SPANESI®

MULTIBENCH

OPERATION, SERVICE AND SPARE PARTS MANUAL

Translation of the original instructions

CE

www.spanesi.com

Carefully read the instructions in this manual before using the equipment

THE FIRM

S.p.a.

This manual constitutes the original text, and therefore, for legal purposes, only the text in Italian is valid.
The translations were made for commercial purposes only.

SUMMARY

IN THE MULTIBENCH IDENTIFICATION PLATE

PRODUCT NAME			
MODEL		MAXIMUM PRESSURE	
SERIAL NUMBER		MAXIMUM CAPACITY	
VOLTAGE		CURRENT	
DIMENSIONS		TOTAL MASS	
YEAR		LOWERING SPEED	

INFORMATION CONCERNING DELIVERY OF THE MULTIBENCH WITH LIFT

Transport document N°		of the	
CUSTOMER			

WORKSHOPS AUTHORISED BY SPANESI S.p.A. FOR TECHNICAL SUPPORT

SPANESI S.p.A. - tel. +39 049 9333203 - e.mail assistenza@spanesi.it

1. DESCRIPTION AND MAIN FEATURES

1.1. INTRODUCTION

This manual provides instructions for installation and all information considered necessary for knowledge, correct use and routine maintenance of the **MULTIBENCH** electro-hydraulic scissor lift with straightening system produced by SPANESI S.p.A. of SAN GIORGIO DELLE PERTICHE (Padova) – Italy.
The **MULTIBENCH** is an electro-hydraulically operated lift for motor vehicles which can be used to lift lightweight vehicles within the capacity limit specified on the manufacturer's rating plate. The **MULTIBENCH** has been designed and built to be used in garages and bodyshops to lift the vehicle or carry out repairs to the body by means of the pull system provided. The equipment is not suitable for lifting people. The **MULTIBENCH** provides easy access to all parts of the vehicle and facilitates dismantling of the parts to be repaired or the parts damaged by accidents, leaving the four wheels free and permitting opening and closing of the doors.
When used with the pull system, the lift permits the vehicle's body to be kept under tension for all bodywork repair operations.
The following does not provide a complete description of the various parts or a detailed explanation of their operation. The user will, however, find everything he needs to know for safe use and maintenance of the lift. The instructions given in this manual must be followed to ensure operator safety, correct operation, economic running and long life of the lift and pull system. It is of fundamental importance to observe all the directions given in this manual:

WARNING! SPANESI S.p.A. declines all liability for damage, both direct and indirect, to persons, animals or property due to negligence or failure to comply with these instructions.

This manual is an integral part of the product and must be carefully kept and consulted throughout the life of the machine. Further copies can be obtained upon request from:

SPANESI®
via Praarie, 56/II - Località Cavino 35010 SAN GIORGIO DELLE PERTICHE (PADOVA) - ITALIA
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1.2. WARRANTY

SPANESI S.p.A. warrants the **MULTIBENCH** and its accessories for a period of 12 months from the date of purchase. The user's remedy under warranty shall consist in the repair and replacement, free of charge, of any parts - except for all electrical parts - which, after a careful examination by the Manufacturer's Technical Servicing Dept., prove defective. The warranty is limited to defects in materials only and shall become void in the event the parts prove to have been tampered with or nonetheless disassembled by personnel not authorized for the purpose. The warranty is not applicable to liability for direct or indirect damage to property or injury of persons or animals resulting from the failure or malfunctioning of the machine. Expenses relating to the replacement of lubricants, transport costs, any customs duty, VAT and anything else not specified in the supply contract shall, in all cases, be at the purchaser's expense. Under no circumstances shall the replacement or repair of materials under warranty cause the terms of the actual warranty to be extended. The purchaser shall nonetheless only be entitled to enforce his claims regarding the warranty in the event he has complied with the conditions concerning any warranty terms featured in the supply contract. Should the parties not intend submitting any dispute arising from the supply contract to an arbitration panel, or in any other case where judgement is to be rendered by a body of the ordinary courts, the only court of competent jurisdiction shall be the Court of Padova.

1.2.1. ITEMS EXCLUDED FROM THE WARRANTY

Upon delivery the purchaser must check that the product has not been damaged during transport, that all the accessories have been included and are in perfect condition. Any claims must be submitted within 8 days from delivery. In addition to the cases provided for in the supply contract, **the warranty will lapse:**

- If the machine has been used incorrectly by the operator.
- If the damage is due to insufficient maintenance.

- If the effective capacity specified in the tables is exceeded, thus overloading the machine.
- If a non-original pull arm is used.
- If the pull arm has been applied without following the instructions contained in this manual.
- If the machine has been altered and the damage has been caused by these alterations because of repair work carried out by the user without the consent of **SPANESI S.p.A.** or due to the use of non-original spare parts.
- If the instructions given in this manual are not followed.

1.3. EC CERTIFICATION

The directive 2006/42/EC known as the **"Machine Directive"** specifies the conditions according to which a machine can be put on the market. This Directive prescribes that all machines can only be sold and put into operation where this shall not compromise the safety and health of persons, pets or property. To attest the **MULTIBENCH**'s conformity with the Directive's provisions, before putting the machines on the market, **SPANESI S.p.A.** subjected a sample machine to thorough testing by a certified body. The **MULTIBENCH**, built in conformity with the provisions contained in the directive 2006/42/EC, has passed said test and can therefore be put on the market without compromising user safety.

- The **MULTIBENCH** is therefore delivered to the customer complete with:
- **CE marking**
- **CE declaration of conformity**
- **Instruction manuals**

1.4. IDENTIFICATION

The **MULTIBENCH** is provided with manufacturer identification plate (Fig. 1.1) containing the following information:

(A) Name and address of the manufacturer
(B) Type
(C) Max. pressure of hydraulic and pneumatic circuit in bar
(D) Serial number
(E) Max. capacity in kg
(F) Operating voltage/ phases/ frequency in hertz
(G) Absorption
(H) Year of manufacture
(I) CE mark
(L) Lowering and lifting speed
(M) Length
(N) Width
(O) Height
(P) Fully laden mass

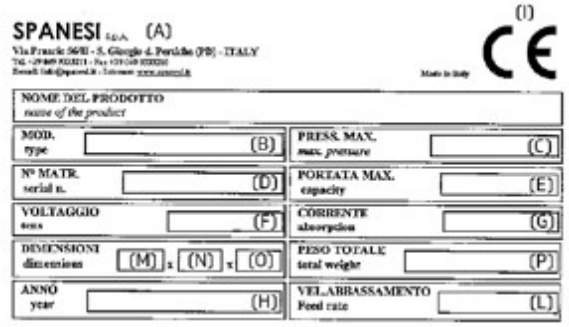


FIGURE 1.1 - MANUFACTURER'S IDENTIFICATION PLATE

The data shown on the manufacturer's plate must always be indicated in requests for assistance and/or the supply of spare parts.

1.5. APPLICATION

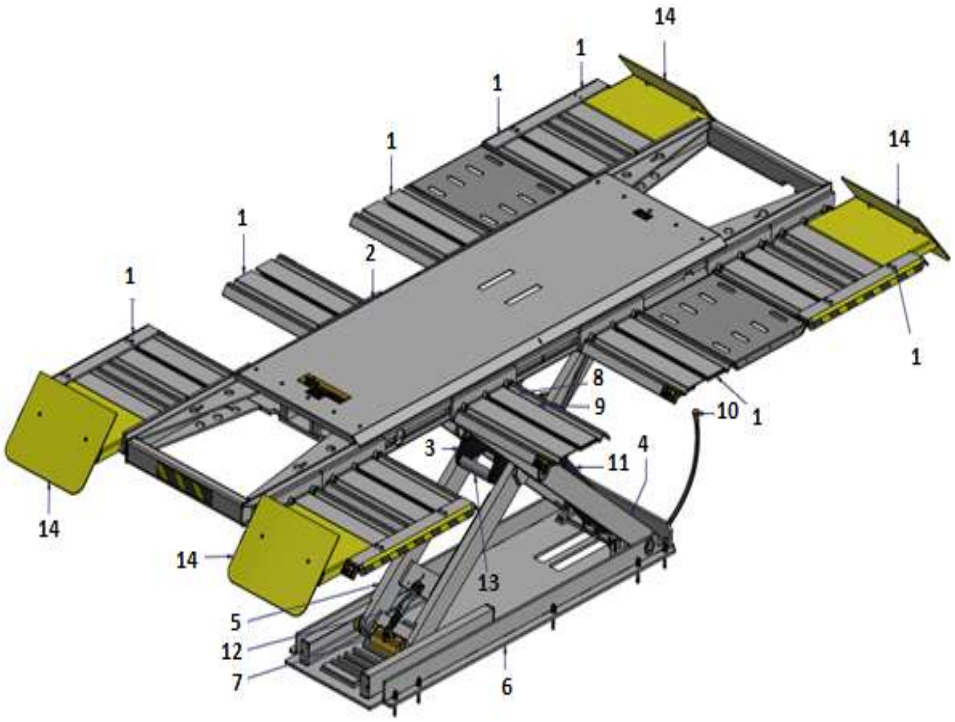
The **MULTIBENCH** is a machine designed and built exclusively for lifting vehicles to the height required to carry out inspections and repairs to the mechanical parts or bodywork of the vehicle by means of a straightening system consisting of a hydraulic pull arm. The operations must be performed observing the maximum capacity specified in the manufacturer's rating plate.

WARNING! The machine is not suitable for lifting people.

WARNING! MULTIBENCH must be exclusively intended for to the use for which it was built. Any other non-use contemplated in this booklet is to be considered improper and it is therefore strictly prohibited. The car is not plugged in person's help. SPANESI S.p.A. refuse any and every liability for damages caused, directly and indirectly to persons, animals or things, due failure to follow these instructions.

1.6. DESCRIPTION OF THE LIFT

The **MULTIBENCH** consists basically of a mobile welded sheet steel frame which is raised by means of a pair of single-acting hydraulic pistons which control a mechanism consisting of a rocker and a pair of connecting rods that move the arms of the pantograph mechanism.



The essential parts of the lift are (fig.1.2):

1) Lowered platform.
2)Moving platform.
3)Rocker arm.
4)External lever.
5) Internal lever.
6)Base.
7)Safety hook.
8) Rocker arm's left connecting rod.
9) Rocker arm's right connecting rod.
10)Rocker arm roller bearing.
11)Hydraulic jack.
12)Pneumatic cylinder to control the safety hook.
13)Hoses R7 TA ¼ L=5000 FD+FD.
14)Wheel stopper.

FIGURE 1.2 - VIEW OF SCISSOR LIFT IN PERSPECTIVE

The **base frame structure** (6) to which all the stress is transferred consists of a welded steel structure to which the supports and runners for the sliding wheels of the pantograph arms and the stops for the safety hook are fitted.
The **upper mobile platform** (2) consists of a welded steel structure expressly designed to house the supports for the attachment of the twelve side elements (1): each pair of platforms positioned at the four corners of the **MULTIBENCH** and held together by a corner profile will support the four wheels of the vehicle, while the remaining four can slide along the moving platform according to the position of the lifting points provided by the manufacturer, and sustain either the pads on which the vehicle body rests during lifting or the clamps for securing the vehicle bodywork when using the pull arm. The **four wheel stoppers** (14) supplied are used to hold the vehicle in position when the lift is moving up and down.
The **lifting system** consists of a pair of single-acting **hydraulic pistons** (11) which are driven by the electrohydraulic control unit gear pump.
The pair of pistons operates a mechanism consisting of a **rocker** (3) and a pair of **connecting rods** (8-9) which control the movement of the **pantograph arms** (4-5).
The lift is **moved up and down** by means of the oil under pressure supplied by the gear pump driven by an electric motor, both of which mounted in the electrohydraulic control unit installed inside a control console positioned at a safe distance from the lift.
The hydraulic circuit, which controls the in and out movements of the rods of the pair of lifting pistons (11), is provided with a pressure relief valve and a safety lock valve to protect against the breakage of the flexible pipes.
The electrical cables that connect the lift to the control console and the flexible pipes that supply the lift with oil and compressed air are housed in a protective sheath.
The **position** of the upper part of the lift **is maintained** by a safety system consisting of a **moving hook** (7) automatically controlled by a **pneumatic cylinder** (12) that engages a series of steel blocks welded onto the base sheet as the lift descends.
The **MULTIBENCH** is provided with a device that permits the quick connection of the pull arm to the lift by means of a pneumatic control that drives the coupling block connection system cylinder (see pull arm description).

In figures 1.3, 1.4 and 1.5 overall lift dimensions are shown.

FIGURE 1.3 – FRONT VIEW OF MULTIBENCH

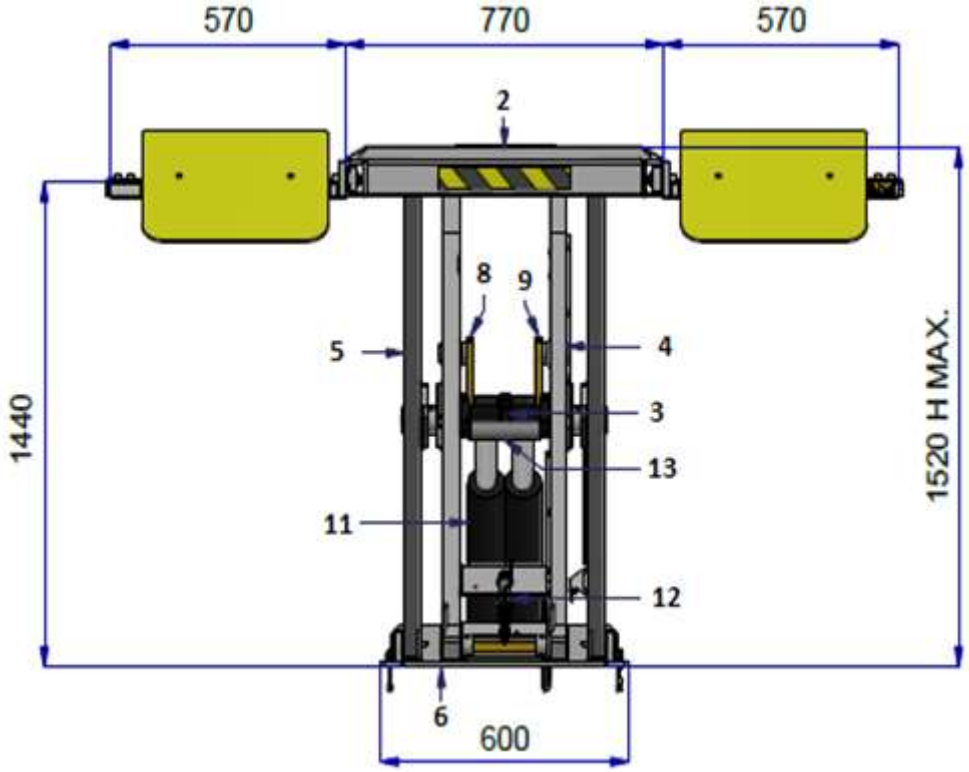


FIGURE 1.4 – SIDE VIEW OF MULTIBENCH

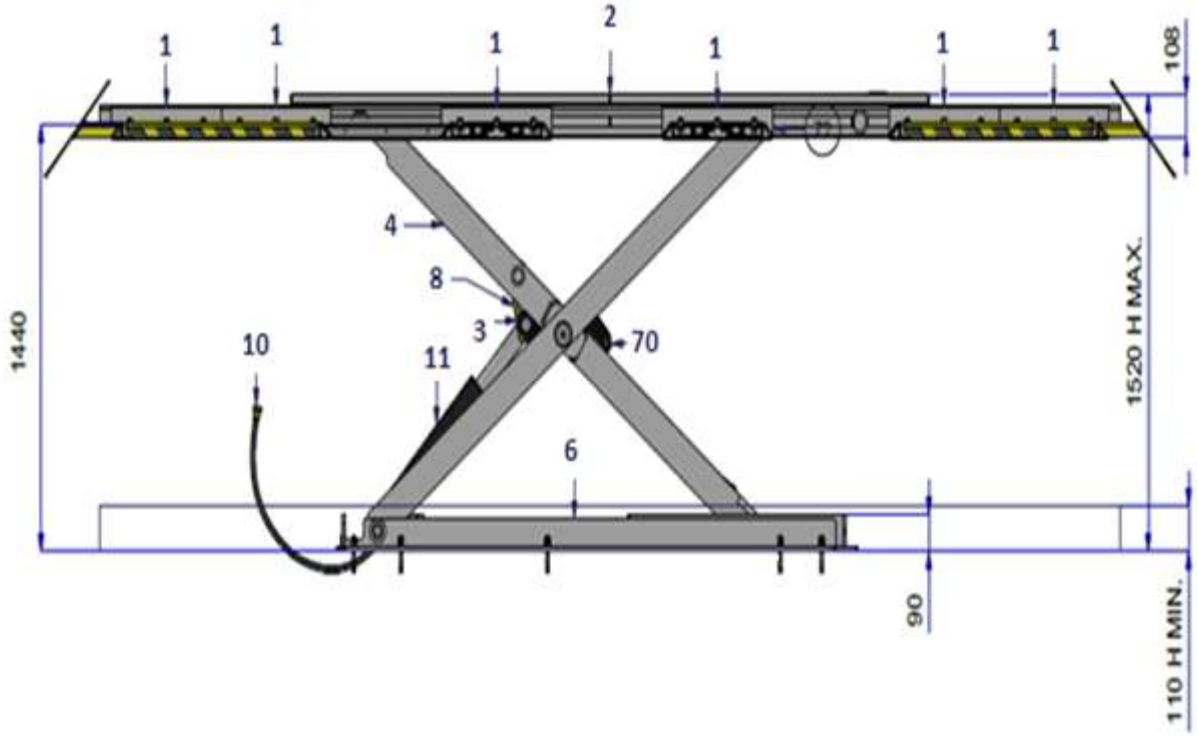
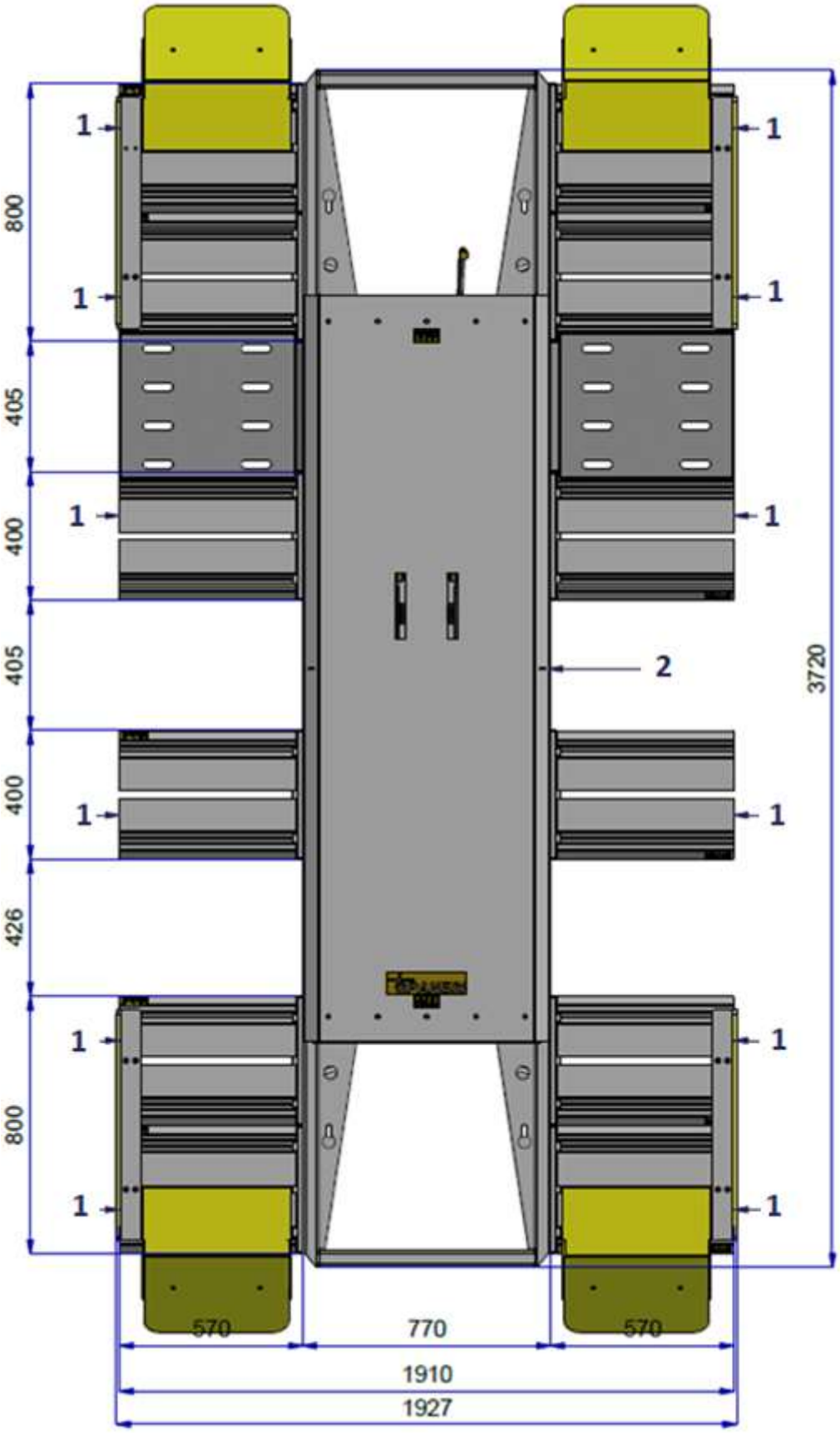


FIGURE 1.5 – TOP VIEW OF MULTIBENCH



1.7. DESCRIPTION OF THE PULL SYSTEM

The **MULTIBENCH** is provided with a **pull system** which can easily be equipped by the operator for straightening the body or other parts of a vehicle damaged by an accident.
The **system** consists of the **adjustable pull arm** equipped with on-board control pump, the clamps for securing the vehicle and the pull chain.
The **adjustable pull arm (Figures 1.6 and 1.7)** consists basically of a upright (2) hinged to the horizontal body and can be rotated in the plane.
The upright is tensioned by a single-acting hydraulic piston (12 - fig. 1.5).
The horizontal body of the pull arm consists of a base (1) that allows it to rotate in the horizontal plane.
The pull arm is fastened to the lift by means of the block (4) welded to the adjustment plate (3) which fits into a special support cut into the structure of the lift's upper mobile platform.
This plate has a series of holes permitting horizontal adjustment of the pull arm; the latter is kept in a safe position by a stop pin (8), which can be remote-controlled by a mechanism (5) with a control lever (9). When the pull arm is not fitted on the lift, it can be easily push manoeuvred (17) by an operator via the 4 wheels (6). The piston controlling the pull arm is driven by an independent pneumo-hydraulic pump (10) with control. The pneumo-hydraulic pump can be fed by the compressed air in the workshop distribution system or by a portable compressor via the flexible pipe (16). The body of the vehicle to be put under traction must be secured by means of a suitably strong chain (13 - fig. 4) connected to the pulley (14) which can be height-adjusted and locked in position by means of the pin (15). The **special clamps** are mounted at the ends of the supports (4 - fig.1.2) fastened to the lift's mobile upper platform.
These clamps permit the safe clamping of the underbody of the damaged vehicle for the subsequent tensioning of the part of the vehicle to be repaired.

1) Pull arm base.
2) Pull arm upright.
3) Perforated adjustment plate.
4) Fitting block.
5) Plate stop pin release mechanism.
6) Plastic wheels.
7) Hydraulic flexible pipe.
8) Plate locking pin.
9) Plate locking pin release lever.
10) Pneumo-hydraulic pump.
11) Pneumo-hydraulic pump control.
12) Hydraulic piston.
13) Pull chain with hook.
14) Pulley.
15) Pulley pin.
16) Pneumo-hydraulic pump compressed air supply flexible pipe.
17) Handle.

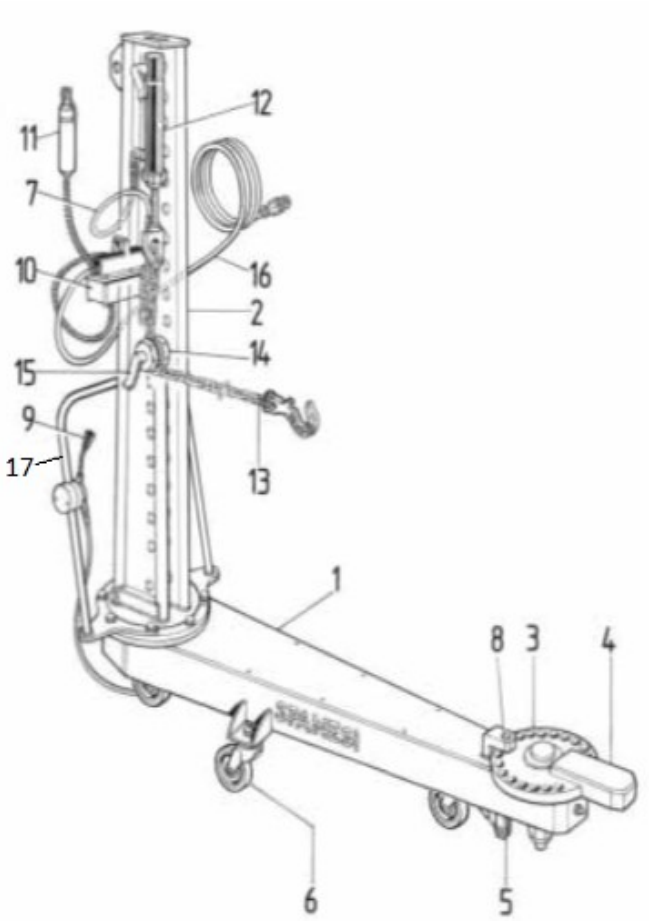


FIGURE 1.6: ADJUSTABLE PULL ARM

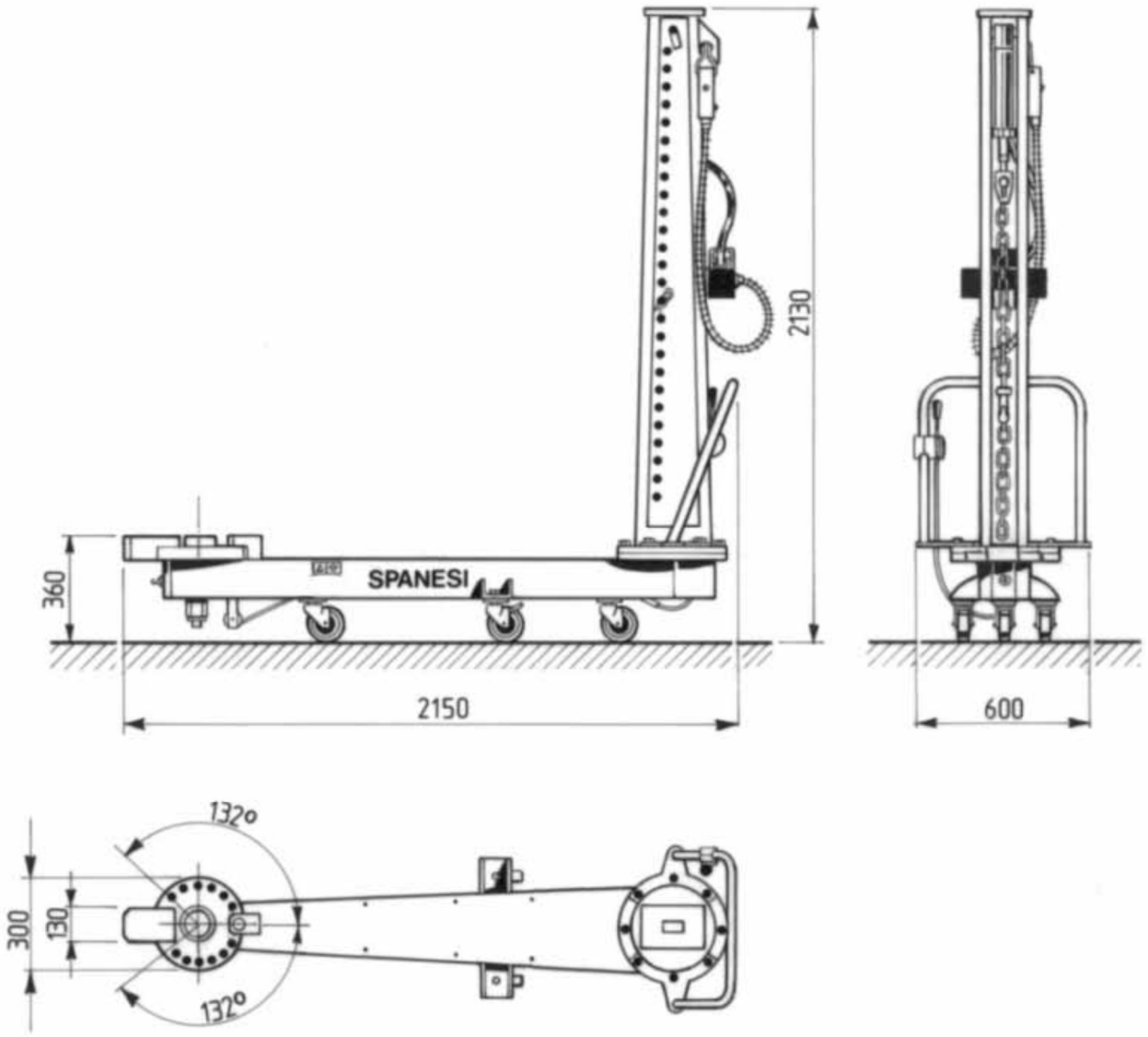


FIGURE 1.7 - ADJUSTABLE PULL ARM DIMENSIONS

1.8. NOISE LEVEL

The aerial noise level emitted by the machine has been recorded with the lift moving, unloaded and in operating conditions by means of sound-level meter.
The recordings were taken in compliance with EN ISO 3746:2010 standards by a competent laboratory.
The tests gave the following results:

- Sound power level LwA: 89.5 dB(A)
- Sound pressure level Lpam: 72.1 dB(A)

1.9. TECHNICAL SPECIFICATIONS

Basic specifications are given in table 1.1. For more detailed information on the product characteristics, contact the manufacturer directly.

TABLE 1.1

SPECIFICATION	MEASURE	VALUE	MEASURE	VALUE
Max. capacity of lift without pull system	lb	7.055	kg	3.200
Max. capacity of lift equipped with pull arm	lb	6.173	kg	2.800
Min. height (without pads)	inch	4,33	mm	110
Max. height (without pads)	inch	59,84	mm	1.520
Length of upper mobile platform	inch	146,46	mm	3.720
Width of upper mobile platform	inch	30,31	mm	770
Length of base frame	inch	74,8	mm	1.900
Width of base frame	inch	23,62	mm	600
Total width with platforms	inch	75,2	mm	1.910
Width of fixed or adjustable platform	mm	22,44	mm	570
Length of fixed or adjustable platform	mm	27,64	mm	702
Operating pressure of lift hydraulic circuit	psi	4.496	bar	310
Operating pressure of pull arm pump hydraulic circuit	psi	7.252	bar	500
Operating pressure of pneumatic supply circuit	psi	116	bar	8
Mass of lift complete with accessories without pull system	lb	2.061	kg	935
Mass of standard pull arm with accessories	lb	379	kg	172
Mass of lift complete with accessories and pull system	lb	2.441	kg	1.107
Mass of control box	lb	110	kg	50
Mass of support platform	lb	66	kg	30
Mass of pull arm base with horizontal plate and fixing ring	lb	318	kg	144
Mass of pull arm upright	lb	126	kg	57
Mass of pull arm chain	lb	14	kg	6,4
Mass of pull arm pump	lb	9	kg	4
Mass of pull arm piston	lb	13	kg	6
Three-phase power supply version* (a.c.)	Volt	400/480	Volt	400/480
Single-phase power supply version* (a.c.)	Volt	230/200	Volt	230/280
Power supply frequency*	Hz	50/60	Hz	50/60
Three-phase electric motor power*	kW	1,5/1,8	kW	1,5/1,8
Auxiliary circuit voltage with 400 V three-phase power supply	Volt	24 a.c.	Volt	24 a.c.

