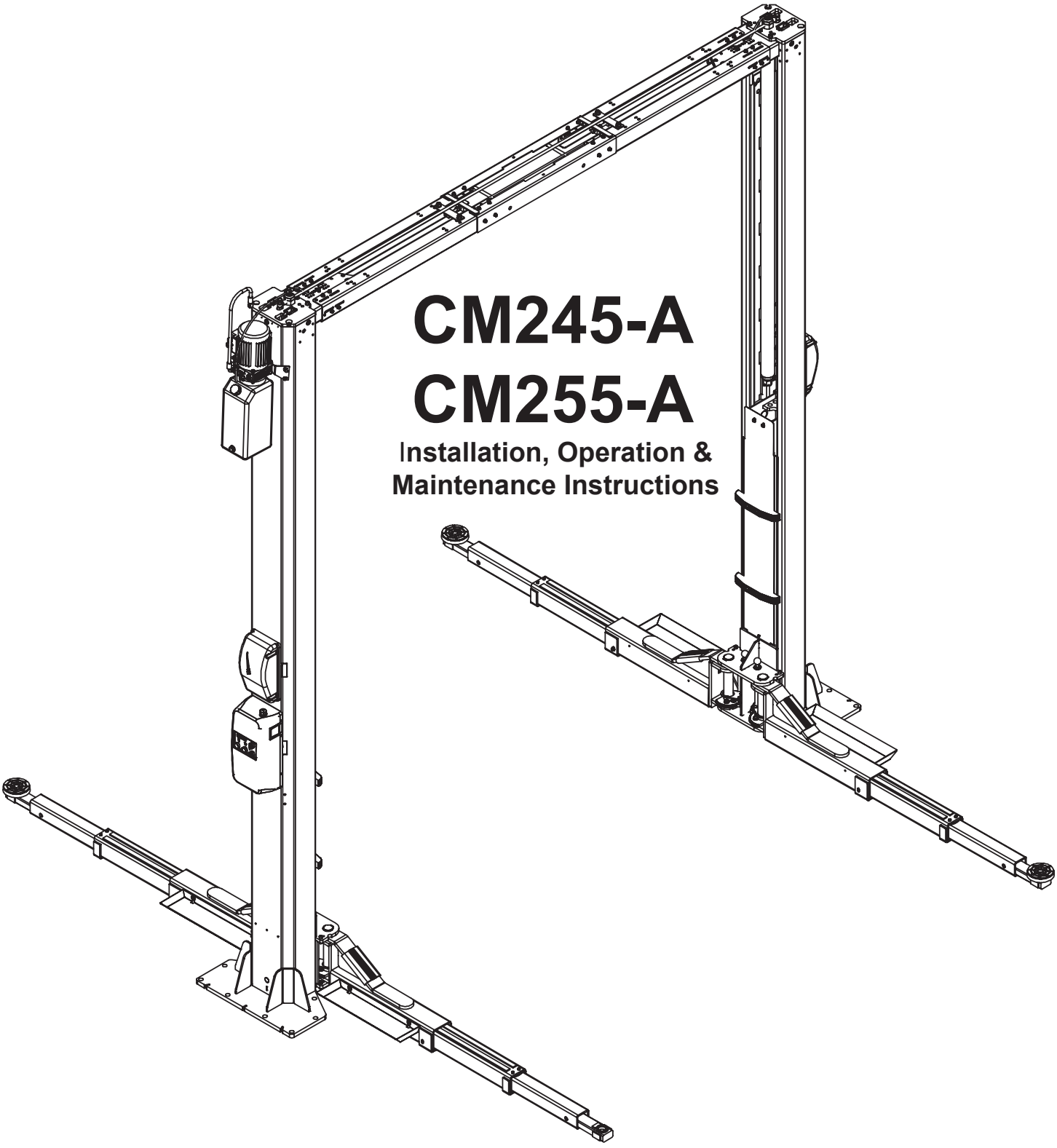
MOLNAR
By NEXION



CM245-A
CM255-A

Installation, Operation & Maintenance Instructions

ALWAYS KEEP operating instructions ready to hand on the unit

Read the operating instructions before working with the unit

Date: 30.11.2023

Before taking into operation check system components, control, emergency stop and safety equipment for condition, damage and correct function!

Please read this manual before you get started.
You must read and understand the precautions for safety purposes and any damages that may occur to your property.
If these installation instructions are not followed strictly, the hoist is not covered by warranty.

MOLNAR By NEXION

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Forklifts are recommended during install

Printing characters and symbols

Throughout this manual, the following symbols and printing characters are used to facilitate reading:

	Indicates the operations which need proper care
	Indicates prohibition
	Indicates a possibility of danger for the operators
	Indicates the direction of access for motor vehicles to the lift
Bold type	Important information

	**WARNING: before operating the lift and carrying out any adjustment, read carefully chapter 4 "Installation" where all proper operations for a better functioning of the lift are described**

Table of contents

Warranty

The manufacturer warrants lifts and the relevant accessories for 3 years after purchase date. This warranty consists in the repair or replacement - free of charge - of those parts that, after a careful analysis by the Manufacturer's Technical Service, turn out to be faulty from origin. All electrical parts are excluded. Warranty is limited to material defects and becomes null and void if the returned parts are tampered with or disassembled by unauthorized staff. Any liability for direct and indirect injuries to people, animals or property due to machine failure or malfunction are excluded from warranty. The expenses deriving from lubricants replacement, transport charges, and any customs duty, VAT and any other expense not specified in the supply contract are at the purchaser's charge. The replacement and repair of parts under warranty, anyway, do not extend warranty terms. The purchaser will nevertheless be entitled to assert its rights on warranty, specified in the supply contract. Should the parties not be willing to submit any dispute arising from the supply contract to arbitration, or in any other case where the judgment of a body of the ordinary competent court is required.

Disclaimer

Upon delivery, please check that the product has not been damaged during transportation, and that the accessories coming with it are intact and complete. Any complaint shall be filed within 8 days after lift delivery date. Besides the cases envisaged by the supply contract, the warranty becomes null and void:

- In case of a maneuver error caused by the operator.
- If the damage is caused by poor maintenance.
- If the envisaged capacity is exceeded.
- If the machine has been somehow modified, and the damage has been caused by such a modification, due to repair operations by the user without the authorization of the manufacturer or after fitting non-original spare parts.
- If the instructions described in the user's manual are not complied with.

General information

This chapter contains warning instructions to properly operate the lift and prevent injury to operators or property. This manual has been written to be used by workshop technicians in charge of the lift (OPERATOR) and routine maintenance technician (MAINTENANCE OPERATOR). The operating instructions are considered to be an integral part of the machine and must remain with it for its whole useful life. Read every section of this manual carefully before operating the lift and unpacking, since it gives helpful information about:

- SAFETY OF PEOPLE
- SAFETY OF THE LIFT
- SAFETY OF LIFTED VEHICLES

The company is not liable for possible problems, damage, accidents, etc. resulting from failure to follow the instructions contained in this manual.
Only skilled technicians of AUTHORIZED DEALERS or SERVICE CENTRES AUTHORIZED by the manufacturer shall be allowed to carry out lifting, transport, assembling, installation, adjustment, calibration, settings, extraordinary maintenance, repairs, overhauling and dismantling of the lift.
The manufacturer is not responsible for possible damage to people, vehicles or objects if said operations are carried out by unauthorized personnel or if the lift is improperly used.
Any use of the machine made by operators who are not familiar with the instructions and procedures contained herein shall be forbidden.

Manual keeping

For a proper use of this manual, the following is recommended:

- Keep the manual near the lift, in an easily accessible place.
- Keep the manual in an area protected from damp.
- Use this manual properly without damaging it.
- Do not make any changes to this manual; any modifications and updates shall be made by the supplying company only.

This manual is an integral part of the lift: it shall be given to the new owner if and when the lift is resold.

Obligations in case of malfunction

In case of machine malfunction, follow the instructions contained in the following chapters.

Cautions for the safety of the operators
Operators must not be under the influence of sedatives, drugs or alcohol when operating the machine.

Before operating the lift, operators must be familiar with the position and function of all controls, as well as with the machine features shown in chapter "Operation and use".

Warnings

Unauthorized changes and/or modifications to the machine relieve the manufacturer from any liability for possible damage to objects or people. Do not remove or make inoperative the safety devices, this would cause a violation of law and regulations on safety at work.

Any other use which differs from that provided for by the manufacturer of the machine is strictly forbidden.

The use of non-original parts may cause damage to people or objects.

Declaration of warranty and limitation of liability
The manufacturer has paid proper attention to the preparation of this manual. However, nothing contained herein modifies or alters, in any way, the terms and conditions of the manufacturer agreement by which this lift was purchased, nor increases, in any way, manufacturer's liability towards the customer.

To the reader
Every effort has been made to ensure that the information contained in this manual is correct, complete and updated. The manufacturer is not liable for any mistakes made when drawing up this manual and reserves the right to make any changes required due to the development of the product, at any time.

1. Technical Data

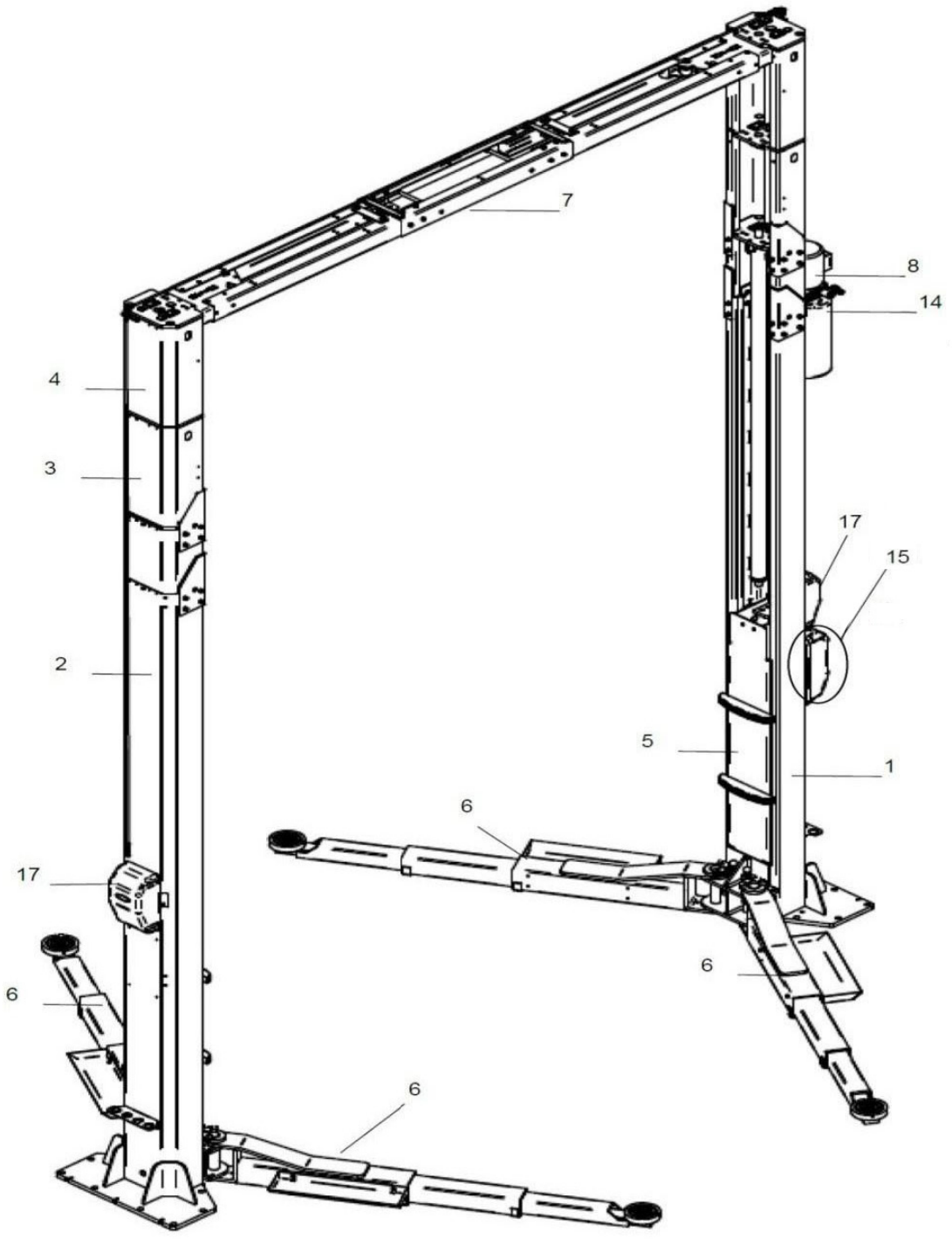
		CM245-A	CM255-A
Max. capacity	Kg	4,500	5,500
Lifting time when loaded	s	Approx. 30 seconds	Approx. 50 seconds
Lowering time when loaded	s	Approx. 30 seconds	Approx. 50 seconds
Minimum height	mm	90mm	105mm
Lifting height	mm	1990mm	1990mm
Distance between the columns	mm	2520mm	2898mm
Lift max. height	mm	2005mm	2005mm
Three-phase electric motor	Volt-Hz-Amp	230/400V – 50/60Hz - 8.2	230/400V – 50/60Hz - 8.2
Three-phase motor power	kW/HP	3	3
Single-phase electric motor	Volt-Hz-Amp	220V – 50Hz -19.5 220V – 60 Hz -20,5	220V – 50Hz -19.5 220V – 60 Hz -20,5
Single-phase motor power	kW/HP	3	3
Max. operating hydraulic pressure	Bar	200	200
Controls circuit voltage	Volt	24	24
Total weight of lift	Kg	1200	1200
Min. thickness of concrete	mm	140	160
Recommended hydraulic oil	Tipo	46	46
Hydraulic system oil quantity	Lt	9 (optional)	9 (optional)
Fixing to the floor with screw anchors		HST3-M20x160 (Or equivalent)	HST3-M20x170 (Or equivalent)
Weight electric / electronic materials	Kg	8	8
Motor weight	Kg	15	15
Average weighed sound level LpAm	dB(A)	68.2	68.2
Average sound level at the operator's workstation LpA	dB(A)	72	72
Acoustic power LwA	dB(A)	88.6	88.6

**) For further informations - see foundation plan
The specifics of the responsible structural Engineer are authoritative

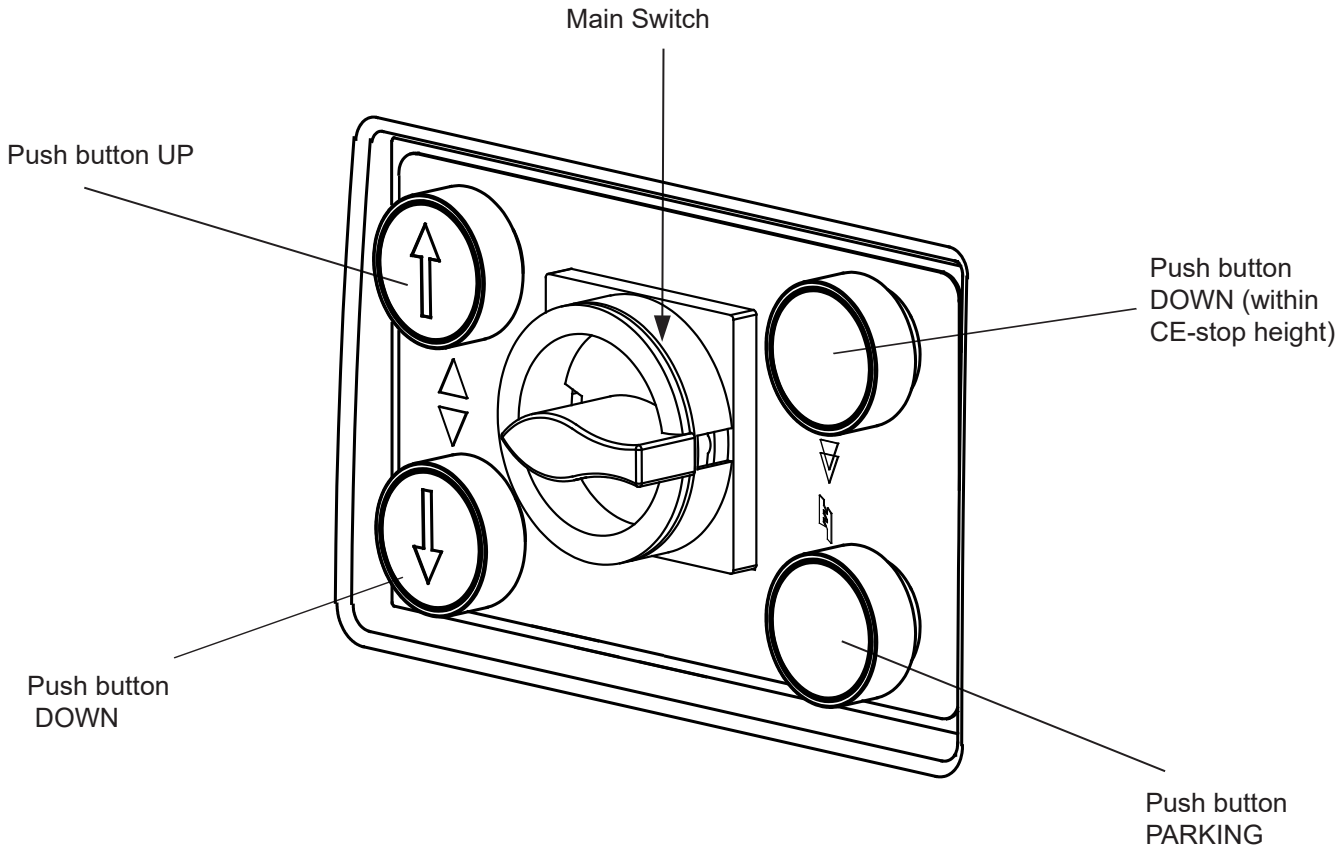
THE LIFT IS SUPPLIED STANDARD WITH 400V-3PH-50HZ POWER SUPPLY.

