

FARAONE[®]
Industrie spa



AERIAL PLATFORM

ZP8 **ZP10** **ZP12** **ZP14** **ZP16**

USE AND MAINTENANCE INSTRUCTIONS

TRANSLATION OF THE ORIGINAL INSTRUCTIONS



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ENGLISH

PREMISE

The purpose of this use and maintenance manual is to provide the users with the essential information to carry out the steps intended for safe and correct machine operation, in accordance with the purposes for which it has been manufactured.

All information in this manual must be read and understood before making any attempt to operate the machine.

THIS MANUAL IS VERY IMPORTANT DOCUMENTATION; 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 COMPLY WITH THE SAFETY PRECAUTIONS

SYMBOLS AND TERMS



ATTENTION

The danger symbol draws 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.

Elevating 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 basket that is moved to the required work position loaded and from which the operator is able to carry out construction, repairs, inspections, or other similar operations.

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

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

Frame: Machine Base. It may be pushed-around or self-propelled.

TECHNICAL SUPPORT - WARRANTY

Before contacting the Manufacturer, the Customer must make sure they have the following information:

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

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

Said warranty covers faulty components and the labour required for servicing, if this is carried out at the Manufacturer's premises.

Transport of the machine is at the purchaser's expense.

The warranty is valid provided all rules laid down for correct use of the machine are complied with.

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 is obliged to report commissioning of the same to the local department of INAIL (National Institute for the Prevention of Accidents at Work).

They must also arrange for the machine to undergo ANNUAL inspection of its actual condition and working order.

For machines sold in other countries:

The owner of the machine must ascertain whether installation of the machine needs to be reported and/or any need for periodic inspections by specific competent agencies.

SECTION 1. SAFETY PRECAUTIONS

GENERAL INFORMATION

This section illustrates the necessary precautions for correct and safe use of the machine and its maintenance. To assure 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 skilled person to establish a maintenance schedule based on the information provided in this manual, which must be strictly complied with.

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 skilled operator.

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



ATTENTION

FAILURE TO COMPLY WITH THE SAFETY PRECAUTIONS LISTED IN THE MANUAL MAY DAMAGE THE MACHINE AND THE PROPERTY AND CAUSE INJURIES OR FATAL ACCIDENTS.

PRELIMINARY PROCEDURES

Operator training and knowledge

- Carefully read the manual before using the machine.



- Use the machine only after being fully trained by authorised personnel.
- The machine can only be used by authorised and skilled personnel.
- Read carefully and comply with all the WARNING statements and the operational instructions reported on the machine and in the manual.
- Use the machine for applications falling within those intended by Faraone Industrie Spa.
- All operational personnel must familiarise with the emergency controls and operation of the machine, as specified in the manual.
- Carefully read and comply with all company, local and government regulations 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 hazard in the work place.
- Do not operate the machine on lorries, trailers, railway carriages, boats in water, 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 machine operation at temperatures not within the indicated range.

- The machine cannot be switched on in environments stated as 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 inspections and functional checks. For further instructions, refer to *Section 3* of this manual.
- Operate the machine only after having carried out all assistance and maintenance set out in the requirements specified in this manual.
- Make sure all safety devices work properly. Any changes to such devices constitute a breach of the safety regulations.
- Do not operate the machine if its signs or decals indicating the safety regulations or instructions are illegible or missing.
- Avoid building up debris on the floor of the machine. Prevent mud, oil, grease and other slippery substances from coming into contact with shoes and with the floor of the machine.



ATTENTION

ANY CHANGES OR ALTERATIONS TO THE MACHINE MAY ONLY BE CARRIED OUT WITH PRIOR WRITTEN AUTHORISATION BY THE MANUFACTURER.

OPERATION

General information

- Only use the machine to lift personnel and their tools and equipment.
- Do not operate a faulty machine. Should a fault occur, switch off the machine.
- Do not move the control switches abruptly or levers from one position to the opposite one, going through the neutral position; always move the switch to the neutral position before moving it in the position of the next function. Operate the controls by exerting slow and even pressure.
- If there are people on the work platform, allow personnel to operate the machine from the ground exclusively in the event of an emergency.
- Completely lower the extending structure and disconnect the power supply before leaving the machine unattended.
- When welding is carried out from the machine, take precautions to protect all machine components from contact with sprays generated by welding or with molten metal.
- Ensure the power tools are stored correctly, avoiding to let them hang by the cords in the machine's work area.
- (In case of a battery powered machine) Charge batteries in a well-ventilated area.

Fall hazard



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

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

Electrocution hazard



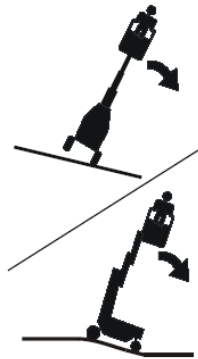
Maintain a distance of at least 3 m between the machine parts and the occupants with their tools and equipment, and an electric line or equipment having an electric charge of up to 50,000 Volt. 0.3 m must be added for every increment equal to or less than 30,000 Volt.

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 regulations are stricter.	

Table 1-1: Minimum safety operational distance

The minimum safety operational distance may be reduced in case of insulating barriers installed to prevent contact 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 intended for the insulating barrier. This distance must be determined by a skilled person in accordance with the company, local and government regulations concerning work carried out near live equipment.

Tilting hazard



- 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.
- Do not exceed the maximum capacity of the machine. Distribute the loads on the floor of the work platform as evenly as possible.
- Keep the machine's chassis (including outriggers) at a minimum distance of 0.5 m from potholes, bumps, slopes, obstacles, debris, hidden holes and other potential dangers at ground level.
- Do not attempt using the machine as a crane. Do not tie the machine to any adjacent structure.

- Do not make the working platform larger with unauthorised platform extensions or additions.
- 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. Use a crane, forklift trucks or other adequate equipment to stabilise the machine and allow the personnel to get off the work platform.
- Do not move the machine with the stabilisers inserted and the extendible structure lifted. Before moving the machine, completely lower the extending structure.

Crushing and impact hazard



- When using the machine or lifting or lowering the work platform, check the distances above, at the sides and below the platform.
- Do not lean over the rails of the work platform when the machine is in operation.
- Always pay the utmost attention to prevent the operational controls and people on the work platform from being hit or hindered by any obstacles.
- Ensure the operators of other machines at a height or at ground level are informed of the presence of the machine.
- Warn personnel not to work, stand or walk underneath the lifted platform. Mark off the floor area with appropriate barriers, as required.

TOWING, LIFTING AND TRANSPORT

- Do not allow personnel to stand on the work platform while towing, lifting and transport.
- Only tow the machine in case of emergency, faults, a power-cut or to load/unload it. Refer to the "Emergency procedures" section in this manual.
- Before towing, lifting and transport, ensure the work 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, place the forks exclusively in the appropriate areas of the machine. Lift by means of lifting equipment of adequate capacity.

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

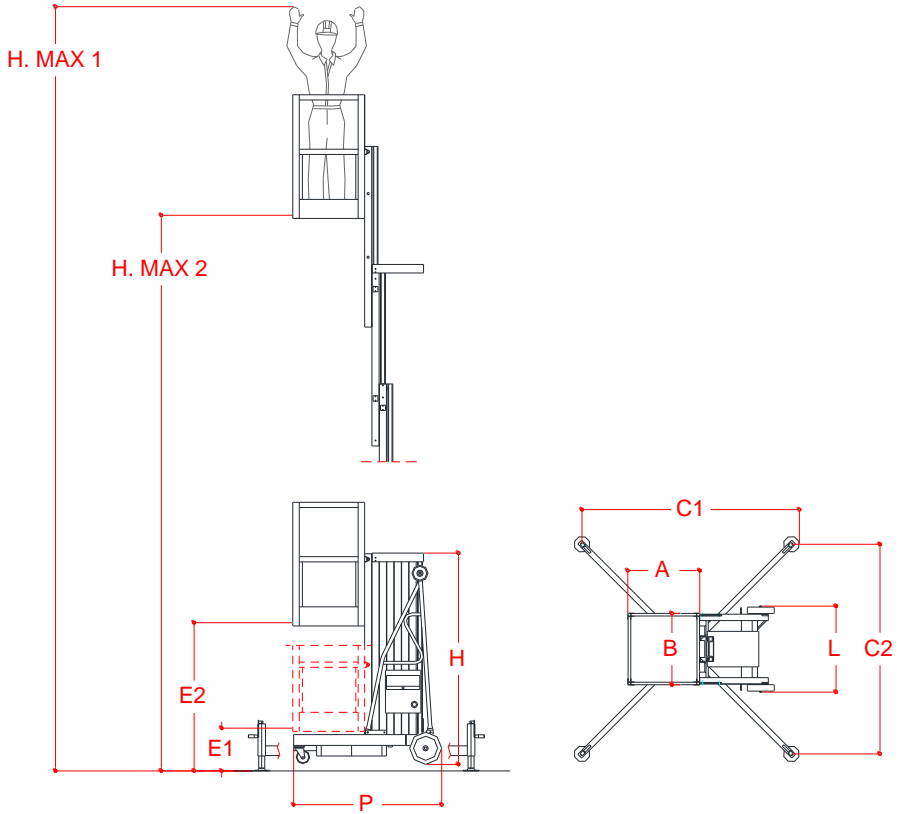
SECTION 2. GENERAL TECHNICAL DATA**ATTENTION**

THE AERIAL PLATFORM ZP IS A LIFTING MACHINE INTENDED TO MOVE PERSONS TO THEIR WORK POSITIONS ON THE WORK PLATFORM. THE ELEVATING PLATFORM ZP MUST BE USED ONLY FOR ITS INTENDED PURPOSES. ANY OTHER USE IS CONSIDERED MISUSE.

