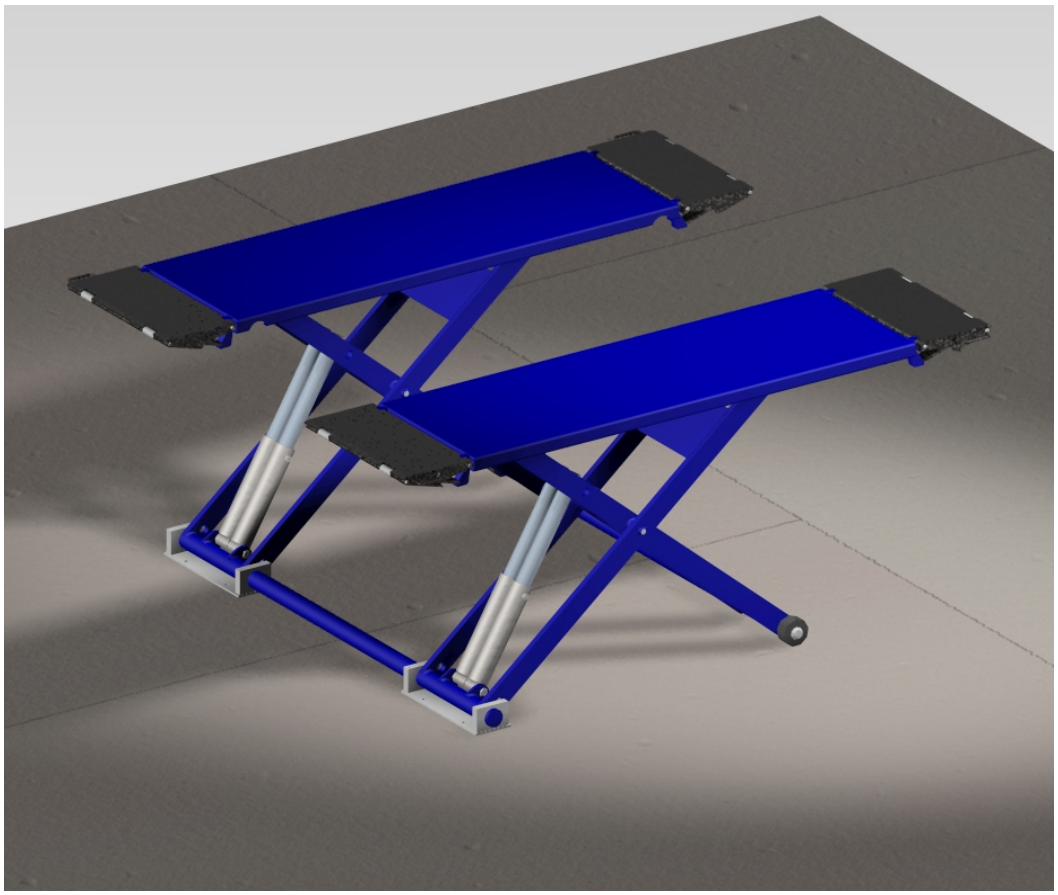
USE
AND
MAINTENANCE
MANUAL

SCISSOR LIFT TYPE:

ROTUS PSG 2.5 SC M



Revision	03	Modified electrical diagram	Date	18/11/06
Revision	02	General revision	Date	20/11/06
Revision	01	Issued	Date	13/11/06

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 on to the lift
Bold Type	Important information

	**WARNING: before operating this lift and carrying out any adjustment. read chapter 7 “installation” where the correct installation procedures for the lift are shown.**.

CONTENTS

1 CHAPTER 1 – GENERAL INFORMATION

This chapter contains warning instructions to operate the lift properly and prevent injury to operators or objects.

This manual has been written to be used by shop technicians in charge of the lift (OPERATORS) and routine maintenance technicians (MAINTENANCE OPERATORS).

The operating instructions are considered to be an integral part of the machine they and must remain with the lift at all times. Read every section of this manual carefully before unpacking and operating the lift. the manual 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 AUTHORISED DEALERS or SERVICE CENTRES AUTHORISED 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 UNAUTHORISED PERSONNEL OR 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.

1.1 MANUAL KEEPING

For 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 the damp
- use this manual properly without damaging it
- do not make changes to the manual; any changes and updating can be made only by the manufacturer.

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

1.2 OBLIGATION IN CASE OF MALFUNCTION

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

1.3 CAUTIONS FOR THE SAFETY OF THE OPERATOR

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 the chapter "Operation and use".**

1.4 WARNINGS

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

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

	**The use of non genuine parts may cause damage to people or objects.**

DECLARATION OF WARRANTY AND LIMITATION OF LIABILITY

The manufactures 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 manufacturer agreement by which this lift was acquired, nor increase, in any way, manufacturer's liability to the customer.

TO THE READER

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

2 CHAPTER 2 – PRODUCT IDENTIFICATION

The identification data of the machine are shown in the label placed on the frame and indicated in the declaration of conformity.

LOGO	
Type:	…….
Model:	…….
Serial Number:	…….
Year of manufacturing:	…….
Capacity:	…….
Voltage:	…….
Power:	…….
Max. pressure:	…….

	**Use the above data both to order spare parts and in case of enquires with the manufacturer (inquiry). The removal of this label is strictly forbidden.**

Machines may be updated or slightly modified from an aesthetic point of view and, as a consequence, may present features different from these shown, this without prejudicing what has been described herein.

2.1 WARRANTY CERTIFICATE

The warranty is valid for a period of 12 months starting from the date of the purchase invoice.
The warranty will end immediately when unauthorized modifications to the machine or parts of it are carried out.
The presence of defects in workmanship must be verified by the Manufacturer's personnel in charge.

2.2 TECHNICAL SERVICING

For all servicing and maintenance operations not specified or shown in these instructions, contact your Dealer where the machine was bought or the Manufacturer's Commercial Department.

3 CHAPTER 3 - PACKING, TRANSPORT AND STORAGE

Only skilled personnel who are familiar with the lift and this manual shall be allowed to carry out packing, lifting, handling, transport and unpacking operations.

3.1 PACKING

The lift is supplied disassembled into sub-assemblies depending on the model ordered.
Model on-floor installation:

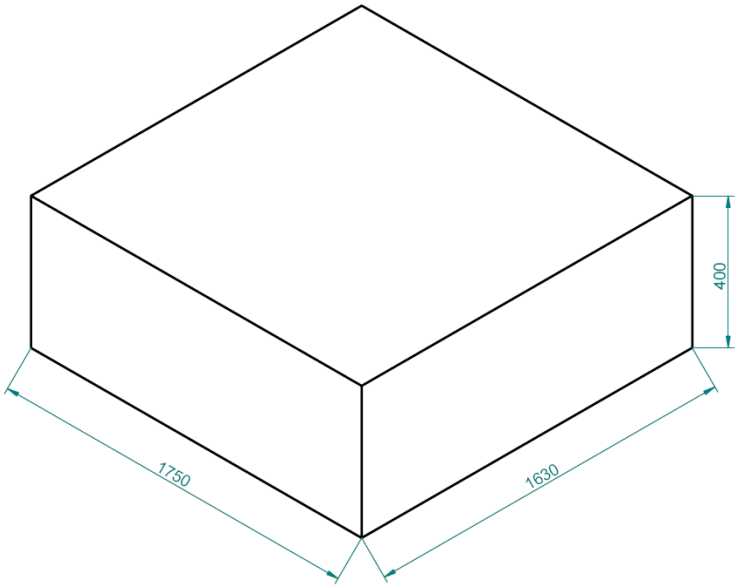
- No. 2 frame support, each one with a platform and 2 hydraulic cylinders.
- No. 1 control unit equipped with motor and hydraulic unit, inside the unit there are both the rubber pads and the use manual.

The lift is packed in a single box on a wooden bed, wrapped up in non-scratch waterproof material and sealed with 2 straps.
The average weight of the package is 500 kg

3.2 LIFTING AND HANDLING

When loading/unloading or transporting the equipment to the site, be sure to use suitable loading (e.g. cranes, trucks) and hoisting equipment. Hoist and transport the components securely so that they cannot drop, taking into consideration the package's size, weight and centre of gravity and fragile parts.