1.1 Lift description

1	P1 Column	7	Beam
2	P2 Column	8	Electric motor
3	Column Extension L=600mm(optional CM255)	14	Hydraulic pump unit
4	Column Extension L=1200mm(optional CM255)	15	Control unit
5	Carriage	17	Electromagnet for unlocking mechanical safety devices
6	3 Stage lifting arm		



Easy and simple operation by means of "dead-man controlled" pushbuttons placed on the control box - see the below figure.



1.2 Safety devices fitted on the lift

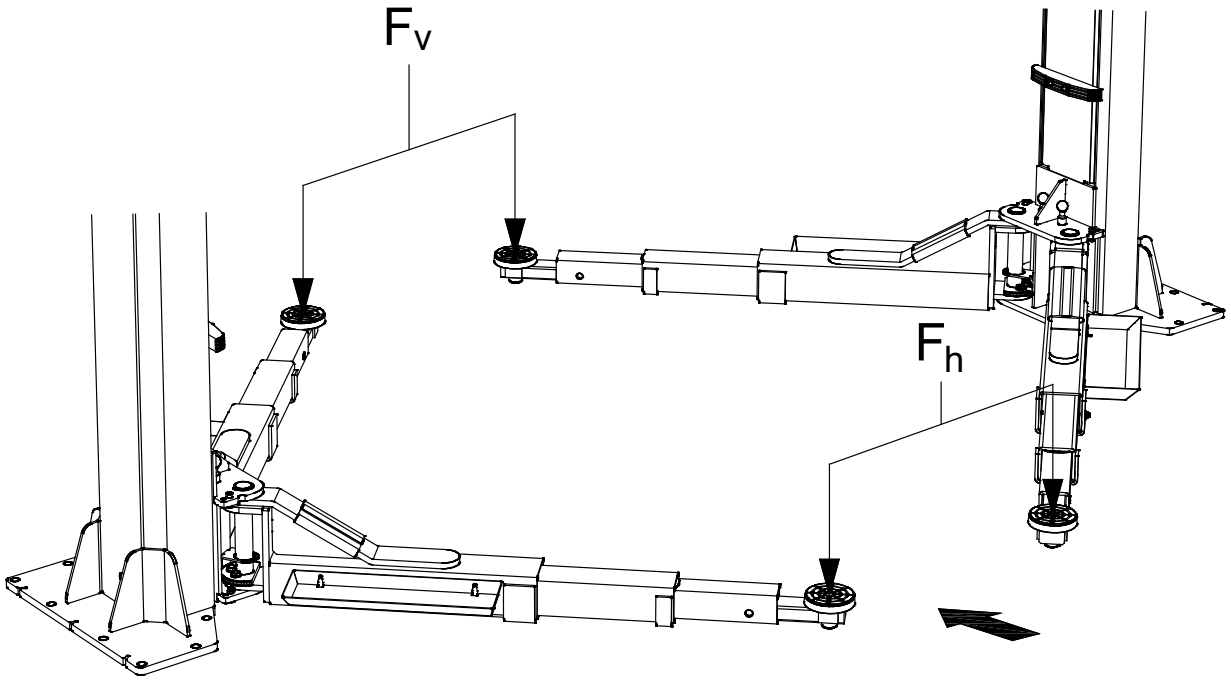
Part	Description
Safety ratchet	The safety lock is attached to the side of the post and prevents the lowering of the lift in the event of a hydraulic circuit damage. The safety lock is not in operation in the lower part of the lift range beneath the lock position. (Safety lock is operational at heights above 570 mm).
Check valve	The check valve ensures that the rated lifting capacity is not exceeded.
Cable	The cable connects the 2 lift carriages left and right to ensure synchronization at all times and to ensure that they remain at the same horizontal level.
CE-stop	When lowering the lift stops at approx. 300 mm from bottom position and a warning buzzer is activated. See chapter 5.2 for more detailed description.
Emergency stop	Main switch is also the emergency stop

1.3 Load distribution

Front load ratio (Fv) : rear load ratio (Fh)
Fv : Fh = 60 : 40 and 60 : 40

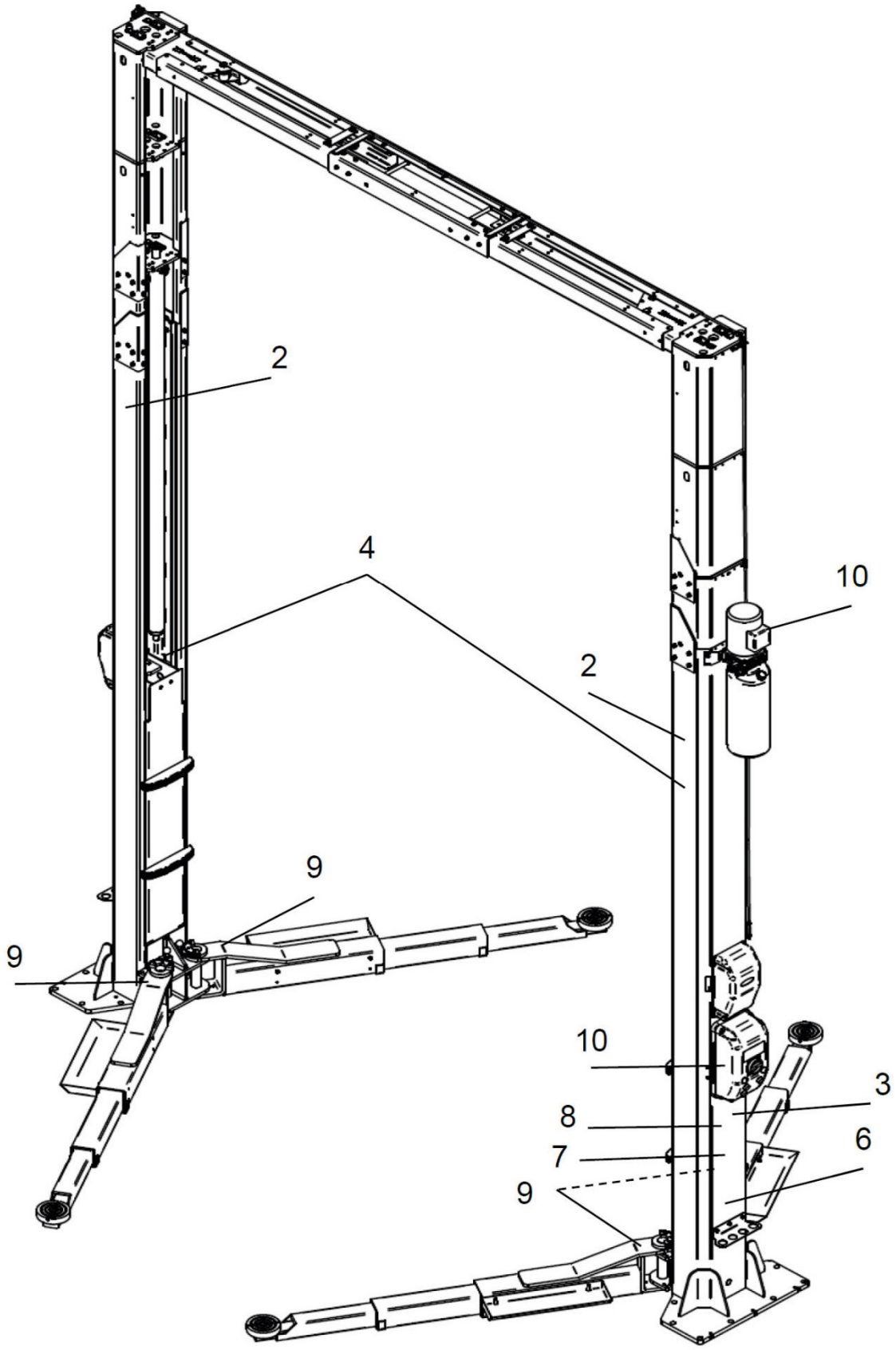
This assumption is based on a vehicle with a chassis width of 1m.

= Recommended drive-on direction

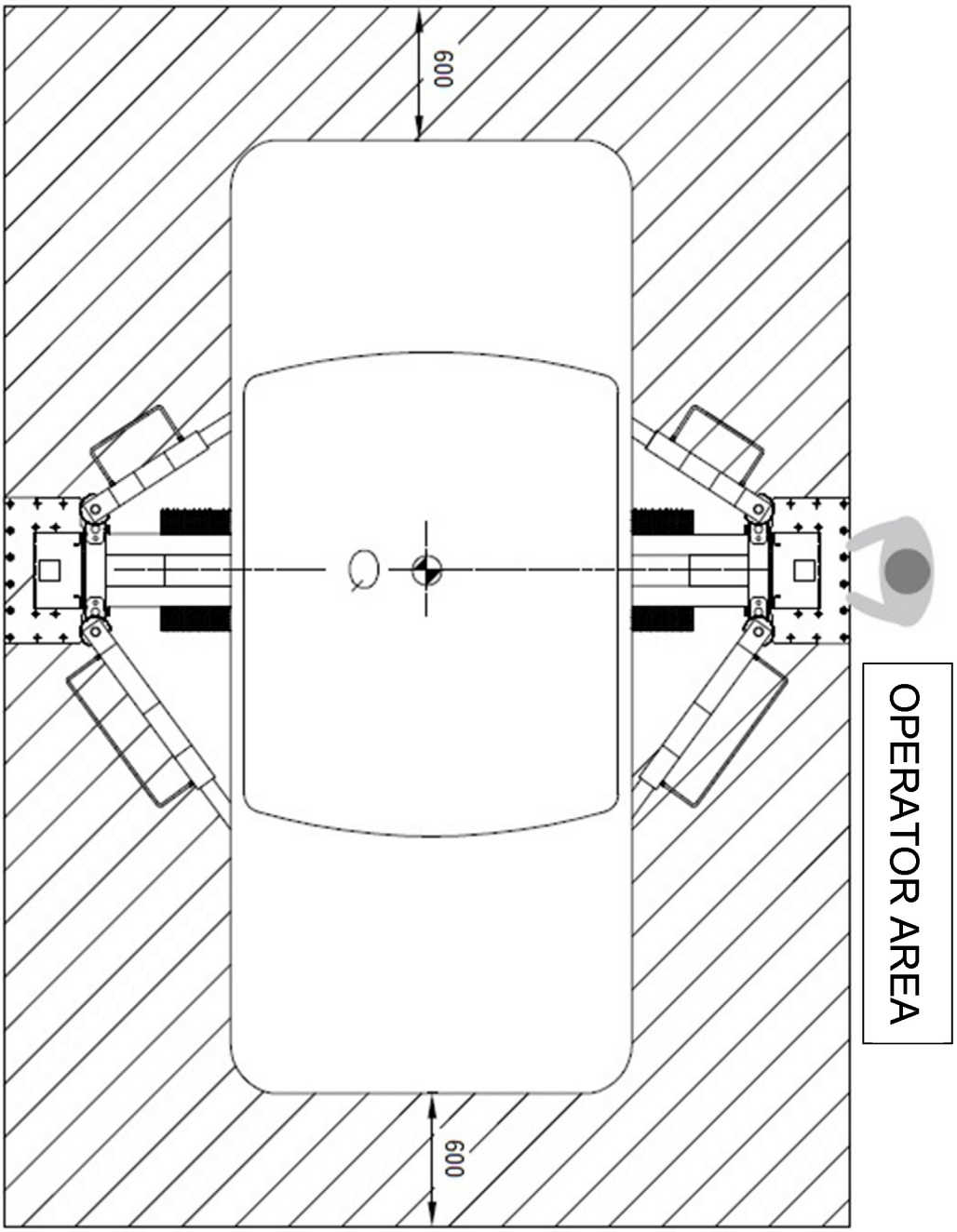


1.4 Pictograms

1.5 Pictograms application diagram



1.6 Hazardous areas



2. Foreword

This manual includes the instructions relating to the installation, use and maintenance of the lift system called "Vehicle Lift". The vehicle lifts described in this manual are designed and constructed solely to lift vehicles for repair, maintenance and inspection purposes. Lift operation, economy and duration depend on the compliance with the instructions given in this manual. The parts that can be supplied also as spare parts are listed in the last section of the manual. To make instructions reading easier, vehicle lift will be hereinafter simply called "lift".

2.1 EC certification

2006/42/EC Directive, commonly known as the "Machines Directive" specifies the conditions to be respected before a machine can be put into the market. This Directive provides that all machines can be marketed and commissioned only if they do not jeopardise people, pets or property safety and health. To certify lift compliance with Directive provisions, before marketing, the manufacturer subjected a machine specimen to the audit of a notified body.
Lift, manufactured in compliance with 2006/42/EC Directive provisions, and can thus be marketed without jeopardising user's safety.
Lift is thus delivered to the customer with:

- EC Declaration of Conformity
- Instructions for use
- Inspection records

2.2 Testing

The lift has undergone static and dynamic tests based on the procedures included in the EN 1493:2010. Concerning lift testing, please refer to the relevant section in the Inspection records.

The instructions given in this manual shall be compulsorily respected: the Manufacturer will not be held responsible under any circumstances arising from negligence, from non-compliance with the instructions and from an improper or inconsiderate use of the lift. Failure to comply with the instructions given in the manual makes the warranty directly become null and void.

The Company also disclaims any liability for damages caused by lift improper use and/or due to changes made without the manufacturer’s authorization.

