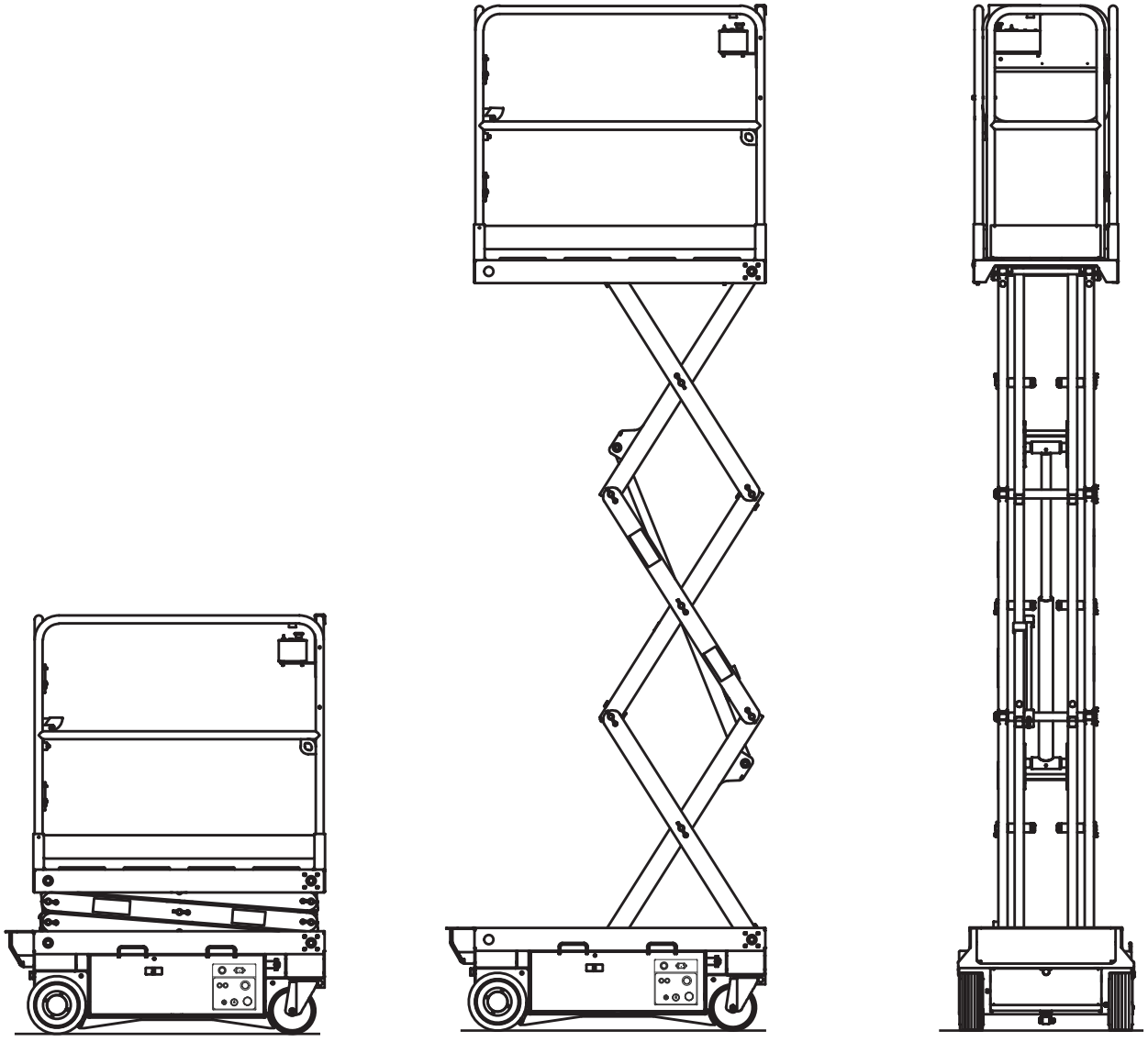
EASY UP 5 SP

CE

MOBILE ELEVATING WORK PLATFORM
USE AND MAINTENANCE MANUAL

MUM EASY UP 5 SP EN R01 10/2015



TRANSLATION OF THE ORIGINAL INSTRUCTIONS

IMER INTERNATIONAL S.p.A.

Sede legale e amministrativa
Via Salceto, 55 - 53036 POGGIBONSI (SI) -(ITALY)
Tel. +39 0577 97341 - Fax +39 0577 983304

Business Unit IMER ACCESS
Via San Francesco d'Assisi, 8 - 46020 PEGOGNAGA (MN) - ITALY
Tel. 0376 554011 - Fax 0376 559855

www.imergroup.com

EN

Table of contents

EC DECLARATION OF CONFORMITY

(ORIGINAL DECLARATION)

We: IMER International S.p.A.
Via Salceto, 53-55 – 53036 Poggibonsi (SI) – Italy

Hereby declare, under our own responsibility, that the machine:
mobile elevating work platform

Type **EASY UP 5 SP**

Serial Number **IT060xxxxxx**

- Complies with the provisions of Machine Directive 2006/42/EC
- Complies with the provisions of the following directives

  2004/108/EC (Electromagnetic Compatibility Directive) and subsequent amendments and supplements

  2006/95/EC (Low-Voltage Directive) and subsequent amendments and supplements

- Complies with the model that obtained EC certification no. **15CMAC0014**
  dated 29/11/2011 issued by the following Notified Body:
  I.C.E.P.I. Via Paolo Belizzi, 29/31/33 - 29100 Piacenza - ITALIA
  Identification number 0066
- We further certify that the following harmonised rules have been applied:
  EN 60204-1, EN ISO 12100
- OUT-OF-DOOR USE – the MEWP can be used with wind speed not more than 8.2 m/s (Beaufort Scale 5).
- INDOOR USE – the MEWP fully complies with harmonised standard EN 280

The person authorised to compile and keep the technical file is Paolo Pianigiani, Business Unit IMER ACCESS manager, Via S.Francesco d'Assisi 8 – 46020 Pegognaga (MN) – Italy

Pegognaga

Paolo Pianigiani

(Business Unit IMER ACCESS manager)

Static and dynamic tests

Before commissioning, the static and dynamic tests have been performed according to the harmonised standard EN 280 section 6.3.

After-sale service

For interventions, repairs and revisions, address to authorized workshops. For information contact our Technical After-Sale Assistance.

Spare-part service

A good and lasting working guarantee is assured by using original spare parts only; make reference to the “SPARE PARTS CATALOGUE”.

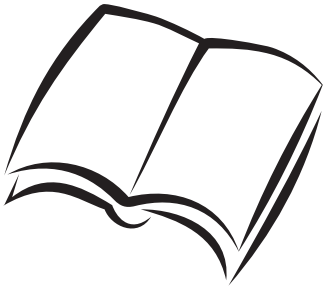
Always state the data described on the identification plate placed on the chassis if you need spare parts or assistance.

Responsibility

IMER International s.p.a. will be exempted from any responsibility and obligation for any damage caused to persons or things due to one of the reasons listed below:

- Failure to comply with the instructions in the USE AND MAINTENANCE MANUAL as regards the control, use and maintenance of the machine;
- Incorrect use and maintenance of the machine;
- Changes to the structure or components of the machine without the authorisation of IMER International s.p.a. and/or without the use of appropriate equipment;
- Circumstances unrelated with the normal and correct use of the machine as described in this USE AND MAINTENANCE MANUAL.
- Use of non-original spare parts not authorised by the manufacturer.

General instructions - safety



Manual

A suitable working safety is very important in order to avoid serious injuries for the operator himself and for the other persons, therefore it is compulsory to carefully read and well-understand this manual to know the exact and essential instructions for the use of the machine and the maintenance operations.

This manual is to be considered as an integral part of the machine and it should always remain on the platform for future reference.

This use manual must be carefully preserved by the user for the whole machine life, even if the machine is lent, rent or sold

The figures described in this manual DON'T always exactly reproduce the model described but these are used for a better and easier understanding of the text

Safety systems

The safety systems applied to the machine are inevitably subject to wear and to go out of tune. Therefore, they must be controlled and kept in perfect efficiency; also, it is not advisable to evaluate their operational and safety conditions only on the basis of their functioning.

Such systems do not relieve the operator of the responsibility of carrying out an informed and appropriate use of the machine.

It is absolutely forbidden to remove, modify or tamper with parts of the self-propelled aerial platform, which are important for safety and stability.

In particular as batteries have also a stabilizing function, in case of replacement, check that their weight is not lower than the one indicated in the technical data table of the machine.

Any tampering whatsoever with the main members of the self-propelled aerial platform and associated safety devices immediately nullifies guarantee conditions.

Labels and plates

Potential dangers and instructions regarding the machine are given on labels and plates; these should therefore be kept in a clearly legible, good condition.

Operator’s requirements

The operator shall:

1. Read and well understand all the documentation enclosed to the machine, be properly trained and instructed in the correct use of the machine and know the safety rules and devices.
2. Be physically in good conditions and not make use of dope, alcohol or drugs that could affect the attention, the reaction, the sight and the hearing.
3. Give a great importance to safety and refuse to work if you think you are not working under safe conditions.
4. Well-know the maximum working load.
5. Use suitable accident prevention equipment accordingly with the working conditions and the local rules in force.
6. During the working keep all the parts of the body inside the guard rails and both feet have to be firmly rest on the floor surface.
7. Make always use of an assistant in areas where the sight is obstructed.
8. Always work under highest safe conditions, tidiness and cleaning.
9. Before using the machine check daily the controls and safety devices and make sure they are in perfect working order.
10. Check that the working area is free from persons, animals or obstacles before making any movement of the machine.
11. Check that the ground where the machine has to operate is free from holes, bumps, drops, uneven level, obstructions, debris and coverings which could hide possible potholes or others dangers.
12. Clean the floor surface of the platform and the handrails from oil and grease.
13. Once the work has been finished and when the machine remains unattended, take the key off to avoid that unauthorized persons can use it.
14. Commuting platform control panel, always remove the key to avoid an unauthorized use from the ground control panel while personnel is present on the platform. The safety manager must hold a spare key enabling to use the ground control panel as emergency place. (In case of failure it is possible to lower the machine).

Distance from the electric lines

The machine is not electrically insulated and does not offer any protection against active parts, electrical lines and plants which are not protected or not sufficiently protected.

Here below you can find a table concerning the safety distances to be compulsory observed according to the Italian law.

In other countries the operator may have different limitations to be observed

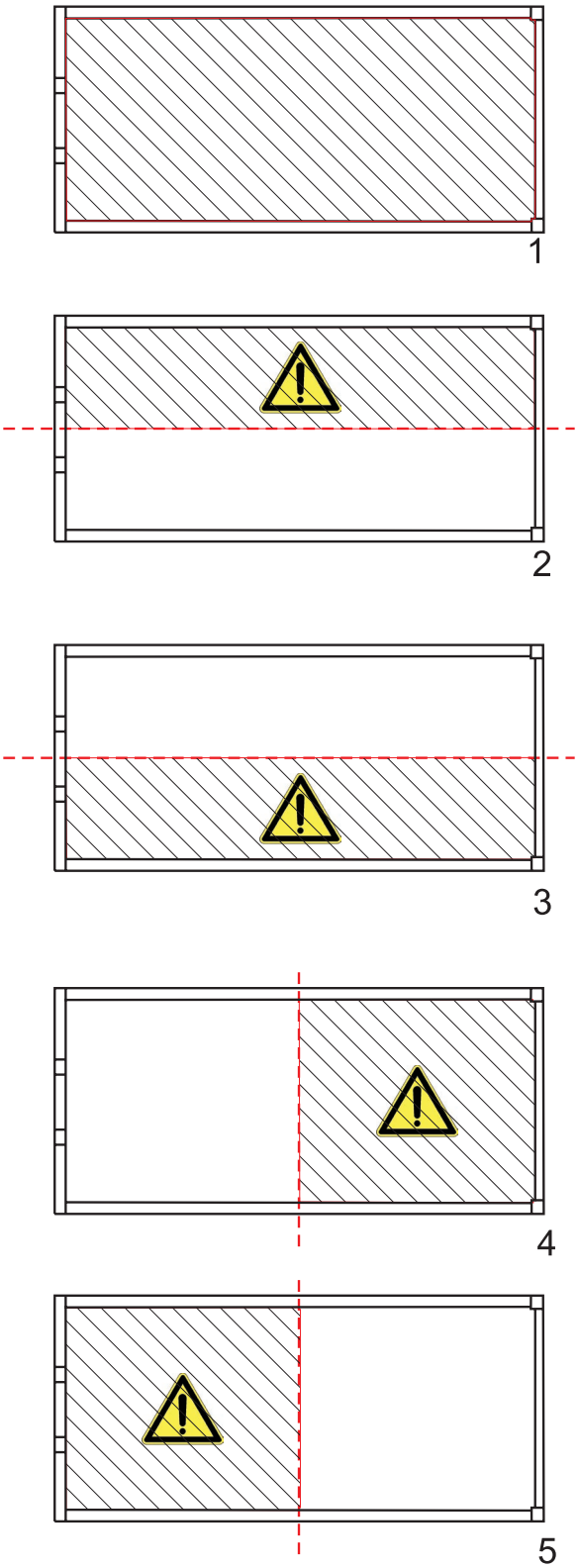
Un (kV)	**Minimum allowed distance (m)**
≤ 1	3
10	3,5
15	3,5
132	5
220	7
380	7

Un = nominal voltage

Load distribution

Distribute the load on the entire platform surface uniformly (figure 1)

Do not load on surfaces that are lower than those indicated in figures 2-3-4-5.



Not allowed operations

It is strictly forbidden to use the machine:

- On public roads.
- Without an adequate environmental lighting to work or to move under safety conditions.
- Work in case of strong strom, with or without rain, or with wind with speed higher than 8,2 m/s, 5 grade of the Beaufort scale described below.
- Without making sure that the platform gate bar is closed.
- While moving, with open box.
- If the working area is not free from obstacles which could cause dangerous conditions.
- While·entering in contact with fixed or mobile objects.
- Under bad working conditions.
- In a different way from what it has been described in the instruction manual.
- After modifying or removing the safety devices.
- After fastening it to adjacent structures.

In addition, it is forbidden to:

- Operate or lift the platform when it is placed on the truck loading platform or other vehicle.
- To throw some objects and tools from the top to down and vice versa.
- Carry out lifting and lowering operations from the ramps without first completely lowering and blocking the front wheels.

Beaufort Wind Scale

	Description	Wind speed (km/h)	Wind speed (km/h)	Sea conditions	Land conditions
0	Calm	0	0	Flat	Calm. Smoke rises vertically.
1	Light air	1-6	0.3-1.5	Ripples without crests.	Wind motion visible in smoke.
2	Light Breeze	7-11	1.6-3.4	Small wavelets. Crests of glassy appearance, not breaking.	Wind felt on exposed skin. Leaves rustle.
3	Gentle breeze	12-19	3.4-5.4	Large wavelets. Crests begin to break; scattered whitecaps.	Leaves and smaller twigs in constant motion.
4	Moderate breeze	20-29	5.5-7.9	Small waves.	Dust and loose paper raised. Small branches begin to move.
5	Fresh breeze	30-39	8.0-10.7	Moderate (1.2 m) longer waves. Some foam and spray.	Smaller trees sway.
6	Strong breeze	40-50	10.8-13.8	Large waves with foam crests and some spray.	Large branches in motion. Whistling heard in overhead wires. Umbrella use becomes difficult.
7	Near gale / Moderate gale	51-62	13.9-17.1	Sea heaps up and foam begins to streak.	Whole trees in motion. Effort needed to walk against the wind.
8	Fresh gale	63-75	17.2-20.7	Moderately high waves with breaking crests forming spindrift. Streaks of foam.	Some twigs broken from trees. Cars veer on road.
9	Strong gale	76-87	20.8-24.4	High waves (6-7 m) with dense foam. Wave crests start to roll over. Considerable spray.	Larger branches break off trees, construction/ temporary signs and barricades blown over, damage to circus tents and canopies.
10	Whole gale / Storm	88-102	24.5-28.4	Very high waves. The sea surface is white and there is considerable tumbling. Visibility is reduced.	Trees broken off or uprooted, saplings bent and/ or deformed, poorly attached asphalt shingles and shingles in poor condition peel off roofs.
11	Violent storm	103-117	28.5-32.6	Exceptionally high waves.	Widespread vegetation damage, minor damage to most roof shingles/surfaces, gravel may be blown from flat roofs.
12	Hurricane	> 117	> 32.5	Huge waves. Air filled with foam and spray. Sea completely white with driving spray. Visibility greatly reduced.	Considerable and widespread damage to vegetation, a few windows broken, structural damage to mobile homes and poorly constructed sheds and barns.

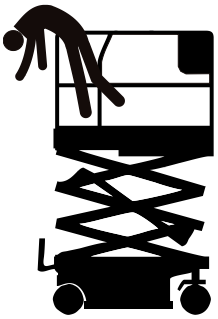
To minimize hazards

Follow the instructions below:

Risk of folding

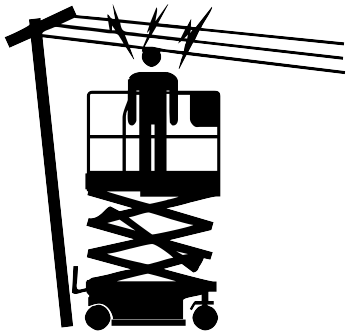
1. Check the ground is firm and even.
2. Do not use the machine on slippery, icy, muddy ground and with holes, which has a slope higher than the allowed limit.
3. Make sure that the ground suitably supports the maximum load of each wheel.
4. Check that the ground where the machine has to operate is free from holes, bumps, drops, uneven level, obstructions, debris and coverings which could hide possible potholes or others dangers.
5. Comply with the maximum load and the allowable number of persons.
6. Distribute the loads and place them as indicated on page 12.
7. Avoid the machine knocks against fixed or mobile obstacles.
8. Do not use the machine as a crane with materials suspended to the guard rails or to the scissor.
9. Do not increase the maximum available working height by putting ladders or scaffolds on the platform or climbing onto the guard rails.
10. Do not place materials on the guard rails.
11. During movements, lifting and lowering of the platform, check that there are not obstructions around, above and below the machine.
12. It’s strictly forbidden to carry out lifting or lowering operations from ramps without first blocking the front wheels.
13. Carry out the movements only if the working area visibility is complete.
14. During movements on slopes or when loading/unloading from the truck through ramps only use the second (medium) speed.
15. Do not use an horizontal force above 200 N
16. Do not equip the machine with elements (ex. panels) which increase the wind exposure.

