



Art. 199/GAMMA

INSTRUCTIONS FOR USE,
MAINTENANCE AND SPARE PARTS

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DICHIARAZIONE CE DI CONFORMITÀ ai sensi dell'Art. 12, paragrafo 3., lettera a), della Direttiva 2006/42/CE
 EC DECLARATION OF CONFORMITY in accordance with Art. 12, paragraph 3., letter a), Directive 2006/42/EC
 EG-KONFORMITÄTSEKRLÄRUNG gemäß des Art. 12, Paragraph 3., Buchstabe a), der Richtlinie 2006/42/EG
 DÉCLARATION CE DE CONFORMITÉ conformément à la Directive 2006/42/CE, Art. 12, paragraphe 3., lettre a)
 DECLARACIÓN CE DE CONFORMIDAD con arreglo al Art. 12, parágrafo 3., letra a) de la Directiva 2006/42/CE

Noi/We/Wir/Nous/Nosotros:

OMCN S.p.A. via Divisione Tridentina 23, 24020 Villa di Serio (Bergamo), ITALIA

dichiaro sotto la nostra esclusiva responsabilità che il prodotto

declare, with sole responsibility on our part, that the product
 erklären unter unserer alleinigen Verantwortung, daß das Produkt
 déclarons, sous notre entière responsabilité, que le produit
 declaramos bajo nuestra exclusiva responsabilidad que el producto

Sollevatore elettromeccanico per veicoli

Electromechanical vehicle hoist
 Elektromechanische Hebebrücke für Fahrzeuge
 Élévateur électromécanique pour véhicules
 Elevador electrohidráulico para vehículos

Art. 199/GAMMA

Matricola
 Serial number
 Kennummer
 Matricule
 Matricula

al quale questa dichiarazione si riferisce è conforme alle seguenti disposizioni legislative:

to which this declaration refers conforms to the following legislative dispositions:
 auf die sich diese Erklärung bezieht entspricht den folgenden rechtlichen Vorschriften:
 auquel cette déclaration se réfère est conforme aux dispositions législatives:
 al que se refiere esta declaración es conforme a las siguientes disposiciones legislativas:

Direttiva 2006/42/CE (Sicurezza macchine)

Directive 2006/42/EC (Safety of machine)
 Richtlinie 2006/42/EG (Maschinensicherheit)
 Directive 2006/42/CE (Sécurité des machines)
 Directiva 2006/42/CE (Seguridad de la maquina)

Direttiva 2006/95/CE e successive modifiche (Bassa tensione)

Directive 2006/95/EC and subsequent modifications (Low voltage)
 Richtlinie 2006/95/EG und folgende Änderungen (Niederspannung)
 Directive 2006/95/CE et modifications successives (Basse tension)
 Directiva 2006/95/CE y sucesivas modificaciones (Baja tensión)

Direttiva 2004/108/CE e successive modifiche ed integrazioni (Compatibilità elettromagnetica)

Directive 2004/108/EC and later modifications and additions (Electromagnetic compatibility)
 Richtlinie 2004/108/EG und darauffolgenden Änderungen und Ergänzungen entspricht (Elektromagnetische Kompatibilität)
 Directive 2004/108/CE et toute modification et intégration successive (Compatibilité électromagnétique)
 Directiva 2004/108/CE y sucesivas modificaciones y ampliaciones (Compatibilidad electromagnética)

Norma EN 1493:1998+A1:2008 – Vehicle lifts (O.J. of 08.09.2009)

Standard EN 1493:1998+A1:2008 – Vehicle lifts (O.J. of 08.09.2009)
 Norm EN 1493:1998+A1:2008 – Vehicle lifts (O.J. of 08.09.2009)
 Norme EN 1493:1998+A1:2008 – Vehicle lifts (O.J. of 08.09.2009)
 Norma EN 1493:1998+A1:2008 – Vehicle lifts (O.J. of 08.09.2009)

Sono state utilizzate le seguenti norme e specifiche tecniche:

The following standards and technical specifications have been used:
 Es wurden folgende Normen und technische Spezifikationen verwendet:
 On a utilisé les normes et les spécifications techniques suivantes:
 Se han utilizado las siguientes normas y especificaciones técnicas:

| | | | |
|---------------------|---------------------|---------------------|-------------------|
| EN 349:1993+A1:2008 | EN ISO 12100-1:2003 | EN ISO 13857:2008 | EN 60204-1:2006 |
| EN ISO 3746:2009 | EN ISO 12100-2:2003 | EN ISO 14121-1:2007 | EN 61000-6-1:2007 |
| EN ISO 11202:2009 | EN ISO 13849-1:2008 | EN 55022:2006 | EN 61000-6-3:2007 |

Il sollevatore è stato fabbricato in conformità a quanto previsto dall'Allegato VIII, paragrafo 3., della Direttiva 2006/42/CE

The lift was built according Annex VIII, paragraph 3., Directive 2006/42/EC
 Die Hebebühne war gemäß der Anlage VIII, Paragraph 3 der Richtlinie 2006/42/EG hergestellt
 L'élévateur a été fabriqué suivant ce qui est prévu par l'Annexe VIII, paragraphe 3., Directive 2006/42/CE
 El elevador se ha construido según lo previsto por lo anexo VIII, parágrafo 3. de la Directiva 2006/42/CE

Nome ed indirizzo della persona autorizzata alla costituzione del fascicolo tecnico:

Name and address of the person authorised to compile the technical file:
 Name und Anschrift der Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen:
 Nom et adresse de la personne autorisée à constituer le dossier technique:
 Nombre y dirección de la persona facultada para elaborar el expediente técnico:
 PAOLO CORTINOVIS, via Divisione Tridentina 23, 24020 Villa di Serio (Bergamo), ITALIA

Luogo e data:

Place and date:
 Ort und Datum:
 Lieu et date:
 Lugar y fecha:

Villa di Serio (BG),



Paolo Cortinovis
AMMINISTRATORE
 MANAGER
 ADMINISTRATOR
 ADMINISTRATEUR
 GERENTE

Special attention must be paid when referring to this handbook when one of the following symbols is met; they show the presence of hazardous conditions or situations of greater or less importance:



DANGER

Lack of compliance with this signal causes serious health risks: death or permanent injuries over a medium to long-term period.



WARNING

Lack of compliance with this signal can cause serious health risks: death or permanent injuries over a medium to long-term period.



CAUTION

Lack of compliance with this signal can cause personal injuries or damage to the lift.



WARNING

The instructions contained in this handbook must be read and fully understood before carrying out any work on the lift.

TERMINOLOGY AND DEFINITIONS (Annex I, Directive 2006/42/CE)

«**Danger**»: potential source of injury or damage to health.

«**Hazardous area**»: any area inside and/or near the machine where the presence of a person at risk endangers his/her safety and health.

«**Person at risk**»: anyone found entirely or partly in a hazardous area.

«**Operator**»: the person(s) responsible for installing, starting up, adjusting, servicing, cleaning, repairing and transporting the machine.

«**Intended use**»: use of the machine according to the user instruction manual.

«**Specialized technician**»: person assigned by the manufacturer to carry out special maintenance operations requiring training and specific skills in mechanics and oil hydraulics.

The specialized technician is acquainted with all the possible hazards on the machine and the necessary procedures in order to avoid injury to himself or others during these maintenance operations.

«**User**»: anyone who purchases or uses the machine (e.g. for renting, leasing or under loan) in accordance with the manufacturer's instructions.

Before use, place on the lift the adhesive labels enclosed with this handbook, as shown in FIG. 1, stringently maintaining the correspondence of the numbering; before applying pictograms, thoroughly clean the application area. Labels 4 and 5 are applied beforehand by the manufacturer.



WARNING

Failure to apply the labels will lead to the expiration of the guarantee conditions and relieve the manufacturer of all and any responsibility for possible damage caused by using the lift.


If one or more lift adhesive labels are damaged, missing or illegible, ask OMCN S.p.A. for the relevant position number for the replacement.


Fit the replacement label according to the diagram given in FIG. 1.

FIG. 1

1 **KG.**
3500

2 **DO NOT CLIMB ONTO THE LIFT'S MOVING ARMS**

3  **DURING WIRING, PRESS THE LIFTING PUSH-BUTTON TO CHECK THAT THE LIFT GOES UP. IF NOT, INVERT THE 2 POWER SUPPLY CABLE PHASES.**

4  Via Divisione Tridestina 23
24020 VILLANOVO S. GIOVANNI (TN) ITALIA
www.omcn.com - info@omcn.it

Art. 199/GAMMA
CAPACITÀ DI CARICO - CAPACITY
CAPACITÉ DE CHARGE - TRAGFÄHIGKEIT

● ALIMENTAZIONE - FEEDING
ALIMENTATION - SPANNUNG:
POTENZA - POWER
PUSSANCE - LEISTUNG:
ANNO DI FABBR. - YEAR OF MANUFAC.
ANNEE DE FABRICATION - BAUJAHR:
MATRICOLA - MATRICULATION
MATRICULE - HERSTELL.NR.:

3500 kg
400 V - 50 Hz - 3Ph
2,6 kW + 2,6 kW

11000 M 0410001

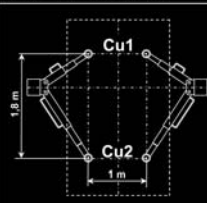
5 **RIPARTIZIONE DEL CARICO - LOAD DISTRIBUTION**
RÉPARTITION DES CHARGES - LASTVERTEILUNG

Il carico C_{max} da sollevare deve essere ripartito ai quattro vertici del rettangolo indicato nello schema. I carichi possono essere invertiti dato che il fabbricante ha condotto il calcolo nella configurazione più sfavorevole.

The C_{max} load to be lifted should be spread over the four vertices of the rectangle shown in the diagram. Loads can be inverted since the manufacturer has made the calculation in the most unfavourable configuration.

La charge C_{max} à soulever doit être distribuée aux quatre sommets du rectangle indiqué dans le schéma. Les charges peuvent être inversées car le fabricant a effectué le calcul dans la configuration la plus défavorable.

Die anzuhebende Last C_{max} muss gleichmäßig auf die vier in der Abbildung dargestellten Ecken des Rechtecks verteilt werden. Die Lasten können auch umgekehrt werden, da der Hersteller die Berechnung mit der ungünstigsten Konfiguration ausgeführt hat.



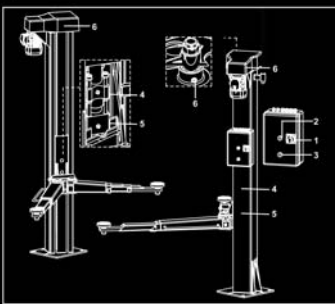
$Cu1 = \frac{2}{3} C_{MAX}$
 $Cu2 = \frac{1}{3} C_{MAX}$
 $C_{MAX} = Cu1 + Cu2$

C_{MAX} = CAPACITÀ DI CARICO
CAPACITY
CAPACITÉ
TRAGFÄHIGKEIT

6 **USE AND SAFETY REGULATIONS**

Carefully read the "Use and Maintenance" instruction handbook before use and before any machine maintenance.

- The lift may only be used by authorised and specially trained personnel.
- It is forbidden to use the lift in ways other than those specified in the "Use and Maintenance" handbook.
- It is forbidden to lift loads exceeding those indicated by the manufacturer.
- Do not get into the vehicle or climb onto the moving parts.
- It is prohibited to get into the vehicle or to stand on the arms during lifting.
- Do not stand in the work area of the lift while it is moving.
- Before lifting, make sure that the vehicle is positioned properly on the pads. After lifting it slightly, check that it is still positioned correctly.
- The operator must check the vehicle supports while the lift is moving.
- Before lowering, remove any objects located on the arms and ensure that there are no objects and/or obstacles that could interfere with the movement in the area below the vehicle, the lifting arms and the trucks.
- Work under the lifted vehicle only after turning the main switch (1) to "OFF".
- Read the "Use and Maintenance" handbook to identify any faults. Observe all the periodical checks.



CONTROLS

Main switch:
- position 1: on N. 1
- position 0: stop N. 1
Lifting button N. 2
Lowering button N. 3

MAINTENANCE

Before maintenance, always check that the main switch is on "0". The carriage sliding rollers, the sliding block, guides and the screw movement drive device must always be clean.

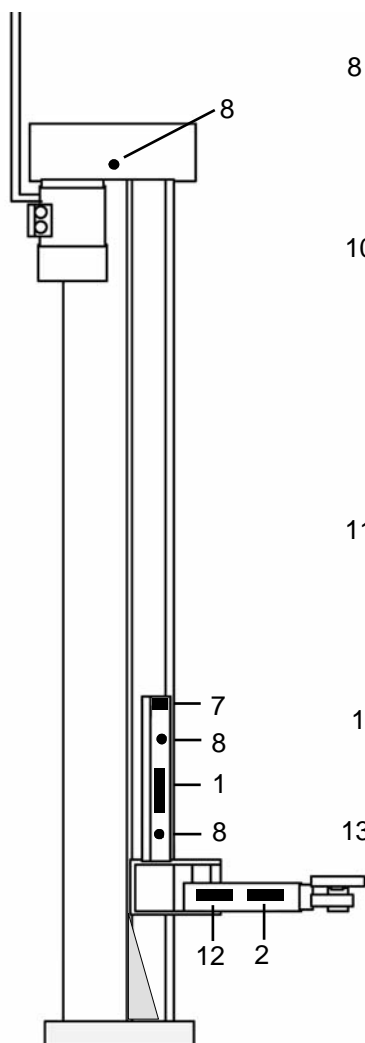
Every month
• check the load-bearing leadnut's state of wear on each column. When the check rod projects more than 2 mm out of the top of the carriage, replace the leadnut.




Every 3 months
• check the fixing of the base plate of the two columns to the ground, check that the diving torque of all the bolts is not less than 70 N.m.



LUBRICATION TABLE


| Period | Lubrication Point | Lubricant |
|-------------|--|-----------|
| Every month | Load-bearing leadnut (point 4) | Grease |
| Every month | Safety leadnut (point 5) | Grease |
| Every month | Screw bearings (point 6) | Grease |
| Every month | Carriage sliding rollers, guides and sliding block | Grease |

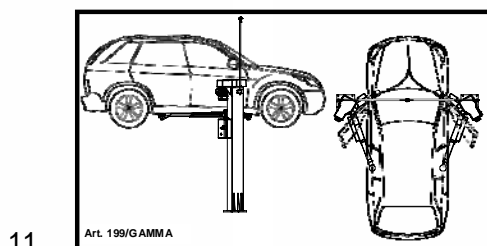
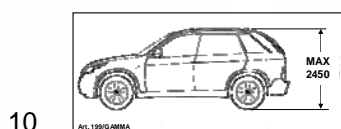
4199GAMMA1ES003






7   **Max.2 mm** 

8  

9 



12  

13 

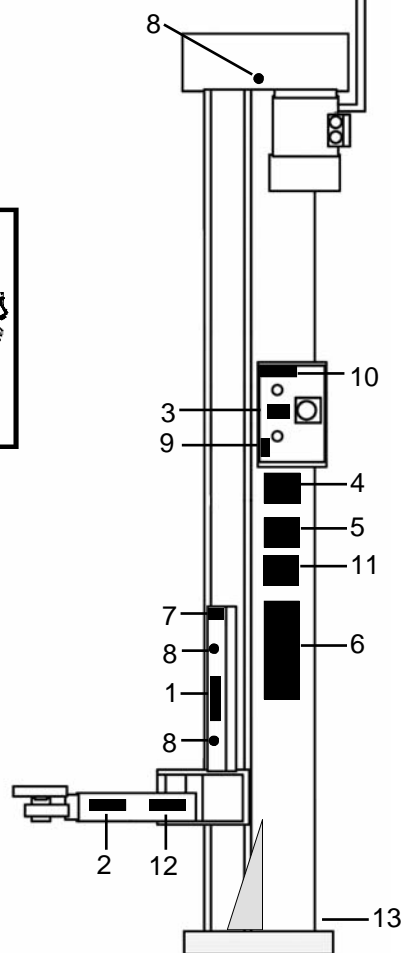


FIG. 2

RIPARTIZIONE DEL CARICO - LOAD DISTRIBUTION RÉPARTITIONS DES CHARGES - LASTVERTEILUNG

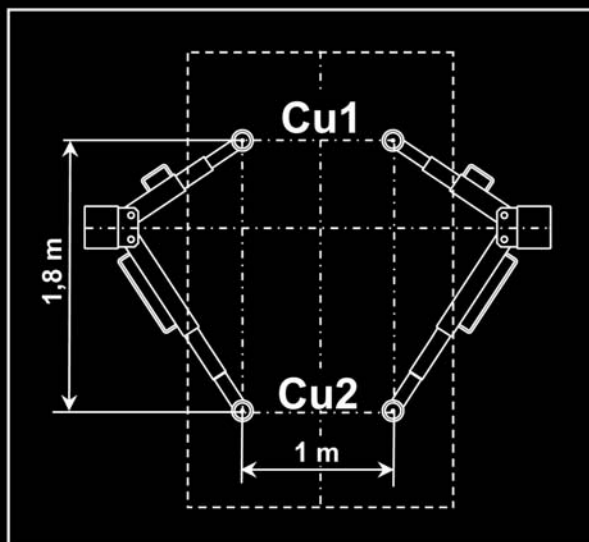


Il carico C_{MAX} da sollevare deve essere ripartito ai quattro vertici del rettangolo indicato nello schema. I carichi possono essere invertiti dato che il fabbricante ha condotto il calcolo nella configurazione più sfavorevole.

The C_{MAX} load to be lifted should be spread over the four vertexes of the rectangle shown in the diagram. Loads can be inverted since the manufacturer has made the calculation in the most unfavourable configuration.

La charge C_{MAX} à soulever doit être distribuée aux quatre sommets du rectangle indiqué dans le schéma. Les charges peuvent être inversées car le fabricant a effectué le calcul dans la configuration la plus défavorable.

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$$Cu1 = \frac{2}{3} C_{MAX}$$

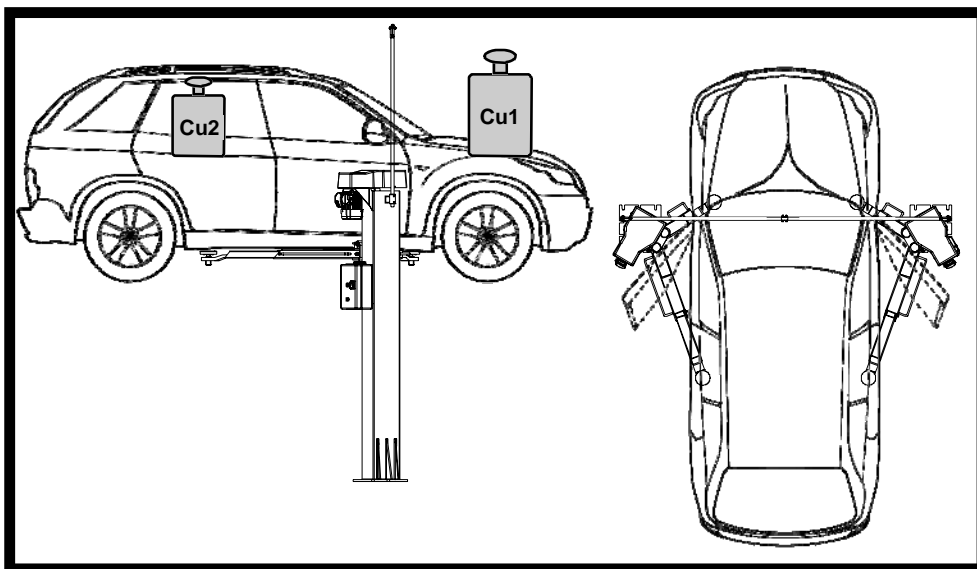
$$Cu2 = \frac{1}{3} C_{MAX}$$

$$C_{MAX} = Cu1 + Cu2$$

C_{MAX} = CAPACITÀ DI CARICO
CAPACITY
CAPACITÉ
TRAGFÄHIGKEIT

AR19912S001

C_{MAX} = Capacity 3500 Kg



The load distribution diagram in FIG. 2 complies with the specifications in regulation EN 1493 + A1.

- It is recommended to load the vehicle on the lift so that its heaviest part is over the short arms.
- When the dimensions (width by length) of the load's support rectangle make it necessary to change the arms' length, it is compulsory to equally lengthen or shorten all the arms by using the removable extensions, so that they are long enough to support the load.

INSTRUCTION MANUAL FOR USE, MAINTENANCE AND SPARE PARTS

TRANSLATION OF THE ORIGINAL INSTRUCTIONS

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1.0. INTRODUCTION



- This INSTRUCTION manual FOR USE, MAINTENANCE AND SPARE PARTS are an integral part of the product. Keep it carefully so that it can be referred to during the life of the same product.
- If it gets lost or damaged, ask for a copy from OMCN S.p.A.
- If the ownership of the lift changes, this handbook must also be supplied with the same lift.
- This manual must be kept for the entire product life of the lift; it must not be tampered with and must be kept in a dry, cool place.
- Contact OMCN S.p.A. for any doubt relative to the assembly, setting up, use and maintenance of the lift.
- Failure to observe the instructions provided in this manual null and voids the warranty conditions and releases the manufacturer from any liabilities due to damages caused by lift use.
- Before performing any operation on the lift it is mandatory to scrupulously read the instructions contained in this handbook since it contains important information relative to safety of use, maintenance, assembly and setting up of the lift.
- In addition to the instructions contained in this manual, you must follow all the guidelines and legal provisions regarding workplace safety and prevention in force in the country where the machine is being used.
- The handbook should be kept right next to the machine so that authorized staff can refer to it during startup, use, servicing and cleaning.
- OMCN S.p.A. cannot be held responsible for direct or indirect injury or damage to persons, animals or things caused by the failure to observe the instructions contained in this handbook.

This handbook contains all the necessary information on how to safely use the **ELECTROMECHANICAL VEHICLE HOIST** model:

- **Art. 199/GAMMA**

produced by:

OMCN S.p.A. - Via Divisione Tridentina, 23 - 24020 Villa di Serio (BG) - Italy.

This handbook describes the following:

- summary of indications for marking
- necessary conditions of use
- instructions on transport and start-up
- the main technical characteristics
- information regarding the workstation and controls
- instructions for safe use
- warnings on improper or unauthorized use
- the instructions about maintenance operations
- indications regarding noise level
- operating diagrams
- diagram of spare parts

Furthermore, the final pages in this booklet must be used as a *Control Register* to record the following:

- transfers of ownership
- routine maintenance operations
- periodic checks and inspections
- replacement of components, structural elements, safety devices or parts thereof

For the purposes of this handbook, the terms "Machine" and "Lift" shall be used to substitute the term "Electromechanical vehicle hoist".