**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.

MACHINE FEATURES



MODEL	VERSION	H MAX 1 in position E2	H MAX 2 in position E2	L (mm)	H (mm)	A (mm)	B (mm)	C1 (mm)	C2 (mm)	E1 (mm)	E2 (mm)
ZP 8	150 I	8 mt.	6 mt.	800	1950			1360	1360	400	1380
	150 E	2100						2100	400	1380	
ZP 10	150 I	10 mt.	8 mt.	800	1950			1360	1360	400	1380
	150 E	2550						2550	400	1380	
ZP 12	150 I	12 mt.	10 mt.	800	2530	670	670	1720	1720	400	/
	150 E	3000						3000	400	/	
ZP 14	150 I	14 mt.	12 mt.	800	2960			1720	1720	400	/
	150 E	3000						3000	400	/	
ZP 16	150 I	16 mt.	14 mt.	800	2960			3000	3000	400	2400
	150 E	5000						5000	400	2400	
MODEL	VERSION	H MAX 1 in position E2	H MAX 2 in position E2	L (mm)	H (mm)	A (mm)	B (mm)	C1 (mm)	C2 (mm)	E1 (mm)	E2 (mm)
ZP 8	200 I	8 mt.	6 mt.	800	1950			2100	2100	400	1380
	200 E	2550						2550	400	1380	
ZP 10	200 I	10 mt.	8 mt.	800	1950			2100	2100	400	1380
	200 E	3000						3000	400	1380	
ZP 12	200 I	12 mt.	10 mt.	800	2530	670	1060	2550	2550	400	/
	200 E	5000						5000	400	/	
ZP 14	200 I	14 mt.	12 mt.	800	2960			3000	3000	400	/
	200 E	5000						5000	400	/	

The general technical features of the model ZP Elevating Platform in the different possible configurations are as follows:

Table NOTE:

* : Maximum pressure per outrigger considering that the weight of the platform plus the maximum load on the basket are wholly distributed on one side only of the platform (wholly asymmetrical load)

	150		200	
MODEL ZP 8 GENERAL TECHNICAL DATA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Internal Use	Outdoor Use	Internal Use	Outdoor Use
Weight of the machine: (Total)	383 kg	395 kg	402 kg	414 kg
Stabiliser weight:	12 kg	15 kg	15 kg	18 kg
Machine height: (in transport position)	195 cm			
Maximum resting pressure on the ground: per wheel/stabiliser (*)	185 daN	190 daN	210 daN	215 daN
Maximum gradeability: (in transport position)	15% - 9°			
Maximum longitudinal work slope:	Base "LEVEL"			
Maximum transversal work slope:	Base "LEVEL"			
Machine base with stabilisers: (length x width)	136x136 cm	210x210 cm	210x210 cm	255x255 cm
Machine base without stabilisers: (length x width)	136.5 cm x 80 cm			
Manual maximum horizontal side force:	200 N		400 N	
Maximum hydraulic system pressure:	90 bar		90 bar	
Capacity of the hydraulic tank:	~ 9 Litres			
Power supply <ul style="list-style-type: none"> • Standard • Optional 	220/230 V 50/60 Hz 2 Batteries AGM 12V 85 Ah			

Operators inside the work platform:	1	2
Maximum capacity in the work platform:	150 kg	200 kg
Maximum operating height: (from the ground to the floor of the work platform) <ul style="list-style-type: none"> • STANDARD position • HIGH position 	5.06 m 6.04 m	
Internal dimensions of the work platform:	~ 61 cm x 61 cm	~ 61 cm x 100 cm

	150		200	
MODEL ZP 10 GENERAL TECHNICAL DATA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Internal Use	Outdoor Use	Internal Use	Outdoor Use
Weight of the machine: (Total)	498 kg	522 kg	517 kg	541 kg
Stabiliser weight:	12 kg	18 kg	15 kg	21 kg
Machine height: (in transport position)	195 cm			
Maximum resting pressure on the ground: per wheel/stabiliser (*)	230 daN	235 daN	250 daN	260 daN
Maximum gradeability: (in transport position)	15% - 9°			
Maximum longitudinal work slope:	Base "LEVEL"			
Maximum transversal work slope:	Base "LEVEL"			
Machine base with stabilisers: (length x width)	136x136 cm	255x255 cm	210x210 cm	300x300 cm
Machine base without stabilisers: (length x width)	136.5 cm x 80 cm			
Manual maximum horizontal side force:	200 N		400 N	
Maximum hydraulic system pressure:	110 bar		110 bar	
Capacity of the hydraulic tank:	~ 9 Litres			

Power supply <ul style="list-style-type: none"> • Standard • Optional 	220/230 V 50/60 Hz 2 Batteries AGM 12V 85 Ah	
Operators inside the work platform:	1	2
Maximum capacity in the work platform:	150 kg	200 kg
Maximum operating height: (from the ground to the floor of the work platform) <ul style="list-style-type: none"> • STANDARD position • HIGH position 	7.02 m 8.00 m	
Internal dimensions of the work platform:	~ 61 cm x 61 cm	~ 61 cm x 100 cm

	150		200	
MODEL ZP 12 GENERAL TECHNICAL DATA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Internal Use	Outdoor Use	Internal Use	Outdoor Use
Weight of the machine: (Total)	531 kg	559 kg	554 kg	634 kg
Stabiliser weight:	14 kg	21 kg	18 kg	38 kg
Machine height: (in transport position)	253 cm			
Maximum resting pressure on the ground: per wheel/stabiliser (*)	240 daN	250 daN	265 daN	290 daN
Maximum gradeability: (in transport position)	15% - 9°			
Maximum longitudinal work slope:	Base "LEVEL"			
Maximum transversal work slope:	Base "LEVEL"			
Machine base with stabilisers: (length x width)	172x172 cm	300x300 cm	255x255 cm	500x500 cm
Machine base without stabilisers: (length x width)	136.5 cm x 80 cm			
Manual maximum horizontal side force:	200 N		400 N	

Maximum hydraulic system pressure:	115 bar	115 bar
Capacity of the hydraulic tank:	~ 9 Litres	
Power supply <ul style="list-style-type: none"> • Standard • Optional 	220/230 V 50/60 Hz 2 Batteries AGM 12V 85 Ah	
Operators inside the work platform:	1	2
Maximum capacity in the work platform:	150 kg	200 kg
Maximum operating height: (from the ground to the floor of the work platform)	10.00 m	
Internal dimensions of the work platform:	~ 61 cm x 61 cm	~ 61 cm x 100 cm

	150		200	
MODEL ZP 14 GENERAL TECHNICAL DATA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Internal Use	Outdoor Use	Internal Use	Outdoor Use
Weight of the machine: (Total)	583 kg	611 kg	618 kg	686 kg
Stabiliser weight:	14 kg	21 kg	21 kg	38 kg
Machine height: (in transport position)	296 cm			
Maximum resting pressure on the ground: per wheel/stabiliser (*)	260 daN	270 daN	290 daN	310 daN
Maximum gradeability: (in transport position)	15% - 9°			
Maximum longitudinal work slope:	Base "LEVEL"			
Maximum transversal work slope:	Base "LEVEL"			
Machine base with stabilisers: (length x width)	172x172 cm	300x300 cm	300x300 cm	500x500 cm
Machine base without stabilisers: (length x width)	136.5 cm x 80 cm			

Manual maximum horizontal side force:	200 N	400 N
Maximum hydraulic system pressure:	115 bar	115 bar
Capacity of the hydraulic tank:	~ 9 Litres	
Power supply <ul style="list-style-type: none"> • Standard • Optional 	220/230 V 50/60 Hz 2 Batteries AGM 12V 85 Ah	
Operators inside the work platform:	1	2
Maximum capacity in the work platform:	150 kg	200 kg
Maximum operating height: (from the ground to the floor of the work platform)	12.00 m	
Internal dimensions of the work platform:	~ 61 cm x 61 cm	~ 61 cm x 100 cm

MODEL ZP 16 GENERAL TECHNICAL DATA	150	
	<input type="checkbox"/> Internal Use	<input type="checkbox"/> Outdoor Use
Weight of the machine: (Total)	624 kg	692 kg
Stabiliser weight:	21 kg	38 kg
Machine height: (in transport position)	296 cm	
Maximum resting pressure on the ground: per wheel/stabiliser (*)	270 daN	295 daN
Maximum gradeability: (in transport position)	15% - 9°	
Maximum longitudinal work slope:	Base "LEVEL"	
Maximum transversal work slope:	Base "LEVEL"	
Machine base with stabilisers: (length x width)	300x300 cm	500x500 cm
Machine base without stabilisers: (length x width)	136.5 cm x 80 cm	
Manual maximum horizontal side force:	200 N	

Maximum hydraulic system pressure:	115 bar
Capacity of the hydraulic tank:	~ 9 Litres
Power supply <ul style="list-style-type: none">• Standard• Optional	220/230 V 50/60 Hz 2 Batteries AGM 12V 85 Ah
Operators inside the work platform:	1
Maximum capacity in the work platform:	150 kg
Maximum operating height: (from the ground to the floor of the work platform) <ul style="list-style-type: none">• STANDARD position• HIGH position	12.00 m 14.00 m
Internal dimensions of the work platform:	~ 61 cm x 61 cm

BASIC CONSTRUCTIVE DATA

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

EXTENDING MAST: The extending structure consists of special extruded aluminium alloy profiles that slide along each other on runners with nylon wheels. The kinematic connection between one profile and another is achieved with chains.

An oil hydraulic cylinder is installed between the first and second profile, powered by the hydraulic unit, to lift the structure. The chains interconnect the extending structure elements so that they lift simultaneously.

WORK PLATFORM: The work platform is completely constructed in extruded aluminium profiles. The tread floor consists of aluminium plate lined with non-slip casing.

EXPOSURE TO VIBRATION: 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 to is less than 0.5 m/s^2

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

**ATTENTION**

THE AERIAL PLATFORM ZP HAS BEEN TESTED BY THE MANUFACTURER THROUGH:

- **STATIC STABILITY TESTS;**
- **OVERLOAD TESTS;**
- **OPERATION TESTS.**

SECTION 3. PREPARATION AND INSPECTION**PERSONNEL TRAINING**

The machine is a personnel transportation device; therefore, it must be used and undergo maintenance exclusively by trained personnel.

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

Operator training

Operator training must include the following:

1. Use and limits of the machine's ground and emergency controls, and of the safety systems;
2. Signs/decals for controls, instructions and warnings on the machine;
3. Regulations defined by the employer and government regulations;
4. Use of the approved fall protection device (if required);
5. Sufficient knowledge of the mechanical operation of the machine to permit recognising a fault;
6. Safe methods for using the machine in presence of overhead obstacles, other moving equipment and obstacles, hollows, holes and slopes;
7. Methods to prevent dangers due to unprotected electric conductors;
8. Requirements of a particular job or particular application of the machine.

Training supervision

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

Operator responsibility

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

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

FUNCTIONAL TEST

At the end of the "DAILY INSPECTION" (section n°6), carry out a functional test of all systems in an area free from overhead obstacles and at ground level.



ATTENTION

IF THE MACHINE DOES NOT WORK PROPERLY, SWITCH IT OFF IMMEDIATELY. ALERT MAINTENANCE PERSONNEL TO THE PROBLEM. DO NOT USE THE MACHINE UNTIL IT IS DEEMED 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 basket.**
 - a. Operate the ground controls, lifting and lowering the work platform;
 - b. Ensure all machine functions are disabled when operating (pressing) the emergency stop button;
 - c. Check correct operation of the manual descent valve.
2. **Carry out the specified operations from the control console of the cage.**
 - a. Make sure the control console is correctly assembled and securely fastened;
 - b. Lift and lower the work platform ensuring lifting and lowering take place regularly;
 - c. Make sure all machine functions are disabled when operating (pressing) the emergency stop button.

SAFETY WARNINGS FOR OPERATORS

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



**OUTDOORS AND IF WINDY UNLESS THE MACHINE HAS BEEN DESIGNED FOR
OUTDOOR USE**

(DANGER OF LOSS OF STABILITY AND OVERTURNING)



CLOSE TO AERIAL OBSTACLES (power lines, protrusions, etc.)