Risk of falling



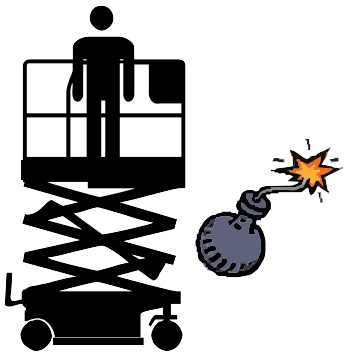
- Do not lean out of the safety perimetric guard rails of the platform.
- Do not use guard rails as admittance means to get on or get down from the platform.
- Do not get on or get down from the platform when it is lifted.

Electric hazards



- As the machine is not electrically insulated, the operator has to pay a particular attention to avoid any contact with probably energized parts.
- Do not carry out works near electrical lines at a distance lower than the one indicated in the table page 11.

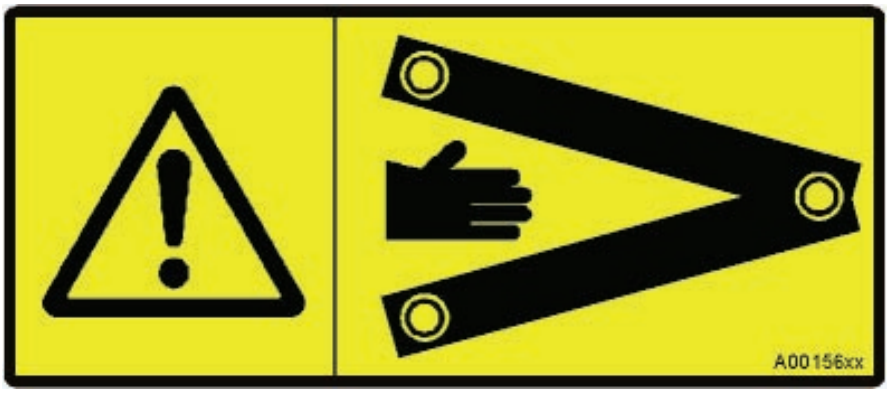
Explosion or burn hazards



- Do not use the machine near open flames or heat sources.
- Charge batteries in ventilated environment, far from heat sources or explosive fluids.
- Do not use the machine if there are oil leakage.
- Do not use the machine in environments with explosive atmosphere.

Residual risks

The plates and labels listed below indicate the residual risks that remain despite there being protective measures incorporated into the machine's design and regardless of the safety devices adopted.



Description of the machine

This edition contains the use and maintenance of the self-propelled aerial platform:

EASY UP 5 SP

Designed and manufactured to be hydraulically operated and with proportional controls.

M**anufactured with 3 scissors reaches a height of 3,20 m.**

The platform can be used outdoors.

Only qualified and skilled operators can use these machines.

Platform manufacturer:

IMER INTERNATIONAL S.p.A.
Via Salceto, 55 - 53036 POGGIBONSI (SI) -(ITALY)
Tel. 0577 97341 - Fax 0577 983304
www.imergroup.it

SEDE OPERATIVA
Business Unit IMER ACCESS
46020 PEGOGNAGA (MN) ITALIA
Via S. Francesco D'Assisi, 8
Tel. Fax +39 0376.559855

Standard equipment

- Electric drive on rear wheels
- Proportional controls with diagnostics
- Parking brakes electromagnetic
- Pivoting wheels steering
- Emergency manual lowering
- Lock valve on lifting cylinders
- Drive batteries 24V-105Ah C5
- Automatic disengagement battery charger
- Audible motion alarms, Horn
- Diagnostic display - Hour meter and battery check
- Inclination sensor with motion locking device
- Battery isolator
- Electric shearing-proof protection
- Battery control system with low-voltage protection
- Overload sensor
- Anti-overturn protections
- EC - EN280 marking
- Rotating beacon

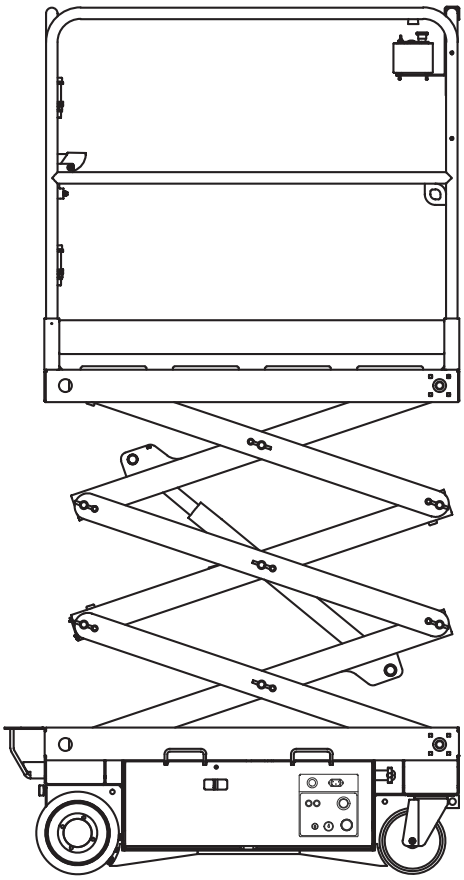
Optional

- 110 V line kit

Presentation

The aerial platform EASY UP 5 SP **is used to lift persons, materials and equipment** to enable works to be performed at certain heights.

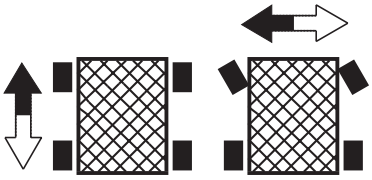
It is intended to be used accordingly with the foreseen technical data described in the suitable sheet, on solid and strong grounds and not before a Qualified Operator has checked the operational safety.



It is equipped with:

- Chassis (**A**)
- Scissor (**B**)
- Platform (**C**)

List of movements

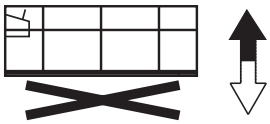


Drive and Steering

The chassis is equipped with two rear driving.

Steering will be possible only when the pivoting wheels will be unlocked.

Drive and steering can be carried out also with lifted platform.



Lifting/lowering the platform

The movement is operated by one hydraulic cylinder that work on the scissors.

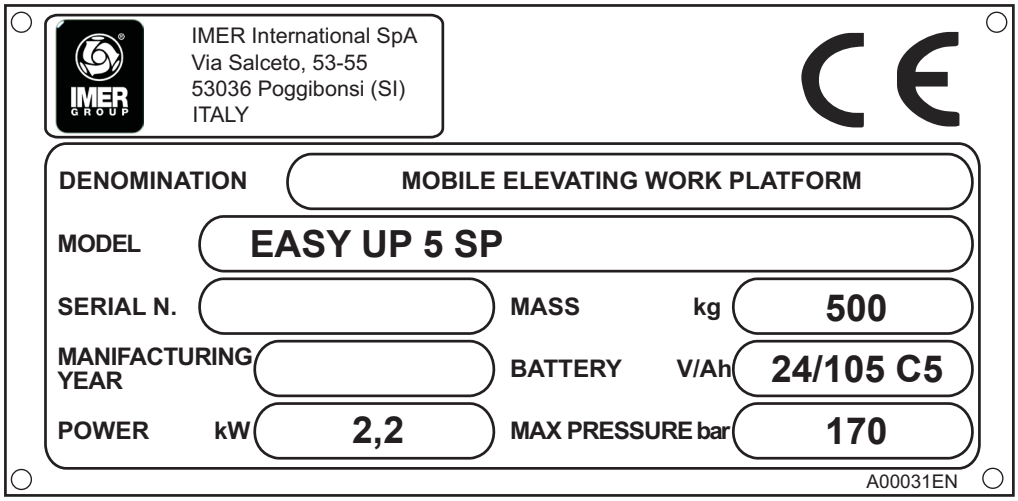
Control proportionality

Drive and lifting are controlled by proportional control.

The movement graduality is obtained by means of the electronic control; depending on the movements of the joystick on the platform control panel, more or less energy is supplied to the electric motors and electric pump.

Identification

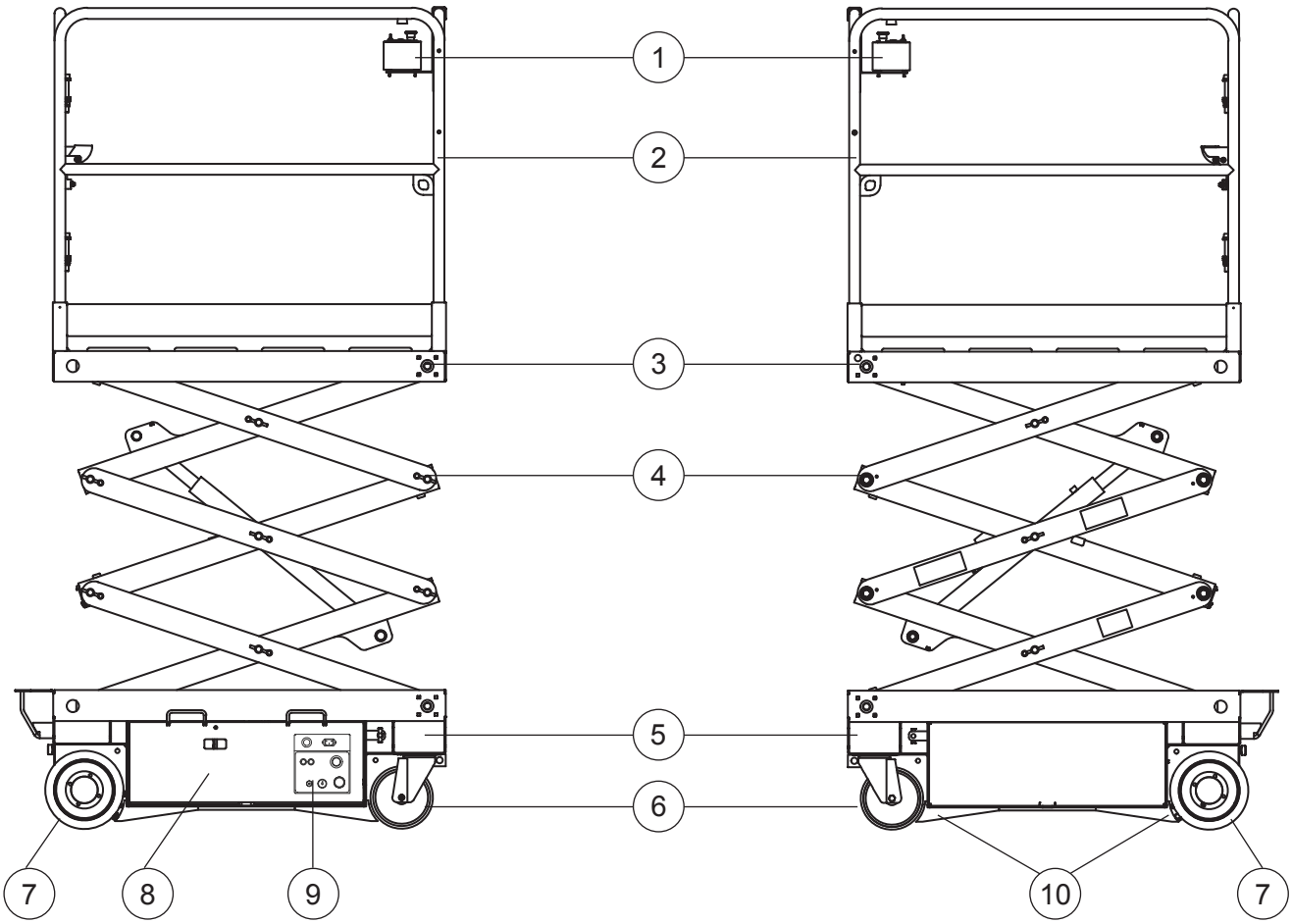
A metallic plate fixed to the chassis contains all data necessary to identify the machine.



The data refers to the standard model

Main components

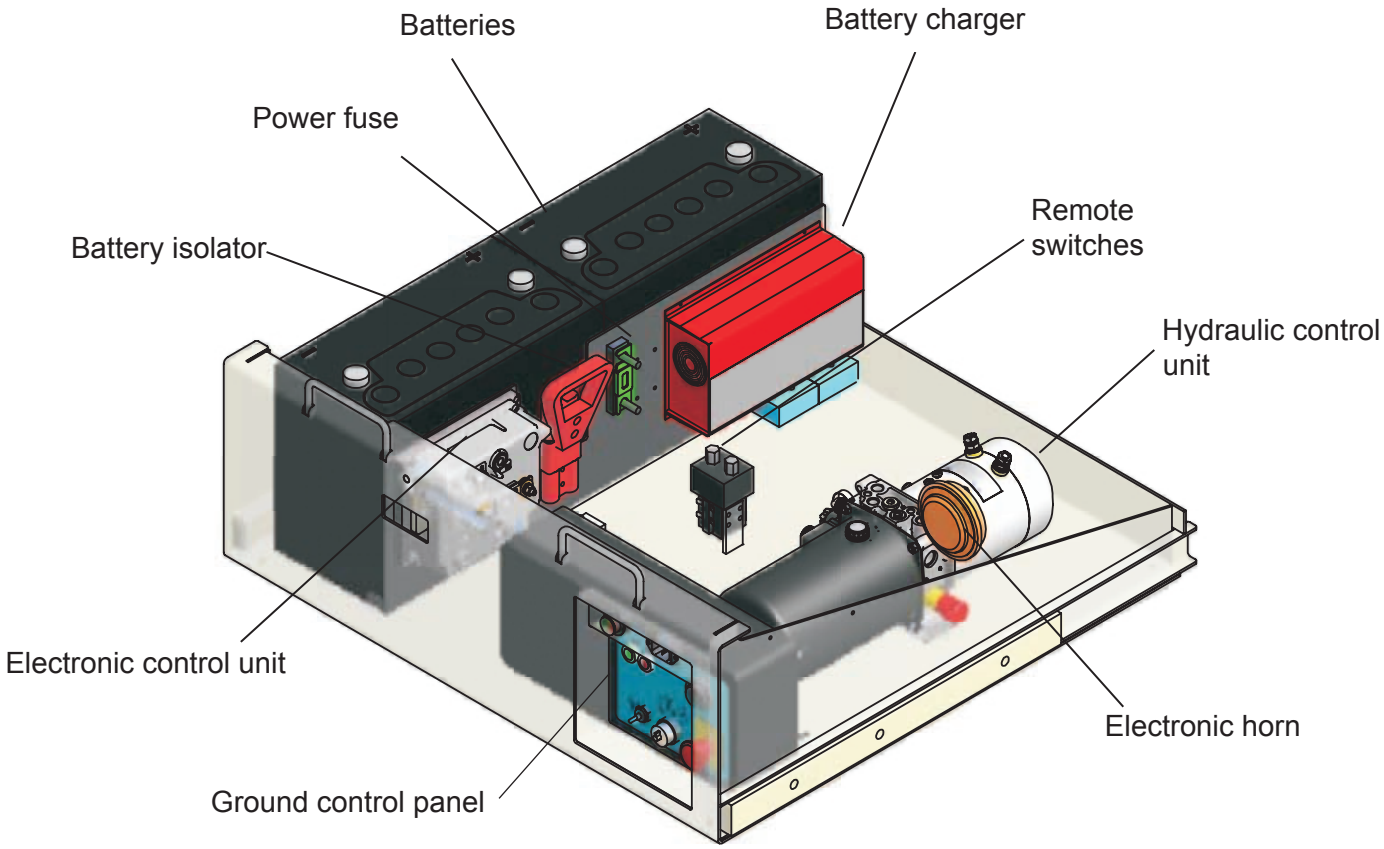
RIGHT SIDE LEFT SIDE



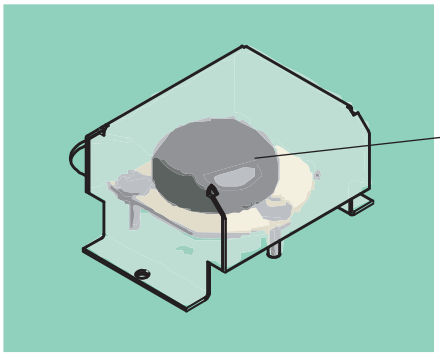
1. Control panel
2. Guard rails
3. Platform
4. Lifting structure
5. Chassis
6. Pivoting wheels
7. Driving wheels
8. Box
9. Ground control panel
10. Fixed pot-hole guards

Control and power instruments position

BOX



CHASSIS CENTRE



Electronic circuit

The electronic equipment is composed of two microprocessor control units for the machine operation: one main control unit is placed inside the chassis and the other on the platform control panel. These control units are connected through a CAN Bus transmission protocol.

The machine control and commands panel are performed by the main control unit, which has also the following functions:

- monitoring of the battery discharge level
- platform load control

The electronic equipment is also composed of further electronic microprocessor devices with the following functions:

- machine inclination control

The control panel display shows:

- the working hours;
- the battery charge level
- the fault and error codes detected by the main board self-diagnostic.

For the horn, in the event of a failure replace with original spare part only.

The replacement with a different type may result in machine damage.