Figure 1 – PACKAGE AND HANDLING



	**Hoist and handle only one package at a time**

3.3 STORAGE AND STACKING OF PACKAGES

Packages must be stored in a covered area, out of direct sunlight and in low humidity, at a temperature between *-10°C* and *+40°C.*
Stacking is not recommended: the package's narrow base, as well as its considerable weight and size make it difficult and hazardous.
If this was necessary, never stack more than three packages a time and fix them with straps, ropes or other suitable means to ensure they are secure.

3.4 DELIVERY AND CHECKING OF PACKAGES

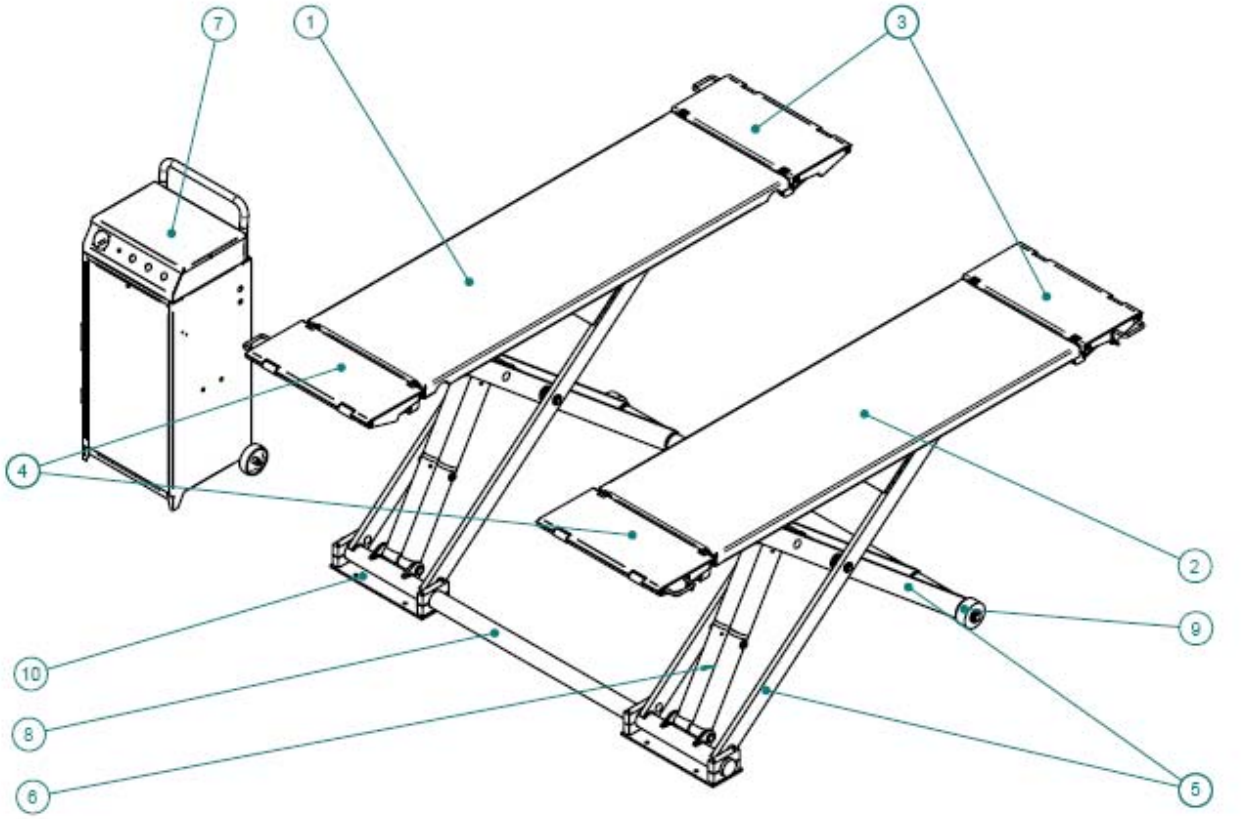
When the lift is delivered, check for possible damages due to transport and storage; verify its conformity with what is specified in the manufacturer's confirmation of order is included. In case of damage in transit, the customer must immediately inform the carrier of the problem.
Packages must be opened paying attention not to cause damage to people (keep a safe distance when opening straps) and parts of the lift (be careful the objects do not drop from the package when opening).

4 CHAPTER 4 - PRODUCT DESCRIPTION

4.1 **LIFT** (Rif. Figure 2)

The lift has been designed to lift motor-vehicles and make them stand at any level between the minimum and maximum height.
The maximum lifting weight, including any additional load on the vehicle, is as specified on the serial plate.
All mechanical frames, such as platforms, extensions, base frames and arms have been built in pressure bent plant to make the frame stiff and strong while keeping a low weight.
The electro hydraulic operation is described in detail in chapter 8
This chapter describes the lift showing the principal elements, so allowing the user to be familiar with the machine
As shown in pic.2, *The lift* is equipped with two torsion bars which connects the arms to maintain platform synchronization (8) and four sliding seam (9) that provide the sliding motion of the lift.
The lift is composed of two platforms, the platform 1 (1) and the platform 2 (2) anchored to the ground by means of two frames supports (10).
It is equipped with drive-on (3) and drive-of (4) ramps, placed at both ends of platform, for easy access of the vehicle which is lifted by placing the vehicle frame on four rubber pads.
The lifting system of each platform is composed of two arms (5) and a couple of cylinders (6).
Lift lowering and lifting are carried out by means of a control box (7) placed next to the lift.
The lift is equipped with two torsion bars which connects the arms to maintain platform synchronization (8) and four sliding seam (9) that provide the sliding motion of the lift.

Figure 2 - LIFT



4.2 OPERATION

Platform lifting is carried out by the hydraulic unit which acts upon the cylinders

Lowering, even though electrically controlled, is carried out by the weight of both the platforms and the load lifted.

The hydraulic system is protected by a max pressure control valve thus preventing pressure from exceeding the maximum fixed safety limit.

Lifting and lowering motions of the lift are controlled by the switch buttons on the control desk panel.

Whenever the lift has to be lowered to the ground and the SWITCH is turned on DOWN position, the lift will stop at about 400 mm from the ground

In this way, the operator must verify that neither persons nor objects are within the safety area.

If so, the SAFETY button can be pressed and the lift can be lowered.

A beep sound is heard during the last travel.

5 CHAPTER 5 - TECHNICAL SPECIFICATION

5.1 SIZE AND MAIN FEATURES (Rif. Figure 3)

Capacity	2500 Kgp (24500N)
Maximum lifting height	1000 mm
Minimum height of lift	110 mm
Length of the lift	2155 mm
Width of the lift	1712 mm
Width of platforms	456 mm
Free width between platforms	800* mm
Lifting time	35 s
Lowering time	35 s
Noise level	70 dB(A)/1m
Total weight of the lift	500 Kgp
Working temperature	-10 °C ÷ 40 °C