*: Different voltages and frequencies are available according to customer's request

CAUTION! For the static test, according to EN 1493:2022 par. 5.6.3 Spanesi S.p.A. has assumed a static coefficient equal to 1,5.

2. SAFETY PRECAUTIONS AND ACCIDENT PREVENTION

2.1. HAZARD LEVELS

Operator safety is the main concern of the machine manufacturer. When designing a new machine, the designer tries to take account of all possible hazards and risks connected with use of the machine, taking all suitable precautions to make the equipment as safe as possible. The number of accidents nevertheless remains very high due above all to careless and clumsy operator use. You are therefore advised to read this manual very carefully and in particular this section concerning safety precautions, ensuring that you always use the machine correctly and follow the instructions provided:

WARNING! Read the following instructions carefully. Anyone who fails to observe them may suffer permanent injury, permanently injure other persons or animals or damage property. SPANESI S.p.A. accepts no liability for direct or indirect damages caused by failure to observe the safety precautions and accident-prevention directions set out below.

Pay attention to the hazard warning sign when it appears in this manual and observe all safety provisions.

There are three levels of hazard sign:

DANGER: This sign warns that if the operations described are not correctly performed, **they will cause** serious injury or death or involve long-term health risks.

WARNING: This sign warns that if the operations described are not correctly performed**, they can cause** serious injury or death or involve long-term health risks.

CAUTION: This sign warns that if the operations described are not correctly performed, the machine can be damaged.

WARNING! SPANESI S.p.A. accepts no liability for damage caused by failure to observe the safety precautions and accident-prevention directions set out below.

2.2. SAFETY NOTICES

The safety notices described in this manual are affixed to the machine in appropriate positions and indicate operations to be performed and unsafe and dangerous situations. The self-adhesive labels must be kept clean and must be immediately replaced when they come off, when damaged or when they become illegible. Carefully read and learn the meaning of the safety notices:

1) It is compulsory to read the instruction manual before starting to operate the machine.

2) It is compulsory, before commencing any maintenance work, to stop the machine, disconnect it from the mains and other supplies and consult the instruction *manual carefully.*

3) Procedure for handling the traction struts: only push the strut forward, gripping the upright with both hands. **It is prohibited to move the strut by pulling it** towards yourself.

4) Danger of crushing: it is prohibited to move the traction strut by means of the horizontal structure.

5) Danger of contact with high voltage point: it is forbidden to touch the **MULTIBENCH** in this area when the power cable is connected to the mains, because there is a danger of coming into contact with high voltage areas.

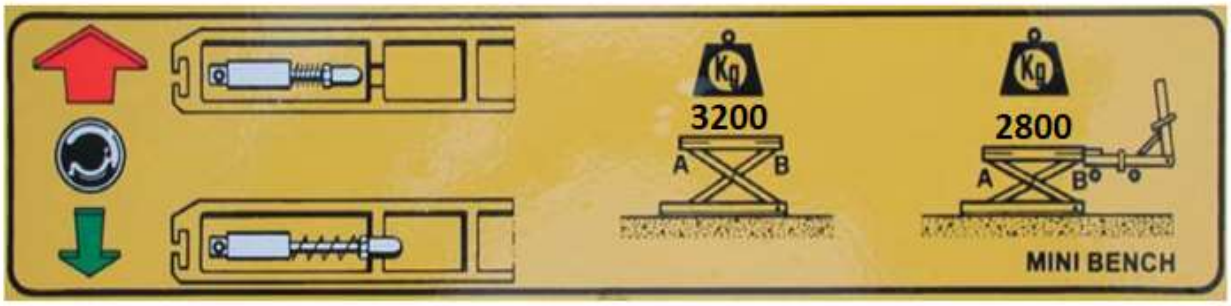
6) Danger of trapping hand or fingers: it is forbidden to touch the **MULTIBENCH** in this area when the scissors lift is moving, because there is a danger of get trapped with your hands or fingers in the scissor mechanism.

2.3. PERFORMANCES OF THE LIFT

The **MULTIBENCH** has been specifically designed for straightening the bodies or other parts of vehicles that have been damaged by accidents. The performance of the lift varies according to how it is used, i.e.:

- **as a lift without pull system**
- **as a lift equipped with pull system**

In the first case, the operator can use the maximum lift capacity, which is 3.200 kg. In the second case, the lift capacity is reduced to 2.800 kg to take account of the effects and mass of the pull arm. The capacities given in the table are net, i.e. the mass of the pull system fitted on board the lift has already been considered.



1. The instruction manual must be carefully read before beginning work.
2. Before carrying out any maintenance operation, the lift must be stopped, and the instruction manual must be consulted.
3. Danger of shearing the lower limbs: **keep a safe distance during raising and lowering of the lift**.
4. **Danger of falling**: never climb onto the lift's upper platform.
5. **Stop**: never pull pad supports out beyond reference mark indicated on relevant label.

2.4. CLOTHING

Operators must wear PPE (Personal Protective Equipment) during unpacking, assembly and maintenance of the machine, also while using the machine to lift a vehicle and to repair it, according to regional and national laws in force in the country where the machine is being used.
Spanesi recommends to wear:

- gloves.
- safety shoes.
- glasses.

Personnel must wear clothing suitable for the machine and working environment as coveralls or full body suits.
They have not to wear following clothes because they can get caught in the moving parts and accessories that must be avoided from the workplace:

- loose-fitting clothes.

- scarves.
- ties.
- chains.
- earrings.

If the country where the machine is being used prescribes specific noise emission limits, suitable protective equipment should be worn for compliance with the standards (ear plugs, headphones, etc.).
See par. 1.8 “NOISE LEVEL” to know how much noise is emitted by the lift.

WARNING! Spanesi is not responsible for injuries occurring in the workplace suffered by workers not wearing PPE or not respecting national safety laws.

2.5. ECOLOGY AND CONTAMINATION

WARNING! The MULTIBENCH must not be used for washing or degreasing vehicles: a dirty and slippery workplace is dangerous for the operator.

WARNING! Before start cleaning or maintenance works, remember to cut off the lift from power supply.

The lift also can get damaged or can be ruined by corrosion if it is kept wet and dirty. The operator must clean and always dry the machine after it got dirty, for example when oil stains can be noticed on the lift’s parts.
Observe the laws in force in the country in which the lift is being used concerning use and disposal of the products used for cleaning and maintenance of the **MULTIBENCH** in accordance with the manufacturer’s recommendations.
When replacing worn-out parts or dismantling the lift, observe the antipollution laws of the country in which the lift is being used.
Central box’s oil must be disposed correctly according to regional or national environmental laws. If oil stains or leaks can be seen in any phase since the unloading of the machine from the truck, follow all regional and national directives or laws concerning ecology and pollution to avoid contamination of the area. See section 8 “MAINTENANCE” to know oil’s characteristics.

2.6. SAFE USE

The **MULTIBENCH** consists basically of three parts, mobile platform with scissor lift, pull system and supports with pads or clamps. After reading the safety precautions given below, you should also carefully read the precautions contained in the operation and service manuals of the **pump** and the **winch** (if provided):

WARNING! SPANESI S.p.A. accepts no liability for damage caused by failure to observe the safety precautions and accident-prevention directions set out below.

- The machine must **never** be operated by anyone who has not completely read, understood and assimilated the contents of this instruction manual.
- The machine must **never** be operated by inadequately trained or inexpert personnel or personnel not in good health.
- The bench **must** be installed by qualified personnel following the instructions given in this manual.
- The bench **must** be housed in a place protected from rain and ice: the machine has been designed and built to operate indoors only. The machine must only be used inside premises where there is no danger of explosion or fire.
- **Always** check that the floor on which the bench rests is smooth and level.
- **Never** exceed the capacities specified in the tables given in this manual: overloading can lead to breakage of the machine and loss of the warranty.
- **Never** fit pull arms with characteristics different from those specified in this manual or not supplied by **SPANESI S.p.A.**: the use of non-original pull arms can lead to breakage of the machine and loss of the warranty.
- **Never** touch, rest on or stand between the moving parts during raising and lowering phase of the lift.
- **Never** lift persons, animals or things: the lift is designed exclusively for lifting vehicles within the limits specified in the table of capacities.
- **Never** raise the vehicle with persons or unstable objects on board which can fall off and injure persons or damage property.
- **Always** remove or refit parts of the vehicle when the lift is fully lowered.
- **Always** check that during pull operations there are no persons or animals standing or passing near the towing system or pull arm.
- **Always** pull the handbrake before starting the lifting phase, when the load is placed on the lift.
- The condition of all the safety devices and the structure of the lift **must** be checked before using the machine.
- Before lifting the mobile platform, **always** check that there is no-one on the lift or less than one meter from the perimeter of the machine.
- The vehicle to be lifted **must** be driven or moved only by persons qualified to drive in accordance with the traffic laws in force in the country in which the lift is being used.
- **Always** check that the doors of the vehicle positioned on the mobile platform are closed. There must be nothing protruding from the machine.
- Before lowering the lift, **always** check that there are no objects below or around the vehicle and remove if necessary.
- Before lowering the lift, **always** check that there are no hoses or tool cables in the area that can be squashed.

Mandatory precautions when using the pull system:

- Before tensioning the pull arm, always check the tightening of the clamps.
- Before raising and lowering the lift, always check that there is a space of at least 60 cm all around the pull arm.
- The operator must never pass in front of or stand behind the pull arm when it is under tension.
- During pulling, always check that there are no persons or animals near or walking past the pull arm.
- The vehicle parts must always be dismantled or reassembled with the lift positioned at the level of the first safety stop.
- As a rule, always contact the manufacturer in the event of faulty operation of the lift or pull system - do not try to solve the problem yourself.
- All accessories not provided which are fixed or placed by the user above the lift platform are considered part of the load and therefore the maximum mass of the vehicle that can be lifted must be calculated by subtracting the masses of these accessories from the capacity given in the table.
- When lowering the lift, always use the control in the "DESCENT TO FIRST SECTION" mode to avoid damaging the pull arm and lift structures.
- When changing the position of the pull arm, the adjustment must always be performed with the pull arm pivoting wheels at a height of no more than 10 cm from the ground.
- When the vehicle body is pulled, you are advised to perform the operation with the pull arm pivoting wheels at a height of no more than 10 cm from the ground, and then bring the vehicle to the required height to work in complete safety.
- When using the adjustable pull arm, always check that there is sufficient space available at the side of the arm to permit rotation of the upright if necessary.
- When the pull arm is under tension, the operator must stand at the side at least 1 meter away.
- **Never** use ladders, stools or other objects when tensioning the pull arm. The operator must always remain on the ground.
- **Always** check that the safety hook located below the base of the pull arm is secured.
- **Always** use the safety cable when performing pull operations.
- **Always** fit the pull arm when the lift has completed its first descending phase.

2.7. SAFE MAINTENANCE

WARNING! Maintenance work must be carried out only by qualified specialist personnel. Maintenance must be performed with all due care, following the instructions in this manual and replacing worn or damaged parts.

WARNING! The electricity supply must be disconnected before carrying out cleaning or maintenance work on the lift.

To ensure safe maintenance of the **MULTIBENCH**, the following instructions must be observed:

- **Never** remove or tamper with the safety devices.
- **Never** carry out welding or blow torch cutting or drill holes on the bench structure.
- **Never** operate the lift even when only one safety sign is missing from the place where it was affixed by the manufacturer. The safety and danger signs affixed to the machine provide basic accident-prevention instructions. These signs and the table must always be kept clean and immediately replaced when they come off, even partially, or when damaged.
- **Never** operate the lift if it is not doweled to the floor.
- **Never** wet and **never** keep watered the MULTIBENCH. For example, during operations of cleaning of the floor, after the lifting of a vehicle covered in snow, etc.

- **Always** positioning the load before the lifting phase starts as it is written in paragraph 4.4. of this Manual.
- **Always** use the recommended oil (hydraulic oil type is given in section 8. “MAINTENANCE”).
- Periodically **check** the tightening and seal of the screws and couplings.
- Periodically **check** that the safety devices are in perfect condition and work efficiently.
- If parts of the bench must be lifted, follow the procedures and use the lifting and slinging accessories prescribed by the regulations in force in the country of operation.
- Traces of oil on the floor are very dangerous and must be completely and immediately removed.
- Original spare parts must be used for repairs and maintenance.

CAUTION! Learn and keep this instruction manual for the whole of the working life of the lift.

2.8. RESIDUAL RISKS

After all safety design measures taken by Spanesi S.p.a., the implementation of an integrated control system and the application of warning signs, few risks can remain, forced by:

- lack of attention or forgetfulness of the operators or people around the workspace.
- not correct reading and understanding of the User Manual.
- failure to follow the safety directions in the User Manual.
- improper use of the Personal Protective Equipment (PPE).
- lack of concentration of the operators.
- installation of the lift on an uneven floor.
- altered mental and physical condition of the operators or people around the workspace (e.g. abuse of alcohol or medicines, use of drugs, etc.).
- weak health condition (e.g. low blood pressure, dizziness, fainting, flu, etc.).

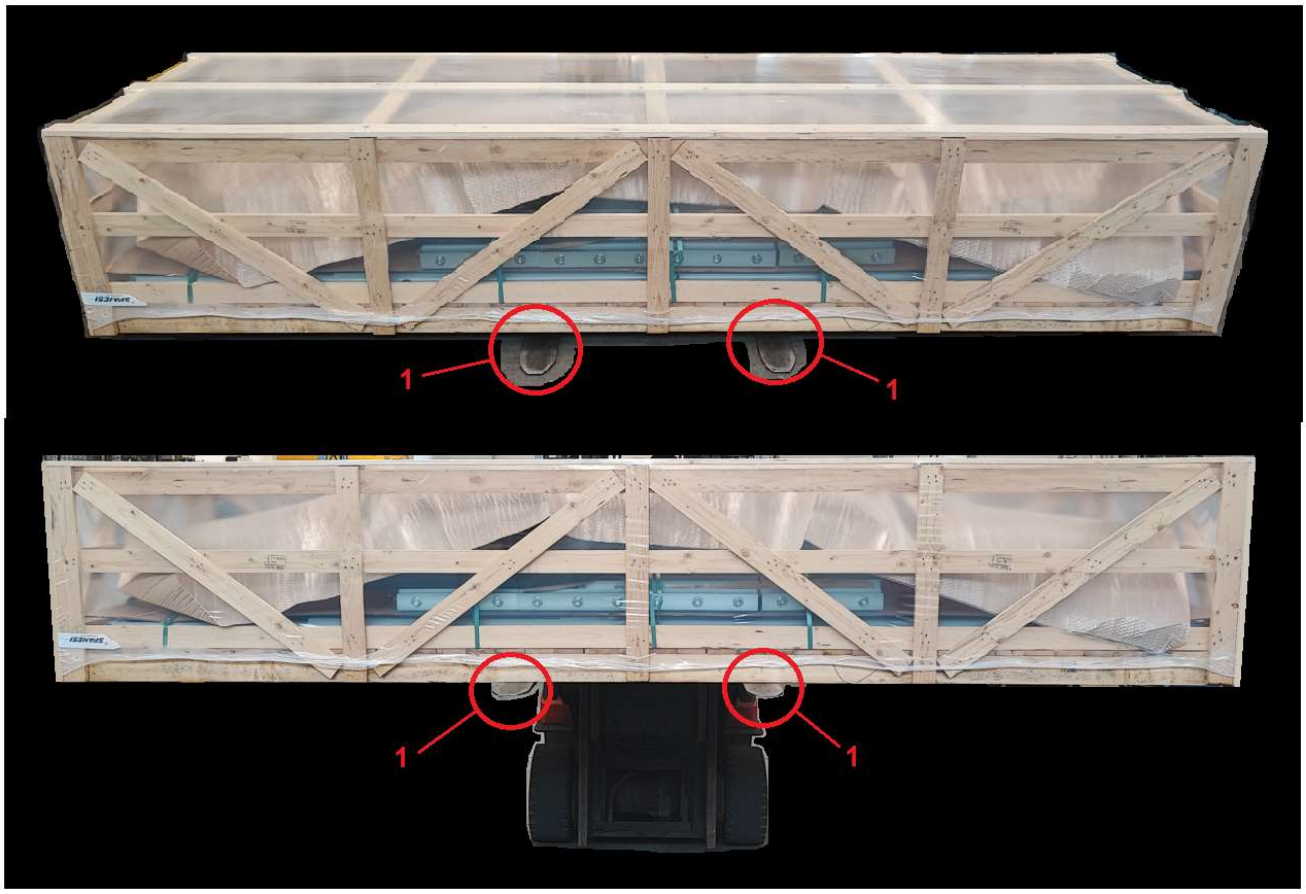
WARNING! SPANESI S.p.A. accepts no liability for damage to person, animal or property caused by failure to keep a proper work behaviour, in good physical and mental condition, working with concentration and attention, and after have carefully read and understood the User and Maintenance Manual.

3. TRANSPORT, UNLOADING AND INSTALLATION

3.1. TRANSPORT AND UNLOADING

The **MULTIBENCH** is packed in a wooden crate, must be loaded onto and unloaded from the transport vehicle and handled by means of a forklift truck with adequate lifting capacity, referring to the mass specified on the manufacturer's identification plate. The forks must slide along their entire length, underneath the case.
When the operator lifts the crate, the longitudinal plane of the forklift must coincide with the longitudinal plane of the case to prevent the load from being unbalanced by the forks (1) of the forklift. Spanesi S.p.A. uses forklifts with 1,200 mm long forks (1), and to keep the load balanced keeps the forks (1) at 1,100 mm or 1,200 mm

FIGURE 3.1 – VISUALS OF FORKLIFT LIFTING THE CASE



For transport, the packing must be attached to the lorry by means of appropriate retaining systems.

The machine is adequately packed by the manufacturer before and placed inside the case delivery to the forwarding agent, as follows:

- the lift.
- the pull system.
- the accessories.
- the control box.

WARNING! The machine is normally palletized and is therefore easy to transport in the workshop before installation by means of forklift truck. Unloading using other methods is not advisable as there are no suitable points on the lift for gripping with lifting equipment.

During handling operations, the following precautions should be taken:

- Protect the control console from exposure to wind and rain and handle with care.

- Protect the sharp corners at the ends with suitable material (bubble wrap- cardboard).
- Use fork-lift truck with adequate capacity.

3.2. UNPACKING

After removing the packing, ensure that the equipment is in perfect condition by checking that there are no parts visibly damaged.

CAUTION! If the parts are visibly damaged, do not use the equipment and contact professionally qualified personnel (your dealer).

The packing elements (plastic bags, foamed polystyrene, nails, screws, wood etc.) must not be left within reach of children as they are a potential source of danger. These materials are not bio-degradable and must be appropriately disposed of.
Mass of the parts are listed in paragraph 1.9. “TECHNICAL SPECIFICATIONS”.

DANGER! At least two people should do transportation works with the help of a hoist to lift heavier parts.

CAUTION! Spanesi S.p.A. does not supply any lifting devices included with the product.

3.3. INSTALLATION

Operations for installation of the **MULTIBENCH** are described below. Before starting installation, check that all parts are in perfect condition and that none are missing:

WARNING! The installation, adjustment and testing of MULTIBENCH involve dangerous operations: these operations must be carried out by personnel qualified by Spanesi S.p.A. or by personnel authorized by Spanesi S.p.A., and responsible, who guarantees to operate according to the safety standards applicable in the field of mechanics, electrical engineering, hydraulics and pneumatics. Carefully read the instructions contained in the booklets supplied: if in doubt, contact the manufacturer directly. SPANESI S.p.A. declines all responsibility for damages caused by failure to observe these instructions.

3.3.1. INSTALLATION AREA

The installation position of the **MULTIBENCH** must be chosen by assessing the following factors, considering new overall dimensions when pulling system is used (fig.3.2):

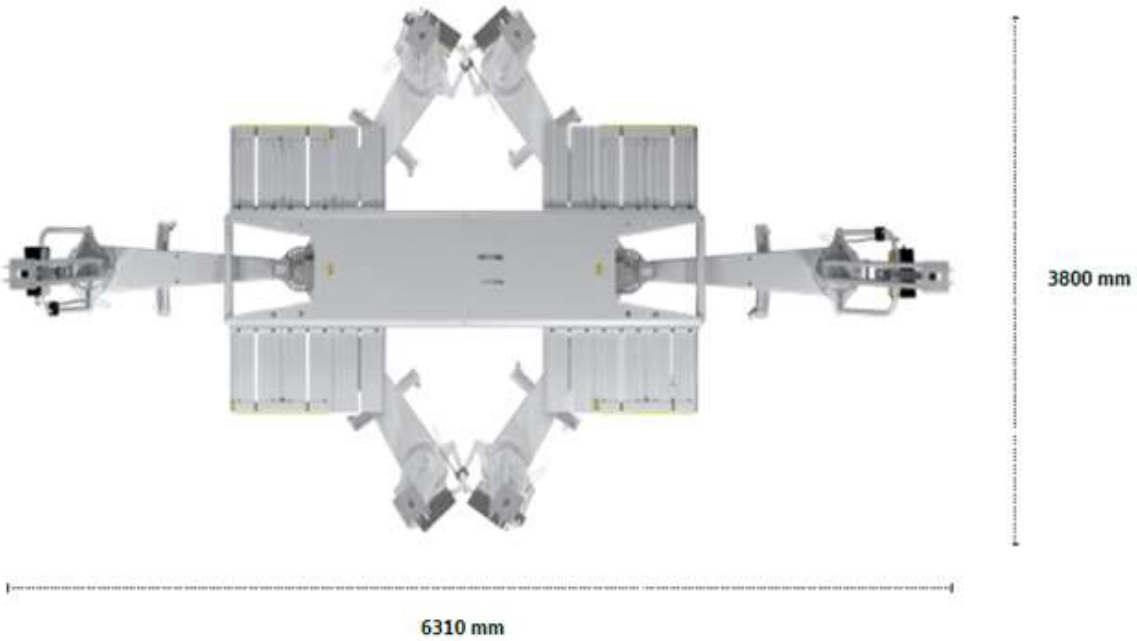


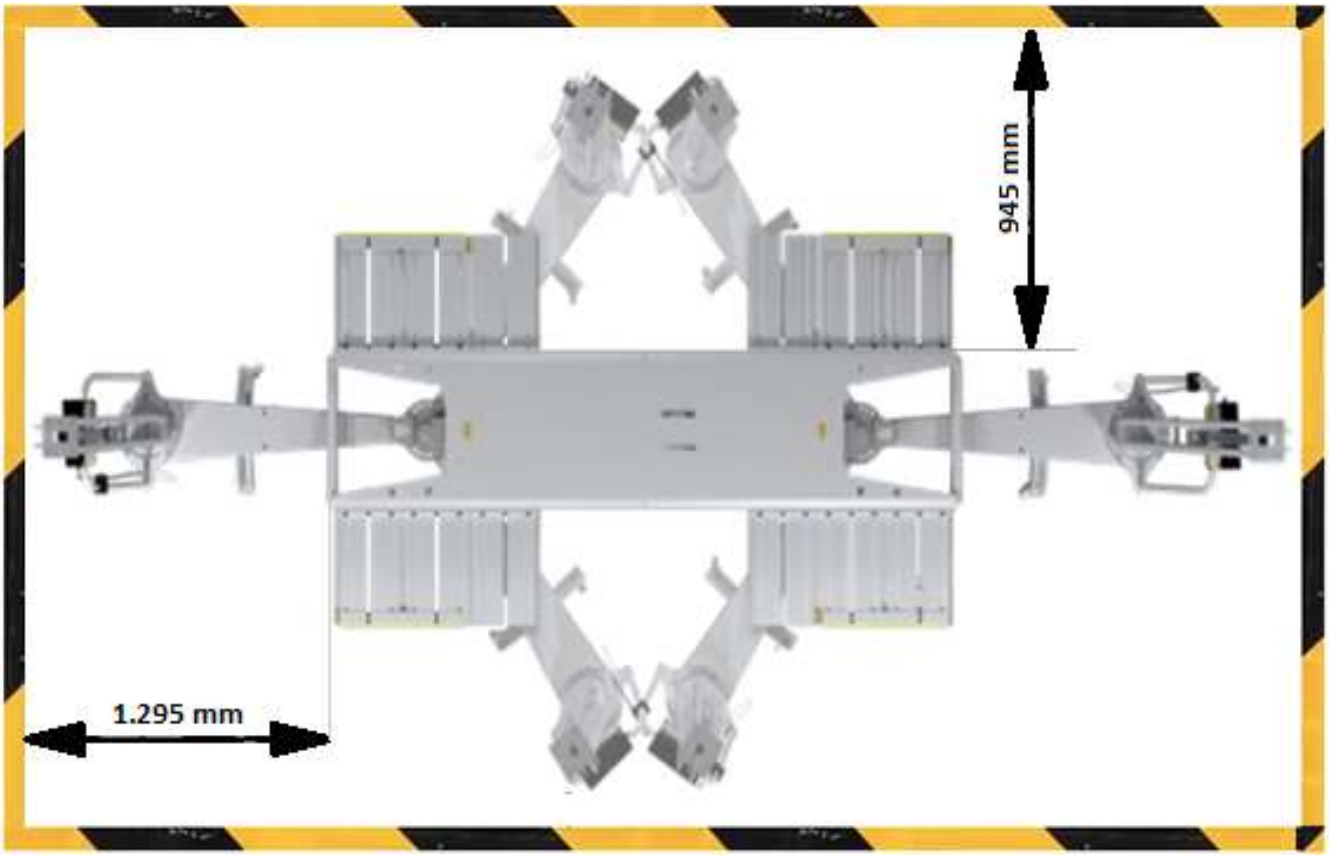
FIGURE 3.2 – INSTALLATION AREA DIMENSIONS

- The position must be safe, free from obstructions and protected from atmospheric agents. From the control position the operator must be able to see the whole of the machine and the surrounding area to prevent entry of unauthorized persons and objects that could be a potential source of danger.
- The area must be well-lit.
- The premises must be suitable for installation of the machine: there must be no sources or work processes that can produce inflammable gases or vapours. The lift electrical system casing is protected to IP 54 and is therefore not suitable for operation in an environment where there is the risk of inflammable gases and/or vapours, or explosive mixtures being released.
- The ambient temperature must be between 15° and 40° C.
- The installation area must be flat and levelled ± 0.5 cm throughout; the concrete used for the flooring must have a capacity of 250 kg/cm$_2$ (RCK25) and must be without expansion joints or cracks.
- The supply also includes a Rilsan flexible pipe for connection to the compressed air system and a power supply cable with 4-pin plug for connection to the body shop supply mains control panel. The flexible pipe and power supply cable are already fitted and approx. 2.5 m long. This measure is more than enough in most applications. If longer connections are required for installing the lift, the power cable and flexible pipe must be completely re-done.

WARNING! Do not under any circumstances splice electrical cables together.

- When the electrical cable is replaced, before starting up the lift, it is essential to re-check the earthing system by performing a continuity test on the unipotential protection circuit.
- Assess the control console installation position: it must be far enough away from the lift and at the same time provide a good view of the working area.
- After positioning the lift, a perimeter band parallel to the sides of the upper mobile platform and no less than 10 cm wide must be laid on the floor around the lift.

FIGURE 3.3 – PLACEMENT OF THE PERIMETER BAND



This band serves to mark the danger area.

The distance between the internal edge of the band and the edge of the mobile platform must be no less than:

- 945 mm on the two long sides of the platform.
- 1.295 mm on the two short sides of the platform.

3.3.2. BEFORE INSTALLATION

Before installing the **MULTIBENCH** you are advised to check and if necessary, adapt the technical systems in the body shop as required:

The max pressure of the compressed air must be below 10 bar. If the body shop compressor safety valve is set to a pressure above 10 bar, a filter-regulator-reducer unit for pressure control and lubrication provided with pressure gauge must be mounted on the fitting provided for supply to the control unit, setting the operating pressure to a max value of 8 bar.

- The pressure of the compressed air supply must be at least 6 bar. If not, an accumulation air tank must be provided to guarantee a minimum working capacity.
- Check the operating voltage and frequency: they must correspond to the voltage and frequency of the body shop mains power supply. The lift operating voltage is given in the specific instruction manual at point 1.9 – TECHNICAL SPECIFICATIONS.
- The electrical equipment is designed to operate normally at a voltage of 400 V 50 Hz.
- Check the electrical panel powering the control unit: it must be provided with a set of three fuses and a correctly set magnetothermal switch.

DANGER! Never connect the electrical system directly to the body shop distribution wiring: a fault in the distribution system can seriously injure the operator and permanently damage the control unit.

3.3.3. SETTING UP

- Take the **MULTIBENCH** case out of the warehouse using a forklift truck or other adequate lifting equipment.
- The case must be deposited near the installation area. In figure 3.4 an example of a case packed by Spanesi S.p.A.

In figure 3.4 an example of a case packed by Spanesi S.p.A is shown.

FIGURE 3.4 – EXAMPLE OF A PACKED CASE

WARNING! At least two prepared and qualified operators are requested to unpackaging and take out lift and pull system components and accessories with a hoist or by hand, knowing the masses of everything packed inside the case. Masses are listed in section 1, paragraph 1.9 "TECHNICAL SPECIFICATIONS".

WARNING! Before beginning work, remove all obstructions from the installation area. The area must be appropriately marked to keep non-authorized personnel out. Check the condition and suitability of the equipment available. These are potentially dangerous operations and must therefore be performed by skilled responsible personnel. For use of the lifting equipment, follow the safety regulations in force in the country where the machine is being used. Do not touch the suspended loads and do not stand in the operating range of the crane.

Carefully remove the straps and packing (see point 3.2) and position the lift as follow:

- Remove the boxes and accessories from the case.

FIGURE 3.5 – EXAMPLES OF UNPACKED LIFT CASE

- Take out pull system components from the case (the base, the upright, the pump, the chain, the pulleys and the hoses) and placed it at a certain distance from the installation area in a safe position. This operation must be performed possibly with a hoist and at least by two people. In figure 3.6. possible solutions to remove the heaviest components of the pull arm, the base (2) and the upright (1) from the case with a hoist are shown. Masses of pull arm components are listed in paragraph 1.9. “TECHNICAL SPECIFICATIONS”.