3. General safety and accident prevention rules

FOR A SAFE USE OF THE VEHICLE LIFT DESCRIBED IN THIS MANUAL
THE FOLLOWING IS ALLOWED:

- Using lift only to lift vehicles for inspection, maintenance and/or repair operations.
- Using lift only to lift vehicles respecting capacity limits and loads distribution indicated in this manual.
- Only authorized personnel, in good health conditions, responsible and duly trained on the allowed uses and risks originated by lift use may operate the lift.
- The operator is allowed to use the vehicle lift only after he has thoroughly read, understood and assimilated the contents of this manual.
- Using lift only inside closed premises, protected against atmospheric agents such as: rain, snow, wind, etc.
- Only one operator at a time may use the lift in the safety position in the indicated area, close to the control panel

IS REQUIRED:

- Lift installation and maintenance operations shall be compulsorily carried out by qualified personnel only, and in full compliance with the instructions given in this manual.
- Before installing lift, you shall compulsorily check that the premises where you wish to position it are well aerated and lit. (avoid blinding light sources).
- You shall compulsorily check that the floor where you wish to install lift is solid, flat, and perfectly levelled in all directions.
- You shall compulsorily check that the floor has been constructed to withstand the max. allowed loads, including the lift, on lift resting areas.
- Lift shall be compulsorily positioned far from heat sources or devices that could generate electromagnetic radiation.
- Lift shall be compulsorily positioned so that, during standard operation, with the vehicle loaded on it, it does not interfere with or squash any nearby fixed or moving part. Take special care to power, water and gas systems.
- The lifting or handling operations of lift or of any lift parts shall be compulsorily carried out under full safety conditions with suitable lifting equipment, as envisaged by the National prevailing regulations.
- Lift shall be compulsorily secured to the floor only using anchors and screws of the type recommended by the manufacturer (for lifts, where envisaged).
- Before using the lift, the wholeness of lifting elements shall be compulsorily checked.
- Before using the lift, you shall compulsorily check that safety devices are perfectly installed and in good operating conditions.
- Vehicle shall be compulsorily positioned as shown in the table of the manual and/or the table stuck to lift.
- Vehicle shall be compulsorily lifted from the resting points specified by the vehicle manufacturer.
- When moving vehicle up, after the first 200 mm and before continuing the raising, load stability shall be compulsorily checked in all directions.
- During the whole raising movement, load stability and lift correct and linear movement shall be compulsorily checked.
- Before accessing the working area, lift shall be compulsorily put in mechanical safety position with the special command (where applicable).
- Before accessing the working area, lift shall be compulsorily disconnected from power sources by turning to 0 (zero) the lockable rotating disconnector positioned onto control panel.
- You shall compulsorily check that the disassembling of some of the parts of the vehicle positioned onto lift does not originate any load unbalance.
- Before starting lift lowering, you shall compulsorily check that no people, animals or things that could interfere with the moving parts are under and around the working area.
- During lowering, you shall compulsorily and constantly check lift and lift load movement. In case of failure, immediately turn emergency disconnector.
- In case of irregular noise or operating failures, you shall compulsorily stop lift operation, and check the cause of such irregularity. In case of doubt, contact the manufacturer’s service department.
- Power supply shall be compulsorily sectioned whenever adjustment, repair or maintenance operations have to be carried out on the equipment.
- All danger signaling decals present onto the lift shall be compulsorily cleaned or changed.
- Lift shall be compulsorily cleaned and all oil spots on the floor cleaned out, as they are very dangerous.

- All ordinary and extraordinary maintenance operations shall be compulsorily and thoroughly carried out, as indicated in this manual; also periodical checks to be recorded on the special "inspection records" coming with the lift shall be compulsorily carried out.
- You shall always compulsorily use the manufacturer’s original spare parts.

IT IS FORBIDDEN:

- It is forbidden to misuse lift as well as to use in any other manner not specified in the "INTENDED USE" section of this manual.
- It is forbidden to lift loads with just some of lift parts (one runway only, or two arms only).
- It is forbidden to install lift in hazardous premises containing inflammable and/or explosive substances, or where inflammable gases or vapors can be created.
- It is forbidden to install lift inside premises exposed to atmospheric agents.
- It is forbidden to install lift in premises where washing or sandblasting operations are carried out, or in very dusty premises.
- It is forbidden to install lift on vehicles or watercrafts.
- It is forbidden to use lift in presence of strong magnetic fields.
- It is forbidden to use lift to lift objects other than the specified ones (cases, containers or pallets) or to use it as a hoist.
- It is forbidden to use lift to lift people or animals.
- It is forbidden to lift vehicles with people or animals onboard.
- It is forbidden to use the lift if the room temperature is below 5°C or above 40°C.
- It is forbidden to voluntarily cause load oscillations during raising or lowering maneuvers, or while load is lifted.
- It is forbidden to access work area under the lift without having enabled safety mechanical devices, and turned disconnector to 0.
- It is forbidden to leave the lift unattended without having positioned it at the min. height or in mechanical safety position. Then section power supply, and lock disconnector using a padlock.
- It is forbidden to remove or change lift protections or safety devices.
- It is forbidden to change lift or lift parts, any tampering with or change will immediately invalidate warranty, and will relieve manufacturer of any direct or indirect liability for damages due to such tampering or changing operations.
- It is forbidden to use parts or accessories not supplied by the manufacturer.

3.1 Set-up and clothing

Set up a space suitable for the machine, and the working environment, by carefully evaluating the following aspects:

- The position shall be safe, free from any hinder, and protected against atmospheric agents. From the control position, the operator shall be able to see the whole system and the working area, and to immediately detect the presence of unauthorized persons and objects that could originate any danger.
- The min. distance of the hazardous area from the walls of the premises where the vehicle lift is installed shall be at least 70 cm. Lighting shall be good, but without blinding or intense lights, and there shall be no sources or processes that could develop gases or flammable vapors.
- Avoid wearing unsuitable clothing. They could get entangled in lift moving parts. As disposed by the National prevailing rule, besides wearing clothes suitable to the work site, the operator will have to compulsorily wear complementary protective accessories to prevent any injury, such as: helmet, goggles, gloves, suitable shoes, etc.

3.2 Environment and pollution

- Lift shall not be used for vehicle washing, degreasing, sandblasting and grinding.
- Comply with the National prevailing standards relating to the use and disposal of the products used for lift cleaning and maintenance, respecting the manufacturer’s recommendations.
- Traps and drainage ditches shall discharge fluids, where and as indicated by the National prevailing standards.

3.3 Lift scrapping

As for products disposal upon lift scrapping, DO NOT disperse parts in the environment, but contact a company specialized in waste storage. To avoid any environmental pollution risks, take the following precautions:

- The oil contained inside hydraulic control unit, relative circuit and cylinders shall be fully collected. (if available).
- Disassemble lift parts by dividing them into groups of the same material in order to proceed to their separate disposal.
- Exhausted hydraulic oil, rubber parts, and iron scraps are special waste. Dispose of or temporarily store them in compliance with the National prevailing anti-pollution standards.

3.4 Danger levels

The removal or tampering with the safety devices involves a violation of the European Safety Standards.

- The use of the machine is allowed only in places without risk of explosion or fire;
- The use of original accessories is recommended. Our machines are designed to accept only the original accessories;
- Installation must be carried out by qualified personnel in full compliance with the instructions below;

Check that during the maneuvers there are no dangerous conditions: stop the machine immediately if any functional irregularities are found, and contact the authorized dealer's assistance service

Pay special attention to the following danger sign when you find it in this manual, and follow the safety recommendations. Danger signals have three levels:

DANGER: this signal warns that, if the described operations are not carried out correctly, they cause severe injury, death or health long-term risks.

WARNING: this signal warns that, if the described operations are not carried out correctly, they may cause severe injury, death or health long-term risks.

CAUTION: this signal warns that, if the described operations are not carried out correctly, they may cause machine damage and/or personal injuries.

WARNING: carefully read the following rules; whoever does not put into practice the recommendations described hereinafter may be subject to irreparable damages or cause them to people, animals or property.
The Company disclaims any and whatever liability arising from the failure to comply with the safety and accident-prevention rules described hereinafter. The Company also disclaims any liability for damages caused by lift improper use and/or due to changes made without the manufacturer’s authorization.

WARNING
The equipment is intended to be used by only one operator at a time.

WARNING
Electrical system interventions, even minor ones, require the intervention of professionally qualified personnel (see specific legislation on the subject).

3.5 Hazardous areas

Before using the lift, make sure that no unauthorized persons nor animals are present within the hazardous area delimited by the yellow stripe.
Persons or animals shall by no means stop or pass within the hazardous area delimited by the yellow stripe, when using lift even for small movements, and whenever the Emergency Switch/OFF is not depressed.
Each lift is supplied with the identification plates relating to the different versions.

3.6 Lift identification and pictogram description

The safety signals described in this manual are applied onto the lift (Fig. 6), and warn about unsafe and hazardous situations. Decals shall be kept clean and, if detached or damaged, they shall be immediately changed.
Carefully read the meaning of the safety signals, and memorise it

Each lift is supplied with identification plates relating to the different versions. Data must always be mentioned for any need for assistance and spare parts.

MOLNAR
BY NEXION

Molnar (Stenhoj Pty Ltd)
3 Graham Street
Export Park, South Australia 5950
P : 1300 665 627

Model: **CM255-A**	Serial Number: **1234567890**

Load Capacity: **5500 kg** Operating Pressure:
Construction Year: **2022** DBV:
E-Motor: **3kW (400V/3Ph+50Hz)**

Design Registration Number: **WSV-0150536758**

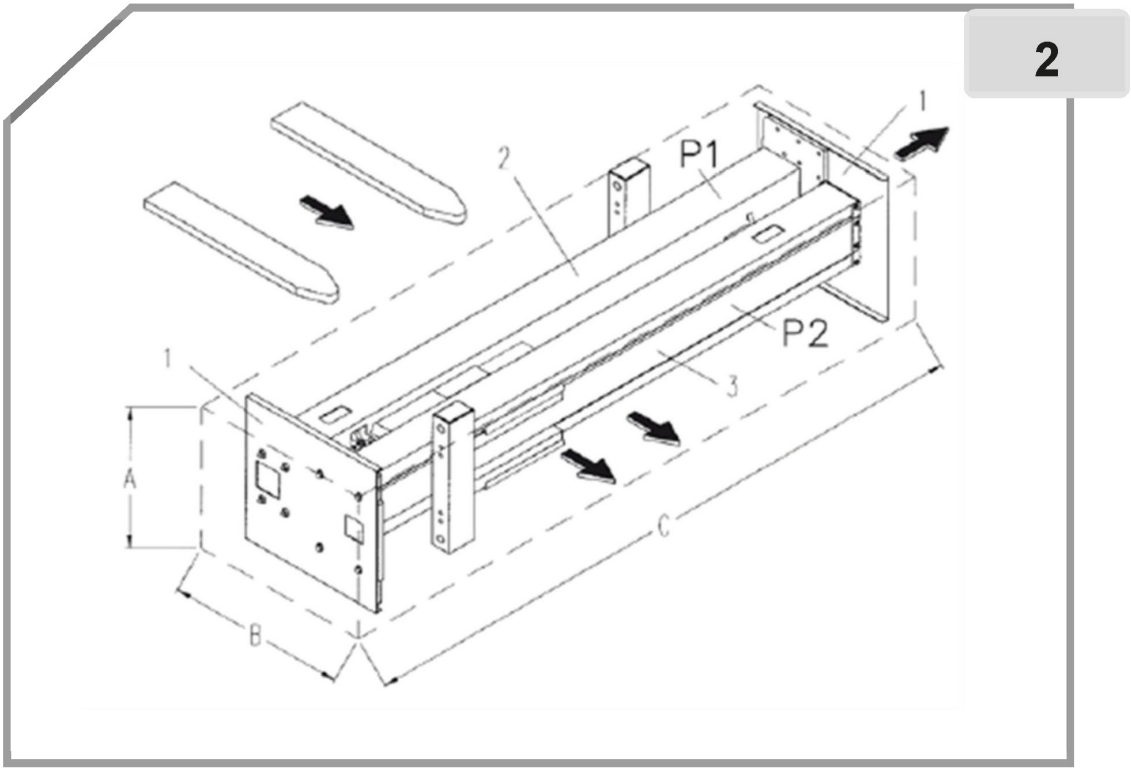
3.7 Intended use

The vehicle lifts described in this manual are designed and manufactured for lifting vehicles for inspection, maintenance and/or repair purposes only.
The vehicle lift should be used only for lifting vehicles within the load capacity limits given in the IDENTIFICATION PLATE and in the paragraph 1.3 "LOAD DISTRIBUTION"

CAREFULLY READ THE INSTRUCTIONS GIVEN IN THIS MANUAL BEFORE USING THE LIFT

4. Transport and installation

Since the lift is packed in a special wooden crate, it can only be handled using a pallet truck or fork-lift truck, fitting the forks into the slots as shown in figure 2.



	Packing dimensions
A	550mm
B	1000mm
C	4050mm

4.1 Unpacking

After removing the packing materials, carefully inspect the various components of the equipment, checking for any visibly damaged parts (control unit, lift frame). In case of damage do not use the equipment (the lift) and call in a qualified technician (your local dealer).

WARNING

The box containing the accessories is packed inside the crate:
DO NOT THROW IT AWAY WITH THE PACKAGING

The packing materials (plastic bags, expanded polystyrene, nails, screws, wood blocks etc.) must never be left within the reach of children as they constitute a potential hazard. Dispose of these materials in the designated collection centers if they are polluting or non-biodegradable.

4.2 Installation area

An area of at least 4330 x 4000 mm, with a ceiling height of at least 4150 mm, is required for installation of the lift.
From the operator position, the operator is able to monitor the entire lift and its surrounding area. He must ensure that there are no unauthorized persons, or objects which may cause hazards, in this area.
Before installing the lift, check the specifications of the supporting surface available, or prepare a surface with the minimum characteristics stated below

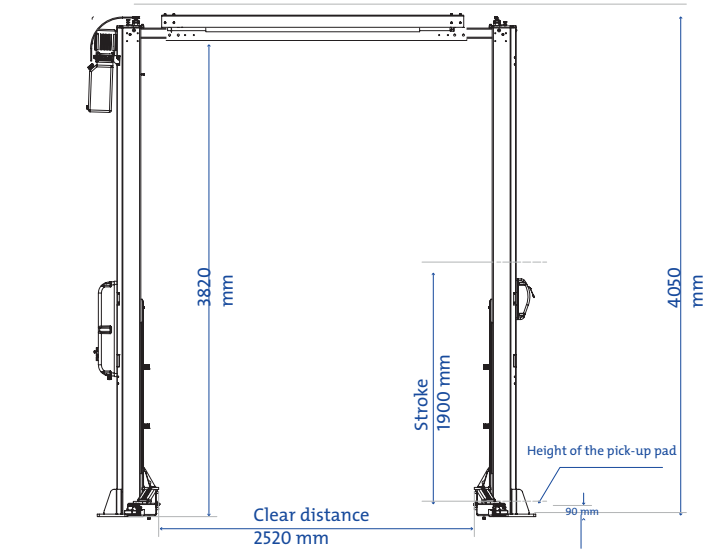
4.3 Installation

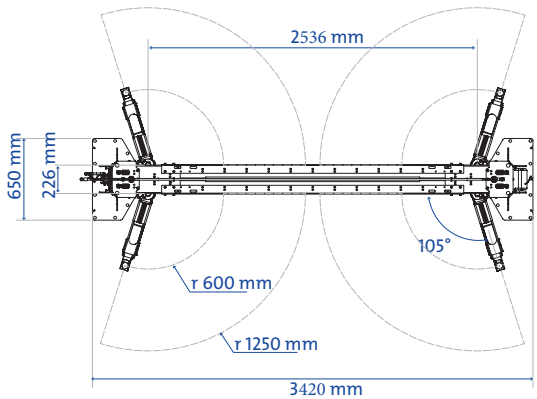
After unpacking, handle the pillars with the aid of suitable slings.
Anchor bolt installation procedure:

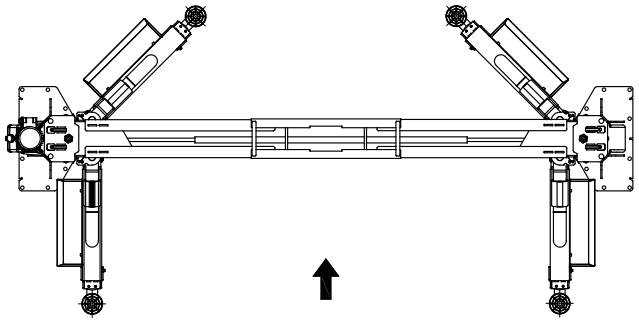
1. Place the two pillars in the installation zone.
2. Straighten the pillars to the vertical position and then position them so that they are properly aligned with the distance between them as in the sketch below.
3. If necessary, place shims underneath the bases of the pillars so that they are firmly supported and the pillars are perfectly vertical.
4. Drill holes in the floor through bed plates. Drill with ø20 on a length of min. **140 mm** (CM245-A), and drill ø20 for **160mm** (CM255-A). Clean the holes thoroughly.
5. Fit the HST3-M16x160 (CM245-A) HST3-M20x170 (CM255-A) or equivalent anchor bolts in the holes and then tighten with a torque at bolt specifications.

