

# USERS' MANUAL

## SUPER ROTAX



**GLOBALJIG**  
International S.r.l.

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# USERS' MANUAL



Year of Manufacture: .....

**CHAPTERS :**

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**APPEDIX: CE CONFORMITY DECLARATION**

## 1. INTRODUCTION

GLOBALJIG INTERNATIONAL. srl, the Manufacturer of the Super Rotax equipment, invite you to read carefully all the information contained in this Manual until you understand completely all the instructions.

This Manual explains how to use the Super Rotax, and includes instructions and suggestions for ensuring safe operations and optimum performance.

The Super Rotax Lifting Bench (here after called "L.B.") has been designed and manufactured to have a long working life and simple operation.

Read and observe the Safety message indicated by the following symbols:

**DANGER**

**If you do not follow these instructions you may cause injury**

**WARNING**

**If you do not follow the indicated instruction you may damage the equipment.**

This Manual is an INTEGRAL PART of the equipment

- It must be kept in the provided space on the mobile command unit.
- It must be kept for the whole operating life of the equipment.
- It must be consulted without causing damage.
- It must be kept unabridged and complete as originally supplied.
- If the ownership changes the Manual must accompany the Equipment.

The Manufacturer is not responsible in any way if the operator does not follow the instructions contained in this Manual, if damage occurs or personal injury results from improper use of the Equipment or a different use from that intended by the designer (see Chap. 2).

This Manual refers to the MACHINERY DIRECTIVE 98/37/CE.

The Manufacturer has made every effort to provide you with detailed and accurate information. However, because of the continuous evolution of the product, some data may differ from those reported in this Manual. If you need more precise data, please contact our Assistance Service.

## 2. GENERAL SAFETY RULES

Read this Manual carefully before proceeding to the installation and use of the Equipment.

Only authorized and trained staff should be allowed to use this equipment.

The “L.B.” should be used only indoors.

Installation must be carried out by Qualified Staff only and in accordance with the instructions given in this Manual.

Any modification of the equipment or tamperings with safety devices without permission of the manufacturer are considered as an infringement of the European Safety Standards.

We recommend the use of original components and spare parts only .

Any intervention to the electric/hydraulic/pneumatic plant requires Qualified Staff only.

### 3. CHARACTERISTICS AND TECHNICAL DATA

#### 3.1 CHARACTERISTICS

3.1.0 SUPER-ROTAX is the commercial name of the Machine considered as EQUIPMENT FOR CHECKING AND REALIGNING DAMAGED VEHICLES.

It is composed of two main parts which are mechanically integrated:

- a scissor lift, which lifts up the Bench, together with the damaged vehicle, to a suitable working height for the User.
  
- A bench for checking and realigning the vehicle with the additional function of supporting
  - the universal system
  - the pulling arms
  - the damaged car.

#### 3.1.1 OPERATION AND SAFETY

- The lift is operated by an electro-hydraulic system.
- Low voltage control (24V).
- Antifall devices, always operating:
  - One-direction “parachute” valve, mounted directly on the hydraulic cylinder, ensures the automatic stop of the oil flow caused by the accidental break of the feed pipe, meccanismo di blocco meccanico "ad arpione" che, ad inserimento per gravità, blocca il movimento di discesa. Lo sgancio dell'arpionismo avviene solo con comando alla pulsantiera dell'operatore ed in presenza dell'energia elettrica e pneumatica.
- Upstroke and downstroke are controlled by the operator by the remote control.
- The crossbeams with base block, which are parts of the Universal Jig GLOBALJIG, are always on the bench and they have the double function of receiving the jigs or the side runners and ramps for positioning the vehicle for repair.
- The tilt mechanism provided with the bench allows the movement necessary to get the vehicle on and off the equipment.
- The damaged vehicle is pulled on or off by an electrical winch, supplied with the equipment.
- Safety ramp (with integrated stop rammer). This device provides the vehicle stop during the lowering phase, when the vehicle is not anchored to the winch and the bench is inclined.

#### 3.1.2 INTENDED USE

The Super Rotax equipment has been designed and built to be used as a Lifting – Bench (L.B.) for checking and realigning damaged vehicles.

It must be located inside bodyshops and used only without exceeding the indicated maximum capacity and loading.

Any other use is considered incorrect and therefore irresponsible.

The manufacturer cannot be considered responsible for damage caused by improper, incorrect or irresponsible use.

### 3.1.3 EQUIPMENT IDENTIFICATION DATA

All identification data are written on an alluminium plate positioned on the internal cross beam on the front of the bench, and it reports : the name of the manufacturer GLOBALJIG INTERNATIONAL. srl - Via Aurelia Ovest, Km 383 - 54100 Massa - ITALIA

- The serial number : **SR** xxx, wheew xxx represents the progressive serial number
- CE mark.

IT IS STRICTLY FORBIDDEN TO REMOVE, CHANGE OR DAMAGE THE ABOVE MENTIONED PLATE.



### 3.2 TECHNICAL DATA

- Rated Voltage: 200 / 415 V-50 / 60 Hz
- Rated power: 2,5 Kw
- Rated capacity: 3500 kg\*
- Lifting Height: 1750 mm
- Lifting/lowering time: 60 / 72 sec
- Oil pressure: 200 bar
- L.B. mass values.: see drawing page 6.

\*The useful lifting capacity is intended with the bench already equipped complete with cross beams, jigs and pulling tower.

For each extra pulling tower the useful lifting capacity decreases by 350Kg.

The Super Rotax equipment is produced in the following versions:

- with 4 meters bench, with 1 or 2 pulling arms
- with 5 meters bench, with 1 or 2 pulling arms.

If not otherwise specified, the technical data here described refers to both versions.

The noise produced by the equipment always below 85 dB (A).

## 4. FREIGHT AND UNPACKING

### 4.1.1 TECHNICAL DATA FOR TRANSPORTATION

POS.	CODE	DESCRIPTION	Q.TY	GROSS WEIGHT [ kg ]	
				4m	5m
01	E118	Wooden box containing Globaljig System	1		750
02	E119	Wooden box containing Globaljig System	1	670	
03	D495	Frame with lift	1	//	2470
04	D496	Frame with lift	1	2250	//
05	D497	Fixed pulling arm	1	370	370
06	D498	Articulated pulling arm	1	410	410
07	E121	Wooden box containing MacPherson	1	90	90
08	E409	Side runners + ramps	1	190	220
09	D475	Axle stands + crossbeam	1	60	60
10	D211	Electrical winch	1	30	30
11	E418	Trolley	1	70	70
12	E680	Control unit	1	120	120

GLOBALJIG INTERNATIONAL. srl grants the quality of the packaging material and the best procedure concerning the correct location of the goods inside the packages.

All operations of loading and unloading packages, must be carried out using specific procedures and methods as required by Health and Safety Regulations.

The assigned staff must wear the necessary protective clothing.

GLOBALJIG INTERNATIONAL. srl disclaims all responsibility for damage to people and/or objects caused when not observing the warnings, the procedures and recommendations during delivery, loading and handling.

### 4.1.2 PACKAGE CHECKING

With reference to the standard supply conditions, the transportation of the goods is always at consignee's risk, if not otherwise agreed .

Check at sight the delivered goods in the presence of the staff who made the transportation:

- The quantity of the packages.
- That no package has been damaged or broken
- The presence of condensation or water inside the packages

It is very important to make this first check because the manufacturer will not accept responsibility for any damage caused during carriage.

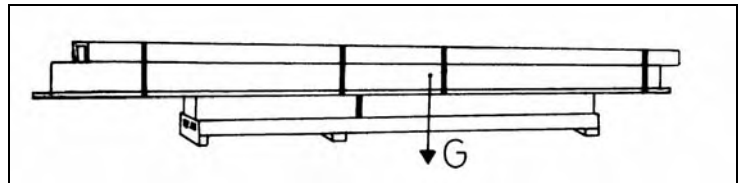


## 5. INSTALLATION

The installation of the L.B. must be carried out by trained personnel only who must follow the instructions contained in this manual.

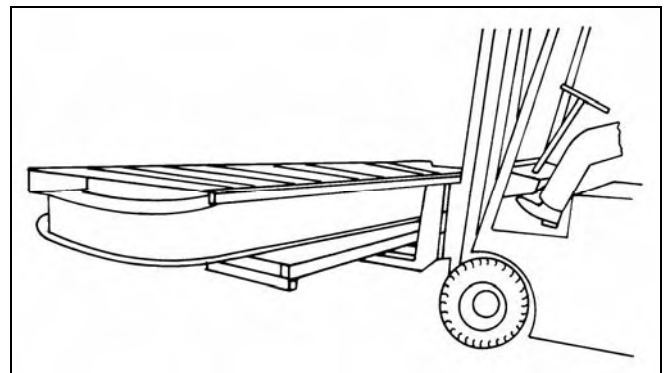
The “Lifting Bench” is packaged as shown in this picture .

**Fig. 5-01**



### 5.1. HOW TO MOVE THE PACKAGE

Once you have chosen the suitable area to locate the equipment, use a fork lift truck min. Capacity 2,0 tons to move the package “L.B.”. **Fig. 5-02**

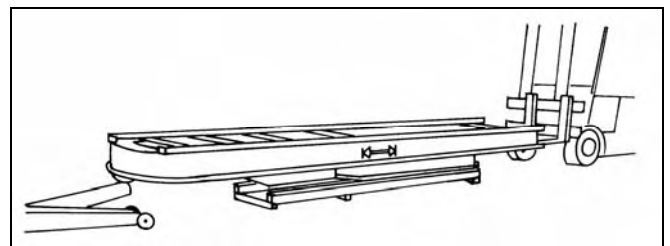


**Please note:** when positioning the “L.B.” you should :

- Consider the vehicle’s side for lifting and lowering, called Front Side. The manufacturer plate (pag.05) positioned on the first crossbeam of the bench determines the Front Side.
- please read chapter 10 (Working Area) and chapter 14 (Overall Drawing).

After you have positioned the “L.B.”, remove the wooden pallet from beneath the lift. You can do this using standard jacks.

**Fig. 5-03**

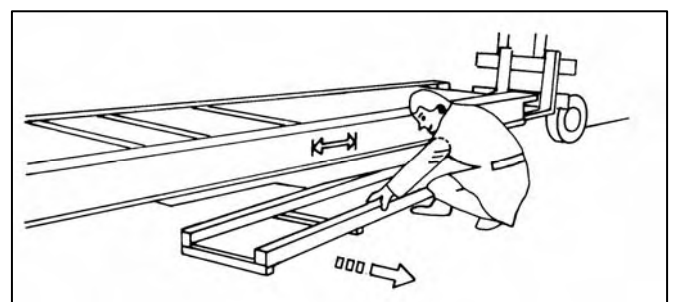


### **WARNING**

**During this lifting operation, you should protect the rack under the bench from any damage for this reason you should insert a wooden spacer between the jack and the bench.**

Proceeding with the utmost care, remove the wooden pallet from underneath the “L.B.”