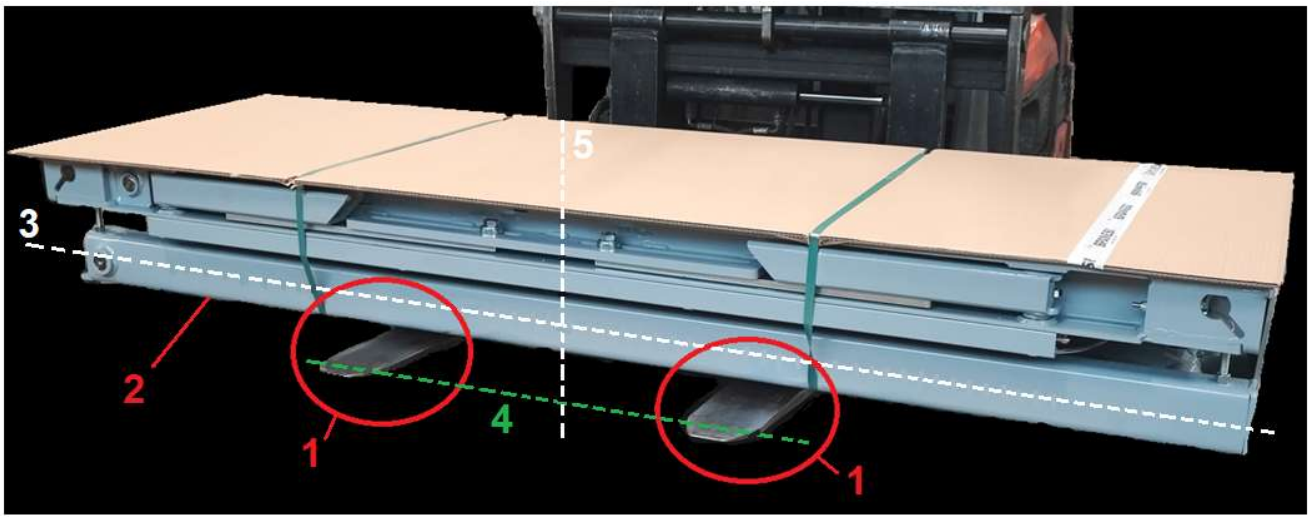
FIGURE 3.6 – LIFTING OF THE PULL SYSTEM HEAVIEST COMPONENTS

- Take the control console from the upper platform of the lift with a hoist or other suitable lifting equipment and rest it at a certain distance from the lift in a safe position. This operation must be performed by two people by hands or possibly with the help of a hoist. The console must be tied in the centre to be lifted or at the bottom area, supporting the top with the hands. In the absence of a hoist, at least two people are needed to lift it by hand (its mass is equal to 50 kg).

FIGURE 3.7 – LIFTING OF THE CONTROL CONSOLE

- Move the fork-lift truck near the case, then slide the forks (1) between the bottom of the lift (2) and the case, in the space between the base of the lift and the two wooden planks provided by the manufacturer The LIFT must be slightly raised on the side where the forks of the forklift truck will slide. The load on the forks must be balanced: the longitudinal axes of the base of the lift (3) and the forks of the forklift truck (4) must be parallel, the transverse axis of the forks (5) must correspond to the transverse axis of the lift (5).

FIGURE 3.8 – EXAMPLE OF FORKLIFT RAISING THE LIFT



- Slowly raise the lift from the case and rest it on the floor in the installation area.

WARNING! The LIFT and control unit must be unloaded from the crate and kept at a suitable distance, due to the pre-existing pipe connections between the two parts.

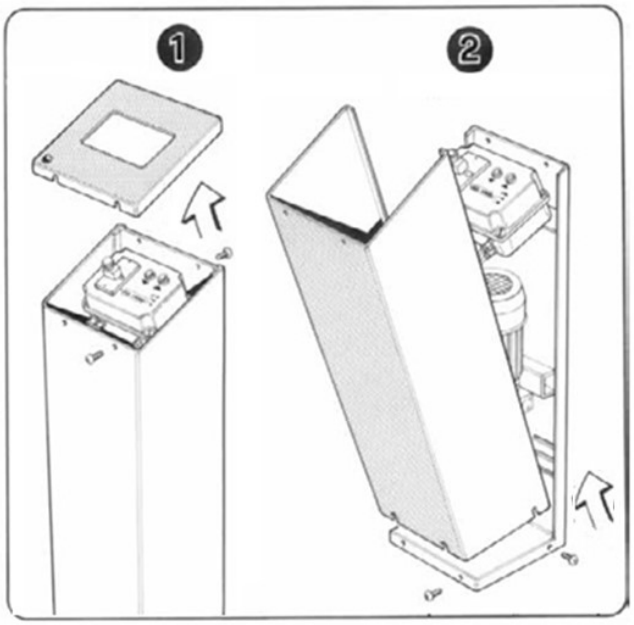
3.3.4. CONTROL UNIT FIRST START-UP PROCEDURE

WARNING! The lifting and lowering of the mobile LIFT platform must only be carried out using the control unit controls. SPANESI S.p.A. prohibits any other solution other than the one mentioned. SPANESI S.p.A. declines any responsibility for direct or indirect damages, caused by the non-fulfilment of this instruction, to people and animals and to the material supplied in the delivery.

Position the control unit as follows:

- Position the LIFT control unit at the designated point of the work area in a vertical position.
- Loosen the screws on the metal housing of the control unit.

FIGURE 3.9 – CONTROL UNIT FIXING SCREWS



- Remove the control button panel from the control unit.

FIGURE 3.10 – CONTROL BUTTON PANEL

- Position the control button panel in a safe place.

After unpacking, connect the **MULTIBENCH** with due care and following the instructions below.

WARNING! It is important to carry out the various connections correctly. It is therefore necessary to carefully follow the instructions provided and the diagrams in the specific instruction manuals.

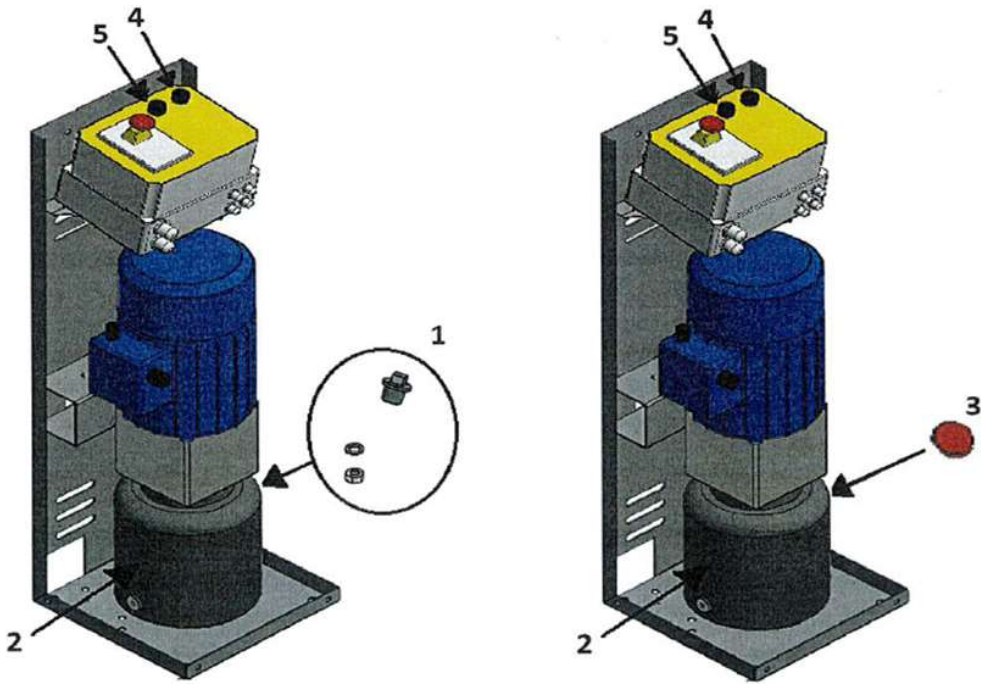
3.3.4.1. FILLING THE CONTROL UNIT TANK

The control unit will be delivered without oil in the tank. For the first start-up of the hydraulic control unit, the reservoir must be filled with the oil in the tank, which is packed inside the case with the lift and accessories.

Proceed with the following steps referring to Figure 3.11:

- Remove the transport cap (1) from the tank (2).
- Fill the reservoir with all the oil in the tank.
- Close the tank with the red plastic cap (3), found in the packaging of the control unit.

FIG.3.11 – DETAIL OF THE INSIDE OF THE CONTROL UNIT



3.3.4.2. HYDRAULIC SYSTEM CONNECTION

To connect the lift's hydraulic system correctly, proceed as follows (Fig. 3.12):

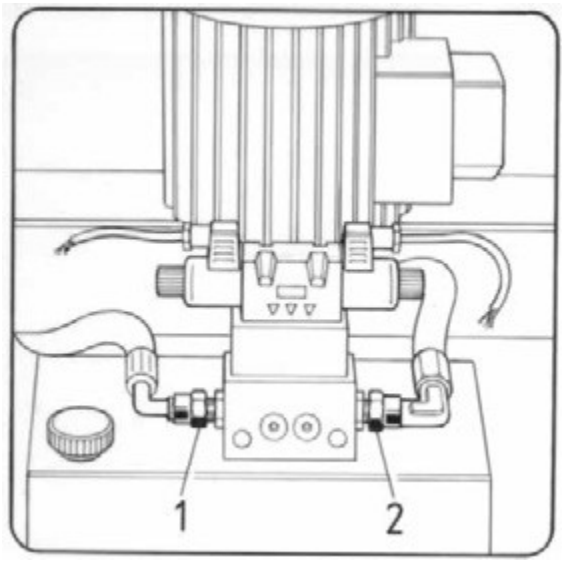
- Pull the black rubber hoses from inside the lift. One end of each tube is already connected to the lift.
- Connect the free end of each hose to the control unit by screwing the ferrules onto the connections on the control unit (1 and 2).

3.3.4.3. PNEUMATIC SYSTEM CONNECTION

To correctly connect the lift's pneumatic system, proceed as follows (Fig. 3.13):

- Pull the Rilsan air hose from inside the lift. One end of the tube is already connected to the lift. The other tube has a quick coupling that must be connected to the filter reducer of the air system at 7-8 bar.

FIGURE 3.12 - CONTROL UNIT CONNECTIONS



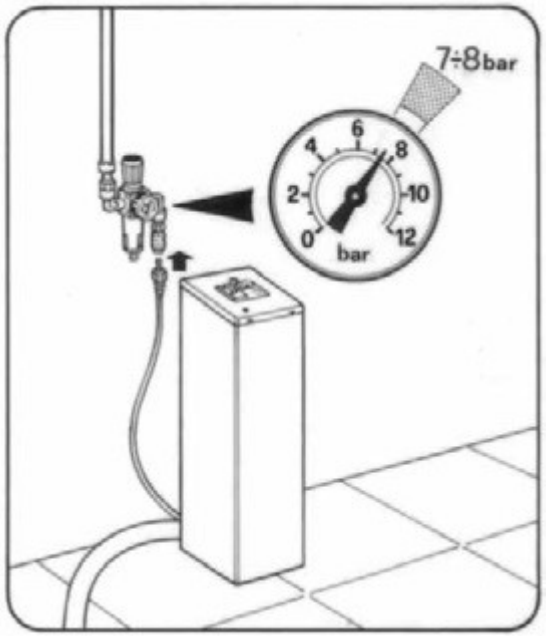


FIGURE 3.13 - PNEUMATIC CONNECTIONS

3.3.4.4. ELECTRICAL SYSTEM CONNECTION

For correct connection of the lift electrical system, proceed as follows:

- Check the lift operating voltage and frequency: they must correspond to the voltage and frequency of the bodyshop distribution system. The operating voltage of the **MULTIBENCH** is indicated in the plate on the casing of the electric motor that drives the control unit, in the label attached on the control console metal casing. The machine electrical equipment is pre-set to operate normally at 380/400 V 50/60 Hz.

WARNING! Connect the limit switch system to the control unit box before connecting the box to the power supply.

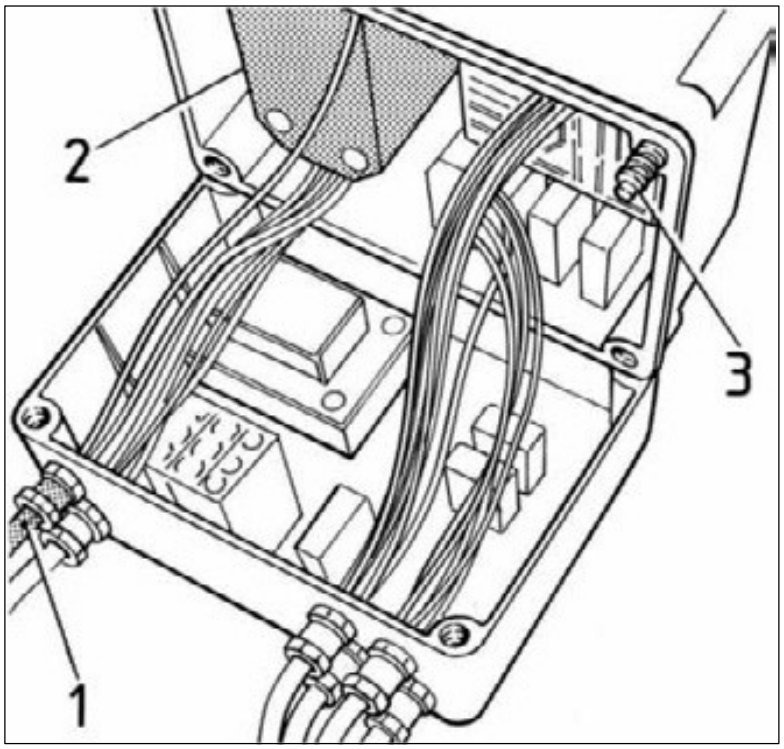
3.3.4.4.1. CONNECTION TO THE POWER GRID

- Check the electrical distribution board powering the lift control unit. It must be provided with a set of three fuses and a correctly set magnetothermal switch.
- Insert the power cable plug into the socket on the electrical distribution board.
- Together with the lift, **SPANESI** S.p.A. supplies a 2.5 m long cable with a 4-pin plug. This length is generally sufficient for the connections. If the distance of the control console makes it impossible to use the cable provided, the whole cable must be re-done.

DANGER! Do not under any circumstances splice the electrical cable.

- The power supply cable section must be adequate for the load absorbed by the lift and for the distance between the control unit electrical box and the body shop distribution panel.
- Before connecting the control unit power supply cable to the distribution panel, check that the distribution panel switch is set to “0”; if not, open the contacts.
- The power supply cable must be connected to the lift electrical box, passing it through the hole provided (1 - Fig. 3.15) until it reaches the terminal board marked with the power supply voltage. The three phase leads must be connected to the respective terminals marked by the symbols L1, L2 and L3. The earth lead must be connected to the yellow-green earth terminal.

FIGURE 3.14 - INTERNAL VIEW OF CONTROL PUSH-BUTTON PANEL



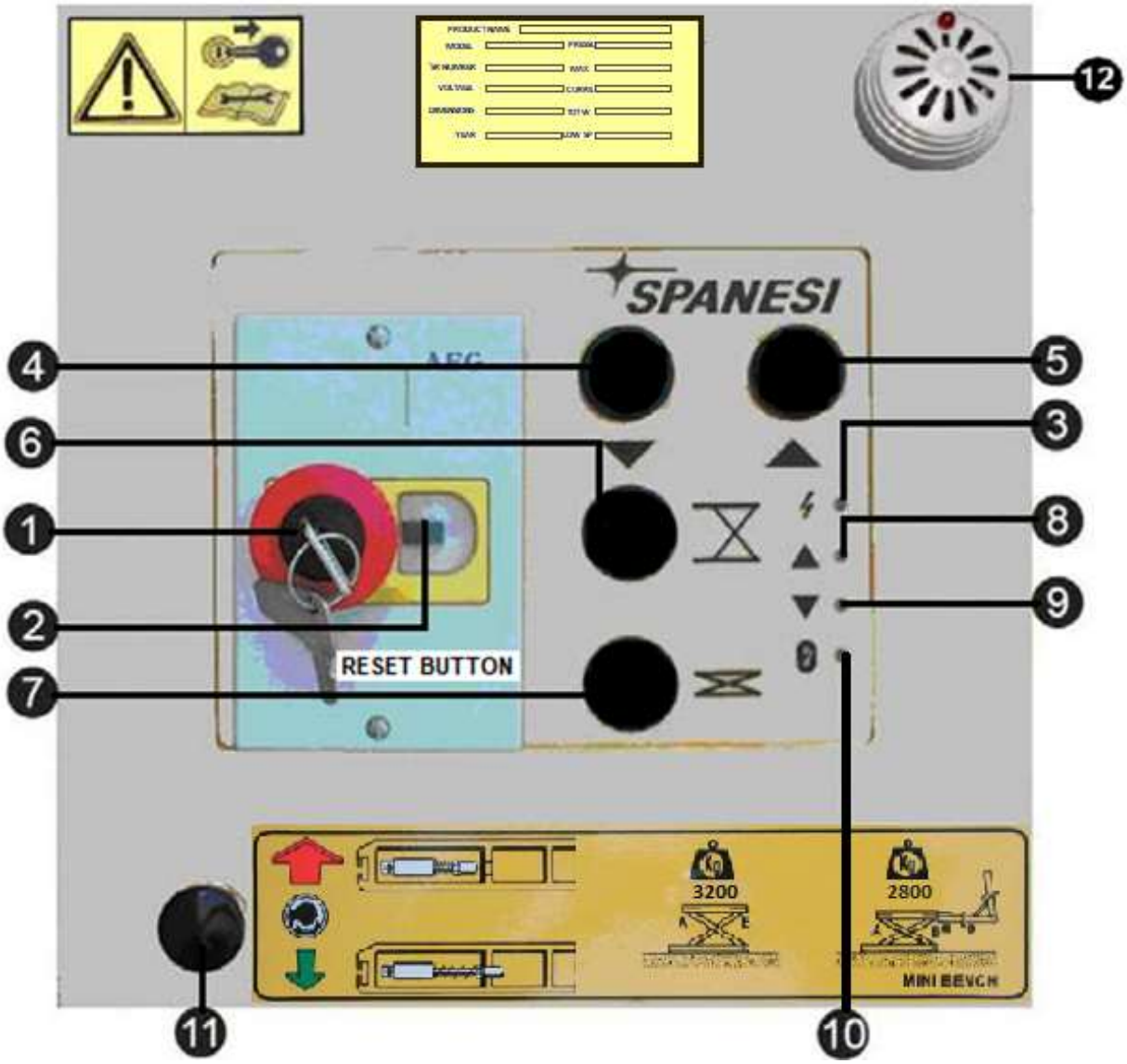
DANGER! Always check the efficiency of the machine earth after connecting the power supply. Faulty or inadequate connection of the earth lead can cause serious injury and even death. Never connect the lift electrical system directly to the body shop distribution wiring: a fault in the distribution system can seriously injure the operator and permanently damage the control unit.

- Complete connection of the control unit to the power supply panel and close the cover by means of the screws (3 - Fig. 3.14).

Check correct electrical connection to the mains as follows (Fig. 3.15):

- Insert the key into the emergency mushroom button cylinder and turn it clockwise to unlock it (1).
- Press the reset button on the right of the mushroom-headed emergency button (2): the white “power on” pilot light should come on (3). If not, check the connections.

FIGURE 3.15 - CONTROL CONSOLE WITH METAL CASING



1. Master switch with self-retaining mushroom-headed emergency stop button.
2. Reset button.
3. Power-on pilot light.
4. Lift descent control button.
5. Lift ascent control button
6. Lift mechanical safety release for 1st section.
7. Lift mechanical safety release + microswitch By-Pass.
8. Ascent pilot light.
9. Descent pilot light.
10. By-pass pilot light.
11. Pull arm mechanical safety release control button.
12. Buzzer.

3.3.4.4.2. ELECTRIC MOTOR DIRECTION CONTROL

Before any operation the motor polarity must be checked as follows (Fig. 3.15):

- Insert the key into the emergency mushroom button cylinder and turn it clockwise to unlock it (1).
- Press the reset button on the right of the emergency button (2).
- Press the <ascent> button (5) for about three seconds: the lift should move up.

If the lift does not begin to move up, the motor polarity must be changed as follows (Fig. 3.15):

DANGER! Always disconnect the machine when working on the power supply terminal board. Contact of parts of the body with live parts of the machine can cause serious injury and even death.

- Disconnect the control unit by means of the switch on the distribution panel.
- Press the mushroom-headed emergency button (1) to lock it in position.
- Open the cover of the control push-button panel, disconnect the phase leads L1 and L3 from the terminals and invert their position. Re-close the push-button panel cover by tightening the screws (3 - Fig. 3.14).
- Re-power the lift system from the power supply panel.
- Insert the key into the emergency mushroom button cylinder and turn it clockwise to unlock it (1).
- Press the reset button on the right of the mushroom-headed emergency button (2).
- Press the <ascent> button (4) for about three seconds: the lift should move up.
- After performing all the operations described above, complete the operation by refitting the control console metal cover on the control unit. Refit the two self-tapping screws in the two holes at the base of the console metal casing (1 and 2 - Fig. 3.16) and lock securely.

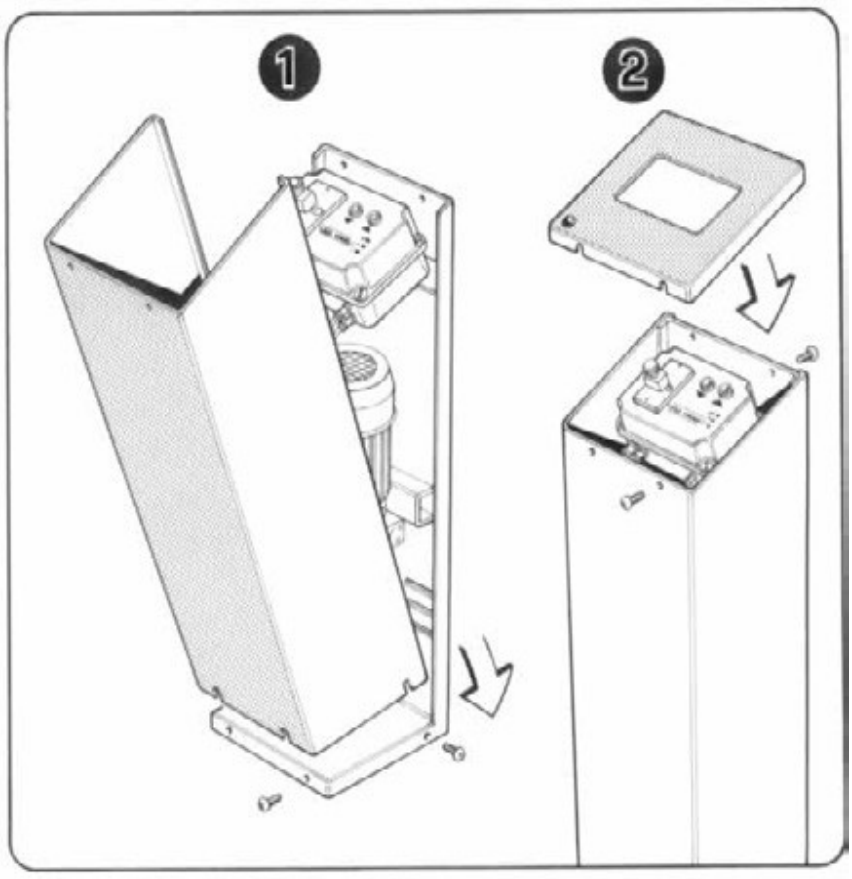


FIGURE 3.16 - CONTROL CONSOLE FIXING SCREWS

3.3.5. FIXING THE LIFT TO THE FLOOR

DANGER! The movable upper platform must be free of weights and encumbrances when fastened to the floor to prevent it from tipping over.

Follow the steps below before the start-up of the control unit and the subsequent first movement of the movable platform:

- Check that the power supply cable is connected to the electrical panel (1 - fig.17).

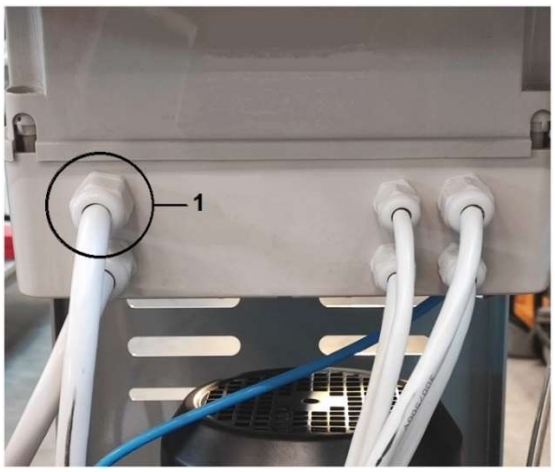
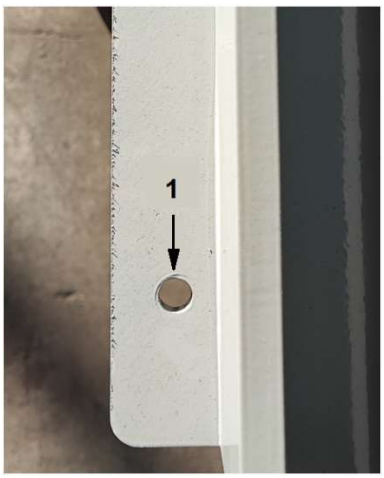


FIGURA 3.17 – POWER CABLE

- Connect the motor plug to the mains.
- Press the ascending button (5 - fig.3.15) up to ¾ of the maximum height (shown in table 1.1 in section 1.9 - TECHNICAL DATA).
- Lower the lift to the ground by pressing the buttons in combination to reach the end of the first descent phase (4 and 6 - fig.3.15). Next, press the push buttons to reach the end of the second descent (4 and 5 - fig.3.15) and after the lift is on the ground, continue to press them for 10 seconds to release the air from inside the hydraulic circuit.
- Using the ascent control (see SECTION 4 - INSTRUCTIONS FOR USE) raise the upper mobile platform approximately 50 cm so that you can operate easily on the base to insert the floor screw anchors.
- Drill the floor using as a guide the 10 holes (1) provided on the base of the lift. Insert the M10 screw anchors into the holes and secure the base to the floor.

WARNING! Floor thickness should be at least 200 mm and it should have a RCK resistance equal to or greater than 25.

FIGURE 3.18 – HOLES OF THE BASE

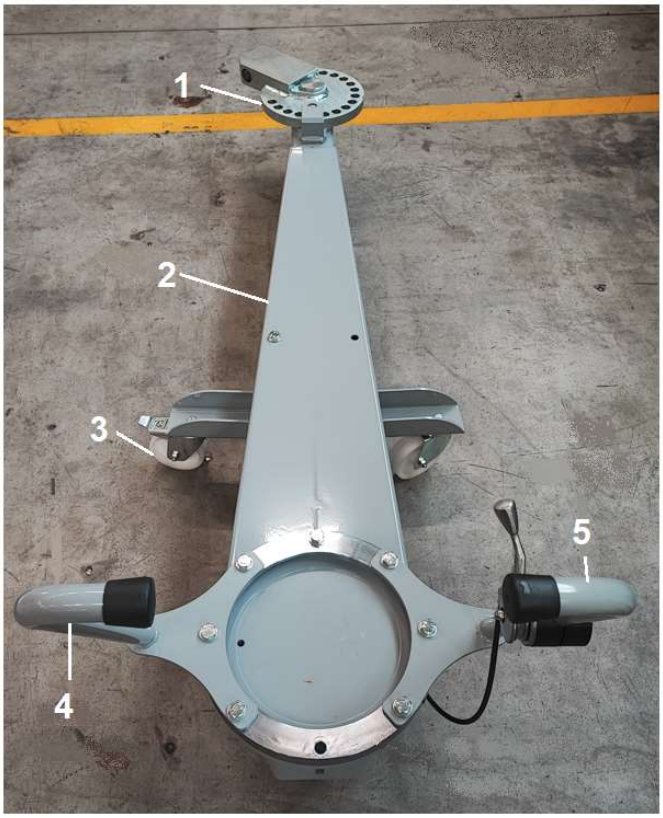


3.4 INSTALLING THE PULL ARM

To assembly and install the pulling arm, follow the indications below:

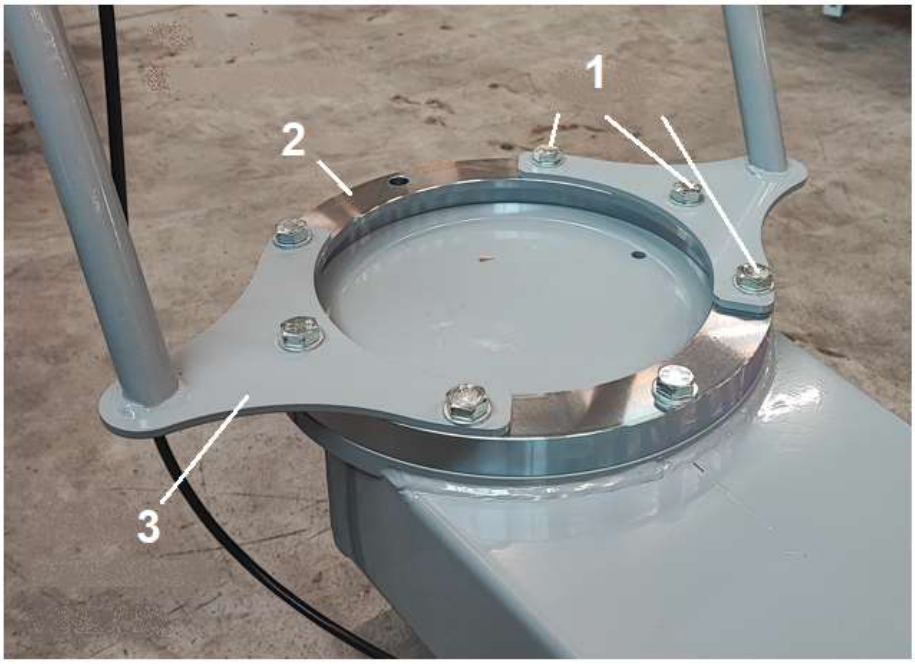
- The pull arm base (2) with the horizontal plate (1) is provided with 4 wheels (3) and can therefore be manually positioned in the working area manoeuvring it with the left handle (4) and the right one (5).

FIGURE 3.19 – PULL ARM BASE WITH HORIZONTAL ROTATIONAL PLATE



- Unscrew all the fixing ring bolts (1) from the upright fixing ring (2) and the handle fastening flange (3) and slide it off the base.

