power supply;
  2. ATTENTION: ensure there are no persons within the action range of the machine;
  3. Lift the front protective screen in order to reach the release knob (1);
  4. ATTENTION: Pull the release knob slowly to perform emergency descent and constantly monitor the entire descent phase of the work platform (2);

5. When descent has finished, release the knob and close the front protective screen;
6. Restore power to the machine.

The work platform is locked in its overhead position

If the work platform blocks or jams in overhead equipment or structures, transfer the person present on the work platform to a safe place before freeing the machine.
Recovery equipment can be used to allow the occupants to climb down from the working platform. To stabilise the machine movement use a crane or forklift.

REPORTING THE ACCIDENT

Faraone Industrie Spa must be immediately informed of any accidents to a Faraone product. Contact the factory by telephone and give all the necessary details, also in absence of injuries or evident damages to the property.

ATTENTION

AFTER AN ACCIDENT, INSPECT THE ENTIRE MACHINE AND CHECK ALL FUNCTIONS. DO NOT LIFT THE WORKING PLATFORM UNTIL ONE IS SURE THAT ALL DAMAGES HAVE BEEN REPAIRED, AS REQUIRED, AND THAT ALL CONTROLS WORK PROPERLY.

SECTION 6. MAINTENANCE PERFORMED BY THE OPERATOR

ATTENTION

MAINTENANCE OPERATIONS MUST BE PERFORMED EXCLUSIVELY BY QUALIFIED PERSONNEL.

ATTENTION

WE RECOMMEND USING ONLY SPARE PARTS APPROVED BY THE MANUFACTURER.

ATTENTION

TO CARRY OUT ANY MAINTENANCE AND/OR CLEANING PROCEDURES ON THE MACHINE THAT REQUIRE THE EXTENDIBLE STRUCTURE TO BE IN A PARTIALLY EXTENDED POSITION, ANCHOR THE WORK PLATFORM SAFELY (FOR EXAMPLE, USING A CONTRASTING STRUT ON THE GROUND) TO PREVENT IT FROM ACCIDENTALLY SLIPPING OUT ONTO THE OPERATOR CARRYING OUT THE MAINTENANCE OPERATIONS.

Battery Maintenance

You are required to periodically check for any corrosion and fastening of the terminals.
Replace the batteries as follows:

1. Check that the machine is not connected to the mains supply (batteries charging);
2. Use the switch to disconnect the power from the machine;
3. Open the protective cover on the battery compartment;
4. Loosen the connection terminals of the batteries (positive pole and negative pole);
5. Remove the batteries and replace them with new ones;
6. Connect the terminals to the new batteries, making sure to do so correctly (red wire to the positive pole, black wire to the negative pole) and tighten them;
7. Close and lock the protective cover.

ATTENTION

SHOULD THE BATTERY BE DAMAGED, USE THE RELATIVE PERSONAL PROTECTIVE EQUIPMENT TO PROTECT HANDS AGAINST CHEMICAL ATTACK WHEN REPLACING THE BATTERY.
DISPOSE OF THE BATTERIES IN ACCORDANCE WITH THE LAWS IN FORCE.
REPLACE THE BATTERIES WITH THE SAME TYPES AS THOSE SUPPLIED BY THE MANUFACTURER.

Wheels Maintenance

Periodically check for wear or damage to the tread. The wheels must be replaced if the edges are worn or the profiles are deformed. If the wheels have significant damage on their tread or walls, immediately evaluate the severity of the damage before starting the machine up again.

Lubrication: hydraulic oil

Faraone Industrie Spa recommends using hydraulic oil with a viscosity index of 100. It is not recommended to mix oils of different makes or types, since they may not contain the necessary additives or the same viscosity.

ATTENTION

HYDRAULIC OIL TOP UP AND REPLACEMENT OPERATIONS MUST BE CARRIED OUT WITH WORK PLATFORM FULLY LOWERED.

ATTENTION

DISPOSE OF THE REPLACED OIL IN ACCORDANCE WITH THE LAWS IN FORCE.

FREQUENCY	INTERVENTION TO BE CARRIED OUT
DAILY	✓ HYDRAULIC OIL
DESCRIPTION: Check the fluid level on a daily basis. ***(c)***	
3 MONTHS ***(b)***	✓ CHECK LIFTING CHAINS
DESCRIPTION: When restoring lubrication, make sure the chains are not dirty with mud, rubble, ice or other foreign bodies. Clean the chains accurately before lubricating them. *The lifting chains must be lubricated with the extendible structure completely closed, by gravity, from the upper part, directly on the return wheels.* *Check the chains for wear (See: "Checks on the lifting chains")*	
6 MONTHS ***(b)***	✓ MOVING PARTS LUBRICATION; ✓ SLIDING WHEELS CHECK.
DESCRIPTION: The extensions slide on blocks fitted with nylon wheels. Four sliding blocks, two upper and two lower, are assembled for each pair of extensions. Three wheels are positioned on each shoe, for a total of 12 for each pair of extensions. On each block, one of the 3 wheels turns on an adjustable axis. This allows the wheels to be adjusted when they are worn and generate any play of the extendible structure parts in motion, consequently making the structure unstable. ***(a)***	
2 YEARS ***(b)***	✓ HYDRAULIC OIL
DESCRIPTION: Replacing the hydraulic oil.	

Note (a) Contact the Manufacturer for further information and instructions regarding sliding wheels adjustment of the extendible structure after detecting a clearance anomaly.

Note (b) The recommended frequency of lubrication and of the wear checks is based on normal use. If the machine is used for heavy duty work conditions, such as a high number of cycles, unfavourable position, corrosive/dirty

environment, etc., the user must increase the frequency of the checks accordingly.

Note (c) Before checking the hydraulic oil level, operate the machine for a complete lifting and lowering cycle. Otherwise, in the hydraulic tank, you could obtain an incorrect oil level value.

ATTENTION

CONTACT THE MANUFACTURER IF IN DOUBT WITH REGARD TO THE FREQUENCY AND METHOD OF ROUTINE AND/OR EXTRAORDINARY MAINTENANCE ACTIVITIES.
DO NOT TAKE INITIATIVES IF YOU ARE UNSURE OF WHAT YOU ARE DOING.