After a few cycles with full load, check that the anchor bolts are still firmly tightened. This check must be repeated every 3 months.

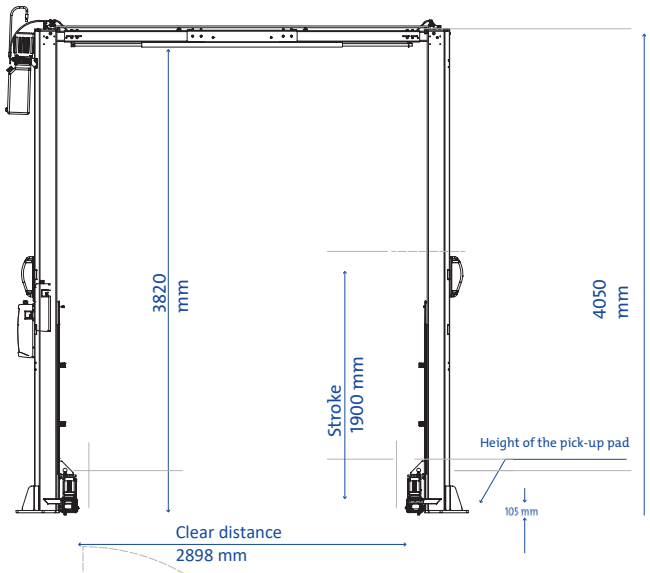
CM245-A

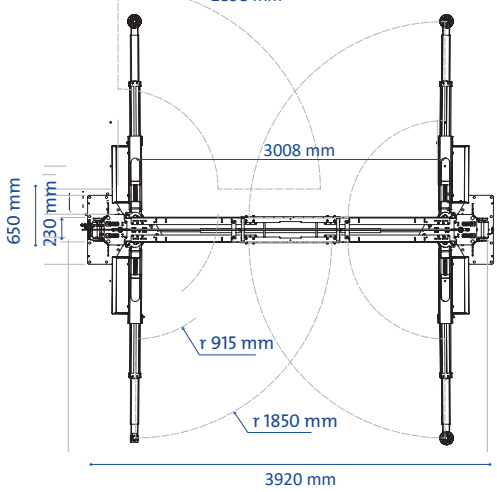






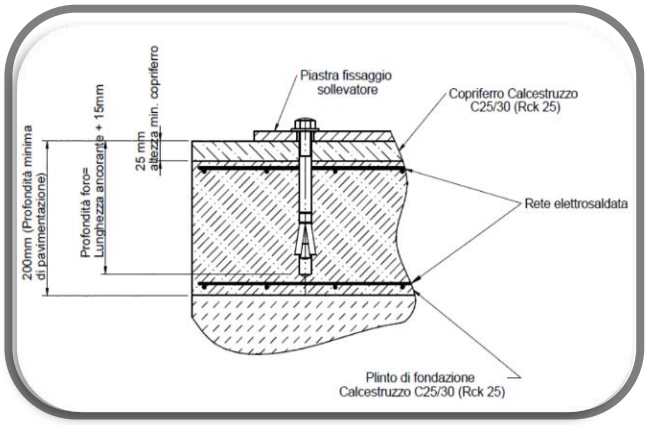
CM255-A





WARNING

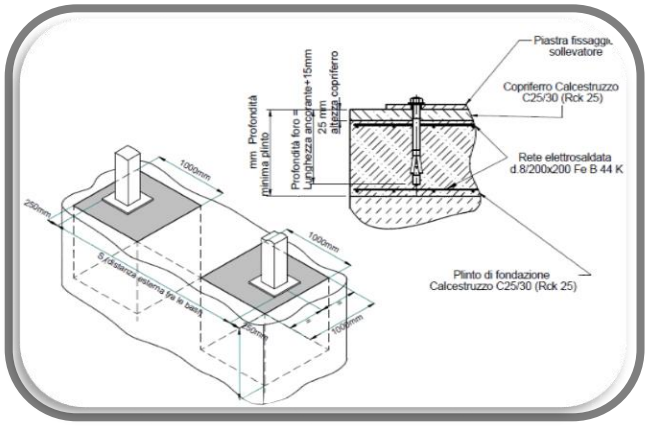
The manufacturer declines liability for any damages resulting from failure to follow the above instructions, which may invalidate the warranty.



Recommended Anchor and Floor Spec:
CM245-A
HST3-M20x160 140mm Min. Depth
CM255-A
HST3-M20x170 160mm Min. Depth

Concrete class 32mpa

The lift must be fixed to this surface using heavy-duty anchor fixtures as described in the “Anchor Bolt Installation Procedure” section of the manual.
The said surface must be capable of supporting at least 25 Kg/cm2 and have a strength rating of at least 32mpa.
The layer of concrete must be sufficient to ensure effective installation of the anchor bolts, and have a good structure to a depth of at least 140 mm CM245-A or 160mm CM255-A.
If a surface of this kind is not available, two separate foundation plinths can be constructed. The minimum characteristics required are:



Dimensions 1000x1000 (figure 3).
Depth 600 mm.
Concrete class 32mpa

The floor must be able to withstand a load equal to the sum of the weight of the lift itself and the maximum payload, bearing in mind the lift support surface area and anchor fixtures used.

The installation procedure foresees the use of the accessory plugs kit (optional), for equivalent models refer to the table below and / or to the technical sheets of the product used.

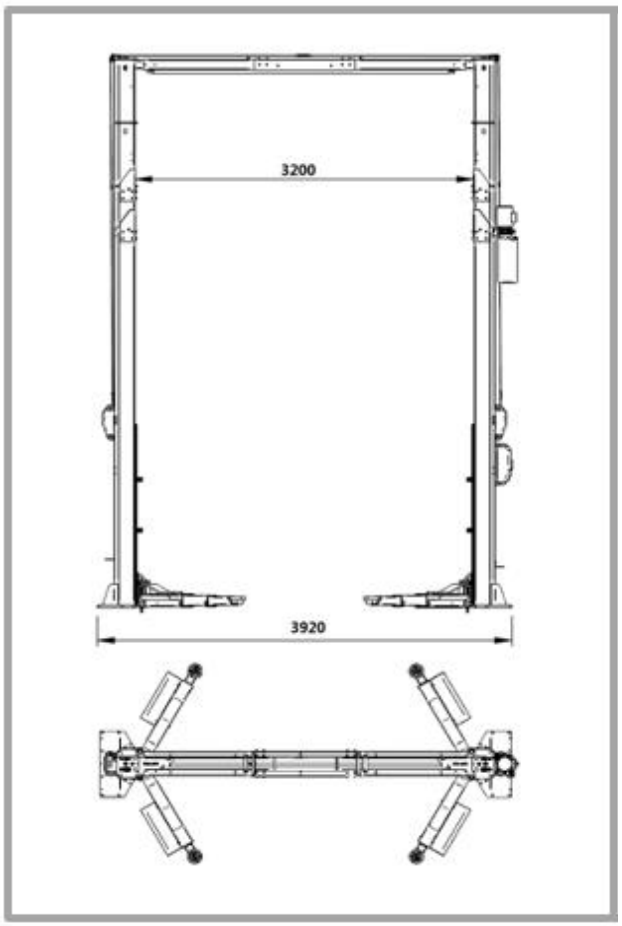
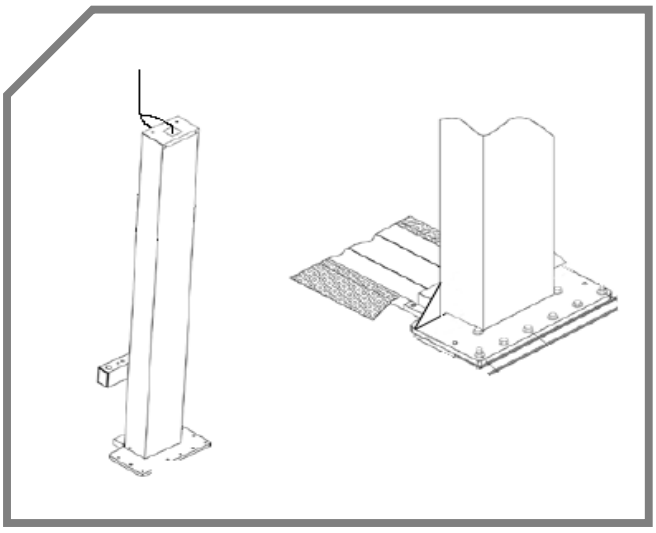


Diagram on the left is based on CM255-A



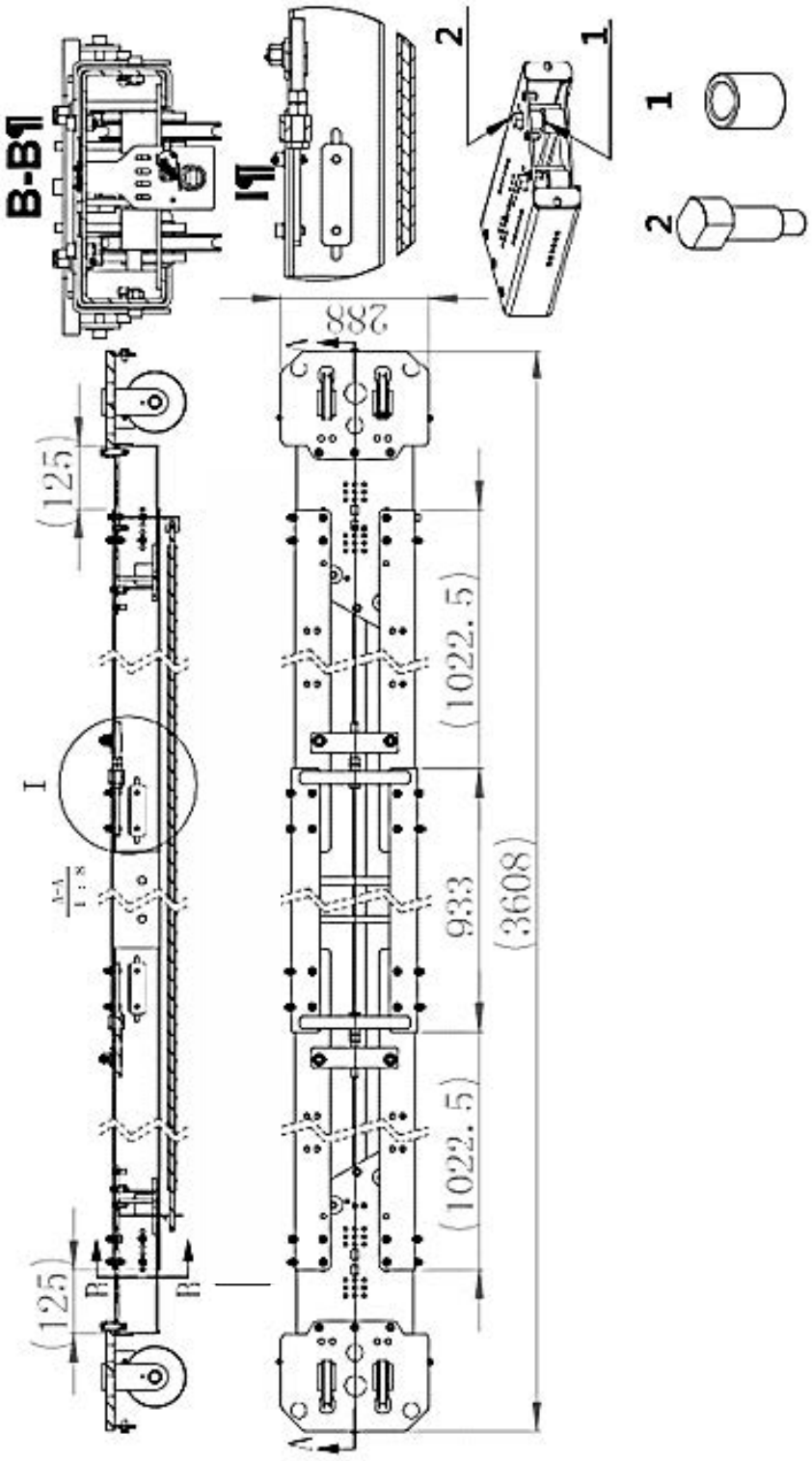
WARNING

The manufacturer declines liability for any damages resulting from failure to follow the above instructions, which may invalidate the warranty.

Installing the power unit

- Mount the support bracket of the power unit and fix it to the part of the hydraulic power unit with screws A and washers B by inserting the anti-vibration washers between the bracket and the power unit before positioning it on the column.
- Apply screws E and washers D for 5 mm on the column (only the two upper screws), the bracket is designed to be easily hung through the head of the screws to facilitate placement of the power unit.
- Mount the electro-hydraulic power pack in the upper part of the control column.
- Also insert and tighten the lower screws

4.3.1 Beam installation



1. The dimensions are only for your reference purpose during installation (You can make some adjustment according to the actual situation).
2. Refer to the partial drawings “I“ and “B-B” for installation.
3. **Note!** For symmetrical installation - remove item 1 and 2.

4.4 Connecting to the electricity mains

Let authorized electrician connect to mains.

To connect to the electricity supply, use a:
3 core + earth cable with cross section of 2.5 mm2 for the 400V version
2 core + earth cable with cross section of 2.5 mm2 for the 230V version
The cable must be completed with a main plug of the type in use in the country where the lift is installed.
The lift is fitted for the mains connection cable to arrive from below, but it can also be received from above.

For more information, see paragraph 8.1 - electrical diagram

WARNING
The manufacturer declines liability for any damages resulting from failure to follow the above instructions, which may invalidate the warranty.

WARNING
Whenever you change the power source of the machine, always check the direction of rotation of the motor.