FIGURE 3.20 – UPRIGHT FIXING RING

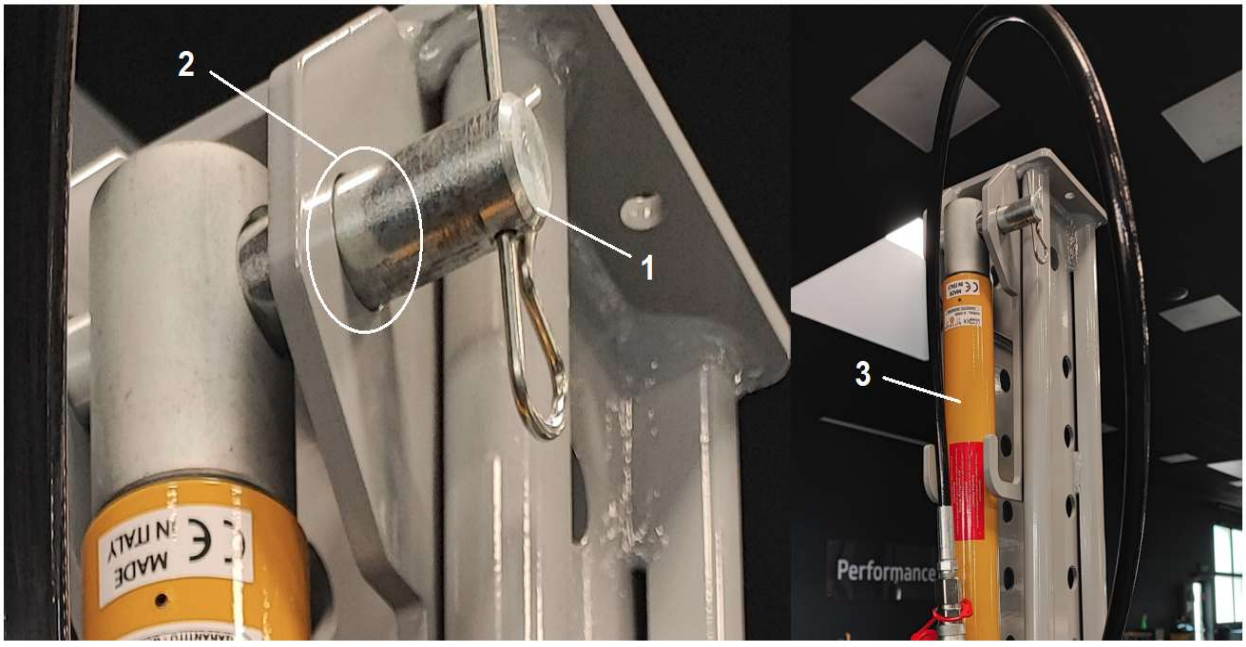


- Raise the upright from the place it was resting. It must be fixed vertically on the ringed flange on the side of the base. Place the upright where the ring was attached, holding it in place. Thread the ring through the upright and secure it to the base by screwing in the bolts

FIGURE 3.21 – PULL ARM UPRIGHT

- Secure the pulling piston (3) with a pin (1) in the upper hole of the upright (2).

FIGURE 3.22 – PULL ARM PISTON AND CHAIN SHORTENING HOOK



- Insert the chain (2) in the chain shortening hook (1) and let it pass through the pulley according to desired pull mode.

FIGURE 3.23 – CHAIN

- Attach the side support (1) of the pump to the upright.

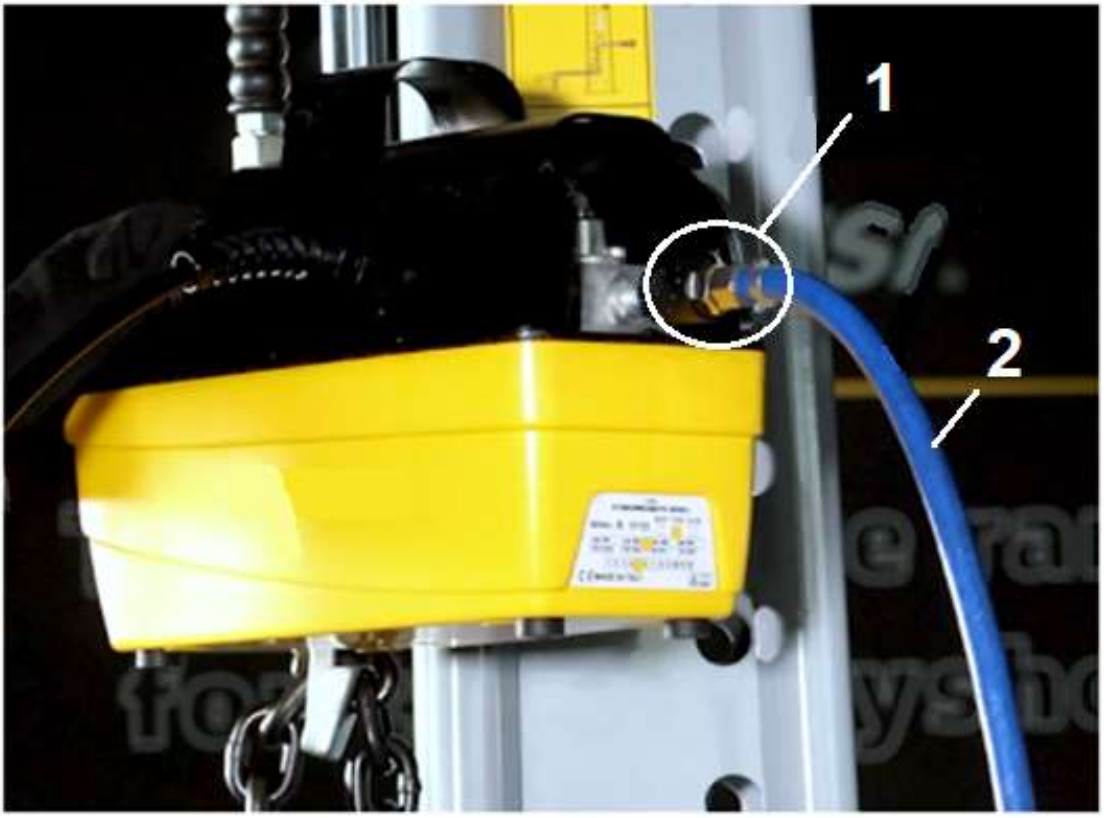
FIGURE 3.24 – PUMP SIDE SUPPORT

- Take the hydraulic-pneumatic pump from the ground and fix it on its support.

FIGURE 3.25 – PULL ARM PUMP

- Connect the pump supply flexible pipe (2) to the compressed air distribution system intake (1).

FIGURE 3.26 – CONNECTION OF FLEXIBLE PIPE TO THE PUMP



- Operate the pump control button (see SECTION 4 – OPERATING INSTRUCTIONS) and check the movement of the pull arm upright. The compressed air pressure must be at least 8 bar; if not, provide an air accumulation tank to guarantee a sufficient operating level.

FIGURE 3.27 – PUMP CONTROL BUTTON

WARNING! The maximum pressure of the compressed air must be 10 bar. If the body shop system compressor safety valve is set to a pressure above 10 bar, a filter/regulator/pressure reducer/ lubrification unit equipped with a pressure gauge must be fitted on the inlet provided for air supply to the control unit, and the pressure must be set to a maximum value of 8 bar.

3.5. ASSEMBLY PROCEDURE

The **MULTIBENCH** do not require assembly as they are already assembled.
After unpacking the various components, check that they are in perfect condition and working correctly and then follow the directions below:

- During installation, the base (1) of the scissor lift must not be built into the floor (2).

FIGURE 3.28 – CHECK OF BASE INSTALLATION TO THE FLOOR

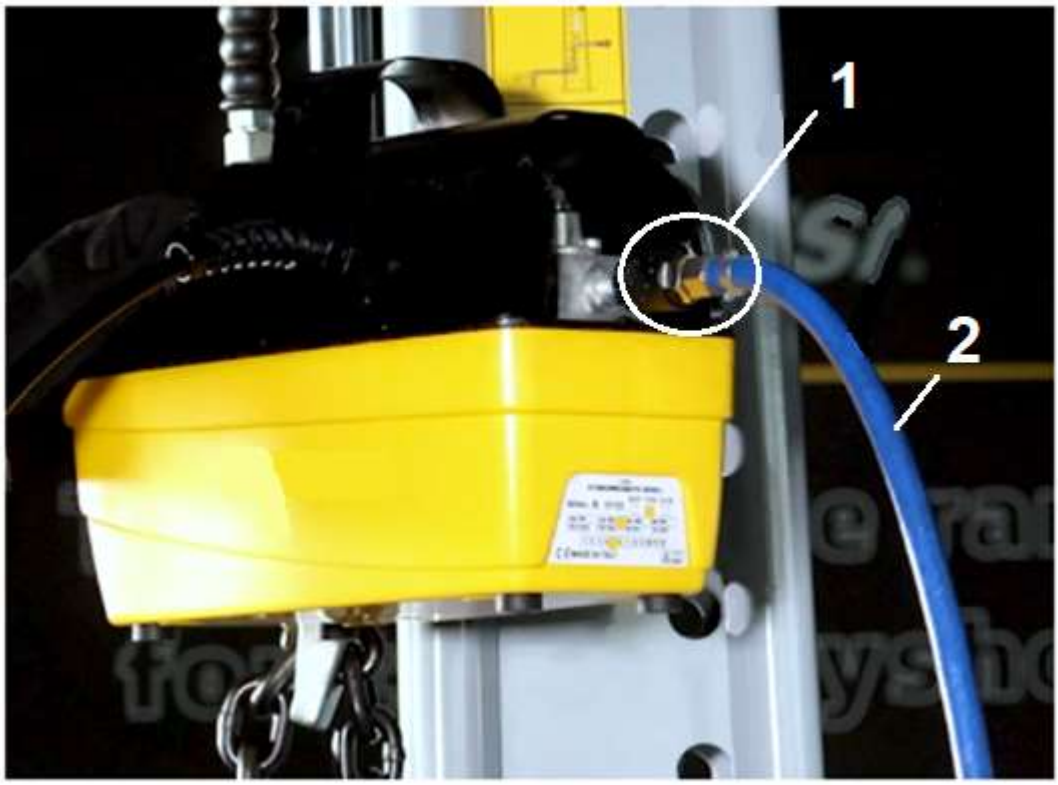
WARNING! The base of the scissor lift must rest on the floor (which must have the characteristics described in point 3.3.1 - INSTALLATION AREA).

- Check that the power supply voltage corresponds to the voltage specified on the label (1).

FIGURE 3.29 –POWER SUPPLY CABLE VOLTAGE

- Check the condition of the power supply cable and presence of the earth lead.
- Connect earth lead of the control console to earthing system of the body shop.
- Check that an automatic cut-off device provided on site by the customer with ground fault interrupter is fitted upstream to protect against overcurrent. This device must be already installed on site installation by the customer.
- Carefully connect the cable to the equipment in compliance with the regulations in force.
- Connect the air pipe (2) to the compressed air system ensuring that the operating pressure is 8 bar.

FIGURE 3.30– CONNECTION OF AIR PIPE TO COMPRESSED AIR SYSTEM



3.6. DISASSEMBLY PROCEDURE

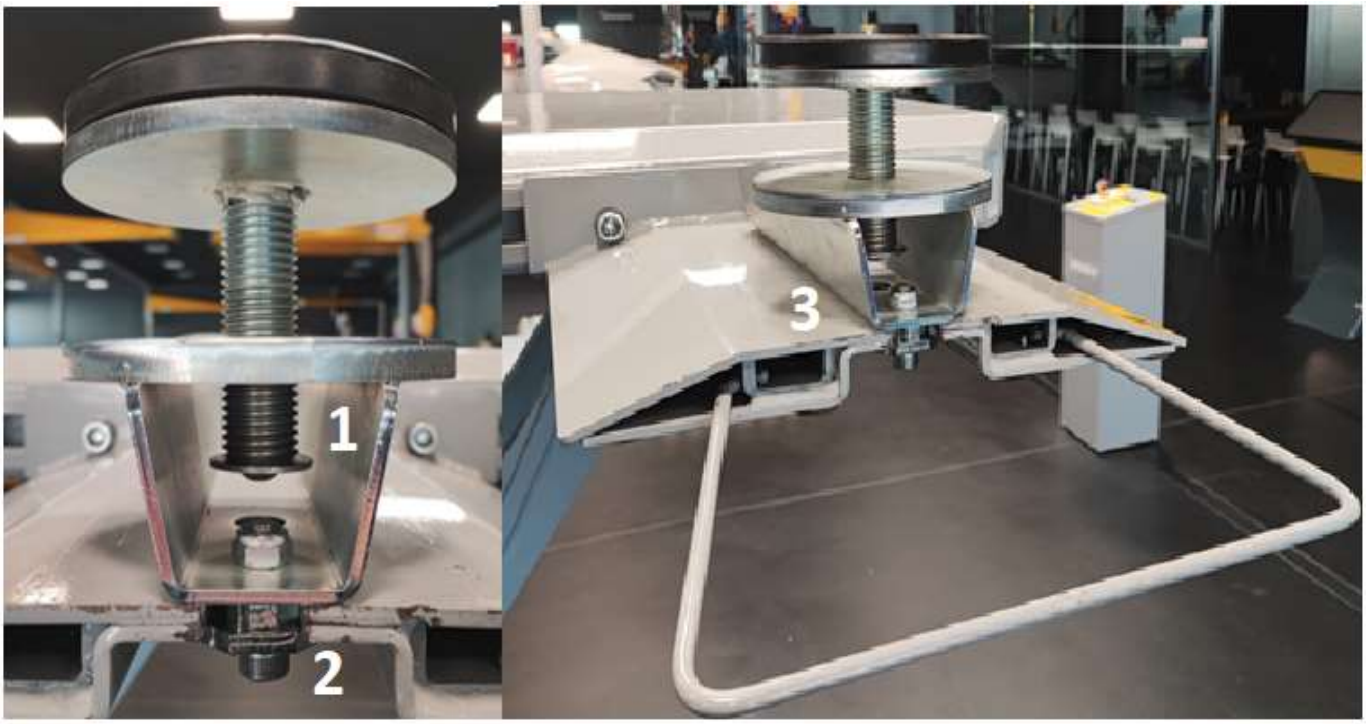
WARNING! Disassembly work must be done by authorized duly instructed personnel always wearing PPE. Before beginning work, check that there are no persons and/or animals less than one meter from the perimeter of the lift or vehicle. Damage resulting from incorrect disassembly cannot be charged to the manufacturer and will invalidate the product warranty. SPANESI S.p.A. declines all responsibility for injuries to persons and animals or damage to property because of work carried out by unsuitable or inadequately qualified personnel.

WARNING! Before starting disassembly procedure, no vehicle, person or tools must be on the mobile platform. Then read the following procedure.

Remove pads, clamps or support platforms:

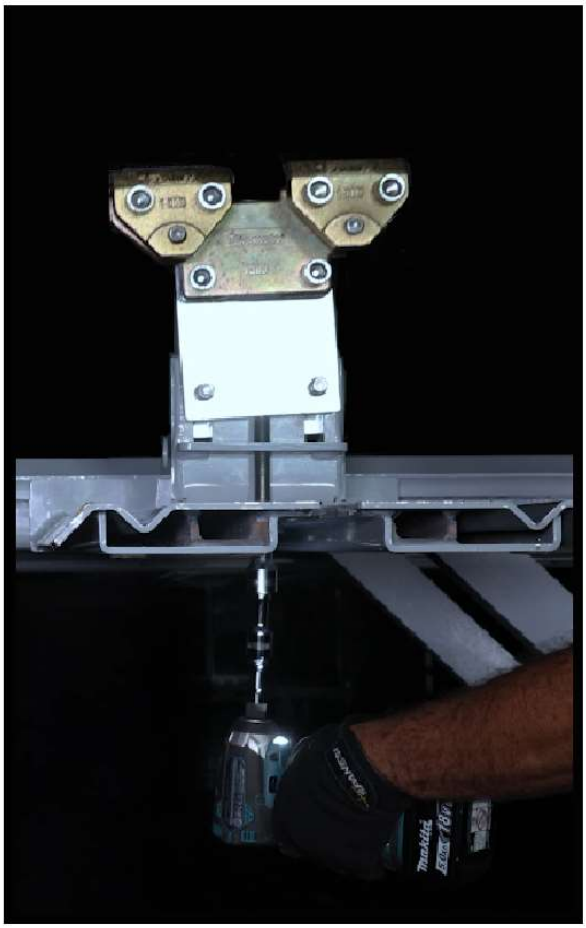
- Removal of pads (fig. 3.24): unscrew pad screw (1), loosen the bolts (2) that fix the pad support to the platform, using two hands pull and let slide the pad support through the slot where it was inserted.

FIGURE 3.31 – REMOVAL OF PADS



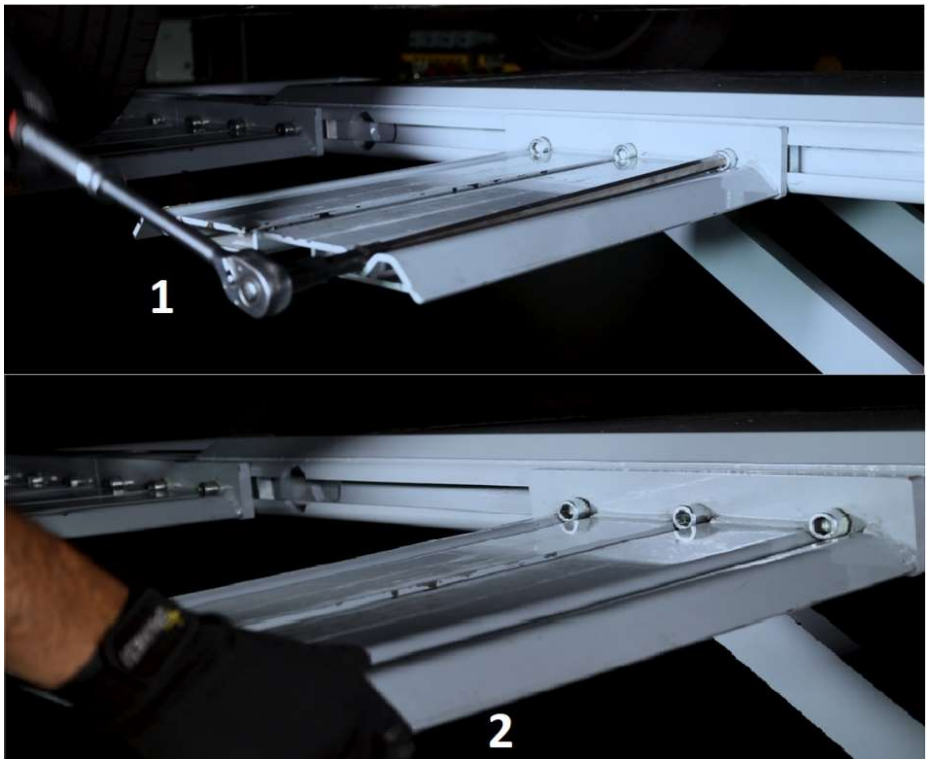
- Removal of clamps: unlocking the screw of the clamps below the supports, using two hands pull and slide the clamp support through the slot where it was inserted.

FIGURE 3.32 – REMOVAL OF CLAMPS



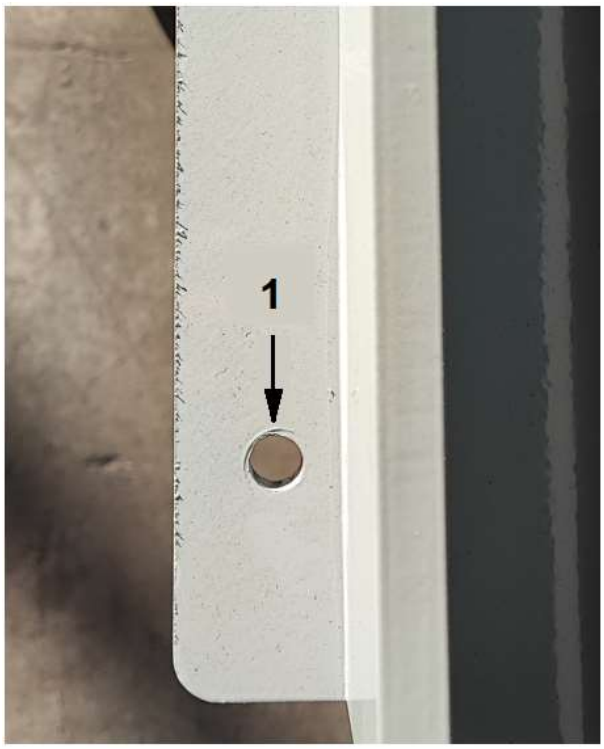
- Remove supports platforms: loosen the bolt of the support platform (1), then using two hands, slide sideways the platforms to the beginning or end of the rails that run alongside the upper mobile platform (2).

FIGURE 3.33 – REMOVAL OF SUPPORT PLATFORMS



- Disengage the pulling arm if it is applied to the lift, as written in paragraph 4.6.3. “REMOVING OF PULL ARM”.
- Unplug the **MULTIBENCH** base, by unscrewing all the dowels that were fixing the base to the floor.

FIGURE 3.34 – HOLES OF THE BASE



- Lower the **MULTIBENCH** to the minimum height. Complete second descent phase using control console.
- Disconnect electrical system, pneumatic system and hydraulic system, doing the opposite of what is stated in the paragraphs 3.3.4.1., 3.3.4.2. and 3.3.4.3.

FIGURE 3.35 - CONTROL UNIT CONNECTIONS

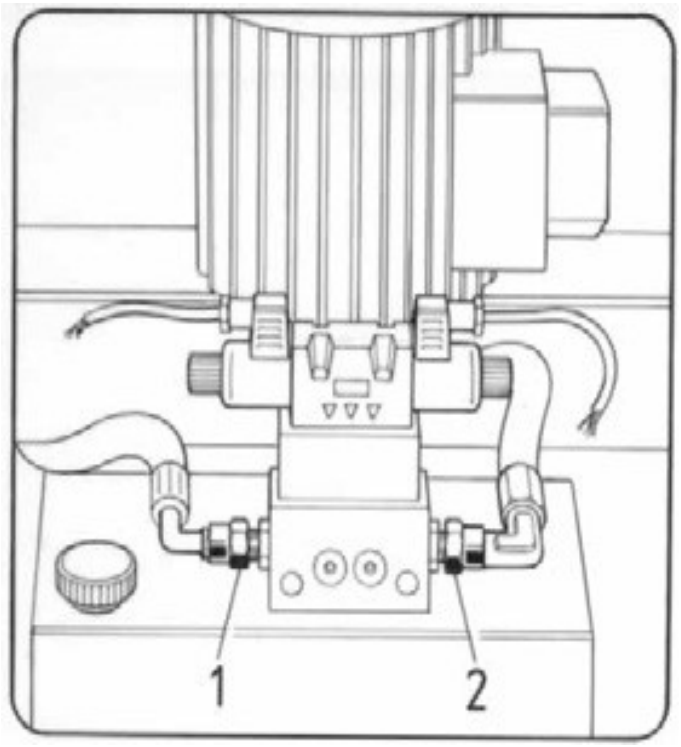
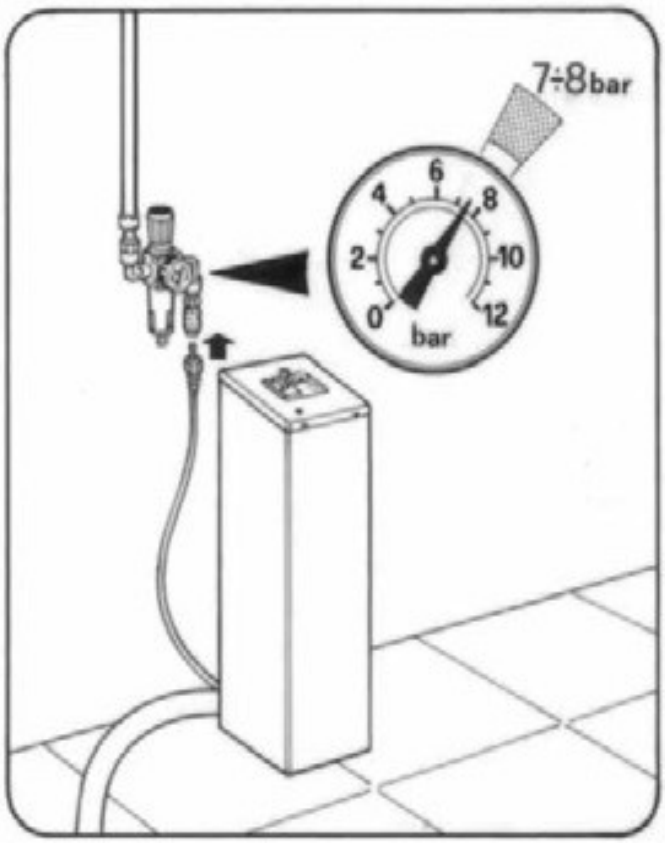


FIGURE 3.36 - PNEUMATIC CONNECTIONS



- Draining the hydraulic oil from control console's tank.

FIGURE 3.37 – CONTROL CONSOLE TANK

- Place the **MULTIBENCH** on an appropriate pallet. Put it first and place it as close to the back wall as possible and level with the other two sides as in figure 3.38 in the red area.

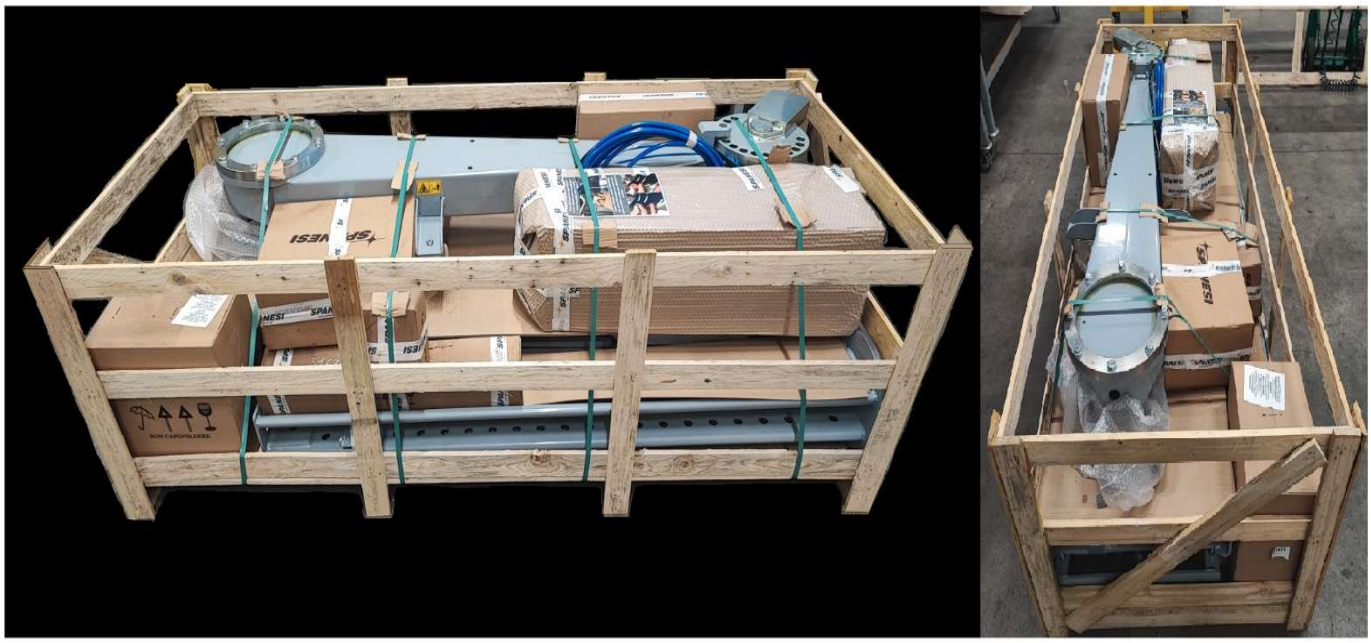
FIGURE 3.38 – MULTIBENCH PLACED ON A PALLET

- Place all the accessories and the control console over the mobile platform, taking care that the oil filler tap is facing upward.

FIGURE 3.39 – ALL ACCESSORIES AND CONTROL CONSOLE PLACED OVER MOBILE PLATFORM

- Tie or fix the **MULTIBENCH** and its accessory to the pallet with holds or anything else can help to secure the control console during its movement.

FIGURE 3.40– MULTIBENCH FIX TO THE PALLET



3.7. LONG-TERM STORAGE

WARNING! Don't keep the equipment in an environment with too high temperature. Don't keep the equipment in an environment overly humid or wet.

If the equipment is not going to be used for some time, the following operations must be performed:

- Disconnect the power supplies.
- Empty the tank containing the operating liquids.

FIGURE 3.41 – CONTROL CONSOLE TANK

- Protect the parts that can be damaged by dust:
  a. Lift upper mobile platform.
  b. Lift base.
  c. Electric components: electric motor, electric cables, control console.
  d. All kind of pipes and hoses.
  e. Pull arm components: pull arm upright and its fixing ring, pull arm pulleys, pull arm pump.

CAUTION! Keep closed oil cap of control console tank and pull arm.

- Grease the parts that can be damaged by drying:
  a. the hydraulic or pneumatic hoses.
  b. the rails of scissor levers wheels in the internal sides of lift upper platform and base.

WARNING! When re-starting, check that there are no cracks in or damage to the hydraulic supply pipes and that the machine in general is in good working order.

3.8. SCRAPPING

If you decide to scrap the **MULTIBENCH**, it must be made inoperative by draining the hydraulic oil from:

- the tank.
- the lift operating pistons.
- pull arm pump.

CAUTION! As the machine is classified as special waste, it must be dismantled, split into parts of equal size and then disposed of in accordance with the regulations in force in the country where the machine is scrapped.

3.9. CHECKLIST TO FOLLOW AFTER INSTALLATION

After the installation of the **MULTIBENCH** by prepared personnel, who followed strictly indications reported in this manual, now few actions to do before starting using the machine:

1. Check the machine's base (1): it must be dowelled to the floor (2) and it must rest well on a flat floor, inclined at a maximum of 5° to the floor.

FIGURE 3.42 – CHECK OF BASE INSTALLATION TO THE FLOOR

2. Check the electrical system connection: who mounts the control box plug must know how to make the right connection (paragraph 3.3.4.4.1. "CONNECTION TO THE MAINS")
3. Check the motor polarity: verify the correct direction of rotation of the motor (paragraph 3.3.4.4.2. "CHECKING MOTOR POLARITY").
4. Check the presence of oil leaks or spots coming from the machine or around it.

4. OPERATING INSTRUCTIONS

4.1. BEFORE USE

The **MULTIBENCH** can be used either alone as a simple lift to perform inspections, mechanical repairs, dismantling of the wheels and other operations, or with the pull system for straightening and restoring the body and other parts of the vehicle. These two ways of using the lift involve different risks and different procedures for preparing the vehicle.

WARNING! Before using the MULTIBENCH, check the efficiency of the system and get to know the control devices.

4.2. SAFETY DEVICE EFFICIENCY TEST

Before beginning safety device efficiency test:

- place the safety perimeter to demarcate the working area as in paragraph 3.3.1 “INSTALLATION AREA”.
- place the control console in one of the safety area’s corners to have a wide and clear view of the working area.

FIGURE 4.1 – WORKING POSITION WHEN USING MULTIBENCH

- then check correct operation of the safety devices provided by the manufacturer.

WARNING! Depending on the layout of the installation site, carefully choose the placement of the control box. The operator when using the control panel buttons should have a view of the entire working area. Spanesi S.p.A. provides an oil hose long 5 meters.

4.2.1. EMERGENCY BUTTON

Check the correct operation of the emergency button as follows (see fig.4.2):

- Power the control unit by means of the switch placed on the distribution system power supply panel.
- Insert the key into the emergency mushroom button cylinder and turn it clockwise to unlock it (1).
- Press the reset button (2) on the right of the mushroom headed emergency button (1). The white pilot light (3) will come on to indicate that the equipment is powered.
- Press the <ascent> button (5).
- Keeping the <ascent> button pressed, use your free hand to press the mushroom-headed emergency button (1): the lift should immediately stop.

4.2.2. RESET BUTTON

Check correct operation of the reset button as follows:

- Insert the key into the emergency mushroom button cylinder and turn it clockwise to unlock it (1).
- Press the <ascent> button (5): the lift should remain at a standstill.
- Press the reset button (2) on the right of the mushroom headed emergency button (1).
- The white pilot light (3) will come on to indicate that the equipment is powered.
- Press the <ascent> button again (5): the lift should move upwards.