(RISK OF ELECTROCUTION AND IMPACT)



WITH EXCESSIVE LOADS COMPARED TO LIMITS ALLOWED

(DANGER OF LOSS OF STABILITY AND OVERTURNING)



ON FLOORING WITH STRENGTH LOWER THAN THE WEIGHT OF THE MACHINE

(DANGER OF LOSS OF STABILITY AND OVERTURNING)



**IN ALL CIRCUMSTANCES NOT SPECIFICALLY INDICATED UNDER OPERATING
CONDITIONS IN THIS MANUAL**

(GENERAL DANGER)

**ATTENTION**

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

When travelling on the ground:

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

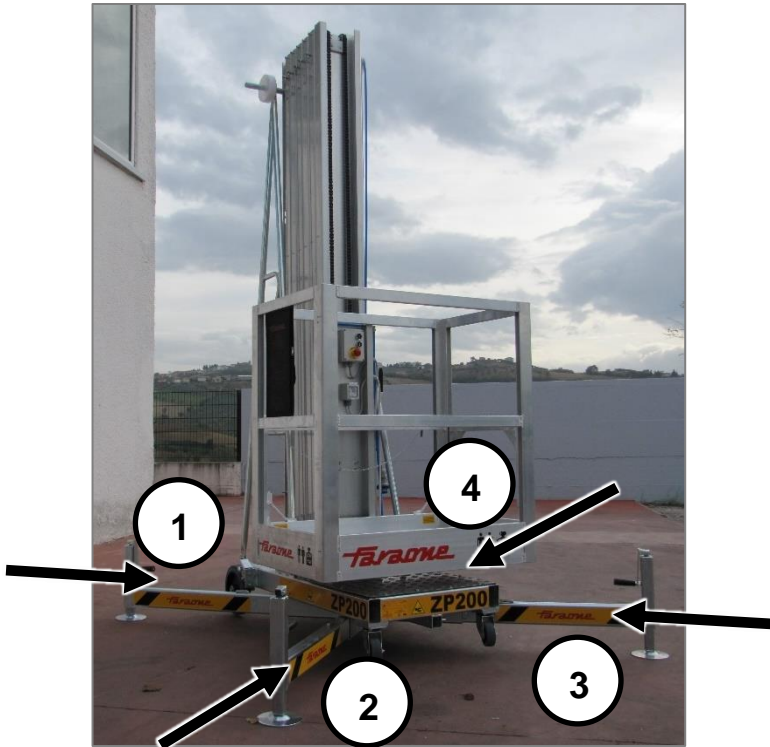
During ascent and descent:

- ✓ Comply with the maximum admissible loads for the work platform;
- ✓ Make sure there are no overhead upright obstacles along the trajectory;
- ✓ Do not cause dangerous vibrations and/or oscillations that would result in loss of machine stability and possible tipping over.

**ATTENTION**

BEFORE STARTING THE MACHINE, INSERT THE STABILISERS IN THE APPROPRIATE SEATS (UNTIL THEY STOP) AND LEVEL THE BASE BY ADJUSTING THE STABILISER'S FEET. PAY CAREFUL ATTENTION WHEN SLIGHTLY LIFTING THE MACHINE'S WHEELS SO THAT THEY REST ONLY ON THE STABILISER'S FEET.

INSERTION OF 4 STABILISER FEET



ATTENTION

THE MACHINE IS WITHOUT AN AUTOMATIC BASE LEVELLING VERIFICATION SYSTEM. BEFORE PROCEEDING WITH THE ASCENT/DESCENT PHASE, VERIFY CORRECT INCLINATION OF THE BASE BY VISUALLY CHECKING THE SPIRIT LEVELS.

THE SPIRIT LEVELS MUST BE CENTRAL COMPARED TO THE INDICATOR, WITHIN THE TOLERANCE LIMITS.



ATTENTION

ON THE LOWER PART OF THE BASE THERE IS A SAFETY WHEEL THAT PREVENTS THE TELESCOPIC STRUCTURE FROM LIFTING, UNLESS THE STABILISERS ARE INSERTED AND THE PLATES ARE ENGAGED. WHEN LIFTING THE MACHINE ON THE PLATES TO STABILISE AND LEVEL IT, THE SAFETY WHEEL LIFTS FROM THE GROUND ENABLING THE TELESCOPIC STRUCTURE TO LIFT.

NOTE: *If the machine base is not raised enough during the initial stabilisation phase (and the wheel for checking that the base is lifted is still on the ground), when trying to lift the cage, the machine will not lift.*

Restore machine operation as follows:

- 1) Make sure the stabilisers are properly and fully engaged;*
- 2) Raise the stabilisers until the wheel for checking that the base is lifted comes off the ground;*
- 3) Use a spirit level to ensure the base is properly levelled;*
- 4) Lift the cage.*



ATTENTION

CHECK THE POSITION OF THE SPIRIT LEVELS

Prohibition signs:

Prohibition to overload the work platform beyond the indicated limits



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



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



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



Prohibition to climb on or off the work platform other than through the gate provided



Prohibition to increase working reach or height of the mobile elevating work platform using additional equipment (e.g. ladders)



Prohibition to cause oscillations on the machine so as not to destabilise it



Prohibition to fit any additional item that would increase the wind pressure on the mobile elevating work platform (e.g. warning signs)



Prohibition to come into contact with live electrical conductors



Prohibition to climb into/off 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 lower limbs

NON-SLIP SHOES



ATTENTION

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



ATTENTION

ANY FENCING ENCLOSING THE MACHINE'S WORK AREA AND ANY ADDITIONAL SAFETY SIGNS TO BE USED FOR THAT AREA MUST BE VERIFIED BASED ON THE SPECIFIC RISK ASSESSMENT CARRIED OUT BY THE EMPLOYER.



ATTENTION

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



SECTION 4. CONTROLS, WARNING LIGHTS AND MACHINE OPERATION

INTRODUCTION



ATTENTION

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

The ZP model lifting equipment are electric machines fitted with an elevating work platform, assembled on a lifting mechanism with aluminium mast.

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 lift and lower the work platform from the work platform control console (the machine is not equipped with self-propelling, therefore shifting is by manual pushing, allowed only when the work platform is at the lowest position). If the operator on the work platform is unable to lower it, the ground control station's controls must be used when performing machine maintenance or in the event of emergency. Vibrations generated by the machine do not pose 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

The following control conditions need to be met before operating the machine with the work platform controls.

- The voltage of the batteries, if present, must be sufficient enough to activate the machine (for 220/230 V external power, the plug must be connected to the electrical system).
- The main power switch on the ground control station must be switched on.
- Both emergency stop switches, one located on the ground control station and the other on the control desk of the work platform, must be in RESET position.

24 V BATTERY POWER SUPPLY

If the machine is equipped with batteries, there is a battery charger with AC input/DC output. The battery charger automatically stops charging when the batteries are fully charged.



ATTENTION

KEEP SPARKS, NAKED FLAMES OR CIGARETTES AWAY FROM THE BATTERIES. PROVIDE ADEQUATE VENTILATION WHILE CHARGING. DO NOT CHARGE A FROZEN BATTERY.

NOTE: *when the battery charger is connected to an AC socket, the transmission function of the machine is disabled.*

Battery charging procedure

1. Park the machine in a well-ventilated area, near an AC electric socket;
2. Switch the machine off and remove the key from the door of the ground controls to prevent unauthorised use.
3. Connect the battery charger to a correctly installed and earthed socket according to regulations in force.

Battery charge warning lights

The battery charge status lights are next to the batteries unit installed on the machine.

The **RED LED**, when charging the battery, indicates the beginning of the charging cycle.

Charging stops automatically with no need for operator action and is indicated by a **GREEN LED** on.

While using the machine, battery charge will change from fully charged (*indicated by the green LED*), to 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 naked flames;
- ✓ It is recommended to avoid using any possible source of sparks near charging batteries;
- ✓ It is recommended to use anti-static clothing;
- ✓ Do not lift or tilt the batteries;
- ✓ Do not attempt to start the machine;

**ATTENTION**

IT IS RECOMMENDED NEVER TO ALLOW BATTERIES TO GO COMPLETELY FLAT.

**ATTENTION**

WHEN THE MACHINE IS PUT OUT OF SERVICE FOR A LONG TIME, THE BATTERIES MUST BE COMPLETELY AND EVENLY CHARGED AT LEAST ONCE A WEEK AND STORED UNPLUGGED TO STOP THEM FROM GOING FLAT.

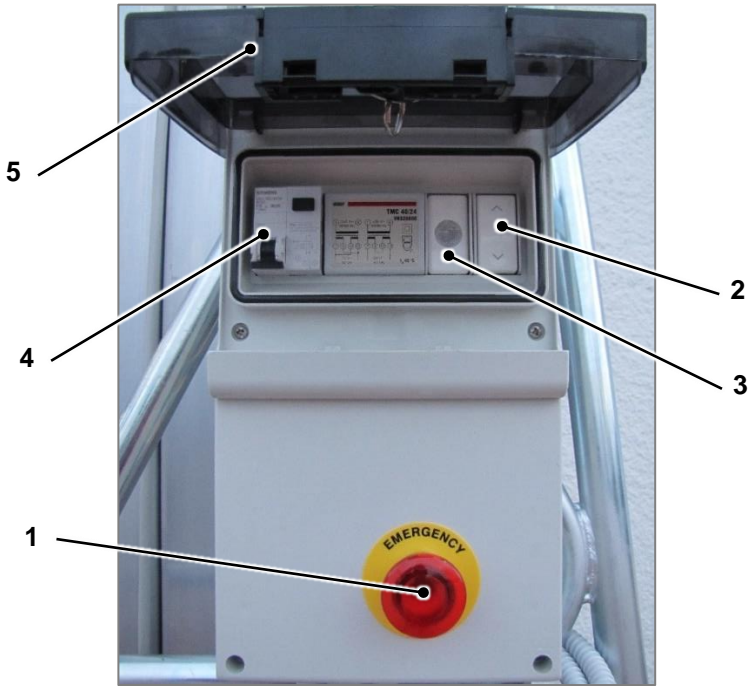
220/230 V POWER SUPPLY

If the machine is equipped with a plug connecting it to a 220/230 V 50/60 Hz system, to power the machine it is sufficient to connect the power plug to an external electrical system.

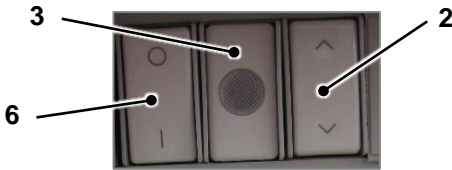
**ATTENTION**

CONNECT THE MACHINE TO A POWER SYSTEM THAT IS COMPLIANT WITH THE APPLICABLE LAW AND IN A GOOD MAINTENANCE CONDITION.

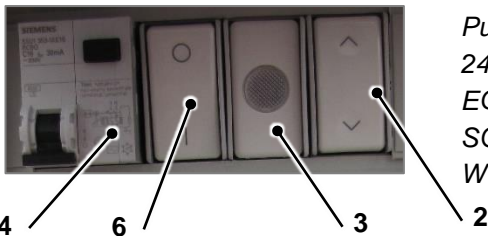
GROUND CONTROL STATION



FOR 220/230 V POWERED MACHINES



Push-button panel details: FOR 24 V POWERED MACHINES



Push-button panel details: FOR 24 V POWERED MACHINES EQUIPPED WITH 220/230 V SOCKET ON-BOARD THE WORK PLATFORM

1. Emergency stop/switch-off button
2. Ascent/descent control button
3. LED power indicator
4. 220/230 V main power supply switch
5. Closable access door with lock
6. Main switch 24 V power supply

General information

Before operating the machine from the ground control desk, the following conditions of the controls must be met:

- Ground control station – The main power supply switch must be switched on.
- Ground control station - The Emergency stop/switch-off button must be in RESET position (POWER SUPPLY CONNECTED).
- Work platform desk - The emergency stop/switch-off button must be in RESET position (POWER SUPPLY CONNECTED).