5.2 ELECTRIC MOTOR

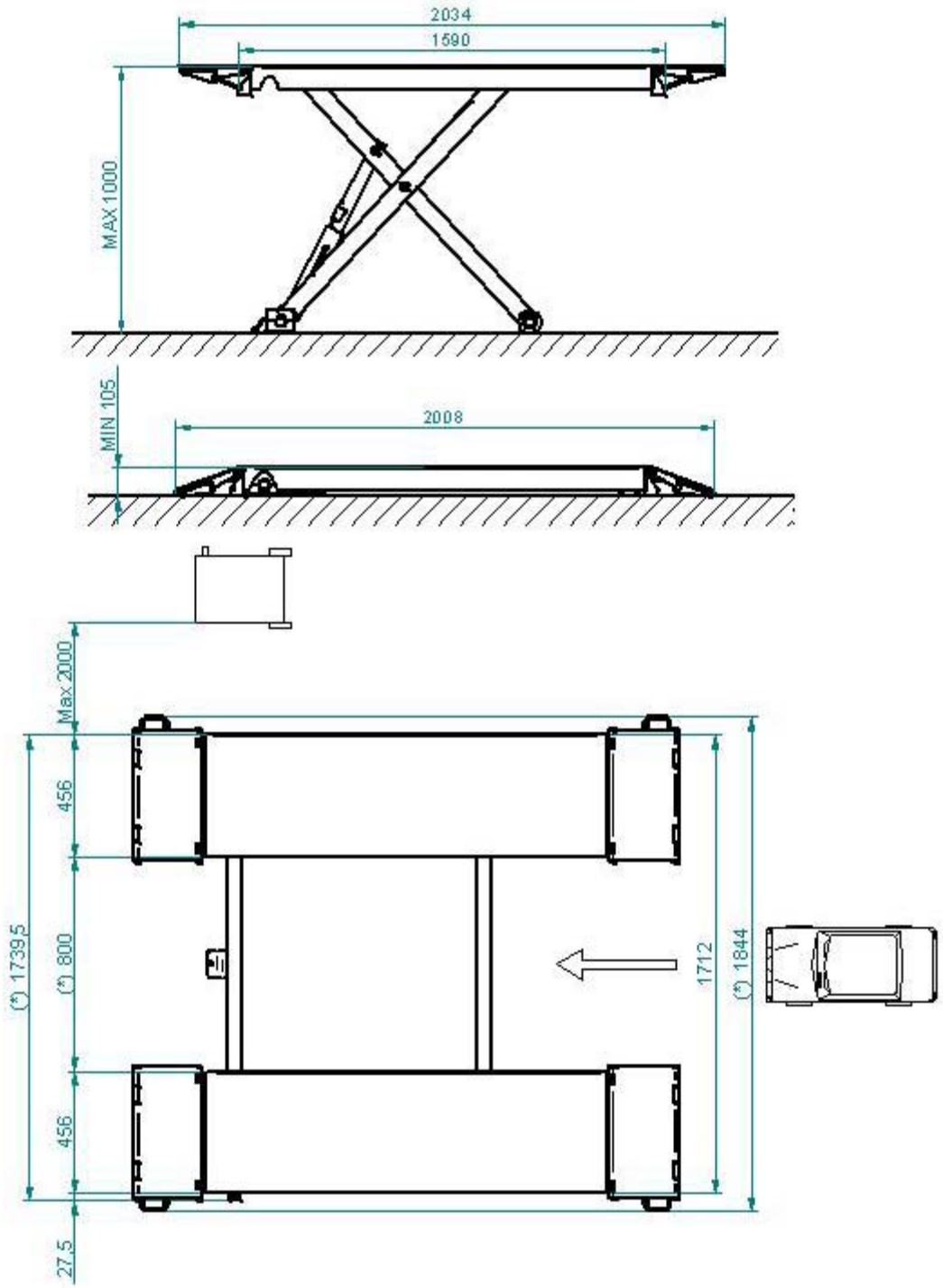
Type	90LA/4
Power	3.5 KW (TRIPHASE)
Voltage	230 V / 400V (TRIFASE)
Frequency	50 Hz
N° Poles	4
Speed	1400 g/min
Motor enclosure type	B14
Insulation class	IP 54
Amperage	15.9 A a 230 V(TRIFASE) 9.2 A a 400 V (TRIFASE)

Motor connection must be carried out referring to the attached wiring diagrams (rif. picture 7).
The motor direction of rotation is shown in the label placed on the motor.

5.3 PUMP

Type	gear
Flow rate	2.50 cm^3/g
Continuous working pressure	250 bar (3600 psi)
Frequent working pressure	270 bar (3900 psi)
Peak pressure	290 bar (4150 psi)

Figure 3 – LAYOUT



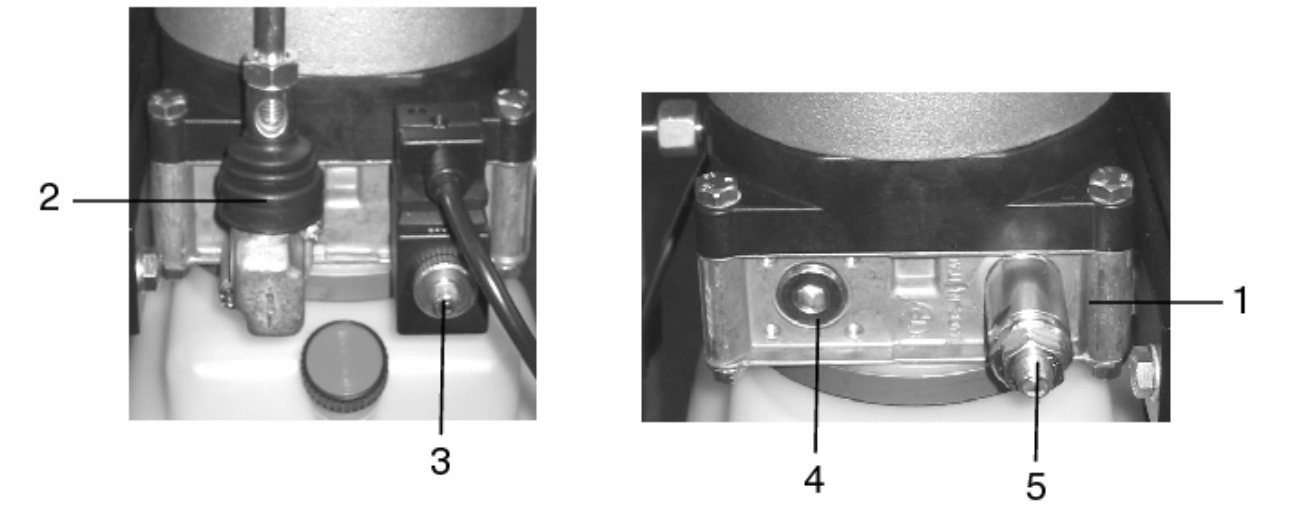
(*) Suggested dimension

5.4 HYDRAULIC UNIT

Hydraulic group installed inside the control unit is made of :

1 main block
2 hand pump
3 lowering soleoid valve
4 check valve
5 max pressare valve

Figure 4 - HYDRAULIC GROUP



5.5 OIL

Use wear proof oil for hydraulic drive, in conformity with *ISO 6743/4* rules (HM class). *Fina HYDRAN TS 32* or equivalent oil with features similar to those shown in the table is recommended:

TEST STANDARDS	FEATURES	VALUE
ASTM D 1298	Density 20°C	0.8 kg/l
ASTM D 445	Viscosity 40°C	32 cSt
ASTM D 445	Viscosity 100°C	5.43 cSt
ASTM D 2270	Viscosity index	104 N°
ASTM D 97	Pour point	~ 30 °C
ASTM D 92	Flash point	215 °C
ASTM D 644	Neutralization number	0.5 mg KOH/g

In case where the average ambient temperature differs from *25° C* contact your local specialist oil supplier to find a suitable substitute