OMCN S.p.A. declines all and any responsibility for possible damage to people or things caused by incorrect behaviour and/or use of the machine due to incorrect understanding of the translation of this document with respect to the original Italian version.

The manufacturer has launched the lift on the market, along with:

- user handbook,
- EC mark,
- EC compliance statement.

1.1.

General description

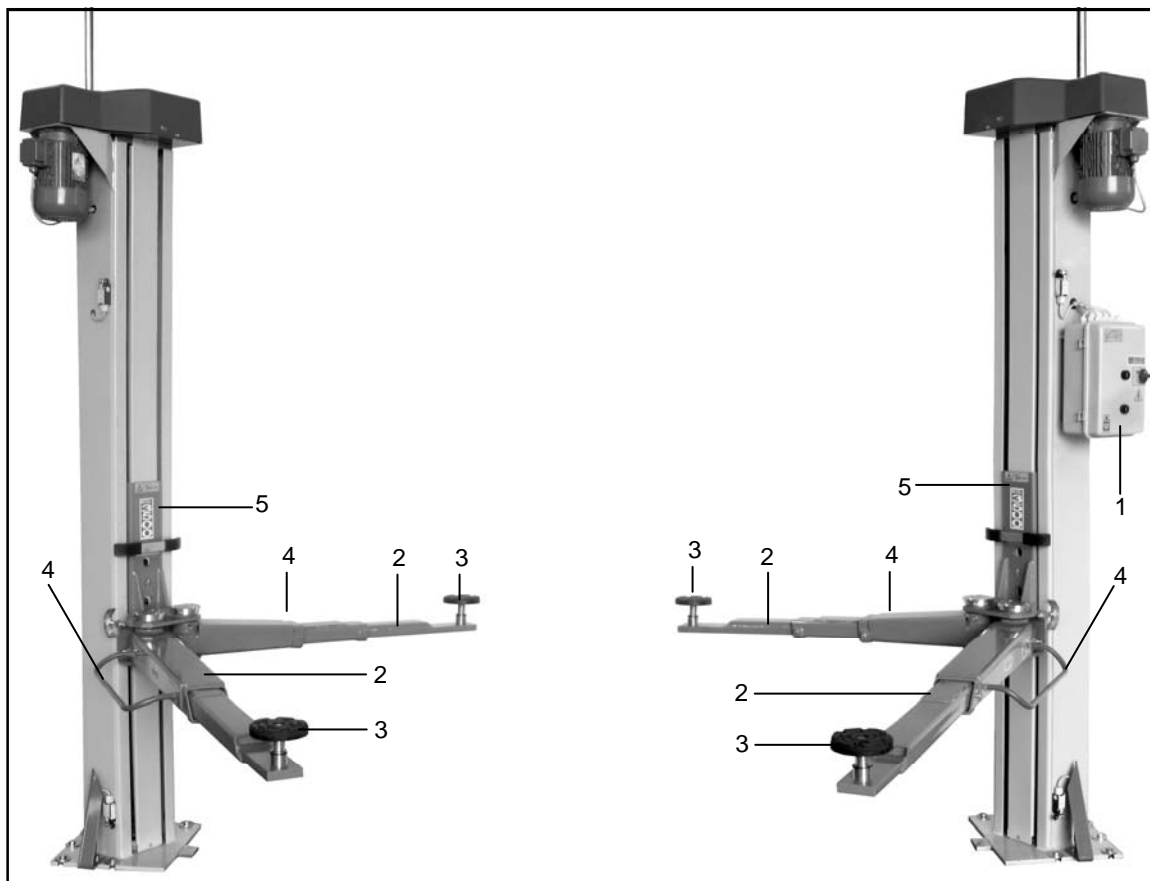
Art. 199/GAMMA is a two post lift for vehicles, fixed, electromechanically powered, designed and constructed to be used as described in paragraph 2.0. - Specific use.

Each column is equipped with a lift carriage with telescopic support arms.

The lifting and lowering of the carriages is done by a drive system with worm screws and an electric motor on the upper end of the column.

The control panel and the switchboard are located on the control column.

FIG. 2A



- 1) Control box
- 2) Telescopic arm
- 3) Pad
- 4) Footrest protection
- 5) Carriage

2.0. SPECIFIC USE

Intended use lists the admitted uses for which the manufacturer designed and constructed the machine.

Only the strict observance of admitted uses guarantees safe device use for the operator and exposed personnel. For this reason, reasonably foreseeable improper use has been identified by the manufacturer according to his experience in lift use.

For this reason, in addition to foreseen use, some but not all reasonably foreseeable improper uses are listed in the following paragraphs.

2.1. Foreseen use

The lift was designed and constructed to lift four-wheel vehicles not weighing over the rated capacity listed on the manufacturer's identification plate (FIG. 3), observing load distribution and the manufacturer's instructions.

The rated capacity of this lift is: 3500 kg.



Any uses not explicitly indicated in this manual are considered improper and hence prohibited: the manufacturer cannot be held liable for direct or indirect damage or injury to persons, animals or things caused by incorrect use of the lift.

2.2. Improper use

Some but not all examples of reasonably foreseeable improper use are listed below.

It is forbidden the lifting of:

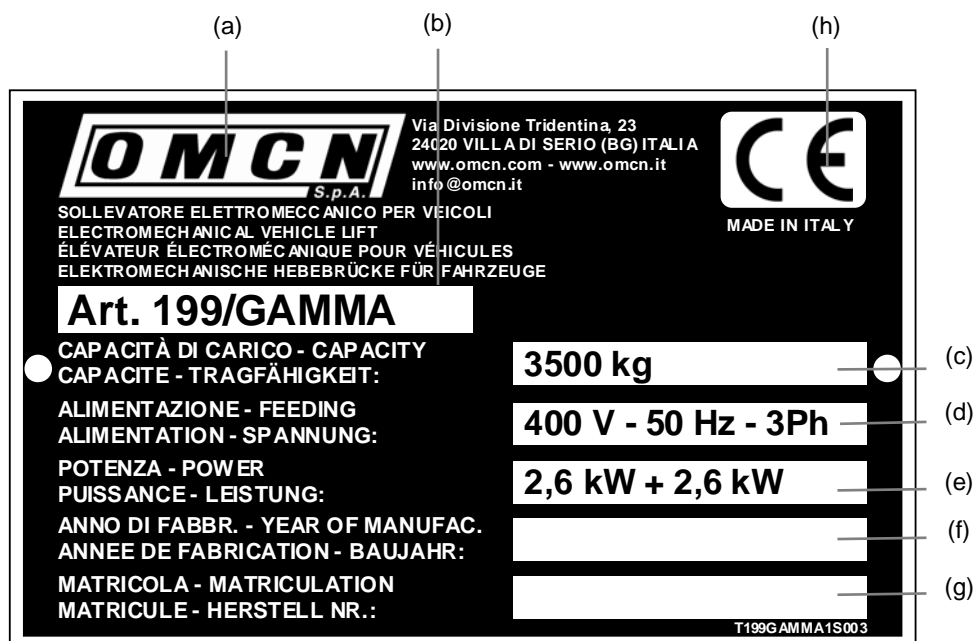
- motor vehicles with a weight exceeding the capacity of the lift,
- persons or animals,
- motor vehicles carrying people and/or animals,
- motorcycles, motorcycles with sidecars or similar vehicles,
- three-wheel vehicles,
- special vehicles such as: forklift trucks, agricultural machinery and tractors, excavating machinery (diggers, excavators, bulldozers, etc.),
- motor vehicles carrying potentially dangerous material (flammable, explosive or corrosive materials, etc.),
- machinery or materials in general (for use as a freight elevator or lifting board).
- materials or objects (processed pieces, tools, etc.),
- vehicles using accessories not supplied by OMCN S.p.A.

2.3. Name plate



Tampering with or removing the machine identification plate is strictly prohibited. Always keep the plate clean so that the listed data is always legible.

FIG. 3



Every lift has a manufacturer's nameplate (FIG. 3) placed on the machine according to the indications given in FIG. 1.

The manufacturer's nameplate shows the following information:

- a) General information, manufacturer's complete address.
- b) Lift model.
- c) Lifting capacity.
- d) Power supply in V and frequency in Hz.
- e) Motor capacity kW.
- f) Year of manufacture.
- g) Serial number.
- h) EC Marking.



Keep strictly to the general safety and accident-prevention regulations listed below.

THE LIFT MAY ONLY BE USED:

- **The lift may only be used** by authorised responsible staff in good health who have been specially trained to use the lift and are acquainted with all the risks involved.
- **The lift may only be used** by operators who have completely read, understood and taken in all the information given in this handbook.
- **The lift may only be used** inside closed rooms that are free from atmospheric agents: snow, rain and wind, etc.
- **The lift may only be used** by one operator. It may not be used by two or more people at the same time.

IT IS COMPULSORY:

- **It is compulsory** to check that the lift's environment is well-illuminated and ventilated (a sufficiently lighted place but one not subject to dazzling or intense light).
- **It is compulsory** to check that the floor on which the lift is to be installed is solid, flat, perfectly level and able to support the maximum planned loads.
- **It is compulsory** to position the lift away from sources of heat or devices emitting electromagnetic radiation.
- **It is compulsory** to position the lift so that the lift's working area is not exposed to hazardous movements by parts of other machines that are working.
- Before operating the lift, **it is compulsory** to make sure that the installed safety devices are in perfect working order.
- **It is compulsory** to check that the fitted safety devices work perfectly before using the lift.
- **It is compulsory** to check before lifting that the vehicle has been positioned on board the lift with its heavier part on the short arms side.
- **It is compulsory** to position the lift's load-bearing arms with the supporting plates at the lifting points specially provided on the vehicle: the correct lifting points for each vehicle are provided by the vehicle's manufacturer.
- Before lifting or lowering, **it is compulsory** to check the stability of the system of the vehicle's lift (see the load distribution table, FIG. 2).
- **It is compulsory** to check when lifting the vehicle that the arm locks are engaged correctly.
- **It is compulsory** when lifting the vehicle to stop movement after the first 200 mm and check the vehicle's stability on the supporting plates, before continuing lifting.
- **It is compulsory** to check during lifting or lowering that the vehicle is perfectly stable on the supporting plates.
- Before entering the hazardous area, **it is compulsory** to turn the lift off setting the locking switch to "0" (OFF).
- After lifting the vehicle and before starting any work on it, **it is compulsory** to set the locking switch to "0" (OFF).
- **It is compulsory** to check that the dismantling of the lifted vehicle components does not unbalance the load (see the load distribution table, FIG. 2).
- Before lowering, ensure that there are no objects and/or obstacles that could interfere with the movement in the area below the vehicle, the lifting arms and the trucks.
- During operation, **it is compulsory** to check that there are no hazardous conditions for persons at risk: should there be such persons, stop any movement immediately and keep them away.
- In the event of irregular or anomalous sounds, **it is compulsory** to stop all operations immediately and find the cause of the anomaly. **If in doubt, avoid any improper operations and contact the manufacturer's technical service centre.**
- Use only original OMCN spare parts for maintenance operations. The manufacturer cannot be held responsible for any damage caused by the use of unoriginal fittings. The use of non-original spare parts will instantly invalidate the warranty.

IT IS FORBIDDEN:

- **It is forbidden** to use the lift improperly or incorrectly; it should be used exclusively for the purpose described in paragraph 2.0. - SPECIFIC USE.
- **It is forbidden** to use the lift to lift materials or objects of any kind (such as processed pieces, tools, etc.).
- **It is forbidden** to lift containers for transportation or to use the lift as a freight elevator.
- **It is forbidden** to use the lift with loads exceeding the weights indicated on the manufacturer's nameplate (FIG. 3) placed on the machine: follow the load distribution table placed on the lift (and shown in FIG. 2). Take account of any additional loads present on the vehicle to be lifted.
- **It is forbidden** to use the lift for washing vehicles.
- **It is forbidden** to climb onto or remain on the support elements of the lift or to use same lift for transporting oneself.
- **It is forbidden** to climb aboard the vehicle both during the movement stages and when the vehicle is being lifted.
- **It is forbidden** to cause the vehicle to sway during lift ascent and descent.
- **It is forbidden** to leave the operating machine unattended for any reason without cutting off the power supply beforehand using the switch.
- **It is forbidden** to remove the guards or tamper with any of the safety devices fitted on the lift.
- **It is forbidden** to use the lift in environments where flammable or explosive vapours or gas mixtures may develop.
- **The lift must never be used** if the room temperature is below 5°C or over 40°C.
- **It is forbidden** to tamper with or modify the lift: any tampering or modifications to the lift automatically and immediately nullifies the guarantee and relieves the manufacturer of any liability for direct or indirect injury caused by such tampering or modifications.
- **Do not use** accessories not supplyable by OMCN S.p.A.

3.1. Clothing and personal safety devices

To use the lift in safe conditions, adequate clothing must be used for the lift and working environment:

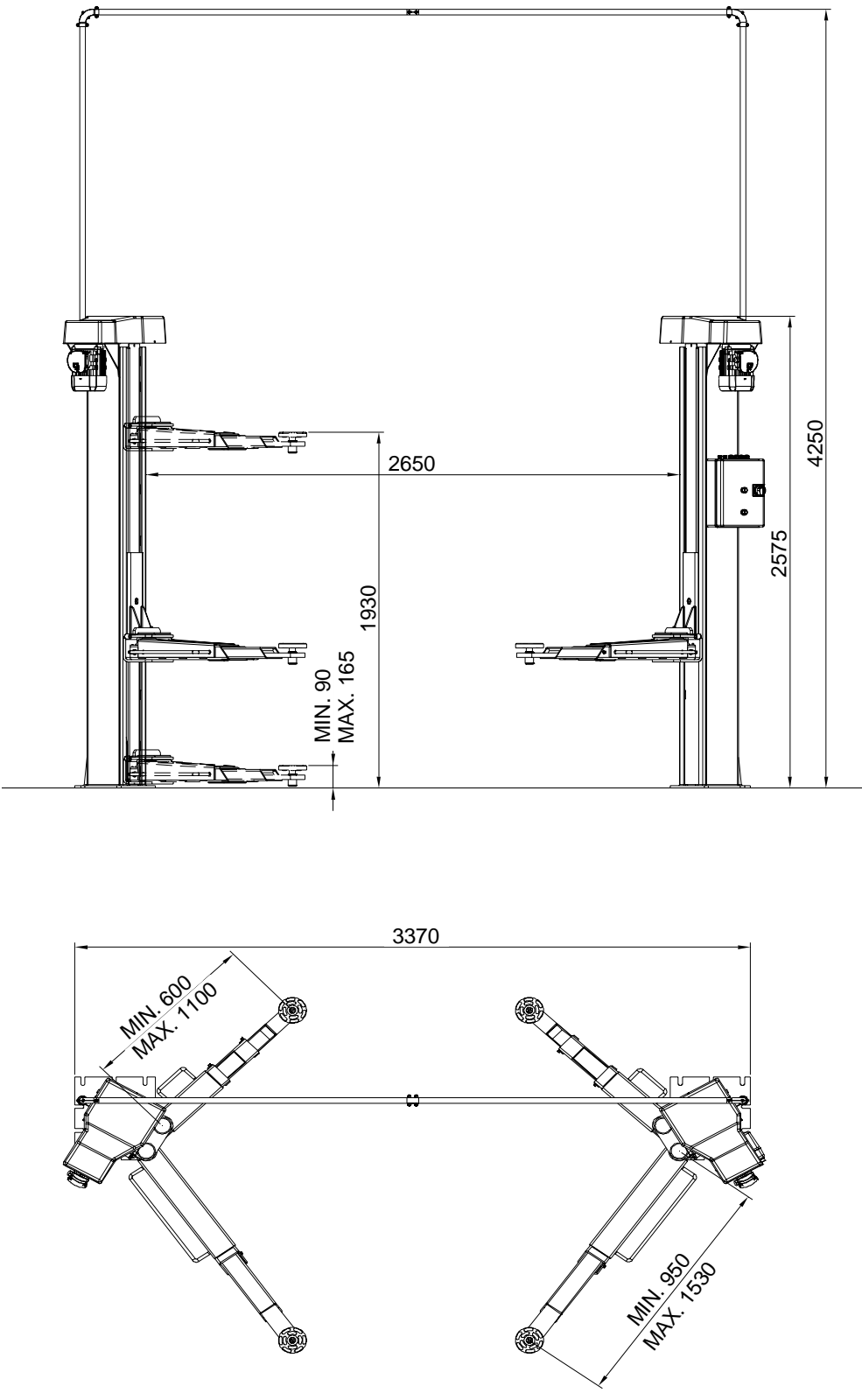
- do not wear loose clothes, ties, scarves or similar garments that could get caught up in the lift's movable parts.
- keep long hair out of the way and sleeve ends tight; avoid wearing watches, rings, necklaces or other objects that may cause injury.
- use suitable gloves and protective footwear. If the noise level in the working environment reaches 85 dB (A), wear earmuffs or other hearing protection devices.

In all cases, refer to working environment safety regulations of the country where the lift is being operated.

3.2. Sound Level

The lift has been subjected to noise level tests.
The tests were carried out on lift equipped with its standard components.
The noise produced by the lift when working is lower than 70 dB(A).

4.0.
TECHNICAL DATA
FIG. 4



| Model | Capacity [kg] | Motor | Motor capacity [kW] | Weight [kg] |
|----------------|------------------|---------------------------|------------------------|----------------|
| Art. 199/GAMMA | 3500 | Three-phase, 400 V, 50 Hz | 2,6 + 2,6 | 820 |

5.0. TRANSPORT

The lift must be transported using the wooden crate in which the two columns (FIG. 5) and all the other parts of the lift must be introduced. Furthermore, the crate must be handled using lifting equipment with a capacity greater than the weight of the lift (for the entity of the weights see FIG. 5 - 5A).



During transport it is compulsory to firmly fix the crate (or the packed lift) so as to prevent movement on the bed of the vehicle or means of transport. If a fork lift truck is used for handling the crate, pick them up and lift as shown in FIG. 5.

FIG. 5

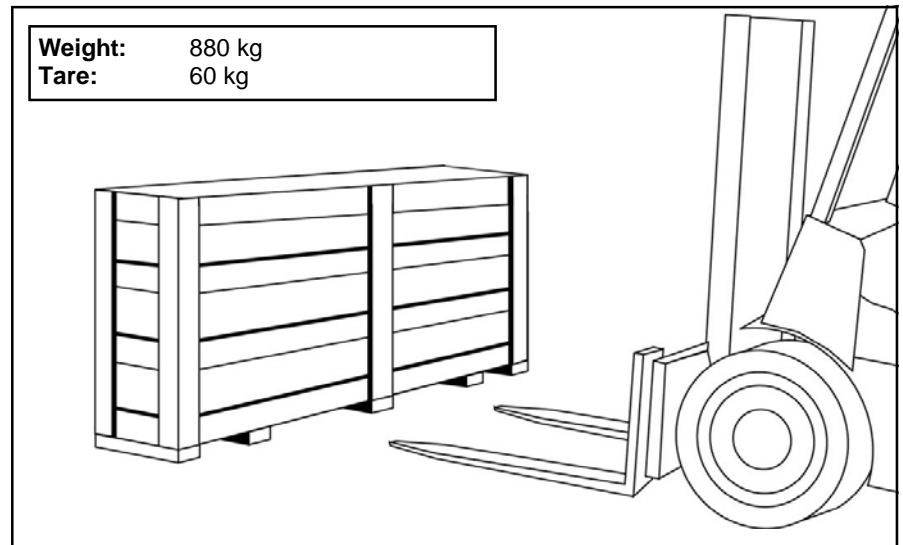
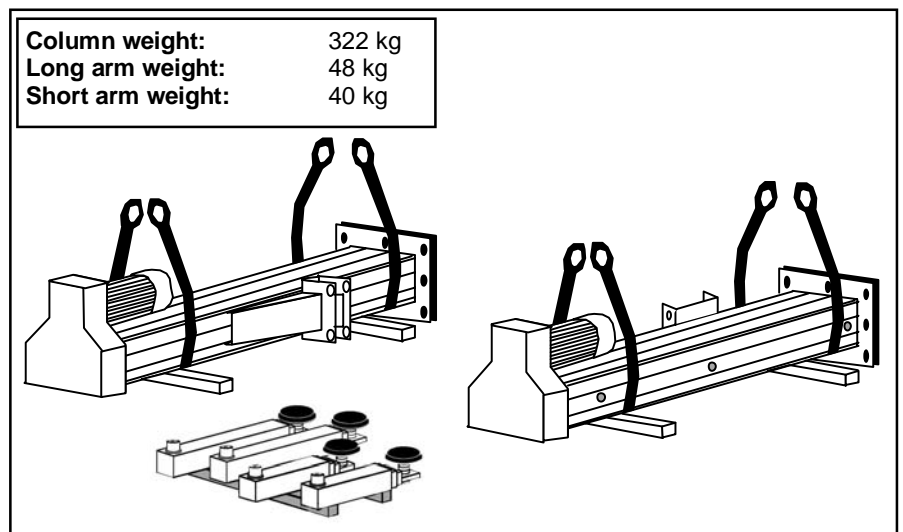


FIG. 5A



If the wooden crate is not used for transporting the lift, the columns must be packed separately in bubble wrap to protect all the lift components during transport and handling. Transport the packed lift as follows:

- Protect the control panel from bad weather and handle it with care.
- Protect the corners and ends of the component to be transported using suitable materials (bubble wrap or cardboard).
- Do not use metal cables for lifting purposes.
- Sling the machine with belts of at least 2500 mm long, with adequate capacity for the weight to be moved.

6.0. UNPACKING

After unpacking, check that the machine and control devices are perfectly intact and have not been damaged during transport.

Notify the manufacturer of any missing parts within 8 days of delivery.

If in doubt, do not use the lift and contact your authorised dealer for technical assistance.

The materials used for packing (plastic bags, expanded polystyrene, nails, screws, timber, etc.) represent a potential source of danger: they must not be left within the reach of children or animals!

It is recommended to keep the packing material for future transport. If these materials are to be disposed of, they should be taken to the specific collection points in compliance with local regulations.

7.0. ASSEMBLING AND SETTING AT WORK



- Installation of the lift requires the work of professionally qualified personnel.
- Even simple operations on the electric part require professionally skilled workers.
- It is forbidden to install the lift on yielding or uneven surfaces.
- It is forbidden to install the lift in environments where flammable or explosive vapours or gas mixtures may develop.
- It is compulsory to position the lift inside closed rooms away from the elements, such as: snow, rain and wind, etc.
- It is compulsory to position the lift away from sources of heat or devices emitting electromagnetic radiation.
- It is compulsory to check that the environment where the lift is to be set is ventilated and well-illuminated.
- Previously check that the height and characteristics of the ceiling of the room where the lift is to be installed are such as to guarantee complete ascent of the lift, even with particularly tall vehicles aboard.
- Before moving the various component parts of the lift it is compulsory to verify the entity of the weights to be moved and that the lifting equipment to be used is capable of bearing these weights.