Emergency stop/switch-off button

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



POWER SUPPLY DISCONNECTION

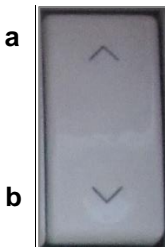
PUSH INWARDS to engage the emergency stop.



POWER SUPPLY CONNECTION

PULL OUTWARDS to restore the emergency stop.

Ascent/descent control button



- a) ASCENT of the work platform
- b) DESCENT of the work platform



ATTENTION

BEFORE LIFTING THE WORK PLATFORM, PAY ATTENTION TO WHAT IS STATED IN SECTION 3 "PREPARATION AND INSPECTION" WITH REGARD TO THE BASE LEVELLING CONTROL SYSTEM.



ATTENTION

BEFORE STARTING THE MACHINE, INSERT THE STABILISERS IN THE APPROPRIATE SEATS (UNTIL THEY STOP) AND LEVEL THE BASE BY ADJUSTING THE STABILISER'S FEET. PAY CAREFUL ATTENTION WHEN SLIGHTLY LIFTING THE MACHINE'S WHEELS SO THAT THEY REST ONLY ON THE STABILISER'S FEET.

LED power indicator

The LED is on if there is power.

220/230 V main power supply switch

The differential circuit breaker switch acts as the machine's main power switch and as a protection against power surges on the electrical mains to which the machine is connected, or against malfunctions that may arise on the machine's electrical system.

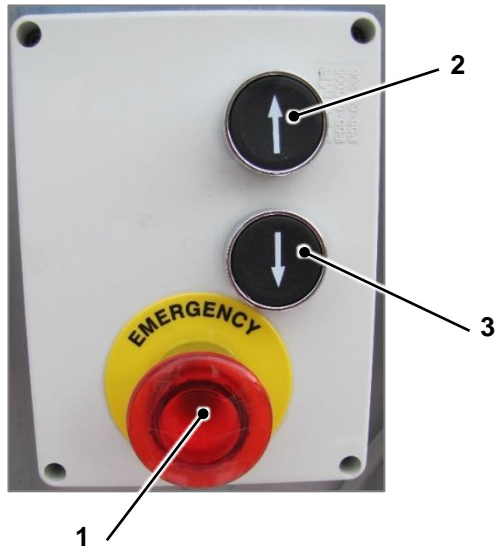
Move the lever switch upwards to switch it on. Move it downwards to cut the machine's power off.

For a 220/230 V powered machine, the switch acts as the main power switch for the entire machine.

For a 24 V powered machine, if present, the switch only cuts off power to the optional power socket.

24 V main power supply switch

The switch acts as the machine's main power switch. To power on press the "I" button. To power off press the "0" button.

PLATFORM CONTROL DESK

1. Emergency stop/switch-off button
2. Ascent control button
3. Descent control button

General information

Before actuating the machine from the control console of 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.
- Ground control station - The Emergency stop/switch-off button must be in RESET position (POWER SUPPLY CONNECTED).
- Work platform desk - The emergency stop/switch-off button must be in RESET position (POWER SUPPLY CONNECTED).

Emergency stop/switch-off button

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



POWER SUPPLY DISCONNECTION

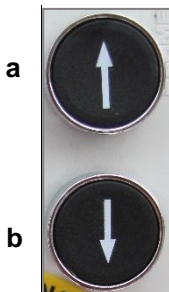
PUSH INWARDS to engage the emergency stop.



POWER SUPPLY CONNECTION

PULL OUTWARDS to restore the emergency stop.

Ascent/descent control button



- a) ASCENT of the work platform
- b) DESCENT of the work platform

**ATTENTION**

BEFORE LIFTING THE WORK PLATFORM, PAY ATTENTION TO WHAT IS STATED IN SECTION 3 “PREPARATION AND INSPECTION” WITH REGARD TO THE BASE LEVELLING CONTROL SYSTEM.

**ATTENTION**

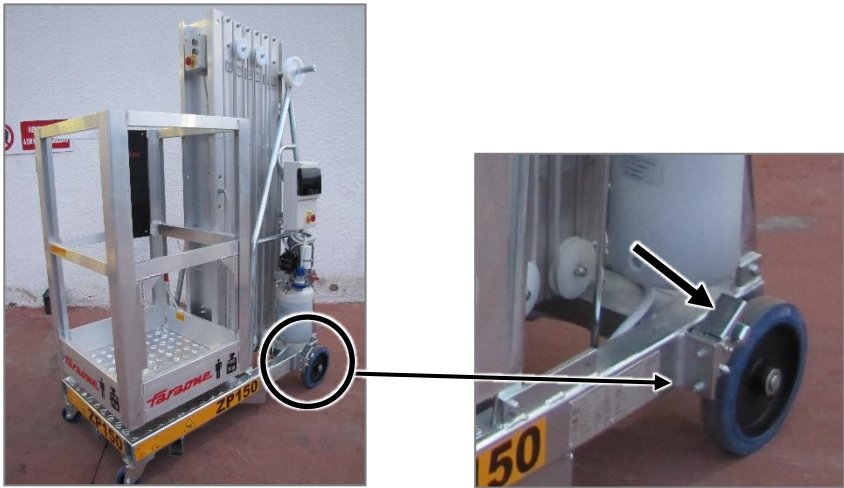
BEFORE STARTING THE MACHINE, INSERT THE STABILISERS IN THE APPROPRIATE SEATS (UNTIL THEY STOP) AND LEVEL THE BASE BY ADJUSTING THE STABILISER'S FEET. PAY CAREFUL ATTENTION WHEN SLIGHTLY LIFTING THE MACHINE'S WHEELS SO THAT THEY REST ONLY ON THE STABILISER'S FEET.

**ATTENTION**

TO PREVENT UNAUTHORISED PERSONNEL FROM USING THE MACHINE'S GROUND CONTROL, WHILST THE OPERATOR IS INSIDE THE WORK PLATFORM AT A HEIGHT, BEFORE CLIMBING INSIDE HE/SHE MUST CLOSE THE ACCESS DOOR TO THE GROUND CONTROLS, REMOVE THE KEY AND STORE IT IN A SAFE PLACE (THE KEY CAN BE GUARDED BY A SECOND OPERATOR, IF PRESENT, WHO REMAINS ON THE GROUND, OR HE/SHE CAN TAKE IT WITH HIM/HER INSIDE THE WORK PLATFORM).

PARKING THE MACHINE

1. Drive the machine to a well-protected and ventilated area.
2. Ensure that the work platform is completely lowered, switch the main power switch off and remove the key that opens the controls door at the base.
3. Actuate both the front wheel locking brakes.



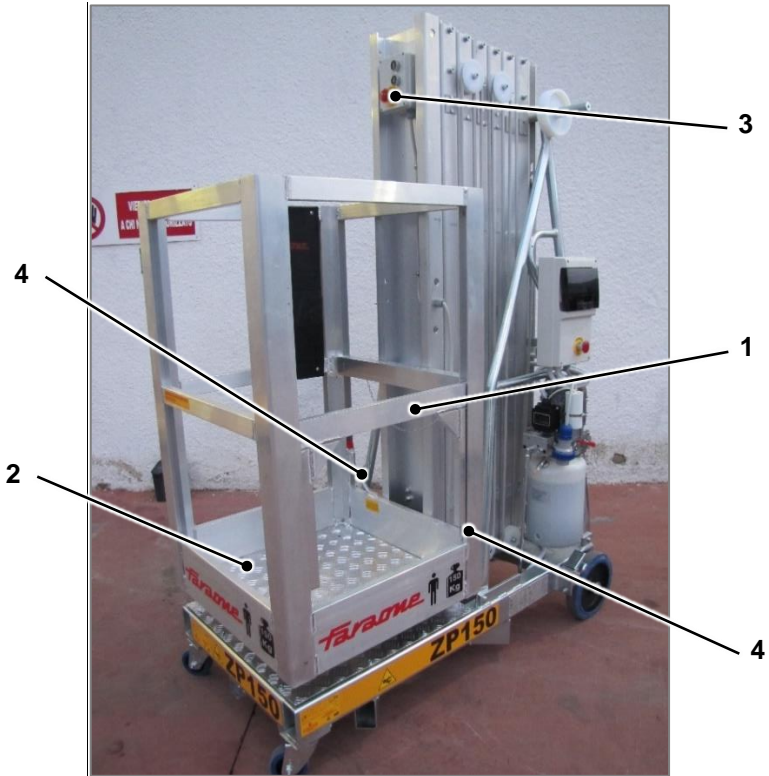
NOTE: to unlock the wheel brakes, lift the lever with a small flick of the toe (ATTENTION, do not use your hands).



ATTENTION

PREVENT UNAUTHORISED USE BY SWITCHING OFF THE MACHINE, SWITCHING OFF THE MAIN POWER SWITCH AND REMOVING THE KEY THAT OPENS THE CONTROLS DOOR WHEN THE MACHINE IS NOT IN USE.

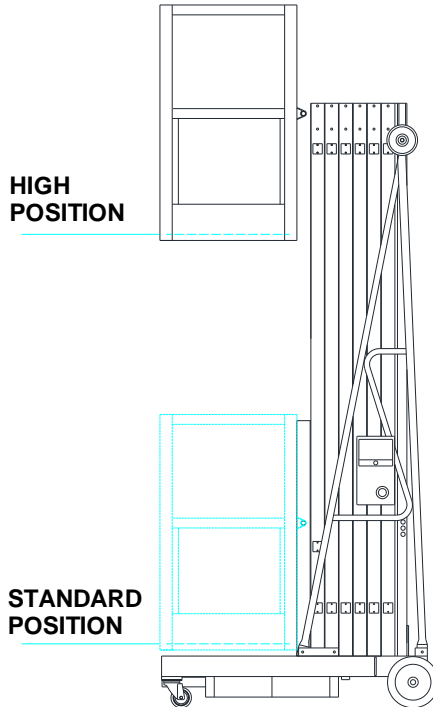
WORK PLATFORM CONFIGURATION



WORK PLATFORM WITH VERTICAL OPENING SIDE ENTRY

Model	Maximum capacity
Small work platform	150 kg - 1 person
Large work platform	200 kg – 2 people
1. Vertical opening sliding rail 2. Work platform footboard 3. Control console of the machine 4. Safety belt connection	

FOR MACHINE MODEL ZP 8, ZP10, ZP16 TWO WORK PLATFORM ASSEMBLY POSITIONS ARE AVAILABLE: STANDARD AND HIGH POSITION. IF THE WORK PLATFORM IS INSTALLED IN A HIGH POSITION, YOU MUST USE THE LADDER, PROVIDED WITH THE MACHINE, SITUATED ABOVE THE BASE TO ACCESS THE PLATFORM.



ATTENTION

WHEN THE WORK PLATFORM IS BEING REASSEMBLED, MAKE SURE YOU INSERT AND LOCK THE CONNECTING PIN TO THE STRUCTURE OF THE EXTENDIBLE COLUMN.

**ATTENTION**

**BEFORE CLIMBING UP THE LADDER, MAKE SURE THE ANCHORING MECHANISMS ARE FITTED CORRECTLY INTO PLACE.
WHEN THE MACHINE OPERATOR HAS CLIMBED ON BOARD THE WORK PLATFORM, A GROUND OPERATOR WILL NEED TO REMOVE THE LADDER.**

**ATTENTION**

ENSURE THERE ARE NO OBSTACLES PREVENTING THE WORK PLATFORM ACCESS 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)

**ATTENTION**

BEFORE STARTING THE MACHINE, INSERT THE STABILISERS IN THE APPROPRIATE SEATS (UNTIL THEY STOP) AND LEVEL THE BASE BY ADJUSTING THE STABILISER'S FEET. PAY CAREFUL ATTENTION WHEN SLIGHTLY LIFTING THE MACHINE'S WHEELS SO THAT THEY REST ONLY ON THE STABILISER'S FEET.