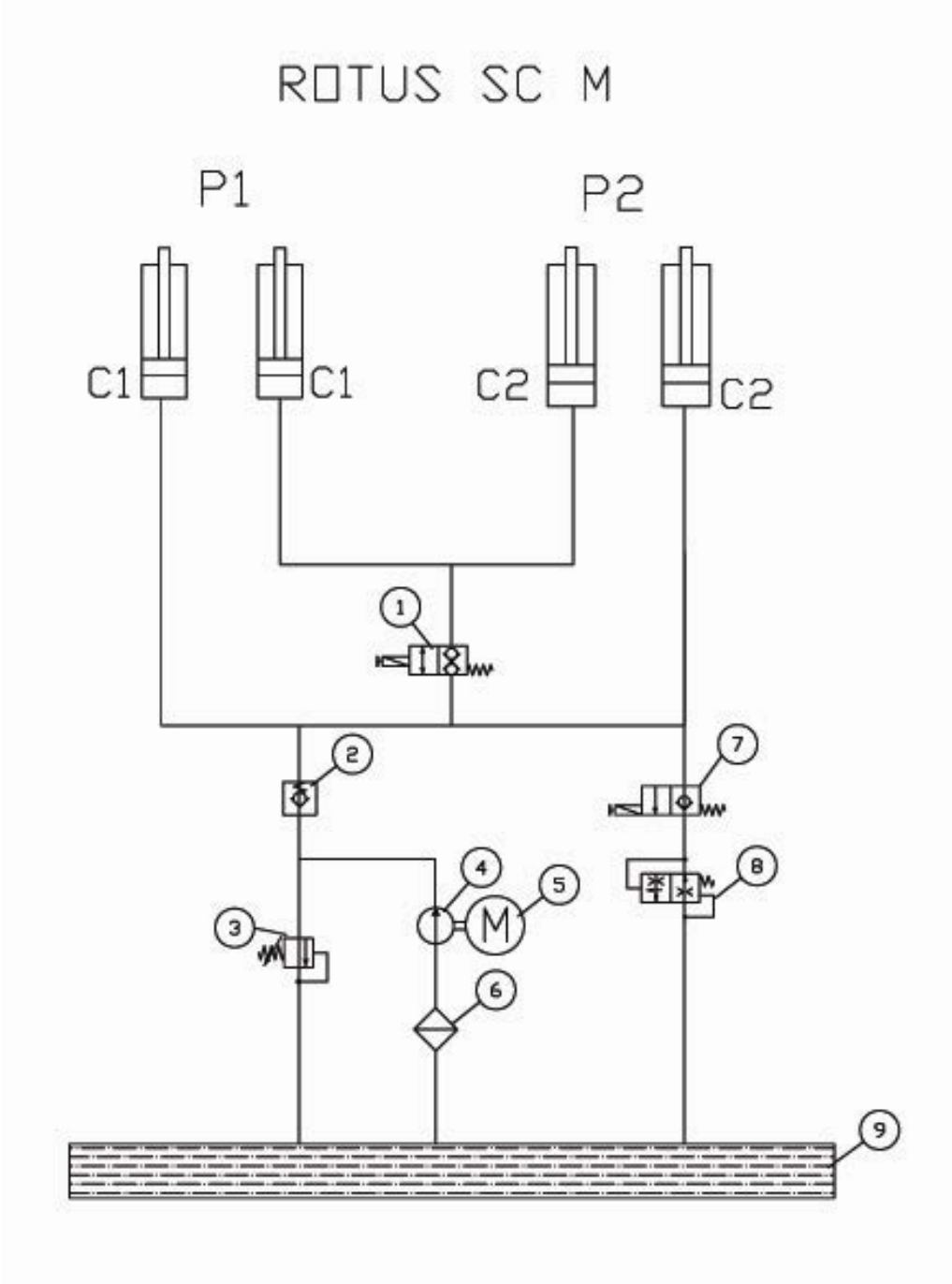
5.6 RECOMMENDED HYDRAULIC OIL

Recommended hydraulic oil for the lift to be used at standard temperatures (*25°C - 30°C*) is described below.
For temperatures different from those standard, contact your dealer for suitable oil.

MARCHIO	**TIPO**
AGIP	OSO 32
API	CIS 32
BP	HLP 32
CASTROL	HYSPIN HWS 32
ELF	ELFONA DS 32
ESSO	NUTO H 32
FIAT	HTF 32
FINA	HYDRAN TS 32
IP	HYDRUS 32
Q8	HAYDYN 32
ROL OIL	LI 32
SHELL	TELLUS OIL 32
TOTAL	AZOLLA ZS 32

	**CHANGE HYDRAULIC OIL EVERY 5 YEARS**

Figure 5 – HYDRAULIC PLANT



C1	Hydraulic cylinder platform P1	8	Lowering control
C2	Hydraulic cylinder platform P2	9	Tank
1	Safety solenoid valve		
2	Check valve		
3	Max pressure valve		
4	Pump		
5	Motor		
6	Filter		
7	Lowering solenoid valve		