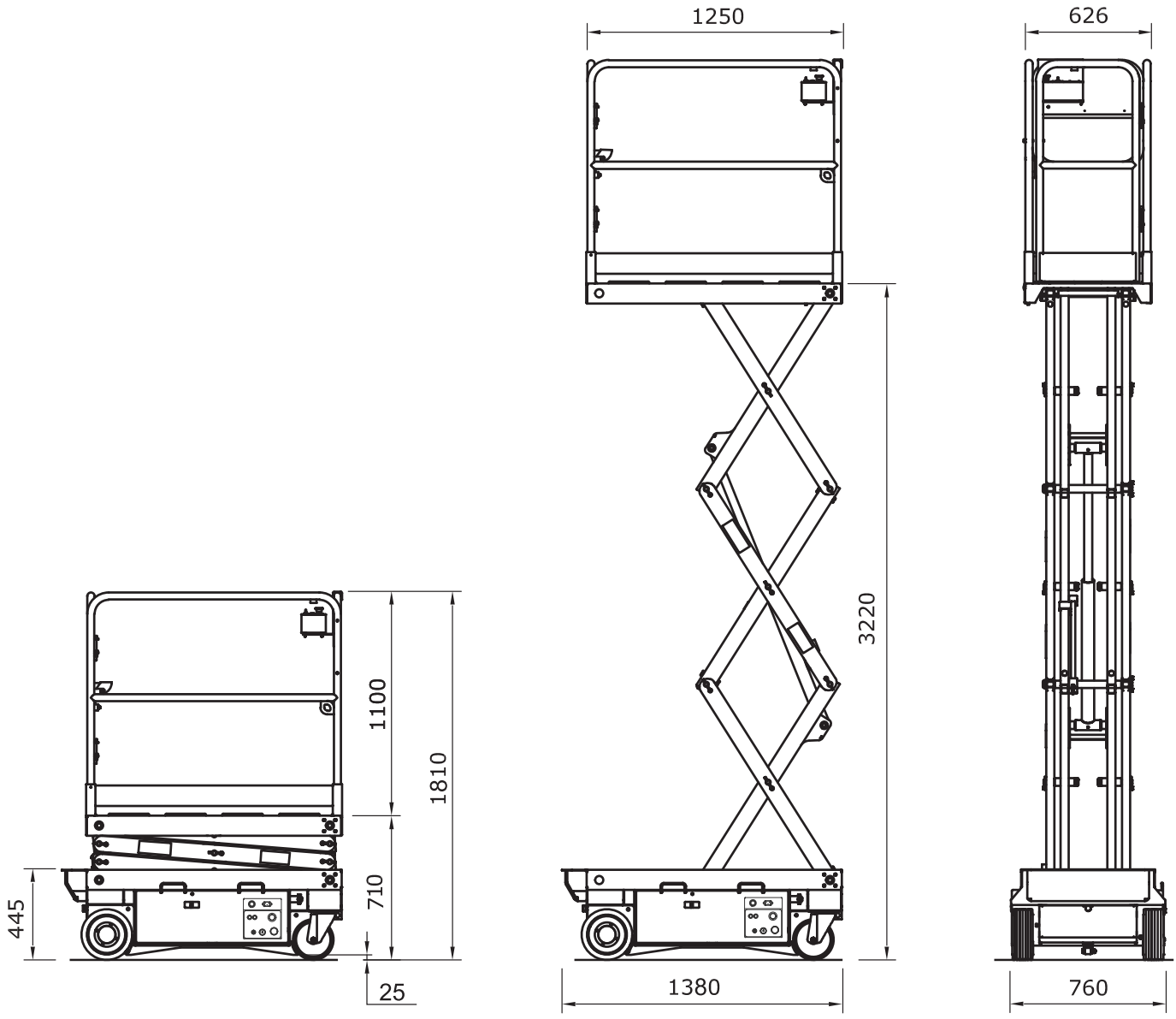
Description	Unit of measurement	
Number of scissors	n.	3
Max. working load		
including 1 person	kg	200
Lifting time (loaded)	s	19
Lowering time (loaded)	s	20
Drive speed (high)	km/h	3,5
Drive speed (safety)	km/h	0,6
Max. slope	%	25
Max. allowed side force	N	200
Max. allowed side inclination for the chassis	°	1,5
Max. allowed longitudinal inclination for the chassis	°	2,5
Drive batteries		
voltage	V	24
capacity	Ah	105 C5
weight	kg	30 x 2
Amount of acid solution contained in the batteries	l	6.3 x 2
Battery charger	V/A	24 / 12
Drive electric motors	V/kW	24 / 1
Hydraulic control unit	V/kW	24 / 2,2
Machine weight	kg	500
Oil tank	l	2
Inside turning radius	m	0
Outside turning radius	m	1,65
Front wheels dimensions	mm	180 x 50
Rear wheels dimensions	mm	250 x 100
Wheels type		cushion
Front wheels load	daN	350
Rear wheels load	daN	330
Level of acoustic pressure weighed at operator’s place	dB	<70
Lifting pressure	Bar	170
Working temperature	°C	da -10 a +40

Vibrations

As regards vibrations, according to the measurings carried out in the most unfavourable conditions of use, it has been established that:

- the average weighted quadratic value in frequency of the acceleration relevant to the upper limbs is lower than 2.5 m/sec^2;
- the average weighted quadratic value in frequency of the acceleration relevant to the body is lower than 0.5 m/sec^2.

Overall dimensions



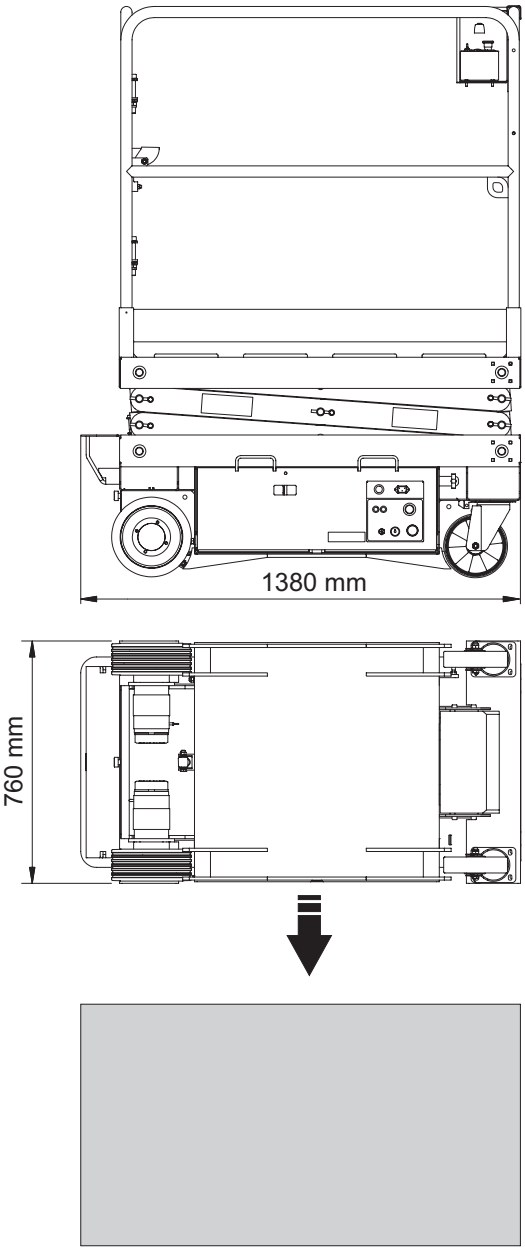
Ground pressure

Localized pressure (per wheel)

Use	**Pressure** (kg/cm^2)
internal	15.6
external	18.2

The full load pressure referring to the occupied surface space is the following:

Use	**Pressure** (kg/m^2)
internal	667
external	667



Plates and labels

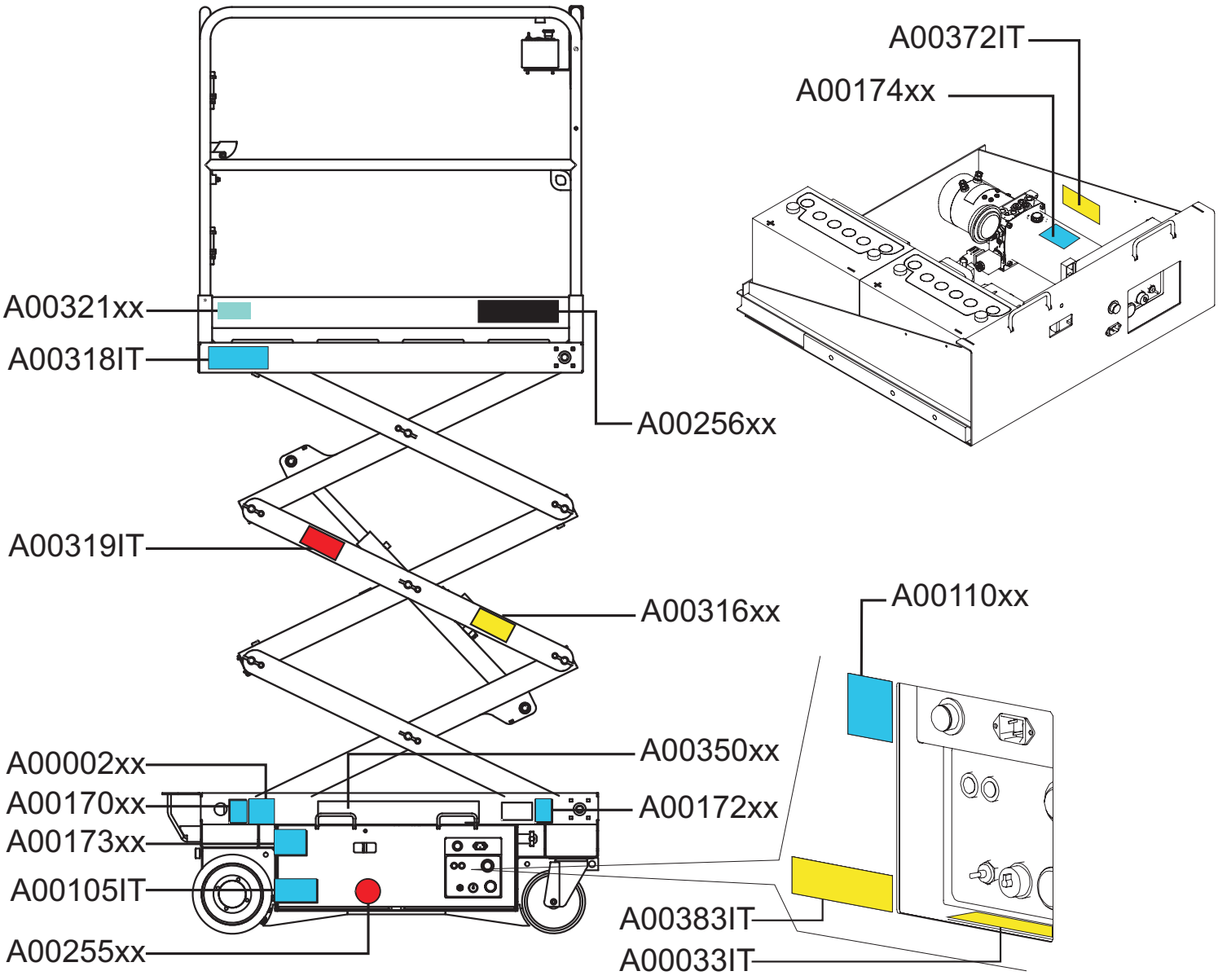
Using the illustrations, check that all the plates and labels are present.

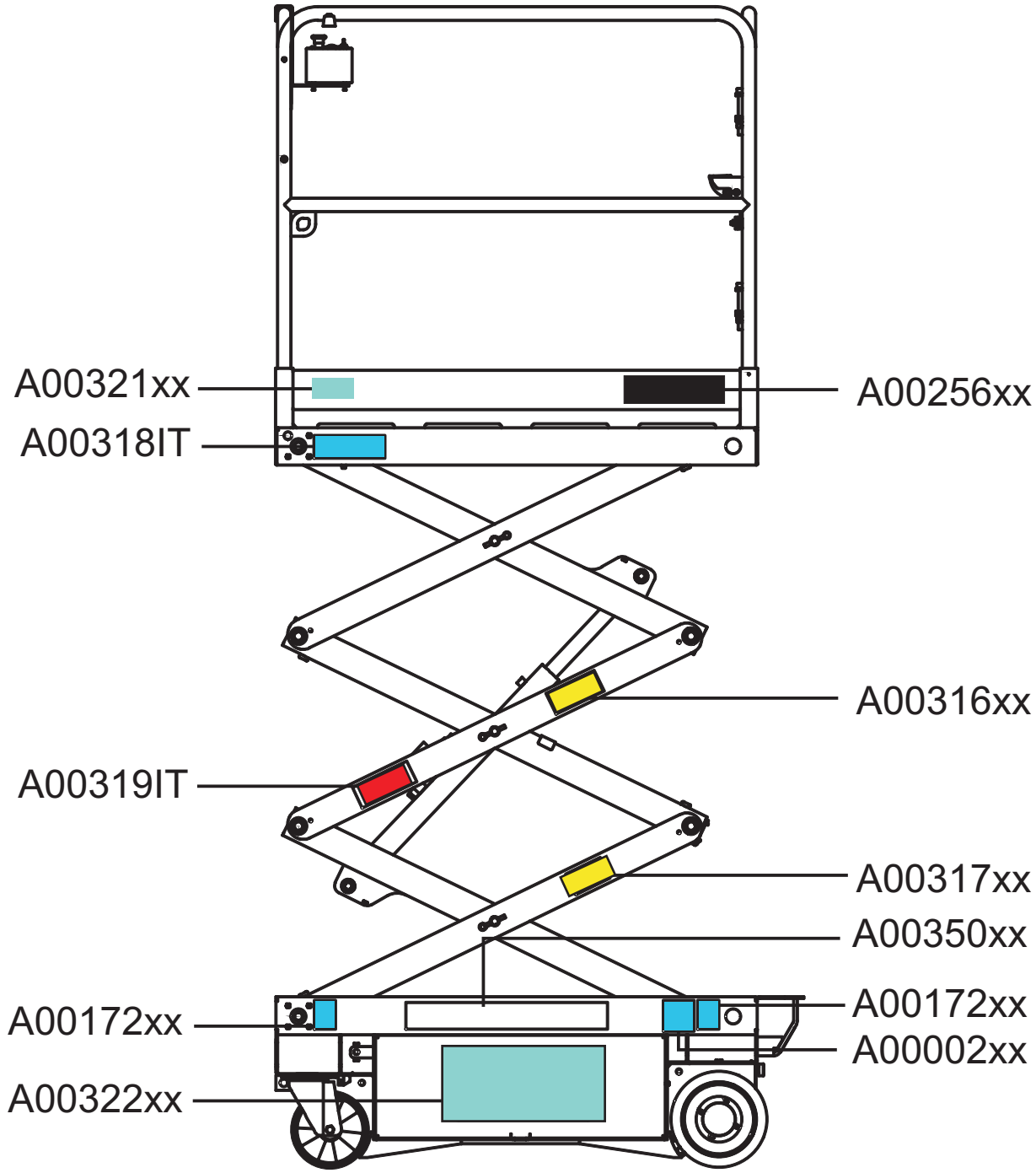
Plates and labels that contain no text will have 8-digit numbering or an alphanumeric code ending with XX.

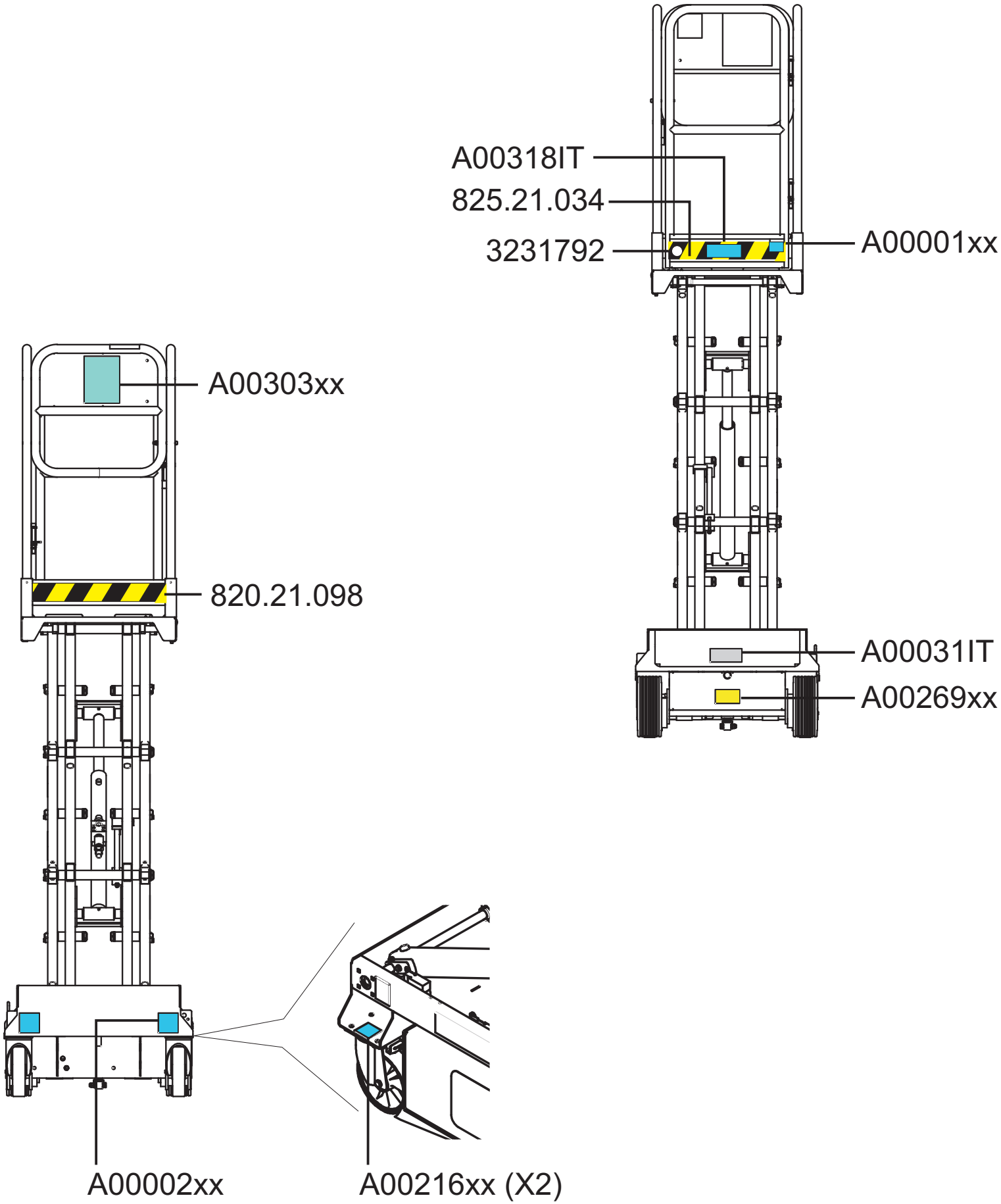
Plates and labels that contain text will have an alphanumeric code ending with the relevant country code for the machine's destination country.