TRANSPORT AND LIFTING PROCEDURES

General information

It is possible to transport the machine to the 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 permits it
- By lifting it with the special belts (*check the gross weight of the machine in the Operational Technical Data Table of the machine*)
- By moving it with a forklift (*check the gross weight of the machine in the Operational Technical Data Table for the machine*)
- Using the special manual loading system, supplied optionally, to quickly load onto the transport vehicle.



ATTENTION

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

Lifting with belts

The machine can be lifted with special belts.

In this case, the machine must be held by its upper part, with the handles, in order to position it in a stable way (see following figure).



Handling with a forklift

The machine can be lifted with a forklift truck. In this case, it must be held from the rear 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.

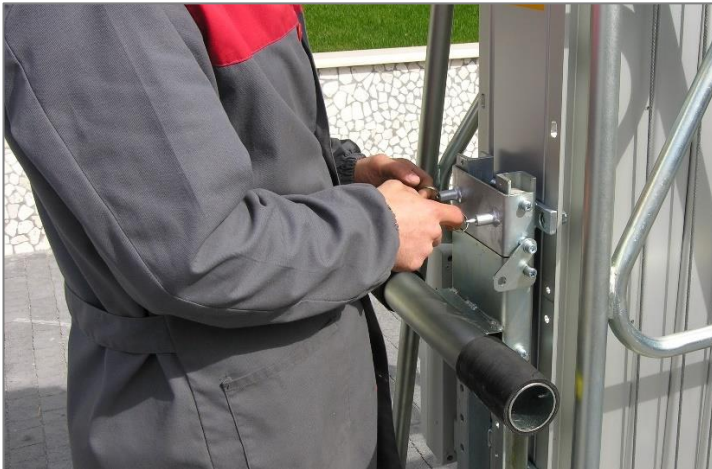
Loading via the loading system supplied (optional)

The machine can be loaded by means of the provided forklift, supplied upon request.

Phase 1 Move the machine close to the edge of the truck.



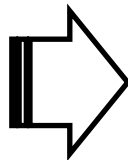
Phase 2 Using the two spring pins, position the support trolley at about 10 cm. From the height of the truck's loading bed. Check that the two spring pins that lock the trolley are correctly hooked when overturning.



Phase 3 Remove the lever under the machine's base carriage being careful to re-insert the spring lock stop.



Phase 4 Slope the machine until the support trolley's tube touches the truck's bed. Then, with the pin on the bed, start lifting the machine using the lever under the base carriage.



Phase 5 During overturning, check that the two tilting blocks are released from the support trolley.



Phase 6 When the platform is in the horizontal position, push it on the bed until it touches the back and pull back the overturning lever under the base carriage.



ATTENTION

SECURE THE MACHINE SO THAT IT DOES NOT GET DAMAGED DURING TRANSPORT.

To unload the machine, remove the lever under the base carriage and follow the previous phases in reverse, starting from Phase 6.



ATTENTION

MAKE SURE THAT THE SLIDING SUPPORT TROLLEY IS POSITIONED AT THE END OF THE GUIDES, ON THE PART NEXT TO THE MACHINE'S BASE CARRIAGE.

Pull the machine until the large wheels are out from the truck's bed and, resting it on the support trolley, turn the machine until it touches the ground.

SECTION 5. EMERGENCY PROCEDURES

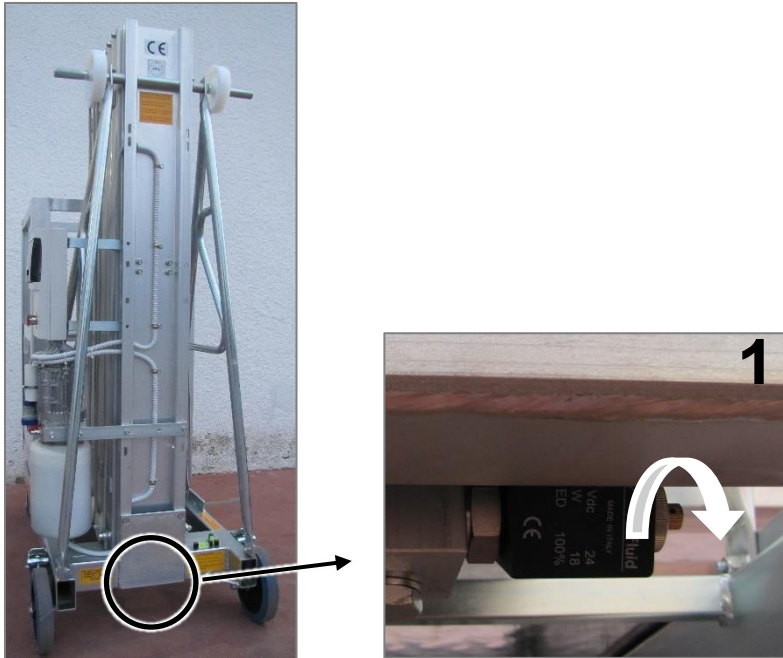
This section shows the operations to be carried out in the event of an emergency during machine operation.

EMERGENCY OPERATION

Operator unable to control the machine

CONDITIONS IN WHICH THE MACHINE OPERATOR IS IMMOBILISED, TRAPPED OR UNABLE TO OPERATE 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 OPERATE CORRECTLY.
- In case of incorrect operation of the controls or power outage, the emergency stop must be operated and, if necessary, a qualified operator must carry out the EMERGENCY DESCENT procedure from the ground. Proceed as follows:
 1. Press the emergency button to disconnect the power supply;
 2. ATTENTION: make sure there are no persons within the working range of the machine;
 3. Gradually loosen the knurled knob installed underneath the base carriage near the extensible framework, in order to obtain the descent of the work platform (1);



4. ATTENTION: gradually loosen the knob and continuously supervise the entire descent phase of the work platform;
5. Once descent is completed, tighten the knob again;
6. Reset the emergency button to enable the machine's power supply.



ATTENTION

THE OPERATIVE STAGES OF THE EMERGENCY DESCENT PROCEDURE ARE SET OUT ON AN APPROPRIATE DECAL NEAR THE EMERGENCY DESCENT CONTROL.

The work platform is locked in its elevated position

If the work platform blocks or gets stuck in overhead equipment or structures, transfer the person on the work platform to a safe place before releasing the machine.

Recovery equipment may be used for the occupants to climb down from the working platform. A crane or forklift may be used to stabilise machine movement.

REPORTING THE ACCIDENT

Faraone Industrie Spa must be immediately informed of any incidents involving a Faraone product. Contact the factory by telephone and provide all the necessary details, even in case no injuries or evident damage to property are involved.



ATTENTION

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

SECTION 6. DAILY INSPECTION

Start the full inspection from point (a), as set out in the following list. Proceed around the machine checking all listed conditions in sequence.



ATTENTION

**TO AVOID ANY INJURIES, ENSURE THAT THE MACHINE POWER SUPPLY IS SWITCHED OFF DURING "FULL INSPECTION".
DO NOT USE THE MACHINE BEFORE REPAIRING ALL FAULTS.
DO NOT FAIL TO CARRY OUT A VISUAL INSPECTION OF THE LOWER PART OF THE BASE FRAME. ENSURE THE AREA IS CLEAR OF OBJECTS OR DEBRIS THAT MIGHT CAUSE SERIOUS DAMAGE TO THE MACHINE.**

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

(a) Drive wheels/free wheels and swivel castors

Check there is no debris on the wheels or around them;

(b) Base frame

Ensure there are no loose wires or cables hanging underneath the base, check for any dents, rupture or cracks on the profiles;

(c) Manual descent control valve – See note pertaining to functional check;

(d) Stabilisers (if present)

Check for dents on the aluminium profiles, breaks or cracks, and check operation of the adjustable stabiliser feet;

(e) Motor/pump/tank unit

No conspicuous hydraulic leak, hydraulic oil filling level at the "full" line;

(f) Batteries *(if present)*

If necessary, charge them;

(g) Cage assembly and entrance doors

Correct blocking of the cage and entrance doors operating correctly;

(h) Control console in the cage

Controls secured, legible signs, emergency stop switch in the reset position and legible control signs;

(i) Ground control station *(if present)*

Main power supply selection switch operable, signs securely fastened and legible, emergency stop switch operable;

(j) Extendable structure unit

Structure profiles, sliding inserts, chains, sequential activation cables, pulleys able to turn freely;

(k) Spirit levels *(if present)*

Check the integrity of the spirit levels on the base frame.

**ATTENTION**

DO NOT USE THE MACHINE BEFORE REPAIRING ALL FAULTS / MALFUNCTIONS NOTED

SECTION 7. ROUTINE MAINTENANCE**ATTENTION**

MAINTENANCE CAN BE CARRIED OUT BY COMPANY PERSONNEL WITH EXPERIENCE IN MAINTENANCE WORK AND ADEQUATELY TRAINED WITH REGARD TO SAFETY STANDARDS IN FORCE.

**ATTENTION**

IT IS RECOMMENDED TO ONLY USE SPARE PARTS APPROVED BY THE MANUFACTURER.

**ATTENTION**

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

**ATTENTION**

TO CARRY OUT MAINTENANCE AND/OR CLEANING OPERATIONS ON THE MACHINE THAT REQUIRE THE EXTENDABLE STRUCTURE TO BE IN A PARTIALLY EXTENDED POSITION, ANCHOR THE CAGE SAFELY (FOR EXAMPLE, USING A CONTRASTING STRUT ON THE GROUND) TO PREVENT IT FROM ACCIDENTALLY FALLING ONTO THE OPERATOR PERFORMING THE MAINTENANCE OPERATIONS.

**ATTENTION**

THE RECOMMENDED FREQUENCY OF LUBRICATION AND OF THE WEAR CHECKS IS BASED ON NORMAL USE. IF THE MACHINE IS USED FOR HEAVY DUTY WORK, SUCH AS A HIGH NUMBER OF CYCLES, UNFAVOURABLE POSITION, CORROSIVE/DIRTY ENVIRONMENT, ETC., THE USER MUST INCREASE THE FREQUENCY OF THE CHECKS ACCORDINGLY.

MAINTENANCE EVERY THREE MONTHS

- ***Check there is no clearance, mechanical parts not correctly secured and/or bent and no parts/components desoldered;***
- ***Check the integrity of the structural profiles;***
- ***Check correct operation of the emergency descent valve.***
Take the cage to a height and execute an “emergency descent”, as shown in the relative section of this manual.
- ***Hydraulic Oil***
Check the level of hydraulic oil and top-up, if necessary.
Refer to the specifications described in the relative paragraph for information regarding hydraulic oil checks and top-up;
- ***Check the hydraulic oil piping and make sure there are no leaks;***
- ***Battery check (if applicable)***
Periodically check for any corrosion and tightening of the terminals and any acid top-ups required in the battery (if a lead/acid type).
- ***Check the cage and the entrance doors***
Correct blocking of the cage and entrance doors operating correctly.