Figure 6a - ELECTRIC PLAN

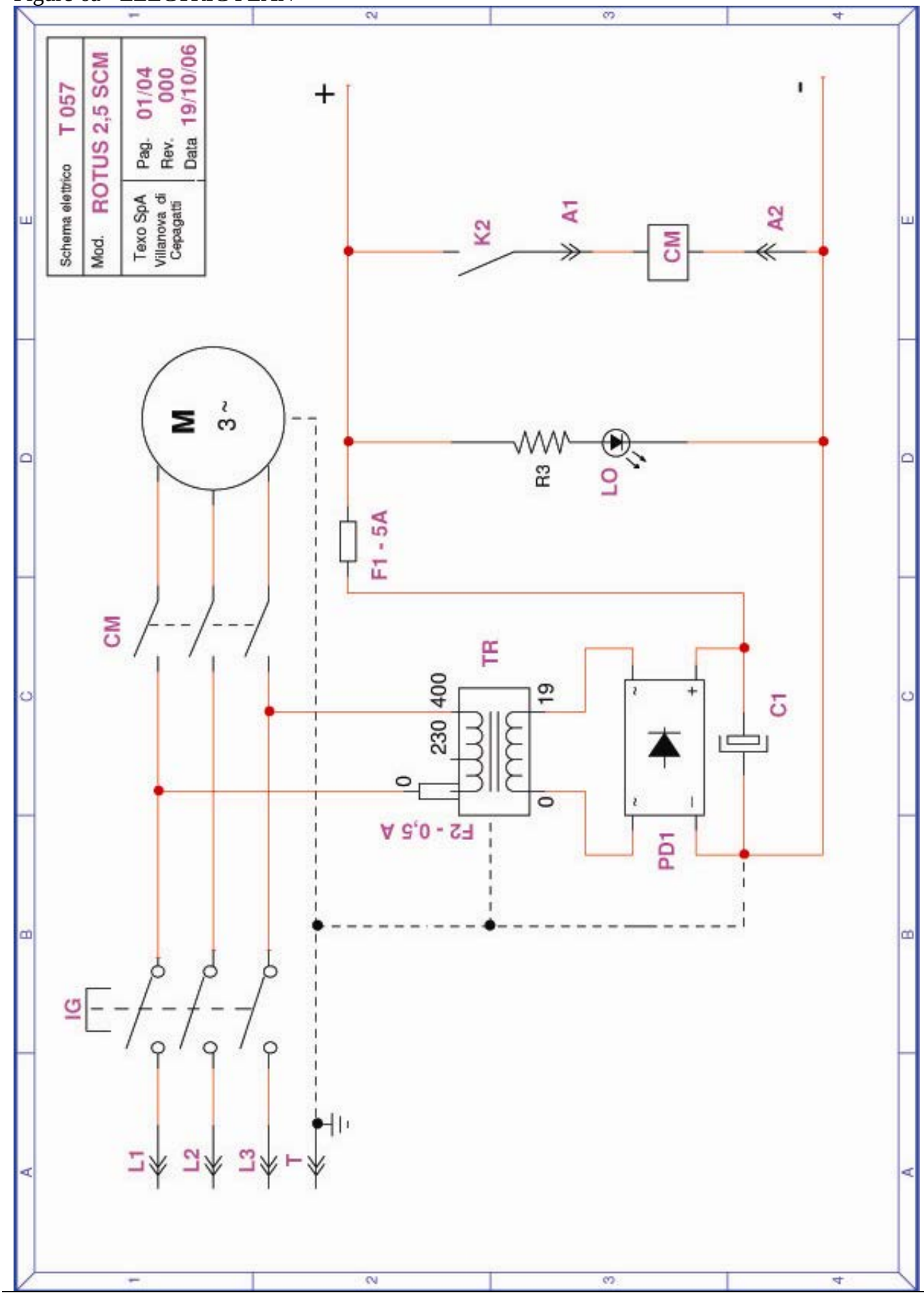


Figure 6b - ELECTRIC PLAN

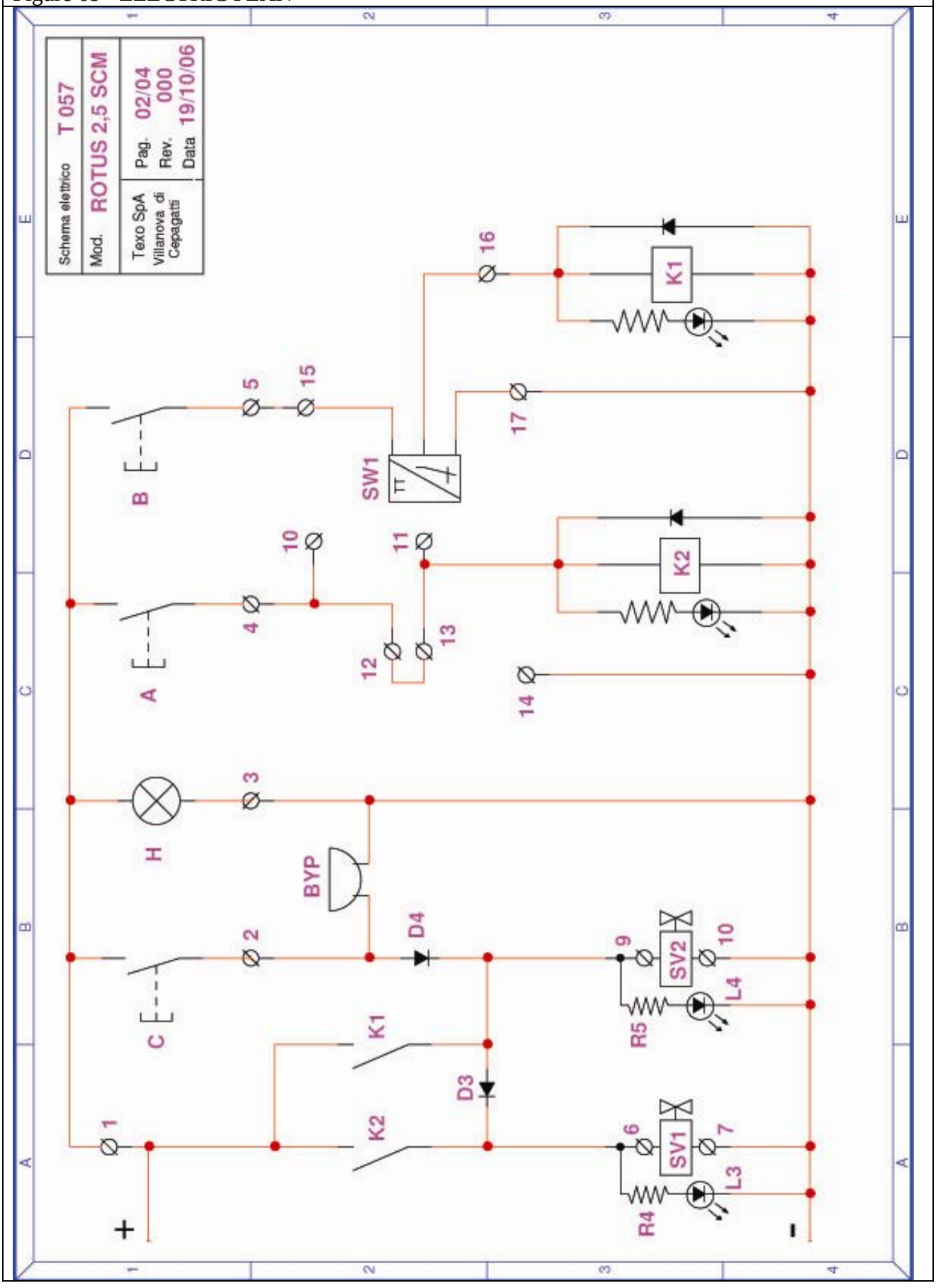


Figure 6c - ELECTRIC PLAN

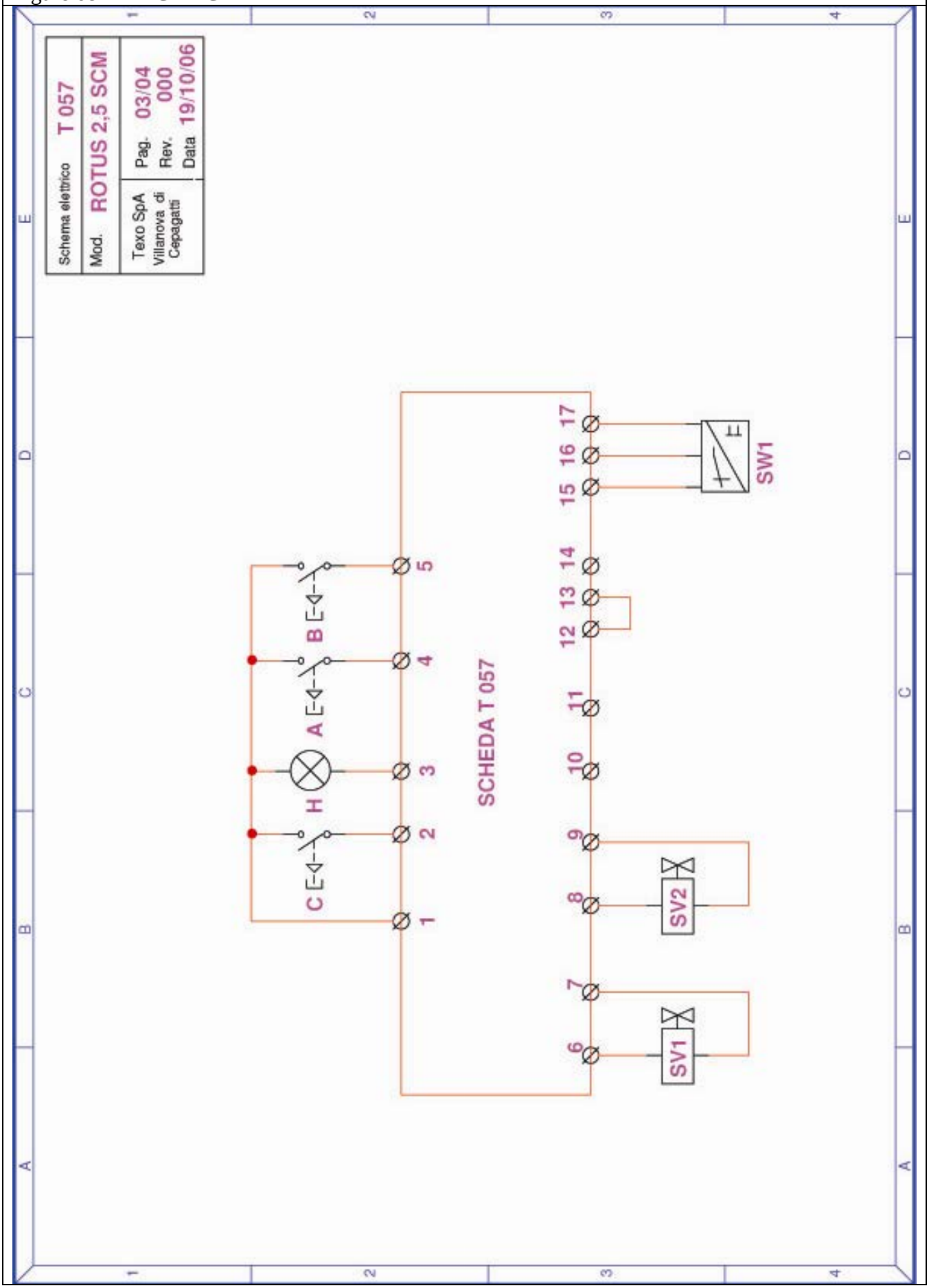
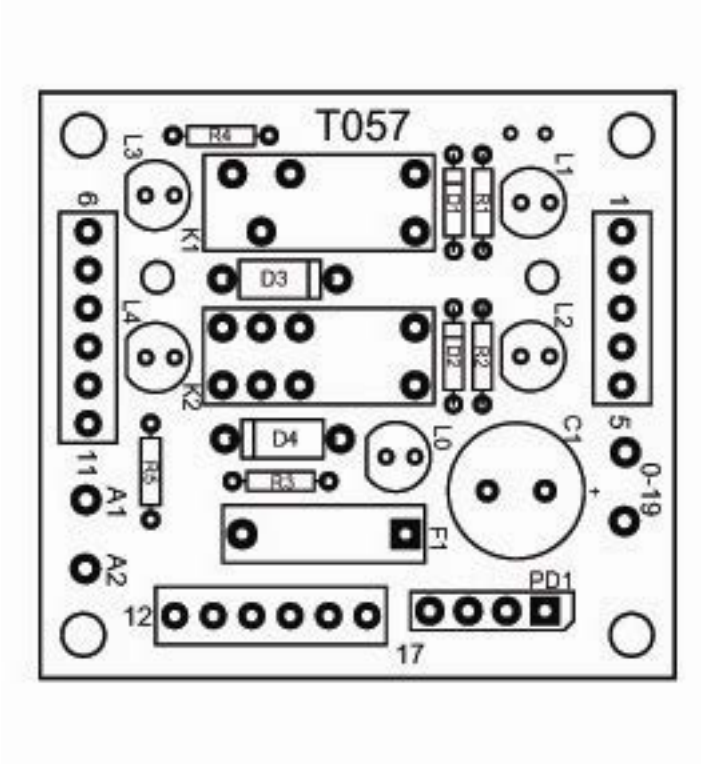