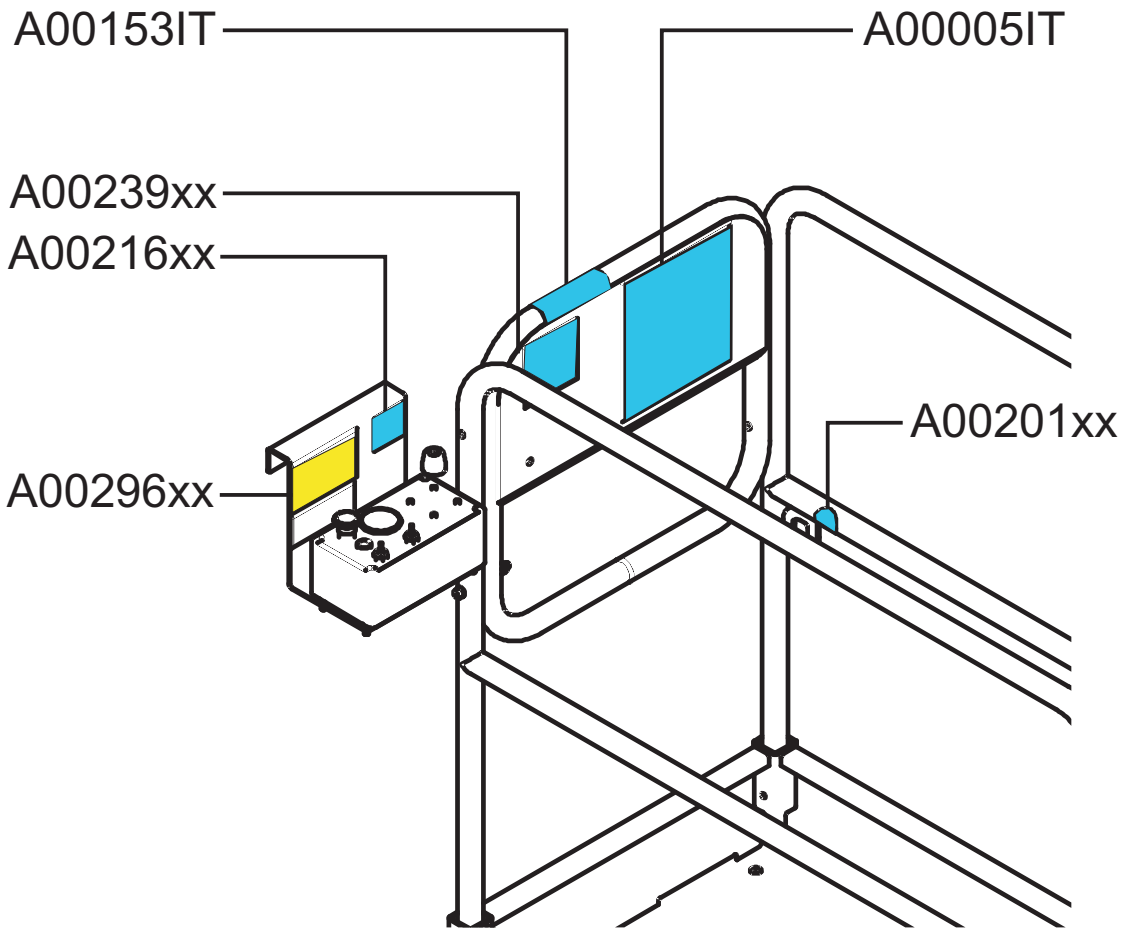
82021098	BLACK/YELLOW STRIPS	1
82521034	BLACK/YELLOW STRIPS	1
A00001XX	CE MARK	1
A00002XX	WHEELS LOAD	4
A00110XX	BATTERY CHARGER PLUG	1
A00316XX	SHEARING HAZARD	2
A00172XX	FORK AREA	4
A00173XX	BATTERY ISOLATOR	1
A00174XX	TYPE OF OIL ISO VG 46	1
A00201XX	SAFETY BELTS ANCHORAGE	4
A00216XX	DIRECTION ARROWS	2
A00239XX	DIRECTION ARROWS	2
A00317XX	FRAME SAFETY SUPPORT	2
A00255XX	PROHIBITION OF USE OF HIGH-PRESSURE CLEANERS	5
A00321XX	PLATFORM LOGO	2
A00269XX	EMERGENCY TOWING	2
A00270XX	EMERGENCY LOWERING	1
A00296XX	ELECTRIC LINE DISTANCE	1
A00303XX	LOGO	1
A00322XX	LOGO	1
A00350XX	EASY UP 5 SP	2
3231792	AMADE IN ITALY MADE IN EU	1

A00005 EN	WARNING PLATE	1
A00031 EN	SERIAL NUMBER PLATE	1
A00033 EN	EMERGENCY	1
A00319 EN	NO STOPPING	2
A00105 EN	RECTIFIER RULES	1
A00153 EN	CONTROL PANEL POSITION	1
A00318 EN	MAXIMUM LOAD	4
A00383 EN	REMOVE THE KEY	2


A00372IT
A00174xx
A00321xx
A00318IT
A00256xx
A00319IT
A00316xx
A00110xx
A00350xx
A00002xx
A00170xx
A00172xx
A00173xx
A00105IT
A00383IT
A00255xx
A00033IT


A00321xx
A00318IT
A00256xx
A00316xx
A00319IT
A00317xx
A00350xx
A00172xx
A00172xx
A00002xx
A00322xx


A00318IT
825.21.034
3231792
A00001xx
A00303xx
820.21.098
A00031IT
A00269xx
A00002xx
A00216xx (X2)


A00153IT
A00005IT
A00239xx
A00216xx
A00201xx
A00296xx

Safety systems

The machine is provided with safety devices locking the normal operation in order to avoid injuries.

Knowledge of the characteristics and safety operations is crucial: do not operate the machine unless the following section has been read and understood.

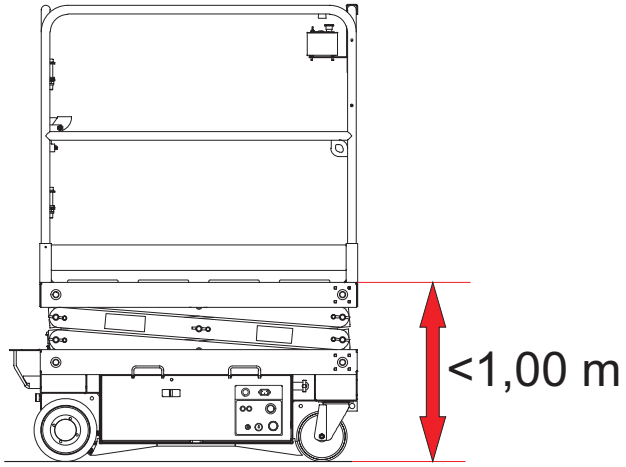
Some safety systems work in a different way, depending on the machine position, it is therefore important to be aware of the meaning of CLOSED MACHINE and OPEN MACHINE shown below.

A safety device malfunction caused by fault or tampering, may cause severe damage to the machine and consequently endanger the operator's life.

Check periodically the safety devices according to the manual.

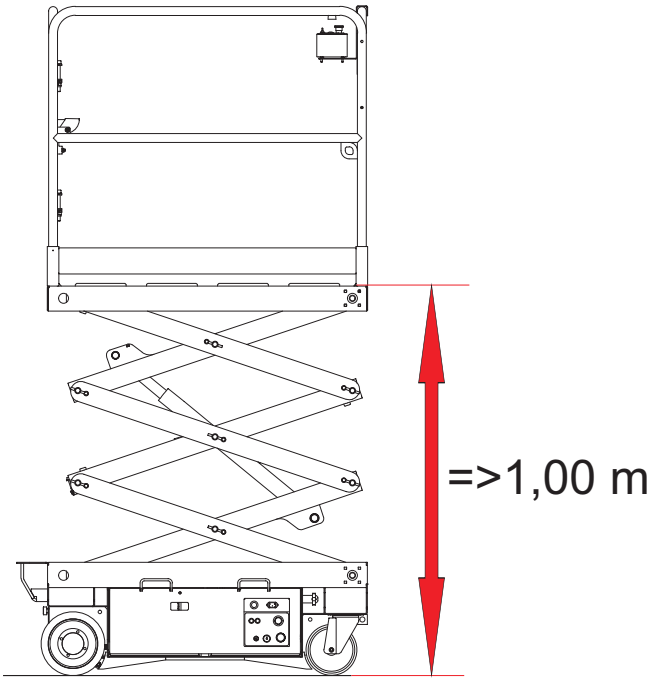
Safety devices should never be tampered with. The manufacturer declines any liability for accidents caused by interventions and tampering of the safety devices.

Machine closed - Machine opened



The machine is CLOSED when the height between the platform floor surface and the ground is LESS than:

1,00 m



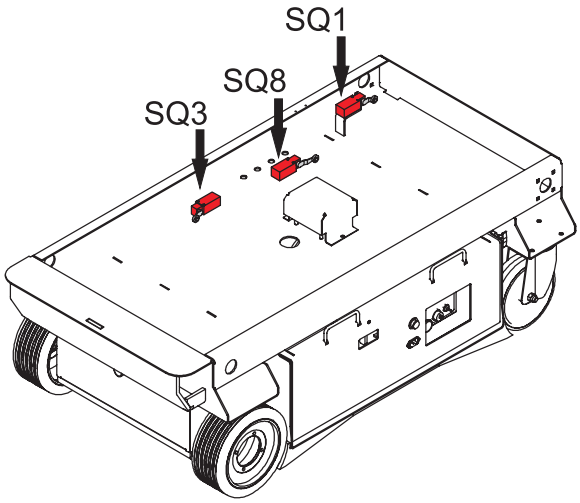
The machine is OPEN when the height between the platform floor surface o and the ground is GREATER or EQUAL to:

1,00 m

Microswitches

SQ1

When it is activated: with MACHINE OPENED.



What it activates:

- Automatic selection of drive reduced speed.
- The lock of all movements, apart from lowering, if the chassis inclination exceeds the allowed values.
- The lock of all movements if an overload is present.

SQ8

When it is activated: with MACHINE OPENED.

What it activates:

- load control
- anti-shearing during lowering.

SQ3

When it is activated: by lifting the platform to the max. height.

What it activates: lifting movement to the maximum height is locked before the cylinder end stop.

Safety speed

When the machine is open, the drive speed switches automatically to safety reduced speed.

Anti-shearing operations

An electronic control unit locks the lowering for 3 seconds, when the distance between the boom and frame ends is 50 mm approx. (anti-shearing safety).

When lowering is locked:

- Move the joystick to rest position.
- Wait for 3 seconds checking that the persons being side the platform do not risk to be trapped or crushed between scissors.
- Command again the lowering movement which is warned by the audible and visual alarm for 1.5 seconds previously.

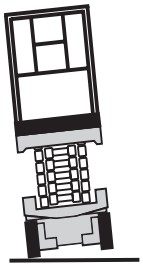
In the section between the lowering limit and the totally closed scissors, the movement after a stop is resumed under the same a.m. delay conditions and warnings.

Inclination control

The inclination is controlled by the flatness indicator; a device located in the middle of the chassis which detects the truck inclination.

Max. allowed inclination		
side	front	rear
1,5°	2,5°	2,5°

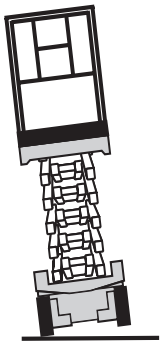
If **inclination is higher** than the maximum allowed values:



With machine closed:

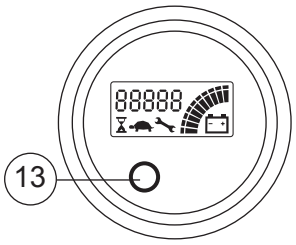
- lifting is enabled with OPEN MACHINE.

Before lifting the platform set the machine back into the stability conditions.



With machine opened:

- the red led 13 on the control panel turns on;
- the alarm sounds;
- **drive and lifting are locked**.



To restore movements , **lower the platform completely and set the machine back into stability conditions.**

Make sure that no obstacles are present below the platform before lowering it

Overload controller

Overloads, if any, are checked by the above-mentioned device both with the machine at a standstill position and during platform lifting.

It is activated at the height of SQ8 (100 cm).

The overload condition is detected in the presence of a load between the nominal one and a value up to 120%-150% of the latter.

Due to the particular configuration of the overload control, for the initial and final section of lifting, the overlaod is detected within the value of 120%, while at intermediate platform heights the overload can reach 150% of the nominal load.

The machine has been designed and tested to withstand such overload conditions.

When an overload condition is detected:

- warning light 5 on the ground control panel flashes
- the red led 13 on the control panel flashes,
- the alarm sounds,
- **all the movements are stopped.**

To restore movements:

- remove the overload
- press the red emergency button STOP and reactivate it

Safety belt attachments

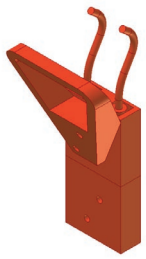
The machine is equipped with suitable anchorage point for the safety belts.

Battery control

If batteries are exhausted, lifting is locked.

If the battery charger is connected, **all movements are locked**.

Battery connection plug



The battery connection plug is placed in the box.

This safety device disconnects the power and control circuits of batteries and the battery charger solely remains connected.

Emergency stop

Press one or both the emergency stop buttons, placed on the ground control panel and on the platform control panel to **lock all movements**.

Warning lights and audible alarms remain active.

In order to restore normal functions, pull the button upwards.

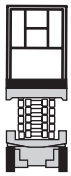
Audible alarms

Fault condition: it is signalled by an intermittent buzzer and the key symbol (16) is lit on the control panel display. Machine movements are entirely or partly locked until the machine is again under safety operating conditions.

Main fault conditions	Diagnostic display code
Machine opened and inclination exceeding allowed values	02A11
Lifting with platform overload	02A87
Battery charger activated	02A99

Normal operation: each movement of the machine is signalled by an intermittent buzzer and the hourglass symbol (14) is lit on the control panel display.

Safety devices summary

 **MACHINE CLOSED**		
EXCEEDING INCLINATION		
EMERGENCY STOP BUTTON PRESSED	X	X
BATTERY CHARGER ACTIVATED	X	X
EXHAUSTED BATTERIES		X

 **MACHINE OPENED**				**SAFETY**
DRIVE				X
OVERLOAD	X	X	X	
EXCEEDING INCLINATION	X	X		
EMERGENCY STOP BUTTON PRESSED	X	X	X	
BATTERY CHARGER ACTIVATED	X	X	X	
EXHAUSTED BATTERIES		X		

Use of the machine

Before carrying out any operation it is necessary to read and well-understand this manual along with the instructions described on plates and labels.

Checking before use

Before setting at work the machine and carrying out any operation, the machine itself is to be subjected to a visual and operating check described here below.

During the setting at work it is also necessary to carry out the safety device checking.

Visual checking

Make sure that the following failures are NOT occurred:

- Oil leakage from pipes and other hydraulic components.
- Cut or disconnected electric wires.
- Unloosed or missing nuts in the wheels.
- Irregular worn or cuts in the wheels.
- Damages, deformations, loosen or missing screws and bolts, cracked welding on chassis, wheel supports, lifting systems, platforms and guard rails.

Check that:

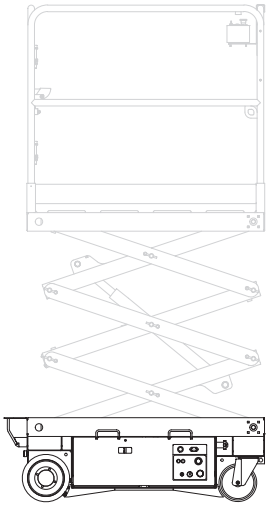
- The soil where the platform should operate is solid and able to support the maximum load per each wheel.
- The use manual is on board and plates and labels well visible.
- The handrails and the platform are free from grease and oil traces.
- The working area is free, without holes and uneven grounds.

Operating check

Once the visual inspection has been finished it is also necessary to carry out an operating check.

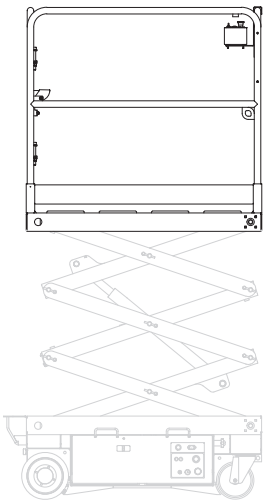
- Check the hydraulic oil level.
- Check the electrolyte level in the batteries.
- Check that all the foreseen plates and labels have been suitably positioned and are legible.

From ground



- Press emergency STOP button and check that no operation can be enabled both from ground and from platform. Put button to ON position again.
- Lift and lower the platform more times and check that no obstacle can occur during these operations.
- Make sure that the audible alarm and the electric anti-shearing device well work during the platform lowering.
- Carry out the operations described in the “Emergency lowering” section and check that everything works well.

From platform

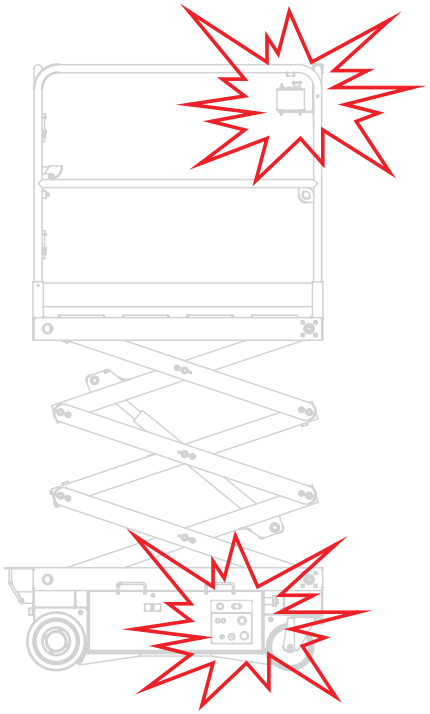


- Make sure that batteries are well charged.
- Press emergency STOP button and check that no operation can be enabled both from ground and from platform. Put button to ON position again.
- Lift and lower the platform more times and check that no obstacle could occur during these operations.
- Make sure that the audible alarm and the electric anti-shearing device well work during the platform lowering.
- Drive forward and back and check that the operation is correct and audible alarm well works.
- Right and left steer and check that the operation is correct.
- Press horn and check if it works correctly.
- During drive release the joystick to check the brakes work correctly: the machine must block in a narrow space.
- Lift the platform and try the drive forward and back, making sure that the drive speed is made under safety conditions.

Control panels

The foreseen control panels for the operator are two:

- on platform
- on the ground, on the right side of the truck.



Using one control panel doesn't allow the other panel to come into operation.

For normal operating condition **all movements are carried out by the platform control panel** or **control box,**which is **the main control panel**.

Platform lifting and lowering can be also carried out from the **ground control panel.**

The ground control panel is also used in emergency situations or for maintenance.