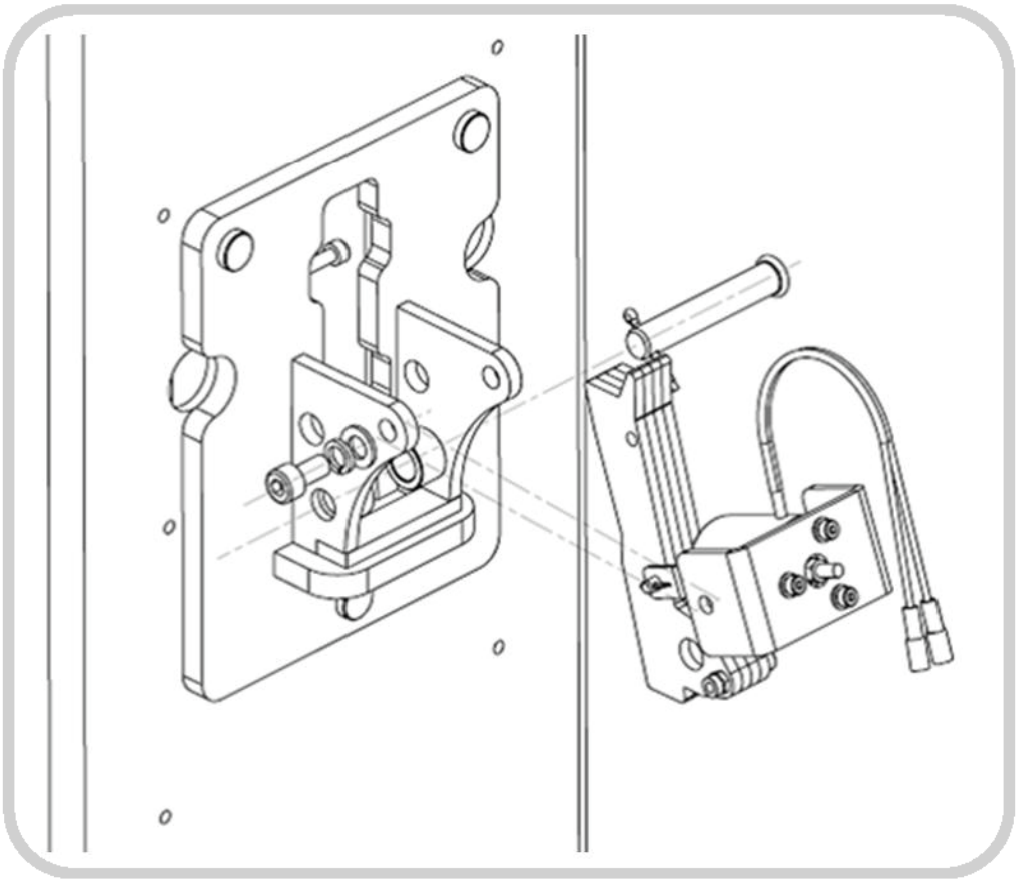
WARNING
The manufacturer declines liability for any damages resulting from failure to follow the above instructions, which may invalidate the warranty.

WARNING
Any connections to the workshop electrical panel are the customer's responsibility and must be made by staff qualified in accordance with the relevant legal requirements.

4.5 Lock Solenoid

The lock solenoid installation Install the lock solenoid as seen in picture.

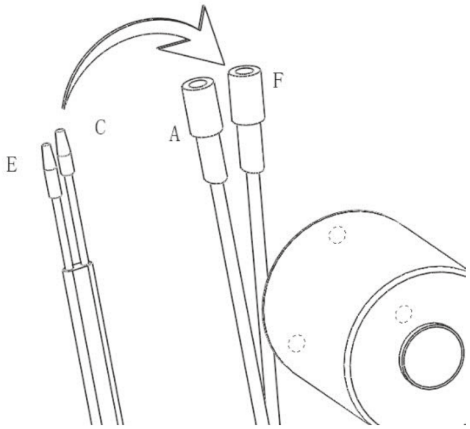
- Proceed by inserting the tooth-solenoid block on the structure with the pin provided by applying two centering spacers inside.
- Fasten both ends of the solenoid connection plate with hexagonal screws.

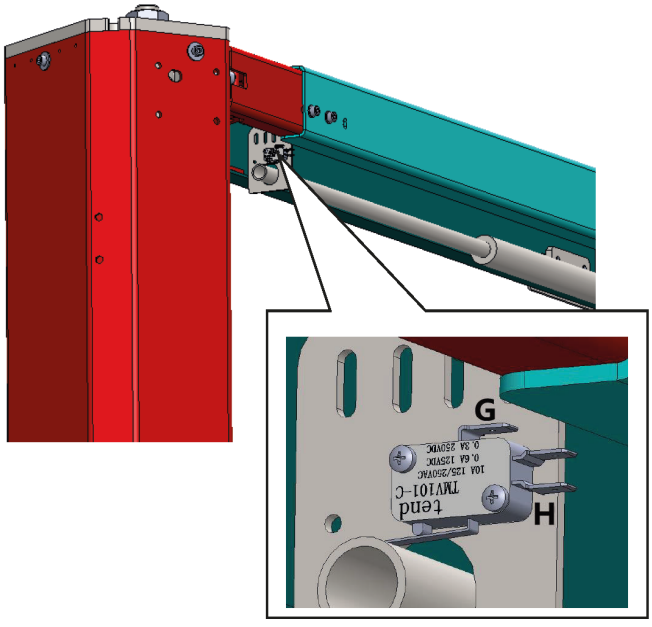


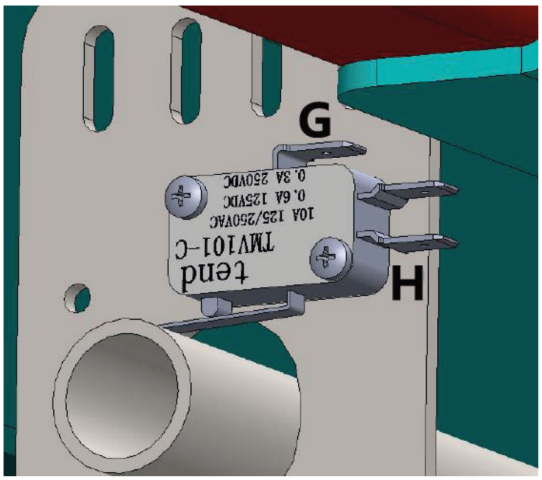
4.6 Electrical connection between the two pillars

To make the connection between the two pillars, proceed as follows:

- Place the right-hand pillar in its definitive position and fix it to the floor;
- Place the left-hand pillar in its definitive position and fix it to the floor;
- Connect the safety rod limit switch cable B and cable D
- There are three connection terminals at the limit switch. When you make the connection, just connect to "G" and "H" two connection terminals would be fine.
- Connect the cable E and cable C from the electromagnetic valve safety lock of both two columns to the electromagnetic valve connection termainals A and F





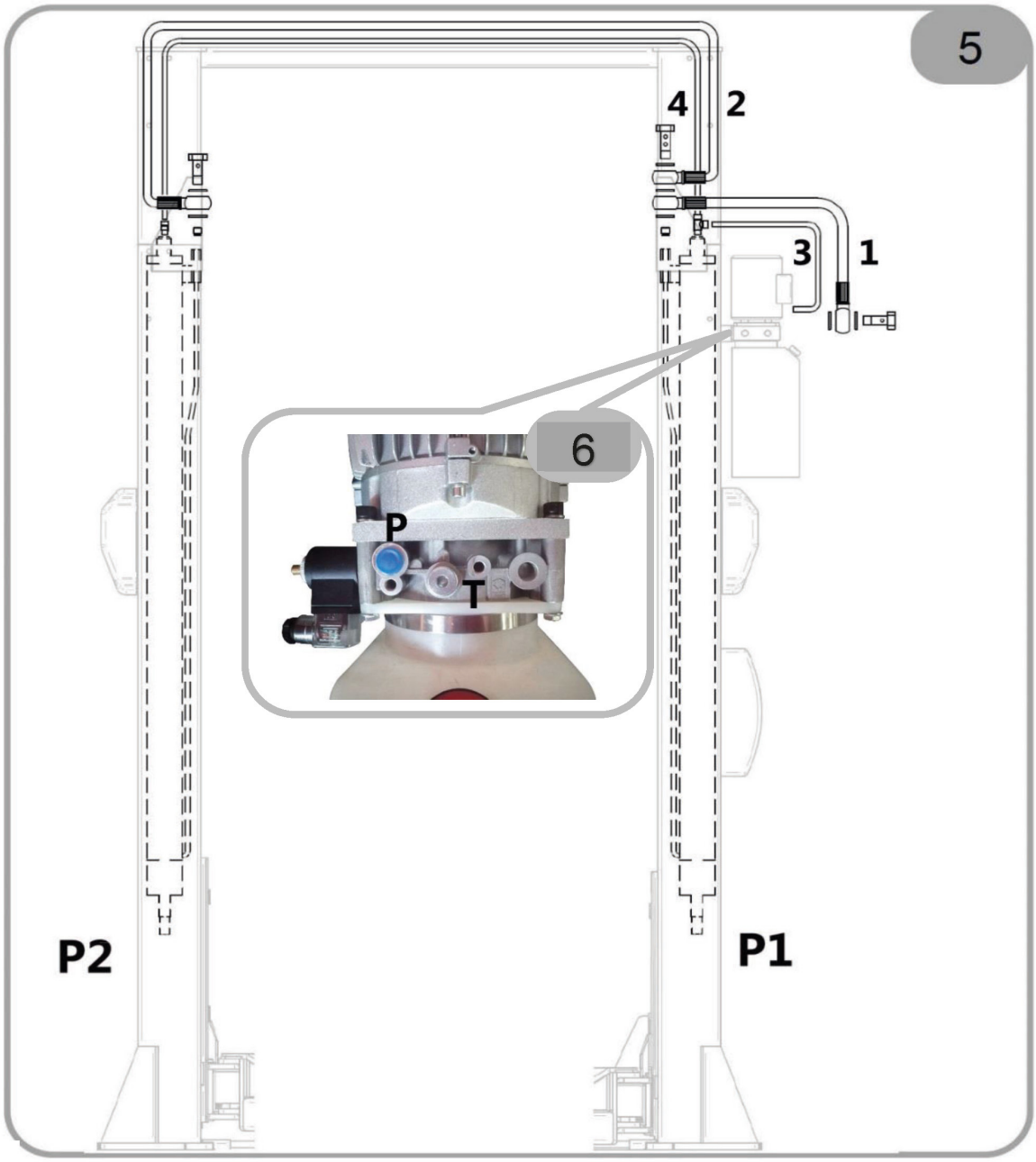


For more information see paragraph 8.1 - electrical diagram

4.7 Hydraulic connection

Assembly of hydraulic components of lift.
To complete the hydraulic connection, as shown in FIG 5, fix the hydraulic pump station and connect it to the top of the column P1.
To fix and connect the oil inlet pipe 1 and oil inlet pipe 2 as shown in figure 5.
The Φ 8 PU pipe 3 and PU pipe 4 are oil return pipes, to fix and connect them as shown in FIG 5.
FIG. 6 is the pipe connection illustration for pump station, P is the inlet oil pipe connection terminal, T is oil return pipe connection terminal.

If necessary, refer to the hydraulic scheme in section 8.3 - "hydraulic diagram".



WARNING
Check that there are no oil leaks, if necessary, switch off the voltage and tighten the loose hydraulic connections.
The lift to work requires ISO VG32 viscosity hydraulic oil not supplied. (Optional).
Unscrew the oil filler cap and insert 9 liters of hydraulic oil into the tank.

4.8 Connection cables of sync

STANDARD INSTALLATION - PARALLEL COLUMNS

To connect the synchronism cables between the two columns:

a. connect the synchronism cable “a” to the carriage of column P1 on the front connection (figure 7) with the locking nuts on the bottom and the cable directed upwards;
b. reach the top of the column apply the rope on the pulley continue on the crossbar apply the rope on the pulley of the P2 column and descend towards the pulley positioned on the base, and go back up to connect on the trolley passing on the rear hole and tighten with nuts.
c. Repeat the same operation for connecting the rope “b” starting from the carriage placed in column P2 and connecting to the carriage placed in column P1;
d. Rise the carriage up to half height and place them in a safe position; the two carriages must be aligned and positioned on the same tooth of the rack;
e. Adjust the tension of the ropes "a" and "b" evenly using the locking nuts on the carriages;

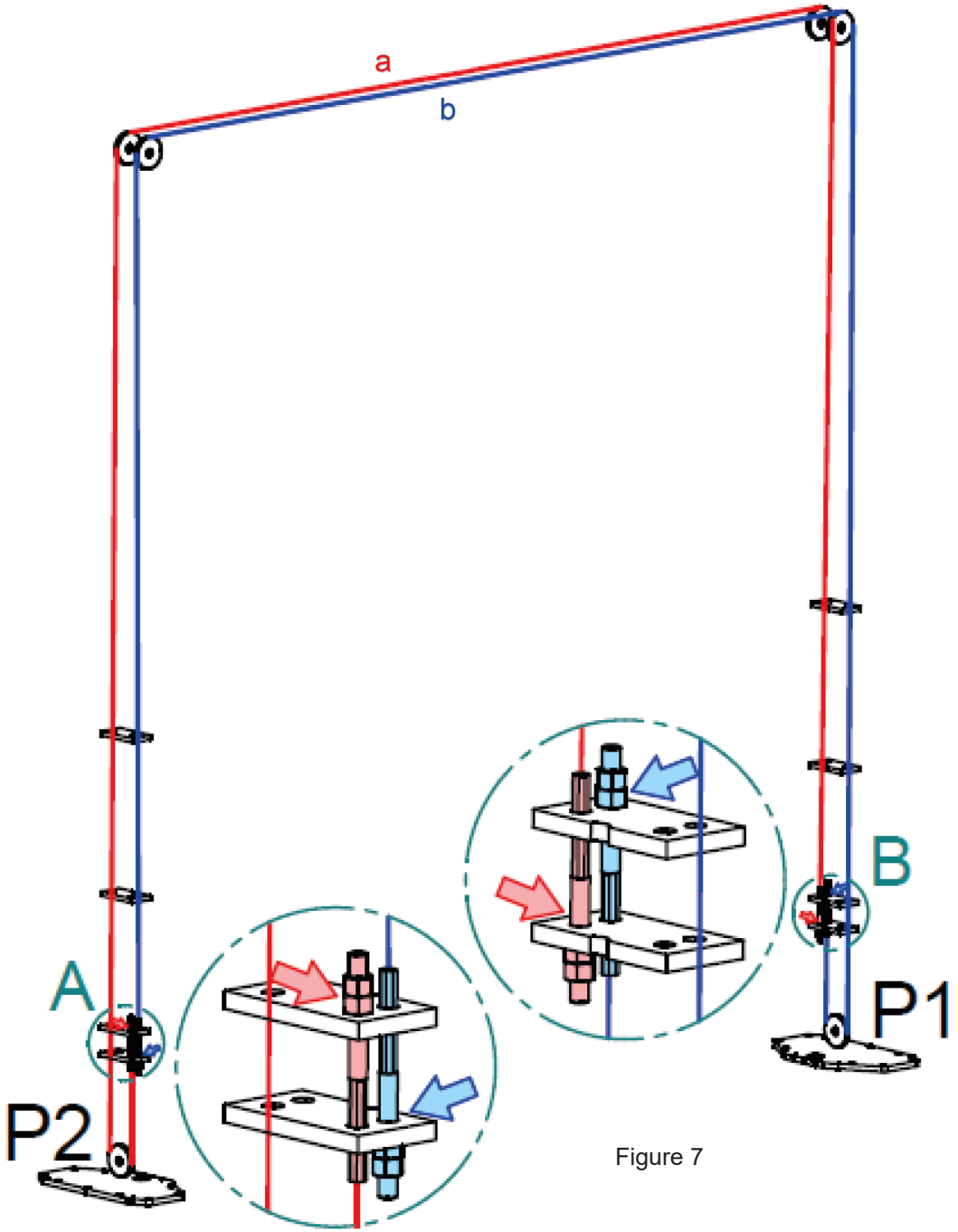


Figure 7

INSTALLATION WITH EXTENSIONS H 600 - PARALLEL COLUMNS

To connect the synchronism cables between the two columns:

a. connect the synchronism cable “a” to the carriage of column P1 on the front connection (figure 7a) with the locking nuts on the bottom and the cable directed upwards;
b. reach the top of the column apply the rope on the pulley continue on the crossbar apply the rope on the pulley of the P2 column and descend towards the pulley positioned on the base, and go back up to connect on the trolley passing on the rear hole and tighten with nuts.
c. Repeat the same operation for connecting the rope “b” starting from the carriage placed in column P2 and connecting to the carriage placed in column P1;
d. Rise the carriage up to half height and place them in a safe position; the two carriages must be aligned and positioned on the same tooth of the rack;
e. Adjust the tension of the ropes "a" and "b" evenly using the locking nuts on the carriages;