Figure 6d- Ref.ELECTRIC PLAN

Figure 6e - ELECTRIC PLAN



6 CHAPTER 6 - SAFETY

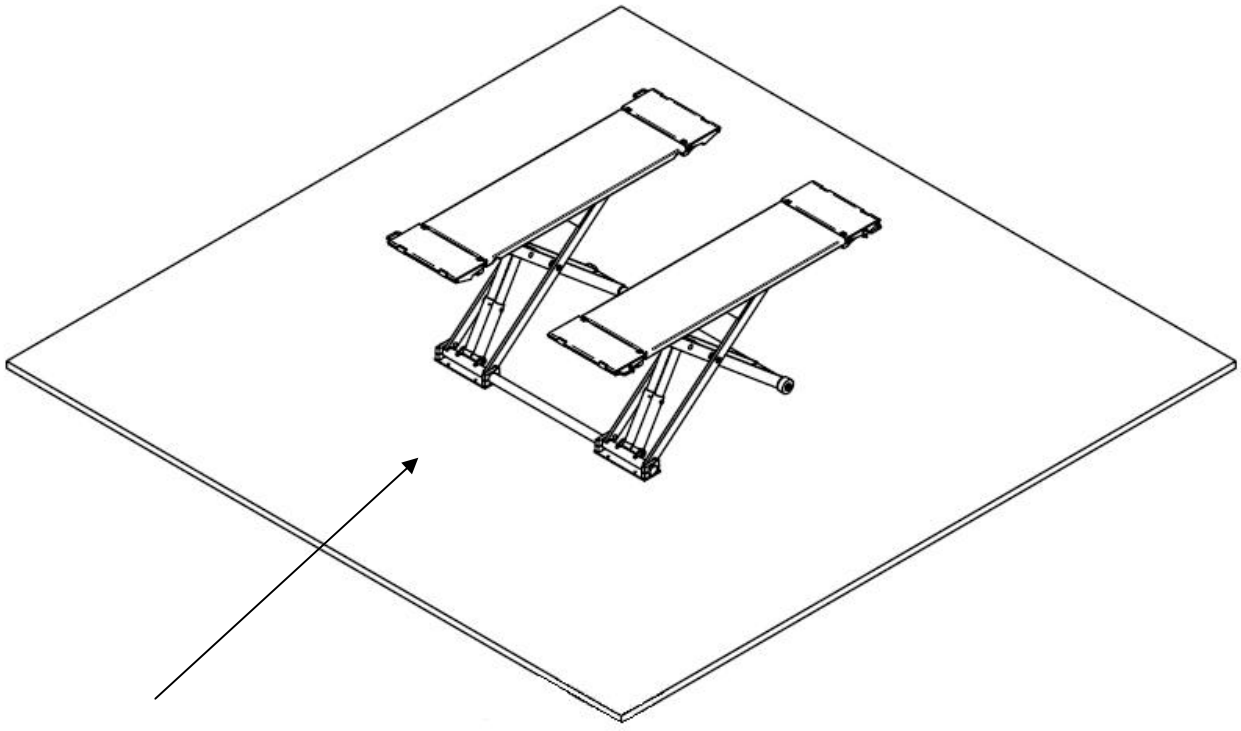
Read this chapter carefully and completely because it contains important information for the safety of the operator and the person in charge of maintenance

	the lift has been designed and built for lifting vehicles and making them stand above ground level in a closed area. any other use is forbidden, including the following operations: **washing of vehicles whilst on the lift** **people lifting or scaffolding** **pressing** **loading of vehicle whilst on the lift** **the manufacturer is not liable for possible damage to people, vehicles or objects resulting from an improper or unauthorized use of the lift.**

For operator and people safety, the safety area shown in **Fout! Verwijzingsbron niet gevonden.**must be vacated during lifting and lowering. The lift must be operated only from the operator's desk. Operator's presence under the vehicle, during working, is only permitted when the vehicle is lifted and platforms are not running

	Never use the lift when safety devices are off-line. people, the lift and the vehicles lifted and personnel can be seriously damaged if these instructions are not followed.

Figure 7 - SAFETY AEREA



SAFETY AREA (min. 1 metre)

6.1 GENERAL WARNINGS

The operator and the person in charge of maintenance must follow accident-prevention laws and rules in force in the country where the lift is in installed.
They must also carry out the following :

- neither remove nor disconnect hydraulic, electric or other safety devices;
- carefully follow the safety notices applied on the machine and included in the manual;
- observe the safety area during lifting;
- be sure the engine of the vehicle is switched off, the gear engaged and the parking brake put on;
- be sure only authorized vehicles are lifted without exceeding the maximum lifting capacity;
- verify that no one is on the platforms during lifting or standing.

6.2 RISKS DURING VEHICLE LIFTING

To avoid overloading and possible breaking, the following safety devices have been used:

- a maximum pressure valve placed inside the hydraulic unit to prevent excessive weight being lifted;
- a special design for the hydraulic system, in case of pipeline failure, to prevent sudden lift lowering.

6.3 RISKS FOR PEOPLE

Risks the personnel could run, due to an improper use of the lift, are described in this section.

6.4 PERSONNEL CRUSHING RISKS

During lowering of runways and vehicles, personnel must not be within the area covered by the lowering trajectory. The operator must be sure no one is in danger before operating the lift.

Fig. 8a

Fig. 8b

Fig. 8c

6.5 BUMPING RISKS

When the lift is stopped at a relatively low height for working, the risk of bumping against or into projecting parts occurs

Fig. 9

6.6 RISK OF THE VEHICLE FALLING FROM THE LIFT

Vehicle falling from the lift can be caused when the vehicle is improperly placed on the platforms, and when its dimensions are incompatible with the lift or by excessive movement of the vehicle. In this case, keep away from the immediate working area.

Fig. 10a

Fig. 10b

Fig. 10c

6.7 SLIPPING RISKS

The risk of slipping can be caused by oil or dirt on the floor near the lift.

Fig. 11

	**Keep the area under and around the lift clean. Remove all oil spills.**

6.8 ELECTROCUTION RISKS

Avoid use of water, steam, solvent, varnish jets in the lift area where electric cables are placed and, in particular, next to the electric panel.

6.9 RISKS RESULTING FROM IMPROPER LIGHTING

Make sure all areas next to the lift are well and uniformly lit, according to local regulations.

6.10 RISKS OF BREAKING COMPONENTS DURING OPERATION

Materials and procedures, suitable for the designed parameters of the lift, have been used by the manufacturer to build a safe and reliable product. Operate the lift only for the use it has been designed for and follow the maintenance schedule shown in the chapter “Maintenance”.