7.1. Installation area

The following tools are required for setting the lift at work:

- series of hexagonal wrenches and Allen wrenches from 6 a to 24 mm and CH46 wrench
- anchor drill (drilling Ø 18 mm)
- spirit level
- three-phase electric cable with minimum section of 4 mm² – three poles + earth.

When identifying the area, account must be taken of the overall size of the lift (see § 4.0. – TECHNICAL DATA), the practicable space for the operator around the perimeter of the machine must be taken into consideration (keep a clear distance of at least 800 mm between all parts of the lift and possible walls or any other equipment to allow the required maintenance and control operations).

The lift must be installed in a room with sufficient space from floor to ceiling (at least 5000 mm) to leave place to the tube supporting the electrical wires connecting one column to the other.

Account must also be taken of the space needed for vehicle ascent and descent operations. The lift must be installed so that the operator can see the whole of the machine and the surrounding area from the control post so as to be able to check that, in that area, there are no exposed people and/or objects that could interfere with the lift's movements and be a source of danger.

Minimum requisites for the floor on which the lift is to be installed

The lift must be installed on a flat, level and regular concrete floor without expansion joints or cuts.

This surface must bear all the forces transmitted by the columns in its most loaded conditions: it must have minimum resistance of at least 35 N/mm² which is equal to 35 RcK.

The depth of the concrete layer must ensure a good holding of anchors and have a good consistency, equalling at least 200 mm.

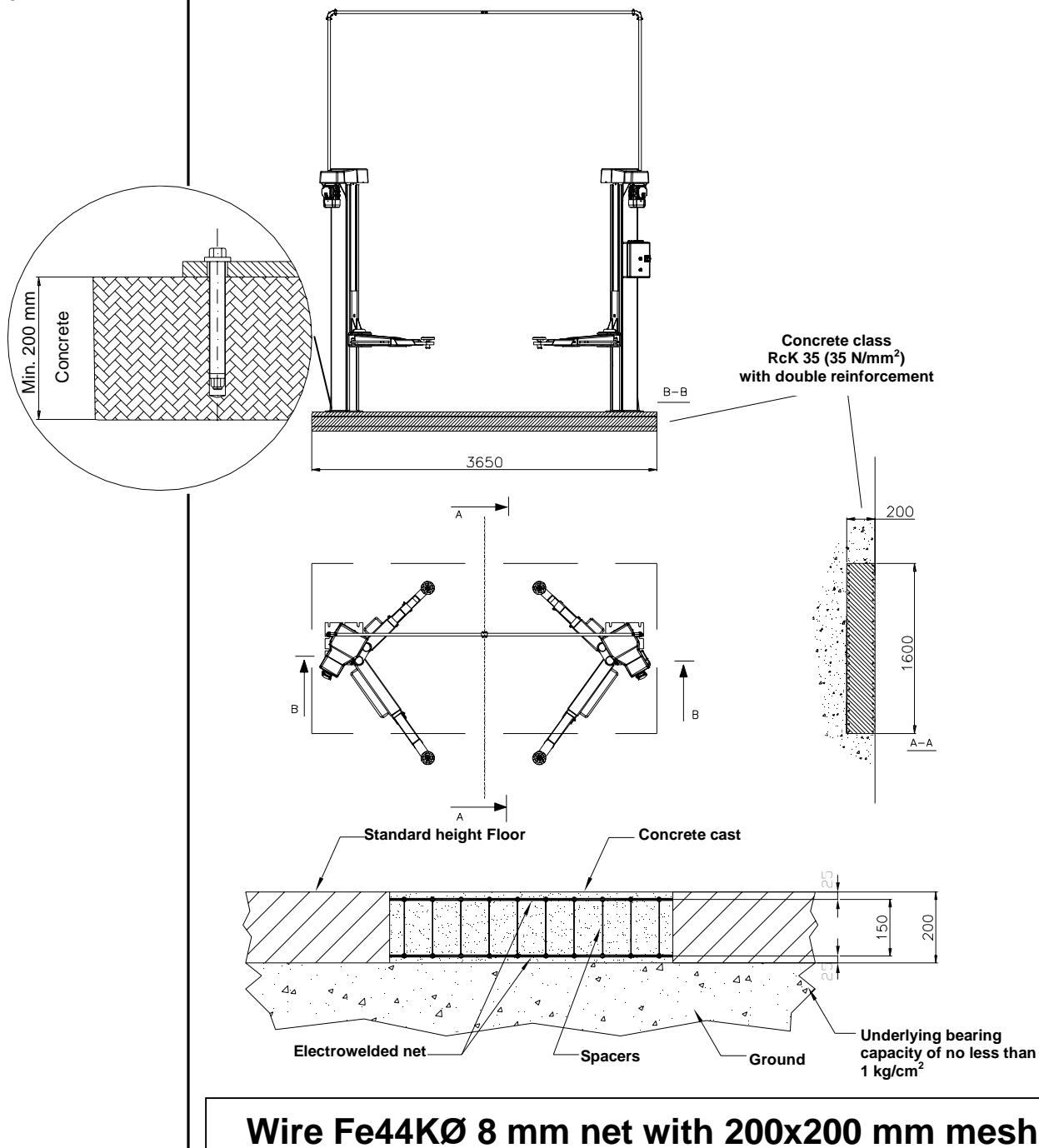
The above characteristics must be guaranteed over a minimum area of 3650 mm x 1600 mm (FIG. 6).



DANGER

It is prohibited to install the lift on surfaces with different characteristics to those described above such as, for example, yielding or uneven surfaces or ones not perfectly level.

FIG. 6



7.2. Columns positioning

After unpacking the machine parts, follow the instructions below in order to assemble the lift. Table 1 shows the weights of the principal components of the lift so that they can be handled correctly during the lifting stage:

TABLE 1

| WEIGHT TABLE | |
|--------------|--------|
| Column | 322 kg |
| Long arm | 48 kg |
| Short arm | 40 kg |

- Move the columns to the place of installation using handling equipment suited to their weight (see TABLE 1). Place the columns horizontally on the floor, so that the arm carriage is facing upwards (FIG. 7).
- Check that the level (distance between arm carriage and baseplate) given in FIG. 7 is approximately 800 mm for both columns. If this is not the case for one or both columns, use hexagonal wrench CH46 on the hexagon of the corresponding leadnut at the top of the column (FIG. 8) and turn it until the correct carriage level is reached.

FIG. 7

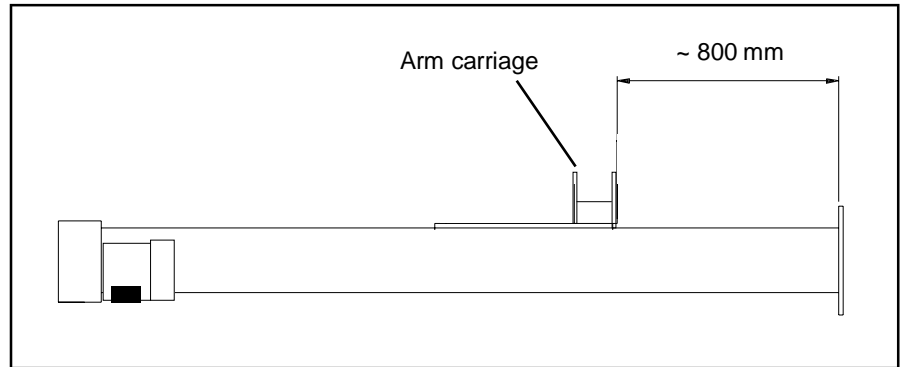
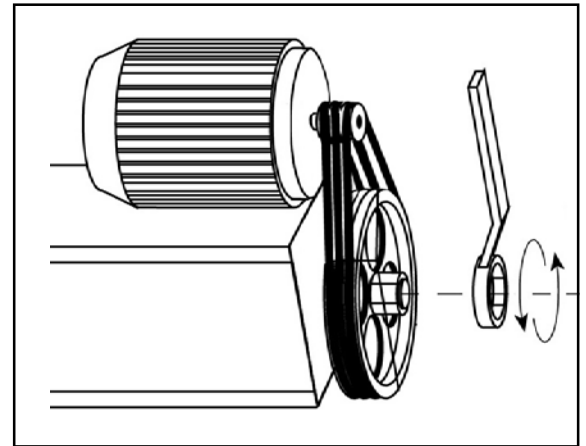
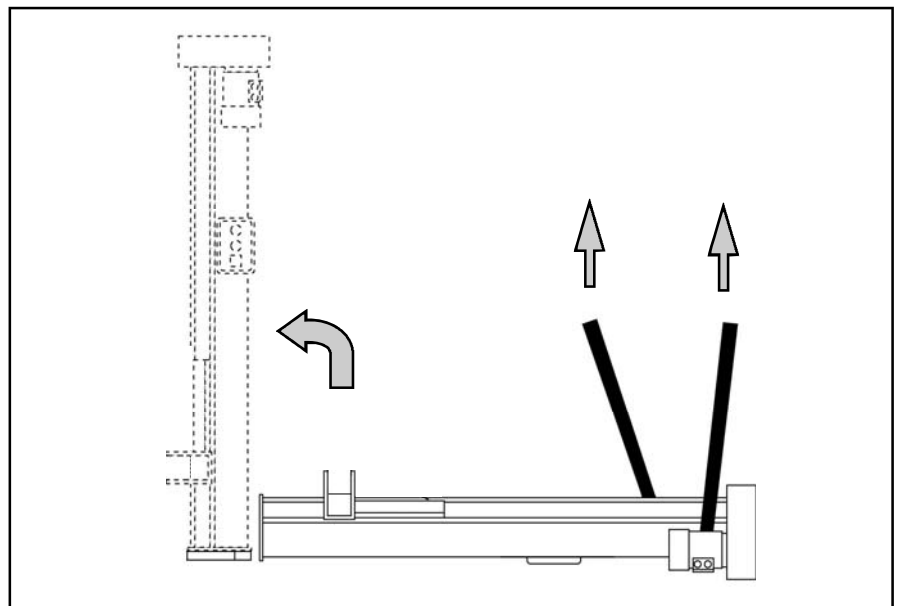


FIG. 8



- Lift the columns to a vertical position: this must be done by lifting the column from the motor side as show in FIG. 9; use lifting belts of adequate capacity for the weight of the column for this purpose (see TABLE 1): do not use chains or apparatus that may damage the columns.

FIG. 9





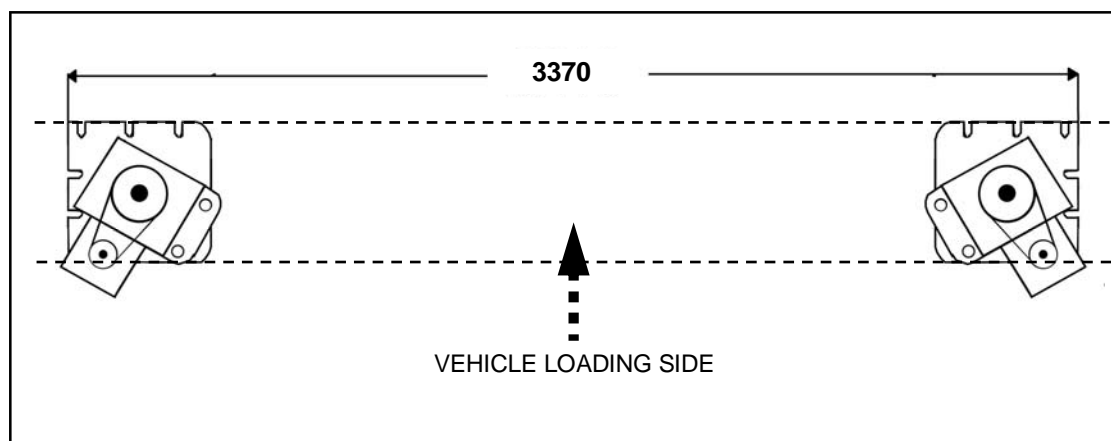
The columns must be supported until they have been firmly fixed to the floor using all the respective anchor bolts!

- Position the two aligned columns at the distance shown in FIG. 10.
- Use a spirit level to set the two columns vertically to the floor and, if necessary, inserting spacers between floor and baseplate where there are empty spaces, so as to have uniform support.



The columns must be perfectly vertical with the floor (check with the spirit level) without any swinging.

FIG. 10



7.3. Columns fixing

The columns can then be fixed.
Fix each column to the flooring using the expansion bolts provided (7 expansion bolts with washer for each column) as described below.

- Using a drill with the same diameter as the anchor bolts supplied (\varnothing 18 mm), drill a hole (1 FIG. 11) in the bolting points (7 bolting points for each column, FIG. 12) on each column baseplate.
- Clean the holes (2 FIG. 11).
- Push each anchor bolt into each hole with gentle hammer-blows (3 FIG. 11).
- Tighten the bolts with a dynamometric wrench calibrated to 70 N-m (4 FIG. 11).
- If this value fails to tighten the bolts, it may be caused by incorrect drilling (diameter too large) or insufficient consistency of the concrete foundation.

FIG. 11

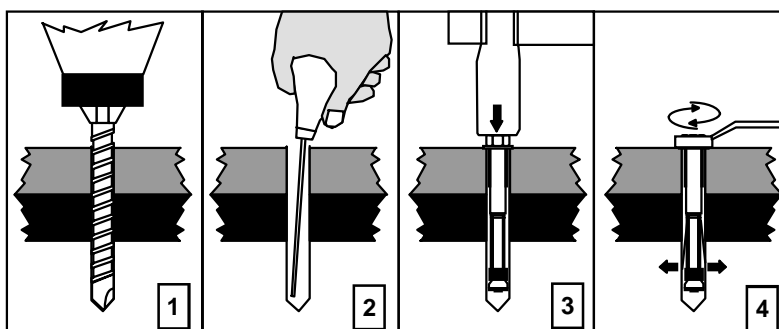


FIG. 12

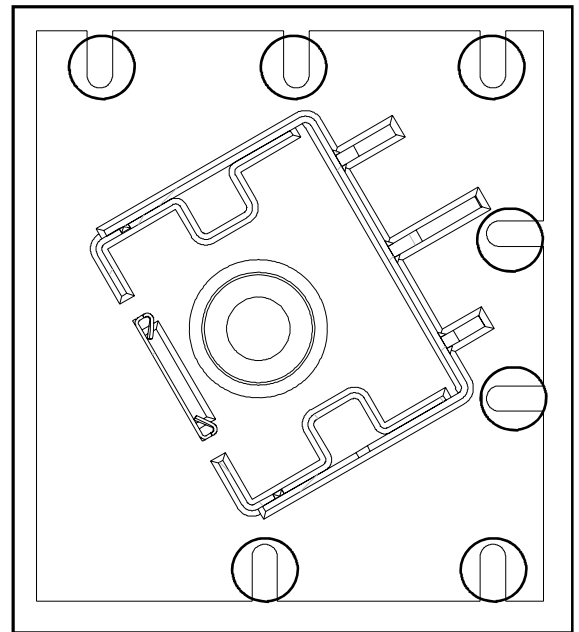


FIG. 12. Column bolting points.



- It is compulsory to fix the columns carefully to the floor since defective fixing could cause very serious accidents!
- The use of compressed air screwdrivers for tightening up the anchor bolts is prohibited.
- Check that the anchor bolts are still all tight after 10 runs at full load.
- It is compulsory to check every 3 months that the anchors have not loosened!
- If you are not sure about the type of flooring or where to install the lift, contact your authorized dealer for technical assistance.
- The manufacturer cannot be held liable for any damage caused by the failure to follow the above instructions.

7.4. Fixing the overhead cable duct

- Unpack the tubes for passing the cables overhead and join the parts on the ground, as shown in FIG. 13. Tighten the elbow sleeve screws (3 FIG. 13) and central coupling (4 FIG. 13).
- The electric cable is already fitted inside the tubes, so check that it protrudes from the end of the duct for the same length. Check that each electric wire is labelled with the identification number for wiring to the electric terminal blocks of the two columns.
- Fit the two vertical ducts (3 FIG. 14) in their supports (2 FIG. 14): first insert the electric wires coming out of the tubes, then fully insert the tubes in the supports so that they reach the bottom wire of the supports themselves. Fix the ducts in place by tightening the screws (4 FIG. 14).

FIG. 13

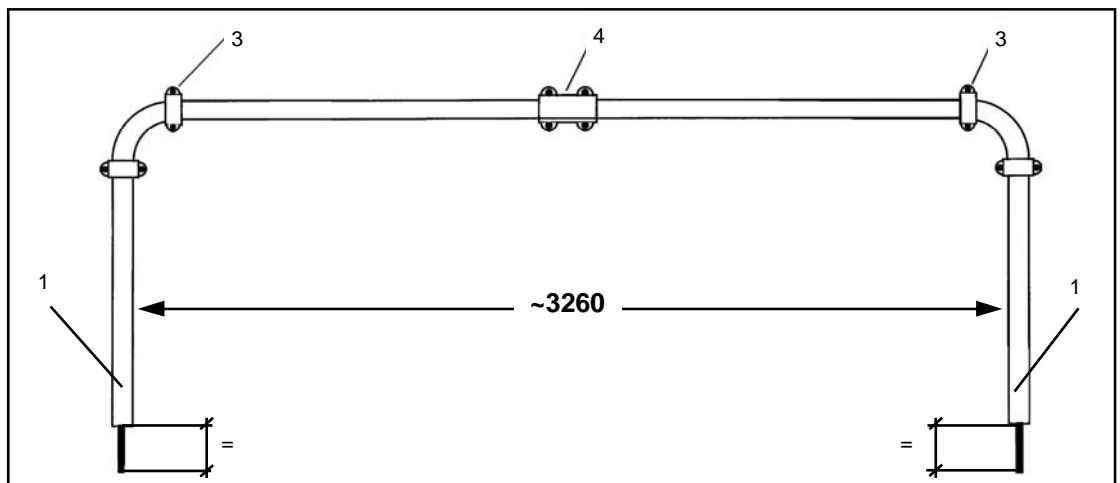
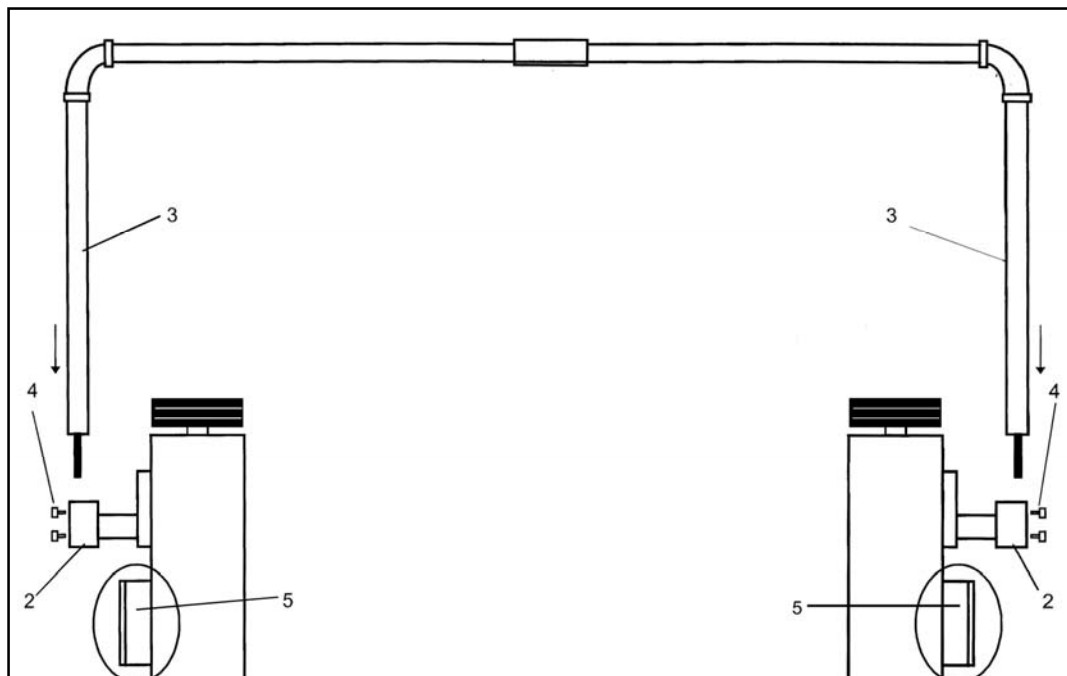


FIG. 14



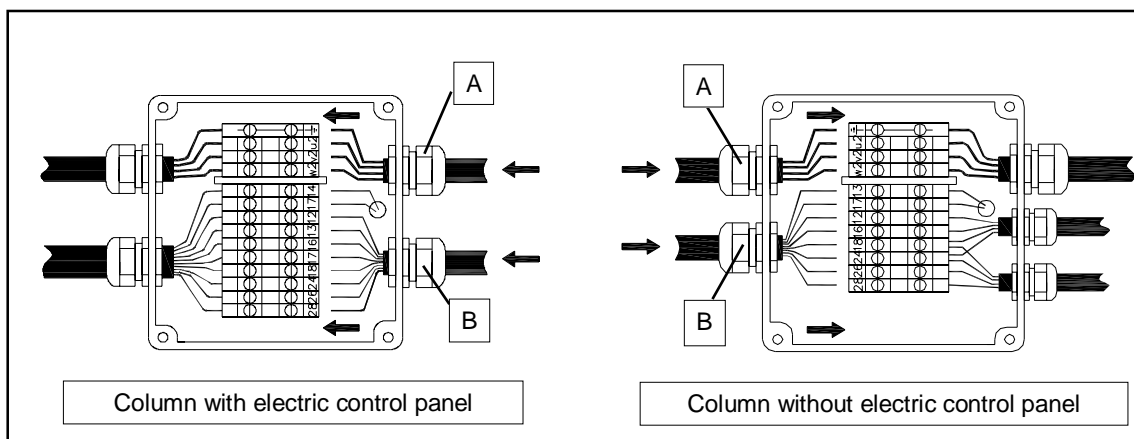
7.5. Wiring



- Even simple operations on the electric part require professionally skilled workers.
- Before carrying out any operations, it is compulsory to check that the devices to be serviced are safely disconnected from the power supply.

- Remove the lid of the two electric junction boxes (5 FIG. 14).
- On each column, fit the two cables coming from the duct in the electric junction box's empty cable gland (A and B FIG. 15); proceed as follows for each cable:
 - unscrew the gland nut
 - first thread the wire through the nut, then through the gasket, then through the gland
 - connect the electric wires to the terminals of the electric junction box's terminal board: each wire must be connected to the corresponding numbered terminal. **Make sure the numbers on the tags of the electric wires correspond with those on the electric junction box's terminal board!**
 - tighten the gland nut after having made the connections.