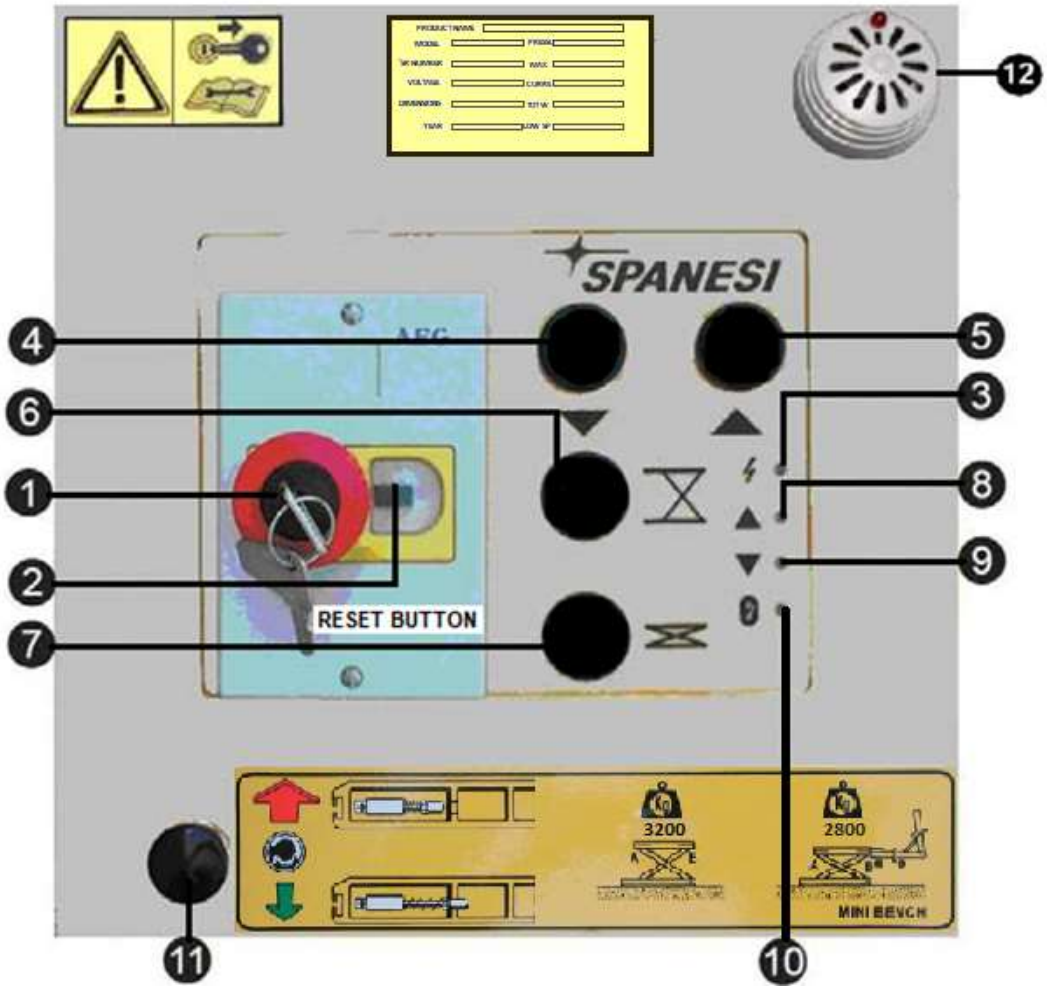


FIGURE 4.2 - CONTROL CONSOLE WITH METAL CASING

4.3. USING THE MULTIBENCH WITHOUT PULL ARM

WARNING! The MULTIBENCH must only be used by authorized duly instructed personnel. Before beginning work, check that there are no persons and/or animals less than one meter from the perimeter of the lift or vehicle. Ensure that the vehicle is correctly positioned on the lift before all operations.

When you wish to use the **MULTIBENCH** as a simple lift without the pull arm, proceed as follows and remember working position reported in figure 4.1:

- Check that the mobile platform is fully lowered.
- Power the control unit by means of the switch on the power distribution board.
- Place the vehicle on the lift mobile platform.

4.3.1 RAISING THE MULTIBENCH

To raise the lift, proceed as follows:

- Insert the key into the emergency mushroom button cylinder and turn it clockwise to unlock it (1).
- Press the reset button (2) on the right of the mushroom headed emergency button (1). The white pilot light (3) will come on to indicate that the equipment is powered.
- Press the <ascent> button (5), raise the MULTIBENCH by approx. 30 cm and stop.
- Check the stability of the load and devices for the support of the vehicle or the fastening of the body.

WARNING! If the height of the premises where the MULTIBENCH is installed is insufficient, be careful not to crush the vehicle against the ceiling when raising the lift.

- Press the <ascent> button (5) again to continue raising the lift until you reach the required height.
- Release the button: the lift will stop in the required position.

4.3.2. LOWERING THE MULTIBENCH

WARNING! Before beginning, check that below and around there are no persons, animals or things which, in the event of the vehicle falling off, could be trapped or crushed.

WARNING! Before beginning the lowering operation, makes sure that there are no flexible pipes or power tool cables in the area that may be crushed.

The lift can be lowered in two ways:
a) DESCENT AS FAR AS FIRST SECTION (pull arm insertion position).
b) COMPLETE DESCENT (to the floor).

4.3.2.1. DESCENT AS FAR AS FIRST SECTION

To lower the lift as far as the first section, proceed as follows:

- Press the <ascent> button (5) and keep it pressed until the mechanical safety is released.
- Press the mechanical safety release button (6).
- Use your other hand to press the <descent> button (4).
- Keep both hands on the controls until the MULTIBENCH stops completely.

4.3.2.2. COMPLETE DESCENT

To fully lower the lift, proceed as follows:

- Press the <ascent> button (5) and keep it pressed until the mechanical safety is released.
- Press the mechanical safety release button (7) and use your other hand to press the <descent> button (4).
- Keep both hands on the controls until the **MULTIBENCH** rests completely on the floor.
- Once the descent has been completed, press the mushroom-headed button (1) before leaving the control console.

WARNING! If an emergency occurs, immediately press the emergency stop button.

Emergency descent:
In the event of a power failure or motor fault the lift can be lowered in emergency mode, carefully following the instructions provided in the instruction manual supplied with the emergency pump.

4.4. RATED CAPACITY

The rated capacity of the MULTIBENCH is the maximum gross mass that can be lifted with the fitted equipment. It includes the following masses (given in Section 1.9. "TECHNICAL SPECIFICATIONS"):

- Upper mobile platform.
- Support platform and pads or clamps.
- Screws and bolts elements.
- Pulling system, when it is used.

The rated capacity is a purely theoretical capacity: it is of fundamental importance in establishing the actual capacity. The nominal capacity considers all the elements given in the preceding paragraphs and, therefore, the typical condition of use. The nominal capacity is 3.200 kg when the machine is used without pulling system and 2.800 kg when pulling system is applied.

WARNING! SPANESI S.p.A. declines any responsibility for damage caused to persons or property because of exceeding allowable capacities or misapplication of loads.

4.4.1. EFFECTIVE CAPACITY

Effective lifting capacity is the maximum vehicle weight that can be lifted with the fitted equipment to perform straightening work on the vehicle.
The calculation of the effective lift capacity is done with the formula:

E = R – W

Where letters have the following meaning:
E = Effective capacity in kg.
R = Rated capacity in kg.
W = Sum of the masses of tools and accessories in kg (given in paragraph 1.9. “TECHNICAL SPECIFICATIONS”).

4.5. POSITIONING THE VEHICLE ON THE MULTIBENCH

Positioning of the vehicle on the mobile platform determines the stress transmitted to the scissor lift and for this reason the position of the vehicle must be within specific limits. To avoid errors, reference must be made to the position of the heaviest axle of the vehicle on the bench.
To facilitate positioning of the vehicle and at the same time guarantee the best possible performance, positioning of the heaviest axle of the vehicle with respect to the outer edge of one of the short sides of the bench has been identified according to the total length of the bench.

4.5.1. POSITION OF THE VEHICLE

To ensure maximum safety during use of the bench, the following rules must be carefully followed:

- the vehicle that must be loaded must not have a wheelbase of more than 3 meters. For different cases please contact Spanesi's technical office.
- Position the vehicle in order that the heavy axle is on the -A- side of the lift (see figure 4.3).

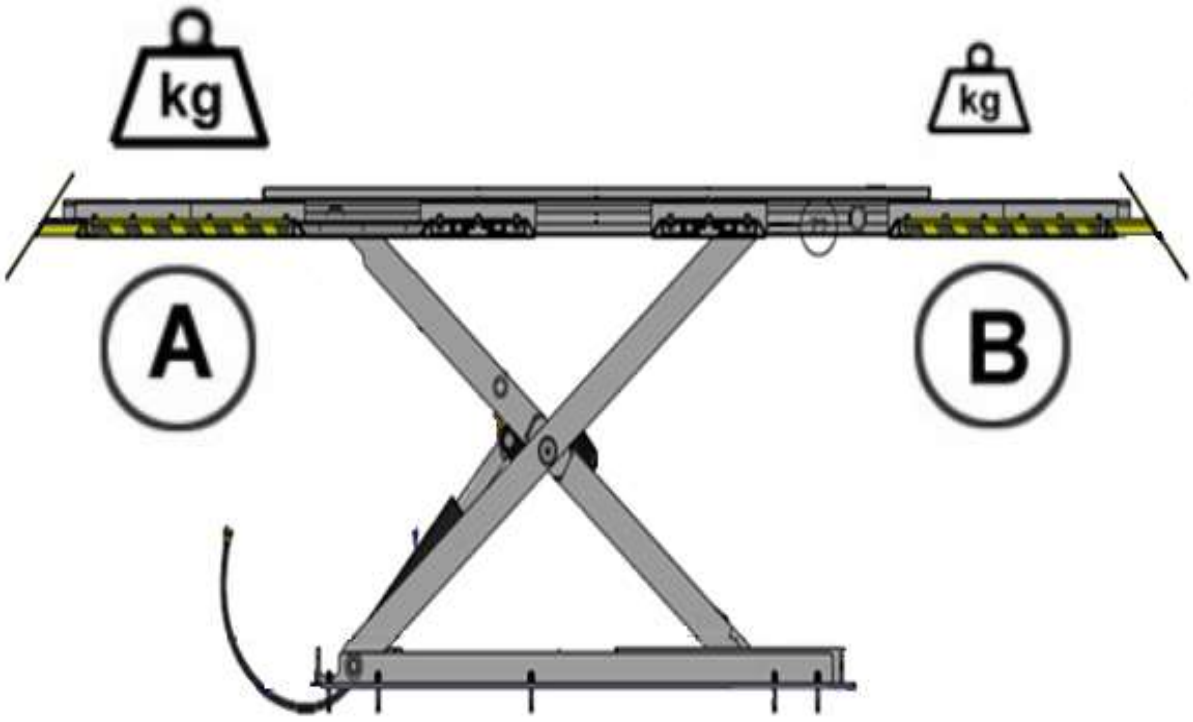
Any doors must be closed. There must be no objects protruding from the vehicle.

WARNING! Remember that when parts of the vehicle are dismantled, the centre of gravity is altered. This must be considered when positioning the vehicle on the lift.

WARNING! Make sure to position the buffers at the correct lifting points as provided by the manufacturer in order not to have the body damaged or crushed.

- The rear platforms are usually left locked, whereas the front platforms must be adjusted and locked in position as required for the vehicle resting on the lift.
- Position the 4 pads in the appropriate slots provided on the platforms. Adjust the pads crosswise according to the width of the vehicle resting points.
- Always tighten the platform fixing screws before proceeding to the lifting of a vehicle.

FIGURE 4.3 - DIAGRAM OF VEHICLE POSITIONING CONDITIONS



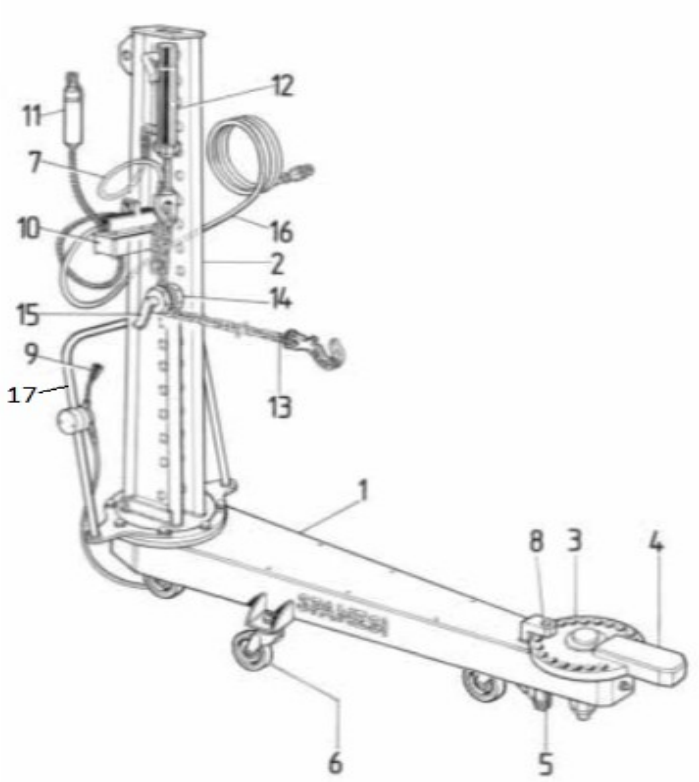
4.5.1.1. DISTANCE OF HEAVIEST AXLE OF THE VEHICLE FROM OUTER EDGE

The vehicle must be positioned on the mobile platform so that the distance of the heaviest axle from the outer edge of the bench is no less than the set distance. When you wish to position the vehicle with its heaviest axle on side A of the bench, the distance of this axle (on cars it is the one below the engine) from the outer edge of the mobile platform must be no less than the distance established by the manufacturer.

DISTANCE FROM OUTER EDGE OF MOBILE PLATFORM = 300 mm

4.6. USING THE PULL SYSTEM

FIGURE 4.4 – ADJUSTABLE PULL ARM



1) Pull arm base
2) Pull arm upright
3) Perforated adjustment plate
4) Fitting block
5) Plate stop pin release mechanism
6) Plastic wheels
7) Hydraulic flexible pipe
8) Plate locking pin
9) Plate locking pin release lever
10) Pneumo-hydraulic pump
11) Pneumo-hydraulic pump control
12) Hydraulic piston
13) Pull chain with hook
14) Pulley
15) Pulley pin
16) Pneumo-hydraulic pump compressed air supply flexible pipe
17) Handle

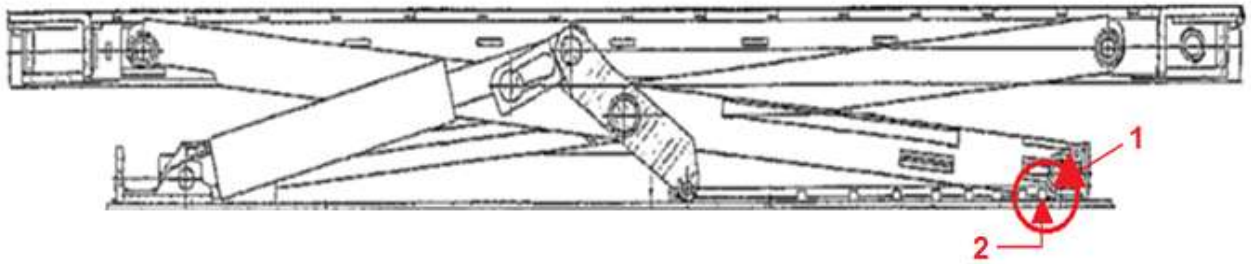
When you wish to use the **MULTIBENCH** with the pull arm, proceed as follows:

- Check the Pull Arm Working Range from figure 4.9.
- Check that the mobile platform is fully lowered.
- Power the control unit by means of the switch on the power distribution board.
- Place the vehicle on the lift mobile platform.
- Position the vehicle in order that the heavy axle is on the -A- side of the lift (see fig.4.3).
- Any doors must be closed and there must be no objects protruding from the vehicle.

DANGER! Remember that when parts of the vehicle are dismantled the centre of gravity is altered. This must be considered before positioning the vehicle on the lift.

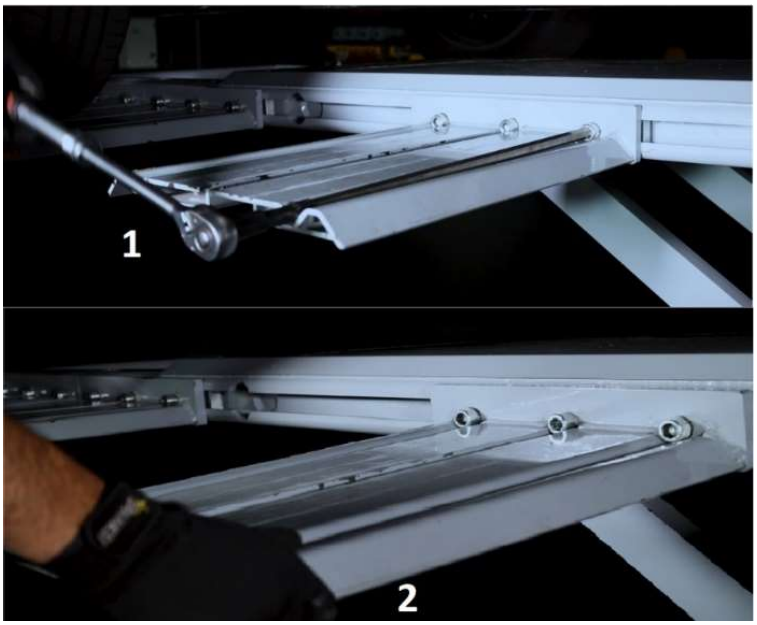
- The rear supports must always be left locked, whereas the front supports must be adjusted and locked in position as required by the vehicle resting on the lift.
- Raise the lift 20 cm higher than pull arm height: it corresponds to the end of first descent phase and the beginning of second descent phase, when the safety hook (1) is blocked by first safety tooth (2), as it was circled in figure 4.5.

FIGURE 4.5 - MULTIBENCH AT PULL ARM HEIGHT



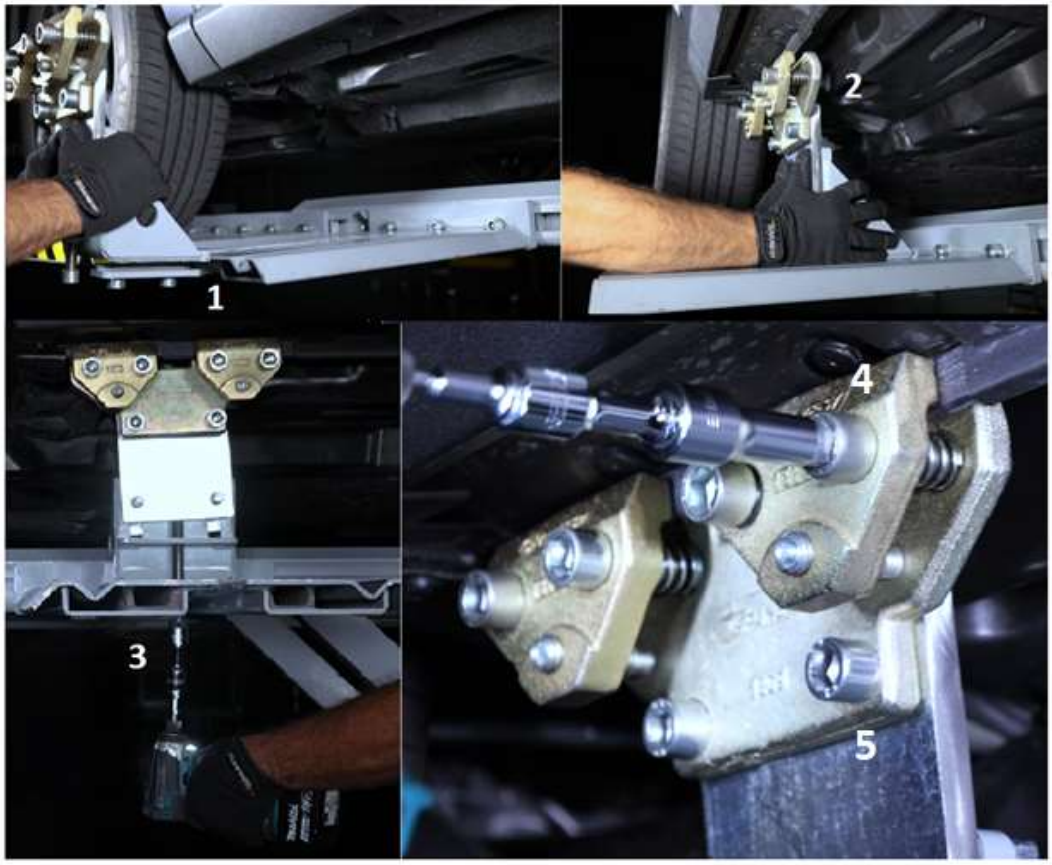
- Loosen the bolts (1) of support platforms and let slide the platforms in the desired position (2), where clamps will be fixed to the vehicle body and keep the bolts loosen.

FIGURE 4.6 – PLACEMENT OF SUPPORT PLATFORMS



- Insert the 4 clamps in the slots (1) provided in the platforms and adjust them crosswise according to the width of the vehicle body tightening points (2). Rise the clamps to vehicle body points by screwing the lower bolt until vehicle body is stuck by the clamp (3). Lock the clamps by first securing the upper horizontal screws (4) of each clamp and then the lower horizontal ones (5). Complete locking by tightening the screws of the clamps below the supports (3).

FIGURE 4.7 – INSERTION OF THE CLAMPS

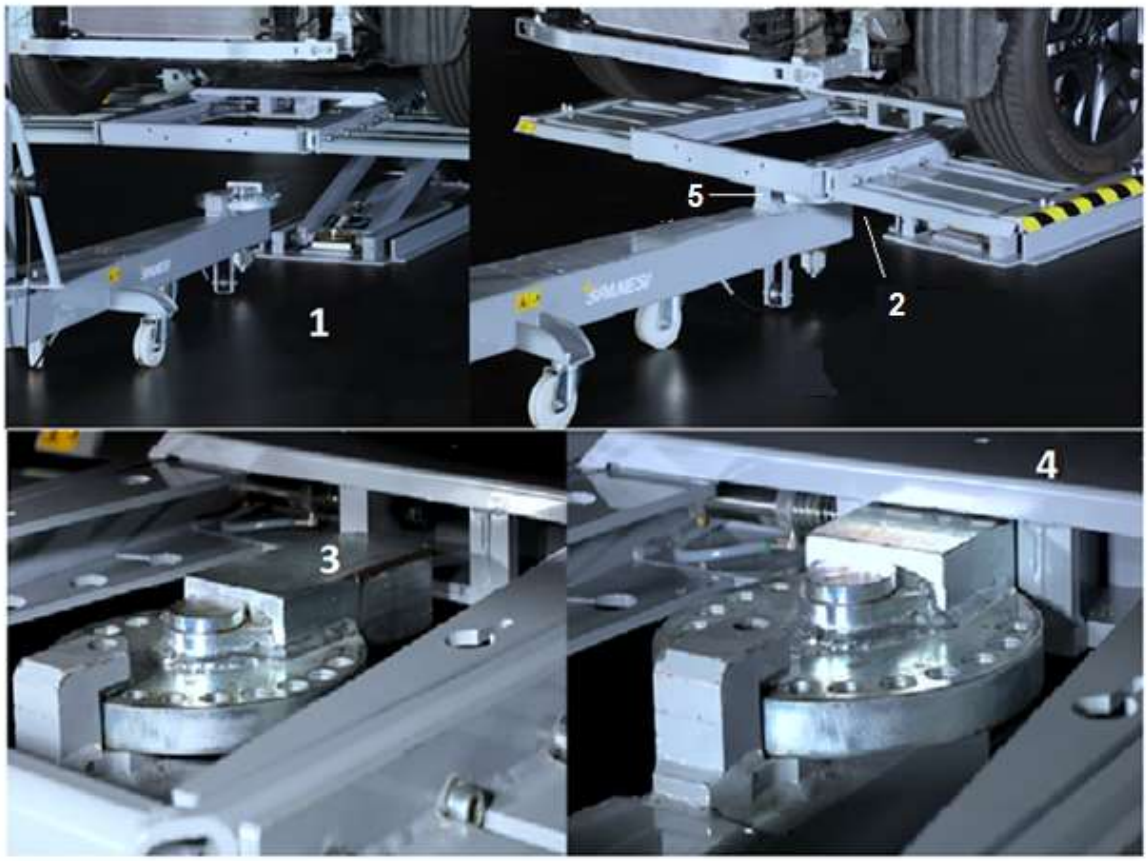


- Pull arm block (1) is fitted perfectly in the mobile platform when it is inserted up to the imaginary red line (3). This length corresponds to the correct activation of lift safety piston. In the block hole (2) safety piston will lock the pull arm to the upper mobile platform.

FIGURE 4.8 – PULL ARM BLOCK

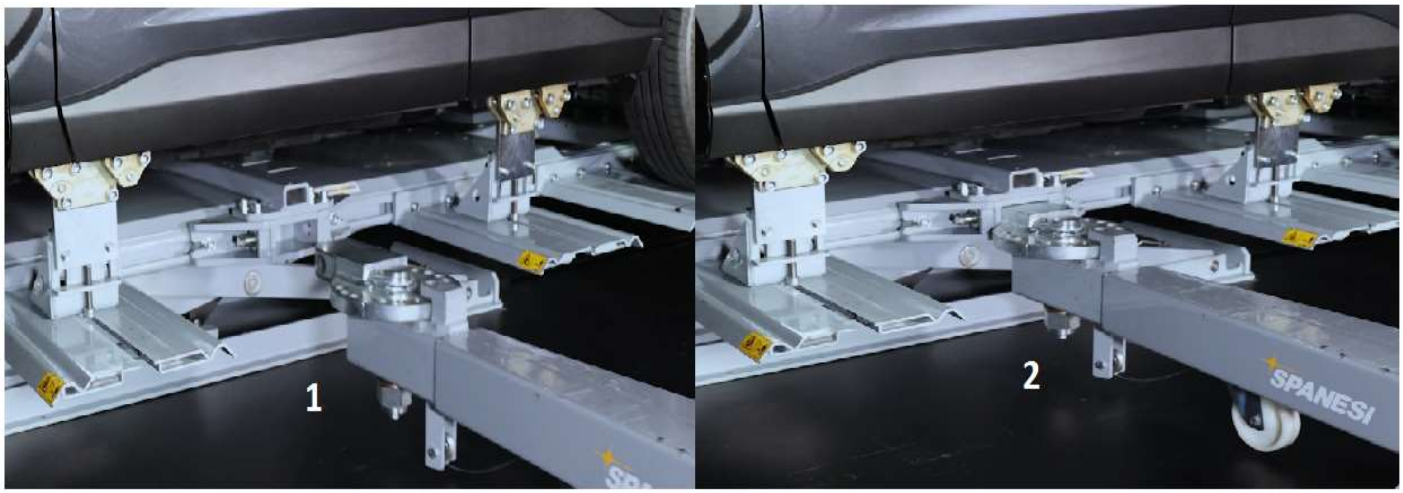
- For a front or back pull, take the pull arm from where it was temporarily placed and place it where the square area delimited by the end of the upper mobile platform and the two angled platform groups will be located after the elevator is lowered (1), with the block ready to be inserted into the hole in the upper mobile platform. Lower the lift to the height of the pull arm; the back of the safety pin support (5) should be within the square area (2). With the lift stopped at the first safety pin (3), push the pull arm into the upper moving platform until the safety pin is locked into the lock insertion hole (4).

FIGURE 4.9 – PULL ARM BLOCK INSERTION: FRONT OR BACK PULL MODE



- For side pull mode, take the pull arm from where it had been temporally positioned and place it near one of the two sides (1). With lift stopped at pull arm height, insert the pull arm block as far the lift safety piston locks the pull arm to the mobile platform (2).

FIGURE 4.10 - PULL ARM BLOCK INSERTION: SIDE PULL MODE



DANGER! If a dangerous situation occurs, immediately press the red mushroom-shaped emergency stop button.

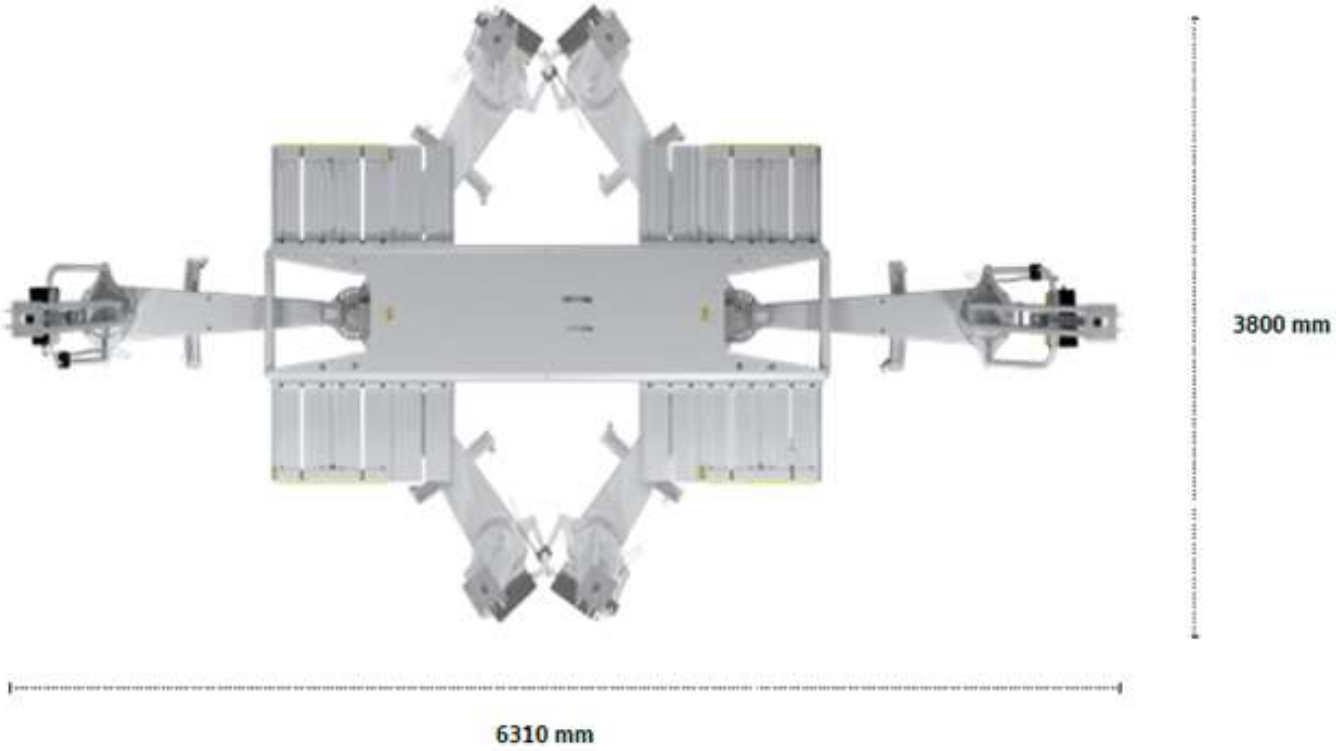


FIGURE 4.11 - PULL ARM WORKING RANGE

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4.6.1. USING THE ADJUSTABLE PULL ARM

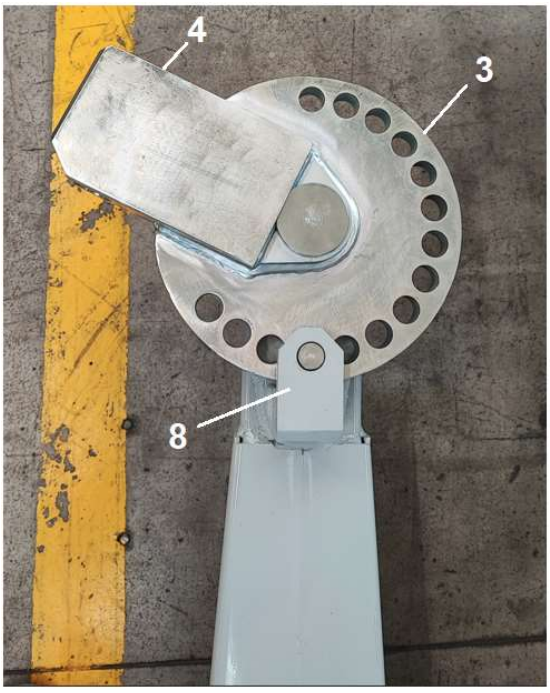
When the adjustable pull arm is fitted to the **MULTIBENCH**, diagonal pulls can be performed in optimum conditions because the arm upright can be rotated on the vertical plane. In this case, the best working condition is obtained by first rotating the base of the pull arm with respect to the lift on the horizontal plane using the adjustment plate (3 – fig.4.4) and then by rotating the upright (2 – fig.4.4) to the correct pull direction.
To perform this operation, proceed as follows (fig. 4.4):

- Push the lever (9 – fig.4.4) all the way until it comes to the end of its stroke: in this way, the mechanism (5 – fig.4.13) automatically releases the coupling pin (8 – fig.4.13), freeing the base (1 – fig.4.13) from the adjustment plate (3 – fig.4.13).