"CHECKS ON THE LIFTING CHAINS"

Noise of the chains

If the chains are not fully lubricated, the iron will produce a grinding noise. This causes metal against metal friction between the joints of the chain, which can lead to a jamming-slipping effect, causing the work platform to move in an uneven fashion.

Superficial rust

Plates with rusty surfaces are easily recognisable by the typical brown colour. Rust can lead to the chains breaking.

Rust on the joints

The corroded connection points are recognisable by their red-brown colour. This phenomenon can arise from the lack of lubrication or use of grease and oil that is not suitable for penetrating the joints.

Rigid joints

If any joint is not in a straight position when it leaves the return pulley, it can no longer be used. This phenomenon can be caused by corrosion or cold micro welding.

Turned pins

This is the consequence of incorrect lubrication and the aforementioned phenomenon of stiffened joints. This phenomenon is easily recognised by the difference in the positions of the pin strokes compared to their factory setting.

Pins coming out of their places

A direct consequence of the rigid joints of turned pins.

Wear

It is important to examine whether the connection plates are severely worn.

Broken plates

This is the result of stress caused by overloading. Corrosion can contribute to leading to this problem.

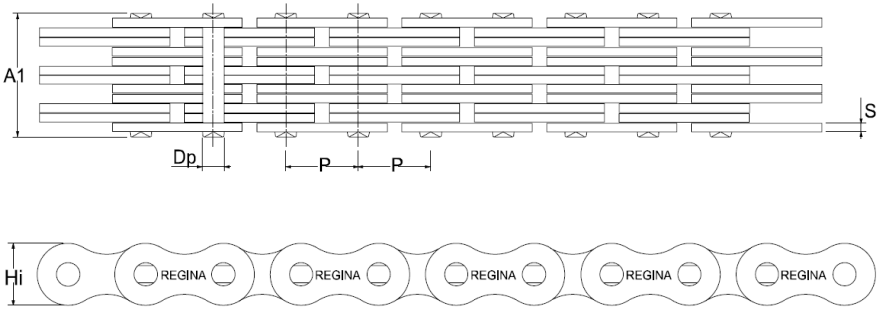
Broken pins

This problem usually develops as a result of corrosion on the chain joints. Since the pins of a single chain are subject to the same load and corrosion conditions, one break is usually followed by other. Experience has shown that this type of break is not always easily recognised in that there are no evident changes in the state of the chains, in particular during the initial phase.

Checking wear of the chain

(Check the cause of the malfunction before installing the new chain)

Lifting chain
Producer: REGINA – Model: AL544



A1 = 19.1 mm ; Dp = 5.09 mm ; P = 15.875 mm ; S = 2.04 mm ; Hi = 12.83 mm

Extension:
Measurement of chain tightened slightly in straight lines of 1/5 to 1/15 of the total length. Maximum permitted extension: 2% along the most worn section.

Wear of the profile of the plates:
Where wear is most noticeable: maximum permitted reduction of the height 2.5% on one side only, 4% if on two sides, in relation to the initial height.

Wear on the side of the chain:
Replace the chain if the protruding part of the head of the pins is worn down by more than 25% or if the external side is worn down by more than 20% of its width.

SECTION 7. ATTACHED DOCUMENTATION

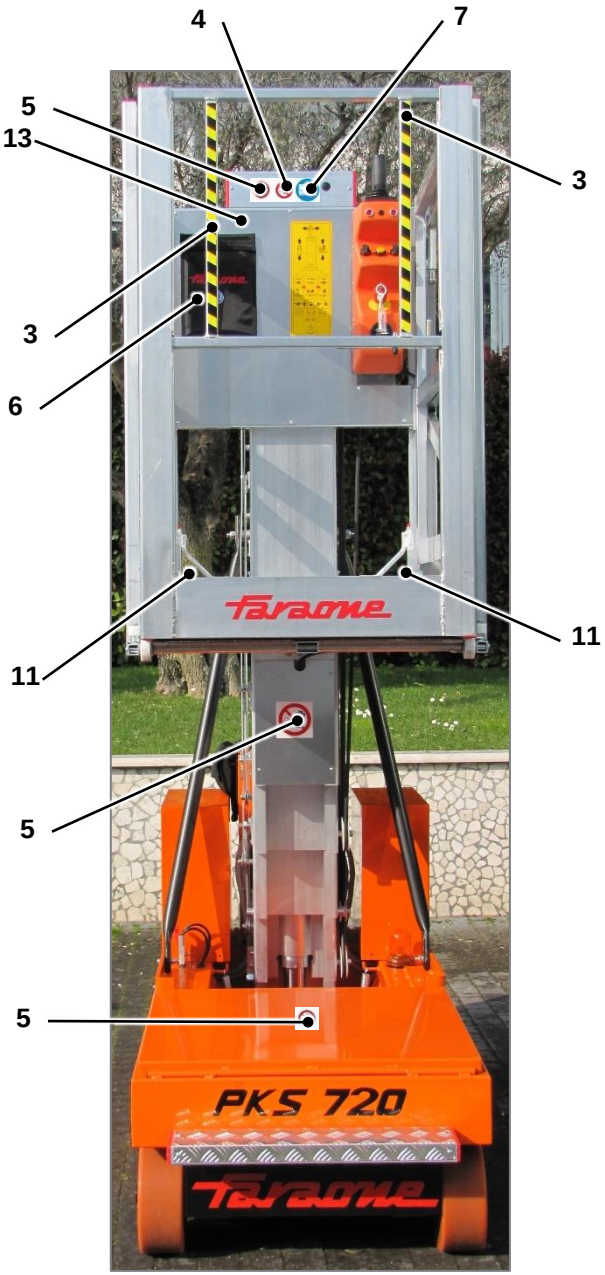
- ✓ ATTACHMENT 1 – Layout for the application of the stickers;
- ✓ ATTACHMENT 2 - PKS 1200E-920 hydraulic diagram;
- ✓ ATTACHMENT 3 - PKS 720 hydraulic layout;
- ✓ ATTACHMENT 4 – Electrical layout PKS 1200E;
- ✓ ATTACHMENT 5 – Electrical layout PKS 920 – PKS 720;
- ✓ ATTACHMENT 6 - Inspection certificate
- ✓ ATTACHMENT 7 – Register of inspections and repairs.