**Fig. 5-04**



## 5.2 UNPACKING

Cut the plastic straps and remove the four protective wooden angles for crossbeams and measuring tapes.

Take out the two brackets, which are useful to fix the bench with the base of the lift only during transportation.

**Photo. 5-05**

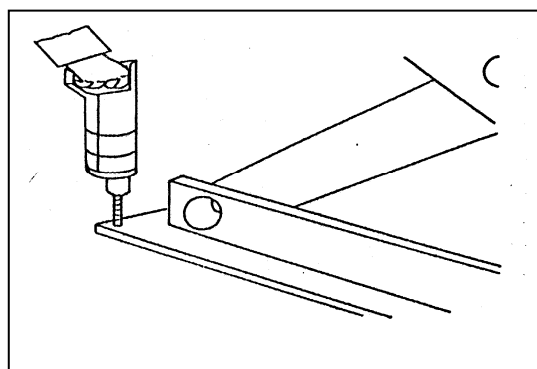


## 5.3 HOW TO FIX IT TO THE GROUND

- In order to arrange for the installation area you should refer to Overall Dimensions Drawing (Chapter 14)
- Before setting the equipment on the floor you should ensure that the ground is level and has suitable bearing capability. It is recommended that it should be able to bear a total weight of 9.000 daN, with a specific pressure of 0.50 daN/cm<sup>2</sup> and made of the correct consistency necessary to allow a proper fixing of the anchoring plugs to the floor.
- The plugs supplied with the equipment are 6 (Ø 20x90 mm), with M12 screws.
- The plugs can be set and fixed only after electrical connection, because you must lift up the bench in order to reach the floor and work with the drill. **Fig. 5-06** ↓

How to proceed to fix the plugs:

- Using the holes of the base of the equipment as a drilling jig, drill the floor with helicoidal point Ø 20, to a depth of 95 mm..
- Clean the hole, insert the plugs, tighten the screws.



## 6. COMMISSIONING

### 6.1 POWER UNIT CABINET

### 6.2 HYDRAULIC PLANT CONNECTION

### 6.3 PNEUMATIC PLANT CONNECTION

### 6.4 ELECTRICAL PLANT CONNECTION (low tension 24V)

### 6.5 ELECTRICAL PLANT CONNECTION (supplied from the network)

#### 6.1 POWER UNIT CABINET

- Once you have positioned the bench, place the cabinet near its final position.

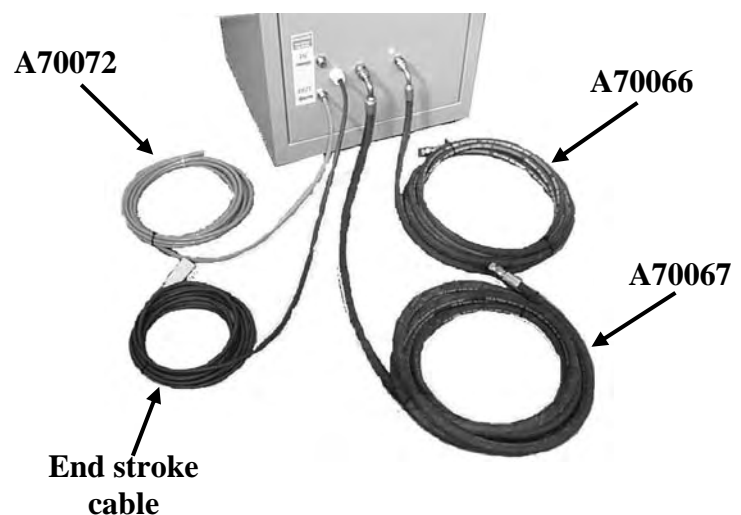
On the back side of the cabinet you will find : (See picture 6-01 e 6-02)

- Tuboflex A70066, lifting jack supply
- Tuboflex A70067, inclination jack supply
- Feed pipe (blue) A70072, for safety bolt release jack
- Cable and plug for up-stroke end control.

**Photo 6-01**



**Photo 6-**



## 6.2 HYDRAULIC CONNECTION

### 6.2.1 To the lifting bench

- The cable and the pipes have a standard length of 5000 mm.
- Place in the provided setting-out the cable and the pipes to the base of the lift (inclination jack's side of the bench).

**Picture 6-03** →



- Provide yourselves of the following keys :
- n° 1 of 18
- n° 1 of 19
- n° 2 of 22
- always working with two keys (as shown in the picture) untighten the caps placed on the bracket and on the cylinder connection.

**Photo 6-04** ↘

- untighten the caps at the end of the flexible feed pipes coming out of the cabinet..
- Now connect the pipes to the connection on the bracket and the connection on the cylinder.



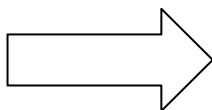
We advise to proceed quickly in order to avoid a leak of oil from the pipes.

Actually the plant is always supplied with oil because every lift is tested before shipment

- Tighten the connection feed pipes, always using two keys (see pictures below, in the correct sequence)



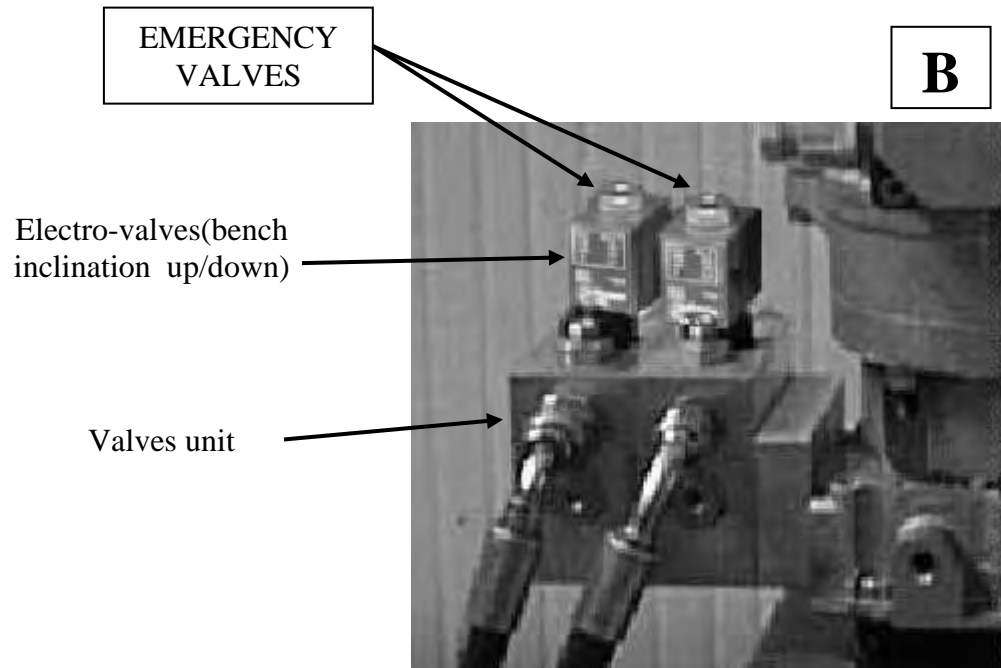
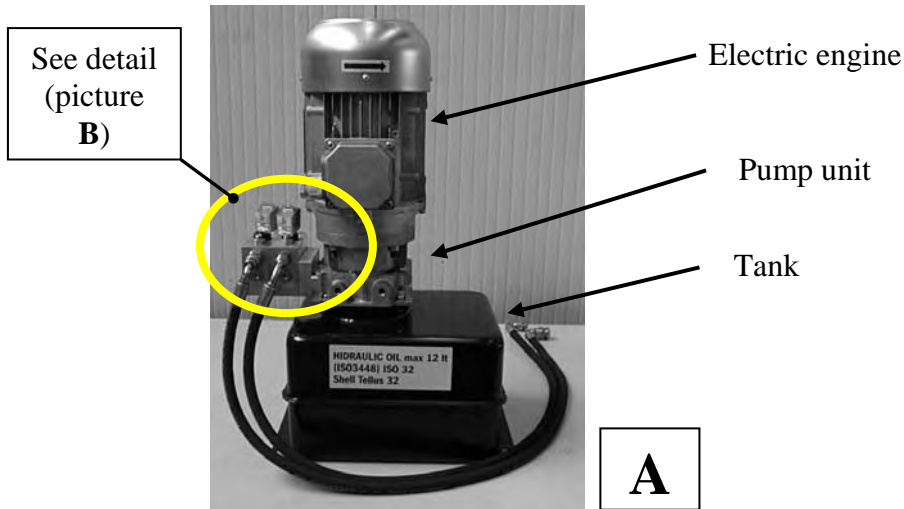
**Photo 6-05**



**Photo 6-06**

6.2.2 To the hydraulic power unit

6.2.2.1 see picture A



**DETAIL  
VALVES UNIT**

## 6.2.2.2 Hydraulic Unit Table

Pump engine power	kW	2,2
Number of poles of electric engine	n°	4
Velocità di rotazione a vuoto	g/1'	1500
Hydraulic pump type	-	Gears
Type of coupling Engine/Pump	-	Direct
Max hydraulic pressure	bar	220
Pressione idraulica di esercizio	bar	190
Oil tank capacity	lt	12
Advised oil type SHELL TELLUS or similar (see table below)	SAE	32

<b>Hydraulic oils Table</b>			
Intervals of Temperature	Up to 30°C	From 30°C to 45°C	Beyond 45°C
Standard viscosity in Centistokes at 50°C	16-20	24-28	31-39
AGIP	OSO 32	OSO 46	OSO 68
CASTROL	HYSPIN AWS 32	HYSIN AWS 46	HYSPIN AWS 68
CHEVRON	EP HYDR. OIL 32	EP HYDR. OIL 46	EP HYDR. OIL 68
ESSO	NUTO H 32	NUTO H 46	NUTO H 68
IP	IP HYDR. OIL 32	IP HYDR. OIL 46	IP HYDR. OIL 68
MOBIL	D T E 24	D T E 25	D T E 26
TOTAL	AZOLLA 32	AZOLLA 46	AZOLLA 68

### 6.2.3 EMERGENCY

In case of temporary lack of power, the down stroke and the inclination movement may be stopped.

This situation can be solved by operating manually on the opening of the down stroke valves both of the:

- lifting cylinder
and the

  - inclination cylinder

The **emergency down stroke valves** are placed inside the operating unit (front side) of the cabinet.

They are positioned on the engine/hydraulic pump unit (see detail, Picture **B**).

In order to reach them you need to unscrew the nuts on the electro-valves's coils.