FIGURE 4.10 - PLATE LOCKING PIN RELEASE LEVER

- Rotate the pull arm to the required side until you reach the selected position.

FIGURE 4.11 – ROTATIONAL PLATE



- Fully release the lever (13 – fig.4.4) and slowly rotate the pull arm until the coupling pin returns to its housing on the adjustment plate, re-locking the whole unit to the flange (4 – fig.4.11).

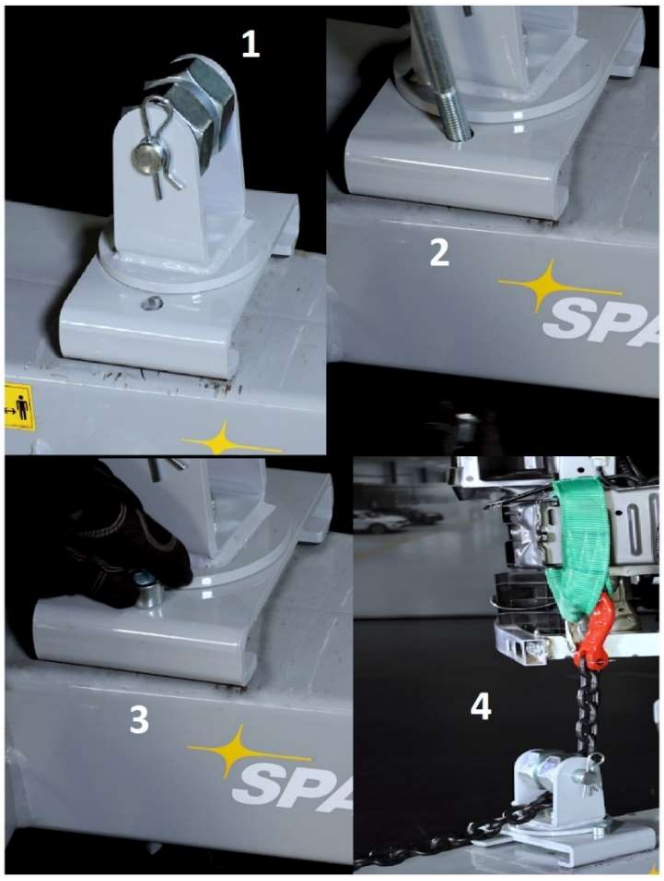
DANGER! Before rotating the pull arm upright on the vertical plane, check that there are no persons, animals or things in the working range of the upright. Incorrect operation or accidental collapse of the upright can result in serious injury and damage. You are advised to use two people for this operation if possible.

- Position the pulley (14 – fig.4.4) on the upright (2 – fig.4.4) by locking it in place at the required height by means of the pin (15 – fig.4.4).

FIGURE 4.14 – PULL ARM PULLEY

- If necessary, for pull down mode, place a second pulley with its support (1) on the holes on the base of the pulling arm, insert the long screw (2), secure it with the bolt (3) and follow the same procedure for the second screw. Slide the chain under the pulley (4) and hook it to the belt positioned at the spot you want to repair.

FIGURE 4.15 – PULL ARM PULLEY FOR PULL DOWN MODE

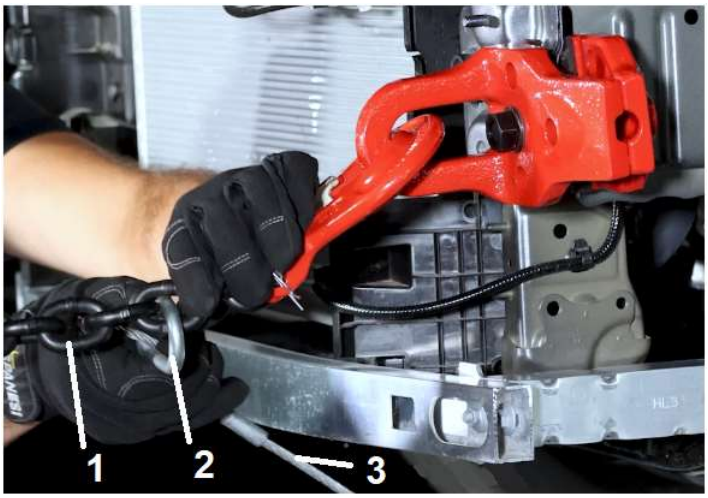


- Fit the pull chain (2).

FIGURE 4.16 – CHAIN (2) HOOKED (1) TO A CLAMP (3) OR DIRECLY TO THE POINT ON THE VEHICLE TO BE STRAIGHTENED

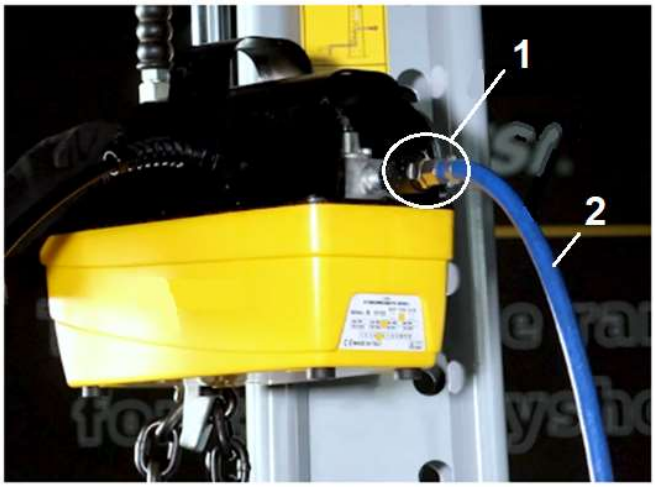
- Attach the free end of the pull chain (1) to the point of the vehicle you wish to straighten. Fix the safety rope (3) to the chain with the hook (2).

FIGURE 4.17 – SAFETY ROPE



- Connect the compressed air pipe (2) to the fast coupling of the pump (1) and tension the pull arm by means of the proper control.

FIGURE 4.18 – CONNECTION COMPRESSED AIR PIPE TO THE PUMP

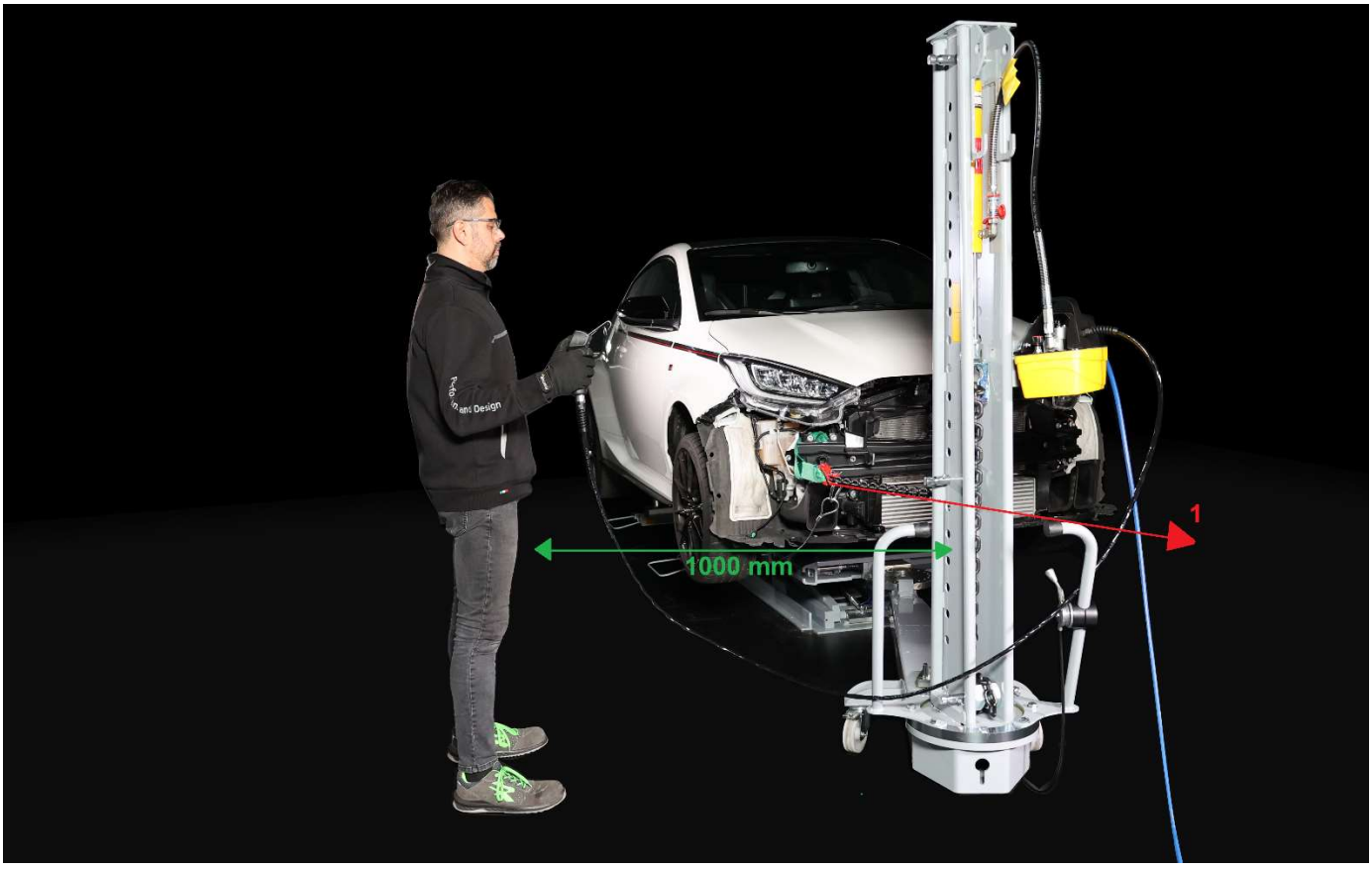


4.6.2. HOW TO CONTROL THE PULL ARM

DANGER! Before rotating the pull arm upright on the vertical plane, check that there are no persons, animals or things in the working range of the upright. Incorrect operation or accidental collapse of the upright can result in serious injury and damage. You are advised to use two people for this operation if possible.

DANGER! Keep a safe distance of at least 1 meter from the pulling arm when the chain is in tension. The operator should not stay behind the pull arm or in the same direction of the chain (Figure 4.17 – Number "1"). Position yourself to one side of the pulling arm, keeping the safe distance. See figure 4.19 to understand how to use the pull arm at the right safe position.

FIGURE 4.19 – WORKING POSITION WHEN USING PULL ARM



DANGER! Only prepared personnel must use the pull arm. Spanesi declines all responsibility for damages caused by failure due to lack of experience and miscorrect use of the pulling arm.

When the pump is connected to the compressed air pipe, the operator can start straightening works:

- Press the "Up button" on the left (1 – fig.4.20) to straight the vehicle's point that the operator wishes to repair, until the chain is completely taut.
- Press the "Down button" on the right (2 – fig.4.20) to decrease chain tension, until the operator can unhook the chain.

FIGURE 4.20 –PULL ARM CONSOLE BUTTON

4.6.3. REMOVING THE PULL ARM FROM THE MULTIBENCH

When you wish to remove the pull arm from the **MULTIBENCH**, proceed as follows (figures 4.4, 4.16, 4.17 e 4.20):

WARNING! Before lowering the lift, check that below and around there are no persons, animals or things that could be trapped or crushed in the event of the vehicle falling off.

CAUTION! Never lower the MULTIBENCH in the <COMPLETE DESCENT> mode when the pull arm is inserted: this can result in serious damage to the structures of both the arm and lift.

After repair works are over, approach the pulling arm and follow the steps below:

- Decrease chain tension pressing “Down button” (2 – fig.4.20) of pull arm console button.
- Unhook safety rope (3 – fig:4.17).
- Unhook the chain (2 – fig.4.16) from the clamp or the straightened point of the vehicle body (3 – fig.4.16).
- If the base of the pulling arm is not at a perpendicular position to the front plane of the lift, pulling down the lever (9 – fig.4.4) to free the pin, return the base of the pulling arm to a 90° angle to the front plane (the starting position).
- Pull up the lever (9 – fig.4.4) that was lowered earlier to secure the base to the horizontal plate using the pin.
- Pull the pneumatic release control of the pull-arm retention mechanism on the control unit's button panel (11 - fig.4.4), thus releasing the pin that secured the lock on the support.
- Disengage the pulling arm by dragging it backward again using the handle (17 – fig.4.4) and place it at a safe distance and space that is not in the way of people or the operators themselves.

5. SAFETY DEVICES

5.1. SAFETY DEVICES

The **MULTIBENCH** is provided with several safety devices for protecting the operator.

WARNING! The following devices must under no circumstances be tampered with or removed. They must always be kept in perfect working order.

The following devices are installed on the **MULTIBENCH**:

- NON-RETURN MECHANICAL SAFETY DEVICE
- SAFETY LOCK VALVE
- EMERGENCY STOP BUTTON
- RESET BUTTON
- LOW VOLTAGE CONTROLS ELECTRICAL CIRCUIT
- MAGNETOTHERMAL OVERLOAD CUT-OUT
- SAFETY WARNING NOTICES

5.2. NON-RETURN MECHANICAL SAFETY DEVICE

It prevents the lift coming down when work has to be carried out on the hydraulic system. It also acts as an additional safety feature for the lock valve. It consists of a hook which automatically engages in the stops provided on the base of the lift.

5.3. SAFETY LOCK VALVE

It prevents the lift coming down in the event of breakage of one of the steel pipes connecting each lock valve to the controlled lock valve. The valves are normally open and automatically cut in when there is a sudden pressure difference on the two valve fittings caused by breakage of a pipe.

5.4. EMERGENCY STOP BUTTON

Stops all movement instantly when pressed. The button remains locked in the stop position after it has been pressed.

5.5. RESET BUTTON

It prevents movement when there is a power failure for any reason or when the emergency button has been pressed. Once the emergency button has been released, the reset button restores power to the control unit.

5.6. LOW VOLTAGE CONTROLS ELECTRICAL CIRCUIT

It minimizes electrical risks during use of the push-button panel. It consists of a safety transformer which lowers the voltage of the auxiliary circuit powering the control console to 24 V a.c.

5.7. MAGNETOTHERMAL OVERLOAD CUT-OUT

It cuts off the power supply to the electric motor terminals in the event of motor overload and/or overheating. It consists of a magnetothermal contactor set to the current absorption value established by the motor manufacturer.

5.8. SAFETY WARNING NOTICES

They indicate a danger, a prohibition or directions to be followed to ensure operator safety and correct operation of the **MULTIBENCH**.

6. ACCESSORIES

6.1 STANDARD ACCESSORIES

The MULTIBENCH is provided with certain standard accessories, which differ according to the version of the pull arm supplied. The following are normally supplied on delivery (fig. 6.1):

- 1 lift.
- 4 pads.
- 12 platforms (1).
- 1 control console.
- 1 set of flexible pipes for connecting the lift to the control console.
- 1 instruction manual.
- 4 vehicle clamps.
- 4 wheels stoppers (14).

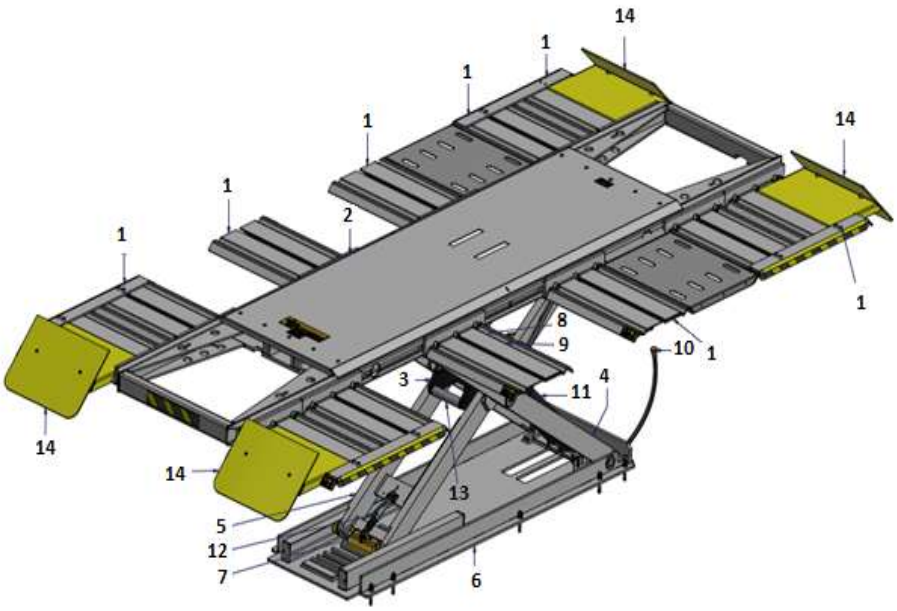


FIGURE 6.1 - PERSPECTIVE VIEW OF THE LIFT

6.2. ADJUSTABLE PULLING ARM EQUIPMENT

The following are normally supplied on delivery (fig. 6.2):

- 1 hydraulic pull arm
- 1 hydraulic-pneumatic pump (10)
- 1 pump connection flexible pipe (16)
- 1 pull chain with hook (13)

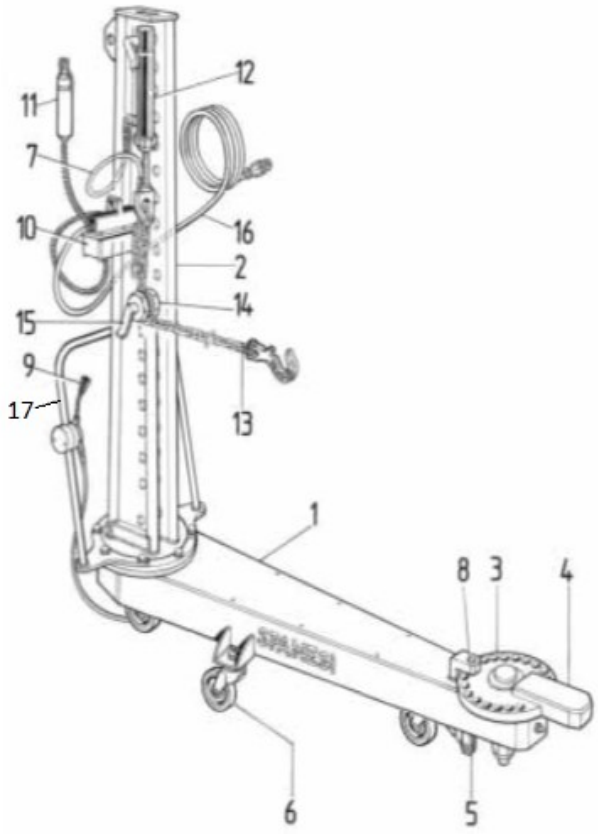


FIGURE 6.2 - ADJUSTABLE PULL ARM

7. SYSTEMS

7.1. LIFT SYSTEMS

The **MULTIBENCH** is electro-hydraulically operated. The main source of energy is electricity, supplied from the mains in the bodyshop where it is installed. The lift is hydraulically powered by means of a gear pump. The lift pull arm is hydraulically powered by a hydraulic-pneumatic piston pump, which is supplied with compressed air coming from the bodyshop distribution system, or an external accumulation unit (not supplied).

7.2. LIFT HYDRAULIC DIAGRAM

The operating diagram of the **MULTIBENCH** hydraulic system consists of a circuit with the following main components:
1) Lift control gear pump.
2) Three-phase electric motor.
3) Main pressure relief valve.
4) Motor-pump coupling joint.
5) Suction filter.
6) Unidirectional valve.
7) Quick-fi t pressure gauge connection.
8) Flow control valve.
9) 2-way/2-position solenoid valve, ascent/descent control.
10) Safety lock valve (against pipe breakage).
11) Single-acting pair of pistons for lift control.
12) Control unit tank.
13) Electrohydraulic unit.

OPERATION
By enabling the ascent control, the electric motor (2)
rotates the pump (1); the oil under pressure is conveyed to the plunger chambers of the pair of pistons (11) and passes through the lock valve (10) thus raising the mobile platform.
The lift is lowered by means of the solenoid valve (9) which connects the main duct to the outlet, thus allowing the oil to flow into the tank (12).
The flow control valve (8) controls the flow of oil from the pistons, thus keeping the descent speed within the limits provided for by the manufacturer.
The main pressure relief valve (3) prevents the pressure exceeding the value established by the manufacturer. The relief valve must not be tampered with for any reason:

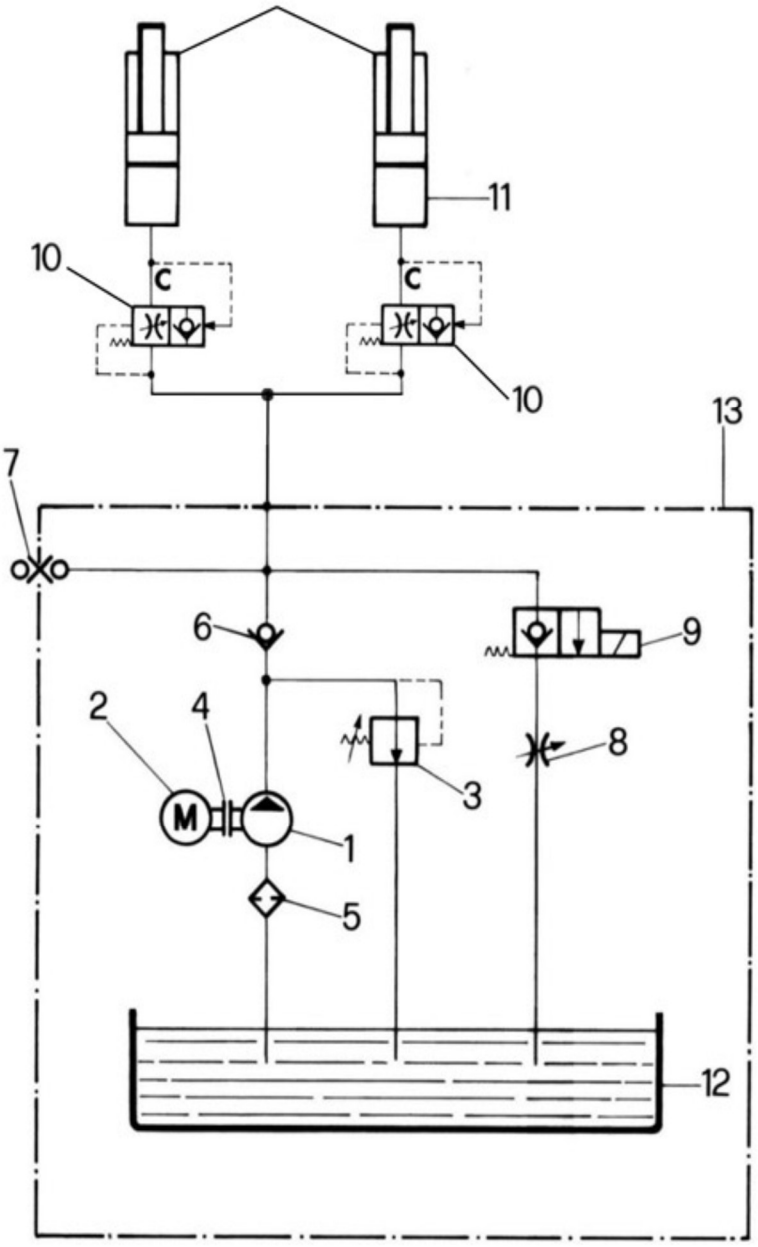


FIGURE 7.1 - HYDRAULIC DIAGRAM

DANGER! Alteration of the relief valve (3) can have serious consequences: SPANESI S.p.A. declines all liability for injury to persons or animals or damage to property due to alteration of the valve.

7.3. LIFT PNEUMATIC DIAGRAM

The operating diagram of the **MULTIBENCH** pneumatic system consists of a circuit with the following main components:

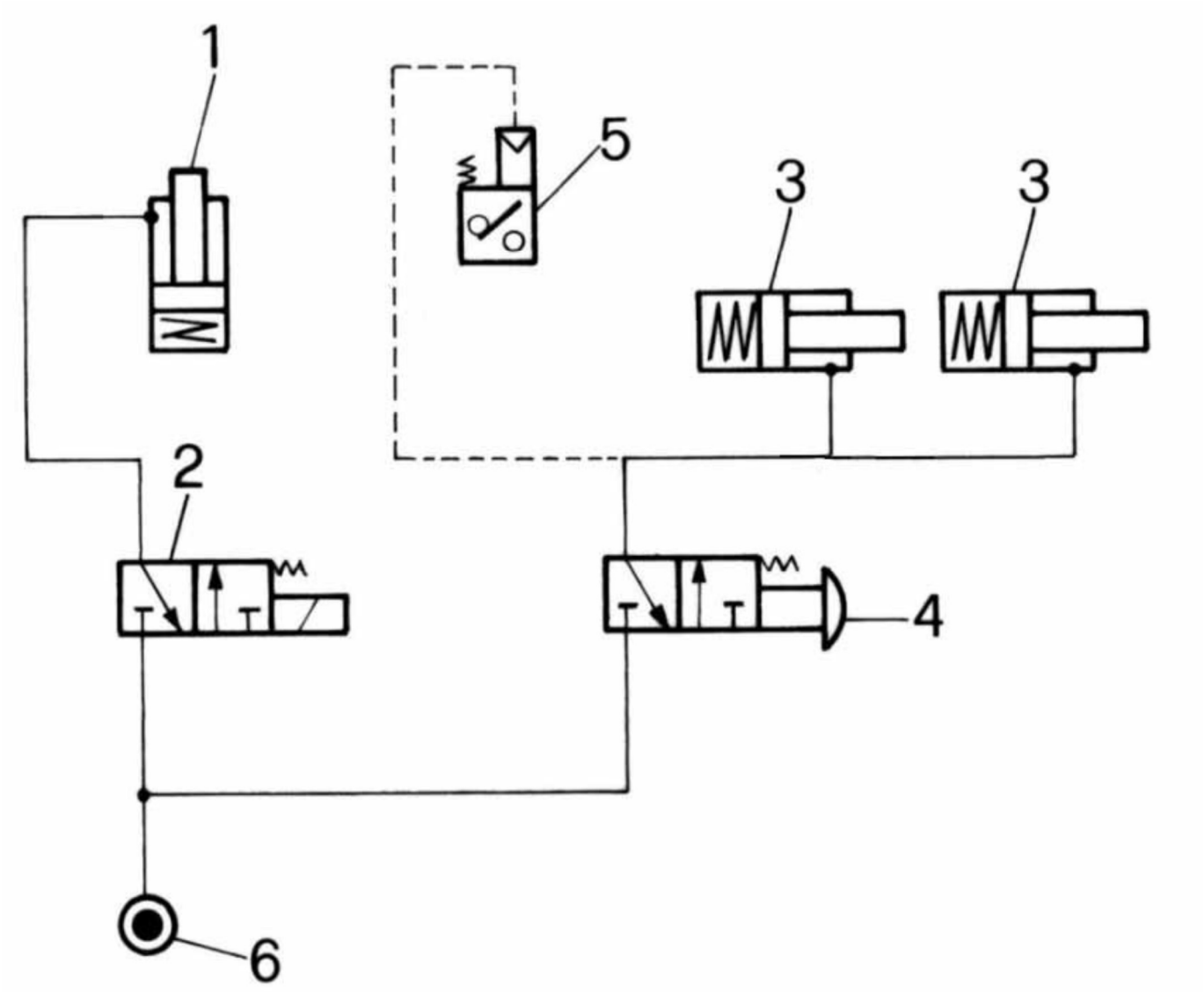


FIGURE 7.2 – PNEUMATIC DIAGRAM

1) Fall-proof safety hook release cylinder.
2) Automatic control three-way valve for fall-proof safety hook release cylinder.
3) Pull arm block release cylinders.
4) Manual control three-way valve for pull arm block release cylinder.
5) Pneumo-electric transducer for controlling pull arm block cylinder.
6) Supply air intake.

OPERATION

When the descent button is pressed on the control console, the compressed air from the regulator-lubricator (not supplied) positioned at the inlet of the supply line (6) is sent through the three-way valve (2) to the cylinder (1) which releases the fall-proof safety hook. When the control is released, the valve connects the air duct to the outlet, permitting automatic insertion of the safety hook by means of the return spring.

The regulator-lubricator unit is not supplied by the manufacturer as it is an integral part of the bodyshop compressed air supply system.