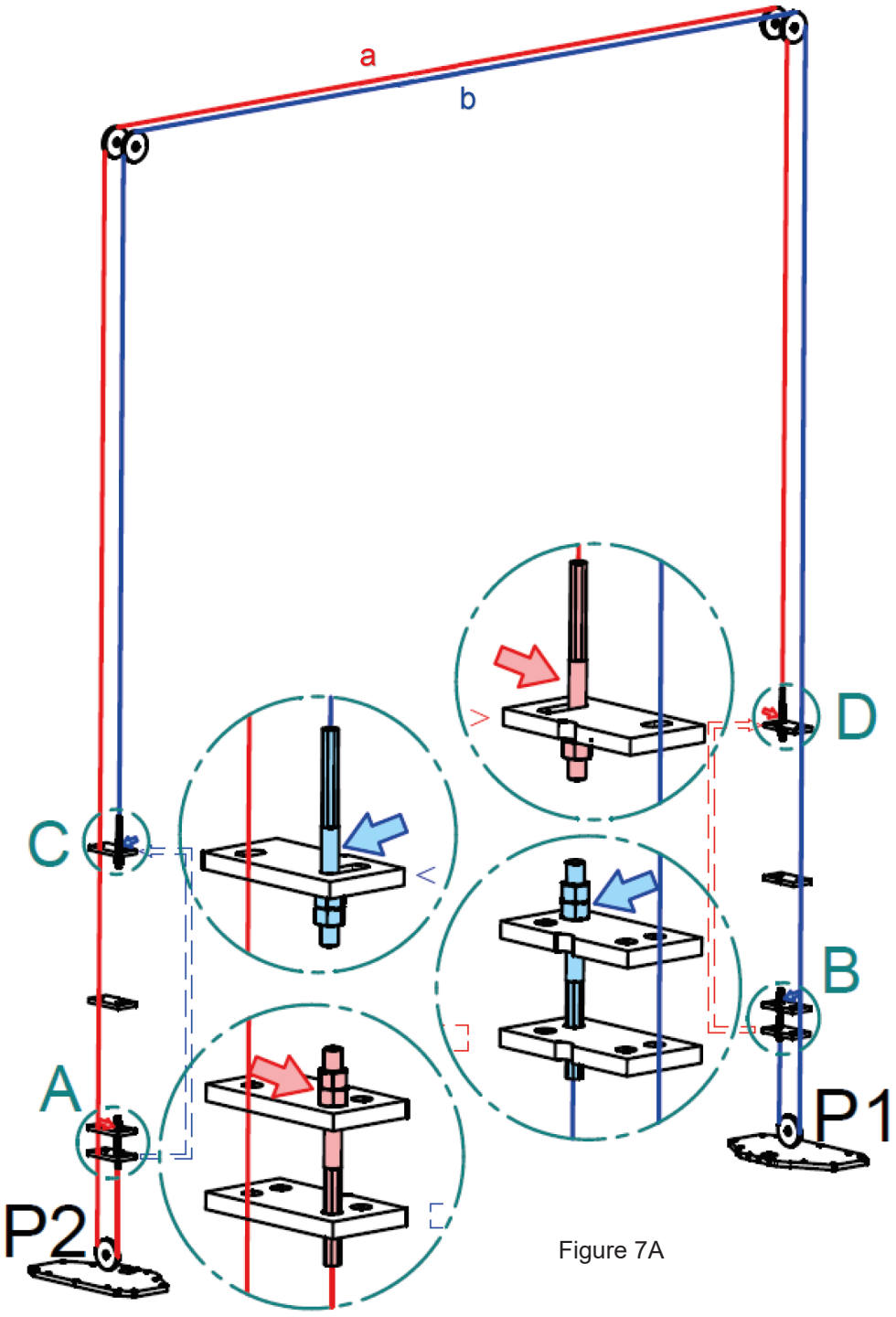


Figure 7A

INSTALLATION WITH EXTENSIONS H 1200 - PARALLEL COLUMNS

To connect the synchronism cables between the two columns:

a. connect the synchronism cable “a” to the carriage of column P1 on the front connection (figure 7b) with the locking nuts on the bottom and the cable directed upwards;
b. reach the top of the column apply the rope on the pulley continue on the crossbar apply the rope on the pulley of the P2 column and descend towards the pulley positioned on the base, and go back up to connect on the trolley passing on the rear hole and tighten with nuts.
c. Repeat the same operation for connecting the rope “b” starting from the carriage placed in column P2 and connecting to the carriage placed in column P1;
d. Rise the carriage up to half height and place them in a safe position; the two carriages must be aligned and positioned on the same tooth of the rack;
e. Adjust the tension of the ropes "a" and "b" evenly using the locking nuts on the carriages;

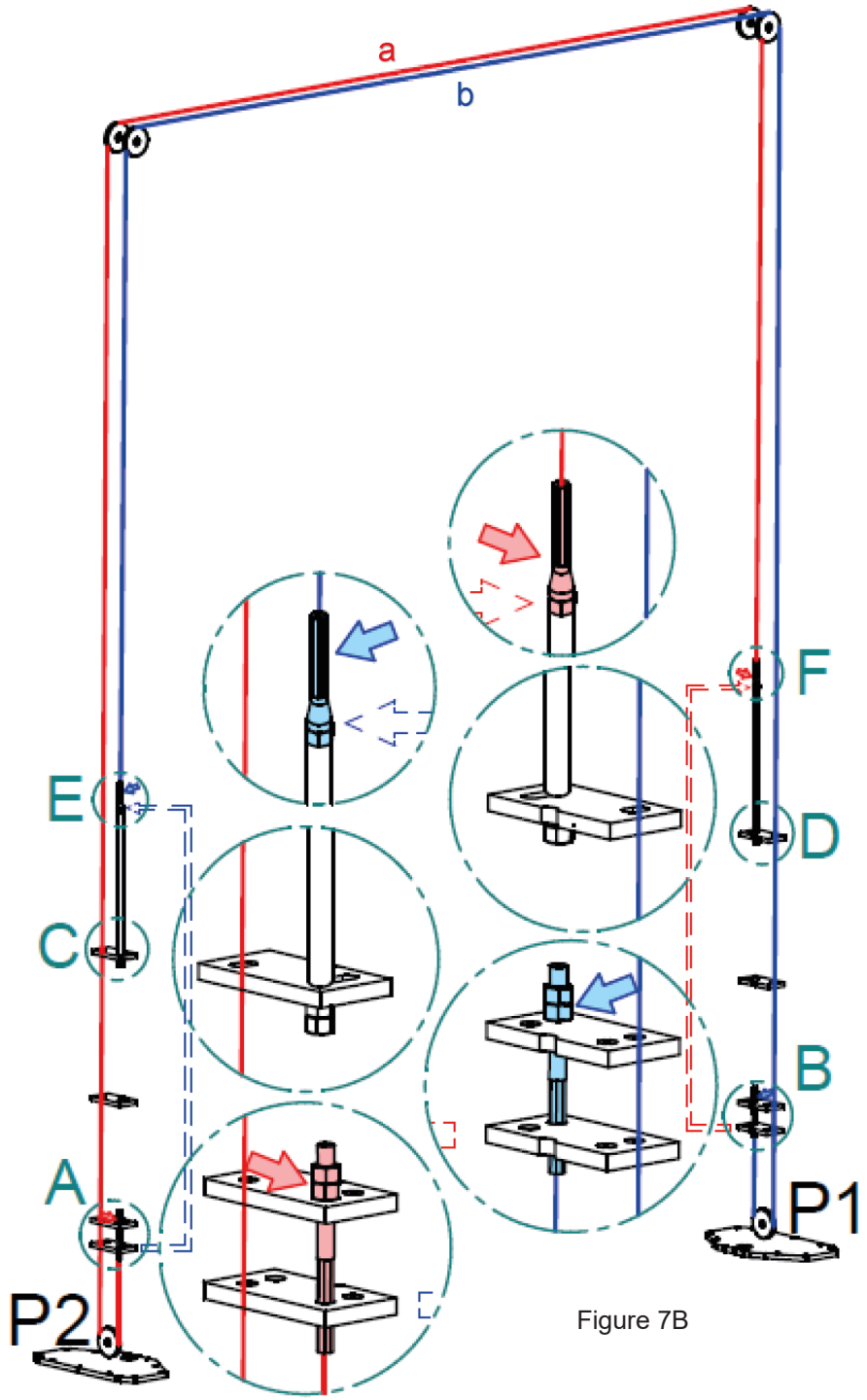
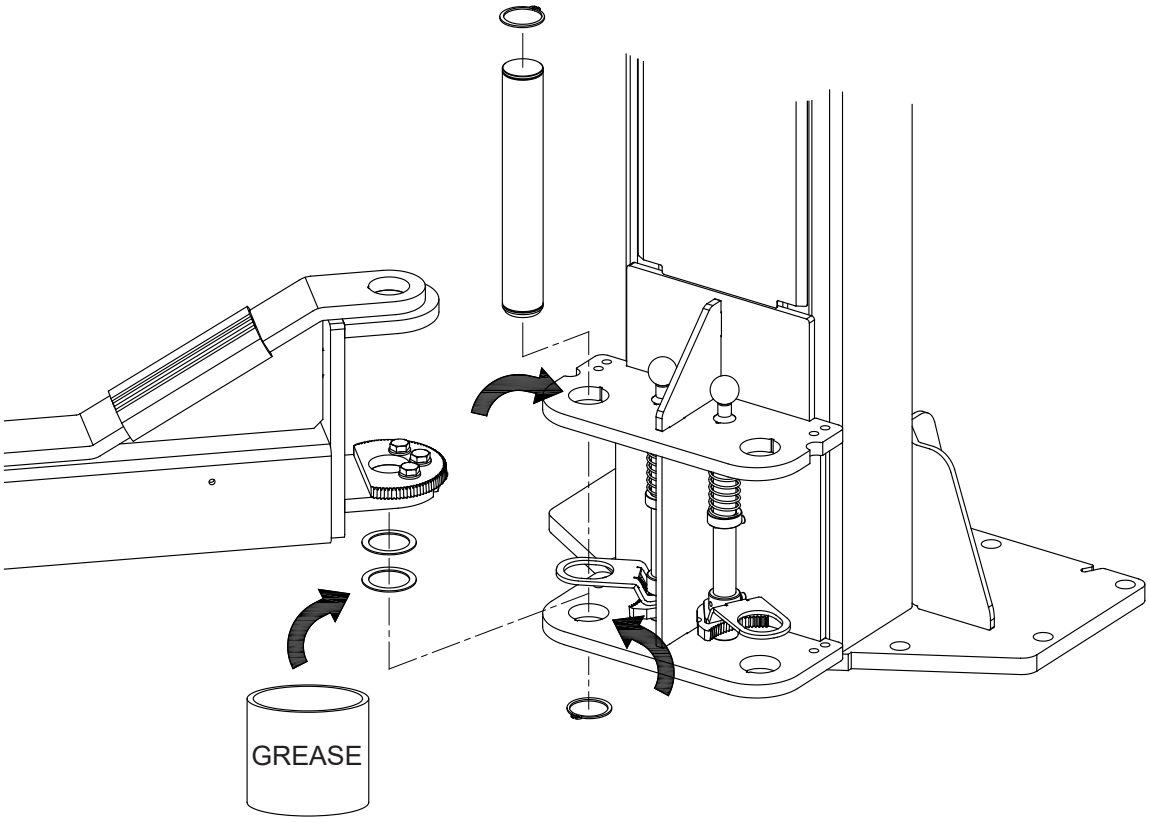


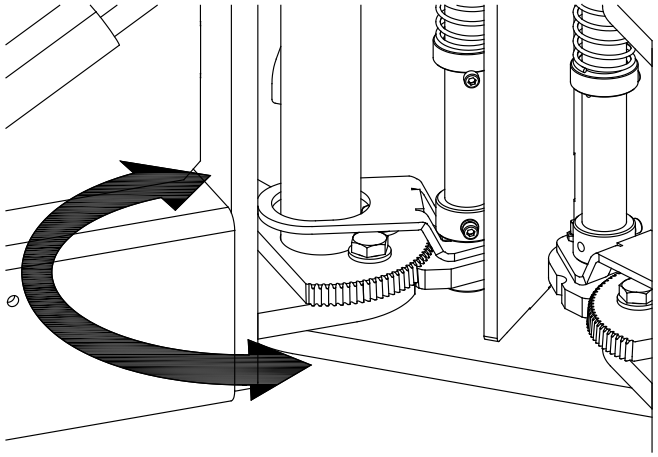
Figure 7B

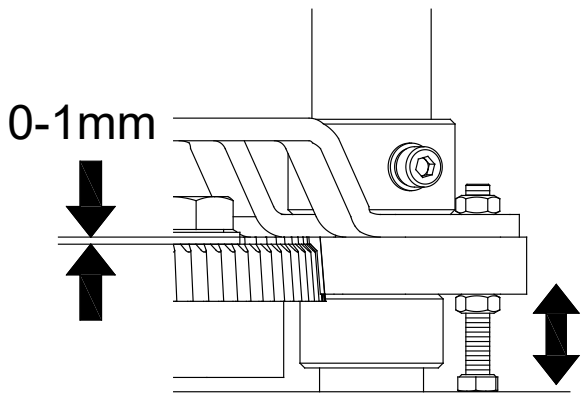
4.9 Fitting of arms

- Push the arm into the suspension and place nylon washers under arm.
- **NOTE !** Grease holes in arm suspension and washers before assembly.
- Fit axle through suspension and arm.

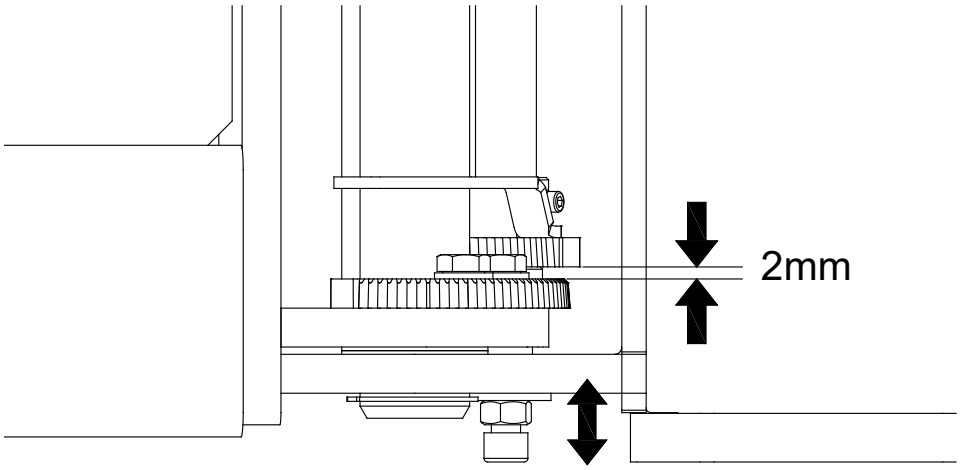


- Raise lift to adequate height and adjust arm locking device on all 4 arms. This can be done by turning each arm in an interval of 0 to 90° and check the engagement of the locking device 3 to 5 times on each arm.
- Adjust the screw in the arm locking system according to sketch below.
- Re-tighten the 3 screws on each arm.