Fig. 12

6.11 RISKS FOR UNAUTHORISED USES

The presence of unauthorized persons next to the lift and on the platforms is strictly forbidden during lifting as well as when the vehicle has been already lifted

Fig. 13

	**Any use of the lift other than herein specified can cause serious accidents to people in close proximity to the lift**

7 CHAPTER 7 - INSTALLATION

	**Only skilled technicians, appointed by the manufacturer, or by authorised dealers, must be allowed to carry out installation. serious damage to people and to the lift can be caused if installations are made by unskilled personnel.**

7.1 CHECKING FOR ROOM SUITABILITY

The lift has been designed to be used in covered and sheltered places.
The place of installation must not be next to washing areas, painting workbenches, solvent or varnish deposits. The installation near to rooms, where a dangerous situation of explosion can occur, is strictly forbidden. The relevant standards of the local Health and Safety at Work regulations, for instance, with respect to minimum distance to wall or other equipment, escapes and the like, must be observed.

7.2 LIGHTING

Lighting must be carried out according to the effective regulations of the place of installation. All areas next to the lift must be well and uniformly lit.

7.3 INSTALLATION SURFACE OR INSTALLATION HOLE

The lift must be placed on level floor and sufficiently resistant. The surface and foundation must be suitable for bearing maximum stress values, also in unfavorable working conditions. If in-ground/recessed installation is made (PSB 3A model only), the finished size of the hole must be verified (as per drawing sent at the time of order). For installations on raised surface, compliance with the maximum carrying capacity of the surface is recommended.

7.4 FIXATION TO THE FLOOR

The lift must be fixed to the floor in a proper way in order to assure its stability.

7.5 DRIVE-ON DIRECTION

Drive-on direction as marked by stickers (forward pointing arrows). As such the weight bias of the vehicle lifted is over the fixed end of the lift (cylinder side - opposite of rollers).

7.6 RUNWAY ASSEMBLY AND CONTROL DESK POSITIONING

	UNAUTHORIZED PERSONS ARE NOT ALLOWED TO ENTER DURING ASSEMBLY.

Transport platforms to the installation site by using hoisting means with load capacity of *500 kg* at least
To prevent the platform from dropping during transport, it should be lifted according to its centre of gravity.
Always raise platforms by holding them on the underside of the base frames
Position the base frames on the foundation according to the drive-on direction of the lift
Lift platforms with auxiliary equipment by using strong ropes, bands and chains and insert the safety blocks supplied with the lift.
Place the control desk in the position provided for.

7.7 HYDRAULIC SYSTEM CONNECTION

- Connect hydraulic hoses installed on the platforms to the flow divider inside the control unit according to the numbers marked on them.
- Tighten thoroughly.

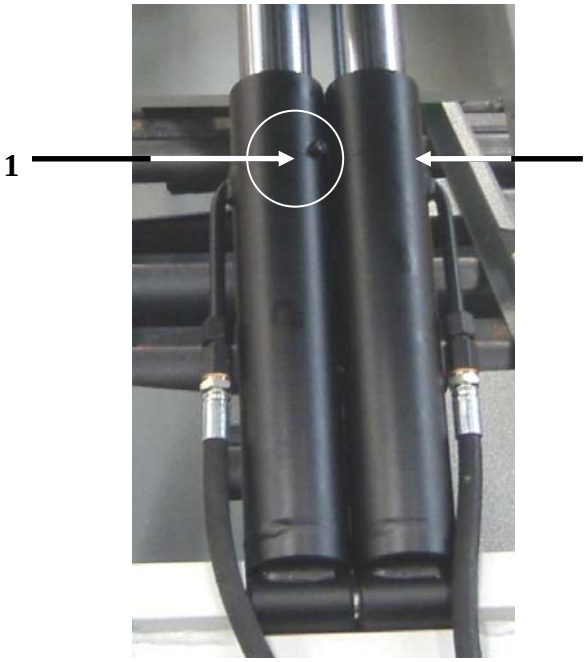


Fig.18

7.8 CHECKS AND INSPECTIONS

7.8.1 MECHANICAL CHECKS

- grease sliding seats of blocks placed under platforms and on bases;
- lift fixing to the ground with 8 anchor bolts (min. recommended size *ø = 16 mm)*
- bolts, connectors and connections tightened
- clean all parts of the machine;

7.8.2 ELECTRICAL CHECKS

- connections as per diagrams;
- lift grounding;

operation of the following devices:

- bottom position limit switch
- top position limit switch

7.8.3 HYDRAULIC SYSTEM CHECK

- proper oil level in the tank;
- no leakage and blow-by,
- cylinder operation

7.9 SET UP AND ADJUSTMENTS

7.9.1 LOAD LESS CHECK

Carry out two or three complete cycles of lowering and lifting and check:

- the lift for reaching its maximum height;
- the max height limit switch for proper operation;
- the lowering limit switch for proper operation;
- the horn/signaling light for proper operation during the final travel;

	**WARNING: please follow carefully the instructions in the coming paragraph for avoiding damages on the lift.**

7.9.2 CHECK WITH LOAD

Repeat checks provided for by 7.9.1 section with the vehicle loaded;
In this case some irregularities can occur; so considering that all adjustments shown are factory-made, the following can be carried out as an exception

7.10 BOLTS AND NUTS CHECK

After carrying out the checks with load, make a visual inspection of the machine and check bolts and nuts for proper tightening.

8 CHAPTER 8 - OPERATION AND USE

8.1 CONTROLS

Controls for operating the lift are:

MAIN SWITCH (1)

The function control can be set in five positions:

- **0 position:** lift electric circuit is not powered; the switch can be padlocked to prevent the use of the lift;
- **1 position:** lift electric circuit is powered.

LIFTING BUTTON (3)

- it allows the lift to lift.

LOWERING BUTTON (5)

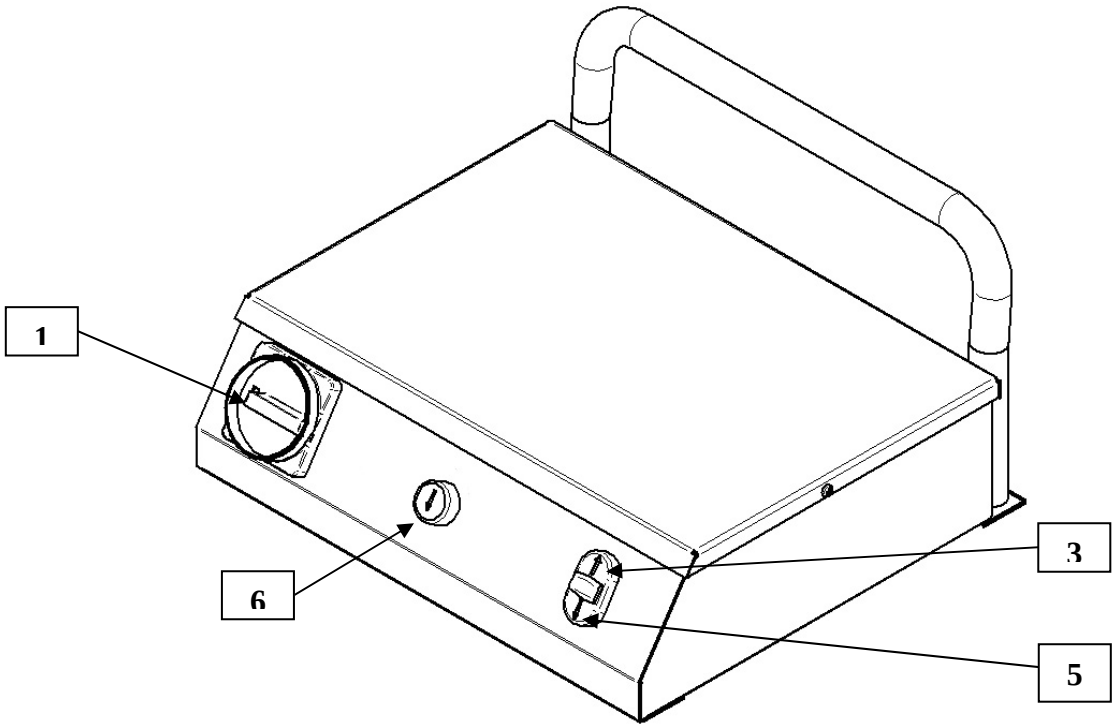
- it allows the lift to low till the safety height (360 mm).