After removing the nuts, you will see two small round knurled knobs which must be unscrewed very slowly (anticlockwise rotation) in order to obtain:

- **Left knob.** (mark **B1**) Inclination Cylinder down stroke.  
Therefore if the bench was stopped at an inclined position, with this operation the bench will be positioned again horizontally.
- **Right knob.** (mark **A1**) Lifting Cylinder down stroke.  
Therefore if the bench was stopped at a certain height with this operation the bench will be positioned again at its minimum height.

**WARNING**

The knobs must be always unscrewed very slowly and the down stroke speed should be kept moderate. At the end of any operation you should screw tight the knobs and reposition the nuts on their original position..

**DANGER**

If there is no power all the safety and control systems are excluded. All operations carried out on the lift are therefore under the operator's control and responsibility.

### 6.3 PNEUMATIC CONNECTION (to the lifting bench)

Connect the blue pipe of air feed for mechanical safety, inserting and pushing it to the bottom of the bracket, as shown in **Picture 6-07** →



The connection point to the network is placed *è situato* (a mezzo raccordo rapido passa-parete) bottom left of the back side of the cabinet. The plate shows the feeding entry and the values of the pressure, see **Picture 6-08** →



Use pipe Ø 8. (pipe RILSAN Ø 6x8)

The feeding data and the characteristics of compressed air are listed in the table here below.

DESCRIPTION	VALUE
Compressed air type	dry
Air filtering max/min	5 ~ 15 µ
Air lubrication	yes
Oil type	See Oil Table
Humidity outlet disposal	yes
Air pressure	6 ÷ 8 bar

Table of Oils for Air Lubrication (ISO 3448)			
CLASSE	ISO VG 32	ISO VG 32	ISO VG 10
ELF	Spinelf 22	Olna 22	
TOTAL	Azolla 32	ZS 32	
SHELL	Tellus S 22		Tellus C10
ESSO	Spinesso 22		Spinesso 10
MOBIL	DTE light		DTE 21
BP	HPL 22	HPL 32	Energol HPE 10

**WARNING**

Any lack of pressure or air, or any other problem to the mechanical safety system avoids the down stroke but not the up stroke of the lift.

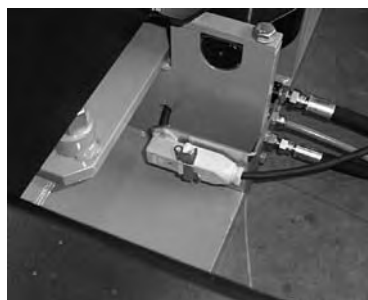


## 6.4 CONNECTION TO THE ELECTRIC NETWORK

### 6.4.1 TO THE LIFTING BENCH, LOW TENSION 24V

- Insert the plug of the up stroke-end cable, making yourself sure of the correct connection, as shown in the pictures here below

↙ **Picture 6-09** and **Picture 6-10** ↘

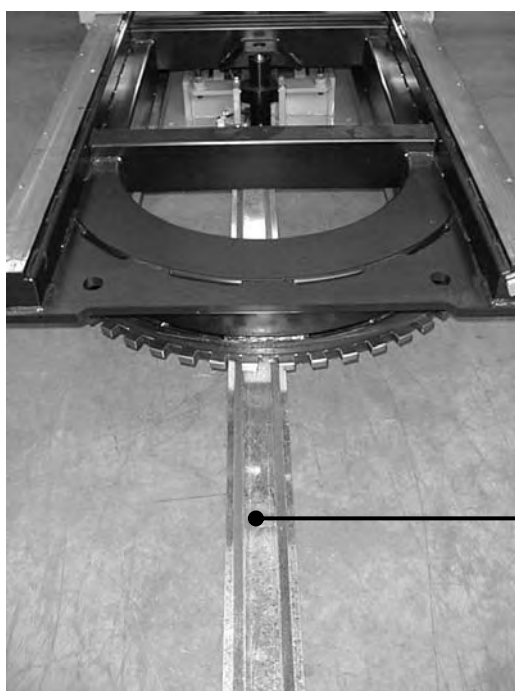


**WARNING**

if the connection is not correct or any other problem to this link will totally inhibit the equipment operating.

- At the end of the above operations and before supplying power to the plant, you should protect all the elements of the plant with the supplied profiles fixed to the floor. (see **Picture 6-11**)

This operation is **NECESSARY** only if it is not possible to lay the cable underground.



Profile / L. 2000 each

**Photo 6-11**

#### 6.4.2 TO THE ELECTRIC POWER PLANT

**WARNING**

Do not make any connection to the plant before having carried out the complete connection of all other plants.

**DANGER**

All interventions on the electrica plant, even if they are simple operations, must be carried out by Trained Personnel Only.

The Power unit Cabinet is supplied with a plug on top left of its backside. (see **Picture 6-12**).

The plug for the connection cable to power supply is included as well.

For the connection use multipolar cable with a 4 conductors min. Of 2,5 mm<sup>2</sup> each, 3 phases + 1 ground (yellow-green) according to the present regulations.

For the German market use pentapolar cable with same characteristics as above.

Standard functioning of the L.B. requires a three phase supply 400V and it is already provided for this voltage.

**WARNING**

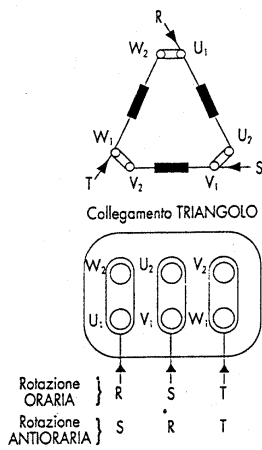
Before making any connection, always check that the voltage value marked in the plate (place near the plug on the back of the cabinet) is the same of the plant voltage ., as shown in **Picture 6-12**.

In case it is not the same please refer to the drawing on page 17 in order to carry out the necessary equalizing.

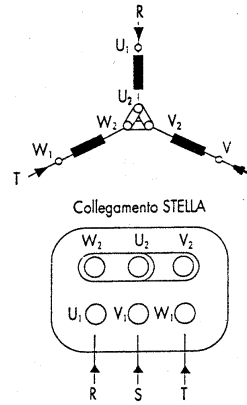


**Photo 6-12**

CONNECTION PLANT TO ELECTRIC ENGINE



200 V. - 50/60Hz  
220 V. - 60Hz.



400 V. - 50/60Hz  
415 V. - 60Hz.

ELECTRIC SUPPLY TABLE	
Type of supply	3-phase +T
Ground connection	compulsory
Type of tension	alternating
Linea elettrica comandi/segnali autonoma in B.T.	1/fase
Standard tension value	200 ÷ 415 V
Special tension value	a rich.
Tension value in B.T.	24 V
Standard frequency value	50 Hz
Special frequency value	60 Hz
Installed rated power	2,5 kW

## 7. CONTROLS AND SET UP

### 7.1.CABINET

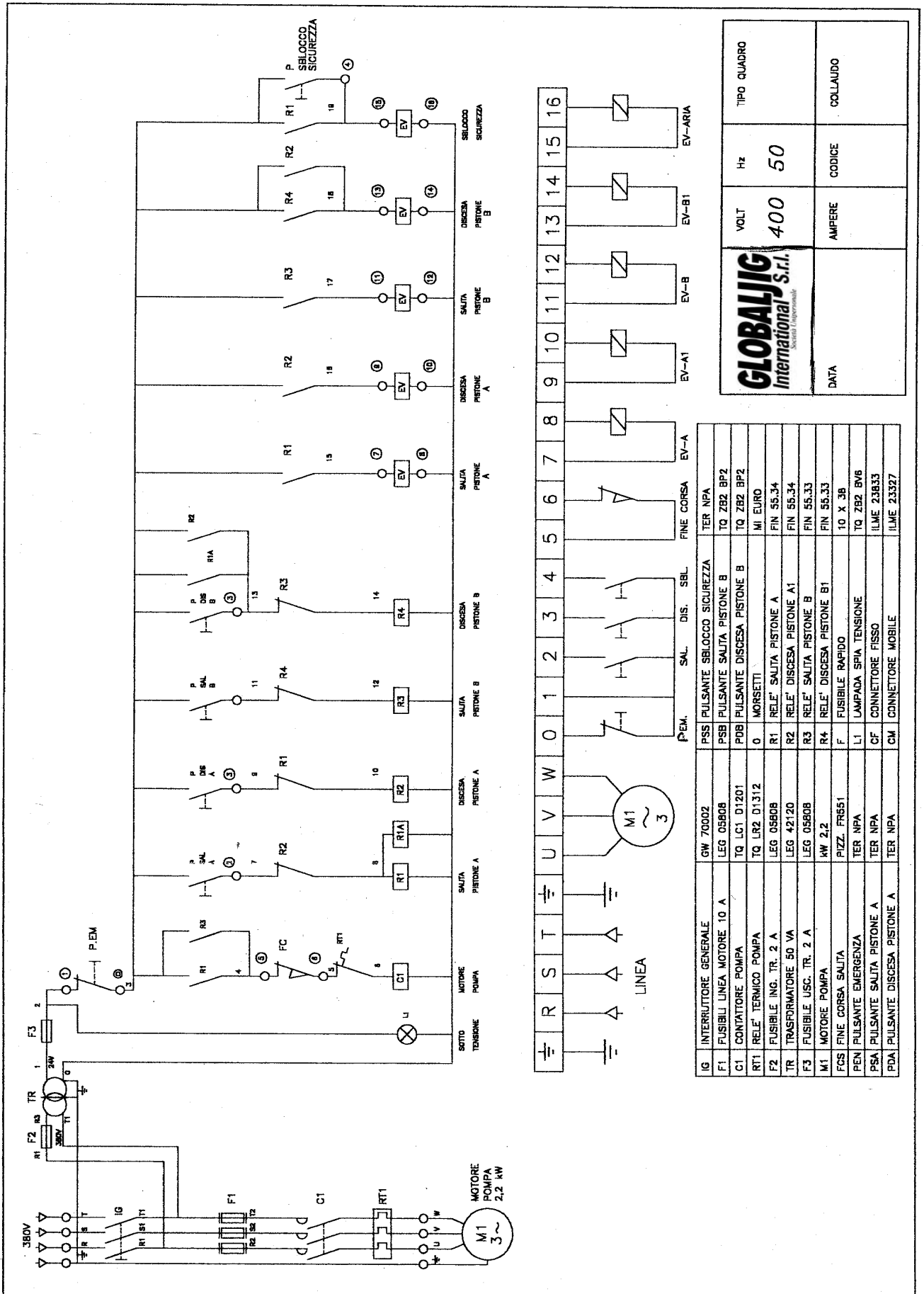
All hydraulic and pneumatic controls are located in the cabinet.

Together with the push-buttons board (remote control), it includes all the controls necessary for the Lifting Bench operations.