ATTENTION

SHOULD THE MACHINE BE TRANSFERRED TO A THIRD PARTY, ALL DOCUMENTATION MUST BE DELIVERED WITH THE SAME.

ATTACHMENT 1 – Layout for the application of the stickers

Pos.	SYMBOL	DESCRIPTION	Pos.	SYMBOL	DESCRIPTION
1		***DANGER SIGN*** CRUSHING AND TRAPPING OF THE LOWER LIMBS	2		***DANGER SIGN*** CRUSHING AND TRAPPING OF THE UPPER LIMBS
3		***DANGER SIGN*** POSSIBILITY OF IMPACT	4		***PROHIBITION SIGN*** FOR UNAUTHORISED PERSONNEL TO USE THE MACHINERY
5		***PROHIBITION SIGN*** TO REMOVE THE SAFETY PROTECTIONS AND DEVICES	6		***OBLIGATION SIGN*** CONSULT THE OPERATING MANUAL
7		***OBLIGATION SIGN*** WEAR NON-SLIP SHOES	8		***OBLIGATION SIGN*** ONLY LIGHTWEIGHT TOOLS
9	***INDICATION***	 ***200 kg***	10	***INDICATION***	"DANGERS AND PROHIBITIONS IN USING THE PLATFORM"
11	***INDICATION***	"HOLDING ONLY 1 PERSON"	12	***INDICATION***	"EMERGENCY DESCENT"
13	***INDICATION***	"INTERNAL USE AND IN THE ABSENCE OF WIND"	14	***PLATE***	"MAIN TECHNICAL CHARACTERISTICS OF THE MACHINE"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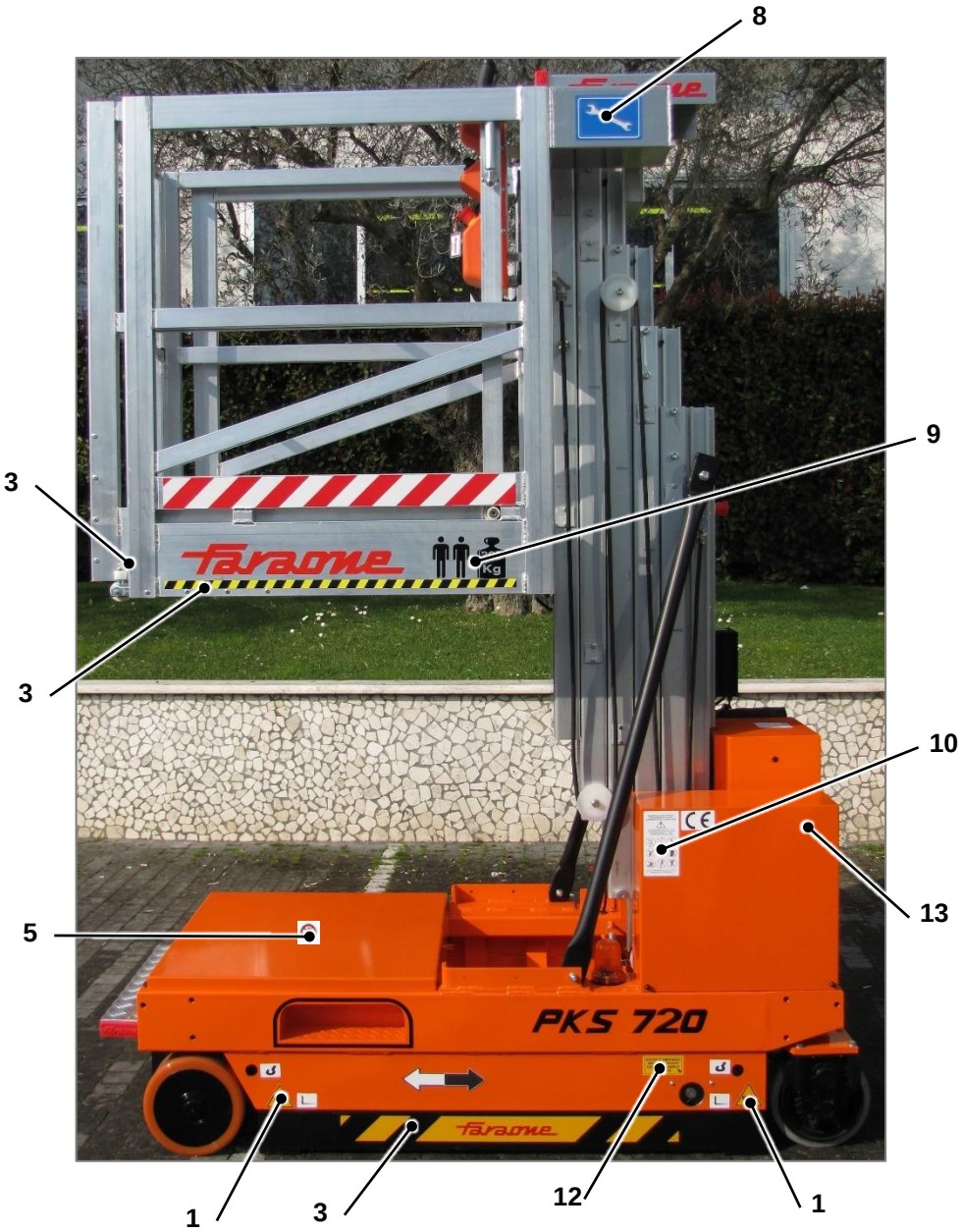
PKS 720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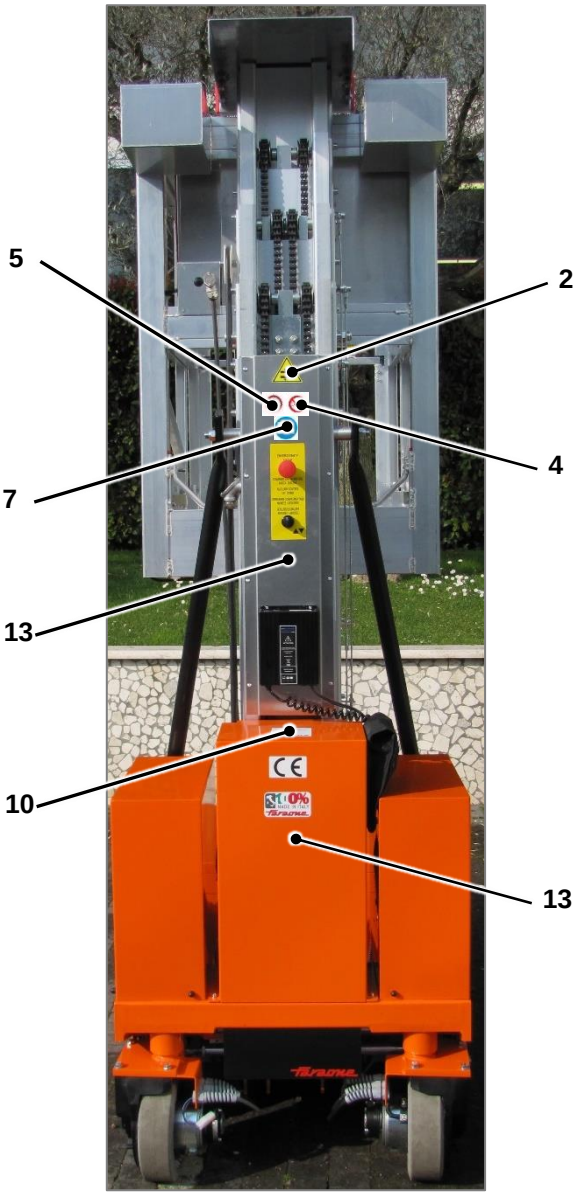
PKS 720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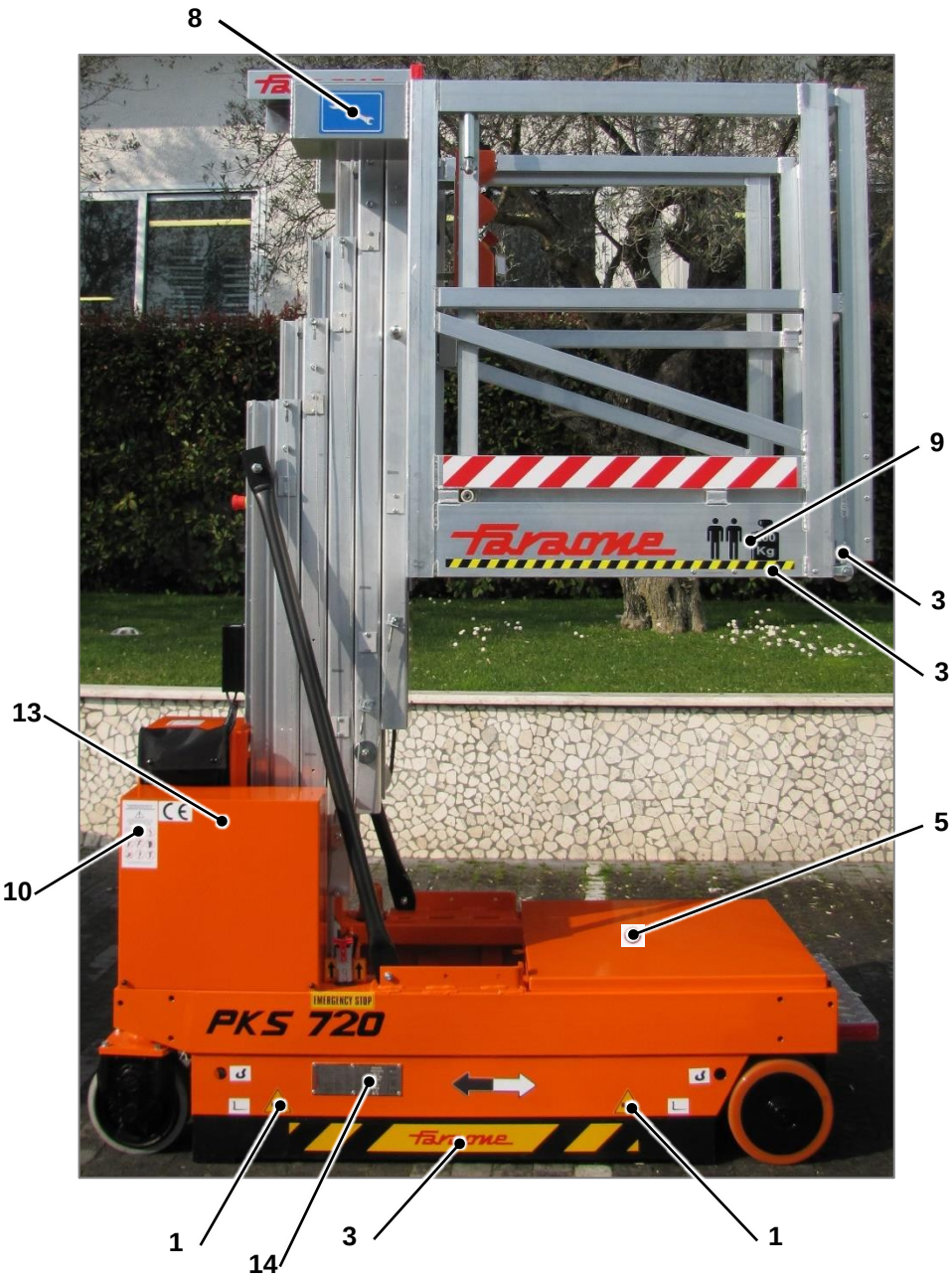
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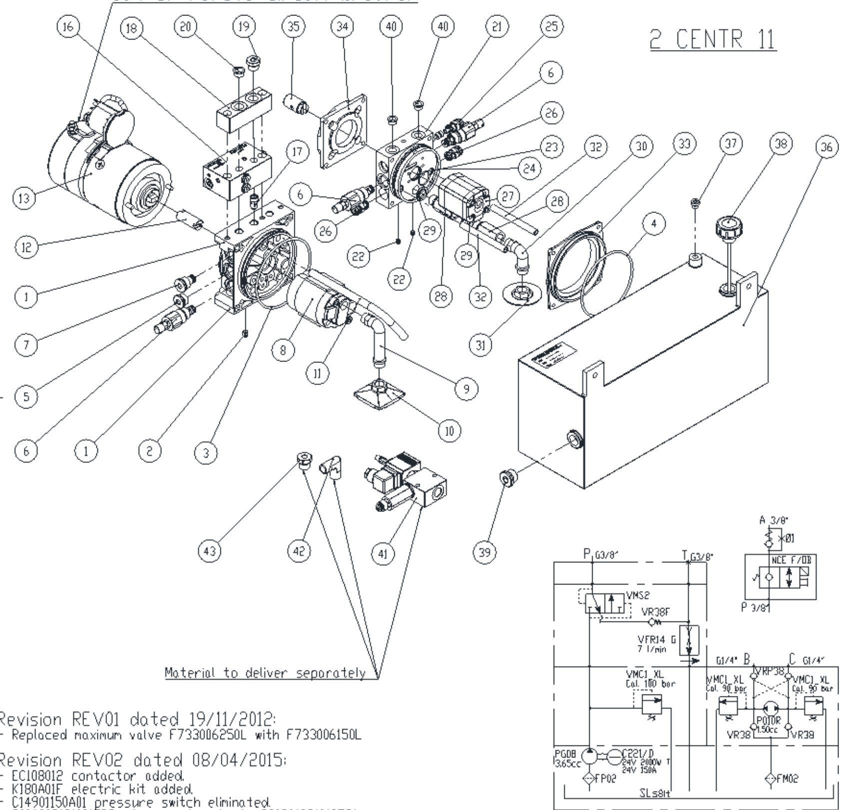
PKS 720
EMERGENCY STOP