FIG. 15



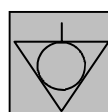
7.6. Connections to the power line



- Even simple operations on the electric part require professionally skilled workers.
- Before carrying out any operations, it is compulsory to check that the devices to be serviced are safely disconnected from the power supply.
- The control board must be wired to the mains via a distribution board provided by the user. The distribution board should be equipped with a disconnecting switch, protection device against overcurrents and differential switch (Adequate circuit breaker): it is forbidden to connect the control board directly to the mains of a factory or workshop!
- **IT IS STRICTLY FORBIDDEN TO MAKE ANY JUNCTIONS ON THE MAINS LINE!**
- Before making the connections check that the data relative to the electricity power supply shown on the lift's rating plate (FIG. 3) correspond to the characteristics of the distribution board provided by the user.
- Carry out the lift's earthing connection.

The lift is equipped with an attachment for an external earthing connection, identified with the symbol in FIG. 15A applied to it: carry out the earthing connection according to the regulations in force, using an electric cable, covered and marked with the yellow-green colours and with an appropriate section.

FIG. 15A



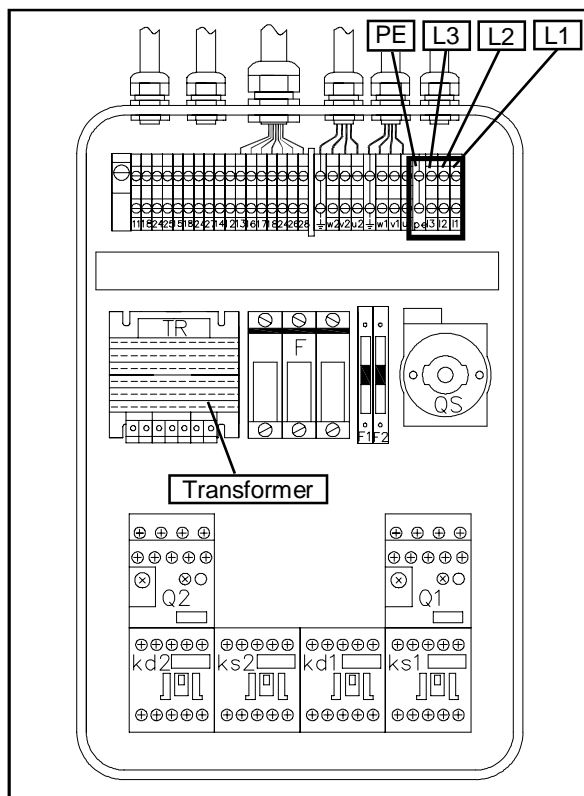
Check that the voltage is correct for operation (400 V, 50 Hz).

Connect the line wire including the earth wire to the terminals marked L1 - L2 - L3 - PE on the terminal board (1 FIG. 16) inside the electric control unit.

Use electrical wires not smaller than 4 mm² when working on 230 V power; use electrical wires not smaller than 2,5 mm² when working on 400 V power. Use tripolar plug + earth, wires not longer than 10 m in both occasions.

Longer cables must be larger in section, so contact OMCN's technical service for information on the right section for the cable length.

FIG. 16



When 230 Volts needs to be supplied, follow the instructions given below.

- In the transformer installed on the electric panel (FIG. 16) disconnect the wire connected to the terminal marked with value 400 and connect it to the terminal marked with value 230 (FIG. 17).
- For each column: remove the motor terminal board cover, then remove the contact bar block nuts and reverse the position of the bars themselves, installing them in a horizontal position (FIG. 18). Screw the nuts back on.
- Replace the protection fuses (see § 14.0. CONTROL PANEL COMPONENTS) with others of suitable value supplied, on request, by the technical assistance department of OMCN S.p.A.

FIG. 17, 18

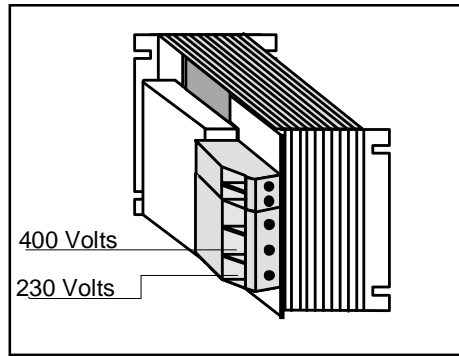


FIG. 17. Transformer

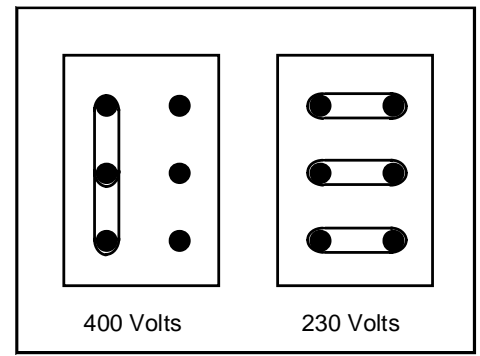
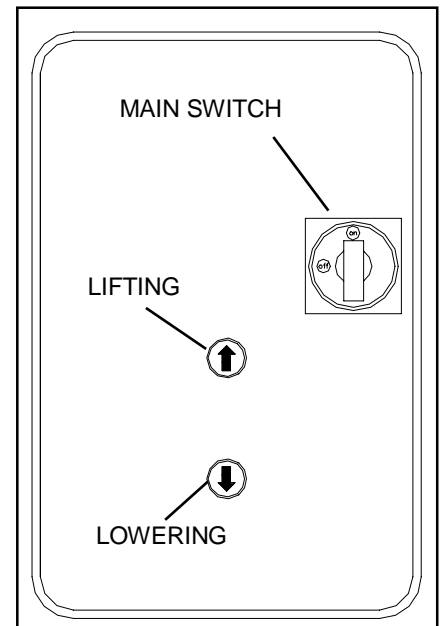


FIG. 18. Motor terminal board

7.7. Starting up

- Switch on at the mains.
- Set the main switch (FIG. 19) on the electric panel to "ON".
- Press the "LIFTING" push-button briefly (FIG. 19) and check that both carriages rise, then press the "LOWERING" push-button briefly (FIG. 19) and check that both carriages go down. If, however, one of the following incorrect operating situations occurs:
 - 1) one carriage rises and the other lowers or
 - 2) both carriages lowerproceed as described below.

FIG. 19



DANGER

In both cases, before intervening, the power must be cut off using the knife switch of the user's electric distribution panel and then switching the main switch to "OFF" (FIG. 19).

- 1) One carriage goes up and the other goes down
 - after having powered down, open the hatch of the electric control panel, disconnect two phases of the motor power supply cable of the trolley that goes down (Motor 1 or Motor 2, FIG. 20) and reverse their positions, then retighten the screws of the terminals involved;
 - close the control panel hatch and power up using the distribution panel knife switch, then set the main switch to "ON";
 - check that both carriages rise when the "LIFTING" push-button is pressed briefly and that both carriages lower when the "LOWERING" push-button is pressed briefly.

2) Both carriages descend

- after having powered down, open the control panel, disconnect two phases of the power supply cable coming from the factory distribution panel (FIG. 20) and reverse their positions, then retighten the screws of the terminals involved;
- close the control panel hatch and power up using the distribution panel knife switch, then set the main switch to "ON";
- check that both carriages rise when the "LIFTING" push-button is pressed briefly and that both carriages lower when the "LOWERING" push-button is pressed briefly.

FIG. 20

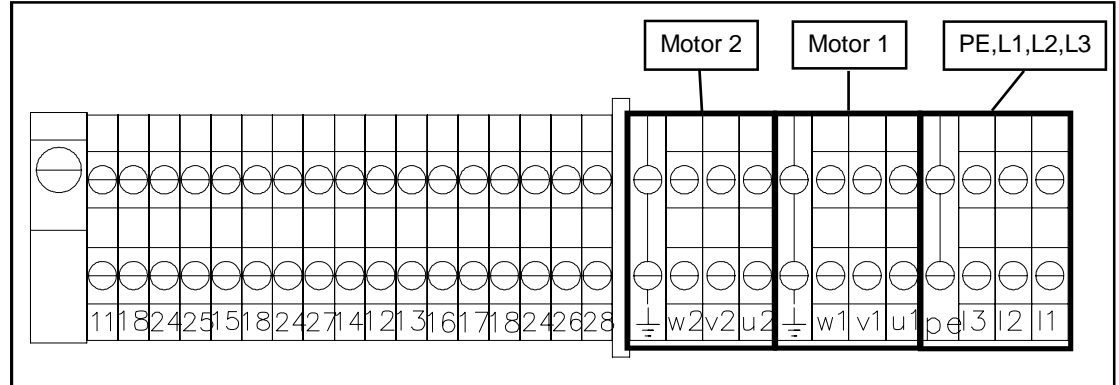


FIG. 20. Electric control unit terminal board

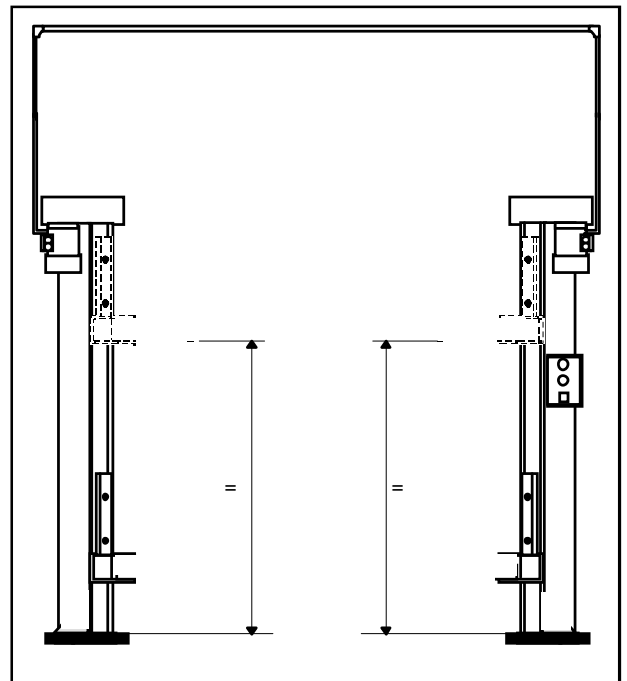
- Once the lift raising and lowering correct operation check has been completed, bring the carriages to the end of upward travel by pressing the "LIFTING" push-button, holding it down until each carriage has reached its end of upward travel.
- Check again that the two carriages are at the same height from the ground (FIG. 21); if not, use hexagonal wrench CH46 on the hexagon of the leadnut at the top of the column (FIG. 8), then turn until the correct height for the carriage is reached.
- Make 2 complete upward and downward travels to check that the lowering limit switch trips as normal before the carriages reach the end of travel.
- Having made all the electrical connections it is compulsory to make an instrument test of the continuity of the protection circuit before the machine is put into service.



WARNING

Non-continuity of the protection circuit can, in the case of a breakdown in the electric circuit, cause very serious health risks which may also be fatal in more serious cases.

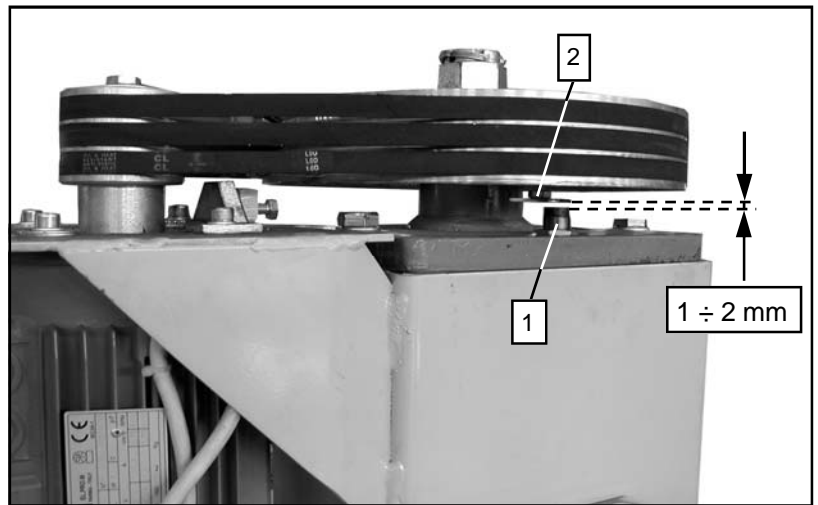
FIG. 21



7.8. Mounting the belt drive cover

A sensor for controlling carriage movement (1 FIG. 22) is installed on the head plate of each column, a striker plate (2 FIG. 22) for recording the number of screw turns is installed on the pulley: the sensor and striker plate are fitted and calibrated by the manufacture during the test stage. The correct distance between the striker plate and the sensor is approximately $1 \div 2$ mm: check this distance and, if it is not the case, the height of the striker plate can be adjusted by screwing or unscrewing it.

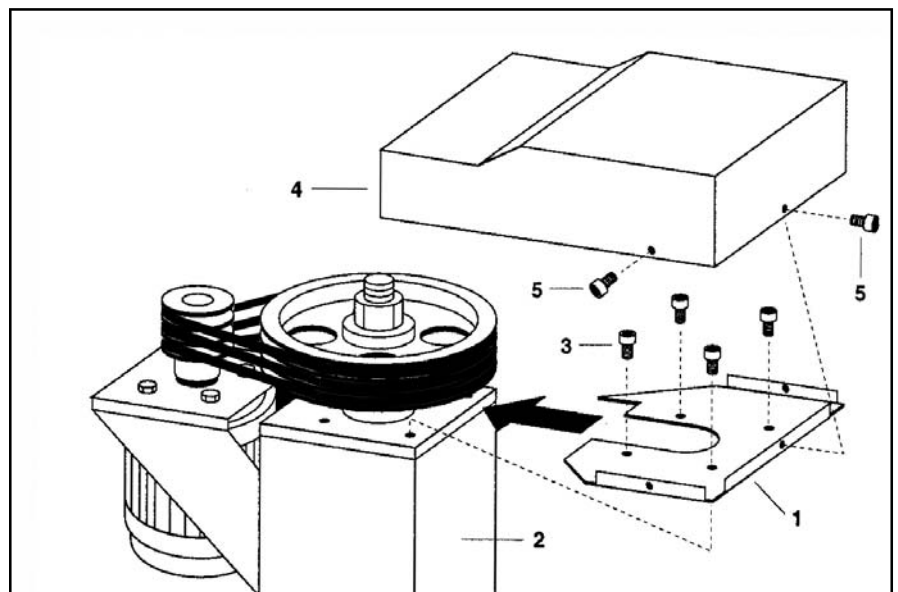
FIG. 22



Assemble the protections for each column as follows.

- Install the support (1 FIG. 23) on the head plate (2 FIG. 23) of the column, fixing it with the screws provided (3 FIG. 23) to be screwed into the respective holes located on the plate itself.
- Install the protection (4 FIG. 23) on the support and fix it with the screws (5 FIG. 23) in the holes provided.

FIG. 23



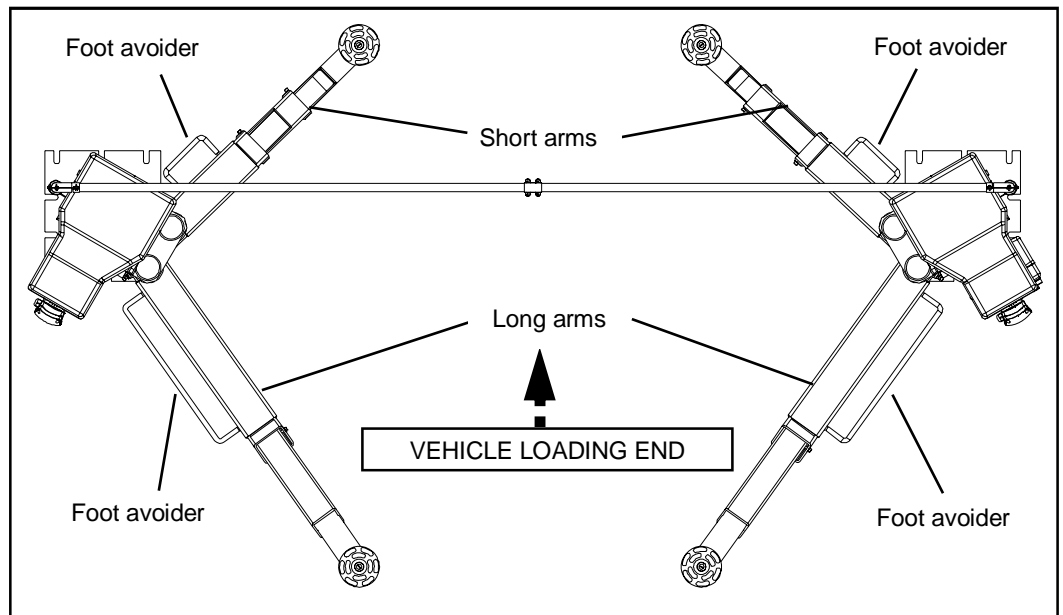
7.9. Mounting the load-bearing arms

The telescopic load-bearing arms must be installed on the carriages of the lift as shown in FIG. 24: the long arms at the end where the vehicles will be loaded onto the lift and the short ones at the other end. In all cases the foot avoider device must be turned towards the outside of the lift as shown in FIG. 24. Proceed as follows for correct assembly of the four arms.



- Handle the telescopic arms using means adequate for their weight (short arm 40 kg, long arm 48 kg).
- Handling the arms lifting them from the foot avoider is prohibited: danger of falling!

FIG. 24



- Bring the carriages to approx. 1 m from the ground by pressing the lifting or lowering push-button.
- For each arm:
 - remove the three stop screws prefitted to the arm (a FIG. 25),
 - extract the pin inserted in the carriage from its housing (b FIG. 25),
 - insert the arm in the housing in the carriage (a FIG. 26),
 - refit the pin previously extracted, pushing it fully home so that, once inserted, the three notches present on the body of the pin coincide with the three holes present in the arm (b FIG. 26),
 - fully screw in the three stop screws (c FIG. 26) previously removed, so as to fix the pin. Check two or three times that, when the head of the pin is extracted manually from its housing (d FIG. 26), the corresponding arm rotates freely and that, on the contrary, it remains locked in position when the head of the pin is fully inserted in its housing (e FIG. 26).

FIG. 25

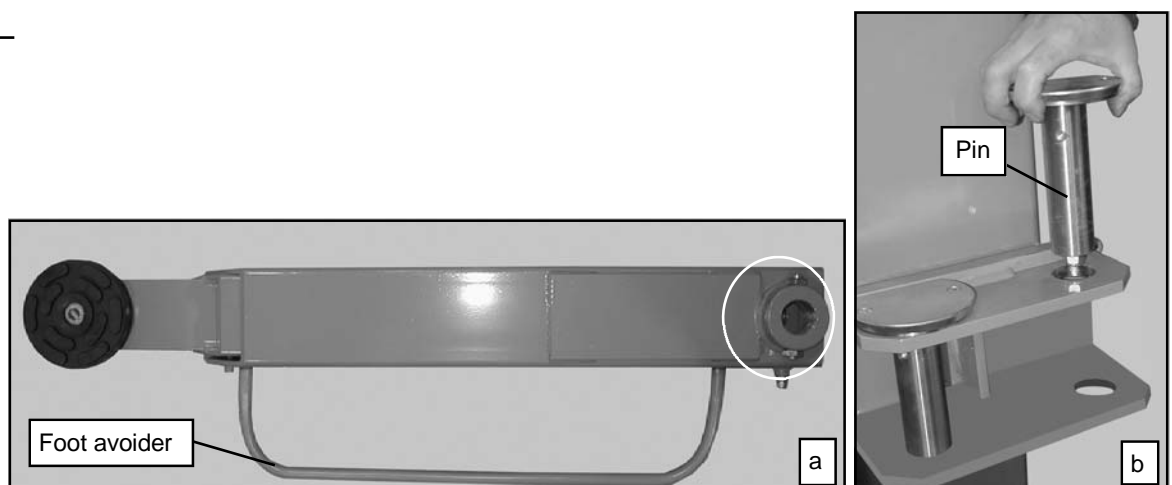
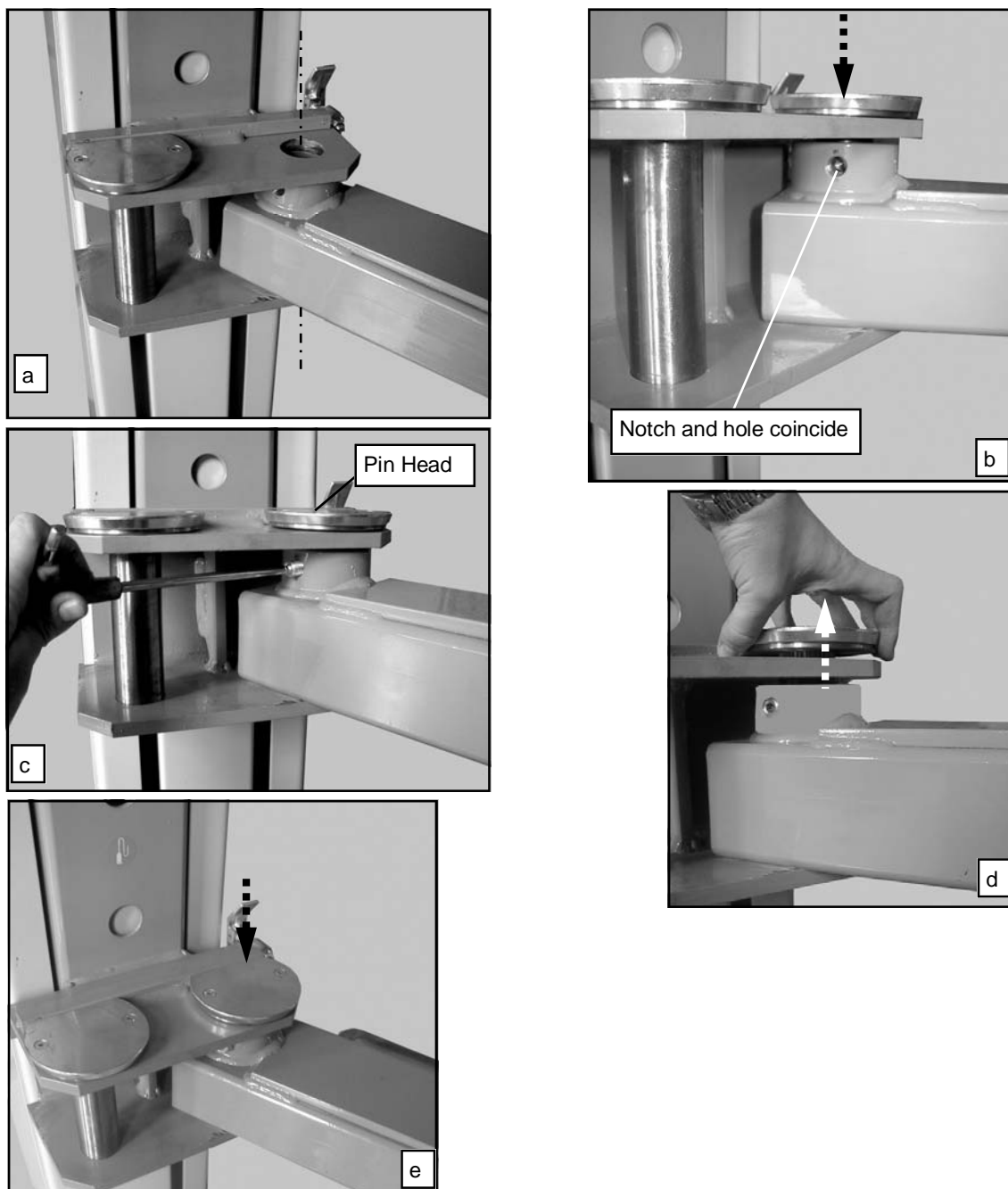


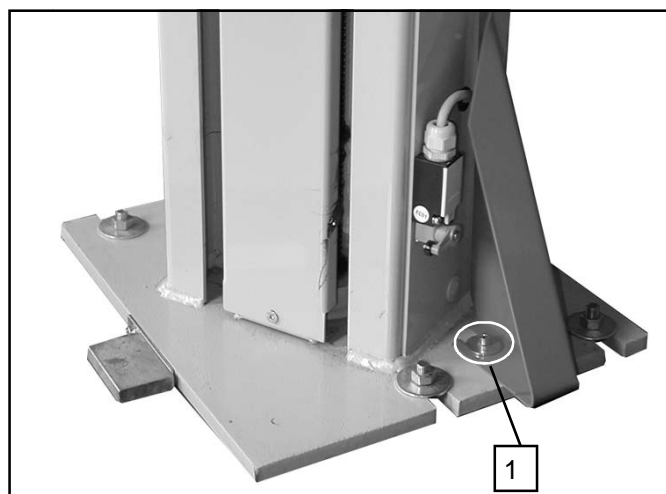
FIG. 26



7.10. Mounting the foot guards

Two foot guards are provided with the lift, one for each column. Fix the foot guards to the baseplates of each column from the long arm side, using the screw prefitted to the base plate itself (1 FIG. 27), as shown in FIG. 27.