All controls listed here below are described in the diagrams that follow:

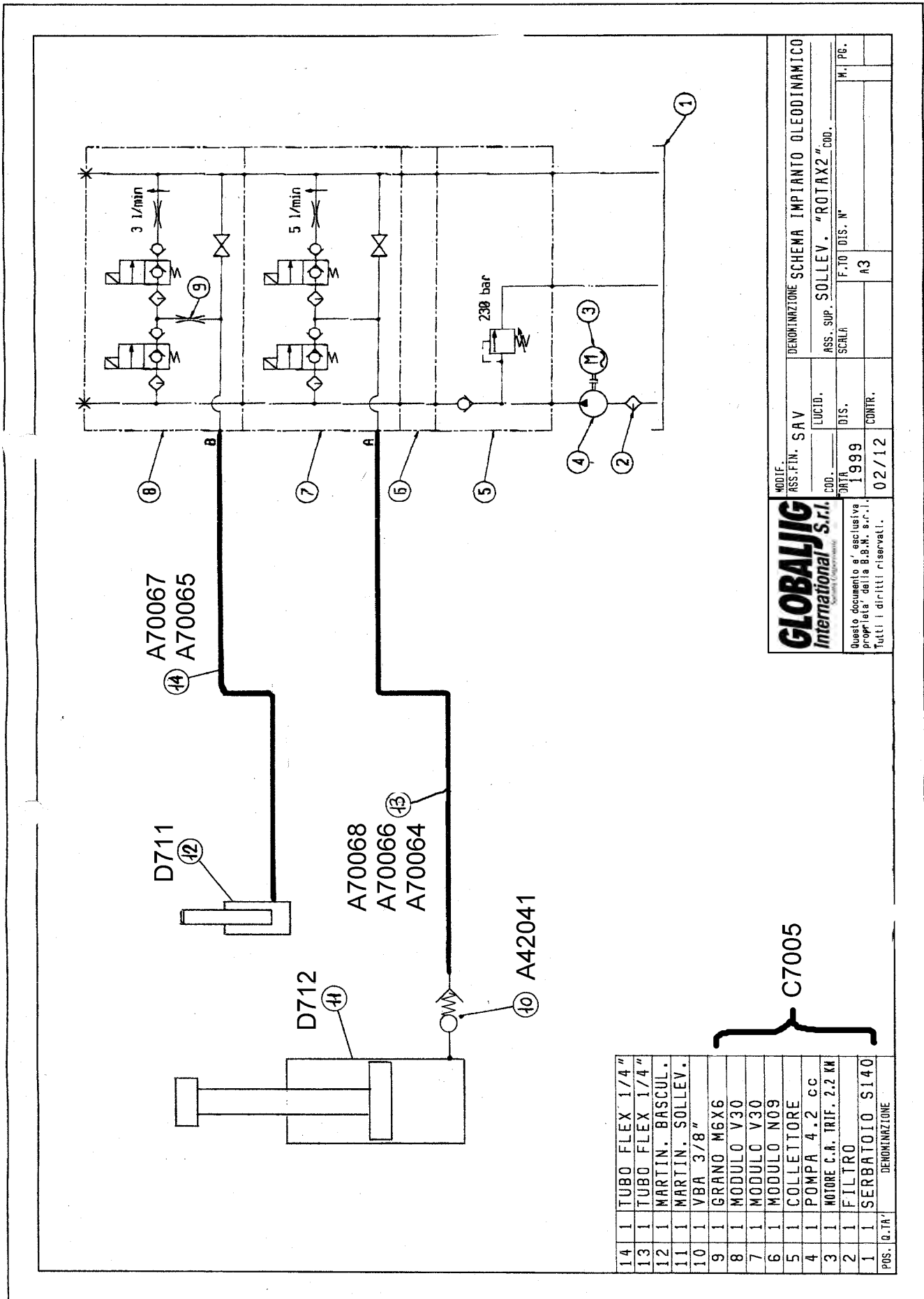
- Electrical
- Hydraulic
- Pneumatic

7.1.1 ELECTRICAL PLANT DIAGRAM

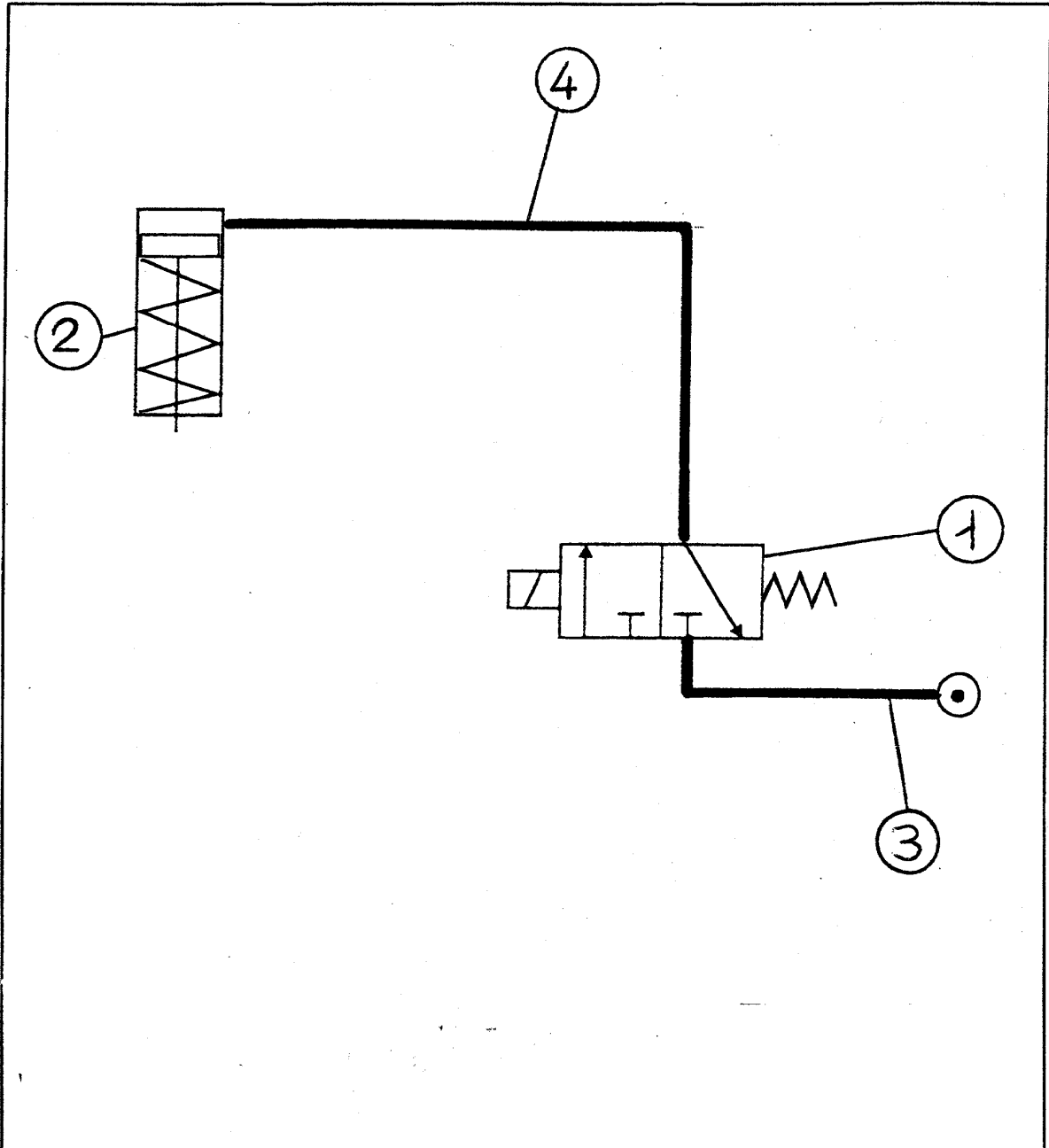


<b>GLOBALJIG</b> International S.r.l. <small>Società Unipersonale</small>	VOLT	400	TIPO QUADRO	
	Hz	50	CODICE	
	AMPERE			GOLLAUDO
	DATA			