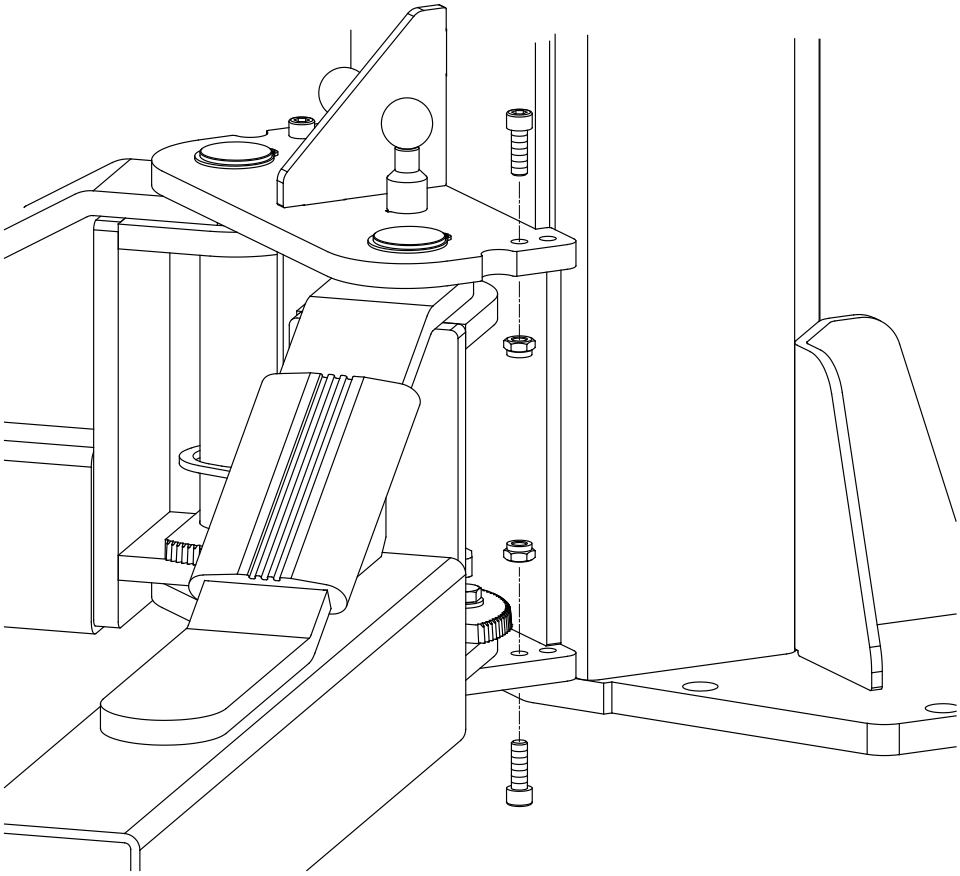




- Lower lift to bottom position.
- Pull out all arms to extreme position.
- Adjust screws in carriage so that arm lock is released by 2mm (for both posts).



- Fit screws and nuts in carriage for all 4 arms.



4.10 Control of motor rotation direction

Then lower the lift using the down button [12] switch on the control panel. The carriages must descend simultaneously. If the carriages run in the opposite direction to that set using the selector switch, swap two wires inside the power supply cable plug.

WARNING
The motor rotation direction must be checked whenever the lift's power source is changed.

4.11 Air exhaust off hydraulic system

After the installation there can be air in the lift's hydraulic system which has to be exhausted. The lift should be in lowest position when connecting the hydraulic pipes. Then press the "UP" button to lift it to its hightest position; keep the button pressed for 10 seconds. The automatic air exhaust system presses the air out off the hydraulic system. Lower the lift afterwards. Repeat lifting and lowering the lift for 2 - 3 times to exhaust all remaining air off the hydraulic system.

ATTENTION:
Exhausting the air off the hydraulic system is very important; otherwise the lift cannot work properly.

5. Instructions for use

5.1 Start up

WARNING
The lift must be put into service by specially trained personnel, to assure the correct functioning of the lift itself and all its mechanical and electrical safety systems.
The instructions to be followed are provided in the final section of this manual, for the use of the technicians who carry out the start-up procedure only.
No work on the part of the staff that does not belong to the after-sales service of the manufacturer must be permitted.

WARNING
The manufacturer declines liability for any damages resulting from failure to follow the above instructions, which may invalidate the warranty.

5.1.1 Adjustment of the lifting time for release of the safety locks

The lifting time in the automatic mode needed for the release of the mechanical safety locks is set by the manufacturer (approximately 3/4 seconds).
In case further adjustment is necessary, work timer KT available on the electrical panel.

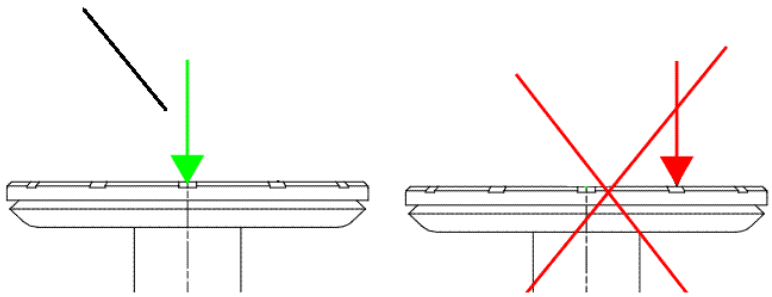
5.2 Operation

The machine must only be used by authorized personnel. Use by personnel who are not familiar with the procedures specified in this manual could be dangerous.
The operation of the machine is as follows:

Positioning of vehicle:
Drive the vehicle in between the 2 posts and turn the 4 telescopic arms under the vehicle.

Lifting:
Position the adjustable arms in order that the skid-proof pick-up pads are placed under the supporting parts of the vehicle.
Place the pick-up pads carefully in order to prevent the car from slipping off. The lifting pad must be loaded centrically ! The load distribution permitted between front and rear arms of 1:3 respectively 3:1 must not be exceeded.

Center of lifting point



RIGHT ! WRONG !

Adjust the pick-up pads in height so as to catch the 4 lifting points simultaneously.

See illustration of control unit - chapter 1.1 Lift description

Push UP-button ▲. Lift the vehicle approximately 10 cm.
Check once more that the pick-up pads are correctly placed and make sure that the arm locks are engaged by pulling the arms backwards and forwards.
Lift the vehicle to required working position. Watch vehicle and lift during the entire lifting movement.

Parking:
Let go of UP-button ▲ and push PARKING-button, until ratchets in both posts are engaged.

Lowering:
Check that the working area of the lift is vacant.
Check that all objects have been removed from the working area of the lift.
Push DOWN-button ▼. The lift will raise a little (to release the ratchets) before starting lowering.
Activate DOWN-button ▼ until the required position has been reached. Watch vehicle and lift carefully during the whole lowering movement.
CE-Stop: When lowering the lift stops approx. 300 mm from bottom position and an acoustic warning signal is heard. Before continuing the lowering the operator has to check once again that no person can be injured.
Push DOWN-button for CE-stop ▼▼. The lift can now be lowered to bottom position. The acoustic warning will be heard until bottom position has been reached.

WARNING
The vehicle must only be lifted to the lifting points prescribed by the vehicle manufacturer.
For assistance, contact authorized centers and request the use of original parts.

WARNING
The Manufacturer disclaims any and whatever liability for damages to persons, animals or property arising from non-compliance with the instructions given herewith and/or from an improper use of the lift or any use other than specified in this manual.

5.3 Emergency procedures

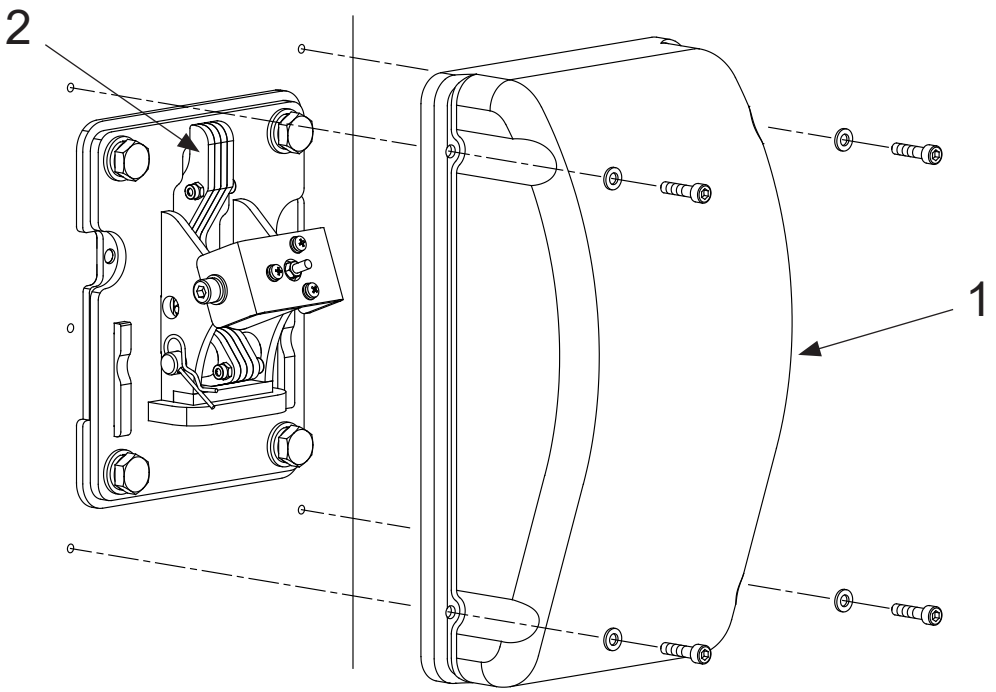
These modes are intended for handling emergency situations which may arise due to malfunction, incorrect loading, power failure, etc.

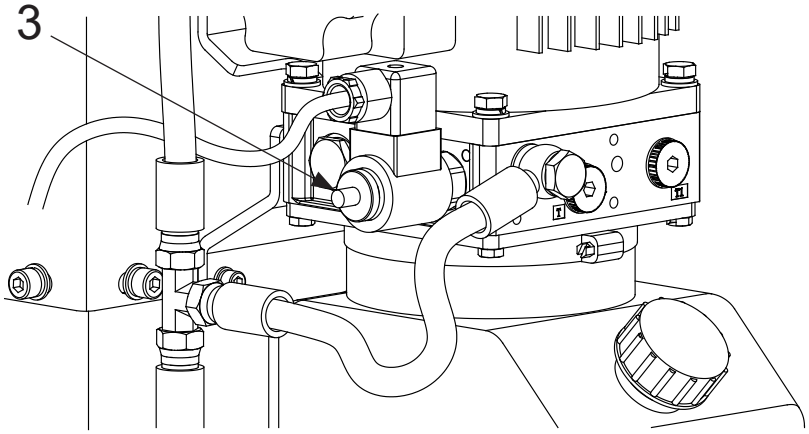
WARNING !

During this procedure all normal safety functions are out of operation. Therefore proceed with utmost caution and consideration during the entire procedure.

Only an authorized AUTOPSTENHOJ technician is allowed to carry out the emergency lowering procedure !

- Turn off main switch.
- Remove covers for safety ratchets on both posts (item 1).
- Pull out both ratchets manually (item 2) and fasten them with a string or similar so they do not engage again.
- Turn thumbscrew on valve insert (item 3) to loosen. Lift will now lower to bottom position.
- When lift is in bottom position re-tighten thumbscrew.
- Re-engage ratchets and re-fit covers.





6. Maintenance

To guarantee the efficiency of the machine and its correct functioning it is essential to follow the following instructions:

- Once a month lubricate the chain with VANGUARD EP 68 or equivalent oil;
- Check the efficiency of the ground fixing every 3 months by checking the tightening torque of the plugs: 100 Nm for M16 plugs;
- Remove the protective curtain and check that the ropes are not crushed or there are cut strands.
- Check the correct functioning of the pulleys.
- Check the level of OIL in the hydraulic power unit reservoir.
- Clean the hoist paying particular attention to any foreign objects that may cause malfunctioning of both mechanical and electrical safety devices.

6.1 Cleaning

To clean the machine (columns and plastic covers) use only a soft cloth, if necessary soaked in non-aggressive detergent. Do not use solvents (petrol, turpentine, acetone and the like). Cleaning the space between the columns should be done simply by sweeping away the dirt.

WARNING
Never use pressurized water (eg water cleaners) to clean the machine.

6.2 Storage

If the lift is to be out of use for a long period of time, it must be disconnected from the electricity supply and any parts which might be damaged by dust must be protected.

6.3 Environmental information

The disposal procedure described below must only applies to machines with the symbol of the waste bin with a bar across it on their rating plates.

This product may contain substances which may cause damage to the environment and human health if not disposed of properly.
We are therefore providing you with the information below in order to prevent these substances from being released into the environment, and to improve the use of natural resources.
Electrical and electronic equipment must not be disposed of with ordinary municipal waste; it must be disposed of separately by authorized facilities.
The symbol of the waste bin with a bar across it, which appears on the product and on this page, reminds users that the product must be disposed of properly at the end of its working life.
This prevents the inappropriate disposal of the substances which this product contains, or the improper use of some of them, from having hazardous consequences for the environment and human health. It also helps to ensure the recovery, recycling and reuse of many of the materials these products contain.
To allow this, the producers and distributors of electrical and electronic equipment organize special systems for the collection and disposal of such equipment.
At the end of the product's working life, contact your dealer for information about disposal procedures.
When you purchase this product, your dealer will also inform you that you may return another worn-out appliance to him free of charge, provided it is of the same type and has provided the same functions as the product just purchased.
Anyone disposing of the product otherwise than as described above will be liable to prosecution under the legislation of the country where the product is scrapped.
We also urge you to adopt other environment-friendly practices: recycle the internal and external packaging which comes with the product and dispose of spent batteries (if the product has them) properly.
With your help, we can reduce the amount of natural resources used to produce electrical and electronic equipment, minimize the use of landfills to dispose of old products, and improve quality of life by preventing the discharge of potentially hazardous substances into the environment.

6.4 Firefighting equipment to be used

For guidance on the most suitable type of extinguisher, refer to the table below:

	Dry materials	Inflammable liquids	Electrical equipment
Water	YES	NO	NO
Foam	YES	YES	NO
Powder	YES	YES	YES
CO_2	YES	YES	YES

YES* Can be used if more suitable equipment is not available, or for small fires.

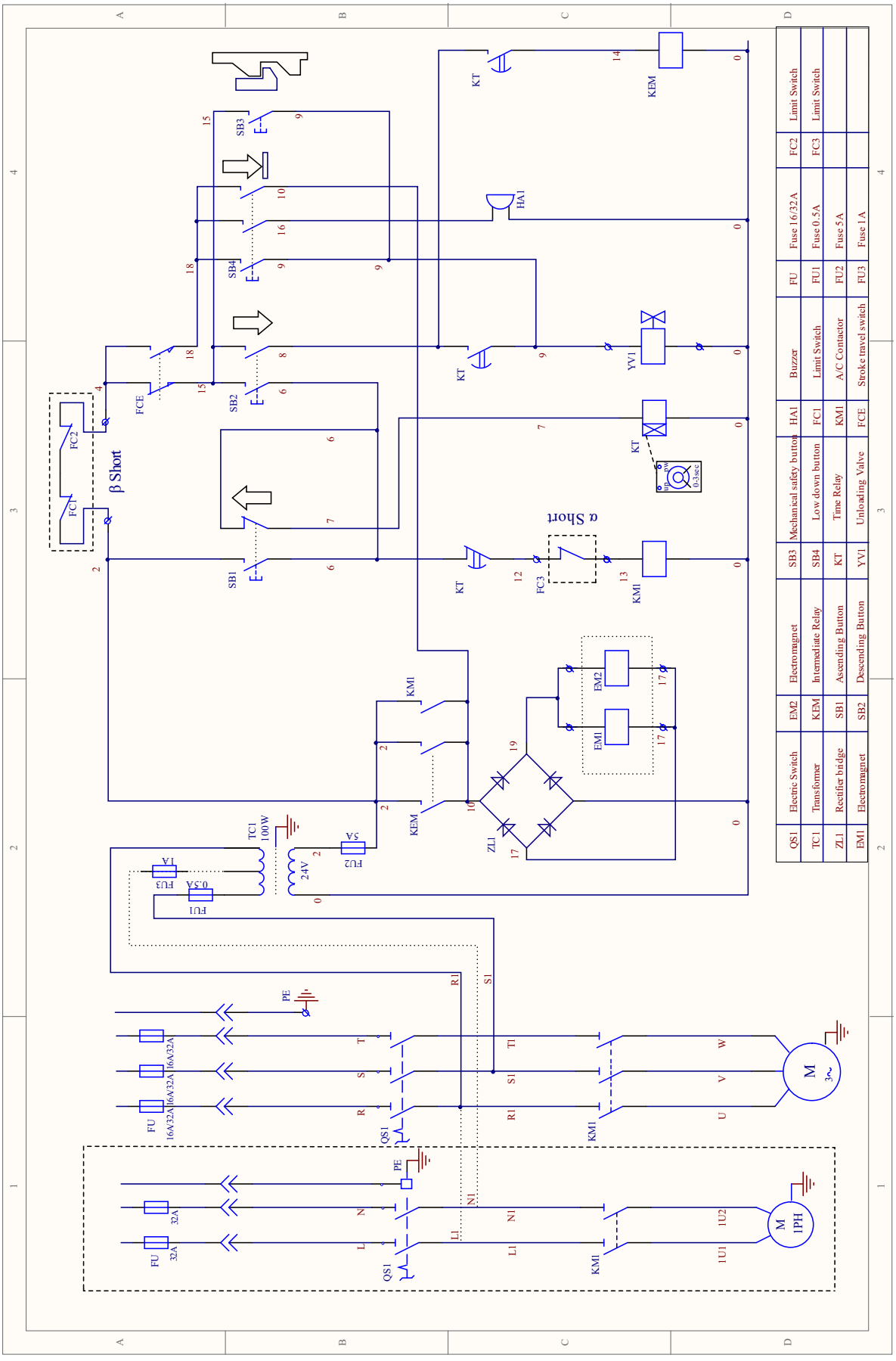
WARNING
The information in this table is of a general nature and is intended to provide users with general guidance. Contact the manufacturer for details of the applications of each type of extinguisher.