FINAL LOWERING (6)

- If it is pushed after taking over the safety height, it activates the beeper and, after a few seconds, final lowering solenoid valve;
- If it is pushed before taking over the safety height (360 mm), it activates the beeper and, after a few seconds, it allows the lift to go down without pressure switch protection.

Controls for operating the lift are:

Figure 20 - CONTROLS



	Be sure the safety area is free from people and objects during the final travel

Lift operation can be summarized into four steps:

8.2 VEHICLE POSITIONING

- Place the vehicle at the centre of the platform and adjust the telescopic extensions.
- Place pads under the positions indicated by the motor vehicle's manufacturer for lifting.

8.3 LIFTING

- Set the main switch (Fig. 20 – pos.1) to ON position and press UP button (Fig. 20 - pos. 3) to lift the vehicle to the required level.

8.4 STANDING

- To rest the lift in standing position, release UP button (fig. 20 – pos.3) when required level is reached.
- The lift stops automatically

8.5 LOWERING

- Push the DOWN button (Fig. 20 – pos. 5).

- The lift will lower up to a safety height of about *400 mm* by the lifted object and it's own weight .
- Be sure the safety area is free of people and objects, then press the final travel push button (fig.20 – pos. 6).

8.6 MANUAL AND EMERGENCY LOWERING

If there is no power or the control box is damaged, lower the lift manually to its initial position as follows:

- Disconnect main power by turning main switch on OFF (Fig. 20 –pos.1)
- Remove ring nuts (Fig. 21a -pos. 3) from safety valves (1-2 fig. 21 a) which are installed on flow divider
- Remove solenoids (Fig. 21b – pos.4) from safety valves (1-2 fig. 21 a) which are installed on flow divider
- Tighten ring nuts (Fig. 21c -pos. 3)
- Loosen ring nut (fig. 21d – pos. 5) of lowering solenoid valve (fig. 21 d –pos. 6) installed on hydraulic block, to lower the lift.

Fig. 21 b

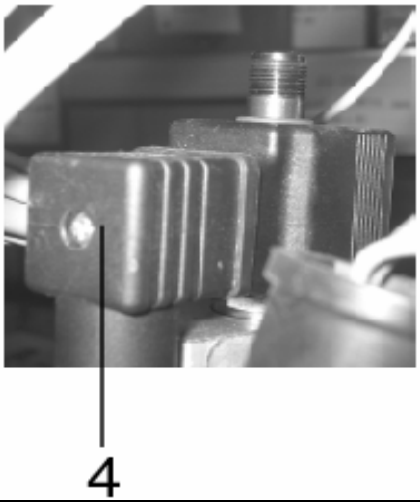
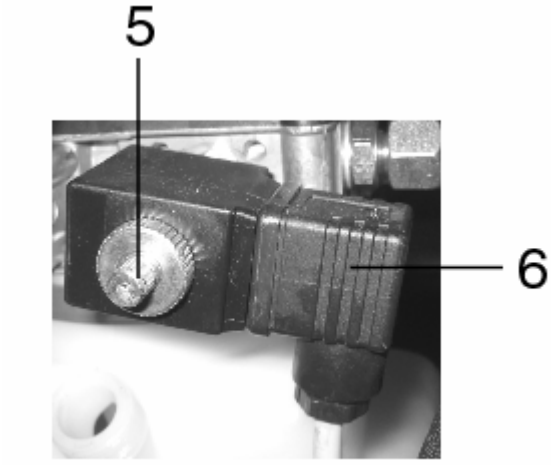


Fig. 21 d



After manual lowering of the lift, reset ordinary operating conditions. Lift cannot be lifted if manual lowering valve is opened

9 CHAPTER 9 - MAINTENANCE

	**Only trained personnel who knows how the lift works, must be allowed to service the lift.**

To service properly the lift, the following has to be carried out:

- use only genuine spare parts as well as equipment suitable for the work required;
- follow the scheduled maintenance and check periods shown in the manual;
- discover the reason for possible failures such as too much noise, overheating, oil blow-by, etc.

Refer to documents supplied by the dealer to carry out maintenance:

- functional drawing of the electric and hydraulic equipment
- exploded views with all data necessary for spare parts ordering
- list of possible faults and relevant solutions.

	**Before carrying out any maintenance or repair on the lift, disconnect the power supply, padlock the general switch and keep the key in a safe place to prevent unauthorized persons from switching on or operating the lift**

9.1 ORDINARY MAINTENANCE

The lift has to be properly cleaned at least once a month. Use self-cleaning clothes.

	**The use of water or inflammable liquid is strictly forbidden**

Be sure the rod of the hydraulic cylinders is always clean and not damaged since this may result in leakage from seals and, as a consequence, in possible malfunctions.

9.2 EXTRAORDINARY MAINTENANCE

Depending from the use of the lift (in terms of working time) it is necessary each 90-120 days to repeat the levelling procedure as described under 7.7 for working always on level.

9.3 PERIODIC MAINTENANCE

Every 3 months	Hydraulic circuit	▪ check oil tank level; refill with oil, if needed; ▪ check the circuit for oil leakage. ▪ Check seals for proper conditions and replace them, if necessary;
	Foundation bolts	▪ check bolts for proper tightening
	Hydraulic pump	▪ verify that no noise changes take place in the pump of the control desk when running and check fixing bolts for proper tightening
	Safety system	▪ check safety devices for proper operation
Every 6 months	Oil	▪ Check oil for contamination or ageing. Contaminated oil is the main reason for failure of valves and shorter life of gears pumps
Every 12 months	General check	▪ verify that all components and mechanisms are not damaged
	Electrical system	▪ a check of the electrical system to verify that control desk motor, limit switches and control panel operate properly must be carried out by skilled electricians

10 CHAPTER 10 - TROUBLESHOOTING

A list of possible troubles and solutions is given below:

TROUBLE:	**POSSIBLE CAUSE:**	**SOLUTION:**
The lift does not work	The main switch is not turned on	Turn the switch on
	There is no power	Check Power on to restore if necessary
	The electrical wires are disconnected	Replace
	Fuses are blown	Replace
The lift does not raise	The motor direction of rotation is not correct.	Interchange the two phases on the main switch
	The oil in the hydraulic unit is not sufficient.	Add some hydraulic oil
	The UP button is faulty.	Check UP button and connection for proper operation. Replace, if needed
	The maximum height limit switch sensor is faulty.	Check the max. height and relevant connection for proper operation. Replace, if needed.

	The lowering valve does not close.	Check and clean, if dirty, or replace, if faulty
	The suction pump filter is dirty.	Check and clean if needed.
The lifting capacity is not sufficient	The maximum pressure valve is not properly set.	Set the maximum pressure valve.
	The pump is faulty	Check the pump and replace, if needed.
The lift does not lower when the DOWN button is pressed	The lowering solenoid valve does not work properly	Verify if it is powered and check magneto for damage (replace if disconnected or blown).
	The DOWN button is faulty	Replace the DOWN button
	Printed circuit board does not operate properly	Replace the printed circuit board
Platforms do not stop in standing position	The lowering and locking solenoid valves stay opened.	Verify that solenoid valve sliders are not blocked
	Leakage in the hydraulic pipelines.	Check connections for proper tightening and tubes for damage (replace if damaged).
	At least two hydraulic cylinders are faulty	Check and replace if needed
The lift does not lower smoothly	Presence of air in the hydraulic system	Bleed the hydraulic system
The lift does not lower during installation	The pressure switches are not settled properly	Set the pressure switches