ATTACHMENT 2 – PKS 1200E-920 hydraulic diagram

2 CENTR 11



BOM table

No. item	Part no.	NAME	Quantity
1	S515G05KEL07	Manifold lav KEL7, 2,7; AIA	1
2	EC035M08	Expander cap Ø8	1
3	EC114268	O-Ring NBR 70Sh. 110.72x3.53 - 4437	1
4	EC114268	O-Ring NBR 70Sh. 110.72x3.53 - 4437	1
5	F749003	TC2- 3/4 Cap- 16UNF, H=12.5	1
6	F733006150L	VMC1 150 bar max valve for lead sealing	3
7	F749000	TC1-Cap 3/4-16UNF, Ø12.7	1
8	EC10913.65008	Gr1 pump - 3.65cc - S - 302 LH	1
9	ES52435305	Curve pl. suction hose 3/8" Y=77	1
10	ES5063500001	Polypropylene suction filter 3/8"BSPP	1
11	ES52301003	Discharge pipe fe. M12x1 L164 H84	1
12	ES5085320017	Joint FC02 160-220	1
13	EC106221	Motor CC 24V-2200W T (C221) My	1
14	EC108012	Contactor 24V-150A TP	1
15	K180A01F	Mot-relay electric kit Ø114 - 125	1
16	F4518259	Block for B259 with VRF14	1
17	EC7370714	Fixed comp. choke 7L 1/4" VRF14	1
18	F451B97	Block B97	1
19	EC031002	Cap TCE1 with OR, 3/8"	1
20	EC12601ST15.5	3/8"thread protective cap	1
21	ES516004	Manifold PU05-MIR x gr.05 rev	1
22	EC035M06	Expander cap Ø6	2
23	EC114024	O-Ring NBR 70Sh. 21.95x1.78 - 2087	1
24	EC114261	O-Ring NBR 70Sh. 88.50x3.53 - 4350	1
25	F73200253810D01	VRP38, Ret. valve ST 3/8 Ø10 double	1
26	F73200138	Check valve VR38	2
27	EC10901.50007	Pump 00R1.50X060	1
28	ES42038M38F041A	Stud bolt M-F(G3/8") H=41	2
29	EC014003	3/8" bonded washer	2
30	ES52435301	Curve pl. suction hose 3/8" Y=40	1
31	ES506FRL02319	Metal filter G3/8F Ø63H18 10l 90µ FM02	1
32	ES52302100	Discharge pipe fe. M10x1 L100	2
33	ES5072000002	Tank flange F50	1
34	ES507022	Manifold flange M-Mec 71	1
35	ES5085320010	Joint FA71-B14/71 (PU10)	1
36	ES511057	Sheet metal tank BL 2 collars. x 411104	1
37	EC031000	Cap TCE1 with OR, 1/8"	1
38	EC1270212160	Ball cap + filter TPF-20TMOFA-1/2" L=160	1
39	EC031003	Cap TCE1 with OR, 1/2"	1
40	EC12601ST12	Plastic cap 1/4"	2
41	B003018B1012DB1	Block BL6,NC-DT-EM-F, Ø12,7 G3/8" 24Vdc + porochute	1
42	C185AAC38C38	Con. fitting 3/8M - 90° - 3/8M	1
43	EC062004	Half nipples reduction M3/8- F1/8	1

Revision REV01 dated 19/11/2012:
- Replaced maximum valve F733006250L with F733006150L

Revision REV02 dated 08/04/2015:
- EC108012 contactor added.
- K180A01F electric kit added.
- C14901150A01 pressure switch eliminated.
- B006002IB1001DB2. block replaced with B003018B1012DB1.