7.1.2 HYDRAULIC PLANT DIAGRAM



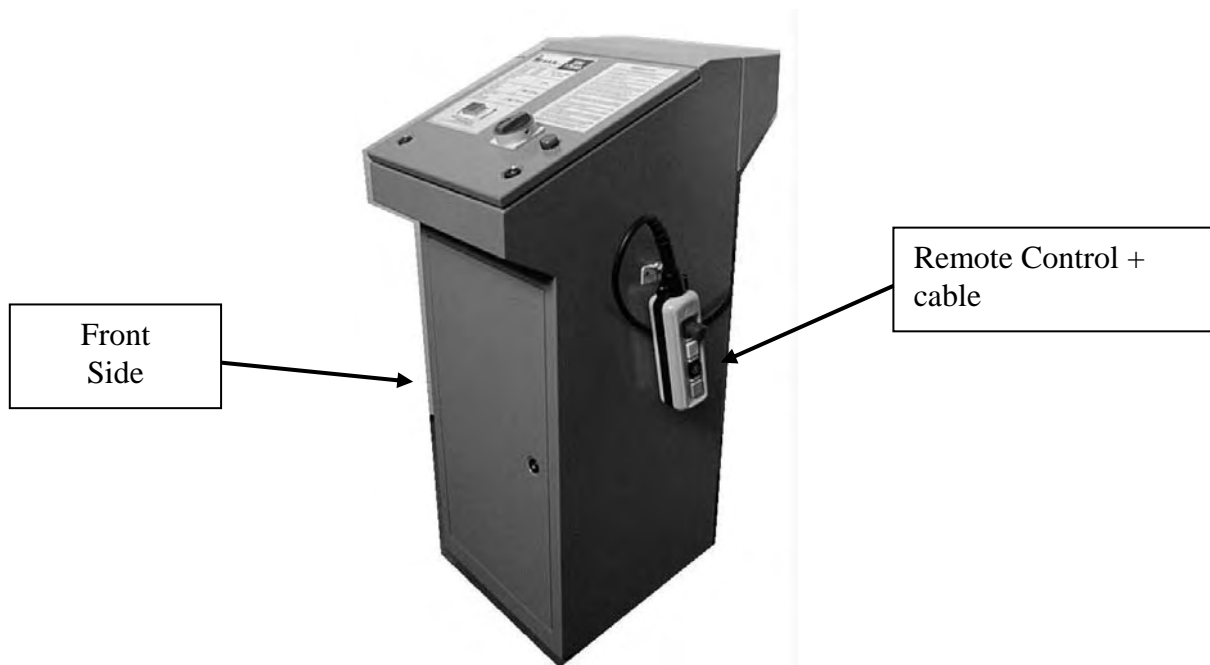
7.1.3 PNEUMATIC PLANT DIAGRAM



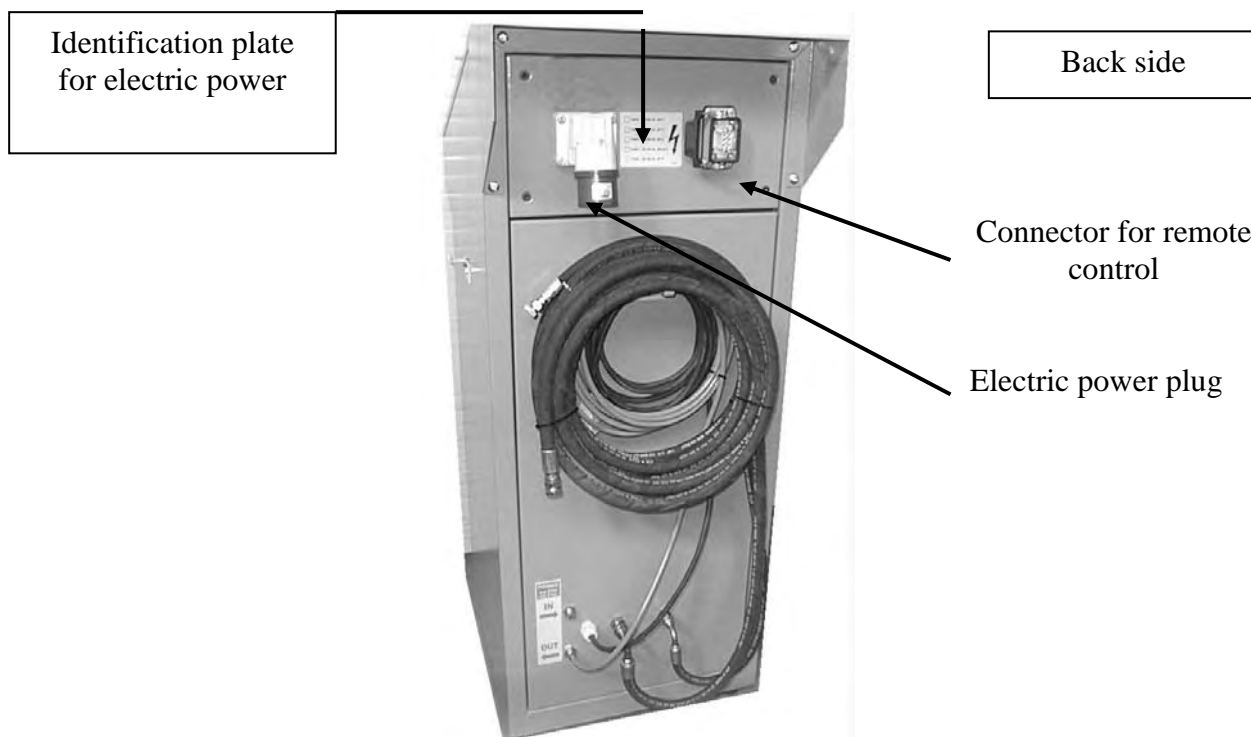
4	/	TUBO Ø8X6	ELASTOLAN	A70071-72-73	
3	1	TUBO Ø8X6	ELASTOLAN	A70070	
2	1	MARTIN. PNEUM.		A70069	②
1	1	ELETTROVALVOLA		A42035	①
POS.	Q. TA'	DENOMINAZIONE	MATERIALE	DISEGNO/NORMA	CARATTERISTICHE

<b>GLOBALJIG</b> International S.r.l. <small>Società Unipersonale</small>	MODIF.	SCHEMA IMPIANTO PNEUMATICO			
	ASS. FIN. SAV	DENOMINAZIONE			
	LUCID.	ASS. SUP. SGANCIO SICURA COD. _____			
DATA 1999	DIS. 06/12	SCALA	F. TO A4	DIS. N°	M. PG.
Questo documento e' esclusiva proprieta' della B.B.M. s.r.l. Tutti i diritti riservati.		CONTR.			

7.1.4 CABINET DESCRIPTION



**Photo 7-01**

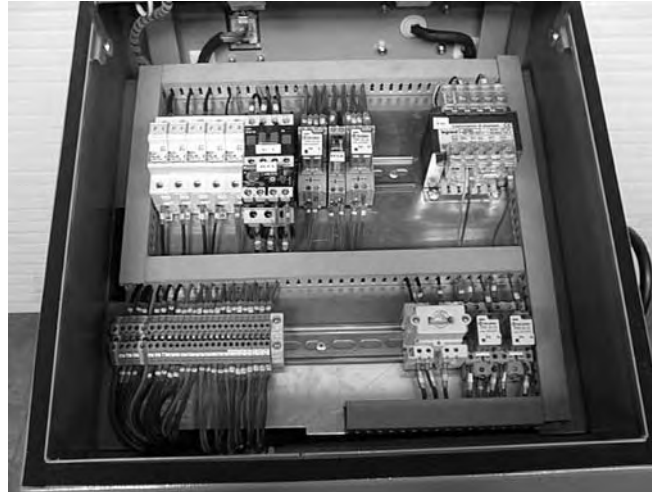


**Photo 7-02**



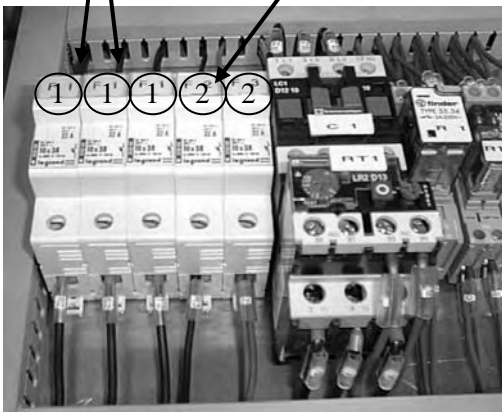
**SWITCHBOARD**  
(under the cover)

**Photo 7-03**



Line  
fuses

Transformer  
fuses



**Photo 7-04**

**Fuses Box**

- ① n°3 fuses G10A
- ② n°2 fuses G2A

**Cover**



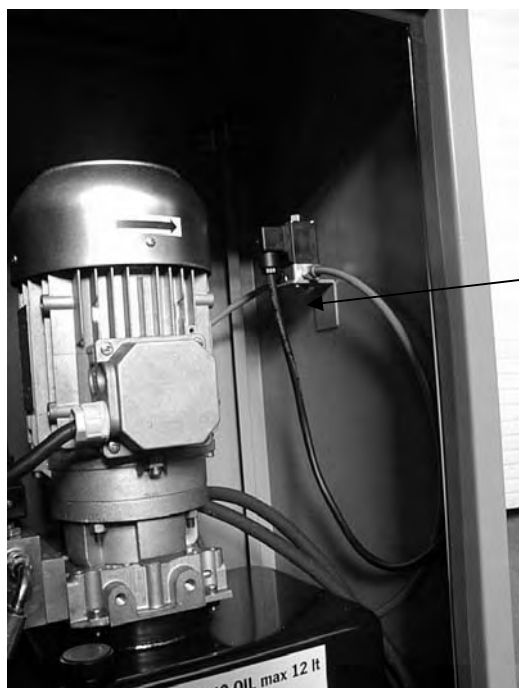
**Photo 7-05**

**HYDRAULIC POWER UNIT**  
(front door side)

Power unit valves  
location



**Photo 7-06**

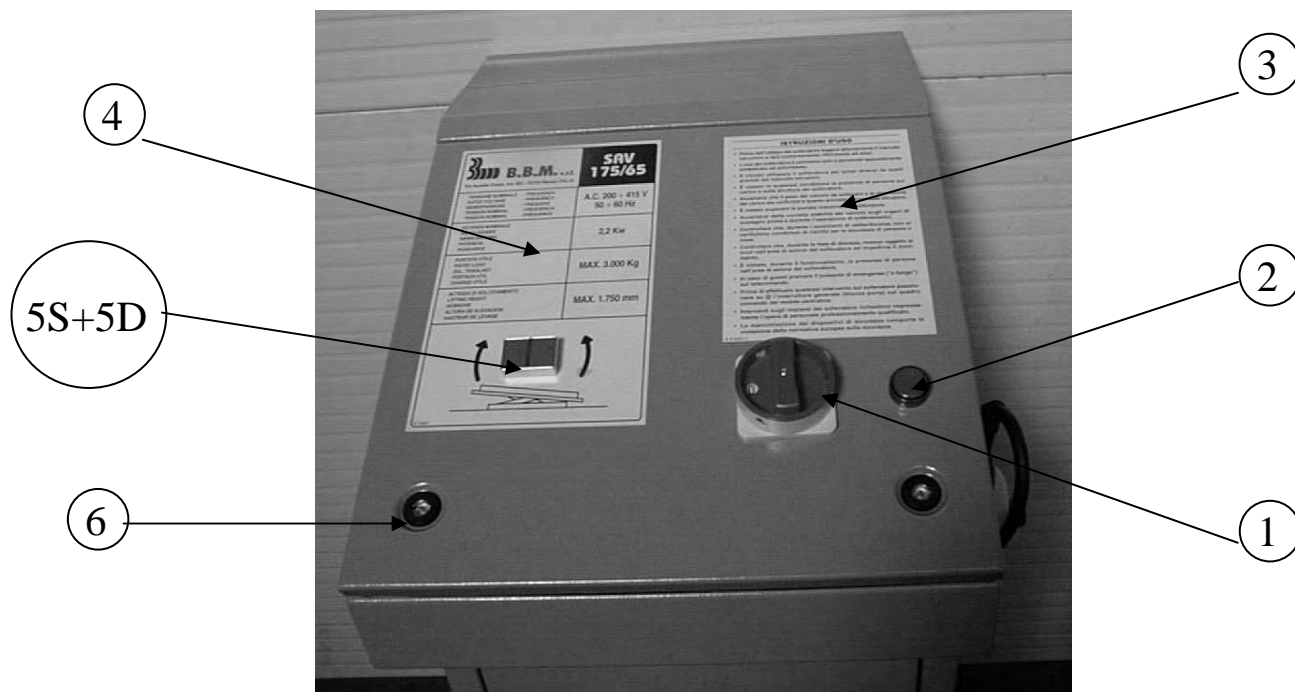


Pneumatic electro-valve  
mechanical safety control

**Photo 7-07**

**CONTROL CONSOLE**

**Picture 7-08**



1. General switch with lock
2. Tension warning light
3. Warning plate
4. Technical data plate
5. Bench inclination button
6. Cover locking

**7.1.5 CONTROLS DESTINATION AND INTERVENTION**

**1. GENERAL SWITCH**

This control must be activated when you begin to work with the lift and disabled at the end of its use. L'interruttore è del tipo rotativo blocca porta lucchettabile.

Position  (open)  
All circuits are with no tension

Position  (closed)  
All circuits are under tension

**2. TENSION WARNING LIGHT**

It signals the presence of electric tension in the circuits and the position  of the general switch .

### 3. BENCH INCLINATION

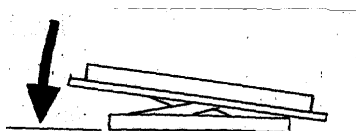
The two buttons **5S** e **5D** control the bench inclination.

- By pushing the button **5S** the bench makes a frontward inclination.



**Picture 7-09**

- By pushing the button **5D** the bench returns to its original position.

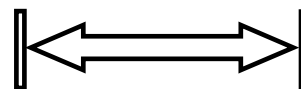
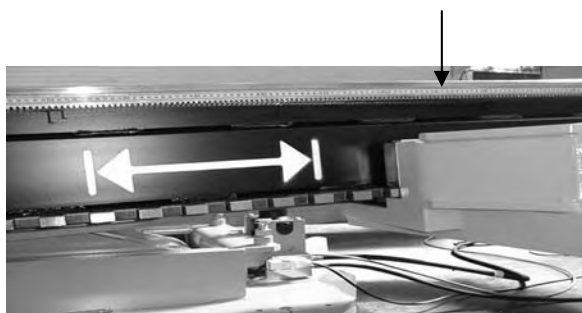


**Picture 7-10**

**WARNING**

The inclination of the bench is intended and permitted only for loading and removing the vehicle. When the bench is inclined it is absolutely forbidden to move the pulling towers.

Before carrying out the above operations please read the following instructions: **Picture 7-11**



**Picture 7-12**

This white symbol, which is marked on both sides of the bench, defines the Risk Zone for pulling arm damage. If this latter, should be positioned within the Risk Zone during the inclination stage, damage may occur.

**ATTENZIONE**

Therefore the operator must be sure that during the inclination stage, the pulling arm **MUST BE KEPT OUT OF THE RISK ZONE.**

The manufacturer is not responsible for any damage to the Lifting Bench caused if ignoring this **WARNING.**

4. PUSH- BUTTON PANEL (cable remote control)

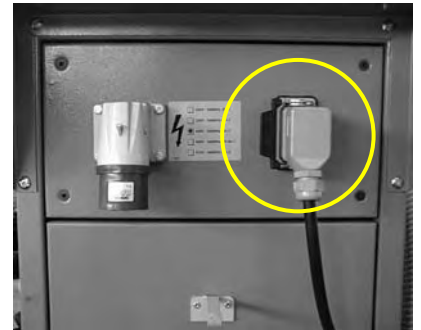


- ① **EMERGENCY** button
- ② **UP-STROKE** button
- ③ **DOWN-STROKE** button
- ④ **RELEASE** button for safety barring gear

**Picture 7-13**

The remote control is supplied with cable and connection plug.

The connector is placed in the back side of the cabinet, see **Picture 7-14** →



All controls necessary for the Up/Down operations and barring gear release of the L.B., are located in the push-button panel in the portable remote control

The remote control allows the operator to work safely .

**WARNING**

During all operations the remote control cable around the bench must always be on the floor and never cross the lift.

**DANGER**

The EMERGENCY button does not isolate all circuits. For any intervention to the electrical plant, you must always disconnect power from the equipment by pushing the main isolator switch/door locking on the cabinet.

#### 4.1 CONTROLS DESTINATION AND INTERVENTION

##### 1. EMERGENCY BUTTON

In case of an emergency, by pushing this button it is possible to disconnect immediately, the entire electric supply.

Lo sblocco del pulsante può avvenire solo con azione volontaria.

##### 2. UP-STROKE

By pushing button the lift goes up.

When you release the button, the control is disabled and the lift stops immediately and whatever is its position the safety lever will be automatically activated.

If the lift reaches its maximum height, the limit switch stops the plant immediately.

**N.B.:** for the safety stopping press only button . The bench lowers till the inserting of the barring gear .

##### 3. DOWN-STROKE

If the L.B. is in safety stopping position, press for a moment button for the up-stroke then press and keep it pressed button only afterwards press button .

In this way the bench starts its down stroke and will keep till it reaches the ground only if you continue to push button and .

By releasing button the L.B. will stop immediately.

By releasing button the L.B. stops when the barring gear is inserted in its lockings.

##### 4. BARRING GEAR RELEASE

By pushing button you disable the mechanical safety barring gear.

The control operates only together with button .

## 7.2 ELECTRICAL SETUP CHECKS.

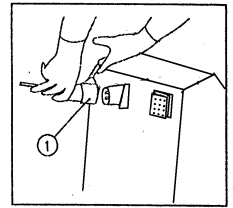
The operations for the first start are very important in order to assure a correct and lasting functioning of the L.B.

Therefore, we recommend you to carry out the operations described below with the utmost care.

Check that the network voltage is the same as the one reported on the plate.

Check that the current is supplied with protection disposal (not included in the L.B. )

Check the good condition of the feeder and the presence of the earthed neutral (yellow/green). Connect and place the earthed neutral with the utmost care and according to the current regulations.



Insert the plug in the outlet placed on the power unit console, see **Picture 7-15** →

Supply voltage to the L.B. by operating on the **main switch** sulla on the console of the power unit, see **Picture 7-16** →



**Photo 7-17**



EMERGENCY

UP

DOWN

SAFETY RELEASE

Use the remote control .

Check that the button for EMERGENCY is disabled. Now, press button UP only for few seconds and check that the lift is moving.

**WARNING**

If the lift does not move, do not insist because the wrong wiring rotation of the engine, and therefore also of the hydraulic pump, may cause damage to the hydraulic plant.

In this case invert the two phases of the feeder. **DO NOT** make any intervention on the terminal board of the electric engine.

Test its correct functioning by carrying out a complete up and down stroke.

Make a final check "at sight" at all the pipes connections, at the junctions and at the cylinder in order to find out eventual leaks of oil. In this case lock tight the junction in the leaks locations.

Not observing the above mentioned instructions cause the invalidation of the warranty conditions, and any damage that may follow will not be imputed to the Manufacturer.

**DANGER**

**The L.B. must be used by authorised and trained staff only.**

**Before proceeding be aware that:**

- no people or objects should stand in the lift working area
- the vehicle is steadily positioned.

**During the UP/DOWN operations it is advisable to watch the L.B. and its load.**

At the end of the up / down operations of the L.B. it is advisable to position the main switch (on the console) on the **O**.

**In case of black out the L.B., il "B.S." is out of work but the antifall security valve will be still operating.**



## 8. OPERATING

### 8.1. VEHICLES LIFTING AND LOWERING

#### WARNINGS AND CAUTIONS

Once the bench is installed and connected, the Manufacturer recommends the testing of the "L.B." before standard use, by **lifting** and **lowering** the bench without any load.

**You should consider that no equipment is free from any risk or danger while working, therefore the Operator must pay special attention to these warnings.**

**In order to avoid any risk when first starting working on the equipment, we recommed the Operator to read this chapter carefully, while for the Equipment Safety we advise to read Chapter 8.4.**

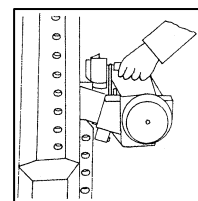
### 8.2. BEGINNING OF VEHICLE LIFTING

Starting situation: "L.B" completely lowered and vehicle read to be lifted..

Move one pulling tower on the most convenient position correspondent to the pulling direction with the winch cable. Fix it in this position inserting its bolt.

Mount the winch and support assembly on the vertical arm of the pulling tower, at the most suitable height, see **Picture 8-01** →

Push the first crossbeam to the front stop and lock it on both sides by using the appropriate rack. Tighten the two bolts with the key supplied with the equipment.



Move out the other crossbeams in order to insert the ramps, one by one on each two crossbeams on both sides.

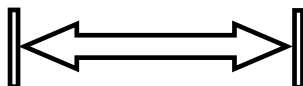
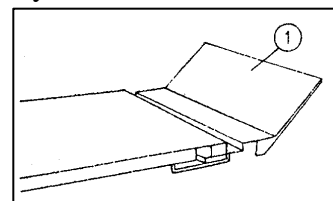
Place the ramps on the crossbeams symmetrically in order to match the vehicle' track.

Push the last crossbeam towards the rear end of the bench, dragging all other crossbeams and the ramps until they are all compacted.. Lock the crossbem as you did with the first one.

Mount and position the stop ramp on the last crossbeam for vehicle safety.

See **Picture 8-02** →

1. Place additional pulling towers at the equipment edge **OUTSIDE THE RISK ZONE** marked by the following symbol:

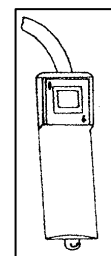


Now insert the two ramps and place them to match the vehicle's track.

Push the button on the left of the power unit cabinet to activate the bench tilting mechanism.

Connect the winch to the power supply.

While one person unwinds the steel cable by pulling it with the winch hook, a second person should push the winch control **bifunctional push -button** to the cable release position. See **Picture 8-03** →



Hitch the vehicle properly.

Start the dragging operation by pushing the bifunctional push-button to the cable release position.

Lift the vehicle till it is properly positioned on the bench.

Keep the vehicle hitched to the winch hook, remove one ramp from the crossbeam and in its place insert the stop ramp.

Remove the second ramp from the crossbeam.

Push the button on the right of the unit power cabinet in order to bring the bench to its horizontal position.

Unfasten the winch hook and rewind the remaining part of the cable.

Remove the winch.

**ATTENTION**

**This operation can be risky: it is advisable to watch the vehicle while it goes on the bench, following its track and if necessary to intervene manually until the vehicle is positioned.**

END OF THE VEHICLE LIFTING OPERATION

**ATTENTION**

**Remove the loading ramps from the bench before lifting**

### 8.3.BEGINNING OF VEHICLE LOWERING

- Starting situation: the vehicle is properly positioned on the ramps .
- The crossbeams and the ramps are compacted as described in point 8.2.7.. The bench is positioned at its working height "Standing man's height".
- Insert the stop ramps, both front and rear.
- Lower the bench till the floor.
- Place the pulling towers on the bench following the instructions and the warnings already mentioned in the lifting operation. Mount the winch on the vertical arm.
- Unwind the winch cable until you can hitch the vehicle.
- Rewind the rest of the cable and hold the vehicle with the cable in tension.
- Push the button on the left of the power unit cabinet to tilt the bench frontward.
- Remove the stop ramp on the front.
- Insert the ramps and position them on the crossbeam to match the vehicle's track.
- Push the bifunctional push-button of the winch control to the cable release position.
- Lower the vehicle until it leaves the bench.
- Unfasten the winch hook.