7. Troubleshooting

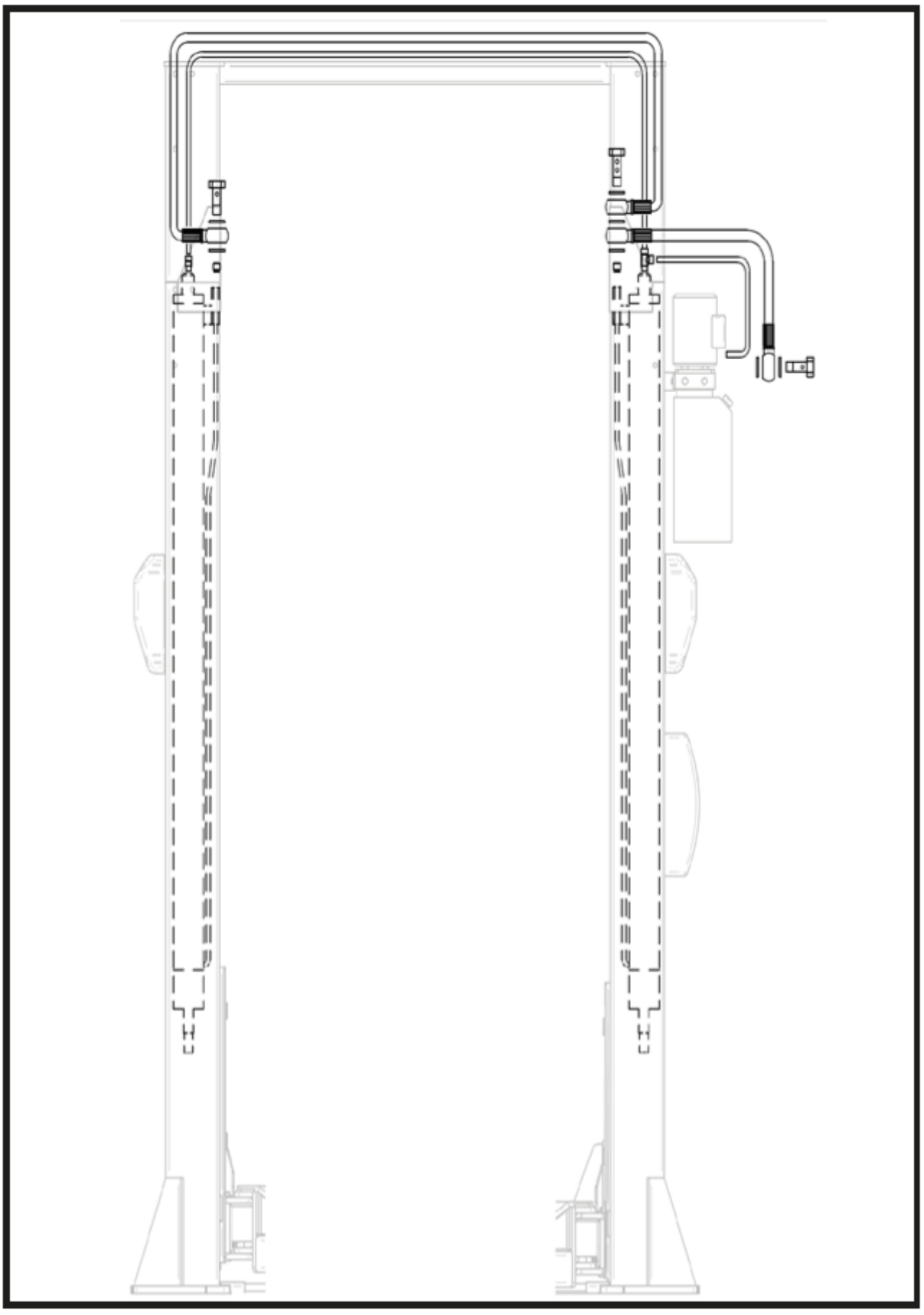
Problem	Cause	Solution
The Lift is connected to the mains, but does not work and the power indicator [10] is off.	The transformer primary mains switch is in the OFF position.	Take it to the on position.
	The emergency switch QM located on the switchboard crankcase is in the OFF position.	Take it to the on position.
	The switch (QM) inside the electrical panel is in the OFF position	Rearming the Switch
	Power indicating lamp is off, can not do any control; three phase equipment's motor has abnormal noise but can not work properly (lack of phase power).	Check the voltage under the fuse base if it is normal? If it is abnormal, please replace the new fuse.
No operation	Electrical system failure	Contact Service
The lift does not complete the lifting stroke	Load exceeding the maximum flow rate	Check the maximum capacity of the lift
	Supply voltage too low	Check the supply voltage
	Low oil level	Fill the oil level
Noise during the ascent or descent movement	Mechanical parts (chain, pulleys, skids) without lubrication	Provide for lubrication
Lift can not completely lower down.	10A fuse burned	Replace the fuse
	Electromagnetic did not open completely	Adjust the installation position of electromagnetic valve.
	The stroke switch at the end of chain protection device did not work.	check the wiring of the stroke switch and wiring terminal if they are correct.
Poor synchronisation of the carriage	The levelling cables have a different adjustment	Adjust the nut on the ropes
It is hard for the lift to ascend and descend	The down (YV1) valve is open or damaged	Disconnect the down valve and clean it. If it is damaged proceed with the replacement
Oil leakage from connections	Loose fittings.	Tighten fittings, replace if necessary
Other		If you cannot resolve the problem, contact our service.

8. Diagrams

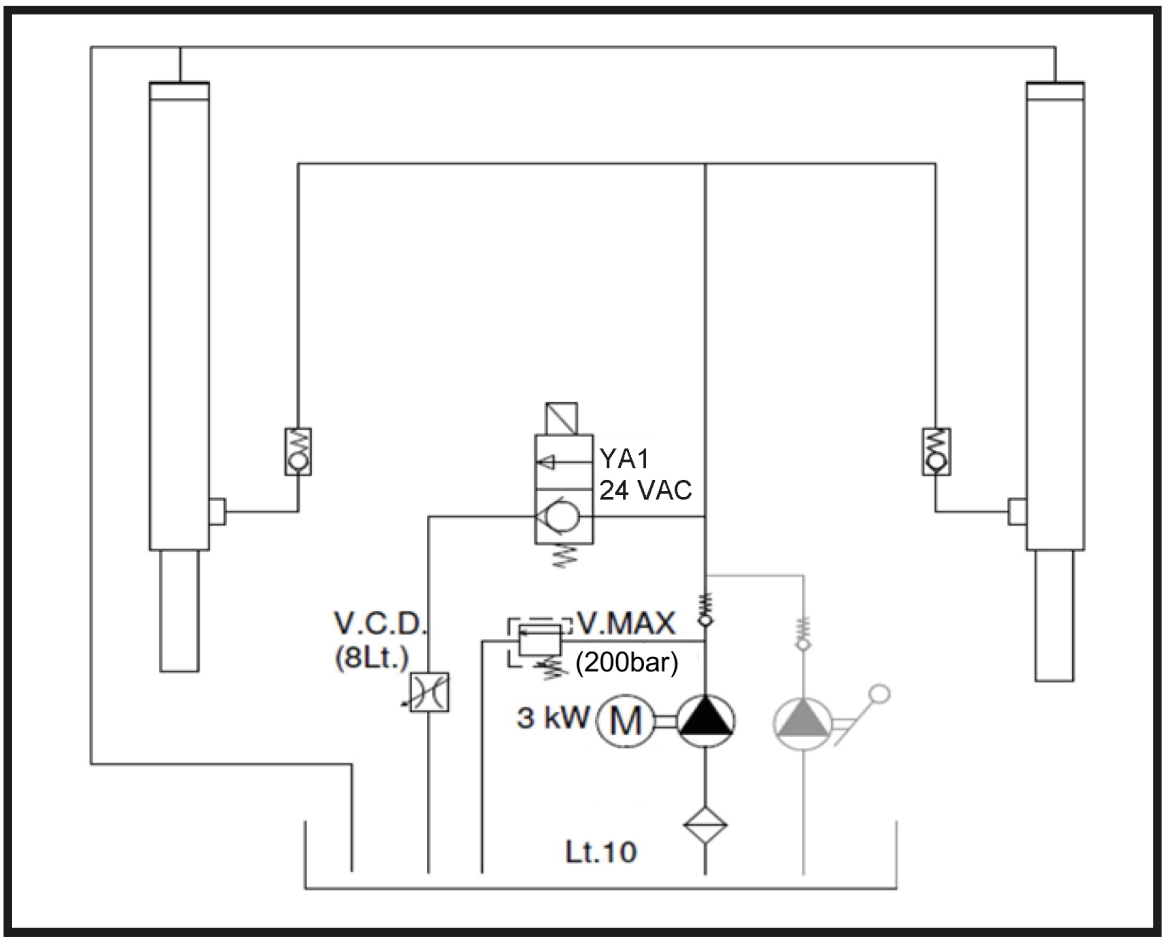
8.1 Electrical diagram



8.2 Hydraulic connection diagram



8.3 Hydraulic diagram



9. Procedure for the adjustment and testing of the lift

RESERVED FOR THE INSTALLER TECHNICIAN
(to be carried out scrupulously by the installer at every point)

- ADJUSTMENT OF THE MECHANICAL ALIGNMENT OF THE CARRIAGES
  1. press the up button and check the correct direction of rotation of the motor (the carriages must go up) otherwise change two phases on the terminal board.
  2. lift the carriages to about 50 cm and measure the height. If there is a difference, tension the sync ropes.

- CHECK THE CORRECT OPERATION OF UPPER LIMIT-SWITCH.
- CHECK THE CORRECT OPERATION OF THE ELECTROMAGNETS, IF NECESSARY, ADJUST THEM AGAIN.
- CHECK CORRECT LUBRICATION OF MOVING PARTS.
- CHECK THAT THE RELIEF VALVE IN THE CONTROL UNIT DISCHARGES WITH HIGH MECHANICAL LIMIT SWITCH.
- CHECK THAT THE ARM LOCK SAFETY RACKS ENGAGE IN THE VARIOUS POSITIONS (ARM FULLY OPEN AND ARM FULLY CLOSED).

Once the main functional tests have been successfully completed (complete high/low stroke, no leaks in the hydraulic circuit, correct operation of the safety devices, correct adjustment of the synchronisation cable tension, etc).
Caution: under certain limit load conditions, if stationary (safety) it may be necessary to operate the down control a second time to correctly complete the "pre-lifting/release safety/descent" cycle.

- Complete the installation of the machine
  - Mount the various protective covers (e.g. slave column electromagnet, base, etc.)
  - Mount column frontal protection (curtain)
  - Etc.
- Check that the machine is complete with the documentation usually supplied (e.g. User Manual, Register of periodical ispections, Certification CE, etc.)
- Check the tightness of the locking plugs, tighten them if necessary.

When everything has been verified, checked, proceed with the demonstration and training of users

Note

Hoist Maintenance & Usage Rating

Based on Usage Rating (as determined over), use this chart to ascertain how often you need to professionally service your hoist (Servicing Intervals) and when your hoist requires major servicing.

USAGE DEPENDENTMAINTENANCE REQUIREMENTS

USAGE RATING	SERVICING INTERVALS	MAJOR INSPECTIONS					ENGINEERING ASSESSMENT
		1ST	2ND	3RD	4TH	5TH	
MEDIUM	12 months	Year 10	Year 20	Year 25	/	/	Year 25
HEAVY	6 -12 months	Year 10	Year 15	Year 20	Year 25	/	Year 25
VERY HEAVY	6 months	Year 5	Year 10	Year 15	Year 20	Year 25	Year 25
EXTREME	3 months	Year 5	Year 10	Year 15	Year 20	/	Year 20

Local Call **1300 MOLNAR** = 1300 665 627
service@molnarhoists.com.au
www.molnarhoists.com.au

Managed Hoist Maintenance

MOLNAR™ SERVICES

USAGE RATING

LIFTS PER DAY	AVERAGE LOADING ON HOIST AS PERCENTAGE OF CAPACITY					
	50%	60%	70%	80%	90%	100%
40	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME	EXTREME
38	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME	EXTREME
36	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME	EXTREME
34	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME	EXTREME
32	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME	EXTREME
30	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME	EXTREME
28	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME
26	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME
24	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME
22	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME	EXTREME
20	HEAVY	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME
18	HEAVY	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME
16	HEAVY	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME
14	HEAVY	HEAVY	VERY HEAVY	EXTREME	EXTREME	EXTREME
12	HEAVY	HEAVY	VERY HEAVY	VERY HEAVY	EXTREME	EXTREME
10	MEDIUM	HEAVY	HEAVY	VERY HEAVY	VERY HEAVY	VERY HEAVY
8	MEDIUM	HEAVY	HEAVY	VERY HEAVY	VERY HEAVY	VERY HEAVY
6	MEDIUM	MEDIUM	HEAVY	HEAVY	HEAVY	HEAVY
4	MEDIUM	MEDIUM	MEDIUM	HEAVY	HEAVY	HEAVY
2	MEDIUM	MEDIUM	MEDIUM	MEDIUM	MEDIUM	MEDIUM

LIFTS PER DAY = Average number of hoist lifts, based on 5 day a week, 50 weeks a year for design life of 25 years
Average Loading = e.g. A three tonne hoist lifting an average weight of 2.1 tonnes is operating at **70%** or
A four tonne hoist lifting an average weight of 3.6 tonnes is operating at 90%

Installer Checklist

Installer must complete (tick) the following list after installing this Molnar hoist:

- Legal clearances around hoist
- Floor is suitable and within manufactures specifications
- Wire ropes, pulleys and/or hoses are free of any damage
- Safety devices, limit switches and controls have been checked for correct operation
- Check the side and top arm stop bolts are installed, tightened and functioning by extending and testing both stages of all arms
- Hydraulic system checked and leak free at time of installation
- Hoist tested without and with load as per manufactures specifications
- Hoist has been lubricated and adjusted as per manufactures specifications
- Log book use has been explained to owner/operator and initial details completed
- The client representative has been shown and instructed in the correct operation and maintenance of the hoist

Distributor (vendor)

Company

Branch

Hoist

Installation Date

Model Number

Serial Number

Hoist Owner

Business

Name

Position

Signature

Installer Details

Name

Company

Signature

These records should be retained for administrative and warranty assistance.

Log books are available from Molnar Services or Molnar Hoists distributors. Part Number: **8209001 - Hoist Log Book Kit**