05				
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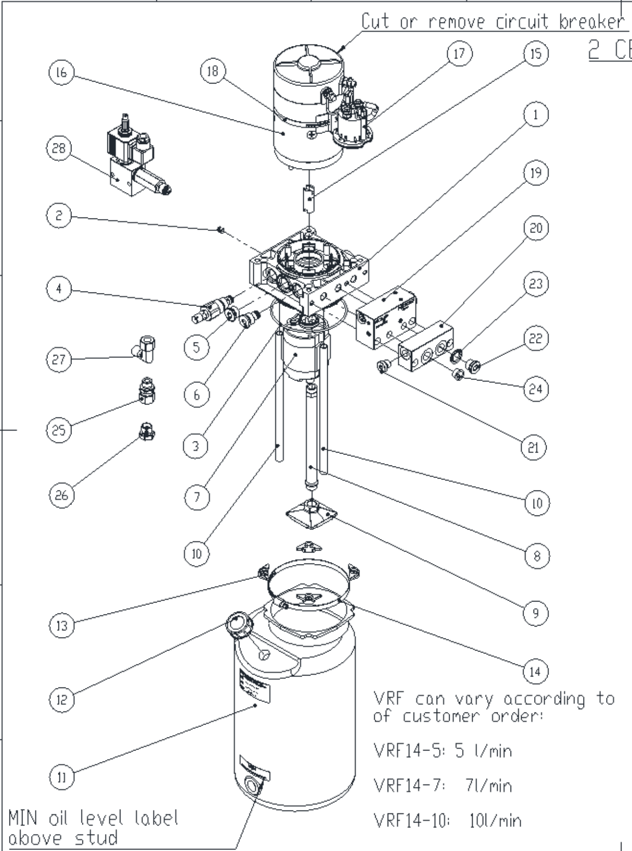
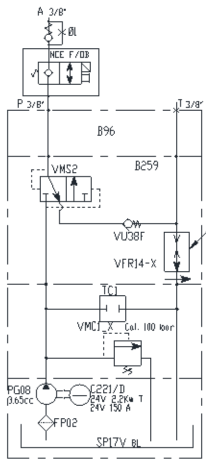
01				
IND.	CHANGE	DATE	NAME	

Material (not specified) — COLOUR — WEIGHT (Gr.) — PRINT N°
THERMAL AND/OR SUPERFICIAL TREATMENT
TO REPLACE — DATE — NAME
REPLACED BY — DATE — NAME
DRAWN BY: D. Sarcoli — CHECKED BY: F. Vezzosi — APPROVED BY: F. Vezzosi — STANDARD VERIF.
SCALE 1:20
TECFLUID Srl
NAME 104_A1AX/M1RXX/PG08/P010R/C221/D/FC02/FA71/LH/G00
GROUP — CODE N° P1A1082006 — REV. 02 — SHEET Exploded

ATTACHMENT 3 – PKS 720 hydraulic diagram





BOM table

No. item	Part no.	NAME	Quantity
1	SS15G05KEL07	Manifold lav KEL7. 12,7; AJA	1
2	EC035M08	Expander cap 08	1
3	EC114611	O-Ring NBR 70Sh. 112.00x3.00	1
4	F733006150L	VMC1 150 bar max valve for lead sealing	1
5	F749003	TC2- 3/4 Cap- 16UNF. H=12.5	1
6	F749000	TC1-Cap 3/4-16UNF. Ø12.7	1
7	EC10913.65008	Gr1 pump - 3.65cc - S - 302 LH	1
8	ES524AA200	Suction hose pl. 3/8 L=200	1
9	ES506J500001	Polypropylene suction filter 3/8" BSPP	1
10	ES5230J103	Discharge pipe fe. M12x1 L250	2
11	ES512AC09BV	Tank pl. 123; 9,0L B vert.	1
12	EC1270J12	Filling cap + filter TNDF-1/2"	1
13	ES419002	M6 special angle nut	4
14	C05609110130	Clamp H9 Ø110-130	1
15	ES5085J20017	Joint FC02 160-220	1
16	EC106221	Motor CC 24V-2200W T (C221) My	1
17	EC108012	Contactor 24V-150A TR	1
18	K180A01F	Mot-relay electric kit Ø114 - 125	1
19	F451B259	Block for B259 with VRF14	1
20	F451B96	Block B96	1
21	EC031001	Cap TCET with OR, 1/4"	1
22	EC030003	Cap 3/8" BSPP - DIN 908	1
23	EC014003	3/8" bonded washer	1
24	EC12601ST15.5	3/8 thread protective cap	1
25	C185AAL38D12	Cyl. fitting 3/8M - straight - Ø12	1
26	EC062004	Half nipples reduction M3/8- F1/8	1
27	C185AAC38C12	Con. fitting 3/8M - 90° - Ø12	1
28	B003018B1012DB1	Block BL6,NC-DT-EM-T, Ø12,7 G1/8" 24Vdc + parachute	1

Revision REV01 dated 19/11/2012:
- Replaced maximum valve F733006250L with F733006150L.

Revision REV02 dated 08/04/2015:
- EC108012 contactor added.
- K180A01F electric kit added.
- C14901150A01 pressure switch eliminated.
- B006002B1001DB2 block replaced with B003018B1012DB1.

Give separately

IND.	CHANGE	DATE	NAME
05			
04			
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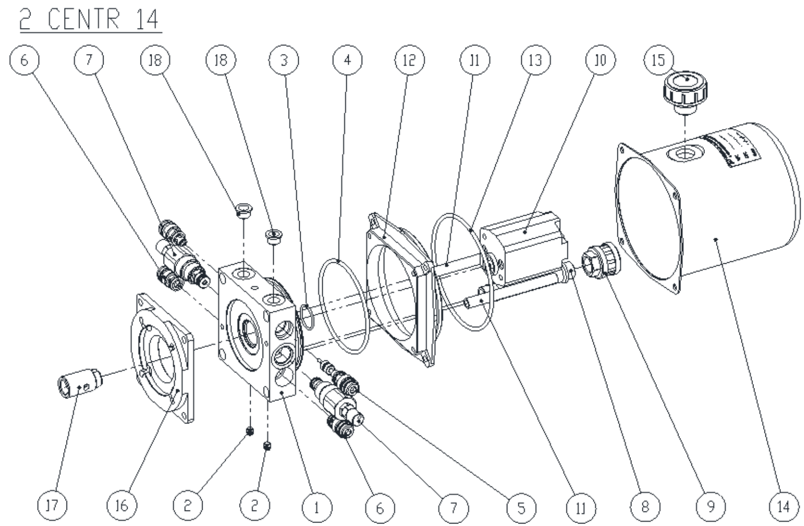
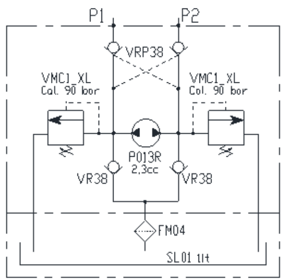
TECFLUID Srl
NAME: 104_AJAX/PG08/SP17V/FCD2/C221/D/1V/GDD/B259A/B96
CODE N°: P1A1082002
REV. 02
SHEET: Sheet1
SCALE: 1:5
DRAWN BY: G. Saccon — CHECKED BY: F. Vezzosi — APPROVED BY: T. Vezzosi
DATE: 08/04/2015