The machine movements are:

- Drive (backward and forward)
- Steering (with unlocked pivoting wheels)
- Platform lowering and lifting

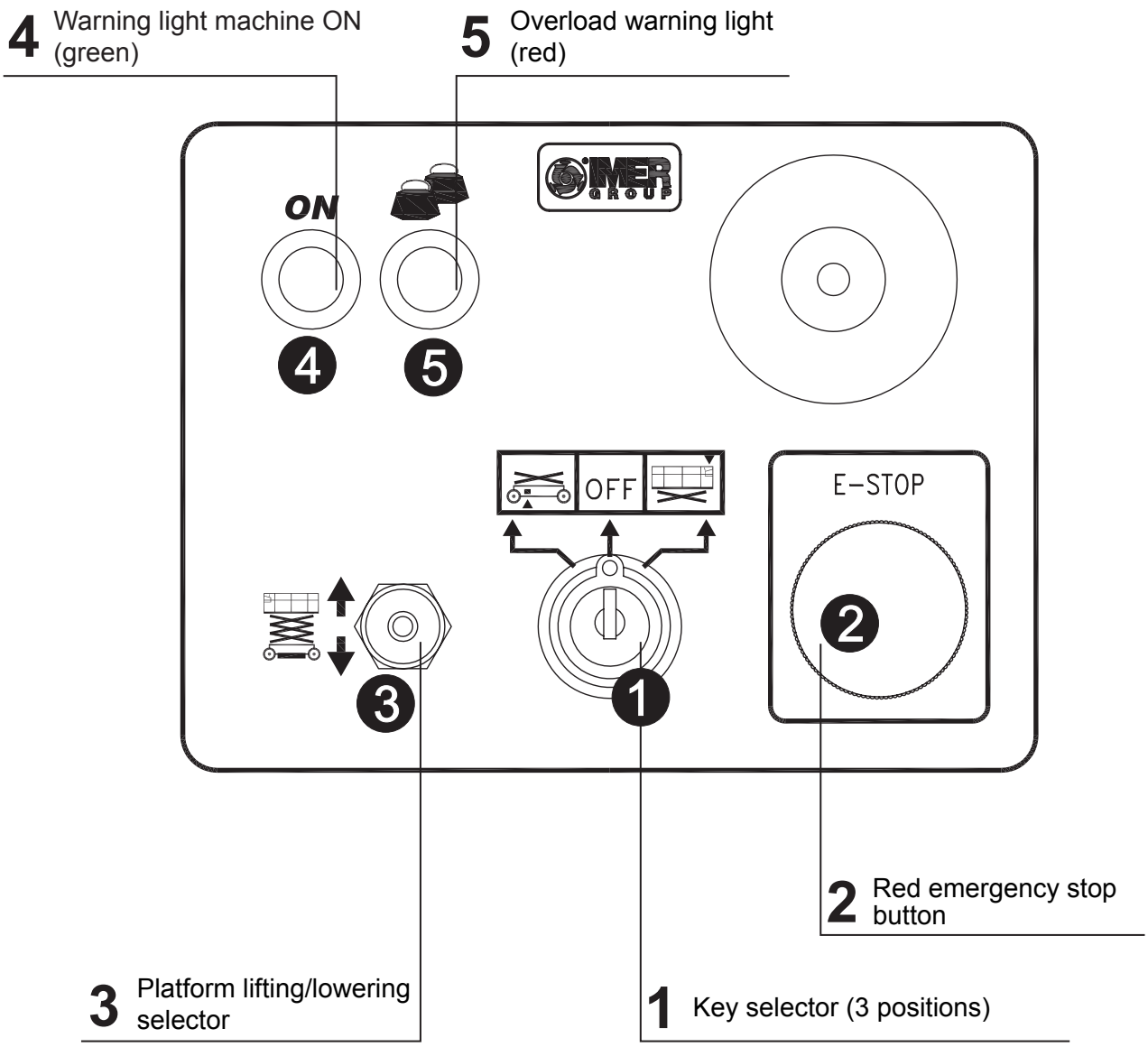
Every time the machine carries out a movement, the rotating beacon installed on the chassis turns on.

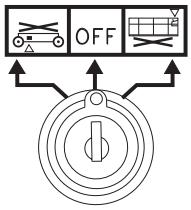
The energy required to movements is supplied by electric batteries that feed:

- two electric motors for the machine drive;
- an electric pump for lifting.

Control panels

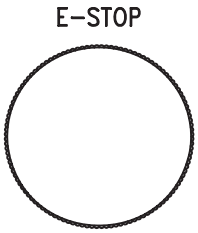
Ground control panel





1 - Key selector (3 positions)

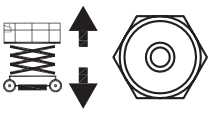
- Central position: the machine is off
- Right position: the platform controls are enabled.
- Left position: controls from ground control panel are active.



2 - Red emergency stop button

- Pressed it locks all the functions of the machine.
- Released it allows for the operation of the machine.

In order to restore normal functions, pull the button upwards.



3 - Platform lifting/lowering selector

- Upwards to lift the platform.
- Downwards to lower the platform.

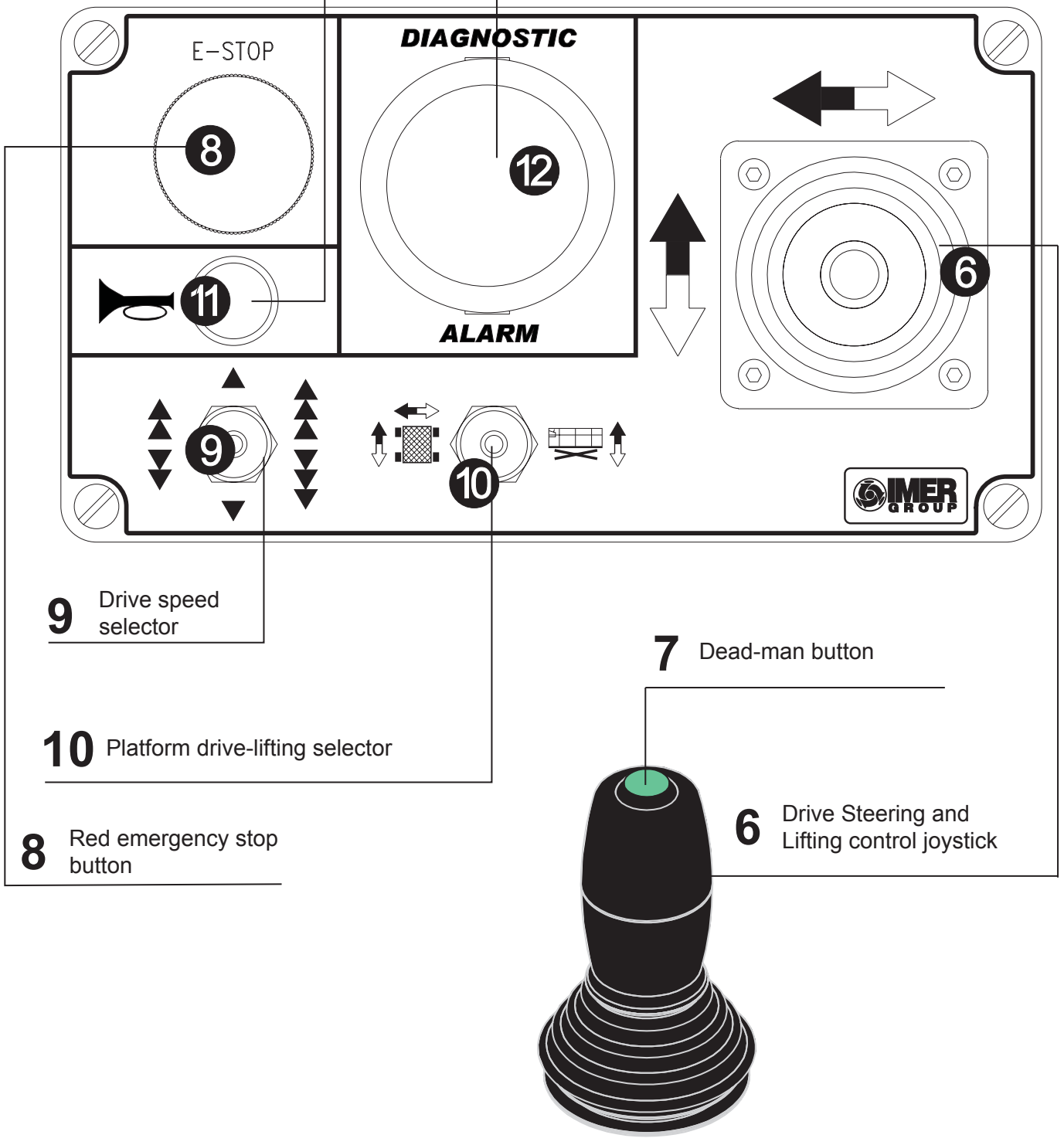
4 - Warning light machine ON (green)

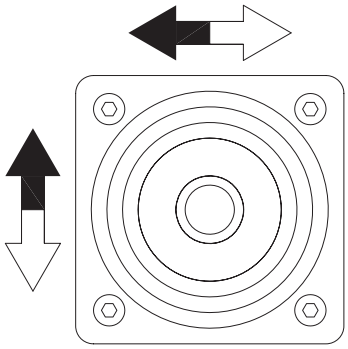
Light goes on when selector 1 is not in a central position.

5 - Overload warning light (red)

Light goes on when an overload is present.

Platform control panel



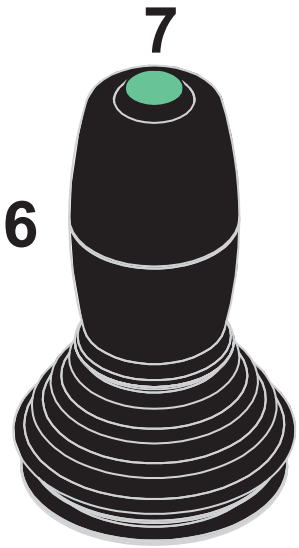


6 - Drive Steering and Lifting control joystick

7 - Dead-man button

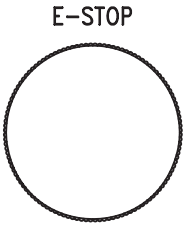
Machine movements are carried out by moving joystick-6 and holding down the dead-man button 7

The joystick works on the drive or on the scissor movement depending on the position of selector 10.



Selector 10 left	
JOYSTICK 6	MOVEMENT
Forward	Drive forward
Back	Drive backward
Right	Steering to the right
Left	Steering to the left

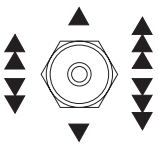
Selector 10 right	
JOYSTICK 6	MOVEMENT
Forward	Platform lifting
Back	Platform lowering



8 - Red emergency stop button

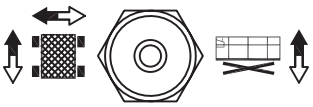
- Pressed it locks all the functions of the machine.
- Released it allows for the operation of the machine.

In order to restore normal functions, pull the button upwards.



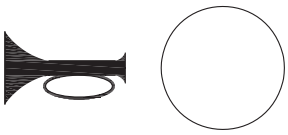
9 - Drive speed selector

- to the right maximum speed
- to the left average speed
- at the center minimum speed.



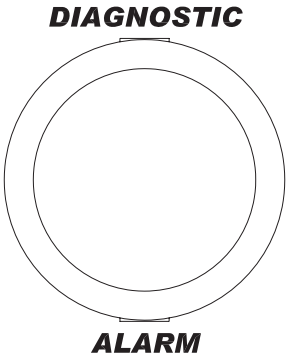
10 - Platform drive-lifting selector

- to the right: use joystick 8 to carry out platform lifting and lowering
- to the left: use joystick 8 to carry out drive and steering



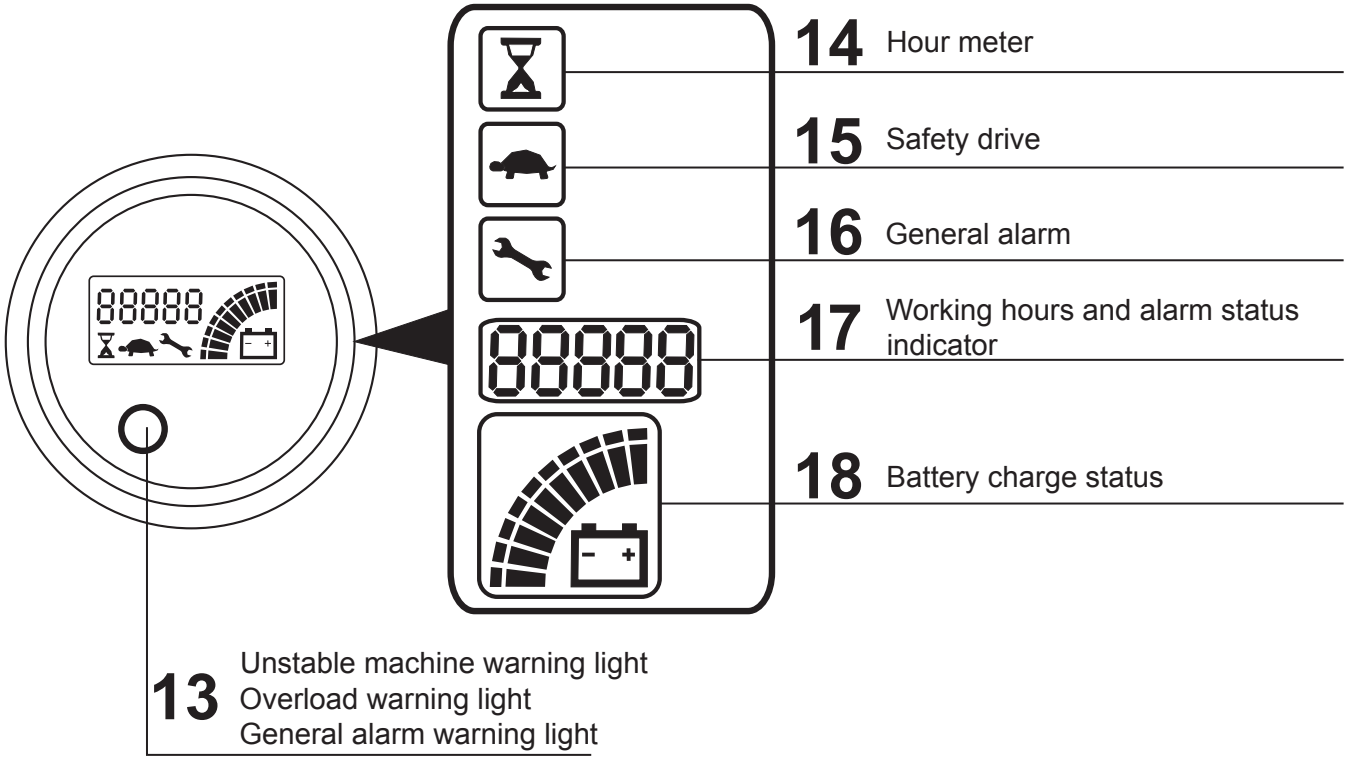
11 - Horn button

- Press the button to beep the horn.



12 - Diagnostic display

Read the following page.



13. Red LED turns on with overload controller alarm, unstable machine alarm or in the event of an error.

14. Normally off; when it is on the hour meter is working.

15. Normally off; it turns on when machine is lifted with drive at safety speed.

16. Normally off; when it turns on it indicates the alarm status that needs assistance interventions.

17. Liquid crystal alphanumeric display that informs the operator about the working hours carried out. It indicates also the alarm status providing a code relevant to the type of alarm signalled.

18. The battery charge status is provided by ten notches. Each notch represents 10% of battery charge. The notches turn off in sequence, one after another, according to the value of the remaining battery charge. When the battery is discharged no notch is on and the battery symbol flashes.

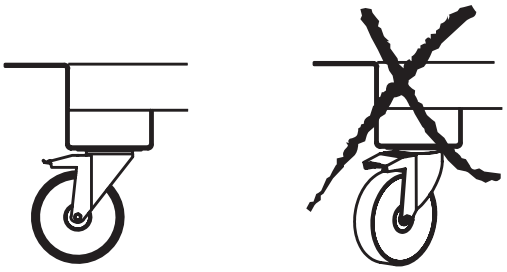
How to use

Before using the machine

Pivoting wheels

The front wheels are pivoting, equipped with manual mechanical lock to block them in a position aligned to the drive direction.

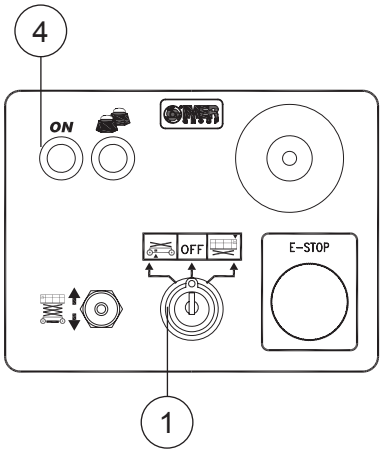
The wheels lock must be used during lifting and lowering on ramps for major safety and movement accuracy, after aligning with precision the machine to the ramps direction.



It's strictly forbidden to carry out lifting or lowering operations from ramps without first blocking the front wheels.

Operations from ground

Make sure that the red emergency stop button is not pressed on ground and platform control panel

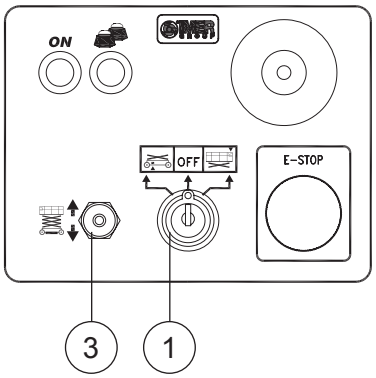


Starting and enabling the ground control panel

- Insert key in selector **1.**
- Turn it **left**, keeping it in position (in this position it is not possible to extract the key).
- Warning light **4** will turn on.

If the key is released, it returns automatically to central position (OFF) and the machine is turned off.

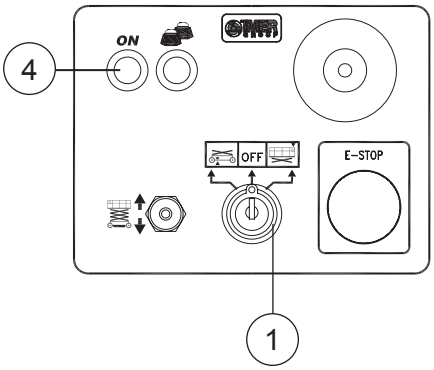
Each time the machine is started up, audible alarms (buzzer) and warning lights turn on to verify their correct operation. Before using the machine, wait they are switched off.



Platform lifting/lowering

- Insert key in selector **1.**
- Turn it **left**, keeping the position.
- Move selector **3 upwards to lift the platform.**
- Move selector **3 downwards to lower the platform.**

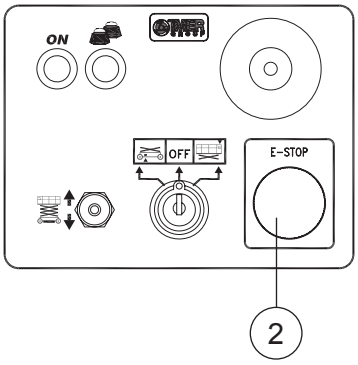
Before lifting or lowering platform, make sure that there are no obstacles above or below it



Starting and enabling the platform control panel

- Insert key in selector **1.**
- Turn it to the **right.**
- Warning light **4** will turn on.

It is possible to extract the key.

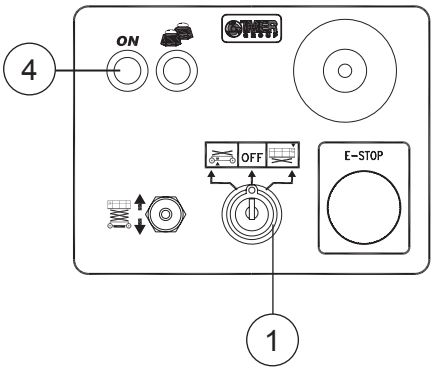


Emergency stop

- Press button 2.

All machine movements and controls are stopped both from ground and platform, except for safety indicators (warning lights and audible alarm).