- **Check the controls present in the cage and on the ground** (if applicable)
Controls secured, legible signs, main power supply operable selection switch, emergency stop switch in a reset position and legible control signs;
- **Check lubrication and wear of the lifting chains**
When restoring lubrication, make sure the chains are not dirty or soiled with mud, rubble, ice or other foreign matter. Clean the chains thoroughly before lubricating them.
The lifting chains must be lubricated with the extendable structure completely closed, by gravity, from the top, directly on the return wheels (if necessary, temporarily remove the protective cover to access the chains). For information regarding the wear of chains, refer to “Checks on the lifting chains”.
- **Check the wheels for wear**
Check there is no debris on the wheels or around them. 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 tread or sides, immediately assess the severity of the damage before operating the machine again.

MAINTENANCE EVERY SIX MONTHS

- **Lubrication of moving parts and sliding wheels check**

The extensions slide on runners fitted with nylon wheels. Four runners, two upper and two lower, are fitted for each pair of extensions. Three wheels are positioned on each runner, for a total of 12 for each pair of extensions. On each runner, one of the 3 wheels turns on an adjustable axis. This allows the wheels to be adjusted when they are worn thus giving rise to possible play of the moving extendable structure parts.

Contact the Manufacturer for further information and instructions regarding the adjustment of the sliding wheels of the extendable structure, when a backlash anomaly is found.

MAINTENANCE EVERY TWO YEARS

- **Hydraulic Oil**

Change the hydraulic oil in the tank.

Refer to the specifications described in the relative paragraph for information regarding hydraulic oil change.

SECTION 8. MAINTENANCE OPERATING INSTRUCTIONS**BATTERY MAINTENANCE**

It is necessary to periodically check for any corrosion and tightening of the terminals.

Replace the batteries as follows:

1. Remove the cage;
2. Make sure the machine is not connected to the mains supply (charging batteries);
3. Use the suitable switch to disconnect the machine's power supply;
4. Open the protective cover of the battery compartment;
5. Loosen the connection terminals of the batteries (positive pole and negative pole);
6. Remove the batteries and replace them with new ones;
7. Connect the terminals of the batteries, making sure to do so correctly (red wire for the positive pole, black wire for the negative pole) and tighten them;
8. Close and lock the protective cover;
9. Position the cage again in the desired position, as indicated in paragraph 4 "WORK PLATFORM CONFIGURATION", being careful to insert and lock the connecting pin correctly to the structure of the extendible column;
10. Reconnect the power supply.

**ATTENTION**

SHOULD THE BATTERY BE DAMAGED, USE THE RELATIVE PERSONAL PROTECTIVE EQUIPMENT TO PROTECT YOUR HANDS AGAINST CHEMICAL AGGRESSION 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.

HYDRAULIC OIL CHANGE

Faraone Industrie Spa recommends using hydraulic oil with viscosity index 32. Mixing oils of different makes or types is strongly ill advised, since they may not contain the necessary additives or viscosity may be different.



ATTENTION

THE HYDRAULIC OIL MUST BE TOPPED UP/CHANGED WITH THE CAGE FULLY DOWN; IF THE HYDRAULIC OIL TANK IS UNDER THE CAGE, KEEP IT AT A HEIGHT OF APPROXIMATELY ONE METRE AND TOP UP/CHANGE IT.



ATTENTION

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

CHECKS ON LIFTING CHAINS

1) Chain noise

A grinding metal noise will be heard if the chains are not fully lubricated. This causes metal-metal friction between the joints of the chain, which can lead to seizing-slipping effect, causing the work platform to move unevenly.

2) Surface rust

Plates with rusty surfaces are easily recognisable by the typical brown colour. Rust can lead to chain fatigue failures.

3) Rust on joints

Corroded connection points are recognisable by their red-brown colour. This phenomenon may arise from lack of lubrication or use of grease and oil unsuitable for penetrating the joints.

4) Stiff joints

Any joint that is not in a straight position when leaving the return pulley, can no longer be used. This phenomenon may be caused by corrosion or cold micro welding.

5) 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 pin clinching positions compared to factory standard.

6) Pins coming out of their housings

A direct consequence of the stiff joints of turned pins.

7) Wear

It is important to assess whether the connection plates are very worn.

8) Broken plates

This is the result of fatigue failure caused by overloading. Corrosion phenomena may contribute to this problem.

9) Broken pins

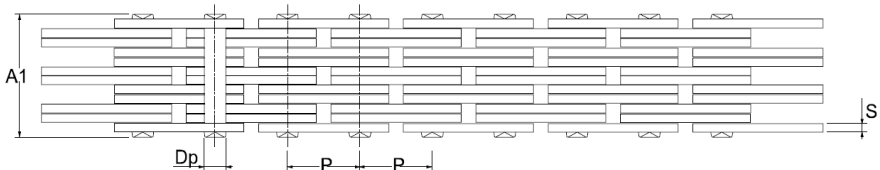
This problem usually occurs as a result of corrosion in the chain joints. Since the pins of a single chain are subject to the same load and corrosion conditions, one failure is usually followed by more. Experience has shown that this type of failure is not always easily recognised as there are no evident changes in the chain conditions, especially in the initial stage.

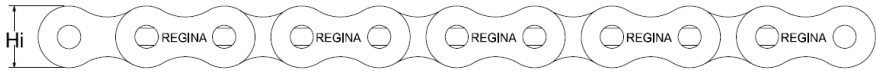
Checking for chain wear

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

Lifting chain

Manufacturer: REGINA – Model: AL544





$A1 = 19.1 \text{ mm}$; $Dp = 5.09 \text{ mm}$; $P = 15.875 \text{ mm}$; $S = 2.04 \text{ mm}$; $Hi = 12.83 \text{ mm}$

Elongation:

Measurement of chain slightly tightened on straight sections 1/5 to 1/15 of the total length. Maximum elongation allowed: 2% along the most worn section.

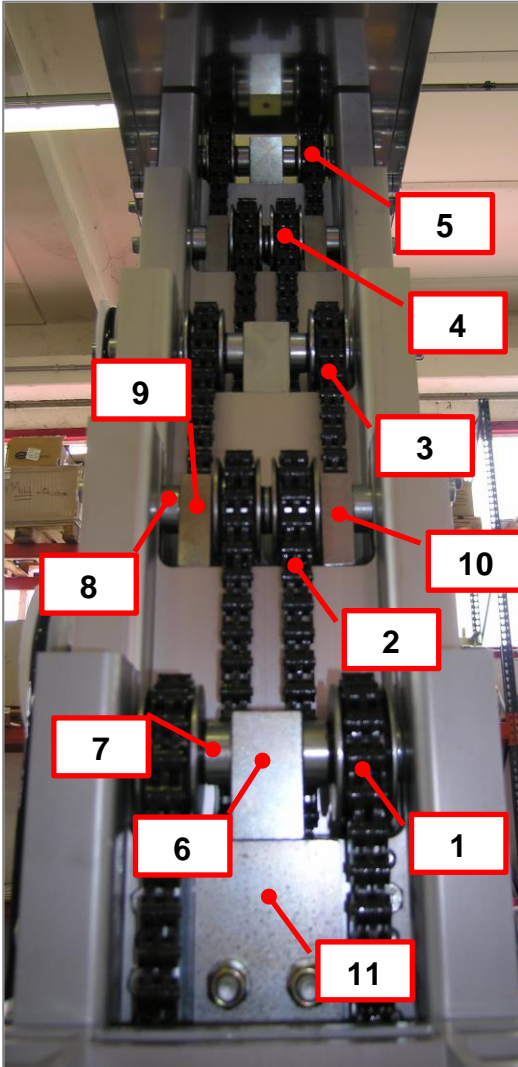
Wear of plate profiles:

Where the phenomenon is most noticeable: maximum permitted height reduction of 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 pin heads is worn down by more than 25% or if the outer side is worn down by more than 20% of its thickness.

DETAIL OF LIFTING CHAINS



- 1) CHAIN PAIR 1st EXTENSION
- 2) CHAIN PAIR 2nd EXTENSION
- 3) CHAIN PAIR 3rd EXTENSION
- 4) CHAIN PAIR 4th EXTENSION
- 5) CHAIN PAIR 5th EXTENSION
- 6) CENTRAL SUPPORT
- 7) PULLEY SPACER
- 8) PULLEY SPACER
- 9) SIDE SUPPORT
- 10) SIDE SUPPORT
- 11) SUPPORT COUPLING PLATE



ATTENTION

FOR FURTHER INFORMATION REGARDING PURCHASE OF SPARE PARTS AND CONSUMABLES, PLEASE CONTACT THE MANUFACTURER.

THE MANUFACTURER DECLINES ALL LIABILITY DUE TO DAMAGE OR MALFUNCTION CAUSED BY USE OF PARTS NOT AUTHORISED BY THE SAID MANUFACTURER.

SECTION 9. ATTACHED DOCUMENTATION








- ✓ ATTACHMENT 1 – Layout for the application of the decals;
- ✓ ATTACHMENT 2 - ZP version 24 V hydraulic diagram;
- ✓ ATTACHMENT 3 – ZP version 220/230 V hydraulic diagram;
- ✓ ATTACHMENT 4 - ZP version 24 V wiring diagram;
- ✓ ATTACHMENT 5 - ZP version 24 V with 220/230 V socket wiring diagram;
- ✓ ATTACHMENT 6 – ZP version 220/230 V wiring diagram;
- ✓ ATTACHMENT 7 - Inspection certificate.