2 CENTR 14





BOM table

No. item	Part no.	NAME	Quantity
1	ES516004	Manifold PU05-M1R x gr.05 rev	1
2	EC035M06	Expander cap Ø6	2
3	EC114024	O-Ring NBR 70Sh. 21.95x1.78 - 2087	1
4	EC114261	O-Ring NBR 70Sh. 88.50x3.53 - 4350	1
5	F732002S3810D01	VRP38. Ret. valve ST 3/8 Ø10 double	1
6	F73200138	Check valve VR38	2
7	F733006150L	VMC1 150 bar max valve for lead sealing	2
8	ES524AA100	BD100-Vacuum pipe 3/8" L=100	1
9	ES506FR1.02355	Filter lan. cyl. 3/8"-F- Ø32 H29 10l 90μ FM04	1
10	EC10902.30029	Pump gr0 - 2,30cc - S- X0R	1
11	ES52302100	Discharge pipe Fe. M10x1 L100	2
12	ES5072000002	Tank flange FS0	1
13	EC114268	O-Ring NBR 70Sh. 110.72x3.53 - 4437	1
14	ES511002	Sheet metal tank 1lt 1 vert SL01	1
15	EC1270112	Filling cap + filter TMDF-1/2"	1
16	ES507022	Manifold flange M-Mec 71	1
17	ES5085320010	Joint FA71-B14/71 (PU10)	1
18	EC12601ST12	Plastic cap 1/4"	2

IND.	CHANGE	DATE	NAME
05			
04			
03			
02			
01			

MATERIAL — WEIGHT (Gr) — COLOUR — PRINT N° — THERMAL AND/OR SUPERFICIAL TREATMENT

DRAWN BY: D. Saccani — CHECKED BY: F. Vezzosi — APPROVED BY: F. Vezzosi

TECFLUID S.r.l.