To restore the normal functions pull button 2 upwards.



Machine stop

It is required to stop the machine every time it is left unattended to avoid any undesired use.

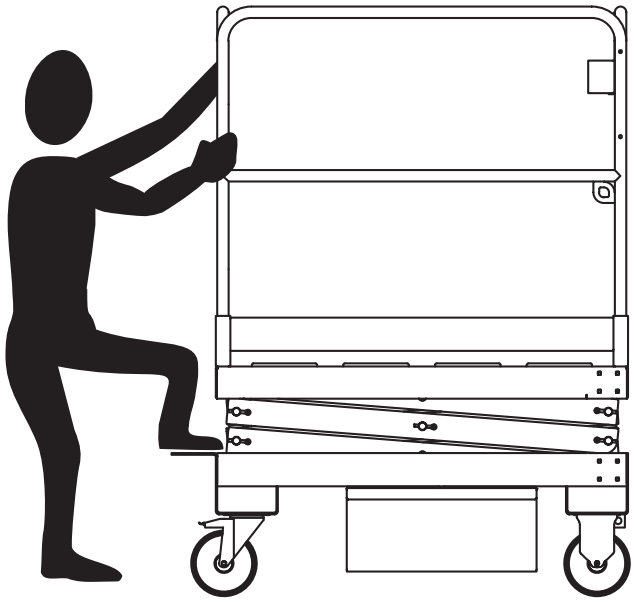
- From the ground control panel, set key selector 1 to central position: warning light 4 will turn off.
- Remove the key and keep it in a guarded place.

Platform access

The “access position” to the platform is possible when the scissor is completely lowered.

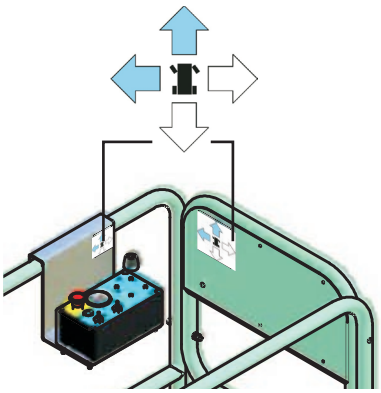
The “access position” is the only one from which loading or unloading of persons and/or materials is allowed.

- Always use three points of contact to enter or leave the platform.
- Use the step to climb onto or down from the platform.
- Once on the platform, close the gate behind you.



Operations from platform

- Make sure that the load respects the limits and is well distributed.
- Make sure that the platform gate is perfectly closed.
- Make sure that the red emergency stop button is not pressed on ground and platform control panel.
- Always check the state of the emergency warning lights.
- All platform movements described in the following pages depend on the correct position of the control panel, signalled by a plate placed on the front guard rail. If control panel is moved, use the coloured direction arrows on control panel support and on the front side of the platform, in order to identify the movement direction of the machine.

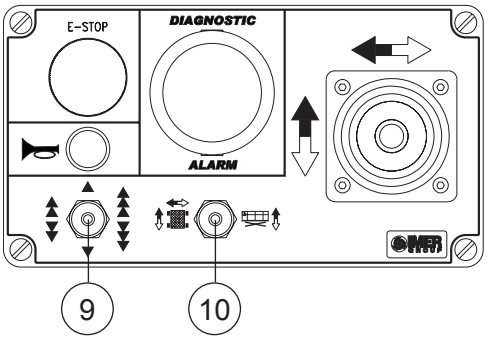


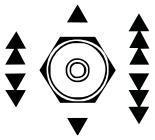
Before moving the machine, make sure that the way is free from obstacles. Check that the way is free from holes, bumps, unevenness, obstructions or debris and coverings which can hide holes or other dangers

Always check the state of the emergency warning lights

During movement, do not move selector 14 from drive to lifting position and vice versa. In this case the machine stops. Release joystick 8 and give the command again to restore the movement

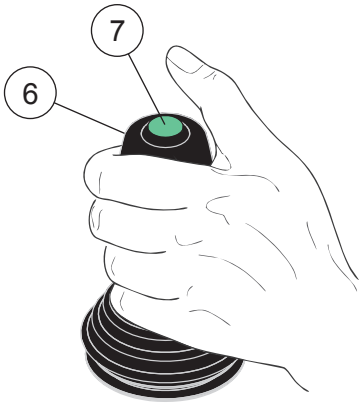
Drive





- FAST
- MEDIUM
- REDUCED

- With machine **at a standstill position**, move selector **10** left.
- With selector **9** select the drive speed.



- Hold joystick 6.
- Press dead-man button 7 and keep it pressed.
- Move joystick forward and back, keeping button 7 always pressed.

It is also possible to move joystick 6 first and then press button 7 to begin the operation.

The movement speed depends on the joystick inclination and the selected speed.

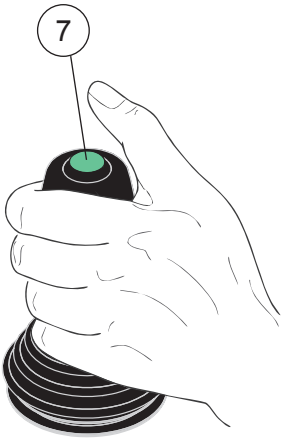
The drive is signalled by an audible alarm.

Drive stop

- Gradual stop: set joystick 6 back into starting position, keeping button 7 pressed.
- Quick stop: release button 7.

Steering

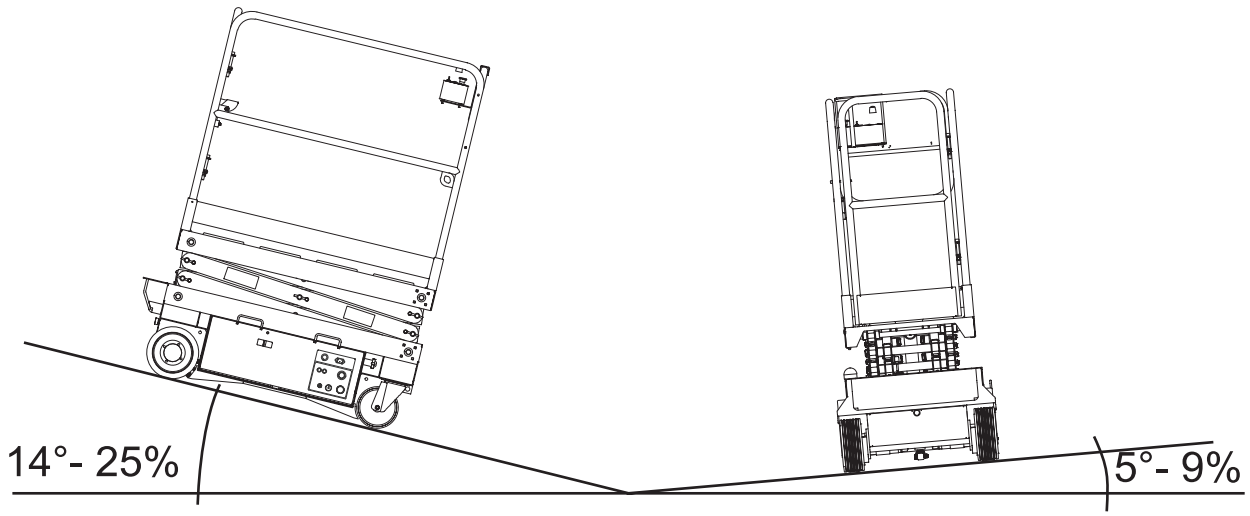
During drive move the joystick to the right or left, keeping button 7 always pressed.



Steering will be possible only when the pivoting wheels will be unlocked

Driving on slopes

- Be sure the platform is completely lowered.
- Do not drive the machine upward or downward on slopes that are higher than 14° (25 %).
- Do not drive the machine on side slopes that exceed the 5° (9 %).



When driving on slopes or when loading/unloading from the truck through ramps only use the second (medium) speed

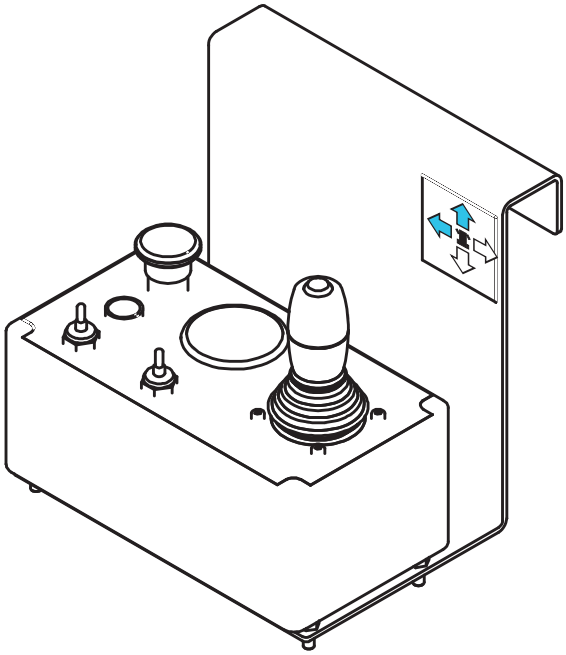
It's strictly forbidden to carry out lifting or lowering operations from ramps without first blocking the front wheels.

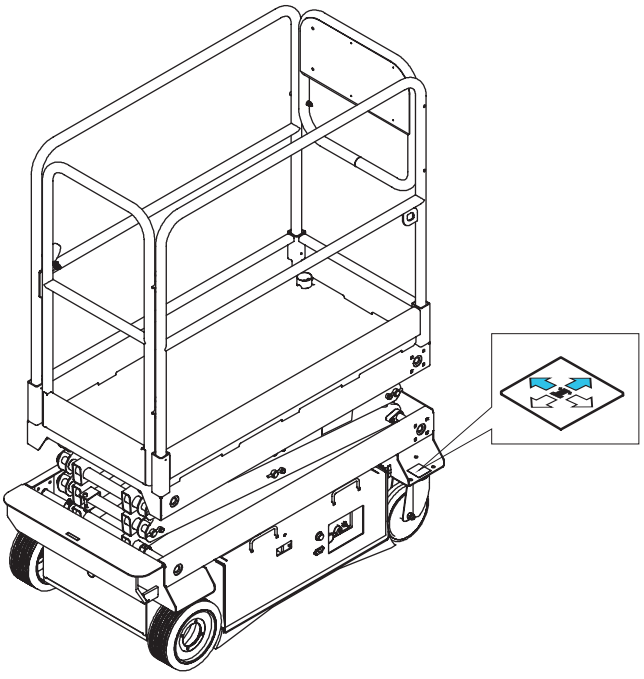
Drive controlled from ground

To pass through openings having limited height, it is possible to drive the machine from ground using the platform control panel.

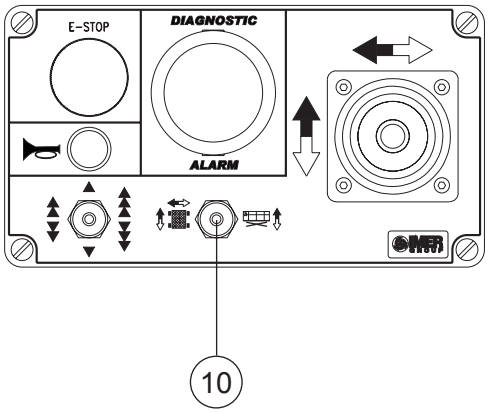
Making sure that:

- the operator keeps a minimum distance of 1 m from the machine;
- the selected speed is the slower one;
- the machine is entirely lowered ;
- use the direction arrows on the control panel support and on the front wheels side frames in order to identify the drive and steering direction.



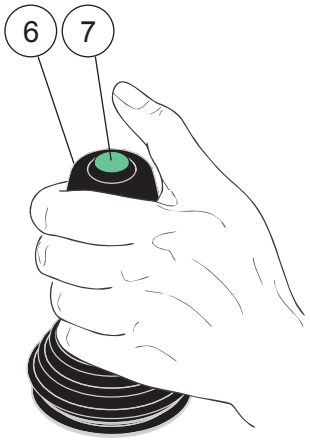


Platform lifting/lowering



- With machine at a standstill position, move selector 10 to the right.
- Hold joystick 6.
- Press dead-man button 7 and keep it pressed.
- Move the joystick forward to lift the platform or backward to lower it.

The **lifting speed** is adjusted by the inclination given to joystick 6.



Lifting stop

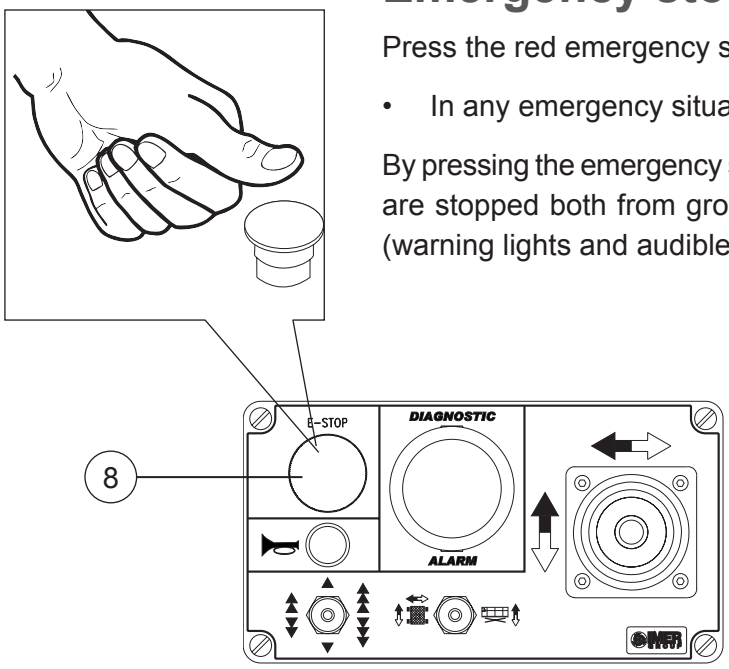
Slow: Set gradually joystick 6 back into starting position, keeping pressed dead-man button 7. The electronic control device assures a soft stop.

Quick: release dead-man switch 7. The electronic control device assures a quick stop.

Lowering stop

Set joystick 6 back to starting position or release dead-man button 7: stop is immediate.

Emergency stop



Press the red emergency stop button **8**:

- In any emergency situation.

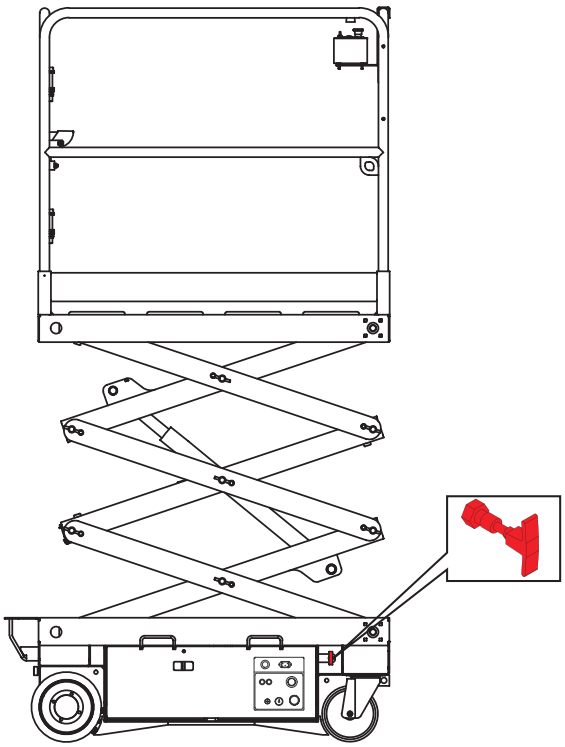
By pressing the emergency stop button all machine movements and controls are stopped both from ground and platform, except for safety indicators (warning lights and audible alarm).

To restore the normal functions pull button 8 upwards.

Emergency manual procedures

Manual lowering

If the machine locks in lifted position due to a failure, an operator from the ground can lower the platform by pulling the handle on the front right part of the machine



Before carrying out the emergency lowering, press the red emergency stop button

Before carrying out the emergency lowering, make sure that there are no obstacles below the platform

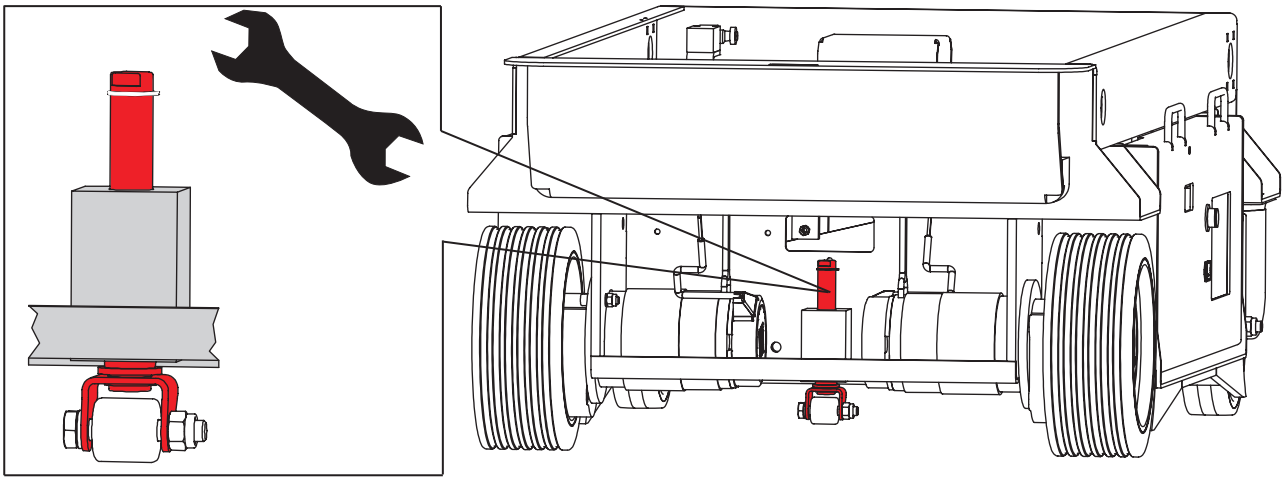
Manual movement

If the machine is to be moved manually, make sure that:

- The scissor is completely closed.
- The machine is off.

In this configuration the machine is not braked

The machine is equipped with a pivot screwed to the chassis that allows the rear part to be lifted excluding driving wheels; in the pivot end a nylon castor is fixed to move the machine for short distances.



Complete the following operations:

- Remove the rear protection cover unscrewing the pawl
- Unscrew the pivot using a key 14 until the rear part of the machine is lifted.
- Move the machine by pushing it from the front side, keeping the hands on the guard rails.

At the end, bring the machine in normal operating position by screwing back the pivot.

Battery recharge

Batteries are the energy source of the machine. To use their capacities in the best way without the risk of a premature decay, always carry out the recharge after every use, independently of what the charge indicator signals.