<b>ATTENTION</b>
------------------

**This operation can be risky: for this reason it is advisable to watch the vehicle during its descent and if necessary to intervene manually until the vehicles is on the floor.**

### END OF THE VEHICLE LOWERING OPERATION

Now the bench is ready and properly positioned to start a new repair job.

#### 8.4. IMPORTANT SAFETY REGULATIONS, TO OBSERVE DURING EQUIPMENT OPERATION BOTH WITH VEHICLE ON THE LIFT OR WITHOUT.

**WARNING**

Avoid to leave objects or rags or anything else on the ramps: their accidental fall may cause damage during the lifting operations.

Keep the ramps clean, avoid the deposit of oily substances that may cause the sliding of the load.

**DANGER**

It is absolutely forbidden to use the ramps as a working place.

It is absolutely forbidden to stay on the ramps both when the bench is stopped and when is moving.

During lifting and lowering check the vehicle “at sight” and make sure that it is perfectly stable on the side ramps.

LIST OF MAJOR WARNINGS FOR SAFETY. THE SAME INFORMATION IS ALSO REPORTED ON A PLATE ATTACHED ON THE POWER UNIT CONSOLE.

- For the use of trained operators only.
- It is forbidden to use this lift for any other purpose different from those provided in this instruction manual.
- Do not allow anyone on or inside the loaded vehicle or on the structure of the lift.
- It is forbidden to overload the lift exceeding its maximum capacity.
- Be sure that the weight of the vehicle to be lifted and its distribution are in conformity with the instruction manual.
- Always check that no dangerous conditions may cause injury or property damage during lifting operations.
- Always check that no object may obstruct the descent of the lift.
- The presence of any person within the working area of the lift is strictly forbidden.
- In case of breakdown press the emergency button on the remote control.
- Before making any intervention the main switch must be positioned on **O**.
- Service and repair are to be carried out by qualified personnel only.
- The manumission of safety devices imply the infringement of the European Body of Legislation on Safety.

## 9. SAFETY DEVICES

### 9.1. Up-stroke limit switch

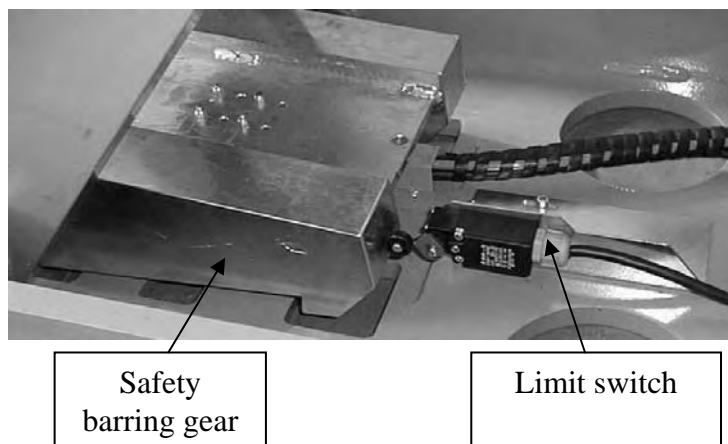
This device checks the maximum height and interrupts the up-stroke signal to the hydraulic unit.

The intervention is made when approaching the barring gear (see picture 9-01 e 9.02)

**Photo 9-01**

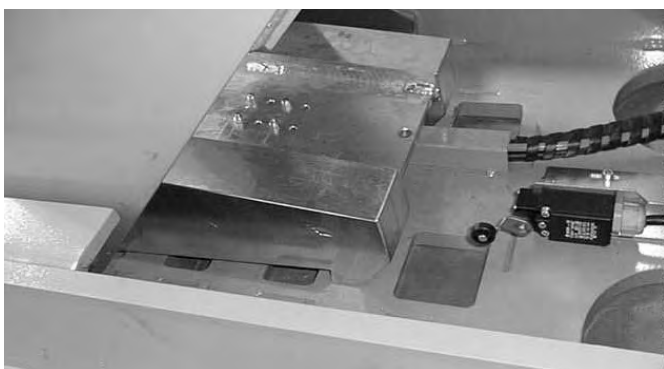


**Photo 9-02**

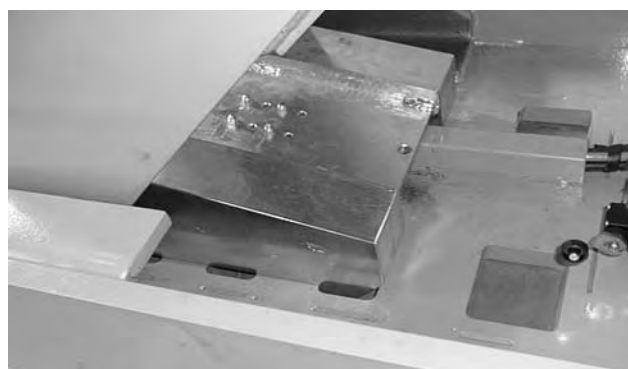


### 9.2. Safety of mechanical block

It is a cramp shaped device which for gravity, inserts its teeth in special moulded rectangular holes. The safety disposal can be released only by means of the operator with electricity and compressed air.



**Photo 9-03** barring gear free



**Photo 9-04** barring gear inserted

Releasing is through the small pneumatic ram located inside the barring gear which lift it up avoiding the insert in the rectangular holes.

For the releasing control press the **YELLOW** button on the remote control. (see chap.7, Remote control).

The safety device is automatically operating when releasing the **YELLOW** button .

## 10. WORKING AREA

The area where the equipment is installed and where it works is called **Working Area** and its dimensions are described in the picture here below.

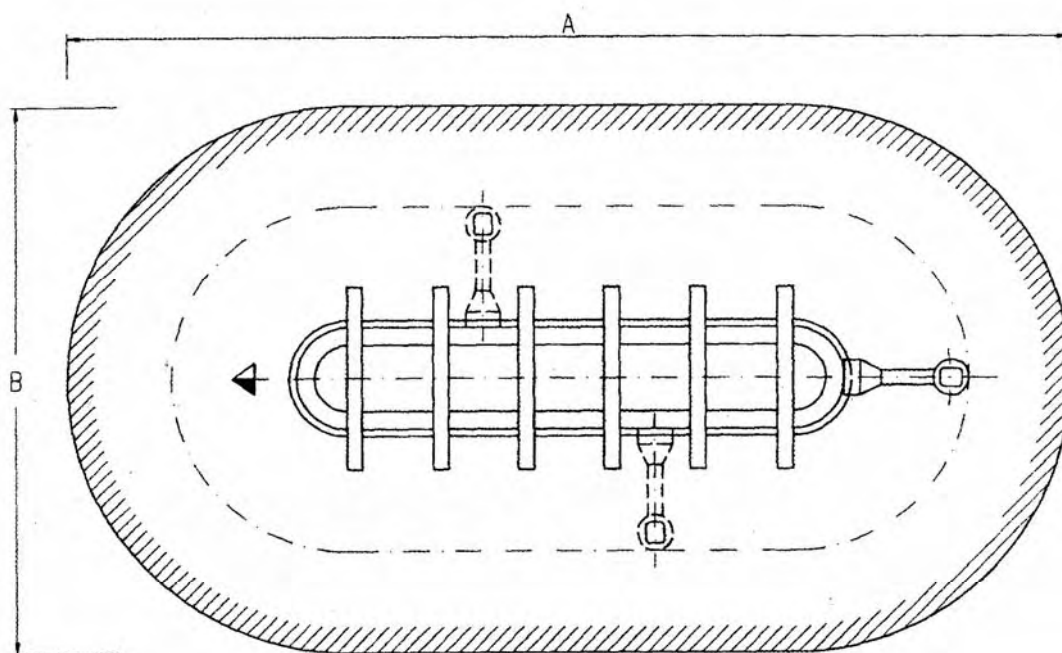
The operator is able to check at sight all the operations of lifting and lowering both of the lift and of the vehicle.

**DANGER**

**No admittance to non authorized staff within the working area.**

For safety reasons, the Working Area should be indicated on the floor with a yellow line.

Implementation of this recommendation is at operator's discretion.



MOD.	[cm]	
	A	B
4000	780	550
5000	975	

A X B = AREA DI LAVORO

## 11. START AND STOP – SAFETY PROCEDURES.

### 11.1. Start up operations

Starting position: the bench is completely lowered and it may be in one of the possible situations that follows.

- With crossbeams and bases
- With side runners
- With the Globaljig system and the vehicle already in position
- With side runners and vehicle

Before activating the lifting bench:

- Check if the power is available.
- Check the Working Area, make sure that the area is free from objects or people.
- Check the correct position of the ramps.
- Check the load stability.

### 11.2. Stopping operations

At the end of the job or when you have to have a long break, you should:

- Reposition the bench horizontally and at its minimum height .
- Turn off the main switch (on the power unit console) in position **O**.

### 11.3. Stopping operations in case of a blackout.

In case of a blackout, the lifting bench is out of work and even if it is still safe, (the barring gear is activated), you must turn off the main switch on the console, until the power is restored.

## 12. MAINTENANCE

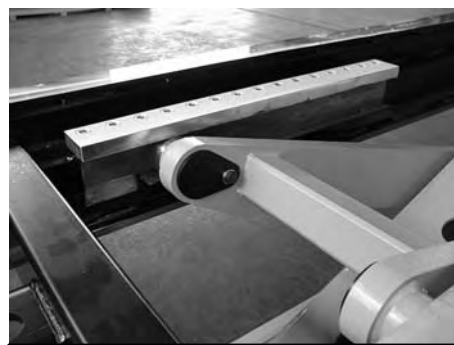
Ordinary maintenance operations are easy and consist of general cleaning of the lifting bench at the end of a work shift and after the repair of a vehicle.

### Checks and operations

Keep the following parts clean from dust, oil deposits, soil or any other dirty material that can drop from the vehicle under repair.

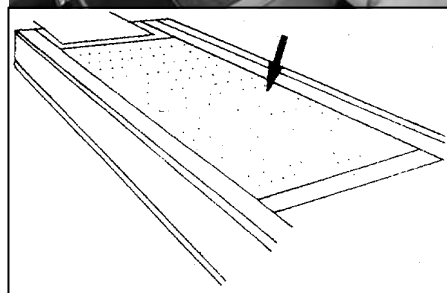
- The limit switch of the up-stroke.
- The ramps and side runners.
- The crossbeams and their sliding plates.
- The toothed guide of the pulling arms.

Once a year you should **grease** the guides for the connecting rods bearings, both lower and upper ones, and the pulling tower guide track underneath the bench. **Picture 12-01** →



In order to reach the upper guides you should remove the perforated plate. **Picture 12-02** →

Before proceeding with this operation you should lower the L.B. and disconnect the main switch.

**DANGER**

**After maintenance operations the protection plate must be repositioned.**

**WARNING**

For ordinary cleaning do not use water, petrol or other flammable liquids. Use cloths or paper and eventually also dry compressed air jets.

- Make periodic inspections to the dowels at the base of the bench.
- As for the hydraulic plant, its maintenance consists of a periodic visual inspection of the plant for any oil leakage. Check and tighten the joints, especially those which connect flexible pipes to rigid ones. If everything is dry and without oil traces, it means that the plant is well sealed.
- The electric plant does not require any maintenance.



### 13. REPAIR/ COMPONENTS AND SPARE PARTS

#### 13.1. REPAIR

PROBLEM	POSSIBLE CAUSE	SOLUTION
The lifting bench does not go up or down	<ul style="list-style-type: none"> <li>- Power current fuse (F1) or transformer fuses (F2/F3) damaged.</li> <li>- Limit switch for the up-stroke damaged or with no connection.</li> <li>- Damage t the electric or hydraulic plant.</li> </ul>	<ul style="list-style-type: none"> <li>- Replacement of the damaged fuses.</li> <li>- Restore the connection or replace the limit switch.</li> <li>- Call the technician.</li> </ul>

#### 13.2. COMPONENTS AND SPARE PARTS

The documentation of this chapter concerns the diagrams and the drawings described in the following chapters:

- Electrical Diagram cap.7
- Hydraulic Diagram cap.7
- Pneumatic Diagram cap.7
- Overall dimensions drawing cap.14

We advise the operator that it is not possible to provide drawings or information about all the component parts of this manual. The manufacturer will:

- Undertake a more detailed test at his own premises or at Assistance Network's workshop.
- Be at Customer's disposal in order to reply to any questions concerning all the components, in order to grant the correct functioning of the equipment.

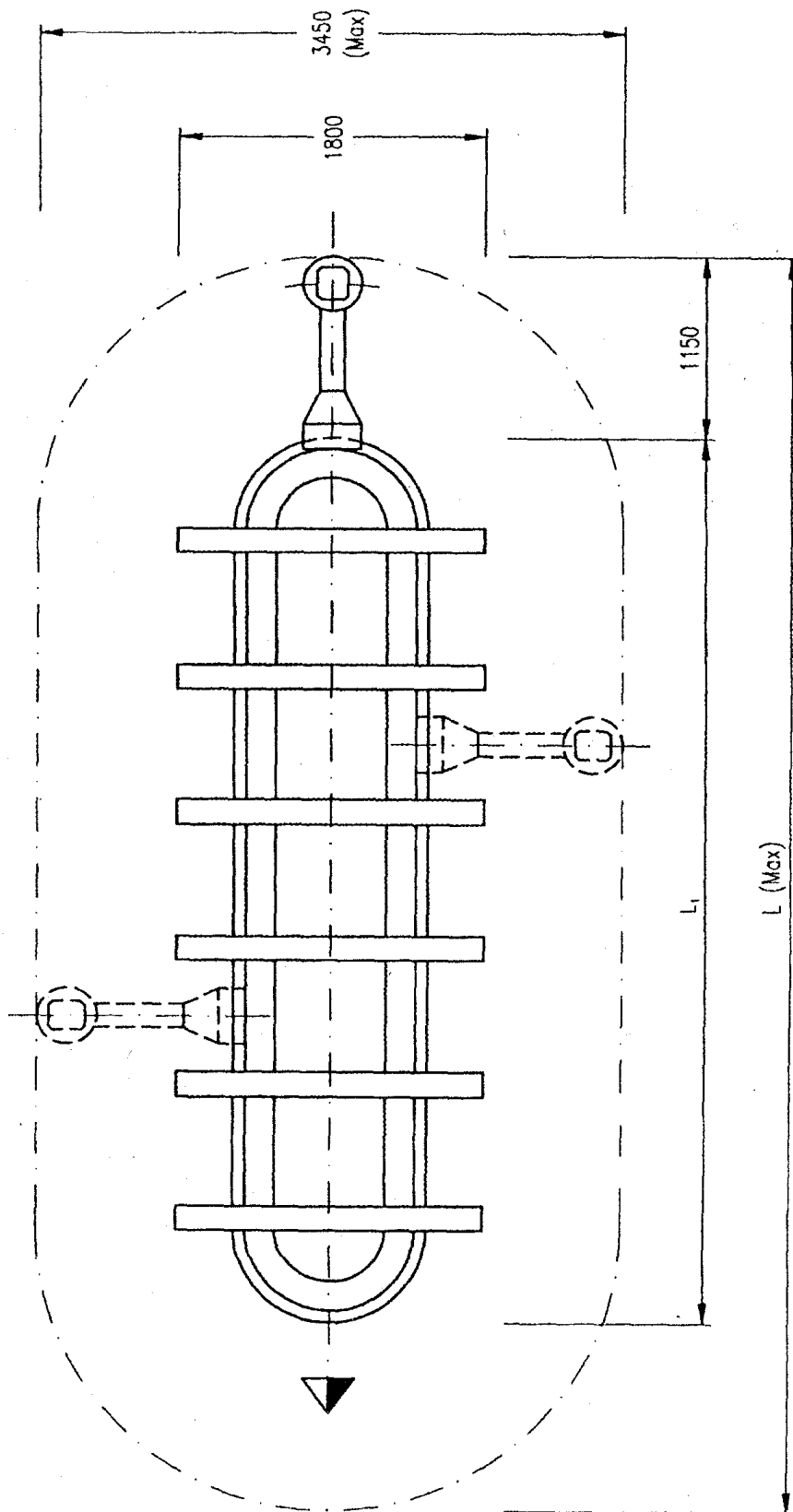
The electrical and hydraulic components will be replaced only after manufacturer's check in order to determine the cause of the damage.

**WARNING**

In case of replacement or assistance, the customer should contact the authorised local distributor.

The manufacturer is not responsible for injury to people or damage happened during repair carried out outside manufacturer's premises or by non authorised staff.

14. OVERALL DIMENSIONS DRAWING



MOD.	L (Max)	L <sub>1</sub>
4m	6800	4000
5m	7750	5000

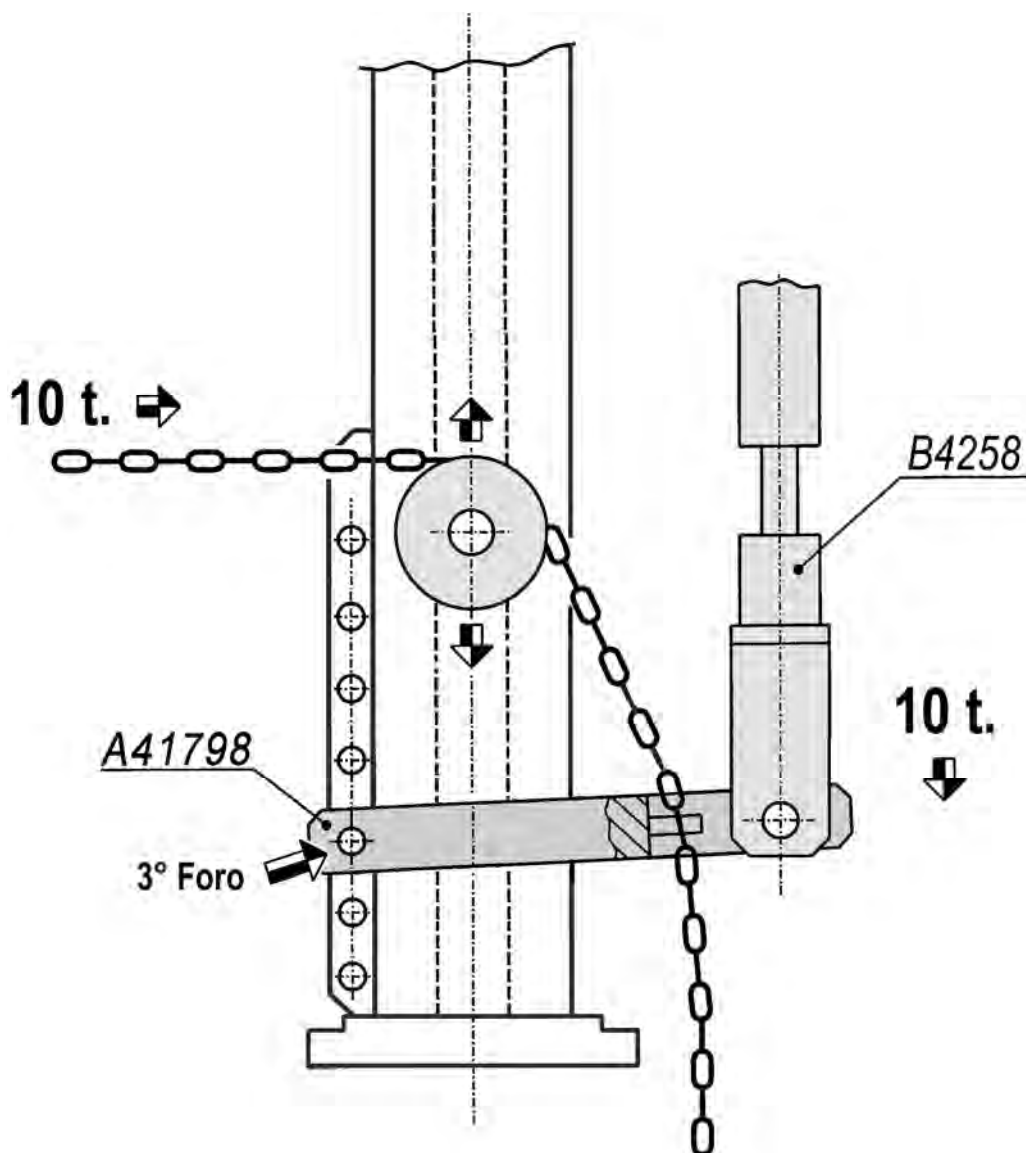
## 15. DEMOLITION

In case of equipment demolition, the operator must carry out all operations without causing personal injury or damage to the environment.

The lifting bench is considered special waste material.

- Classify the equipment's components according to their disposal category or recycling provided by the Law. Dismount and separate the equipment components in homogeneous parts, according to their classification.
- Collect the oil from the hydraulic system, avoiding to dispel it into the soil, and deliver it to the local board responsible for its collection and disposal .
- The operator is directly responsible for the above operations according to the Legislation.
- GLOBALJIG INTERNATIONAL. srl is not responsible for any consequential loss or resulting damage or claims.

**ISTRUZIONI FOR USE OF 10 TON. PULLING BRACKET**



**USE THE A41798 LEVER ONLY IN THE 3° HOLE  
(AS SHOW IN DIAGRAM ABOVE)**

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