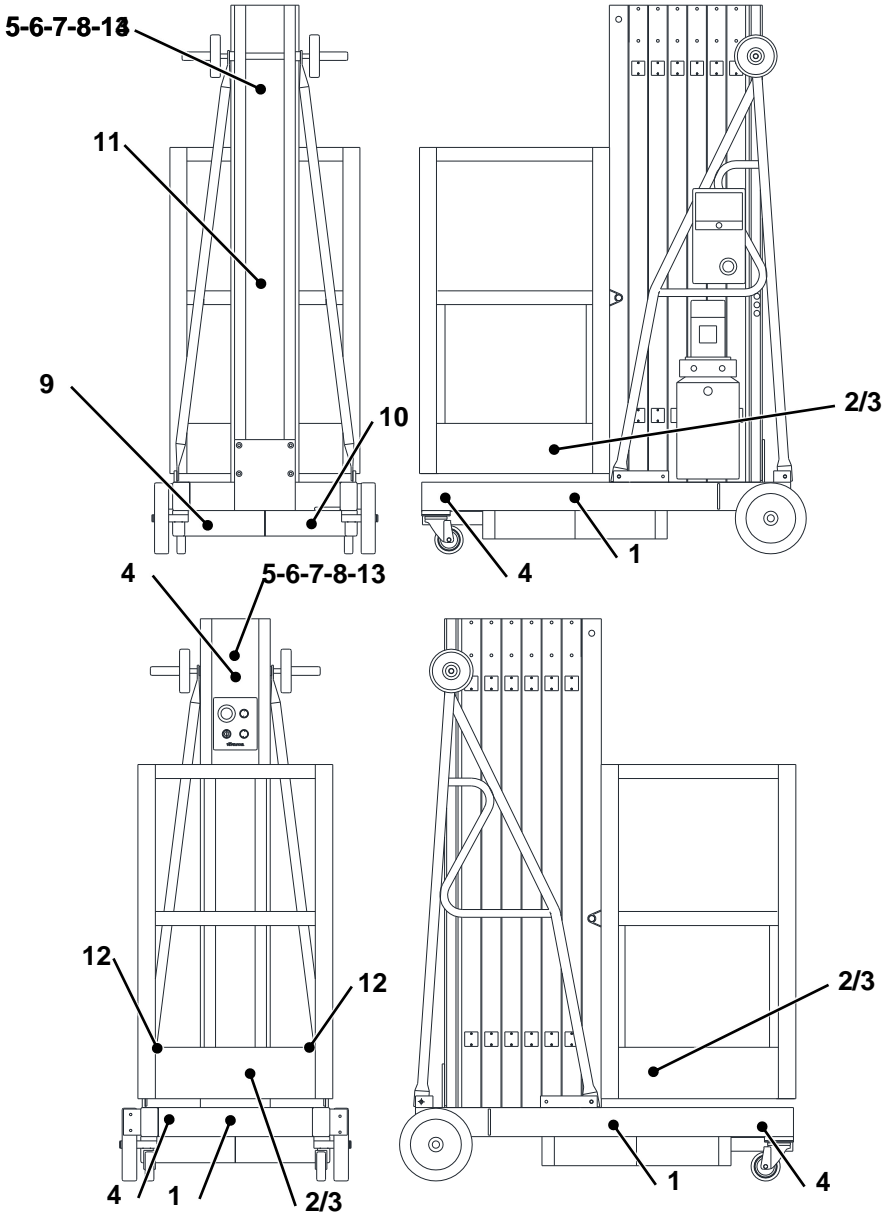


ATTENTION

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

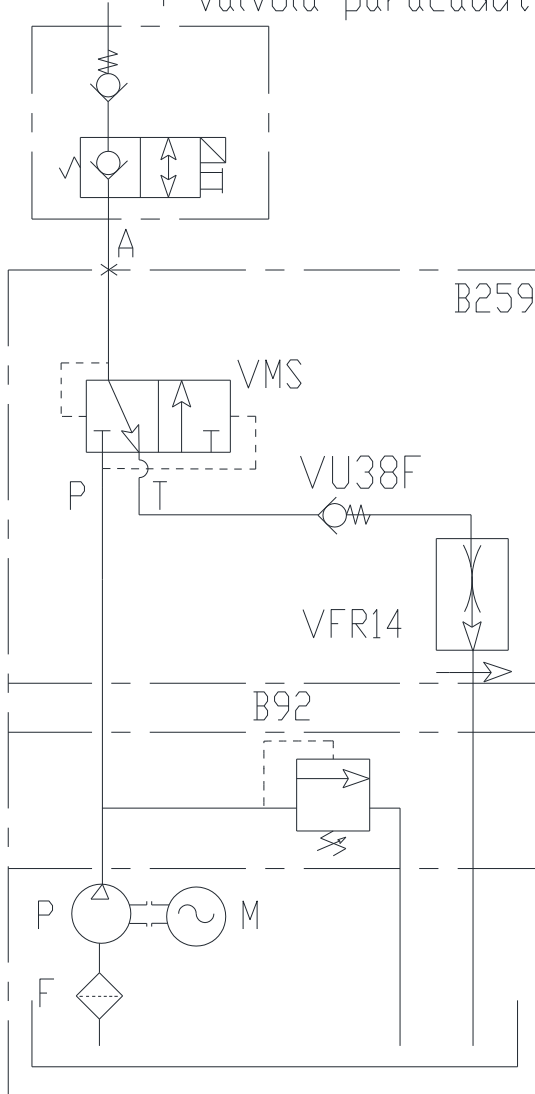
ATTACHMENT 1 – Layout for decal application

Pos.	SYMBOL	DESCRIPTION	Pos.	SYMBOL	DESCRIPTION
1		<u>DANGER SIGN</u> CRUSHING AND TRAPPING THE LOWER LIMBS	2		<u>INDICATION</u> Maximum number of persons and load on the cage
3		<u>INDICATION</u> Maximum number of persons and load on the cage	4	<u>INDICATION</u>	"INSTRUCTIONS FOR CORRECT INSERTION OF THE STABILISERS' FEET"
5		<u>PROHIBITION SIGN</u> UNAUTHORISED PERSONNEL MUST NOT USE THE MACHINERY	6		<u>OBLIGATION SIGN</u> REFER TO THE OPERATING MANUAL
7		<u>OBLIGATION SIGN</u> WEAR NON-SLIP SHOES	8		<u>PROHIBITION SIGN</u> DO NOT REMOVE THE SAFETY GUARDS AND DEVICES
9	<u>INDICATION</u>	"EMERGENCY DESCENT"	10	<u>INDICATION</u>	"EMERGENCY DESCENT PROCEDURE"
11	<u>PLATE</u>	"MAIN TECHNICAL FEATURES OF THE MACHINE"	12	<u>INDICATION</u>	"HOLDING ONLY 1 PERSON"
13	<u>INDICATION</u>	"INTERNAL USE AND IN THE ABSENCE OF WIND" OR "OUTDOOR USE"			



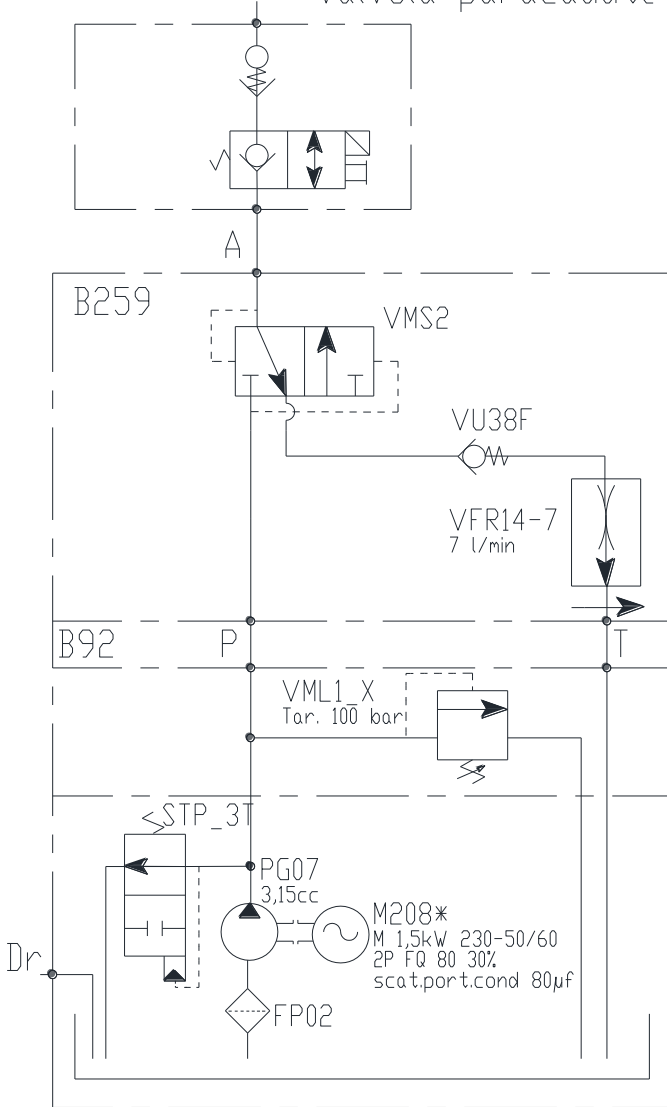
ATTACHMENT 2 – ZP version 24 V hydraulic diagram