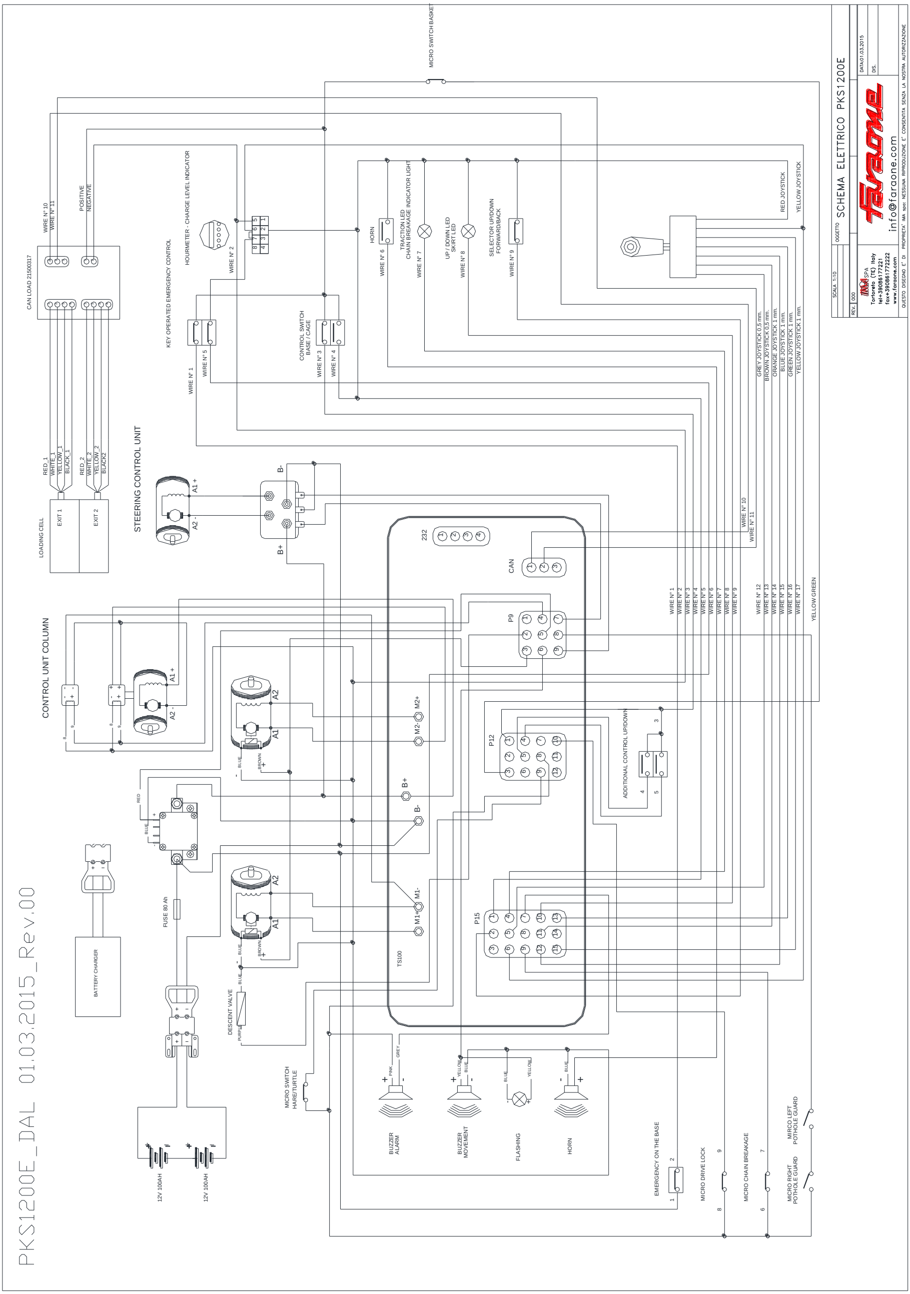
SCALE 1:3

NAME: 104_M1RX/P013R/FAM71/FS0/SL01/1H/G00

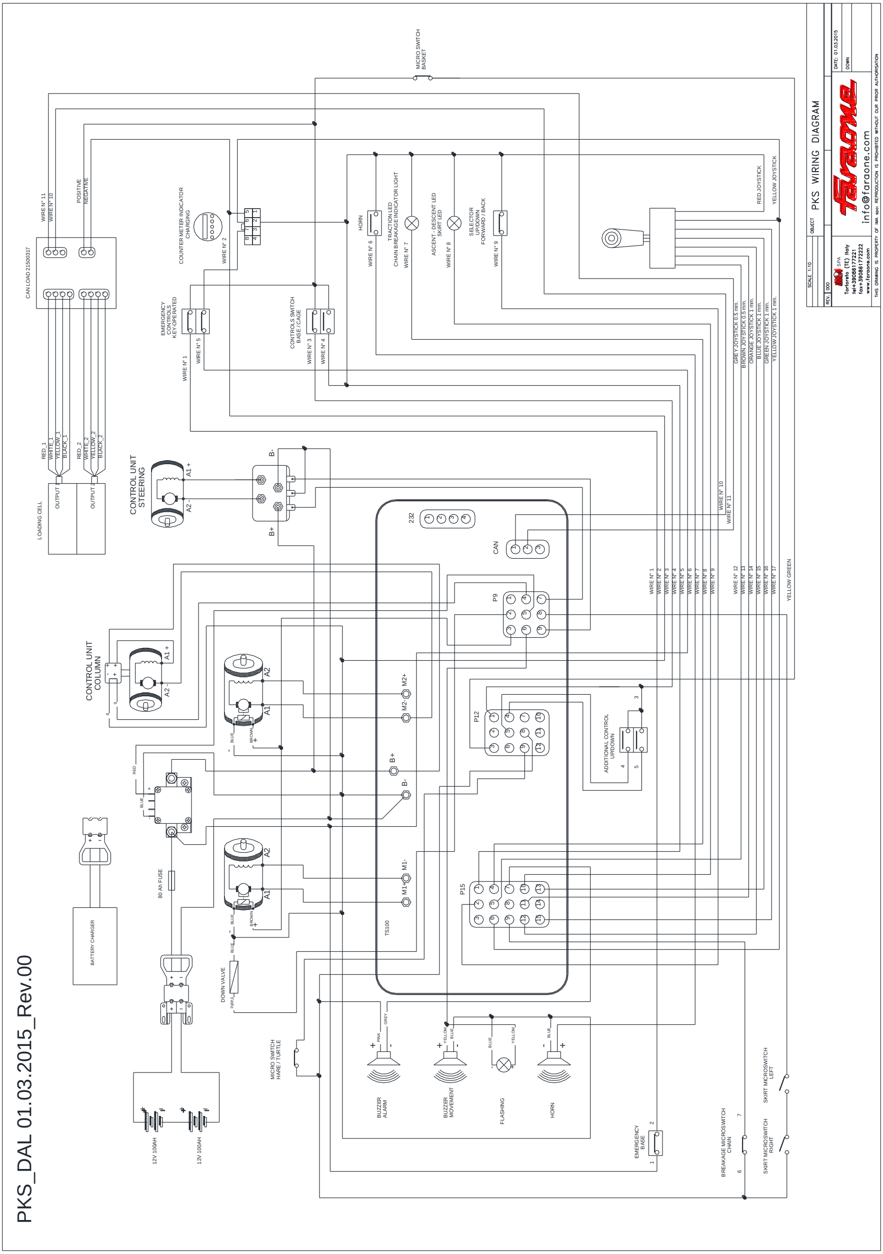
CODE N° P0R013X000 — REV. D1 — SHEET Exploded

Drawing modified on 19/11/2012 REV01:
- Replaced maximum valve F733006250L with F733006150L

ATTACHMENT 4 - Electrical layout PKS 1200E


PKS1200E_DAL 01.03.2015_Rev.00
SCHEMA ELETTRICO PKS1200E
CONTROL UNIT COLUMN
STEERING CONTROL UNIT
BATTERY CHARGER
info@faraone.com

ATTACHMENT 5 - Electrical layout PKS 920-PKS 720


PKS_DAL 01.03.2015_Rev.00
PKS WIRING DIAGRAM
info@faraone.com
CONTROL UNIT STEERING
CONTROL UNIT COLUMN
LOADING CELL
BATTERY CHARGER
80 Ah FUSE
12V 100AH
12V 100AH
DOWN VALVE
MICRO SWITCH HARE / TURTLE
BUZZER ALARM
BUZZER MOVEMENT
FLASHING
HORN
EMERGENCY BASE
BREAKAGE MICROSWITCH CHAIN
SKIRT MICROSWITCH RIGHT
SKIRT MICROSWITCH LEFT
ADDITIONAL CONTROL UP/DOWN
MICRO SWITCH BASKET
CAN LOAD 21500317
COUNTER METER INDICATOR CHARGING
EMERGENCY CONTROLS KEY-OPERATED
CONTROLS SWITCH BASE / CAGE
TS100
P9
P12
P15
CAN
232

ATTACHMENT 6 - Inspection certificate

Inspection test carried out in accordance with UNI EN 280:2015 standard before introducing the machine model on the market:

- ☐ PKS 1200E AERIAL PLATFORM
- ☐ PKS 920 AERIAL PLATFORM
- ☐ PKS 720 AERIAL PLATFORM

Serial number: _____

The machine, built in compliance with the model that is the object of type testing, underwent the following tests:

- ■ Brake test
- ■ Overload test
- ■ Operation test

Producing a POSITIVE result.

Tortoreto, on

ATTACHMENT 7 – Register of inspections and repairs

Date	Comments

NOTES:

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