FIG. 27



7.11.
Operation and
electronic card
check



WARNING

The following operations may only be carried out by a specialized technician.

- Lower the carriages using the “LOWERING” push-button and check that the lowering limit switches (FIG. 29) of both columns cut in, stopping the respective carriages at a distance of approximately 5 mm from the baseplate (FIG. 28) and that all four locking pins move to a position that allows all the lifting arms to rotate freely. Should the distance be different for one or both carriages, register the position of the corresponding lowering limit switch using the special register provided on the fixing of the limit switch lever.
- Make a short lift and check that the four locking pins reclose to lock the lifting arms again.

FIG. 28

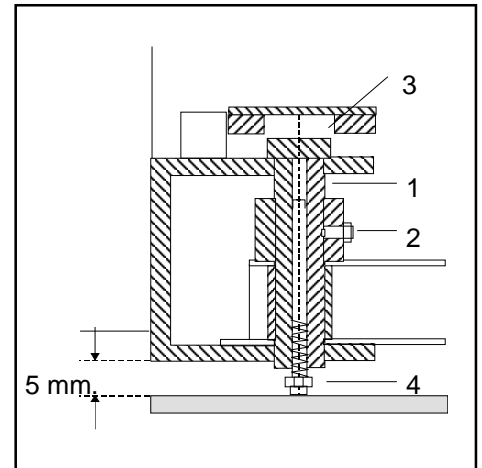
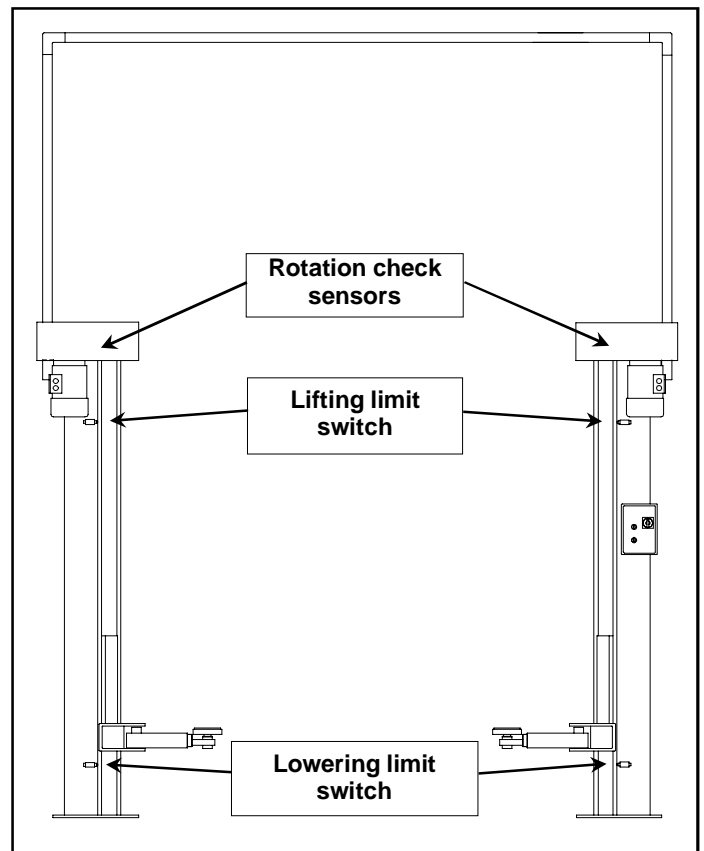


FIG. 29



The synchronization of the movement of the two arm-holder carriages is controlled by an electronic board on the electric control panel. Through two sensors, each located on the upper plate of the two columns (FIG. 22), the system controls the number of revolutions of the transmission screws and corrects possible inequalities within an allowed tolerance. When it trips, it stops the fastest screw motor, allowing the other carriage to reach the correct position.

During lifting and lowering, the arm carriages are under constant control. One of the two may stop and start again immediately if the alignment correction trips: this stop proves that the lift is operating as normal.

The lifting and lowering limit switches on the two columns (FIG. 29) reset the counts every time they are pressed.

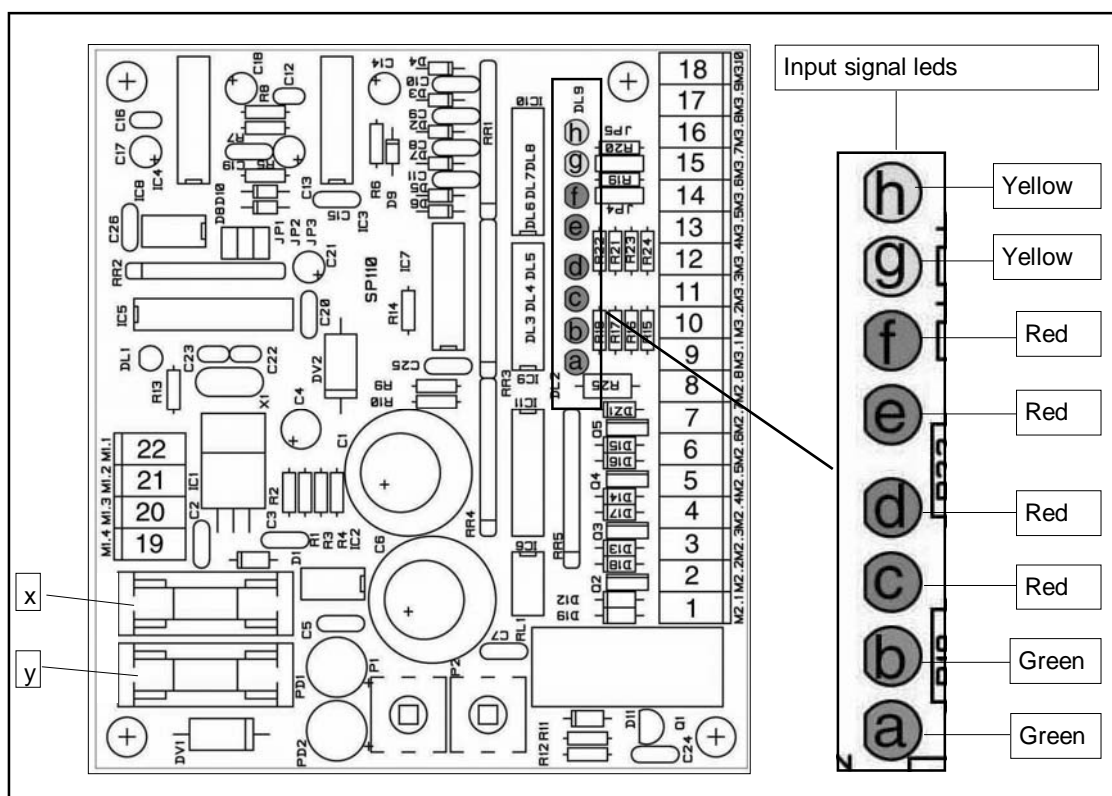


WARNING

- Even simple operations on the electric part require professionally skilled workers.
- Consult the manufacturer if the check of any of the functions listed below does not have a positive outcome.

The electronic board inside the control panel, on the push-button hatch, is fitted with a set of LEDs that are used to check the efficiency of the board itself and of the electric components installed on the lift.

FIG. 30



Leds a and b allow you to check that the LIFTING and LOWERING push-buttons function properly.

Check that:

- green LED (a) comes on when the LIFTING push-button is pressed.
- green LED (b) comes on when the LOWERING push-button is pressed.

Also check that:

- red LED (c) comes on when the arm-bearing carriage of the column with the electric control panel reaches the lifting limit switch.
- red LED (d) comes on when the arm-bearing carriage of the column without the electric control panel reaches the lifting limit switch.

In particular check that:

- red LED (e) comes on when the arm-bearing carriage of the column with the electric control panel reaches the lowering limit switch.
- red LED (f) comes on when the arm-bearing carriage of the column without the electric control panel reaches the lowering limit switch.

The yellow LEDs (g) and (h) must blink regularly during arm-bearing carriage lifting and lowering movements; they show correct operation of the 2 proximity switches: (g) for the column with the electric control panel and (h) for the other respectively.

If no lift movement occurs and the LEDs on the board do not light up when the LIFTING or LOWERING push-button is pressed, a check must be made of the efficiency of the two fuses (x) and (y) on the board itself and of that of the two fuses F1 and F2 (6 FIG. 41).

7.12.
Continuity test



WARNING

Non-continuity of the protection circuit can, in the case of a breakdown in the electric circuit, cause very serious health risks which may also be fatal in more serious cases.

When the lift has been assembled and all the electrical connections made, it is mandatory to make an instrumental test of the continuity of the equipotential protection circuit according to the regulations in force before the lift is put into service.

7.13.
Qualifications for use

Before delivery, the manufacturer conducted static and dynamic tests to ensure that the lift operates in safety conditions.

Tests were conducted using the test coefficients set by EN 1493:+ A1 standards. For this reason the user needs not conduct load tests in the place of use to check suitability.

In any case, should, for any reason, load tests be conducted on the lift, these must be conducted observing the procedures and load distributions listed in paragraph 20.0. - INSPECTION TESTS for this Booklet.



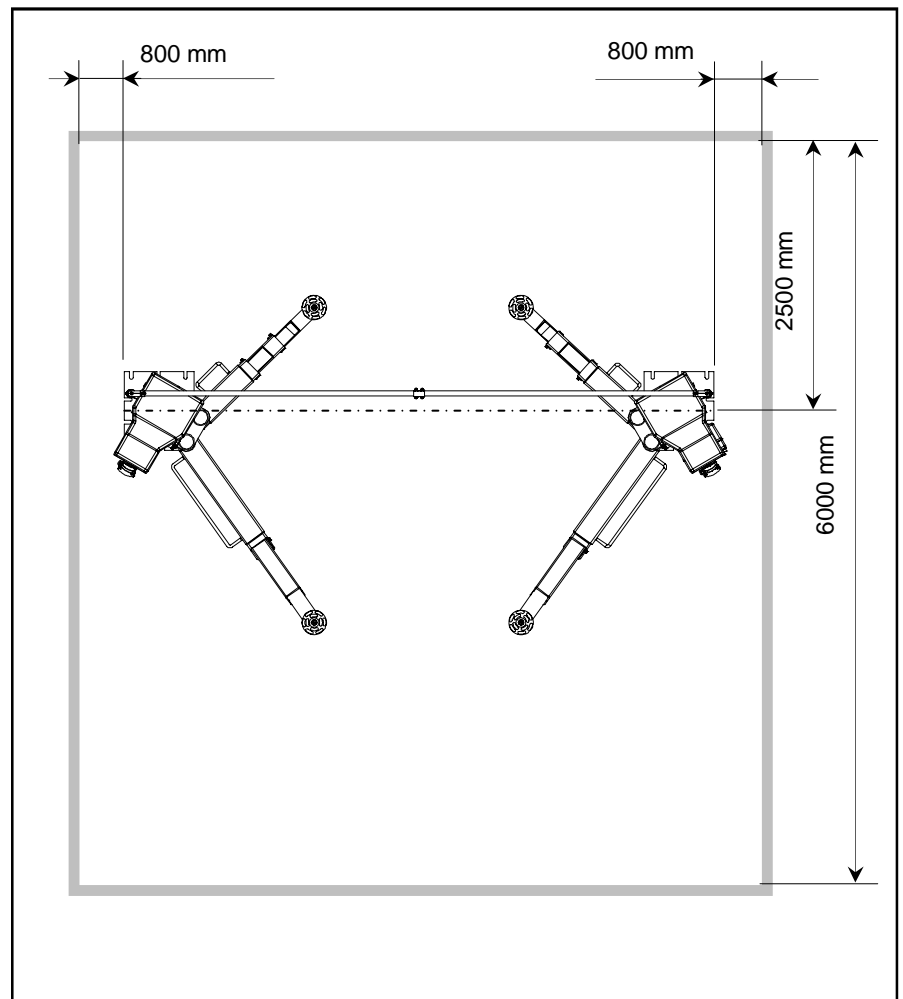
DANGER

The tests must only be made by specialized technical personnel. OMCN S.p.A. cannot take responsibility for damage or injury to people, animals or things caused by the machine due to incorrect loading or overloading.

8.0. HAZARDOUS LIFT AREA

Before using the lift, mark the operating area with yellow lines that must be visible from a distance, drawn on the ground as shown in FIG. 31. The yellow lines' width must be 100 mm.

FIG. 31



WARNING

When using the lift check that nobody is inside the operating area; if not so, stop all lift movement.

9.0. OPERATION



WARNING

Failure to apply the following instructions could lead to the expiration of the guarantee conditions and relieve the manufacturer of all and any responsibility for possible damage caused by using the lift.

- Once the lift has been installed, check that the floor fixing anchor bolts are all tight after the first 10 runs at full load.
- It is compulsory to check every 3 months that the anchors bolts have not loosened!
- This lift may only be used by authorized personnel: its use by personnel not acquainted with the instructions contained in this handbook is strictly forbidden.
- Make a daily check of the correct insertion of the arm locking pins.



- It is prohibited to use the lift and persist with the control buttons when the leadnut wear indicator shows excessive wear of the leadnut itself.
- Before lifting, ensure that the area above the vehicle is free of impediments and/or obstacles that could interfere with the movement.
- Work under the lifted vehicle only after turning the main switch to “0” (OFF).
- Before lowering, ensure that there are no objects and/or obstacles that could interfere with the movement in the area below the vehicle, the lifting arms and the trucks.
- For any requirements or assistance, please contact the authorised centres only and ask for original parts: the list of spare parts is included in this handbook.
- It is prohibited to lift loads of a weight greater than the rated capacity of the lift as shown on the manufacturer’s rating plate (FIG. 3).
- Position the vehicle to be lifted on board of the lift in compliance with the load distribution table (FIG. 2).
- In the event of a block of the lift's movements, an emergency lowering operation can be performed. This is done by following the instructions given in § 9.4. Emergency lowering – or contact the OMCN S.p.A. technical office for more detailed instructions.

9.1. Arm lock

Inside each of the pins connecting the arms to the carriage there is a mechanical device (arm lock) for locking the corresponding arm. This device cuts in automatically whenever the lifting phase starts, after which it remains cut in until the arms are returned to the ground (lowering limit switch). When the arm-bearing carriages are not in the lowering limit switch position and there is no load on the lift, one of the 4 arms can be rotated by manually pulling the head of the corresponding pin upwards (d FIG. 26): this allows the locking device to be cut out. The locking device cuts in automatically as soon as the head is replaced into its housing.

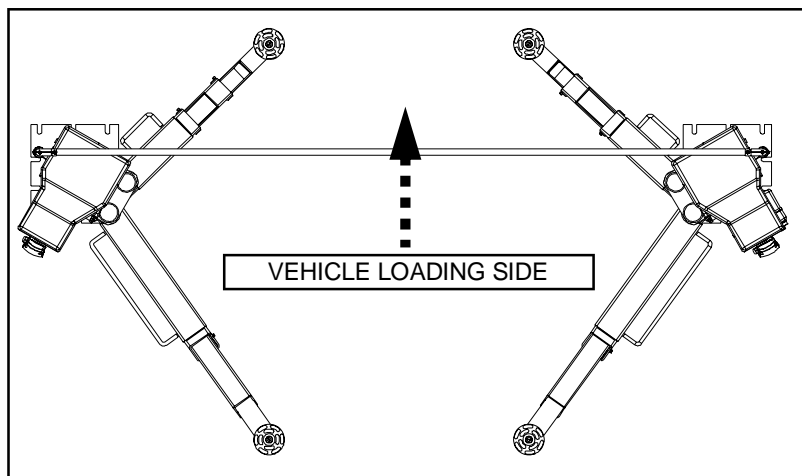
9.2. Lifting

- With the carriages fully lowered load the vehicle to be lifted between the two columns, from the vehicle load end (the one corresponding to the long arms, see FIG. 32) so that the load distribution table (FIG. 2) is respected and the heavier part of the vehicle is at the short arm end.
 - Register the length of the removable lifting arms so that the pads are positioned below the lifting points for lifting the vehicle.
- Note: the correct lifting points for lifting any vehicle are provided by the manufacturer.



To obtain correct support for the load it is mandatory to lengthen or shorten all arms using removable extensions by the same amount.

FIG. 32



- Regulate the height of the four pads according to the height of the grip points of the vehicle to be lifted: the regulation of the pads must be such that when all the pads are in contact with their respective lifting points and that, once lifted for a few centimeters, the vehicle is parallel to the ground.
- Set the main switch (FIG. 33) to ON.
- The "LIFTING" button (FIG. 33) is a maintained action button: pressing it starts the movement, releasing it stops the movement immediately.
- Press the "LIFTING" button and stop lifting after a few centimeters, then check the correct positioning of the pads in correspondence with the vehicle's lifting points and the stability of the vehicle itself of the pads.
The lifting phase can be continued if the above conditions are met.
- If the "LIFTING" button is kept pressed, the lifting phase stops due to the lifting limit switch cutting in when the lift has reached its maximum height: **when the lift is taken to its maximum height it is mandatory to keep the "LIFTING" button pressed until both carriages reach the lifting limit switch, tripping the respective switches. This realigns the carriages automatically.**

FIG. 33, 34

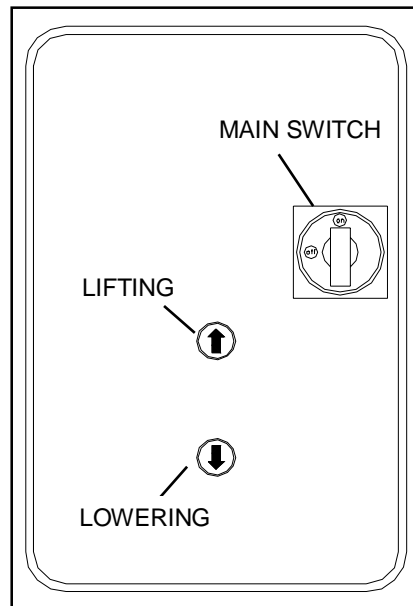


FIG. 33

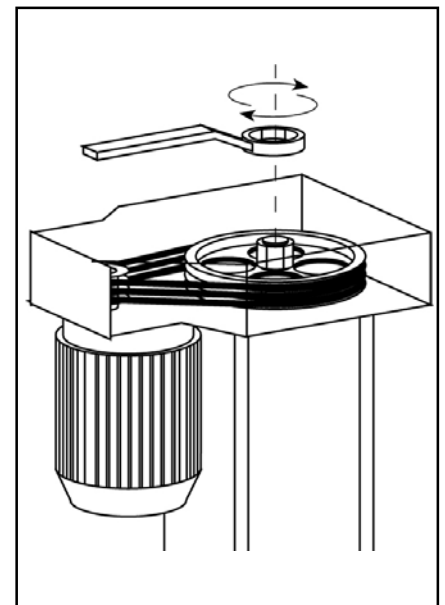


FIG. 34

9.3. Lowering

- The "LOWERING" button (FIG. 33) is a maintained action button: pressing it starts the movement, releasing it stops the movement immediately.
- After having checked that the area below the raised vehicle and the area below the lifting arms are free of objects and/or obstacles that could interfere with lowering, press the "LOWERING" button to start lowering.
- Keeping the "LOWERING" button pressed, the lowering phase stops due to the cutting in of the lowering limit switch: **when the lift is lowered completely it is mandatory to keep the "LOWERING" button pressed until both arm-bearing carriages have reached the lowering limit switch, tripping the respective switches. This realigns the carriages automatically.**

9.4. Emergency lowering

In the event of power failure, you can lower the lift manually by turning the nut (close to the transmission screw) anti-clockwise inside each column cover using the hexagonal wrench CH 46 (FIG. 34).



DANGER

When lowering the arm carriages alternately, take the greatest care not to create a distance of more than 100 mm between them: danger of the raised load falling!

10.0. SAFETY DEVICES

The lift is equipped with the following safety devices that protect the operator and the machine.