If the battery recharge is not carried out immediately, the battery might be permanently damaged

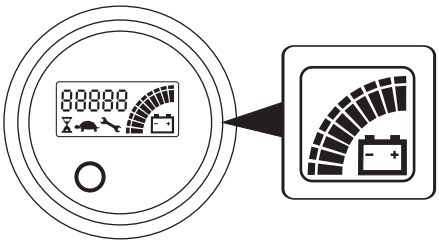
Leaving even only one night the batteries exhausted may result in a permanent damage

The batteries have to be charged with the special battery charger placed in the box.

Battery charger features

Battery charger	24V – 12A
Power supply	185/265V - 47/62Hz
Voltage	24V
Charge time	about 12 hours
Operating temperature	from 0°C to +40°C
Protection against output short circuit	
Protection against polarity reversal (fuse)	
Weight	1.5 kg
Connection to the supply mains	standard 3 pole 230V socket
Current function of maintenance	

Battery charge indicator



The charge indicator on the platform control panel shows the battery charge status.

Battery charge status: by means of luminous bars. Each notch represents 10% of battery charge.

The notches turn off in sequence, one after another, according to the value of the remaining battery charge.

When the battery is discharged no notch is on and the symbol under the notches flashes.

Before the charge

Before starting the battery charge it is necessary to check the electrolyte level and, if necessary, fill up till all elements are completely covered:

- Open the box.
- Open the electrolyte filler caps.
- Check the level and if necessary fill up with distilled water.
- Close caps and dry if some liquid has poured out.

The sulphuric acid contained in the solution can cause serious injuries; if it is unintentionally poured, wash immediately the objects or the surfaces with abundant water

If the acid comes into contact with the skin, wash immediately with abundant water and consult a doctor

It is recommended to always wear gloves and protective glasses during the maintenance operations of batteries.

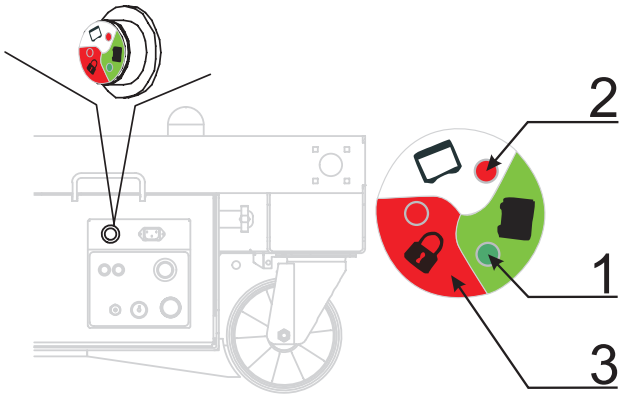
Charge start

The recharge is to be carried out in a suitable room, well ventilated and separate from the working room, because batteries generates inflammable gases, which can cause explosions if they come into contact with flames or sparks

The recharge is to be carried out with open box

When battery charger is operating the machine is locked

The charge indicator is placed on the front of the box and it has 3 LEDS



When the machine is locked for low battery LED 3 turns on.

By connecting a power cable to the back socket, the battery charger is automatically started after a few seconds; The CHARGE LED turns on (2). If this operation is not carried out, check the connection to the battery and to the supply mains.

If the above operation is carried out regularly, the battery charger completes the charge and then lights the LED 1.

Charge break

The power supply failure stops the charge and it causes the switching off of all leds; when the supply voltage is restored, the charge restarts from where it was broken. If you need to stop the charge, disconnect the supply mains cable and use the vehicle.

Maintenance

If the battery charger is fed and connected even during long inactivity periods, it is possible to always keep the battery in charge at 100%. If it is not possible to keep it fed, disconnect the Anderson plug and the battery connectors.

Special signals

When the microprocessor detects a problem it stops the charge and signals it by making the two 1 and 2 leds flashing or keeping them lighted and fixed. Follow the operations described below:

1. Disconnect the power supply from the supply mains,
2. Disconnect the battery charger from the battery through the provided grey connector.
3. Reconnect the battery charger to the battery.

If the fault is still present, contact the technical service.

Charge end

When the green led goes on, disconnect battery charger from outlet.

Battery disposal

Run-down lead batteries can not be dumped with ordinary solid waste; being composed of noxious materials, they must be collected, disposed of and/or recycled under the legislation prevailing in each state.

Transport

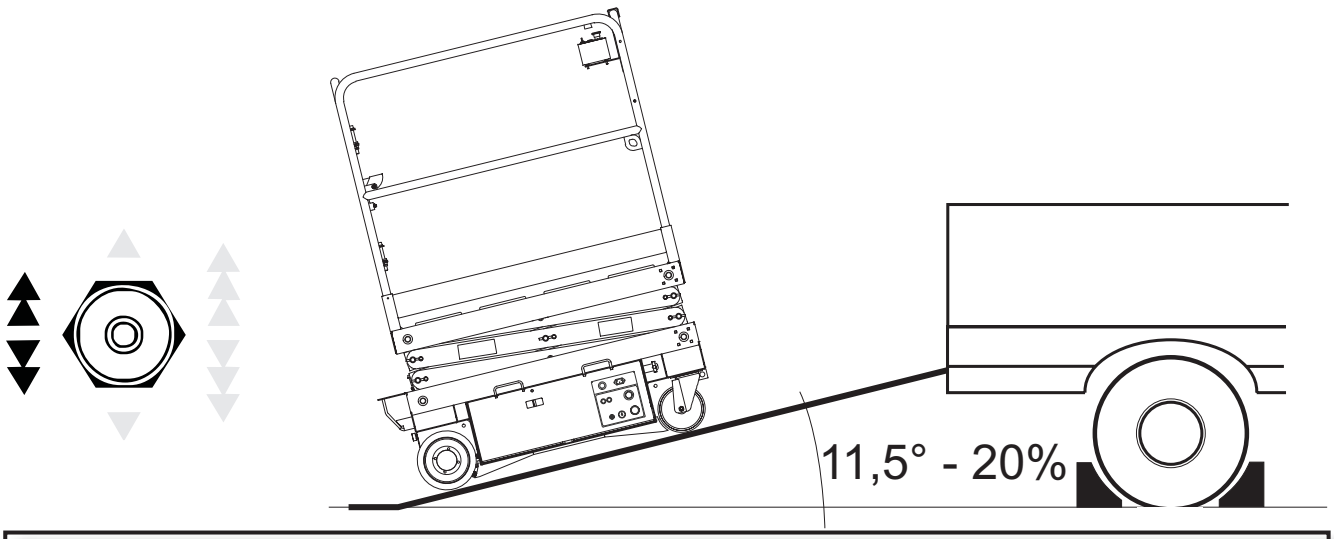
Make sure that the means of transport supports the machine mass

Loading and unloading of the machine

The loading and unloading of the machine on the vehicle platform takes place:

- through ramps
- by means of lifting

Through ramps



Move the machine only with the second (medium) speed. Using different speeds there is the risk of machine overturning.

- Park the means of transport on a flat surface;
- Place the ramps parallel to each other, at a distance equal to that between the wheels and with an inclination that does not exceed 11,5°;
- Block the front wheels;
- Always perform the loading and unloading operations with closed scissors;
- Proceed with caution;
- Place the machine so that no part of it protrudes from the floor area.

By means of lifting

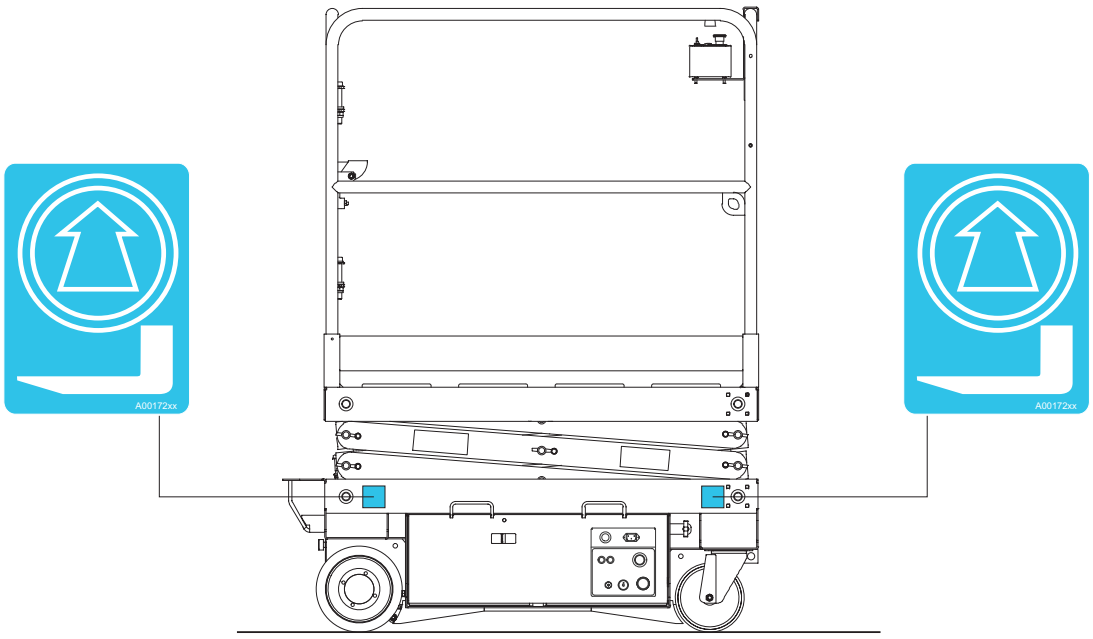
Facelift may be carried out with a fork chassis or a crane or overhead crane.

Make sure that:

- The scissor is completely closed.
- The machine is off.

With forklift truck

For forklift lifting, use the areas shown on the labels provided.

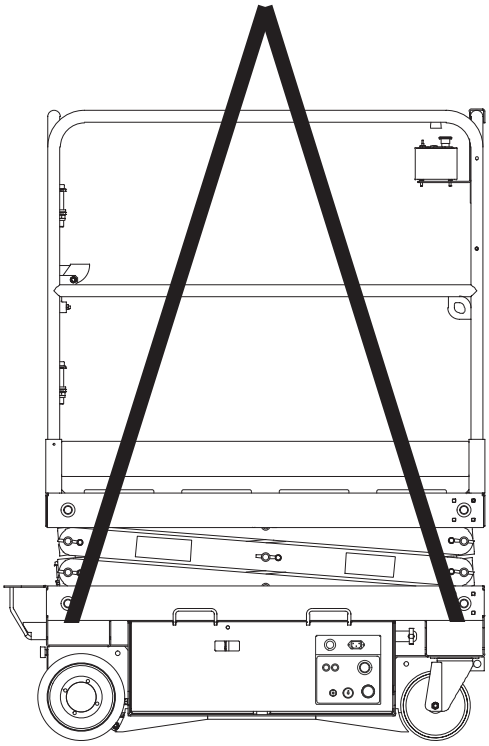


With crane or overhead crane

Use bands, chains and hooks in a perfect state of conservation.

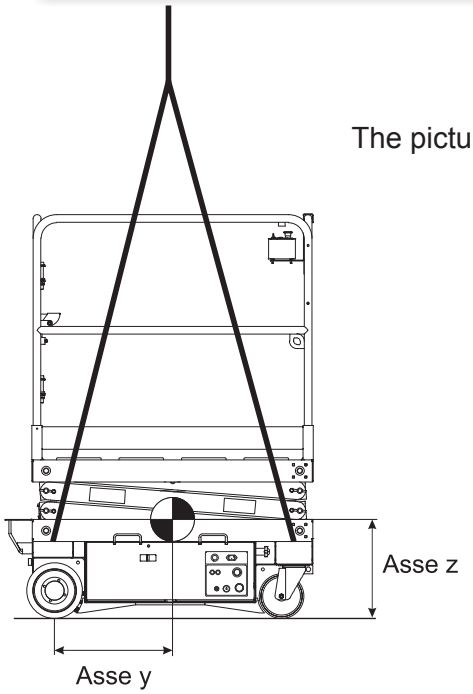
- No operator should be on the platform.
- The area involved in the lifting must be free.
- Do not transit with the machine suspended above people.

Crane lifting should be carried out using belts passing through the two wheel spars.



Make sure that the ropes do not come into contact with any machine parts that they might damage

Do not sling the machine in a manner other than the previously indicated, this may cause structural damage

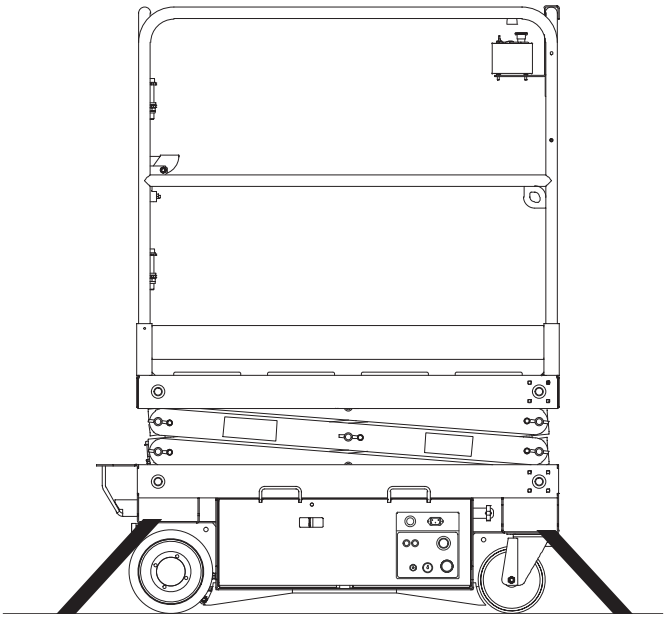


The picture shows the barycentre position.

Barycentre	y-axis	z-axis
	460	430

Machine fastening

During its transport, fasten the machine to the vehicle platform using belts passing through the two wheel spars.



It is forbidden to lift the platform when the machine is placed on the vehicle platform

Storage

In case of long storage periods, shelter the machine in a dry and ventilated place, with completely loaded batteries. If possible leave the battery charger connected and fed in order to allow the maintenance of the batteries, otherwise recharge the batteries every 2 months regularly.

Storage temperature: -20/+50°C

Before using the machine after a storage period exceeding 30 days, carry out the inspections described in the Maintenance summary table, item "After long periods of inactivity of the machine"

Disposal and scrapping

The machine consists mainly of steel, aluminium, plastic, synthetic gum and copper.

Special attention must be paid to disposing of electric batteries (D.Lgs. 188/08) and of the hydraulic oil contained in the tank and in the hydraulic circuit (DPR 691/82).

The main components of the machine are listed hereunder.

- Cast iron
- Nylon
- Steel
- Teflon
- Copper
- Polycarbonate
- PVC
- Ertalyte

Maintenance

Long life and maximum safety during ,machine operation can only be assured by careful and constant maintenance.

The schedule reported in the maintenance summary table refers to normal use conditions; in case of heavy working conditions (extreme temperature, polluting atmosphere, high humidity, elevation) intervals must be shorter.

Frequency and scope of periodical maintenance and inspections may depend on national rules.

We suggest at least one annual check by an authorized service centre.

Machine cleaning

Once each work-shift has been finished or when you think it is necessary, clean the machine:

- Clean all surfaces by means of an air compressed blow, avoiding the formation of dirt heaps.
- Spray a normal degreasing product and eliminate the residual dirt by means of cotton clothes.

Never use diluents, scrapers and steel brushes to avoid damages to the painted surfaces

Do not clean the machine using a jet of high-pressure water. Humidity or water penetration inside electric elements could cause failures and/or damages to the electric/electronic control elements.

Maintenance devices

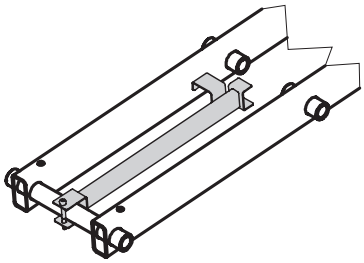
Safety rest

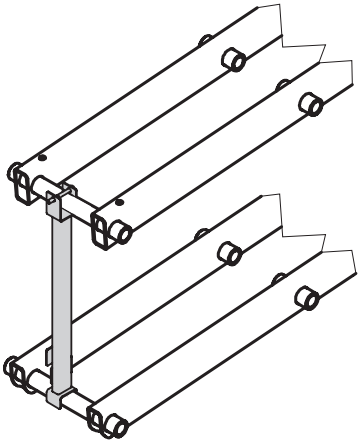
If the platform is subjected to maintenance while lifted, lock the lifting system on both machine sides by means of the suitable rests supplied with the machine.

Use the safety rests only when platform is unloaded

To lock the lifting system:

- Lift platform.
- Gently raise the rest, move it towards the centre of the frame and lower.
- Lower platform paying attention the forks of the rest insert into the pin of the lower frame.
- Once works have been finished, lift a little the platform to release the rest, and fix it again to the frame.

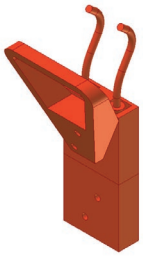




Battery connection plug

The battery connection plug is placed in the box.

This safety device disconnects the power and control circuits of batteries and the battery charger solely remains connected.



Make sure that batteries are disconnected before carrying out the electric equipment maintenance

Maintenance summary table

We suggest at least one annual check by an authorized service centre.

OPERATION TO BE CARRIED OUT	AFTER THE FIRST 50 HOURS	EVERY DAY	EVERY MONTH	100 HOURS OR 6 MONTHS	250 HOURS OR YEARLY	AFTER LONG PERIODS OF INACTIVITY (30 days)
Check oil level			X			X
Plate and sticker check		X				X
Check electrolyte level		X				X
Check battery charge		X				X
Grease the mechanisms				X		X
Check of screw tightening	X			X		X
Safety devices check	X			X		X
Battery inspection and cleaning			X			X
Emergency lowering control				X		X
Motor brushes check (drive and control unit)					X	X
Check brakes on ramp				X		X
Structure check	X		X			X
Check of hydraulic tubes					X	X
Checking performance					X	X
Power cable and auxiliary check					X	X

The above mentioned operations are described in the following pages.

Check oil level

The oil level checking and the possible topping up should be made when the platform is entirely lowered

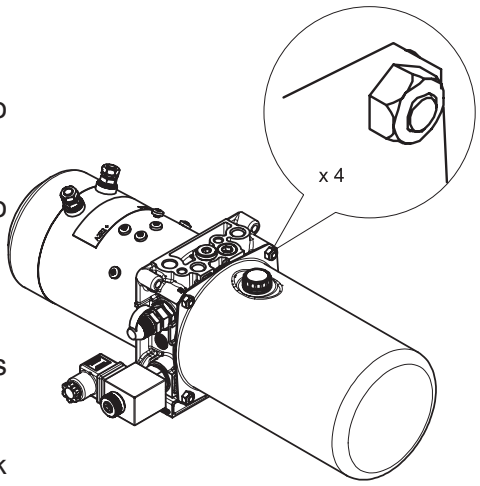
- Open the box
- Remove oil tank cap of the hydraulic control unit;
- check that the oil level just touches the top of the pump.
- If necessary, top up with oil of the same viscosity, as shown on the tank.