7.4. PULL ARM HYDRAULIC - PNEUMATIC DIAGRAM

The operating diagram of the hydraulic- pneumatic system of the lift pull arm is composed of the following main components:

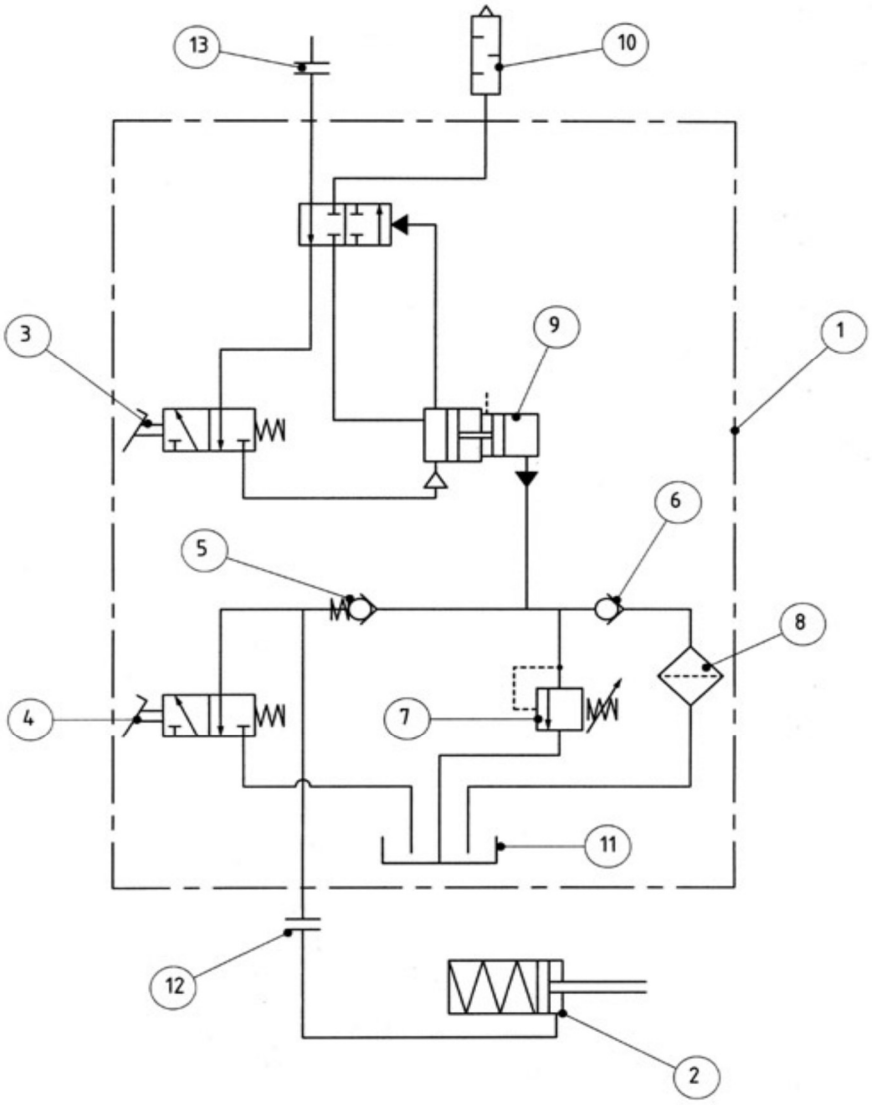


FIGURE 7.3 – PULL ARM HYDRAULIC - PNEUMATIC DIAGRAM

1) Hydraulic-pneumatic pump for pull arm.
2) Pull arm piston body.
3) Arm traction valve.
4) Traction release control valve.
5) Check valve.
6) Unidirectional valve.
7) Pressure relief valve.
8) Oil filter.
9) Pump casing.
10) Air silencer.
11) Hydraulic-pneumatic pump oil tank.
12) Auxiliary fitting for oil use.
13) Compressed air intake.

OPERATION:
When the pedal (3) on the hydraulic pneumatic pump (1) is pressed, the pump casing (9) pressurises the hydraulic circuit and sends the pressurised oil to the plunger chamber of the pull arm piston (2) which tensions the arm.
When you wish to release the tension, press the pedal (4) in the opposite direction, thus connecting the main duct to the pump outlet and allowing the oil to flow to the tank (11).
In the absence of pressure, the piston will return to its rest position because of the spring inside.
The pressure relief valve (7) prevents the pressure from exceeding the value established by the manufacturer. The relief valve must not be tampered with:

WARNING! Alteration of the relief valve will seriously damage the pull arm and MULTIBENCH: SPANESI S.p.A. declines all responsibility for injury to persons and animals or damage to property due to alteration of the valve.

7.5. WIRING DIAGRAM

The operating diagram of the electrical system consists of a main power circuit and a low voltage auxiliary control circuit consisting basically of:

M: Electrohydraulic control unit motor, 1.5 kW – 4 poles.

Q1: Magneto-thermal overload cutout with mushroom-shaped release and reset button.

EV1: Pneumatic solenoid valve for fall-proof safety hook release control.

EV2: Hydraulic solenoid valve for lift descent control.

KM: Three-pole contactor + 24 V pump motor auxiliary

TR: 50 VA transformer, 400-230/ 24 Volt.

SS: <Ascent> button.

SD: <Descent> button.

SQ2: Pull arm coupling safety pressure-switch.

SQ1: Descent mode control safety limit-switch.

PDA: First descenting phase button.

PDB: Second descenting phase button.

SHL1: Power-on> LED.

SHL2: Ascent LED.

SHL3: Descent LED.

SHL4: Release LED.

PF1-PF2: 3.15A 5x20 transformer secondary circuit protection fuse.

PF3-PF4: 1A 6.3 x 31 transformer primary circuit protection fuse.

RL1-RL2: Relays.

SHA: Buzzer.

OPERATION:
When the contacts of the master switch (Q1) are closed, the current flows in both circuits. The transformer (TR), connected to two phases of the power circuit by means of the two-pole fuse-carrier (PF3-PF4), lowers the voltage from 400/230 V to 24 V to feed the auxiliary circuit. In this way, only the control unit motor power supply circuit is powered by the 400/230 V-line voltage. The pump is rotated by the electric motor when the contacts of the contactor (KM) are closed by the closing of the contacts of the <ascent> (SS) or <descent> (SD) buttons. The closing of the <ascent> button contacts simultaneously trigger the energizing of the <ascent> solenoid (EV1) of the hydraulic solenoid valve. The closing of the <descent> button contacts simultaneously trigger the energizing of the <ascent> solenoid (EV2) of the hydraulic solenoid valve and the solenoid (EV1) of the pneumatic solenoid valve for fall-proof safety hook release. The auxiliary control circuit is disabled when the contacts of the mushroom headed emergency button (Q1) are opened by the operator, preventing all movement. This also disconnects all voltage from both the auxiliary circuit and the power supply to control unit motor (M). To resume normal operation, the mushroom-shaped emergency button must be released and the magnetothermal overload cutout (Q1) must be reset.

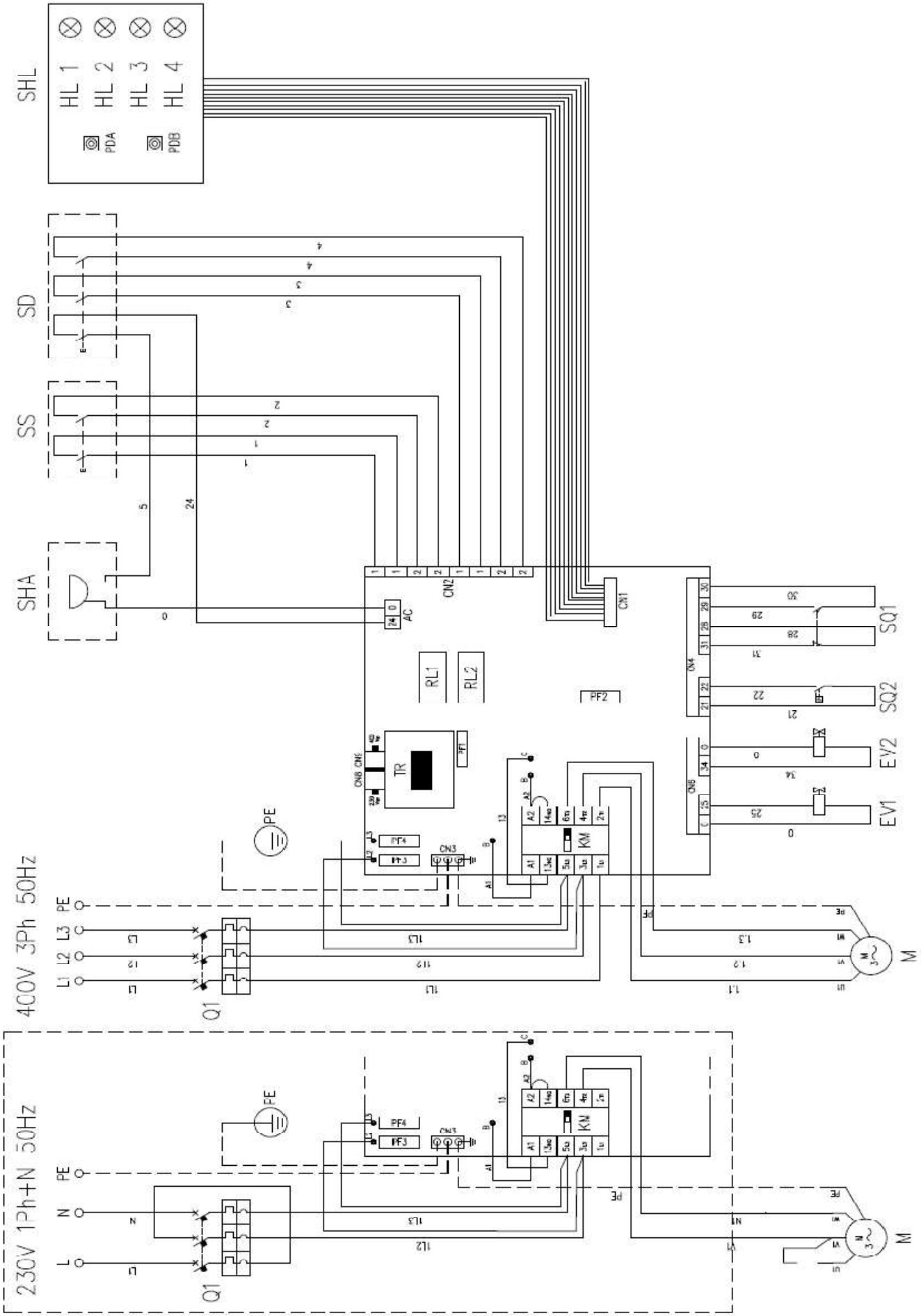


FIGURE 7.4 - WIRING DIAGRAM 50/60 Hz

8. MAINTENANCE

WARNING! To ensure efficiency and correct operation of the MULTIBENCH it is essential to follow the instructions given below, performing cleaning and routine maintenance to ensure functionality and optimum performance. Cleaning and routine maintenance operations must be performed by authorized personnel according to the instructions given below and in complete safety.

The **MULTIBENCH** does not require any maintenance as the pins and sliding surfaces operate on long-life self-lubricating bushes. You are nevertheless advised to constantly monitor the equipment and take immediate action whenever faults, unusual wear or breakages occur.

CAUTION! The oil used for the hydraulic system is HYDRAULIC OIL NUTO H 46. Use the same oil or equivalent. The control console tank is filled with 4 litres of oil.

CAUTION! The oil used for pull arm pump can be MOBIL DTE 11, SHELL TELLUS OIL T15, or CASTROL HYSPIN AWH15. Use one of these oils or equivalent. The pump tank is filled with 2,5 litres of oil.

WARNING! For this operation you are always advised to use the same type of oil and always use the special funnel supplied with MULTIBENCH to refill the tank. If you wish to use oil of the same type but a different brand, you are advised to wait until the oil change.

8.1. ROUTINE MAINTENANCE

To ensure efficiency and correct operation of the **MULTIBENCH** it is essential to follow the instructions given below, performing cleaning and routine maintenance to ensure functionality and optimum performance. Cleaning and routine maintenance operations must be performed by authorized personnel according to the instructions given below and in complete safety.

CAUTION! The frequencies of the maintenance operations listed are a guide and refer to normal operating conditions. Conditions can vary in relation to the type of service, frequency of use and the amount of dust in the environment. If the machine is used in heavy duty conditions, maintenance must be increased. Always use the same type of lubricant as the type used previously when topping up the level, changing the oil or greasing. The grease points must be thoroughly cleaned with compressed air before lubrication to prevent dust, dirt or foreign bodies mixing with the lubricant.

ONCE A DAY:

- Before starting work, check operation of the emergency stop button.

FIGURE 8.1 – EMERGENCY STOP BUTTON

- Check correct operation of the lift ascent stroke end microswitch (1) by running an ascent-descent cycle.

FIGURE 8.2 – MICROSWITCH

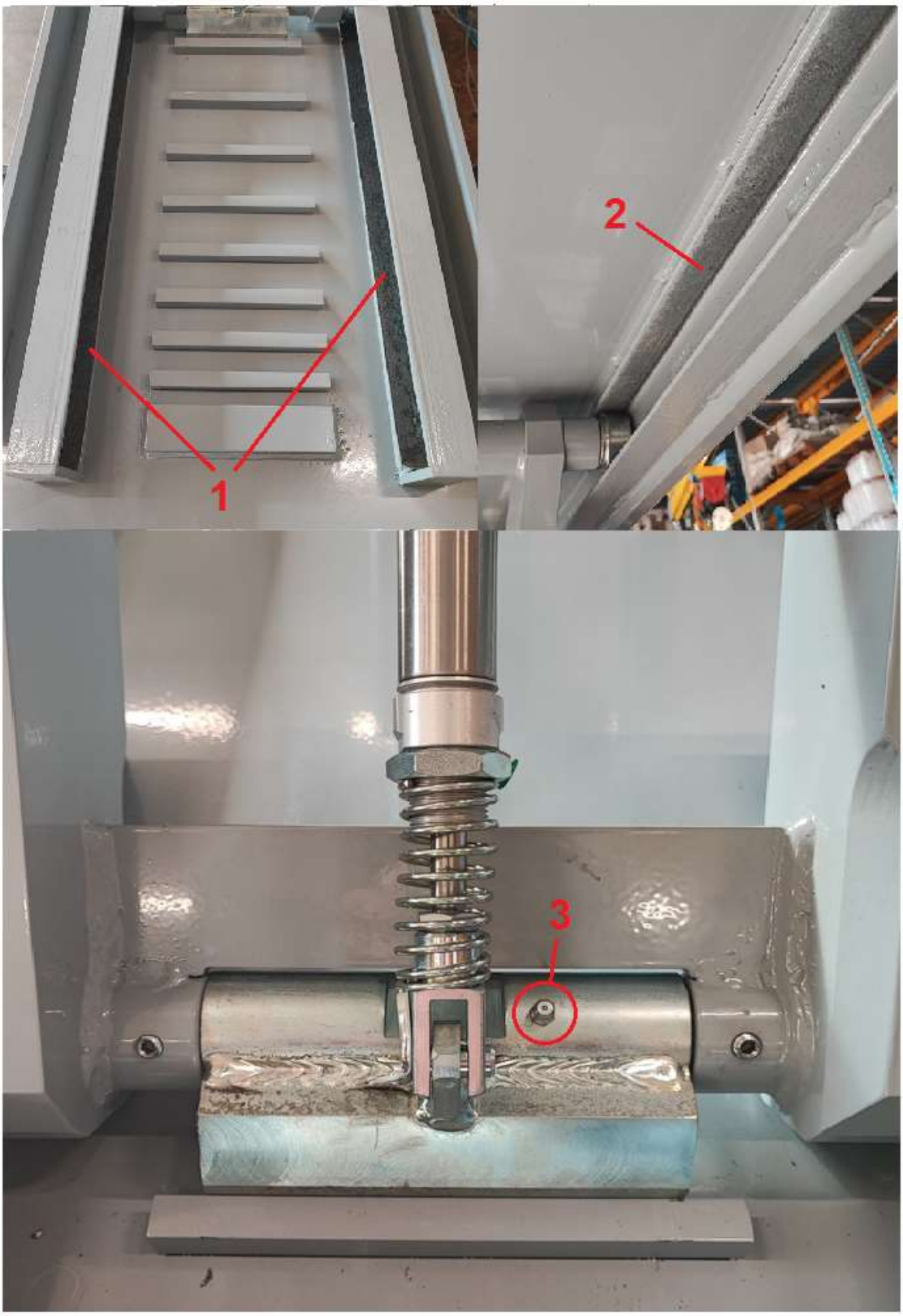
- Remove any dirt, grinding or welding remains, sealant etc. and check the condition of the structure to ensure that it is always in perfect working order.
- Ensure that there are no leaks of hydraulic oil from the hydraulic-pneumatic control pump (4), from the pull cylinder (2) or from the connecting pipes (1-3) (if leaks are found, contact your dealer).

FIGURE 8.3 – PULL ARM PUMP, PULL CYLINDER AND PIPES

ONCE A WEEK:

- Check the slide and hinge points once a week, and if necessary, lubricate and grease the guides (1 and 2), where wheels slide along the sides of the base, or hinge points (3) by means of the safety hook lubricator. Check the oil level in the control unit tank: it must be near the filling/control plug.

FIGURE 8.4 – HINGE POINTS TO LUBRICATE



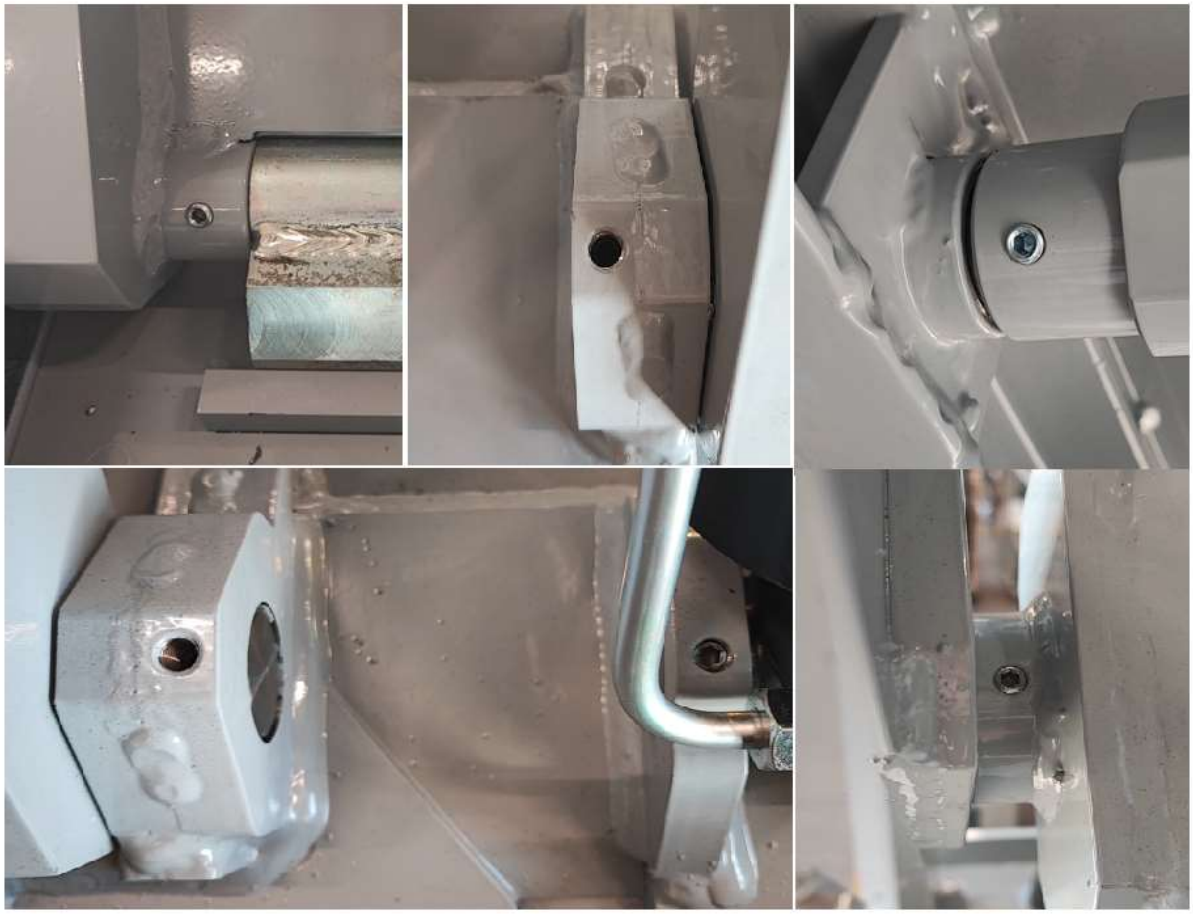
- If necessary, top up the tank with hydraulic oil via the filling/ control plug hole. For this operation you are always advised to use the same type of oil. If you wish to use oil of the same type but a different brand, you are advised to wait until the oil change.

FIGURE 8.5 –UNIT TANK PLUG HOLE

ONCE A MONTH:

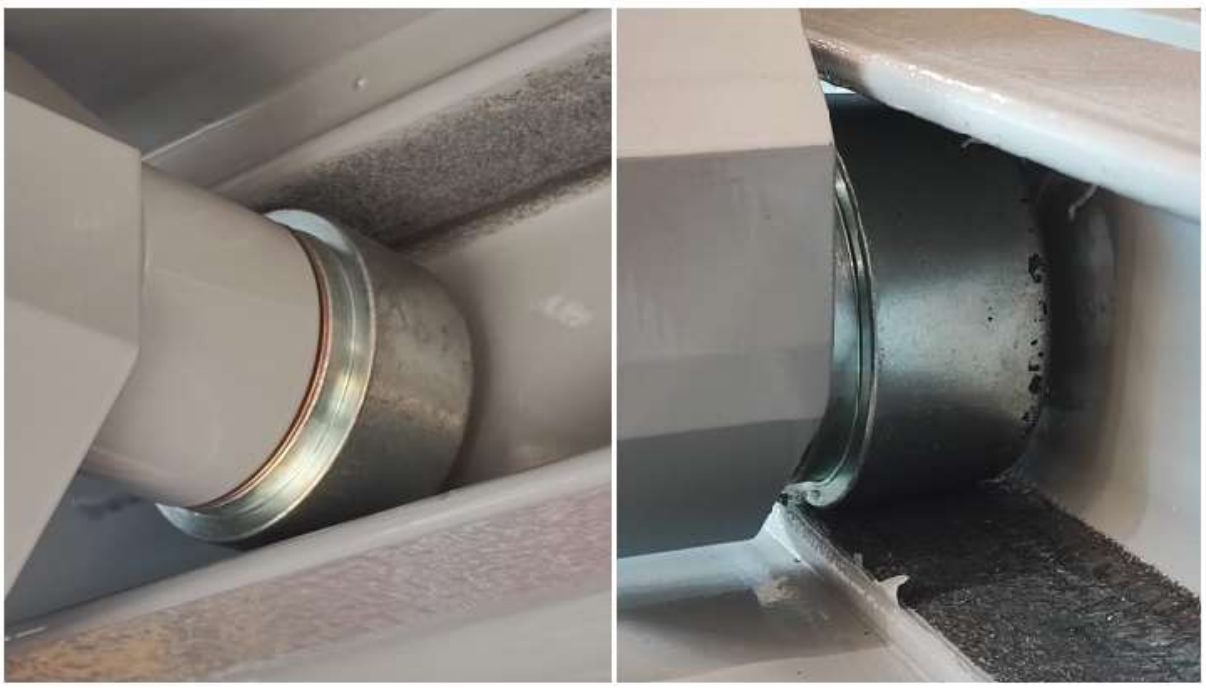
- Check tightening of the bolts of pins.

FIGURE 8.6 – SOME BOLTS OF PINS



- Check the condition of the structures and parts subject to wear and if necessary, replace the worn or damaged parts (wheels and pins).

FIGURE 8.7 – PARTS SUBJECT TO WEAR



- Check sliding parts of the pull arm: fixing ring of the upright (1), all the pulleys, horizontal rotational plate (2), pull arm pins (3) and bolts and the wheels (4). Keep clean and eventually grease upright fixing ring.

FIGURE 8.8a – PULL ARM SLIDING PARTS

FIGURE 8.8b – PULL ARM SLIDING PARTS

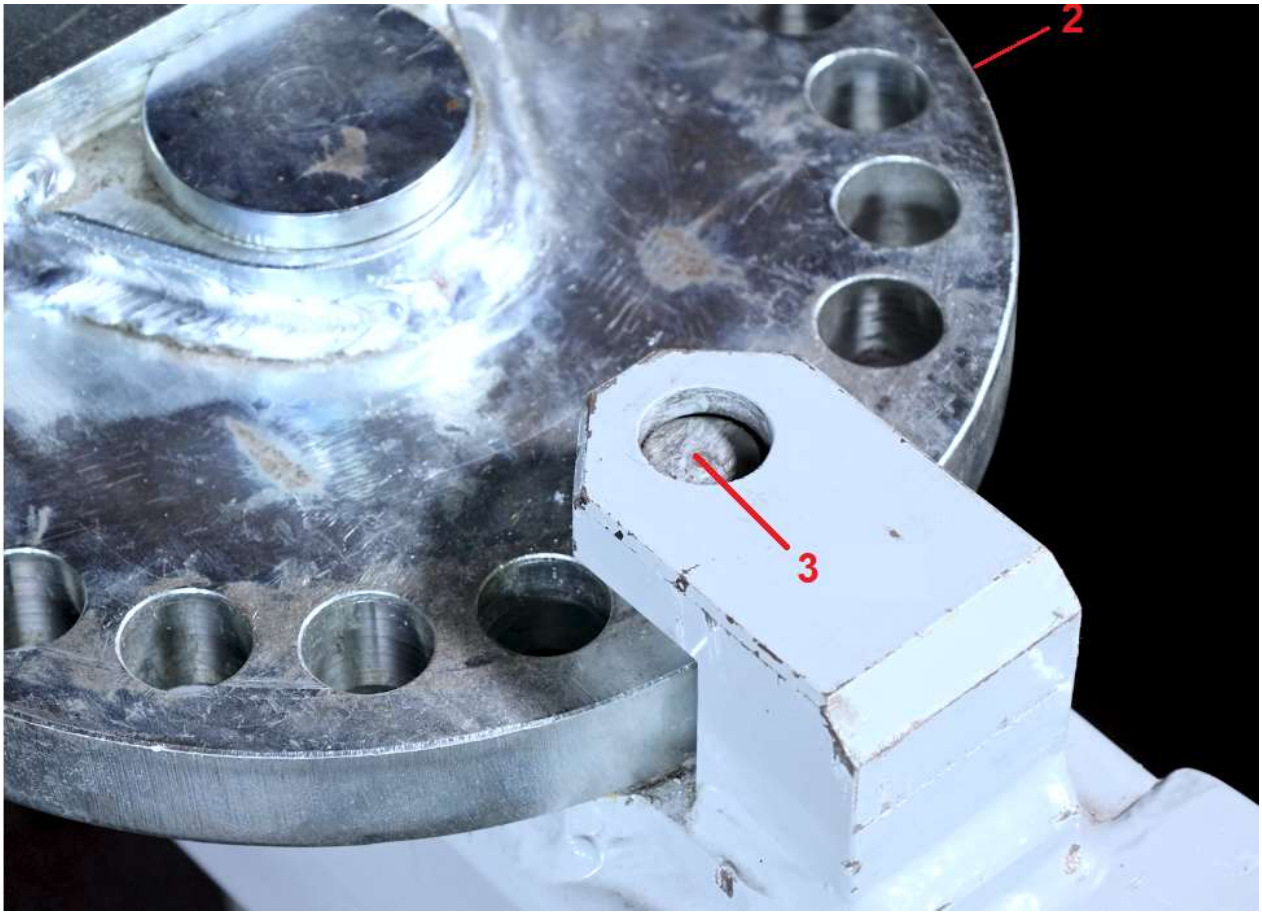


FIGURE 8.8c – PULL ARM SLIDING PARTS

- Check the oil level on the pull arm hydraulic-pneumatic pump and fill up, if necessary, with oil of the type specified in the pump manual and at the beginning of this section.

FIGURE 8.9 – OIL LEVEL OF PULL ARM PUMP

- Check that the rope of the winch (1) (if provided) is in perfect condition.

FIGURE 8.9 – OIL LEVEL OF PULL ARM PUMP

ONCE EVERY TWO YEARS:

- Change the system hydraulic oil, with same type of oil or equivalent. Empty completely the tank of all old oil. Then, with the help of special supplied funnel, fill it up with 4 litres of new hydraulic oil.
- Check the oil level on the pull arm hydraulic-pneumatic pump and fill up, if necessary, with oil of the type specified in the pump manual and at the beginning of this section. Use always special supplied funnel when doing this operation.

WARNING! Observe the laws in force in the country where the machine is being used as regards use and disposal of the products employed for cleaning and maintenance, following the manufacturer's directions.

8.2. EXTRAORDINARY MAINTENANCE

CAUTION! Extraordinary maintenance operations (repairs of parts or components) can only be performed by qualified personnel of SPANESI S.p.A. or authorized by SPANESI S.p.A.

Work on the hydraulic or electrical system, even if not extensive, is considered part of extraordinary maintenance and must therefore be performed by specialist personnel. The request must be sent directly to SPANESI S.p.A. by fax (preferably notifying by telephone first), specifying the type of request or problem encountered.

WARNING! If the machine is scrapped at the end of its working life, you are required to comply with the anti-pollution laws in force in the country where the machine is being used.

8.3. RECORDING THE MAINTENANCE OPERATIONS

The routine and extraordinary maintenance operations must be transcribed in the suitable recording check book.

9. TROUBLESHOOTING

9.1. FAULTS, CAUSES AND SOLUTIONS

FAULT	POSSIBLE CAUSE	PROBABLE SOLUTION
The lift does not work: no reaction	1. No power.	Check the distribution panel and if necessary, set the master switch to the correct position.
		Check the position of the mushroom-headed button on the control console; if necessary, release it and then press the reset button.
		Turn off the master switch on the power supply panel, open the box on the control unit and check the condition of the fuses. Replace the fuses if necessary.
	2. Electric motor burnt out.	Replace the electric motor.
	3. Pump out of order.	Replace the pump.
When the <ascent> command is given, the lift does not move up or has difficulty in moving up.	1. Not enough oil in control unit tank.	Check the tank level and top up if necessary.
	2. Pump very worn.	Replace the pump.
	3. Ascent solenoid valve jammed or out of order	Check the solenoid valve and replace if necessary.
Insufficient lift capacity.	1. Hydraulic circuit operating pressure insufficient.	Check the pump operating pressure on the pressure gauge. Replace the pump if necessary.
Sliding of the pull arm is obstructed.	1. Dirt present.	Remove any dirt or remains of machining and lubricate.
The pull arm vertical column does not rotate easily or does not rotate at all.	1. Lack of lubrication.	Grease the base of the column again; if this is not sufficient, adjust the fixing flange.
The pull arm hydraulic-pneumatic pump leaks oil.	1. See specific instruction manual.	See specific instruction manual.

10. SPARE PARTS

10.1. COMPONENTS AND SPARE PARTS LIST

The spare parts list for the **MULTIBENCH** is given below. The lift, the adjustable pull arm and the control console accessory lists are attached at the end of this manual.
Orders for spare parts must be made solely to:

Spanesi S.p.A.
Via Praarie56/II, Loc. Cavino
35010 S. Giorgio delle Pertiche (PD)

Servizio Assistenza Tecnica
T. (+39) 049 9333203
assistenza@spanesi.it

and the content of the following information:

- badge number
- year of construction
- Code number of the part requested; this can be found in the spare parts lists below.
- Description of the part and quantity required.
- Shipment method and procedures.

Although **SPANESI S.p.A**. pays particular attention to its spare parts service, if the above item is not specified it will not be responsible for any delays in consignment due to circumstances beyond its control. Consignment expenses will always be sustained by the consignee unless otherwise agreed. The goods travel at the customer's risk even if sold carriage paid. The following pages contain the exploded drawings and spare parts lists for identification of parts to be replaced.

WARNING! The exploded drawings given in this manual are designed for consultation and ordering of spare parts: they do not authorize the operator to intervene directly on the lift to replace broken or worn parts. This work must be performed exclusively by competent, skilled, responsible personnel. Damage resulting from incorrect maintenance cannot be charged to the manufacturer and will invalidate the product warranty. SPANESI S.p.A. declines all responsibility for injuries to persons and animals or damage to property because of work carried out by unsuitable or inadequately qualified personnel.