- The lift's controls are hand-held (with operator present), so movement is immediately interrupted as soon as the relative buttons are released.
- Power supply line sectioning is activated by a yellow and red switch (main switch, FIG. 33).
- The emergency stop is activated by the main switch, which is also the disconnecting switch.
- Synchronization of the movement of the arm carriages is done by an electronic device that compares the number of transmission screw turns (detected by two turn counter sensors installed on the upper plate of the two columns) and corrects possible inequalities automatically. This device stops the lift movements if an obstacle is found underneath the lifting arms or arm carriages.
- Automatic reset of the turns count relative to the two transmission screws at the lowering and lifting limit switches: this device counts the number of screw turns.
- Mechanical device located on the load-bearing leadnut's wear control; excessive wear or breakage of the load-bearing leadnut may block the movement of the screws, requiring the leadnuts of all columns to be replaced.
- Foot-guards: a fixed foot-guard protection is installed on the baseplate of each column. Each arm is also fitted with its own foot avoider.
- Mechanical arm stop: cuts in automatically whenever a lifting from the ground phase starts within 20 mm of lifting, after which it remains cut in until the arms are returned to the ground (lowering limit switch). This mechanism keeps the vehicle stable when it is being lifted.
- Parachute device: a safety leadnut, normally unloaded, cuts in automatically if the load-bearing leadnut should break, preventing the arm carriage from falling.

Removal or tampering with the safety devices relieves the manufacturer of all and any responsibility caused by or referable to these actions and constitutes an infringement of European regulations.

11.0. ROUTINE MAINTENANCE

Routine maintenance includes all cleaning, lubricating, greasing and tuning operations that need to be carried out regularly at fixed intervals to ensure that the machine operates correctly and that the safety devices installed on the lift are in perfect working order.

All those operations not mentioned below are considered extraordinary operations, which may only be carried out by the manufacturer.

Your attention is also drawn to the importance of the periodic check to be made on your lift, annual check (see Periodic check report). Periodic checks and inspections must always be conducted by specialised OMCN S.p.A. personnel or our specifically trained personnel.



- The maintenance operations described below must be carried out by technical personal specializing in the specific sectors of mechanics and electrical technology.
- The times indicated below are conditioned by various factors, such as environmental conditions (presence of dust), intense use, frequent temperature changes, etc. In such cases, these times should be reduced accordingly.
- All cleaning and maintenance must be carried out in safe conditions. To this end, before starting any work on the lift, section it off from the power sources by turning the main switch to "OFF" and padlocking it.
- Removing the column-casings or the casings located on the upper plates of the columns is a dangerous operation. It must be performed by responsible personnel trained for the risks involved and only after having turned the main switch to "OFF".
- If during maintenance and inspection operations, enclosures or sheet metal covers are removed, make sure the fastening screws are not misplaced; after having carried out said operations, reassemble the enclosures using all the previously removed screws, otherwise use of the lift is prohibited.

To ensure that the machine operates correctly and efficiently, follow the instructions below.

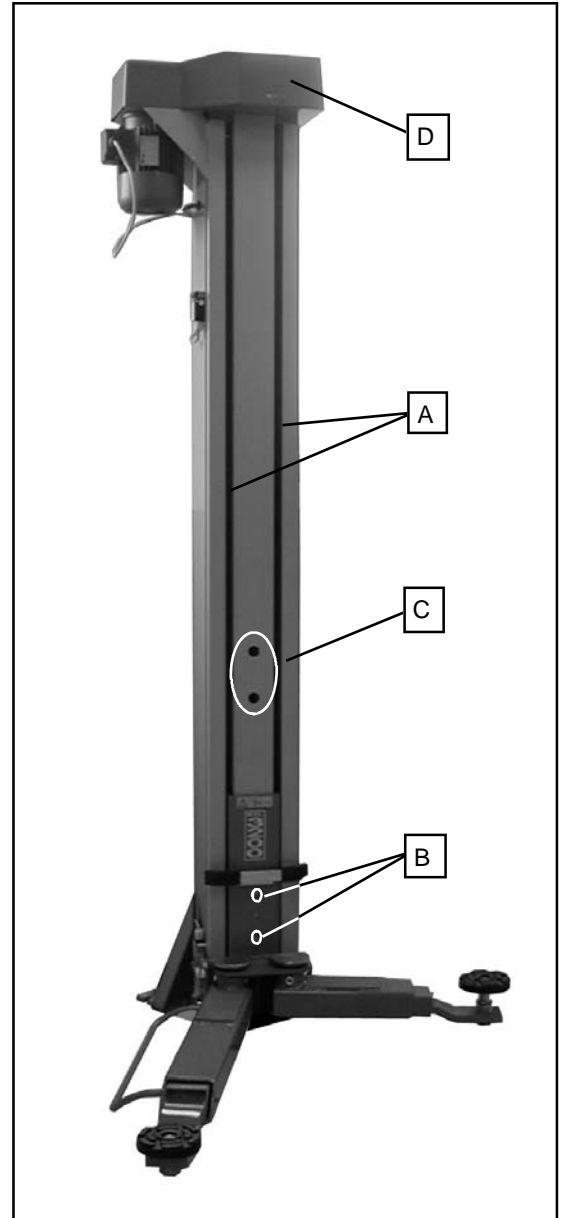
The devices transmitting movement to the screws (pulleys and transmission belts), the carriage sliding rollers (inside the columns) and the sliding guides (inside the columns) must be kept constantly clean.

Use TEXACO GREASE L EP 1 all-purpose grease (or equivalent) for all greasing operations.

- **Every month**

- For each column, through the free space between the screw protective casing and the column's plate (A FIG. 35), the reference rod for checking the wear of the load-bearing leadnut in correspondence with the upper part of the carriage (FIG. 36A). When the reference rod protrudes from the upper limit of the carriage by over 2 mm (as in FIG. 36B) the load-bearing leadnuts of both columns must be replaced. If you use the lift for more than the indicated limit, this leads to total wear of the load-bearing leadnuts and the "leadnut wear" safety mechanical device trips, preventing you from using it until the load-bearing leadnuts are replaced.

FIG. 35



WARNING

- If the reference rod of one or both columns indicates wear of the relative load-bearing leadnut, do not use the lift until it/they are replaced.
- If there is excessive wear in one or both load-bearing leadnuts, a mechanical safety device will stop the movement of the relative carriage when it is approximately 500 mm above floor level: if this happens, do not persist with the control buttons and do not use the lift until the load-bearing leadnuts have been replaced.

FIG. 36A, 36B

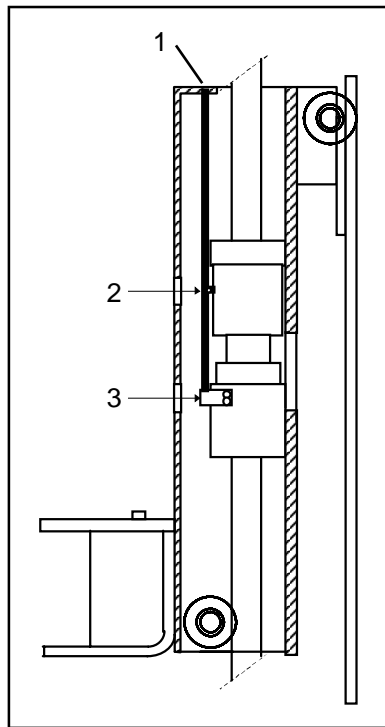


FIG. 36A. Reference rod (1) flush with the carriage: load-bearing leadnuts not worn.

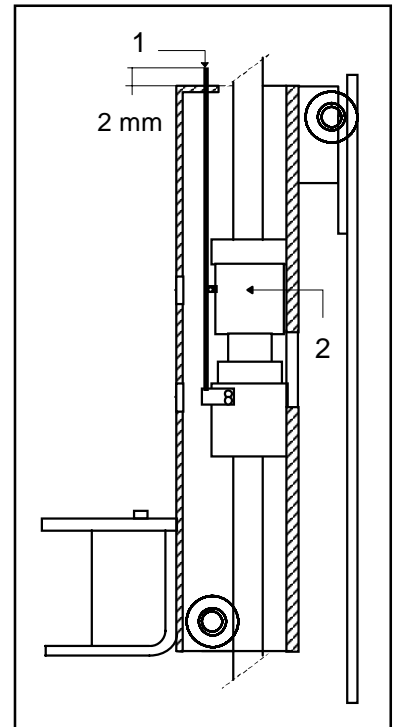
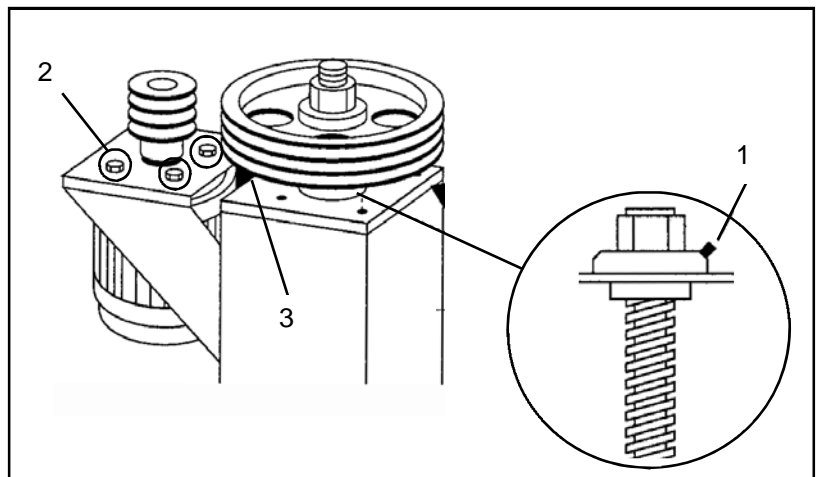


FIG. 36B. Reference rod (1) protrudes by 2 mm: load-bearing leadnuts to be replaced.

- For both columns: grease the load-bearing leadnuts (2 FIG. 36A) and the safety ones (3 FIG. 36A) through the specific grease nipples. It is unnecessary to remove the column protection casing to do this: stop the carriages when the two holes provided in the carriages (B FIG. 35) align with the two holes present in the casings (C FIG. 35) so that it is easy to access the grease nipples.
- For both columns: remove the casings installed at the top of the column and inject all-purpose grease in the specific grease nipples on the transmission screw support flange (1 FIG. 37), below the pulley.
- Check that belts are in good condition and the tension is correct.

FIG. 37



- **Every 3 months**

- Check that the two columns are securely bolted to the ground and that the anchor bolting torque is at least 70 N·m.
- Grease the sliding guides of the wheels (inside the column) and the wheels themselves through the free space between the screw protective casing and the column's plate (A FIG. 35): each carriage has 4 wheels.

12.0. TROUBLESHOOTING TABLE



WARNING

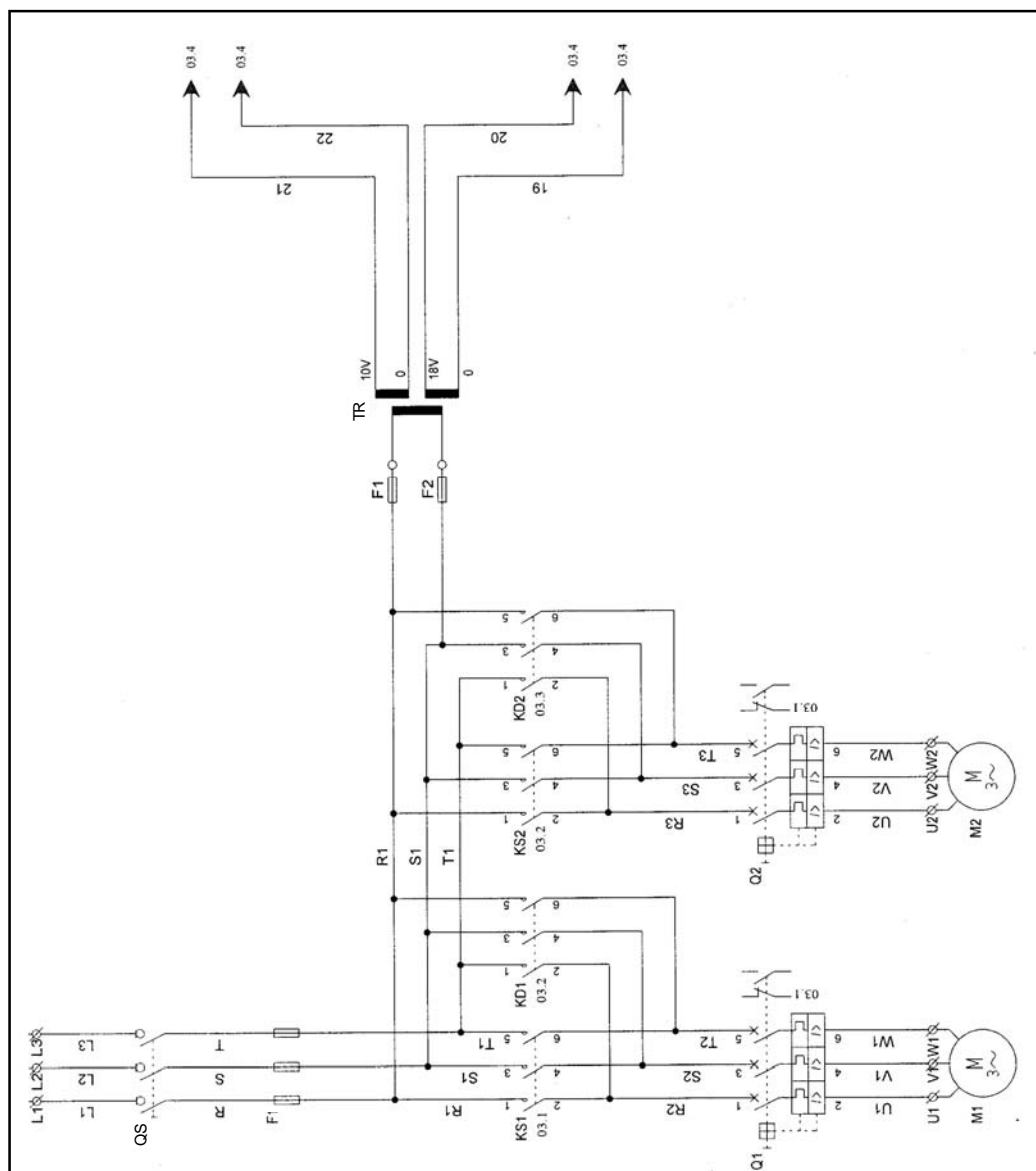
The interventions must be carried out by technical staff specialized in mechanics and electrical engineering.

| Symptom | Possible cause | Remedy |
|--|---|--|
| The lift fails to move | Main switch to "OFF" | Set the switch to "ON" |
| | Main switch fuses are disconnected | Replace the fuses |
| | Transformer fuses blown | Replace the fuses; should the problem persist call your retailer for technical assistance |
| | Fault in the electric system | Call your dealer for technical assistance |
| | The mechanical safety device cuts in due to excessive wear in the load-bearing leadnuts | Have the load-bearing leadnuts replaced by the OMCN S.p.A technical assistance service |
| The lift does not raise the vehicle to the maximum height (until the lifting limit switch trips) | The movement transmission belt of one or more columns is slack | Loosen the 4 motor holding screws (2 FIG. 37) and tension the transmission belt by tightening the screw on the motor support bracket (3 FIG. 37) to eliminate any slippage. Retighten the 4 motor holding screws |
| | Electric power supply line with insufficient voltage | Have the power supply line and electric control unit input voltage of the lift checked by a technician |
| | Incorrect power supply cable section | Have the section of the power supply cable checked by a specialized technician and adapt it if necessary |
| The lift rises and descends unevenly (in jerks) | Carriage sliding rollers worn | Check the condition of the carriage rollers: call the OMCN S.p.A. technical service for a replacement |
| | Carriage levelling control devices out of position | For each column: check the correct fixing of the turn counter sensor and the striker plate, put it back in position if necessary (§ 7.8., FIG. 22) |
| Noise from the transmission screw when the carriages of the two columns are in motion | Insufficient leadnut and roller guide lubrication | Carry out routine maintenance as described in § 11.0.- ROUTINE MAINTENANCE |
| | Load-bearing leadnut over worn | Check the level of wear in the load-bearing leadnut as described in § 11.0: if excessive, have both load-bearing leadnuts replaced by the OMCN S.p.A. technical assistance service |
| | Carriage rollers worn | Check the condition of the carriage rollers (4 rollers per carriage): call the OMCN S.p.A. assistance service for a replacement |
| | Impurities or dirt on the slideways | Remove the front protective guard and clean the slideways thoroughly. Grease before refitting |
| Columns vibrate too much without a load | Lift installed on an irregular surface | Take steps to level the floor on which the lift is installed |
| The carriage on one column stops frequently during operation | Speed indicator sensor out of position | For each column: check the correct fixing of the turn counter sensor and the striker plate, put it back in position if necessary (§ 7.8., FIG. 22) |
| | Malfunction in the electronic board for carriage alignment control | Contact the technical department of OMCN S.p.A. |

If problems persist even after applying the above solutions, contact OMCN S.p.A. and avoid any non-specific operations.
Only purchase original spare parts. The list of spare parts is included in this instruction handbook.

13.0. ELECTRIC DIAGRAM (Part 1/2)

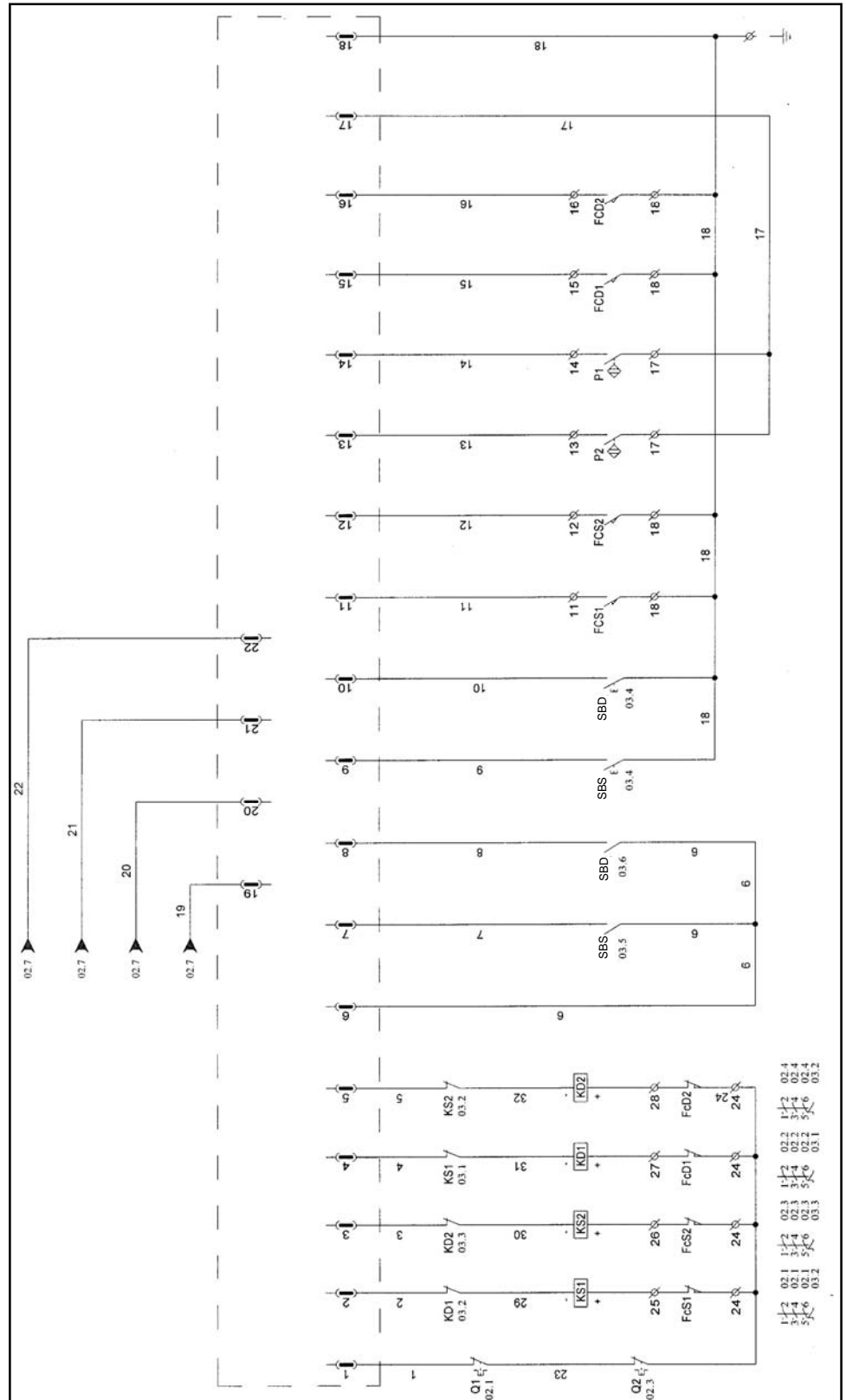
FIG. 38



WARNINGS

Even simple electrical operations require professionally qualified staff.

FIG. 39

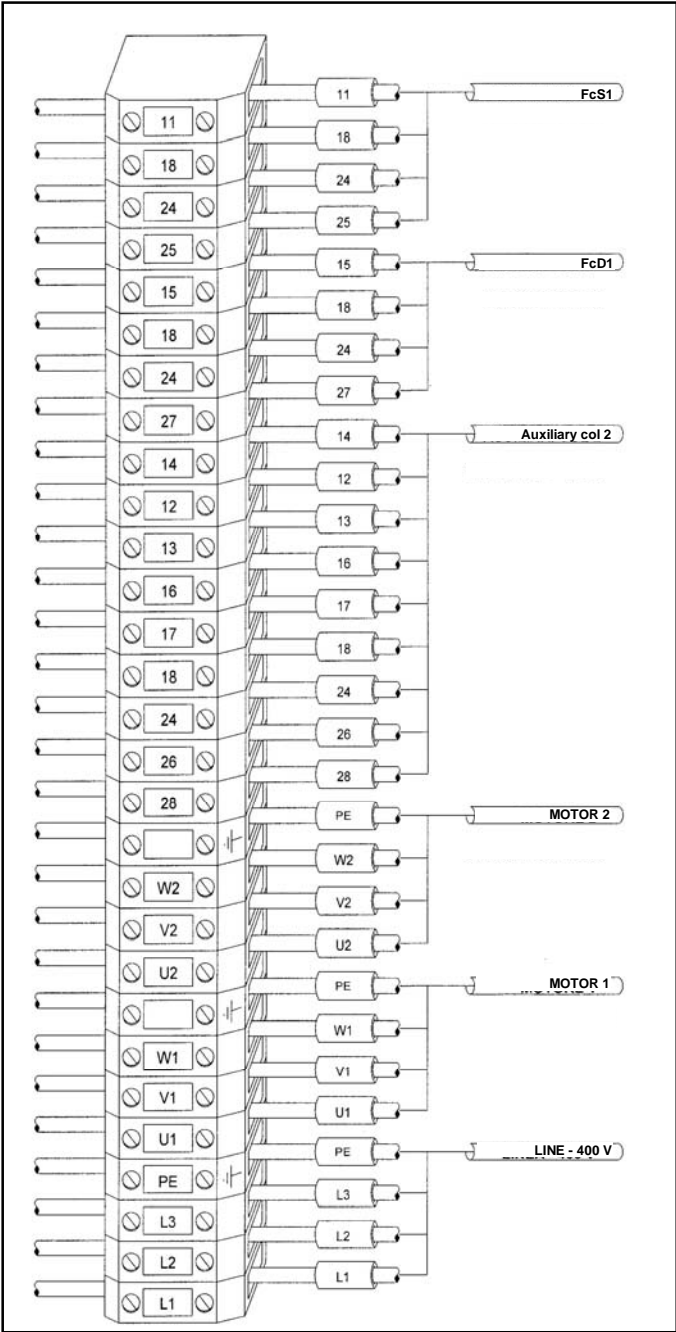


WARNINGS

Even simple electrical operations require professionally qualified staff.