The use conditions of the machine and quality of the hydraulic oil prevent the oil from being replaced at regular intervals. During checks, verify that oil keeps its clarity, colour and viscosity characteristics; replace, if necessary.

IMER suggests anyway to replace the oil completely every 3 years.

To completely replace the hydraulic oil:

- Remove the control unit by unscrewing the screws that fix it to the box;
- Remove the tank by unscrewing the 4 screws that connect it to the pump body;
- Empty the tank completely;;
- Duly wash and clean the tank , making sure that the interior s perfectly clean and dry.
- Dismount, duly wash and dry the intake filter, after mount it back carefully.
- Rescrew the cap on the pump body;
- Install the control unit in the box;
- Fill the tank till the oil just touches the top of the pump.



The sponge air filter, which is placed in the oil tank cap, should be replaced once a year or every 250 hours (depending on the deadline which occurs first).

Hydraulic oil is a polluting product

Avoid fluid leakages by using collection tanks and take precautions against accidental leakages by resorting to oil-absorbing products

Exhausted oil must be collected and not disposed of into normal discharge lines; specialized firms attend to dispose of or possibly recycle industrial oils, under the laws prevailing in each individual state

Plate and sticker check

Check that all the foreseen plates and labels have been suitably positioned and are legible.

Electrolyte level check

A plastic cap on the chassis allows to check the inner elements of the battery.

For the check:

- Lift the platform until the cap becomes accessible and can be unscrewed
- Check the level and if necessary top up with distilled water.

Topping Battery:

- Open the box.
- Remove the electrolyte filler caps
- Close caps and dry if some liquid has poured out.

The sulphuric acid contained in the solution can cause serious injuries; if it is unintentionally poured, wash immediately the objects or the surfaces with abundant water

If the acid comes into contact with the skin, wash immediately with abundant water and consult a doctor

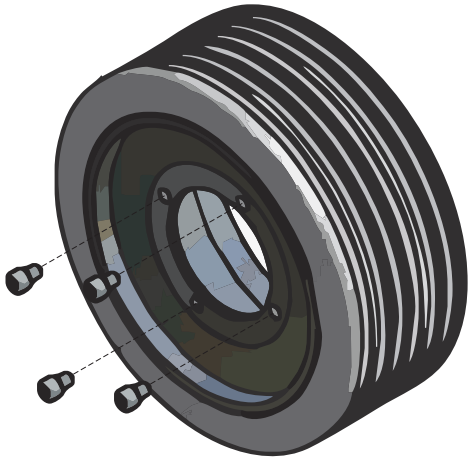
It is recommended to always wear gloves and protective glasses during the maintenance operations of batteries

Check of battery charge

The battery charge level is displayed on the platform control panel.

For the battery recharge see section “Battery recharge”.

Check of screw tightening



Drive unit fixing screws	VTCEI UNI 5931-M8x12	2 daNm

Grease the mechanisms

Clean and grease the higher and lower sliding guides of the scissors sliding blocks.

Battery inspection and cleaning

Batteries must be periodically inspected for checking that there are no damages, breakages, fluid leakages or terminal corrosion. Also inspect cables looking for breakages, cuts or fraying.

Disconnect battery connecting plug before carrying out the checks

Always clean batteries that show signs of corrosion on terminals or onto which electrolytic fluid has fallen during filling.

Always clean terminal contact surfaces, lubricate with anti-acid grease or vaseline.

The battery fluid is highly corrosive and can cause severe injuries; if it is poured unintentionally, wash objects or surfaces with abundant water

If the acid comes into contact with the skin, wash immediately with abundant water and consult a doctor

Always wear gloves and goggles during battery maintenance

Keep open flames, cigarettes, sparks or any other flammable source away from batteries

Safety devices check

The following test enables to check that all safety devices of the machine work properly.

The safety systems applied to the machine are inevitably subject to wear and decalibration. Therefore, they must be controlled and kept in perfect efficiency; also, it is not advisable to evaluate their operational and safety conditions only on the basis of their functioning.

Such systems do not relieve the operator of the responsibility of carrying out an informed and appropriate use of the machine.

Red emergency stop button

- Press emergency stop button on ground control panel and check that no operation is possible, either from ground or platform. Put button to ON position again.
- Press emergency stop button on platform control panel and check that no operation is possible, either from ground or platform. Put button to ON position again.

SQ1 Microswitch

Safety speed

Make sure that there are no obstacles above or below platform before carrying out the check

- Lift platform above microswitch SQ1 activation height from platform control panel.
- Check that drive is possible at safety speed only.

Inclination

Starting with the machine in a perfectly level condition so as to avoid altering the angle values, carry out the following tests

Carry out the following tests from ground by using platform control panel

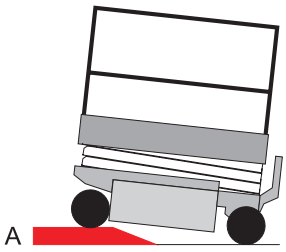
Do not stop on platform

Make sure that there are no obstacles above or below platform before carrying out the check

The tests are to be carried out in 4 different positions of the machine, using 2 different wedges.

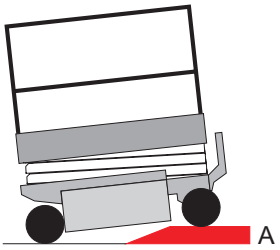
Below are listed the positions and the tests to be carried out.

- Lower platform completely.



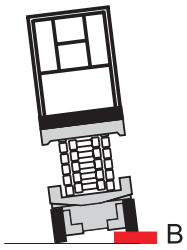
POSITION 1

- Place wedge A measuring about 50 mm under each wheel **of front axle** and move the machine on it.
- Carry out the tests reported on the following page.



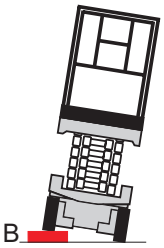
POSITION 2

- Place wedge A under each wheel **of rear axle** and move the machine on it.
- Carry out the tests reported on the following page.



POSITION 3

- Place wedge B measuring about 20 mm under each front and rear left wheel and move the machine on it.
- Carry out the tests reported on the following.



POSITION 4

- Place wedges B under each front and rear right wheel.
- Carry out the tests reported on the following.

For each position check that:

- Inclination warning light flashes below SQ1 activation height.
- By lifting the platform above SQ1 activation height:
  - linclination warning light is on.
  - the alarm sounds.
  - all movements, lowering excluded, are locked.
- By lowering the platform the movements are restored.

Lower platform completely, move machine forward and remove wedges.

Load Limiter

- Load platform with the nominal load.

- By lifting the platform above SQ8 activation height (100 cm);
- Add a further load so that the total load is 120% of the nominal load;
- Check that by operating platform lifting:
  - the overload warning light on platform control panel switches on;
  - the red led in the control panel flashes;.
  - the alarm sounds;
  - lifting and lowering are locked.
- Remove overload.
- Check that all movements are restored.

Anti-shearing operations

Make sure that there are no obstacles above or below platform before carrying out the check

- Lift platform by 2 meters approximately.
- Lower platform and check that lowering is locked when the distance between the ends of the arms and frames exceeds 50 mm approx. After a time interval of 3 seconds, put the joystick in standstill position and continue the lowering.
- Check that lowering is inhibited if the joystick is activated before the indicated time interval has passed.
- Check that the lowering movement is previously warned by an audible and visual alarm for at least 1.5 s.

Emergency lowering control

Make sure that there are no obstacles below the platform before carrying out the control

- Lift platform.
- Pull the handle placed on the front right part checking the correct operation of the emergency lowering.

Check brakes on ramp

Parking brakes must be capable to stop the machine on max. slope indicated in the “Technical data” table.

Check that brakes stop on a slope indicated in the above mentioned table.

Braking spaces

All tests must be executed with the machine flat

FAST SPEED

- Select fast speed on platform control panel.
- Push joystick to max forward position.
- Release joystick and check that the braking space is lower than 60 cm.

Check of engine brushes

Check brush wear of drive electric motors and electrical pump motor; replace them if necessary.

For electric drive motors the wear of brushes depends in particular on the type of use of the motor. When the brushes length reaches 10 mm it is necessary to replace them.

Wheels replacement

The wheels must be replaced if:

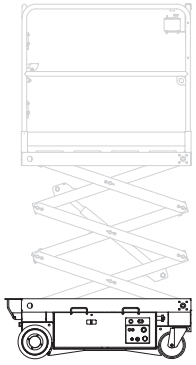
- the wheel overall diameter is lower than the diameter shown in the technical data table;
- there are traces of irregular wear such as cuts, tears, or missing fragments;
- the metal part is visible through the tread.

Structure check

General

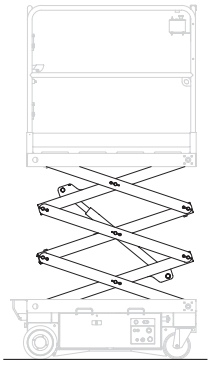
- Check that mechanical structures are protected against oxidation and, if necessary, retouch oxidized area.

Chassis



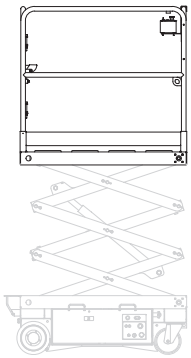
- Check the most important welds visually or by means of penetrating fluids:
  - Bearing structure.
  - Wheel supports.
  - Scissor hinging supports.
- Check the shape of the guide profiles for the sliding blocks.
- Check wheel conditions.

Machine frame



- Visual inspection of its integrity and of the shape of booms and frames.
- Check, visually or by means of penetrating fluids, all welds of articulation bushes, lifting cylinder attachments, and welds on cylinder.
- Check fastening of trunnions and hinging pins of lifting cylinder.
- Check surface conditions of trunnions and bushes; replace if necessary, by utilizing lubricating grease.

Platform



- Check the most important welds visually or by means of penetrating fluids.
- Visually check work surface conditions of both fixed and mobile platform.
- Check the shape of guide profile for sliding blocks.
- Check sliding blocks.
- Visually check guard rails and their fastening.

Check of wheel reduction gear oil

The reduction is lubricated for life so it is not necessary to periodically replace the oil.

Only in case of leaks due for example to a wrong procedure of electric motor detachment, empty the reduction completely and fill it with 21 cl of Oil AGIP BLASIA 150

Check of hydraulic tubes

Hydraulic oil is a polluting product. Avoid fluid leakages by using collection tanks and take precautions against accidental leakages by resorting to oil-absorbing products.

- Visual control of all hydraulic joints and tighten junctions, if necessary.
- Check conditions of flexible hydraulic tubes; replace if necessary.

Checking performance

Use a chronometer for executing the following controls.

All tests must be executed with the machine flat

Safety speed

- Select safety speed on platform control panel.
- Push joystick to max forward position.
- Check that machine covers 10 m in a time greater than 50 sec.

Power cable and auxiliary check

Check electric terminal tightening, correct cable positioning, absence of corrosion and abrasion.

This page has purposedly been left blank

Check register

Reference to legislation

This check register is issued for aerial work platform users, as envisaged by Enclosure I of 2006/42/EC guideline.

Instructions for keeping this register

This check register must be considered as an integral part of the work aerial platform and must be kept with the platform for its whole life, until it is finally dismantled.

Instructions for compilation

These instructions are supplied based on provisions that are already known at the date the aerial work platform is first marketed. New provisions might be issued which could change the user's obligations.

This register is prearranged for recording the following events related to the useful life of the aerial work platform, based on proposed diagrams::

- Delivery of aerial work platform to the first owner.
- Changes of ownership.
- Replacement of components in the hydraulic system.
- Replacement of components in the electric system.
- Replacement of mechanisms or structural elements.
- Replacement of safety devices and their components.
- Periodical maintenance verification except daily inspections indicated in the maintenance summary table.
- Remarkable failures and their repair.

The MONTHLY checks and controls may be recorded on the check Register every 6 months

PLATFORM DELIVERY TO THE FIRST OWNER

The aerial platform type _____

with factory number: _____

and construction year _____

referred to in this check register has been delivered by _____

_____

On _____

to Messrs: _____

_____

according to the terms agreed upon in the contract, with the technical, size and functional characteristics specified in the Operating Handbook.

SUBSEQUENT CHANGES OF OWNERSHIP

On _____

The ownership of the aerial platform mentioned above is transferred to the Firm/Company:

_____

_____

It is hereby certified that on the date mentioned above the technical, dimensional and functional characteristics of this aerial platform are consistent with the originally envisaged ones and that changes, if any, have been reported in this Register.

The Seller	The Buyer
_____	_____

SUBSEQUENT CHANGES OF OWNERSHIP

On _____

The ownership of the aerial platform mentioned above is transferred to the Firm/Company:

_____

_____

It is hereby certified that on the date mentioned above the technical, dimensional and functional characteristics of this aerial platform are consistent with the originally envisaged ones and that changes, if any, have been reported in this Register.

The Seller	The Buyer
_____	_____

REPLACEMENT OF COMPONENTS IN THE HYDRAULIC SYSTEM

On the date _____ the piece _____

fabricated _____

HAS BEEN REPLACED with _____

fabricated _____ factory Nr. _____

note _____

_____

Cause of replacement _____

_____

The officer of the firm entrusted with the replacement The user

_____ _____

REPLACEMENT OF COMPONENTS IN THE HYDRAULIC SYSTEM

On the date _____ the piece _____

fabricated _____

HAS BEEN REPLACED with _____

fabricated _____ factory Nr. _____

note _____

_____

Cause of replacement _____

_____

The officer of the firm entrusted with the replacement The user

_____ _____

REPLACEMENT OF COMPONENTS IN THE HYDRAULIC SYSTEM

On the date _____ the piece _____

fabricated _____

HAS BEEN REPLACED with _____

fabricated _____ factory Nr. _____

note _____

_____

Cause of replacement _____

_____

The officer of the firm entrusted with the replacement The user

_____ _____

REPLACEMENT OF COMPONENTS IN THE ELECTRIC SYSTEM

On the date _____ the piece _____

fabricated _____

HAS BEEN REPLACED with _____

fabricated _____ factory Nr. _____

note _____

_____

Cause of replacement _____

_____

The officer of the firm entrusted with the replacement The user

_____ _____

REPLACEMENT OF COMPONENTS IN THE ELECTRIC SYSTEM

On the date _____ the piece _____

fabricated _____

HAS BEEN REPLACED with _____

fabricated _____ factory Nr. _____

note _____

_____

Cause of replacement _____

_____

The officer of the firm entrusted with the replacement The user

_____ _____

REPLACEMENT OF COMPONENTS IN THE ELECTRIC SYSTEM

On the date _____ the piece _____

fabricated _____

HAS BEEN REPLACED with _____

fabricated _____ factory Nr. _____

note _____

_____

Cause of replacement _____

_____

The officer of the firm entrusted with the replacement The user

_____ _____

REPLACEMENT OF GEARS OR STRUCTURAL COMPONENTS

On the date _____ the piece _____

fabricated _____

HAS BEEN REPLACED with _____

fabricated _____ factory Nr. _____

note _____

_____

Cause of replacement _____

_____

The officer of the firm entrusted with the replacement The user

_____ _____

REPLACEMENT OF GEARS OR STRUCTURAL COMPONENTS

On the date _____ the piece _____

fabricated _____

HAS BEEN REPLACED with _____

fabricated _____ factory Nr. _____

note _____

_____

Cause of replacement _____

_____

The officer of the firm entrusted with the replacement The user

_____ _____

REPLACEMENT OF GEARS OR STRUCTURAL COMPONENTS

On the date _____ the piece _____

fabricated _____

HAS BEEN REPLACED with _____

fabricated _____ factory Nr. _____

note _____

_____

Cause of replacement _____

_____

The officer of the firm entrusted with the replacement The user

_____ _____

REPLACEMENT OF SAFETY DEVICES AND RELEVANT COMPONENTS

On the date _____ the piece _____

fabricated _____

HAS BEEN REPLACED with _____

fabricated _____ factory Nr. _____

note _____

_____

Cause of replacement _____

_____

The officer of the firm entrusted with the replacement The user

_____ _____

REPLACEMENT OF SAFETY DEVICES AND RELEVANT COMPONENTS

On the date _____ the piece _____

fabricated _____

HAS BEEN REPLACED with _____

fabricated _____ factory Nr. _____

note _____

_____

Cause of replacement _____

_____

The officer of the firm entrusted with the replacement The user

_____ _____

REPLACEMENT OF SAFETY DEVICES AND RELEVANT COMPONENTS

On the date _____ the piece _____

fabricated _____

HAS BEEN REPLACED with _____

fabricated _____ factory Nr. _____

note _____

_____

Cause of replacement _____

_____

The officer of the firm entrusted with the replacement The user

_____ _____

VERIFICATION OF PERIODICAL MAINTENANCE

The user must comply with the maintenance and surveillance obligation described in this operating handbook..

NR.	Date	Description of intervention	SIGNATURE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			

NR.	Date	Description of intervention	SIGNATURE
24			
25			
26			
27			
28			
29			
30			
31			
32			
33			
34			
35			
36			
37			
38			
39			
40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			

IMPORTANT SAUNDRIES AND THEIR REPAIR

Description of failure _____

_____

_____

Causes _____

_____

_____

Repair carried out _____

_____

_____

Signature of the official of servicing firm

_____

User's signature

_____

Place

_____

Date

_____

IMPORTANT SAUNDRIES AND THEIR REPAIR

Description of failure _____

_____

_____

Causes _____

_____

_____

Repair carried out _____

_____

_____

Signature of the official of servicing firm

_____

User's signature

_____

Place

_____

Date

_____

IMPORTANT SAUNDRIES AND THEIR REPAIR

Description of failure _____

_____

_____

Causes _____

_____

_____

Repair carried out _____

_____

_____

Signature of the official of servicing firm

_____

User's signature

_____

Place

_____

Date

_____

IMPORTANT SAUNDRIES AND THEIR REPAIR

Description of failure _____

_____

_____

Causes _____

_____

_____

Repair carried out _____

_____

_____

Signature of the official of servicing firm

_____

User's signature

_____

Place

_____

Date

_____

IMER INTERNATIONAL S.p.A.

Sede legale e amministrativa
Via Salceto, 55 - 53036 POGGIBONSI (SI) -(ITALY)
Tel. +39 0577 97341 - Fax +39 0577 983304

Business Unit IMER ACCESS
Via San Francesco d'Assisi, 8 - 46020 PEGOGNAGA (MN) - ITALY
Tel. 0376 554011 - Fax 0376 559855

www.imergroup.com