11. LIFT STRUCTURE'S DRAWING

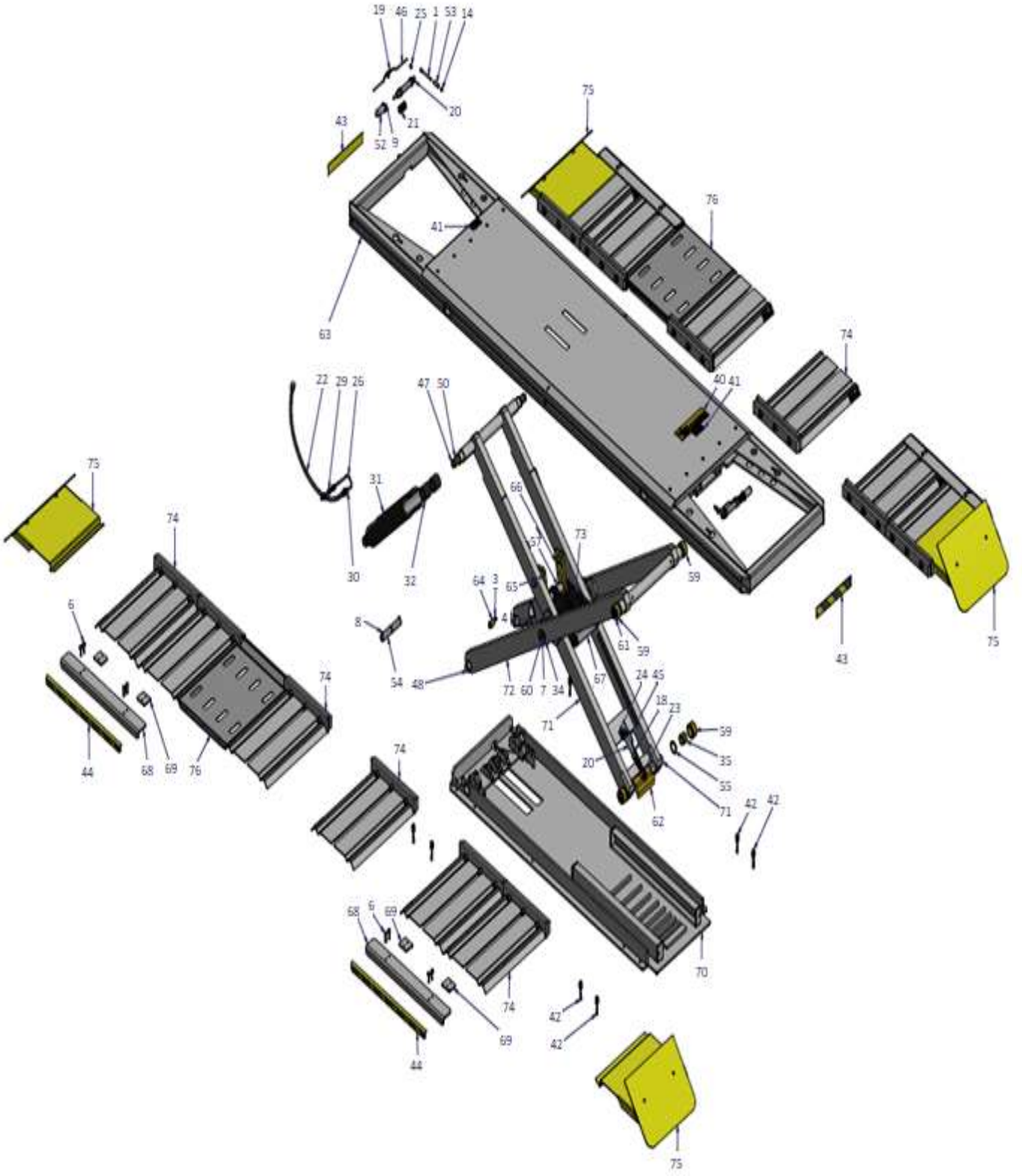


FIGURE 11.1 - LIFT STRUCTURE

N°	CODICE	DESCRIZIONE	QTÀ
1	10030055	VITE TCEI M 8x 90 UNI5931	2
2	10030404	VITE TE M 6x 20 UNI 5739 8.8	2
3	10030405	VITE TBEI M 6x12	2
4	10030406	VITE TBEI M 6X25 UNI7380	1
5	10030525	VITE TCEI M 5x 35 UNI5931	2
6	10030569	VITE TCEI M10x 35 UNI5931	16
7	10030634	VITE TPSEI M10x 20 UNI5933	2
8	10030718	VITE STEI M 8x 10 UNI5927	11
9	10030720	VITE STEI M 8x 16 UNI5927	2
10	10030782	VITE STEI M 8x 12 UNI5927	2
11	10031014	DADO E M 5 UNI 5588	2
12	10031017	DADO E M 6 FLANGIATO	2
13	10031025	DADO E M10 UNI 5589 BASSO	10
14	10031510	DADO AUT. M 8 DIN982 ALTO	2
15	10032503	ROND. PIANA D. 5 UNI6592	6
16	10032504	ROND. PIANA D. 5x20 UNI6593	2
17	10035808	INGRASSATORE M6x1 DIRITTO	1
18	10037345	RACC. 90° D.6 1/8 FISSO RAPIDO	2
19	10037349	RACC. "T" D.6 RAPIDO	1
20	10037353	CILINDRO 1280 25 0050 PNEUMAT.	3
21	10037354	MOLLA ZN GIALLA	3
22	10037362	TUBAZ. R7 TA 1/4 L=5000 FD+FD	1
23	10037366	FORCELLA 1302.32.13/1F	1
24	10037367	CERNIERA D 20/25 1200.20.03	1
25	10037372	SILENZIATORE 1/8" 2901 1/8	3
26	10037417	TUBO SAGOMATO D 8 sp 1.5 PER	1
27	10037418	TUBO DIRITTO D 8 sp 1.5 L=57	1
28	10037419	RACC.ERMETO 90° D.8 CODOLO D.8	1
29	10037420	RACC.ERMETO "T" D.8 CODOLO D.8	1
30	10037421	RACC.ERMETO DIR. D.8 1/4M SVAS	3
31	10037455	CILINDRO D 90 MINIBENCH MAXIPLUS	2
32	10037455	Cilindro D.90 Mini-Maxi perno Ø40	2
33	10038012	RALLA TEMPRATA AS DIAM.30-47	2
34	10038014	RALLA TEFLONATA TW35M 38x62x1.5	2
35	10038225	BOCCOLA AUTOLUBR. 40/44 H 30	4
36	10038230	BOCCOLA AUTOLUBR. 45/50 H 30	2
37	10038231	BOCCOLA AUTOLUBR. 45/50 H 50	2
38	10038233	BOCCOLA AUTOLUBR. 40/44 H 16.5	2
39	10038234	BOCCOLA AUTOLUBR. 20/23 H 30	2
40	10041001	ADESIVO SPANESI GRANDE	1
41	10041017	ADESIVO "NO SALITA"	2
42	10045036	TASSELLO HUS4-C 8 X 85	10
42	10045200	TASSELLO IN PLASTICA 6X30 SENZA VITE	10
43	10053128	NASTRO ADESIVO A BANDE INC. 50x25 GIALLO/NERO (L=320)	2
44	10053128	NASTRO ADESIVO A BANDE INC. 50x25 GIALLO/NERO (L=690X45)	4

N°	CODICE	DESCRIZIONE	QTÀ
45	10061251	TUBO RILSA D.4x6 AZZURRO PA12	1
46	10061252	TUBO RILSAN D.4x6 BIANCO	3
47	50103402	PERNO D.30 L= 670 39NiCrMo3	1
48	50103404	PERNO D.35 L= 96 39NiCrMo3	2
49	50103407	PERNO D.30 L= 360 39NiCrMo3	1
50	50103937	BOCCOLA AUTOLUBR. 30/34 H 40	2
51	50103943	BOCCOLA AUTOLUBR. 35/39 H 40	2
52	50104283	PERNO BLOCCAGGIO PUNTONE	2
53	50104329	DIST. PISTONC.SGANCIO PUNTONE	2
54	50105748	PERNO D.30 L= 84 39NiCrMo3	2
55	50107021	SPESSORE 5mm D.54/40.5	4
56	50107366	PERNO D.45 L= 485	1
57	50107367	PERNO D.40 L= 215 39NiCrMo3	1
58	50107369	PERNO D.20 L= 212	1
59	50107370	RUOTA DI SCORRIMENTO	4
60	50107371	RONDELLA D.e. 60 SP 5	2
61	50107372	TAPPO RUOTA	2
62	60209390	COMP. FERMO SICUREZZA	1
63	60222190	COMP. PIATTAFORMA MINI - PULLIFT	1
64	65105752	LAMIERINO PREMI TUBI	1
65	50126419	BIELLA DX-SX BILANCIERE	1
66	50126419	BIELLA DX-SX BILANCIERE	1
67	50107368	BUSSOLA RULLO BILANCIERE	1
68	70120099	ANGOLARE PER UNIONE PEDANE	4
69	70120100	CONTROPIASTRA PER ANGOLARE UNIONE PEDANE	8
70	70209365	COMP. BASE	1
71	70209370	COMP. LEVA INTERNA	1
72	70209375	COMP. LEVA ESTERNA	1
73	70209385	COMP. BILANCIERE	1
74	80331900	GRUPPO PEDANA CIAO BENCH RIBASSATA ALLUNGATA	8
74	80470000	GRUPPO PEDANA MINIBENCH RIBASSATA	4
75	80590500	KIT PEDANA FERMO RUOTA MULTIBENCH	4
76	80644600	ASS.PEDANA COMPLETAMENTO MULTIBENCH	2

12. ADJUSTABLE PULL ARM'S DRAWING

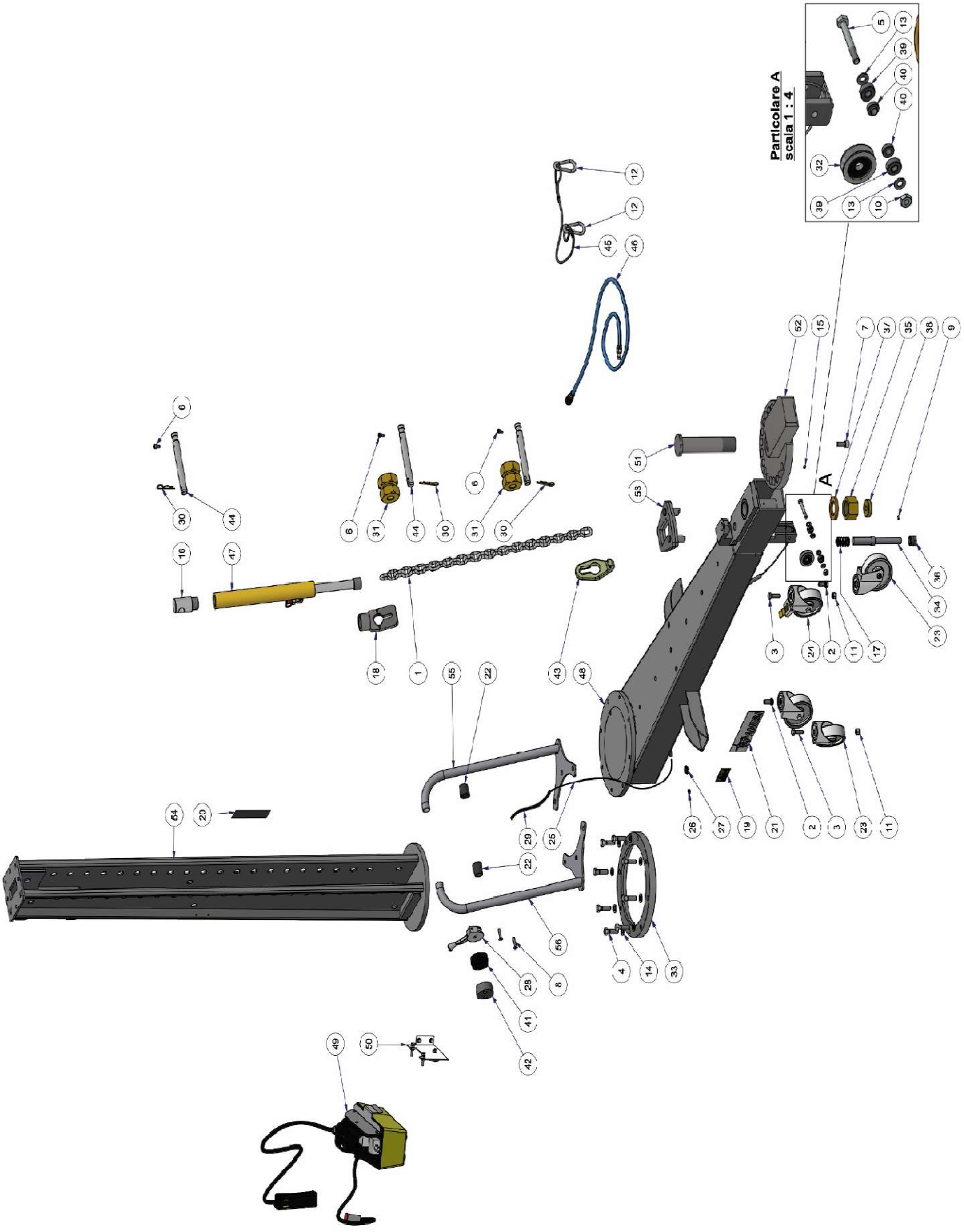


FIGURE 12.1 – ADJUSTABLE PULL ARM

NR°	CODE	COMPONENT	UM	Q.TY
1	10037308	CATENA 2,5m D.10	PZ	1
2	10030078	VITE TE M12x 30 UNI5739	PZ	2
3	10030079	VITE TE M12x 40 UNI5739	PZ	2
4	10030090	VITE TE M14x 50 UNI5737	PZ	8
5	10030108	VITE TE M10x 80x1,5 UNI5737	PZ	1
6	10030544	VITE TCEI M 8x 16	PZ	3
7	10030579	VITE TCEI M16x 35 UNI5931	PZ	1
8	10030626	VITE TPSEI M 8x 40 UNI5933	PZ	2
9	10030749	VITE STEI M 6x 10 UNI5923	PZ	1
10	10031022	DADO E M10 UNI 5588	PZ	1
11	10031024	DADO E M12x1,75 UNI 5587	PZ	2
12	10031701	MOSCHETTONE PER FUNE DI SICUR. D 100	PZ	2
13	10032514	ROND. PIANA D.10 DIN125A	PZ	2
14	10032520	ROND. PIANA D.14 DIN125A	PZ	8
15	10035808	INGRASSATORE M6x1 DIRITTO	PZ	1
16	10037304	ATTACCO CILINDRO MASCHIO 1-1/4" NPT	PZ	1
17	10037354	MOLLA FILO 2.5 De.27 Di.22x100 10S	PZ	1
18	10037306	ATTACCO CATENA AL CILINDRO 1-1/4" NPT	PZ	1
19	10041016	ADESIVO "TENERSI A DISTANZA"	PZ	2
20	10041071	ADESIVO "TIRI PUNTONE"	PZ	1
21	10041097	ADESIVO SPANESI	PZ	2
22	10061308	TAPPO GOMMA D. 30mm	PZ	2
23	10071036	RUOTA GIR. PPR 125/QR	PZ	3
24	10071037	RUOTA GIR. PPR 125/QRD FRENO	PZ	1
25	10080022	FILO ACCIAIO CON PALLINA 2,5m	PZ	1
26	10080023	TERMINALE PER GUAINA	PZ	2
27	10080024	REGISTRO PER GUAINA	PZ	1
28	10080026	LEVA ACCELERATORE ALLUMINIO	PZ	1
29	10080027	GUAINA ACCELERATORE	MT	1
30	50100391	COPIGLIA A MOLLA D.3,9x 80	PZ	3

NR°	CODE	COMPONENT	UM	Q.TY
31	65101089	CARRUCOLA TOTEM	PZ	2
32	50101521	RUOTA CANCELLO d60 GOLA"V" + 2 DISTANZIALI PER VITE D 10	PZ	1
33	50102947	ANELLO FISSAGGIO BASE PUNTONE	PZ	1
34	50103509	PERNO FERMO PIASTRA	PZ	1
35	50103510	GHIERA BLOCCAGGIO PERNO	PZ	1
36	50103955	GHIERA BLOCC.PERNO PIASTRA	PZ	1
37	50103956	RONDELLA De.80 Di.50	PZ	1
38	50103957	RONDELLA De.60 Di.16,5 BLOCC.GHIERA	PZ	1
39	50103964	DISTANZ.PULEGGIA D.25 H10	PZ	2
40	50103965	DISTANZ.PULEGGIA	PZ	2
41	50104850	SUPPORTO LEVA ESTERNO	PZ	1
42	50104851	SUPPORTO LEVA INTERNO	PZ	1
43	50105012	GANCIO ACCORCIA CATENA	PZ	1
44	50133211	PERNO PER CONTROTIRO L= 230	PZ	3
45	50210001	FUNE DI SICUREZZA PER TIRI	PZ	1
46	60202175	SPEZZ. TUBO ARIA 8-12 10m	PZ	1
47	60204775	KIT CILINDRO TRAENTE	PZ	1
48	60205710	COMP. BASE PUNTONE	PZ	1
49	60205720	KIT POMPA E TUBAZIONE	PZ	1
50	60251930	ASS. SUPPORTO LAT. POMPA	PZ	1
51	50103508	PERNO D.50 L= 255 PIASTRA ORIENTABILE	PZ	1
52	65204120	COMP. PIASTRA ROTAZ. ORIZ.	PZ	1
53	65206240	COMP. BLOCCAGGIO INTERMEDIO	PZ	1
54	70202685	COMP. MONTANTE X PUNT. DI TIRO	PZ	1
55	70264195	COMP. MANIGLIONE SX PER PUNTONE A ELLE	PZ	1
56	70264200	COMP. MANIGLIONE DX PER PUNTONE A ELLE	PZ	1

13. CONTROL UNIT'S DRAWING

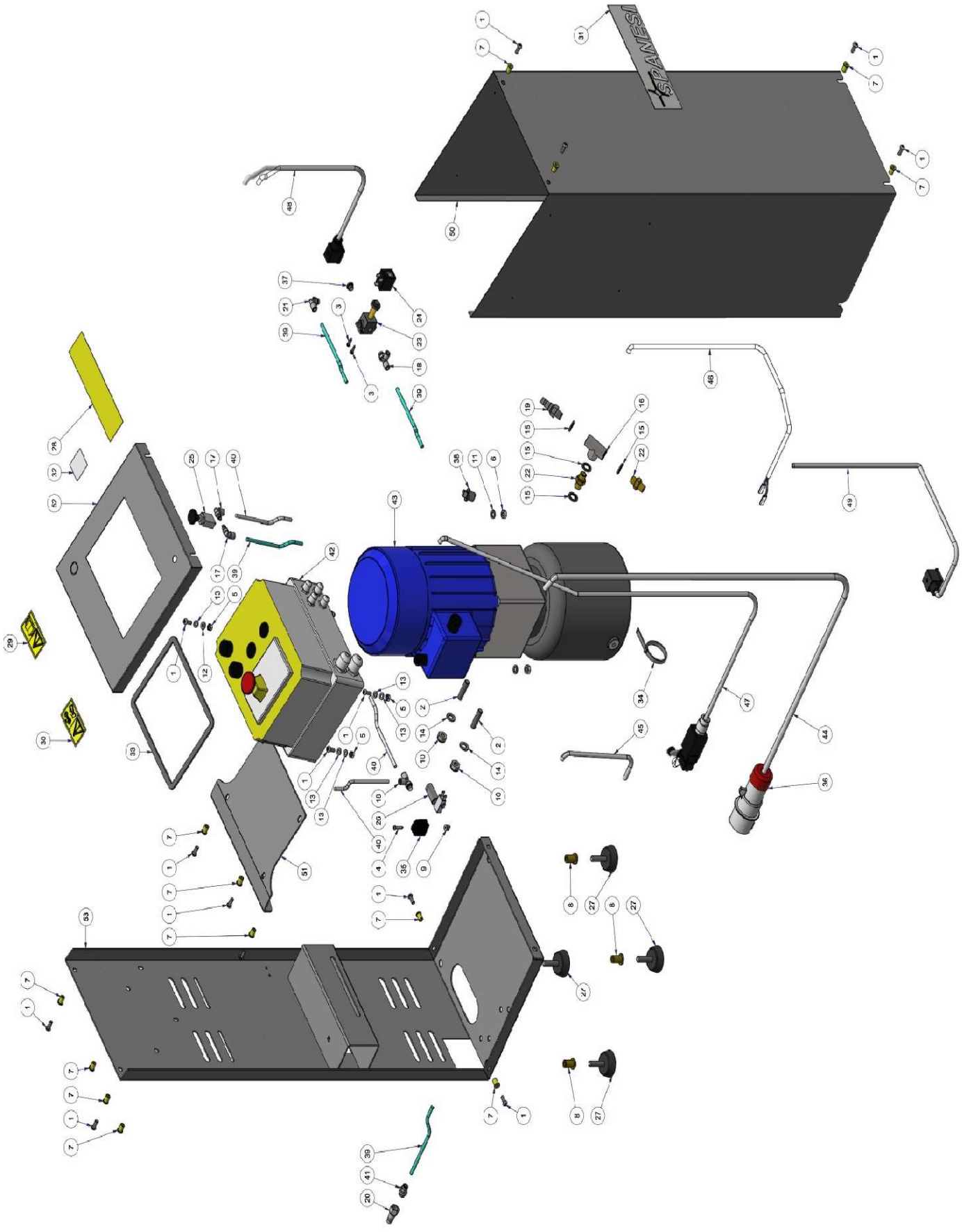


FIGURE 13.1 –CONTROL CONSOLE

NR°	CODE	COMPONENT	UM	Q.TY
1	10030400	VITE TBEI M 6x16 UNI7380	PZ	15
2	10030732	VITE STEI M10x 40 UNI5923	PZ	2
3	10030842	VITE AUTOFI.TC CROCE 3,9x16 DIN 7981B	PZ	2
4	10030850	VITE AUTOFI.TC CROCE 3,9x22 DIN 7981B	PZ	1
5	10031016	DADO E M 6 UNI 5588	PZ	4
6	10031019	DADO E M 8 UNI 5588	PZ	4
7	10031314	INS.TC M 6-030 L=12,5	PZ	13
8	10031316	INS.TC M10-035 L=23	PZ	4
9	10031320	BLOCCH. FISS. TARGHE	PZ	1
10	10031512	DADO AUT. M10 DIN985 BASSO	PZ	2
11	10032010	ROND. GROWER D. 8 DIN 127B	PZ	4
12	10032108	ROND. DENTEL. EST. D. 6-13 DIN 6798-A	PZ	1
13	10032508	ROND. PIANA D. 6x12 DIN125A	PZ	7
14	10032514	ROND. PIANA D.10 DIN125A	PZ	2
15	10032824	ROND. BONDED 1/4"	PZ	4
16	10037296	RACC. "T" 1/4"	PZ	1
17	10037347	RACC. 90° D.6 MM5	PZ	2
18	10037348	RACC. "T" D.6 1/8	PZ	2
19	10037350	NIPPLE BSP 1/4 MALE FJ	PZ	1
20	10037351	INNESTO RAPIDO 15/A OMNI 1/4F ANI/CEJN	PZ	1
21	10037355	RACC. 90° D.6 1/8 GIR.RAPIDO	PZ	1
22	10037360	NIPPLE 1/4" MASCHIO GAS - 1/4" MASCHIO GAS	PZ	2
23	10037368	MECC. PER MICROSOL.305	PZ	1
24	10037369	BOBINA X MICROSOL. 24V 50/60Hz	PZ	1
25	10037371	TASTO NERO 2 POS ST	PZ	1
26	10037373	TRASDUTTORE A FAST.	PZ	1
27	10038322	PIEDINO IN GOMMA D.50x10MA	PZ	4
28	10041027	ADESIVO X CENTRALINA SBLOCCO PUNTONE	PZ	1
29	10041028	ADESIVO "VEDI ISTRUZIONI"	PZ	1
30	10041029	ADESIVO "VEDI MANUTENZIONE"	PZ	1

NR°	CODE	COMPONENT	UM	Q.TY
31	10041097	ADESIVO SPANESI GRANDE	PZ	1
32	10041183	ADESIVO "TIRARE FRENO A MANO"	PZ	1
33	10053008	GOMMA ADESIVA NERA 10x 3	MT	1
34	10054315	COLLARE 7,6x359	PZ	1
35	10054330	SUPPORTO D 15 PC 15	PZ	1
36	10055255	SPINA ILME PE 1664 SV 3P+T 16A 400V	PZ	1
37	10060173	TAPPO 1/8" CON ES. INCASSATO+OR	PZ	1
38	10060174	TAPPO 3/8" MASCHIO CONICO	PZ	1
39	10061251	TUBO ELASTOLLAN D 4x 6 98SH CELESTE	MT	4
40	10061252	TUBO ELASTOLLAN D 4x 6 98SH BIANCO	MT	1
41	10063128	RACC. SUPER RAP.DIR. TUBO 6 1/4	PZ	1
42	50101258	QUADRO ELETTR. 400V 50/60Hz MINI/PONYBENCH	PZ	1
43	10L10006	CENTRALINA OLEOD. 50Hz	PZ	1
43	50102476	MOTORE HP2 (1,5KW) 230/400V 3F	PZ	1
44	50104490	CAVO NPI 4x2,5 L=3500 PER ALIMENTAZIONE	PZ	1
45	50104491	CAVO NPI 4x2,5 L=1000 PER MOTORE	PZ	1
46	50104494	CAVO NPI 2x1 L= 800 PER PRESSOSTATO	PZ	1
47	60205470	CAVO NPI 5x1,5 L=6200 CON FINECORSA FM 531	PZ	1
48	60205600	CAVO NPI 2x1 L= 700 CON CONNETTORE 30x20 PER EV ARIA	PZ	1
49	60205605	CAVO NPI 2x1 L= 900 (0/34) CON CONNETTORE 30x30PER EV OLIO	PZ	1
50	70104303	RIVESTIMENTO CENTRALINA SOLL.	PZ	1
51	70104305	SUPPORTO PULSANTIERA	PZ	1
52	70104361	COPERCHIO CENTRALINA	PZ	1
53	70205055	COMP. SCHIENALE CENTRALINA	PZ	1

14. SUMMARY SHORT VISUAL

- Read the “USER AND MAINTENANCE MANUAL” carefully. Anyone who fails to observe safety precautions and accident-prevention directions set out in the Manual may suffer permanent injury, permanently injure other persons or animals or damage property. Carefully read the instructions contained in the booklets supplied: if in doubt, contact the manufacturer directly.
- Always refer to “USER AND MAINTENANCE MANUAL” to find the complete operation instructions: if any fault occurs, see section 9. “TROUBLESHOOTING” to understand the causes and consequently to implement the right solution.
- The installation, adjustment and testing of MULTIBENCH involve dangerous operations: these operations must be carried out by personnel qualified by Spanesi S.p.A. or by personnel authorized by Spanesi S.p.A., and responsible, who guarantees to operate according to the safety standards applicable in the field of mechanics, electrical engineering, hydraulics and pneumatics.
- The lift must be exclusively intended for the use for which it was built. Any other non-use contemplated in the “USER AND MAINTENANCE MANUALE” is to be considered improper and it is therefore strictly prohibited.
- Never lift persons, animals or things: the lift is designed exclusively for lifting vehicles within the limits specified in the table of capacities.
- Operators must wear Personal Protective Equipment indicated in apposite label.
- Operators have not to wear loose fitting clothes, scarves, ties, chains or earrings, because they can get caught in the moving parts.
- The condition of all the safety devices and the structure of the lift must be checked before using the machine. Periodically check the tightening and seal of the screws and couplings.
- Always check that during lifting, lowering or pulling operations no persons or animals are standing or passing near the lift and the pull arm. Also check that no hoses or tool cables in the area can be squashed.
- Always pull the handbrake before starting the lifting phase, when the load is placed on the lift.
- Always check that the doors of the vehicle positioned on the mobile platform are closed. There must be nothing protruding from the machine.
- While the lift is raising or lowering the vehicle, the operator’s attention shall be drawn by the safe method of carrying the load, checking after a short distance the correctly and safely position of the vehicle.
- Never put your hands or fingers between the scissor levers mechanism while the lift is moving.
- Never touch high voltage areas when control console is connected to the power supply. The corresponding warning label is applied in high-risk areas.
- Always keep a safe distance of one meter from the pull arm during pulling operations

They have not to wear following clothes because they can get caught in the moving parts and accessories that must be avoided from the workplace:

- loose-fitting clothes.
- scarves.
- ties.
- chains.
- earrings.

EC DECLARATION OF CONFORMITY

ACCORDING TO DIRECTIVE 2006/42/EC

WE

SPANESI S.p.A.

VIA PRAARIE, 56/II - LOCALITÀ CAVINO
35010 S. GIORGIO DELLE PERTICHE (PADOVA) ITALY

DECLARE UNDER OUR SOLE RESPONSIBILITY THAT THE FOLLOWING EQUIPMENT:

ELECTRO-HYDRAULIC SCISSOR LIFT

MODEL : **Multibench**

SERIAL NO. : **matr** YEAR : **year**

TO WHICH THE PRESENT DECLARATION REFERS, SUITS THE ESSENTIAL HEALTH AND SAFETY REQUIREMENTS LAID DOWN IN DIRECTIVE 2006/42/EC AND THE FOLLOWING LEGISLATIVE RULES AND PRODUCT HARMONIZED NORMS:

- ***DIRECTIVE 2006/42/EC (MACHINES SECURITY)***
- ***DIRECTIVE 2014/30/EU (ELETTROMAGNETIC COMPATIBILY)***

THE FOLLOWING NORMATIVE DOCUMENTS AND TECHNICAL SPECIFICATIONS HAVE BEEN USED TO VERIFY THE COMPLIANCE WITH THE LEGISLARIVE RULES:

EN 1493:2022	EN ISO 13857:2019	EN ISO 13854:2019	EN ISO 13850:2015
EN ISO 13849-1:2023	EN ISO 4413:2010	EN ISO 4414:2010	EN ISO 12100:2010
EN ISO 3746:2010	EN 10025-2:2019	EN ISO 683-1:2018	EN ISO 683-2:2018
EN IEC 61000-6-2:2019	EN IEC 61000-6-4:2021	EN 60947-5-1/AC:2020	EN 60204-1:2018
EN ISO 11202:2020			

PERSON IN CHARGE FOR THE TECHNICAL DOSSIER MANAGEMENT AND WRITING UP:
Mr Paolo Busana c/o SPANESI S.P.A.

SPANESI

Mr. SPANESI Ferdinando Simone

S. Giorgio delle Pertiche_____
(Production date)

(Signature of legal representative)

Notified body:	Type examination certificate n°:	Date of CE marking:
XXXX	XXXXXXXXXXXX	XX.XX.XXXX

We declare besides that the equipment is similar to the model that has obtained the CE certification of the type released by the Notified body

The use and maintenance handbook of the machine, to which this declaration of conformity refers to, is also provided in electronic format by scanning the QR code.

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SPANESI 360 CONCEPT

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