13.1.
Terminal board

FIG. 40



WARNINGS

Even simple electrical operations require professionally qualified staff.

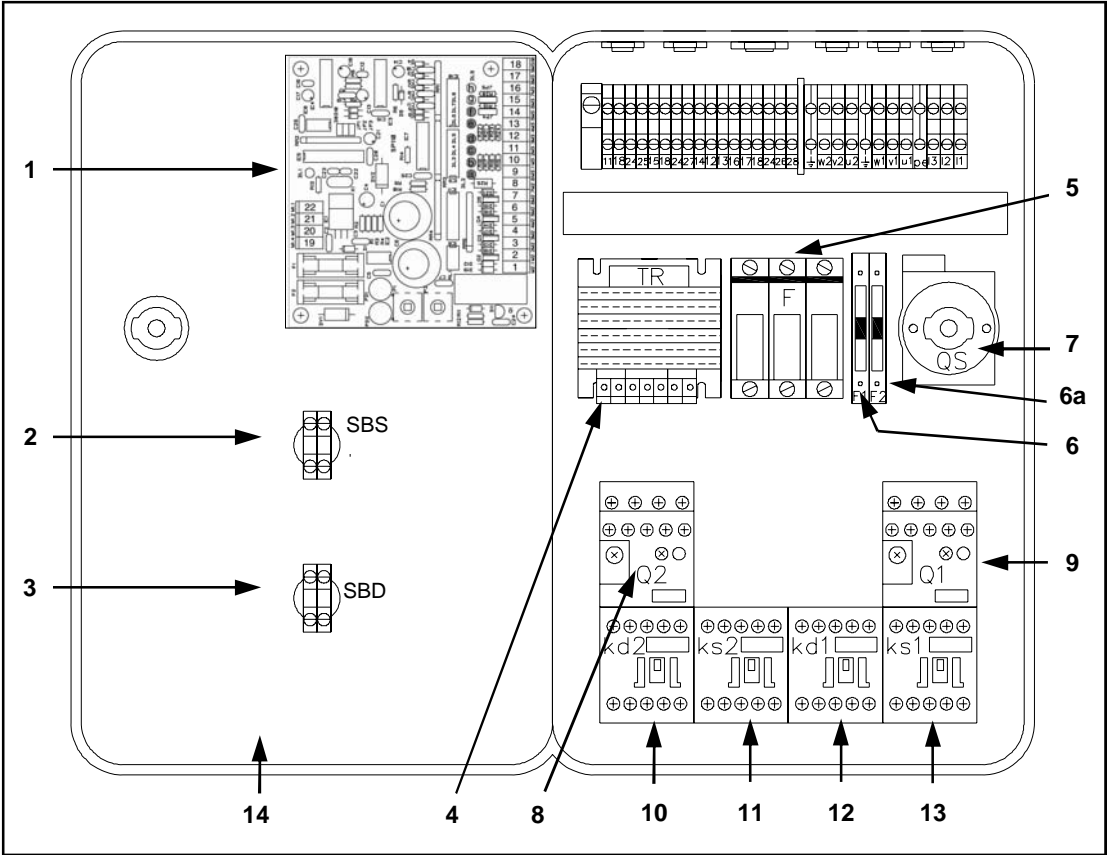
13.2.
Electric diagram of
components

| | | | |
|------------|-------------------------------|----------------|---------------------------------|
| QS | Main switch | F1 - F2 | Transformer protection fuses 1A |
| F | 25A line fuses | TR | Transformer |
| KS1 | Lifting contactor - column 1 | FcS1 | Lifting limit switch - column 1 |
| KD1 | Lowering contactor - column 1 | FcS2 | Lifting limit switch - column 2 |
| KS2 | Lifting contactor - column 2 | FcD1 | Lowering limit switch column 1 |
| KD2 | Lowering contactor - column 2 | FcD2 | Lowering limit switch column 2 |
| Q1 | Thermal relay column 1 | SBS | Lifting push-button |
| Q2 | Thermal relay column 2 | SBD | Lowering push-button |
| M1 | Motor - column 1 | P1 | Proximity switch - column 1 |
| M2 | Motor - column 2 | P2 | Proximity switch - column 2 |

Note: the column fitted with the electric control unit is n° 1.

14.0.
CONTROL BOARD
SPARE PART
TABLE

FIG. 41



14.1.
Control board spare
part list

| REF. | NAME | ORDER CODE |
|-------|--|---------------|
| PANEL | Electric panel complete | OMCAABX000019 |
| 1 | Electronic board for alignment control | OMCAABN000156 |
| 2 | Lifting button complete - SBS | OMCELRC199G02 |
| | Lifting button (only button) | OMCAABP000010 |
| | Auxiliary contact NA | OMCAABP000009 |
| 3 | Lowering button complete - SBD | OMCELRC199G02 |
| | Lowering button (only button) | OMCAABP000010 |
| | Auxiliary contact NA | OMCAABP000009 |
| 4 | Transformer | OMCAABN000055 |
| 5 | Fuse - F - 10x38 25A aM | OMCAABN000054 |
| | Fuse-holder 3P 10x38 | OMCAABN000053 |
| 6 | Fuse - F1 - 5X20 1AT | OMCAABN000072 |
| | Fuse-holder | OMCAAFW000009 |
| 6a | Fuse - F2 - 5X20 1AT | OMCAABN000072 |
| | Fuse-holder | OMCAAFW000009 |
| 7 | Main switch - QS | OMCAABP000040 |
| 8 | Thermal relay motor column 2 - Q2 | OMCAABP000007 |
| 9 | Thermal relay motor column 1 - Q1 | OMCAABP000007 |
| 10 | Lowering contactor column 2 - KD2 | OMCAABP000006 |
| 11 | Lifting contactor column 2 - KS2 | OMCAABP000006 |
| 12 | Lowering contactor column 1 - KD1 | OMCAABP000006 |
| 13 | Lifting contactor column 1 - KS1 | OMCAABP000006 |
| 14 | Perforated box | OMCAABV000002 |

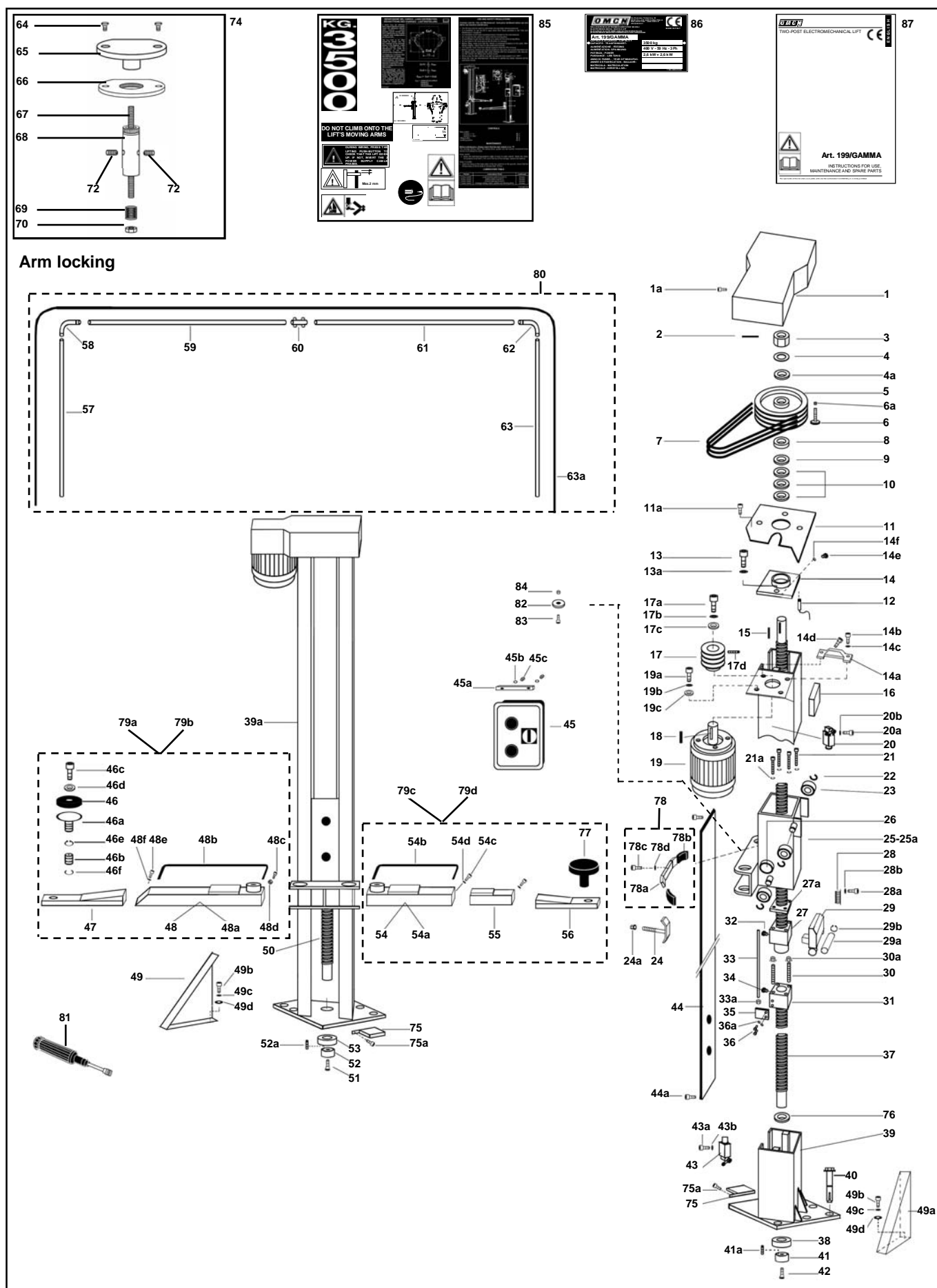


WARNINGS

Even simple electrical operations require professionally qualified staff.

15.0. LIFT SPARE PARTS TABLE

FIG. 42



15.1.

Lift spare parts list

| REF. | NAME | ORDER CODE |
|------|----------------------|---------------|
| 1 | Motor housing | OMCAAAK000001 |
| 1a | Screw | OMCAABQ000014 |
| 2 | Fastpin | OMCAABQ000234 |
| 3 | Nut | OMCAABZ000004 |
| 4 | Washer | OMCAABQ000025 |
| 4a | Washer | OMCAAAE000003 |
| 5 | Screw pulley | OMCAAAV000026 |
| 6 | Sensor striker plate | OMCAAAD000166 |
| 6a | Nut | OMCAABQ000039 |
| 7 | Belt | OMCAABB000005 |
| 8 | Bearing | OMCAAN000001 |
| 9 | Spacer | OMCAAAW000018 |
| 10 | Thrust bearing | OMCAAAP000001 |
| 11 | Housing base | OMCAABG000026 |
| 11a | Screw | OMCAABQ000014 |
| 12 | Turn counter sensor | OMCAADW000003 |
| 13 | Screw | OMCAABQ000012 |
| 13a | Washer | OMCAABQ000035 |
| 14 | Plate | OMCAARC199U08 |
| 14a | Belt tightener | OMCAAAV000003 |
| 14b | Screw | OMCAABQ000009 |
| 14c | Washer | OMCAABQ000030 |
| 14d | Screw | OMCAABQ000072 |
| 14e | Greaser | OMCAABZ000005 |
| 14f | Washer | OMCAADA000043 |
| 15 | Key | OMCAABQ000021 |
| 16 | Junction box | OMCAACV000004 |
| 17 | Motor pulley | OMCAAB000048 |
| 17a | Screw | OMCAABQ000028 |
| 17b | Washer | OMCAABQ000086 |
| 17c | Washer | OMCAABQ000060 |
| 17d | Dowel | OMCAABQ000209 |
| 18 | Key | OMCAABQ000518 |
| 19 | Motor | OMCAABE000004 |
| 19a | Screw | OMCAABQ000009 |
| 19b | Washer | OMCAABQ000030 |
| 19c | Washer | OMCAABQ000059 |
| 20 | Lifting limit switch | OMCAARCFC1G00 |
| 20a | Screw | OMCAABQ000008 |
| 20b | Washer | OMCAABQ000055 |
| 21 | Screw | OMCAABQ000329 |
| 21a | Washer | OMCAABQ000252 |

| REF. | NAME | ORDER CODE |
|------|--|---------------|
| 22 | Snap ring | OMCAABQ000251 |
| 23 | Guide block | OMCAAAF000006 |
| 24 | Limit switch cut-in lever | OMCAAAV000011 |
| 24a | Nut | OMCAABQ000053 |
| 25 | Column arm-bearing carriage with the electric control panel | OMCAARCE00009 |
| 25a | Column arm-bearing carriage without the electric control panel | OMCAARCE0010 |
| 26 | Diskette | OMCAAAF000003 |
| 27 | Load-bearing leadnut | OMCAAAD000001 |
| 27a | Vibration-proof spacer | OMCAAL000048 |
| 28 | Spring | OMCAABT000001 |
| 28a | Screw | OMCAABQ000122 |
| 28b | Washer | OMCAABQ000019 |
| 29 | Wear safety device | TES0002500001 |
| 29a | Pin | OMCAAAW000016 |
| 29b | Snap ring | OMCAABQ000064 |
| 30 | Screw | OMCAABQ000067 |
| 30a | Nut | OMCAABQ000053 |
| 31 | Safety leadnut | OMCAAAF000002 |
| 32 | Greaser | OMCAABZ000005 |
| 33 | Wear check rod | OMCAABQ000444 |
| 33a | Nut | OMCAABQ000232 |
| 34 | Greaser | OMCAABZ000005 |
| 35 | Wear check rod lever | OMCAAAZ000103 |
| 36 | Screw | OMCAABQ000069 |
| 36a | Washer | OMCAABQ000070 |
| 37 | Drive screw | OMCAABW000001 |
| 38 | Bearing | OMCAAAQ000002 |
| 39 | Column with electric panel | OMC0002500025 |
| 39a | Column without electric panel | OMC0002500125 |
| 40 | Anchor | OMCAABQ000002 |
| 41 | Bearing washer | OMCAAAZ000137 |
| 41a | Dowel | OMCAABQ000409 |
| 42 | Screw | OMCAABQ000333 |
| 43 | Lowering limit switch | OMCAARCF1G00 |
| 43a | Screw | OMCAABQ000008 |
| 43b | Washer | OMCAABQ000055 |
| 44 | Front dust retainer guard | OMCAABG000028 |
| 44a | Screw | OMCAABQ000058 |
| 45 | Control board | OMCAABX000019 |

| REF. | NAME | ORDER CODE |
|------|--|----------------|
| 45a | Bracket | OMCAAAE000002 |
| 45b | Washer | OMCAABQ000201 |
| 45c | Nut | OMCAABQ000087 |
| 46 | Pad | OMCAAL000013 |
| 46a | Pad bearing plate | OMCAAAE000112 |
| 46b | Reduction bushes | OMCAACN000001 |
| 46c | Screw | OMCAABQ000036 |
| 46d | Washer | OMCAABQ000042 |
| 46e | Snap ring | OMCAABQ000043 |
| 46f | Ring | OMCAABQ000219 |
| 47 | Long arm extension | OMCAARCGA0003 |
| 48 | Column long telescopic arm with electric panel | OMCAARCDE0001 |
| 48a | Column long telescopic arm without electric panel | OMCAARCDE0002 |
| 48b | Foot moving guard | OMCAARC199U49B |
| 48c | Screw | OMCAABQ000395 |
| 48d | Nut | OMCAABQ000132 |
| 48e | Screw | OMCAABQ000207 |
| 48f | Washer | OMCAABQ000030 |
| 49 | Column foot-guard without electric panel | OMCAABG000010 |
| 49a | Column foot-guard with electric panel | OMCAABG000011 |
| 49b | Screw | OMCAABQ000037 |
| 49c | Washer | OMCAABQ000019 |
| 49d | Washer | OMCAABQ000059 |
| 50 | Drive screw | OMCAABW000001 |
| 51 | Screw | OMCAABQ000333 |
| 52 | Bearing washer | OMCAAAZ000137 |
| 52a | Dowel | OMCAABQ000409 |
| 53 | Bearing | OMCAAAQ000002 |
| 54 | Column short telescopic arm with electric panel | OMCAARCDE0004 |
| 54a | Column short telescopic arm without electric panel | OMCAARCDE0005 |
| 54b | Foot moving guard | OMCAARC199U58B |
| 54c | Screw | OMCAABQ000207 |
| 54d | Washer | OMCAABQ000030 |
| 55 | 1 st short arm extension | OMCAARCDE0006 |
| 56 | 2 nd short arm extension | OMCAARCGA0004 |
| 57 | Vertical cable duct | OMCAARC199GK57 |
| 58 | 90° coupling | OMCAABN000023 |

| REF. | NAME | ORDER CODE |
|------|---|-----------------|
| 59 | Horizontal cable duct | OMCAARCGA00011 |
| 60 | Straight coupling | OMCAABN000024 |
| 61 | Horizontal cable duct | OMCAARCGA00011 |
| 62 | 90° coupling | OMCAABN000023 |
| 63 | Vertical cable duct | OMCAARC199GK57 |
| 63a | Overhead connection cables kit | OMCAABX000070 |
| 64 | Screw | OMCAABQ000058 |
| 65 | Plate | OMCAAAW000013 |
| 66 | Toothed flange | OMCAAAW000004 |
| 67 | Internal bar | OMCAAB0000845 |
| 68 | Pin | OMCAAB0000846 |
| 69 | Spring | OMCAABT000009 |
| 70 | Nut | OMCAABQ000057 |
| 72 | Lock dowel | OMCAABQ000032 |
| 74 | Complete arm lock | OMCAARCDE0008 |
| 75 | Arm locking opening base | OMC0000020003 |
| 75a | Screw | OMCAABQ000014 |
| 76 | Splashguard washer | OMCAAM000007 |
| 77 | Complete rubber pad | OMCAARC199U51 |
| 78 | Door cover complete | OMCAARC199U66 |
| 78a | Bracket | OMCAAAD000012 |
| 78b | Rubber | OMCAAL000006 |
| 78c | Screw | OMCAABQ000014 |
| 78d | Washer | OMCAABQ000019 |
| 79a | Column complete long telescopic arm with electric panel | OMCAARCGA00005 |
| 79b | Column complete long telescopic arm without electric panel | OMCAARCGA00006 |
| 79c | Column complete short telescopic arm with electric panel | OMCAARCGA00007 |
| 79d | Column complete short telescopic arm without electric panel | OMCAARCGA00008 |
| 80 | Complete overhead connection kit | OMCAARCGA00010 |
| 81 | Grease pump | OMCAAI000001 |
| 82 | Sliding block | OMCAAB0000762 |
| 83 | Screw | OMCAABQ000085 |
| 84 | Nut | OMCAABQ0000655 |
| 85 | Complete set of adhesives | A199GAMMA1ES001 |
| 86 | Metal plate | T199GAMMA1S003 |
| 87 | Instruction manual | L199GAMMA1ES003 |

16.0. SETTING ASIDE AND RESTARTING THE LIFT

If the lift is set aside for long periods, disconnect all power supply sources and protect all those parts that might get damaged by dust deposits (control panel, transmission screw and transmission parts in general).

When the lift is put back into service after a long period of inactivity, it is mandatory to carry out complete and careful cleaning, therefore grease all the parts referred to in the maintenance paragraph with new grease. Finally carry out a careful check of the operation of the lift and the safety devices and check the condition of the motor – screw transmission belts.

17.0. SCRAPPING THE MACHINE

When it is decided to stop using this machine, or at the end of its life cycle, it is recommended to make it inoperable by disconnecting it from any power source and removing the grease and lubricants from the parts involved. Eliminate any deposits in hidden points.

Since the lift must be disposed of as special waste, dismantle it into homogeneous parts and carry out the disposal in compliance with the local regulations in force.

18.0. ACCESSORIES UPON REQUEST

In order to improve machine performance, and at the same time make its use safer and practical, OMCN S.p.A. offers a series of accessories which are adaptable to the machine models found in the booklet.

OMCN's catalogue lists all the accessories that can be used on each machine model.

Specific instructions for using the accessory safely are supplied with the accessory, and not mentioned in the handbook for the sake of brevity.

19.0. HOW TO ORDER SPARE PARTS

The authorised dealer must be given the following data to order a spare part:

- Lift model.
- Lift serial number, Instruction handbook code reported in the centre of each page.
- The code of the spare part required.

20.0. FACTORY TEST

This lift has been assembled and set at work by the manufacturer on its premises. The following components of the safety devices and moving parts have been tested:

- 1) Carriage sliding check inside the column slideways.
- 2) Operating test on lifting limit switch.
- 3) Operating test on leadnut wear device.
- 4) Operating test on automatic alignment device.
- 5) Lowering limit switch functional test.
- 6) Operating check on arm lock (sliding and engagement in place).
- 7) Magnetothermal switch calibration in relation to motor size.

During inspection, the lift was subjected to the following load tests:

- **Static load test:** A load of over 150% of the nominal load was placed in the most unfavourable position on the lift and left for a sufficient length of time.
- **Dynamic load test** A load of over 115% of the nominal load was placed on the lift in the most unfavourable position. The test load was lifted several times without stopping.

20.1. Static overload test

Lift platform load distribution is 2:1 and 1:2 and meets the clauses indicated in standard EN 1493 + A1 point 5.6.4.2.

Tests were conducted with support arms extended to create a load rectangle sized 1000 mm x 1800 mm pursuant to the standard.

Lift conformation:

The lift is fitted with the accessories for use and the arms extended.