Valvola elettrica NC
+ valvola paracadute

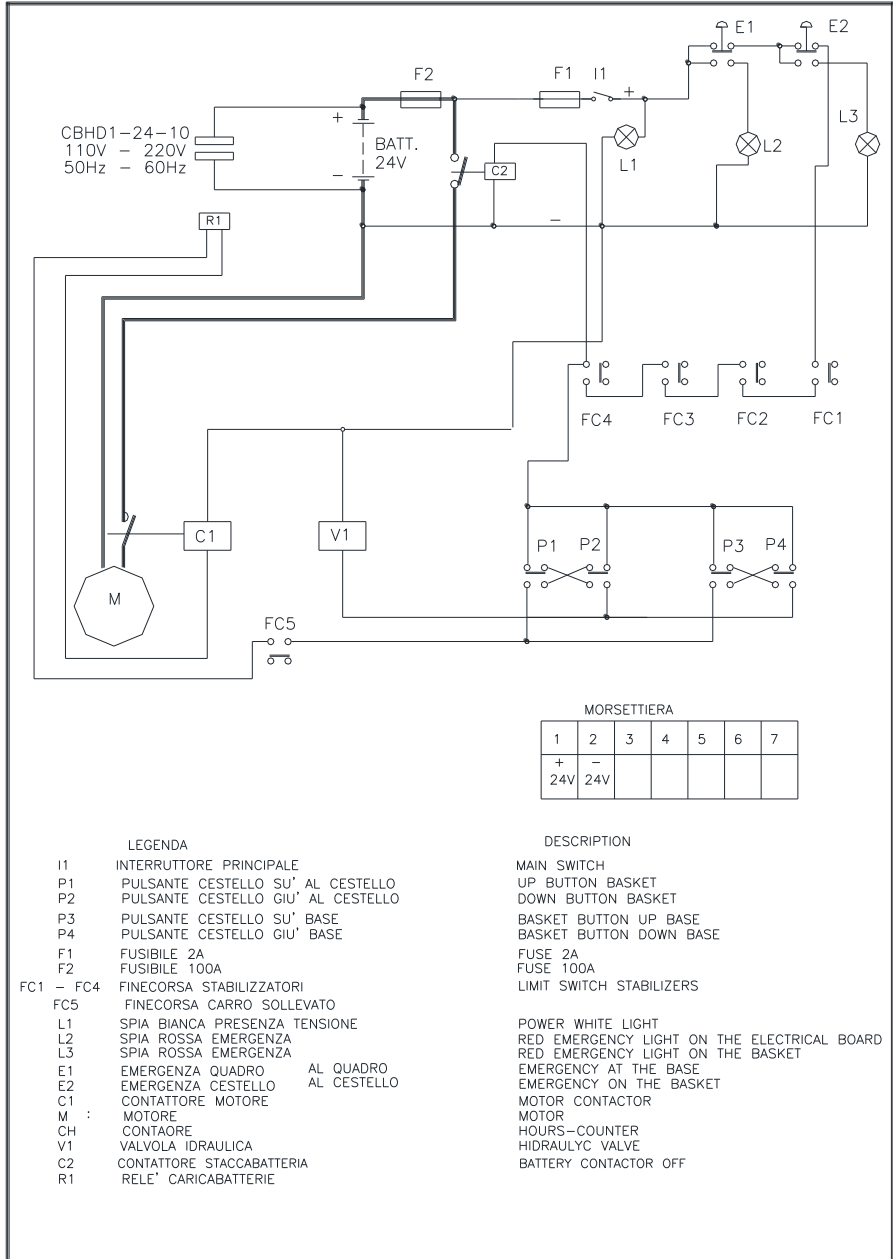


ATTACHMENT 3 – ZP version 220/230 V hydraulic diagram

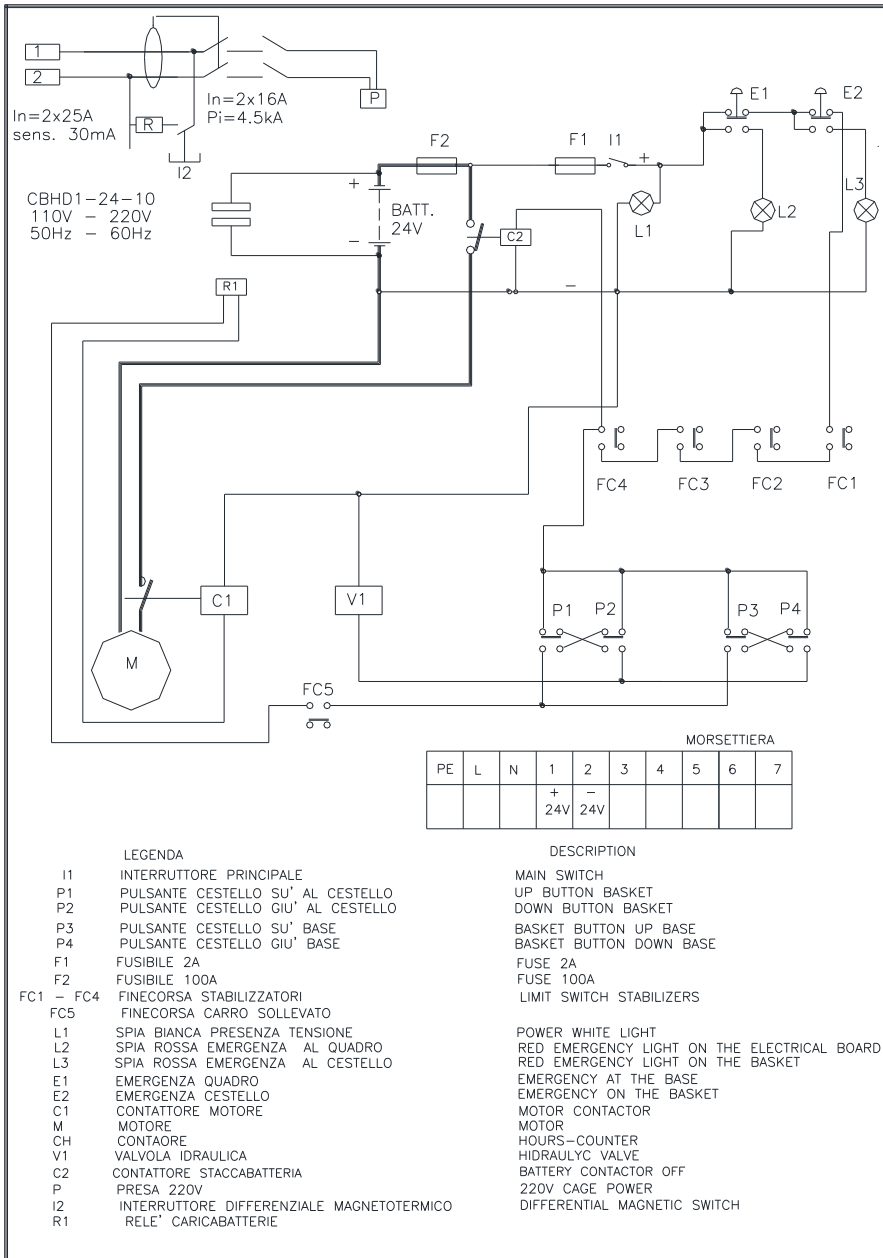
Valvola elettrica NC
+ valvola paracadute



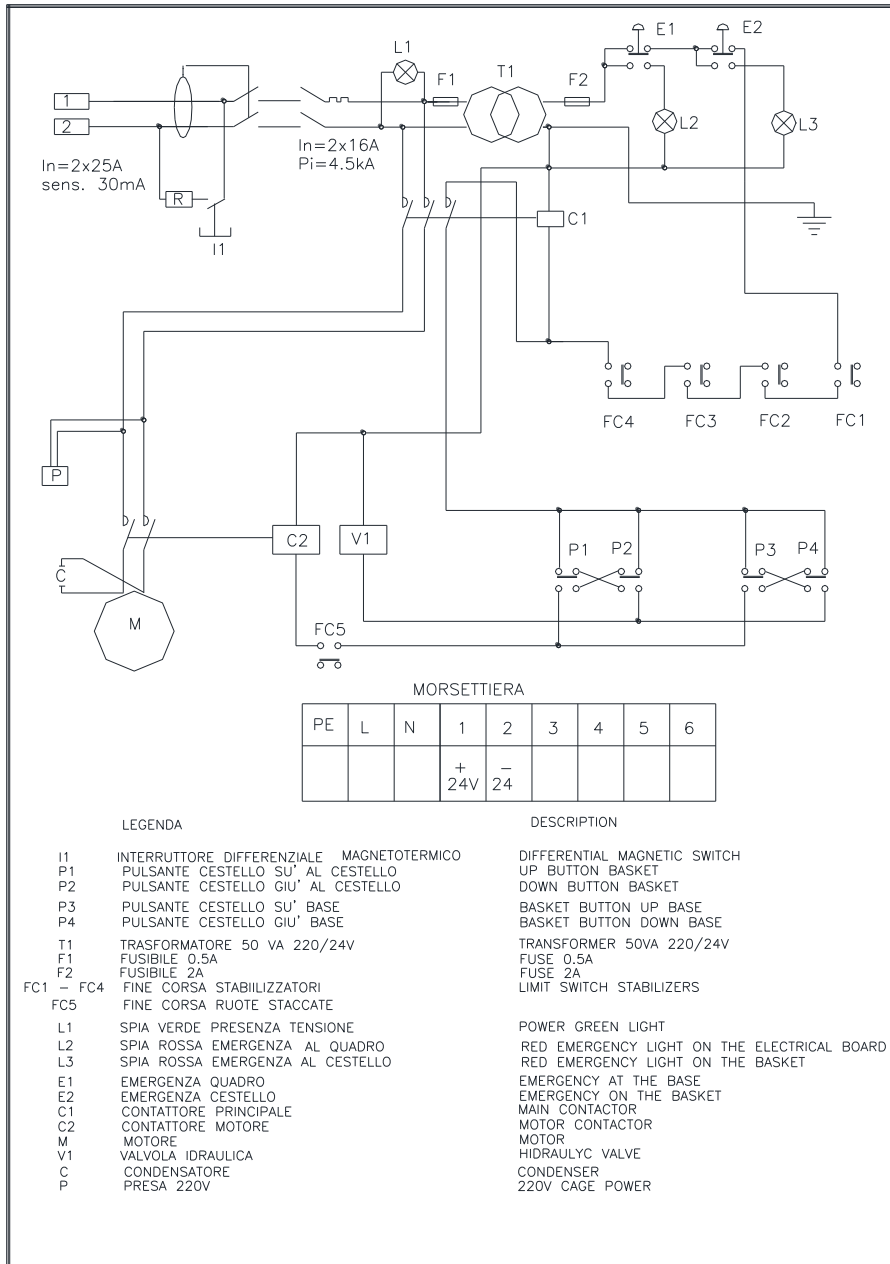
ATTACHMENT 4 – ZP version 24 V wiring diagram



**ATTACHMENT 5 - ZP version 24 V with 220/230 V socket wiring
diagram**



ATTACHMENT 6 – ZP version 220/230 V wiring diagram



ATTACHMENT 7 - Inspection certificate**ELEVATING PLATFORM**

ZP8 **ZP10** **ZP12** **ZP14** **ZP16**

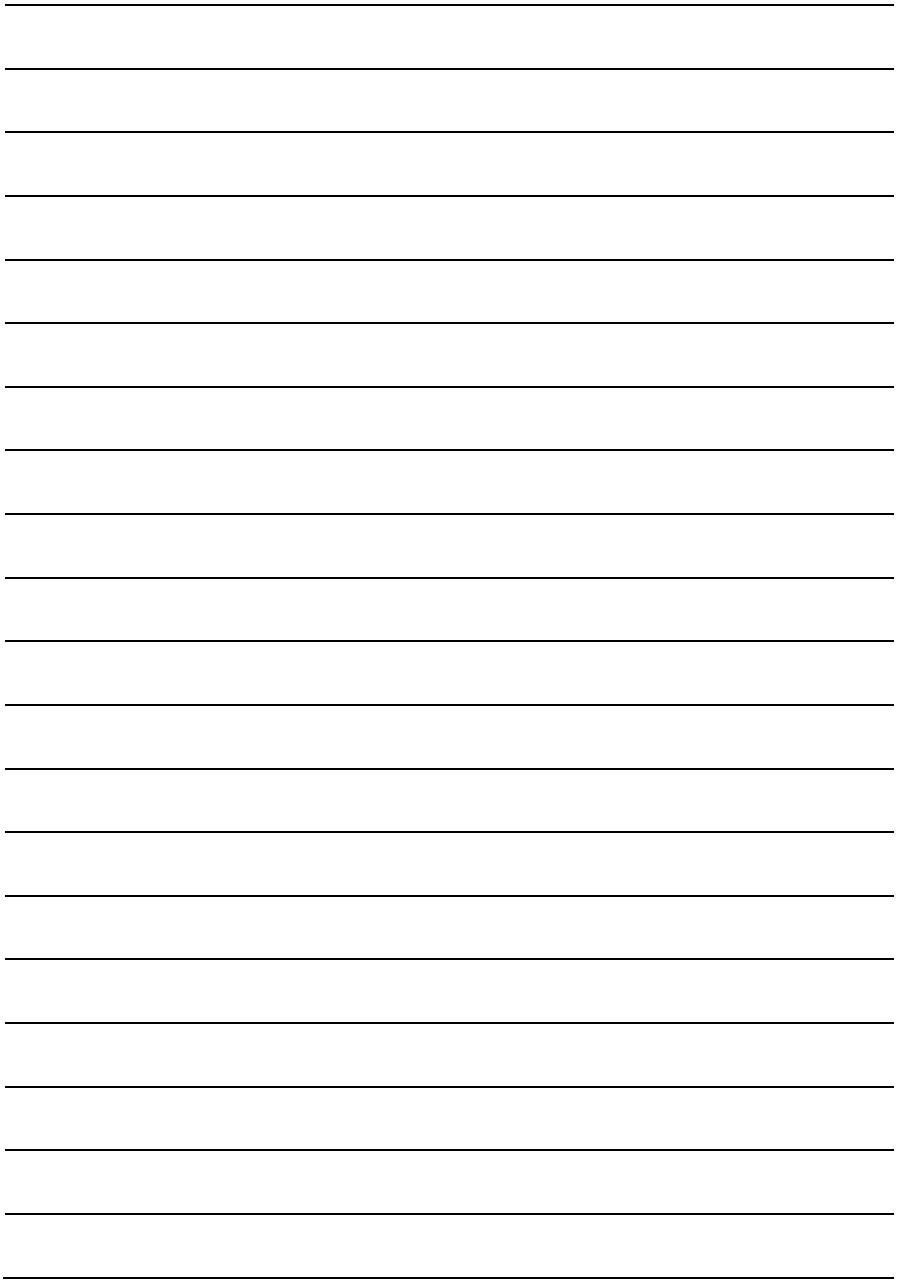
Serial number:

The machine, constructed in conformity with the type testing model, underwent the following tests:

- Brake test
- Overload test
- Operation test

With a POSITIVE outcome.

Tortoreto, on





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