Load capacity: $C_{MAX} = 3500$ kg

Test coefficient CPs = 1,5

Standard test load: $C_s = 1,5 \times C_{MAX} = 1,5 \times 3500$ kg = 5250 kg

Load distribution:

$C_{s1} = 2/3 \times CPs = 3500$ kg

$C_{s2} = 1/3 \times CPs = 1750$ kg

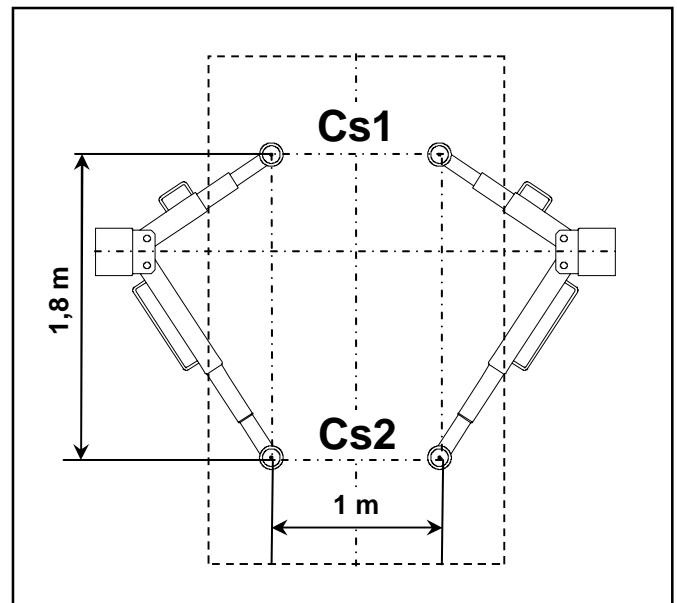
$C_s = C_{s1} + C_{s2} = 5250$ kg

Tests were conducted by initially placing a load on the lift with rated load capacity (3500 kg) at maximum height and then applying the load difference (first 583 kg on one side and, then, 1167 kg on the opposite side) required to reach the test load so as not to cause dynamic effects or abnormal overloads on one of the two sides of the lift.

Static test 1

The test was conducted by distributing loads as indicated in FIG. 43, with CS1 on the part where the short support arms are located.

FIG. 43



Lift conformation during testing:

fully lifted to upper limit stop of the arm carriages (maximum height). Loads were progressively applied to the structure using a sliding bridge crane to avoid dynamic effects.

Loads were kept on the structure for 60 minutes.

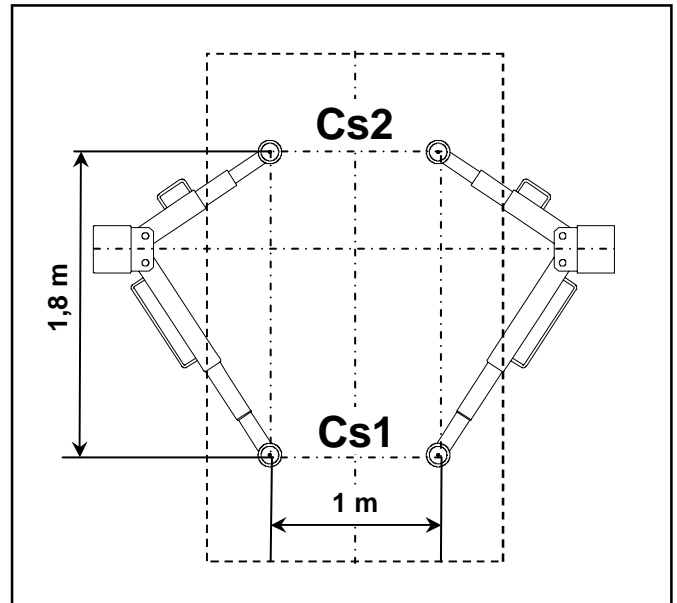
Test results:

no permanent deformation were found with the test load was released.

Static test 2

The test was conducted by distributing loads as indicated in FIG. 44, with CS1 on the part where the long support arms are located. The most unfavourable condition is created for the lift structure with this distribution.

FIG. 44



Lift conformation during testing:

fully lifted to upper limit stop of the arm carriages (maximum height). Loads were progressively applied to the structure using a sliding bridge crane to avoid dynamic effects. Loads were kept on the structure for 60 minutes.

Test results:

no permanent deformation were found with the test load was released.

20.2. Dynamic overload test

Lift platform load distribution is 2:1 and 1:2 and meets the clauses indicated in standard EN 1493 + A1 point 5.6.4.2.
Tests were conducted with support arms extended to create a load rectangle sized 1000 mm x 1800 mm pursuant to the standard.

Lift conformation:

The lift is fitted with the accessories for use and the arms extended.

Load capacity: $C_{MAX} = 3500$ kg

Test coefficient $CPd = 1,15$

Standard test load: $Cd = CPd \times C_{MAX} = 1,15 \times 3500$ kg = 4025 kg

Load distribution:

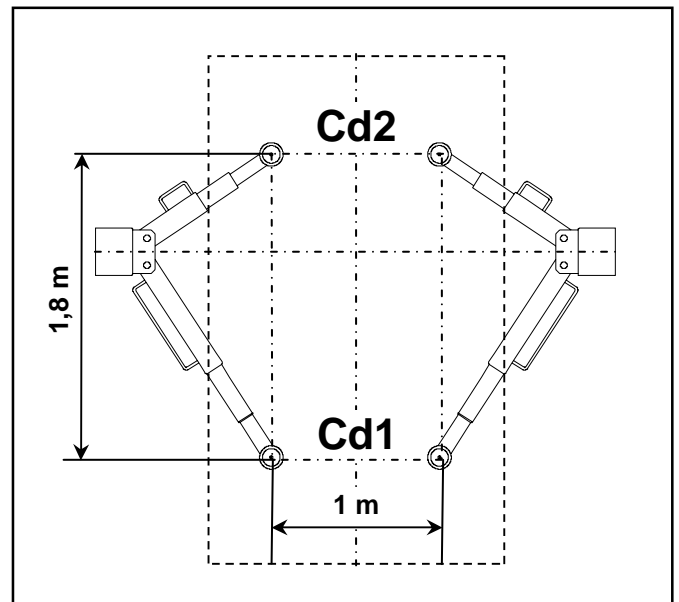
$Cd1 = 2/3 \times CPd = 2683$ kg

$Cd2 = 1/3 \times CPd = 1342$ kg

$Cd = Cd1 + Cd2 = 4025$ kg

The test was conducted by placing the test loads on the lowered lift. The dynamic test was limited to the sole conditions indicated in FIG. 45, and thus with $Cd1$ on the part where the long support arms are located, since it is more unfavourable for the lift.

FIG. 45



Lift conformation during testing:

Loads were progressively applied with a sliding bridge crane with the lift almost completely lowered to the ground.

The test load was fully lifted and lowered 3 times.

Test results:

no permanent deformation were found with the test load was released.

The operations and suitability of the various devices installed on the lift were checked with the dynamic test.

21.0. CONTROL REGISTER

21.1. Instructions for use

The instructions in this Register are provided pursuant to the legal provisions known at machine market introduction (or sale) date.

New safety regulations may be introduced after the machine is put into operations. These could change the user's responsibilities. Thus, despite the content of this Register, the user should also meet the new regulations.

The tables in this Register have been prepared to record the following events that concern machine working life:

- Machine identification data.
- Machine delivery to the first owner.
- Transfers of ownership.
- Registration of routine maintenance operations.
- Periodic checks and relevant registration.
- Machine part replacements (Mechanical, electrical and structural).

21.2. Register storage instructions

This Control Register is an integral part of the machine. It must be preserved and accompany the machine for its entire working life until final demolition. We suggest you periodically photocopy the content of this Register to preserve the registrations of inspections, service and track troubleshooting.

21.3. Regulatory references

This Control Register is issued by OMCN S.p.A., the manufacture of this device, as per Directive 2006/42/EC appendix I point 4.4.2., letter b).



21.4. Device identification data

Manually fill out the identification plate below listing:

- a) the year of manufacture,
- b) Serial number.

Original data are listed on the identification plate affixed to the machine:

FIG. 46

| | | | | | |
|--|--|---|--|---|--|
|  | | Via Divisione Tridentina, 23 24020 VILLADI SERIO (BG) ITALIA www.omcn.com - www.omcn.it info@omcn.it | |  | |
| SOLLEVATORE ELETTROMECCANICO PER VEICOLI ELECTROMECHANICAL VEHICLE LIFT ÉLEVATEUR ÉLECTROMÉCANIQUE POUR VÉHICULES ELEKTROMECHANISCHE HEBEBRÜCKE FÜR FAHRZEUGE | | | | | |
| Art. 199/GAMMA | | | | | |
| CAPACITÀ DI CARICO - CAPACITY CAPACITE - TRAGFÄHIGKEIT: | | 3500 kg | | | |
| ALIMENTAZIONE - FEEDING ALIMENTATION - SPANNUNG: | | 400 V - 50 Hz - 3Ph | | | |
| POTENZA - POWER PUISSANCE - LEISTUNG: | | 2,6 kW + 2,6 kW | | | |
| ANNO DI FABBR. - YEAR OF MANUFAC. ANNEE DE FABRICATION - BAUJAHR: | | <input type="text"/> | | | |
| MATRICOLA - MATRICULATION MATRICULE - HERSTELL NR.: | | <input type="text"/> | | | |
| T199GAMMA1S003 | | | | | |

(a) points to the Year of Manufacture field.
(b) points to the Serial Number field.

21.5.
First owner data

The machine was sold to

Company: _____

with registered offices in: _____, street name: _____

According to the conditions set in the contract (or order confirmation), with the technical, functional and dimensional features specified in the Instructions for use supplied with the machine.

21.6.
Ownership transfer registration

Machine ownership was transferred to

Company: _____

with registered offices in: _____, street name: _____, on date: _____

This is to certify that upon transfer of ownership, the technical, functional and dimensional machine features meet those originally foreseen as indicated in the Instructions for use and that any variations have been recorded in this Register.

The seller

The purchaser

(legal representative)

(legal representative)

21.7.
Service registration and routine maintenance

Routine maintenance to be conducted on the machine is listed in chapter ROUTINE MAINTENANCE, observe the listed schedules.

| PERFORMED ON DATE | TECHNICIAN'S SIGNATURE | NEXT CHECK DATE | NOTES |
|----------------------|---------------------------|--------------------|-------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |



WARNING

Periodical controls have the aim of ensuring good working condition and perfect efficiency for security purposes of the present machine, such controls must be carried out and registered by personnel qualified in a specific manner to carry out the said task. It is compulsory to carry out all of the following controls described with at least annual frequency (every 12 months), taking into account obligations to health and safety matters in the workplace and in the country in which the machine is being used. Furthermore every time that exceptional events intervene that could have consequences for the security of the machine, of which for example repairs, incidents or prolonged periods of inactivity it is still compulsory to carry out an extraordinary control.



WARNING

Your attention is drawn to the importance of the check to be made on your lift periodically. Periodic checks and inspections must always be conducted by specialised OMCN S.p.A. personnel or our specifically trained personnel.

The purpose of this report is to record the operations carried out during the periodic check of the lift. Compilation is the responsibility of the authorized personnel making the check.

PERIODIC TESTS REPORT

TESTING AND CONTROL OPERATIONS

| | | | | | | | | | | | |
|--|--|------------|--|------------|--|------------|--|------------|--|------------|--|
| Main switch operational | | Date: | | Date: | | Date: | | Date: | | Date: | |
| Lifting button operational | | Signature: | | Signature: | | Signature: | | Signature: | | Signature: | |
| Lowering button operational | | | | | | | | | | | |
| Correct arm carriage movement with respect to the control buttons | | | | | | | | | | | |
| Check on the correct working of the support devices | | | | | | | | | | | |
| Correct lifting limit switch operation | | | | | | | | | | | |
| Correct lowering limit switch operation | | | | | | | | | | | |
| Check on the load-bearing leadnut mechanical wear signal device | | | | | | | | | | | |
| Visual check of the wear in the load-bearing leadnuts | | | | | | | | | | | |
| Visual check of the wear in the transmission belt | | | | | | | | | | | |
| Correct arm insertion and lock hold operation | | | | | | | | | | | |
| Correct telescopic arm sliding | | | | | | | | | | | |
| Check on the correct operation of the automatic alignment device | | | | | | | | | | | |
| Correct check rotation sensors operation | | | | | | | | | | | |
| Tightness of the anchor bolts fixing the columns to the floor and uniform loading | | | | | | | | | | | |
| Column levelling and correct installation | | | | | | | | | | | |
| Check on the presence of lubricating grease in the load-bearing leadnuts and carriage sliding guides | | | | | | | | | | | |
| Check on the correct assembly of the foot-guards | | | | | | | | | | | |
| EC data plate check | | | | | | | | | | | |
| Check on the position of the adhesive labels | | | | | | | | | | | |
| DATE OF NEXT CHECK | | | | | | | | | | | |

Periodical controls have the aim of ensuring good working condition and perfect efficiency for security purposes of the present machine, such controls must be carried out and registered by personnel qualified in a specific manner to carry out the said task. It is compulsory to carry out all of the following controls described with at least annual frequency (every 12 months), taking into account obligations to health and safety matters in the workplace and in the country in which the machine is being used. Furthermore every time that exceptional events intervene that could have consequences for the security of the machine, of which for example repairs, incidents or prolonged periods of inactivity it is still compulsory to carry out an extraordinary control.



WARNING

| PERIODIC TESTS REPORT | | Date: _____ Signature: _____ | | Date: _____ Signature: _____ | | Date: _____ Signature: _____ | | Date: _____ Signature: _____ | | Date: _____ Signature: _____ | | Date: _____ Signature: _____ | | Date: _____ Signature: _____ | | Date: _____ Signature: _____ | |
|---|--|------------------------------|--|------------------------------|--|------------------------------|--|------------------------------|--|------------------------------|--|------------------------------|--|------------------------------|--|------------------------------|--|
| The purpose of this report is to record the operations carried out during the periodic check of the lift. Compliance is the responsibility of the authorized personnel making the check. | | | | | | | | | | | | | | | | | |
| Your attention is drawn to the importance of the check to be made on your lift periodically. Periodic checks and inspections must always be conducted by specialised OMCN S.p.A. personnel or our specifically trained personnel. | | | | | | | | | | | | | | | | | |
| TESTING AND CONTROL OPERATIONS | | | | | | | | | | | | | | | | | |
| Main switch operational | | | | | | | | | | | | | | | | | |
| Lifting button operational | | | | | | | | | | | | | | | | | |
| Lowering button operational | | | | | | | | | | | | | | | | | |
| Correct arm carriage movement with respect to the control buttons | | | | | | | | | | | | | | | | | |
| Check on the correct working of the support devices | | | | | | | | | | | | | | | | | |
| Correct lifting limit switch operation | | | | | | | | | | | | | | | | | |
| Correct lowering limit switch operation | | | | | | | | | | | | | | | | | |
| Check on the load-bearing leadnut mechanical wear signal device | | | | | | | | | | | | | | | | | |
| Visual check of the wear in the load-bearing leadnuts | | | | | | | | | | | | | | | | | |
| Visual check of the wear in the transmission belt | | | | | | | | | | | | | | | | | |
| Correct arm insertion and lock hold operation | | | | | | | | | | | | | | | | | |
| Correct telescopic arm sliding | | | | | | | | | | | | | | | | | |
| Check on the correct operation of the automatic alignment device | | | | | | | | | | | | | | | | | |
| Correct check rotation sensors operation | | | | | | | | | | | | | | | | | |
| Tightness of the anchor bolts fixing the columns to the floor and uniform loading | | | | | | | | | | | | | | | | | |
| Column levelling and correct installation | | | | | | | | | | | | | | | | | |
| Check on the presence of lubricating grease in the load-bearing leadnuts and carriage sliding guides | | | | | | | | | | | | | | | | | |
| Check on the correct assembly of the foot-guards | | | | | | | | | | | | | | | | | |
| EC data plate check | | | | | | | | | | | | | | | | | |
| Check on the position of the adhesive labels | | | | | | | | | | | | | | | | | |
| DATE OF NEXT CHECK | | | | | | | | | | | | | | | | | |



WARNING

21.9.
Repairs and part
replacement
registration
(Mechanical,
electrical and
structural)

Description:

Cause(s):

Replacement:

Notes:

Date: _____

Technician's signature: _____

The company in charge of replacement

The User

(The manager)

(The legal representative)

Description:

Cause(s):

Replacement:

Notes:

Date: _____

Technician's signature: _____

The company in charge of replacement

The User

(The manager)

(The legal representative)

Description:

Cause(s):

Replacement:

Notes:

Date: _____

Technician's signature: _____

The company in charge of replacement

The User

(The manager)

(The legal representative)

Description:

Cause(s):

Replacement:

Notes:

Date: _____

Technician's signature: _____

The company in charge of replacement

The User

(The manager)

(The legal representative)

**21.10 - INSTALLATION REPORT AND FUNCTIONAL TEST****MODEL: Art.** _____**SERIAL NUMBER:** _____**INSTALLATION DATE:** _____

- 1) The purpose of this report is to register operations carried out while setting the lift at work for the purposes of a positive functional test and acceptance.
- 2) This report was filled out exclusively by the installer in triplicate, one each for the manufacturer, the dealer and user, who jointly signs with the installer for the purpose of acceptance of the abovementioned lift.
- 3) The joint signature of point 2 validates the lift's warranty contract.
- 4) With this report, the installer declares to have correctly carried out the installation and functional test in their entirety as cited in the instructions for use, maintenance and spare parts manual enclosed with this document.

| 5.0 | TESTING AND CONTROL OPERATIONS | CARRIED OUT |
|------|--|-------------|
| 5.1 | Main switch operational | |
| 5.2 | Lifting button operational | |
| 5.3 | Lowering button operational | |
| 5.4 | Correct arm carriage movement with respect to the control buttons | |
| 5.5 | Check on the correct working of the support devices | |
| 5.6 | Correct lifting limit switch operation | |
| 5.7 | Correct lowering limit switch operation | |
| 5.8 | Check on the load-bearing leadnut mechanical wear signal device | |
| 5.9 | Correct arm insertion and lock hold operation | |
| 5.10 | Correct telescopic arm sliding | |
| 5.11 | Check on the correct operation of the automatic alignment device | |
| 5.12 | Correct check rotation sensors operation | |
| 5.13 | Tightness of the anchor bolts fixing the columns to the floor and uniform loading | |
| 5.14 | Column levelling and correct installation | |
| 5.15 | Check on the presence of lubricating grease in the load-bearing leadnuts and carriage sliding guides | |
| 5.16 | Check on the correct assembly of the foot-guards | |
| 5.17 | Check on the correspondence of the EC data plates with the declaration of conformity | |
| 5.18 | Check on the position of the adhesive labels | |

NOTES

User's stamp and signature

Installer's stamp and signature

Blank page for layout purposes

**21.10 - INSTALLATION REPORT AND FUNCTIONAL TEST****MODEL: Art.** _____**SERIAL NUMBER:** _____**INSTALLATION DATE:** _____

- 1) The purpose of this report is to register operations carried out while setting the lift at work for the purposes of a positive functional test and acceptance.
- 2) This report was filled out exclusively by the installer in triplicate, one each for the manufacturer, the dealer and user, who jointly signs with the installer for the purpose of acceptance of the abovementioned lift.
- 3) The joint signature of point 2 validates the lift's warranty contract.
- 4) With this report, the installer declares to have correctly carried out the installation and functional test in their entirety as cited in the instructions for use, maintenance and spare parts manual enclosed with this document.

| 5.0 | TESTING AND CONTROL OPERATIONS | CARRIED OUT |
|------------|--|--------------------|
| 5.1 | Main switch operational | |
| 5.2 | Lifting button operational | |
| 5.3 | Lowering button operational | |
| 5.4 | Correct arm carriage movement with respect to the control buttons | |
| 5.5 | Check on the correct working of the support devices | |
| 5.6 | Correct lifting limit switch operation | |
| 5.7 | Correct lowering limit switch operation | |
| 5.8 | Check on the load-bearing leadnut mechanical wear signal device | |
| 5.9 | Correct arm insertion and lock hold operation | |
| 5.10 | Correct telescopic arm sliding | |
| 5.11 | Check on the correct operation of the automatic alignment device | |
| 5.12 | Correct check rotation sensors operation | |
| 5.13 | Tightness of the anchor bolts fixing the columns to the floor and uniform loading | |
| 5.14 | Column levelling and correct installation | |
| 5.15 | Check on the presence of lubricating grease in the load-bearing leadnuts and carriage sliding guides | |
| 5.16 | Check on the correct assembly of the foot-guards | |
| 5.17 | Check on the correspondence of the EC data plates with the declaration of conformity | |
| 5.18 | Check on the position of the adhesive labels | |

NOTES

User's stamp and signature

Installer's stamp and signature

Blank page for layout purposes

21.10 - INSTALLATION REPORT AND FUNCTIONAL TEST

MODEL: Art. _____

SERIAL NUMBER: _____

INSTALLATION DATE: _____

- 1) The purpose of this report is to register operations carried out while setting the lift at work for the purposes of a positive functional test and acceptance.
- 2) This report was filled out exclusively by the installer in triplicate, one each for the manufacturer, the dealer and user, who jointly signs with the installer for the purpose of acceptance of the abovementioned lift.
- 3) The joint signature of point 2 validates the lift's warranty contract.
- 4) With this report, the installer declares to have correctly carried out the installation and functional test in their entirety as cited in the instructions for use, maintenance and spare parts manual enclosed with this document.

| 5.0 | TESTING AND CONTROL OPERATIONS | CARRIED OUT |
|------|--|-------------|
| 5.1 | Main switch operational | |
| 5.2 | Lifting button operational | |
| 5.3 | Lowering button operational | |
| 5.4 | Correct arm carriage movement with respect to the control buttons | |
| 5.5 | Check on the correct working of the support devices | |
| 5.6 | Correct lifting limit switch operation | |
| 5.7 | Correct lowering limit switch operation | |
| 5.8 | Check on the load-bearing leadnut mechanical wear signal device | |
| 5.9 | Correct arm insertion and lock hold operation | |
| 5.10 | Correct telescopic arm sliding | |
| 5.11 | Check on the correct operation of the automatic alignment device | |
| 5.12 | Correct check rotation sensors operation | |
| 5.13 | Tightness of the anchor bolts fixing the columns to the floor and uniform loading | |
| 5.14 | Column levelling and correct installation | |
| 5.15 | Check on the presence of lubricating grease in the load-bearing leadnuts and carriage sliding guides | |
| 5.16 | Check on the correct assembly of the foot-guards | |
| 5.17 | Check on the correspondence of the EC data plates with the declaration of conformity | |
| 5.18 | Check on the position of the adhesive labels | |

NOTES

 User's stamp and signature

 Installer's stamp and signature



24020 VILLA DI SERIO (BG) ITALY

Via Divisione Tridentina, 23

Tel: 035/423.44.11 a.r.

- Customer Fax (Italy) 035/423.44.41 – 035/423.44.42

- Export Fax +39/035/423.44.49

OMCN/INTERNET:

[http:// www.omcn.com](http://www.omcn.com)

[http:// www.omcn.it](http://www.omcn.it)

e-mail: info@omcn.com

e-mail: info@omcn.it

Dealer's stamp: