

1297-M020-0_V

**GAR324
GAR325**

INSTRUCTION MANUAL

GB TRANSLATION FROM THE
ORIGINAL INSTRUCTIONS

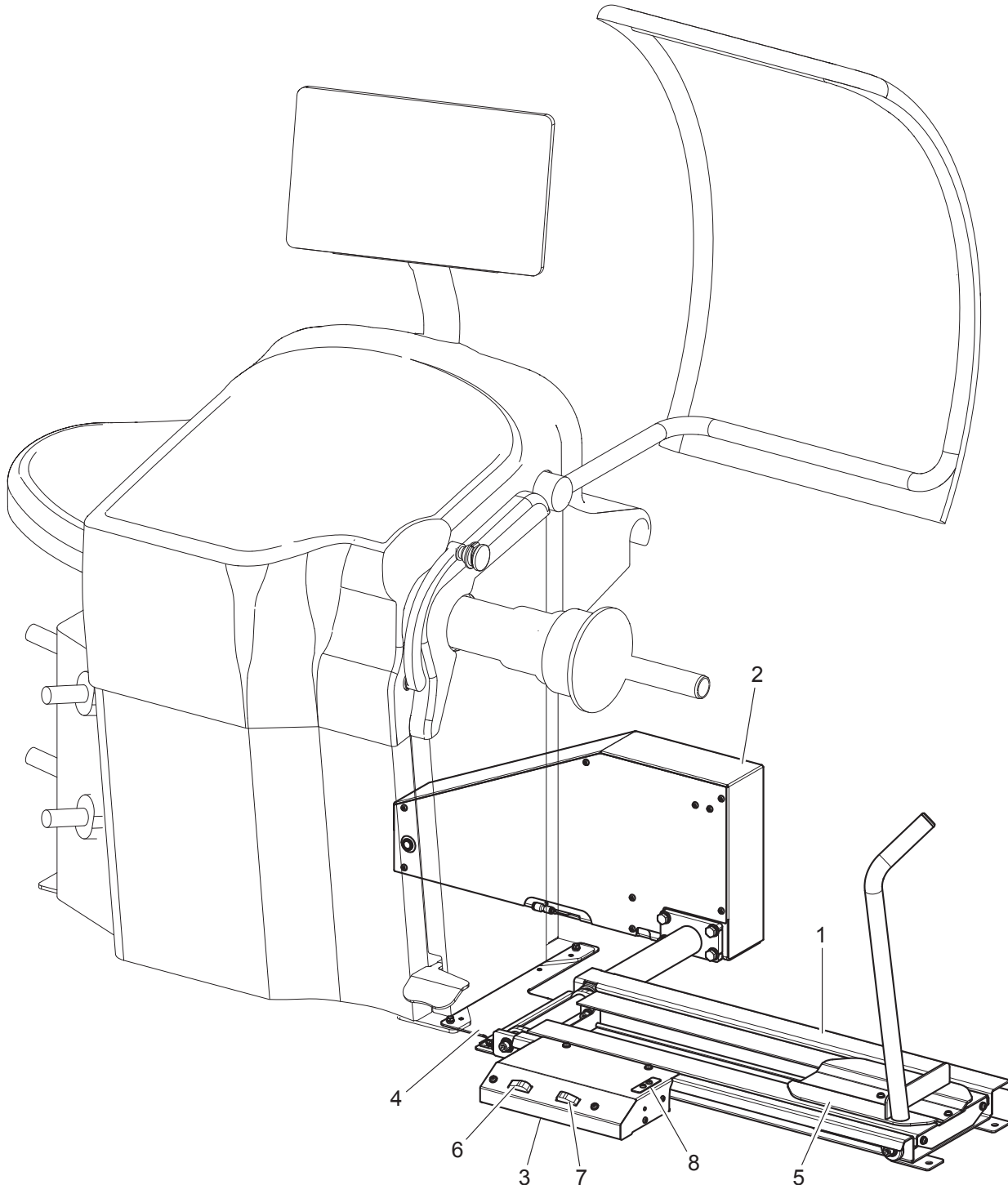
For spare parts drawings refer to the section “LIST OF COMPONENTS” enclosed to this manual.

• For any further information please contact your local dealer.

1297-M020-0_V - Rev. n. 0 (09/2015)





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Fig. 1 - GAR324 - GAR325**KEY**

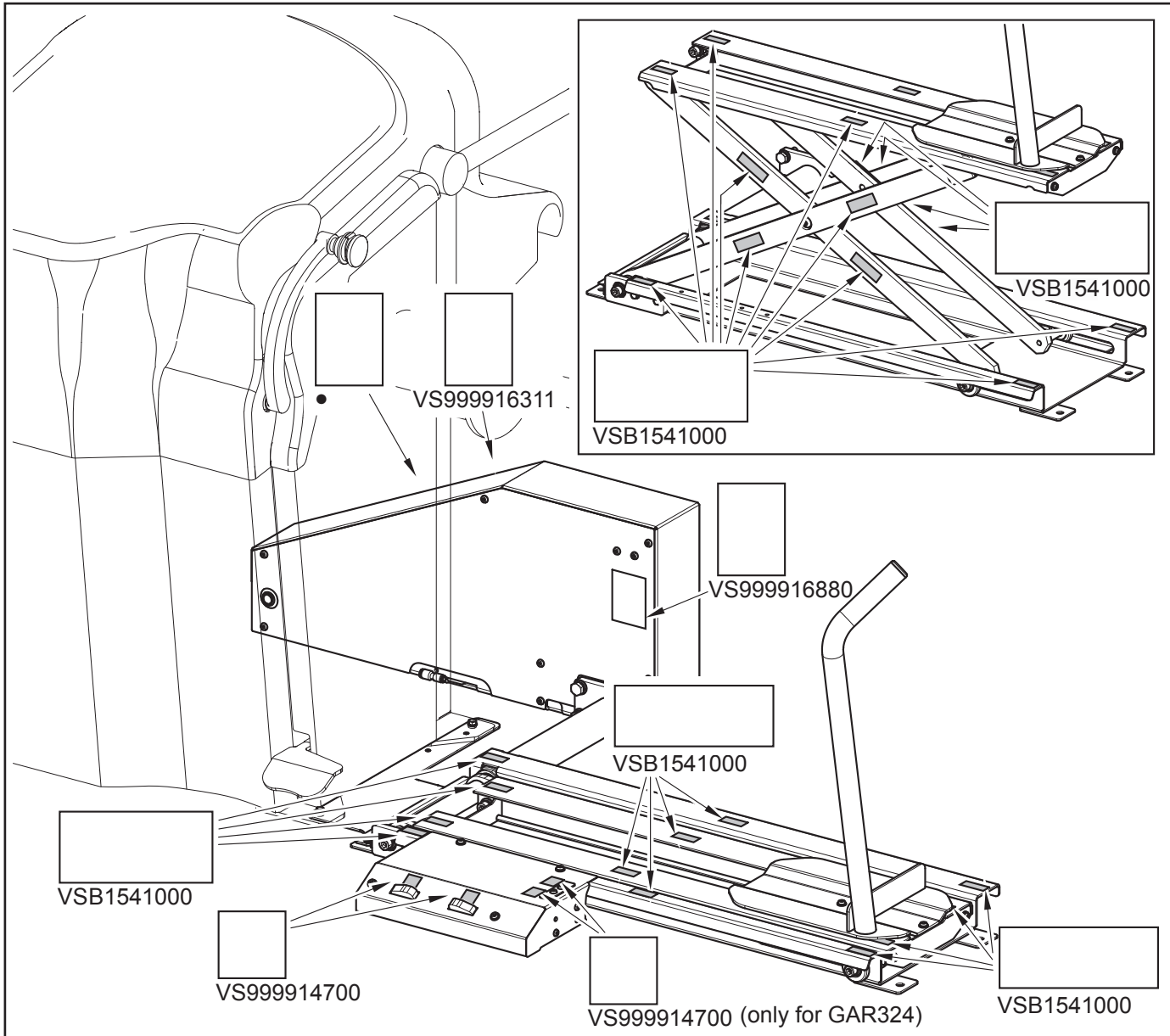
- 1 - Lifting mechanism unit
- 2 - Lifting motor unit
- 3 - Lifting pedal support unit
- 4 - Mounting template
- 5 - Wheel support
- 6 - Pedal for descent
- 7 - Pedal for rising
- 8 - Pedal for wheel weight memorization (only for GAR324)

SYMBOLS USED IN THE MANUAL AND ON THE MACHINE

Symbols	Description
	Mandatory. Operations or jobs to be performed compulsorily.
	Warning. Be particularly careful (possible material damages).
 VSB2167000	Wear work gloves.
	Wear work shoes.

Symbols	Description
	Danger! Be particularly careful.
	Note. Indication and/or useful information.
 VSB2167000	Wear safety goggles.

INFORMATION PLATE LOCATION TABLE



Code numbers of plates

VSB1541000	<i>Danger plate</i>
VS999914700	<i>Bead depressing roll controls plate</i>
VS999916880	<i>Max. capacity load 80 Kg plate</i>
VS999916311	<i>Rubbish skip label</i>
.	<i>Serial number plate</i>



IF ONE OR MORE PLATES DISAPPEARS FROM THE MACHINE OR BECOMES DIFFICULT TO READ. REPLACE IT AND QUOTE ITS/THEIR CODE NUMBER/S WHEN REORDERING.



SOME OF THE PICTURES PRESENT IN THIS MANUAL HAVE BEEN OBTAINED FROM PICTURES OF PROTOTYPES, THEREFORE THE STANDARD PRODUCTION MACHINES AND ACCESSORIES CAN BE DIFFERENT IN SOME COMPONENTS.

1.0 GENERAL INTRODUCTION

This manual is an integral part of the product and must be retained for the whole operating life of the machine.

Carefully study the warnings and instructions contained in this manual. It contains important instructions regarding **FUNCTIONING, SAFE USE and MAINTENANCE.**



KEEP THE MANUAL IN A KNOWN, EASILY ACCESSIBLE PLACE FOR ALL ACCESSORY OPERATORS TO CONSULT IT WHENEVER IN DOUBT.



THE MANUFACTURER DISCLAIMS ALL RESPONSIBILITY FOR ANY DAMAGE OCCURRED WHEN THE INDICATIONS GIVEN IN THIS MANUAL ARE NOT RESPECTED: AS A MATTER OF FACT, THE NON-COMPLIANCE WITH SUCH INDICATIONS MIGHT LEAD TO EVEN SERIOUS DANGERS.

1.1 Introduction

Thank you for preferring this device. We feel sure you will not regret your decision.

This accessory has been designed for use in professional workshops and stands out for its reliability and easy, safe and rapid operation: with a minimum maintenance and care this device will operate for many years without problems, thus satisfying Your needs.

2.0 INTENDED USE

The accessory **GAR324 - GAR325** is a lateral lifting device to be assembled as an option on the wheel balancers of the new series except for models VSB33X, and it is intended for use as an aid during the positioning and removal of the wheel (max. 80 kg) from the chuck.

With **GAR324** device the lifting device is equipped with load balancing. The weight of the lifted wheel can be "stored" by means of a pedal control: in this way the effect of the weight is undone during the centring operation on the wheel balancer shaft and so the centring on the mandrel is improved during the blocking.



DANGER: USING THESE DEVICES OUTSIDE OF THE INTENDED USE FOR WHICH THEY HAVE BEEN DESIGNED (INDICATED IN THIS MANUAL) IS INAPPROPRIATE AND DANGEROUS.



THE MANUFACTURER CANNOT BE HELD RESPONSIBLE FOR ANY DAMAGE CAUSED BY IMPROPER, ERRONEOUS, OR UNACCEPTABLE USE.



AN INTENSIVE USE OF THE DEVICE IN INDUSTRIAL ENVIRONMENT IS NOT RECOMMENDED.

2.1 Staff training

The machine may be operated only by suitably trained and authorized personnel.

Given the complexity of the operations necessary to manage the device and carry out the operations safely and efficiently, the personnel must be trained in such a way that they learn all the information necessary to operate the machine as intended by the manufacturer.



A CAREFUL READING OF THIS INSTRUCTION MANUAL FOR USE AND MAINTENANCE AND A SHORT PERIOD OF TRAINING WITH SKILLED PERSONNEL CAN BE AN ENOUGH PREVENTIVE PREPARATION.

3.0 SAFETY DEVICES

3.1 *Residual risks*

The device was subjected to a complete analysis of risks according to reference standard EN ISO 12100. Risks are as reduced as possible in relation with technology and product functionality.

Possible residual risks have been emphasized through pictorial representations and warnings which placing is indicated in "PLATE POSITIONING TABLE" at page 5.

4.0 GENERAL SAFETY RULES



- Any tampering with or modification to the device not previously authorized by the manufacturer exempts the latter from all responsibility for damage caused by or derived from said actions.
- Removing of or tampering with the safety devices or with the warning signals placed on the device leads to serious dangers and represents a transgression of European safety rules.
- Use of the device is only permitted in places free from **explosion** or **fire** hazard and in **dry** and **under cover** places.
- Original spare parts and accessories should be used.



THE MANUFACTURER DENIES ANY RESPONSIBILITY IN CASE OF DAMAGES CAUSED BY UNAUTHORIZED MODIFICATIONS OR BY THE USE OF NON ORIGINAL COMPONENTS OR EQUIPMENT.

- Installation must be conducted only by qualified personnel exactly according to the instructions that are given below.
- Ensure that there are no dangerous situations during the machine operating manoeuvres. Immediately stop the device if it miss-functions and contact the assistance service of an authorized dealer.
- Ensure that the work area around the machine is free of potentially dangerous objects and that there is no oil since this could damage the tyre. Oil on the floor is also a potential danger for the operator.



OPERATORS MUST WEAR SUITABLE WORK CLOTHES, PROTECTIVE GLASSES AND GLOVES, AGAINST THE DANGER FROM THE SPRAYING OF DANGEROUS DUST, AND POSSIBLY LOWER BACK SUPPORTS FOR THE LIFTING OF HEAVY PARTS. DANGLING OBJECTS LIKE BRACELETS MUST NOT BE WORN, AND LONG HAIR MUST BE TIED UP. FOOTWEAR SHOULD BE ADEQUATE FOR THE TYPE OF OPERATIONS TO BE CARRIED OUT.

- The machine handles and operating grips must be kept clean and free from oil.
- The workshop must be kept clean and dry. Make sure that the working premises are properly lit. The machine can be operated by a single operator. Unauthorized personnel must remain outside the working area, as shown in **Fig. 3**. Avoid any hazardous situations. Do not use air-operated equipment when the shop is damp or the floor slippery and do not expose such tools to atmospheric agents.
- When operating and servicing this device, carefully follow all in force safety and accident-prevention precautions. The device must not be operated by professionally unskilled persons.

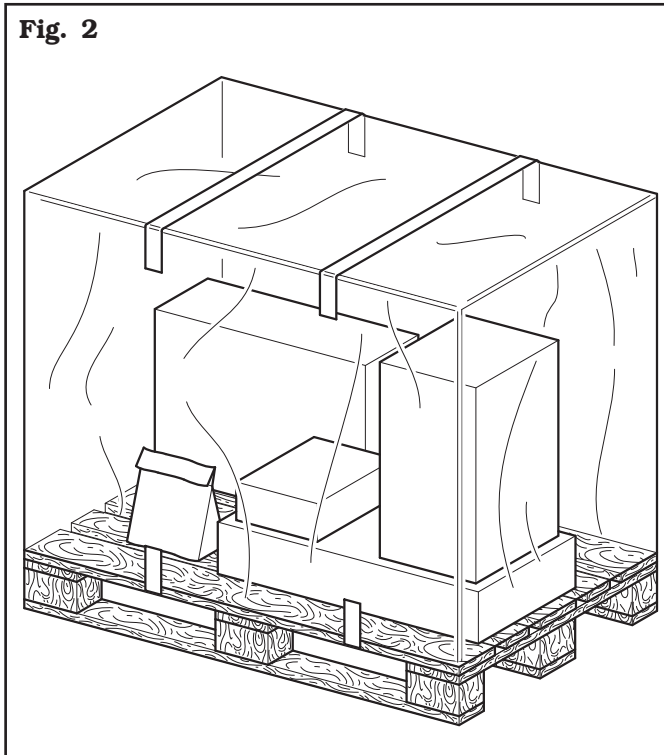
5.0 PACKING AND MOBILIZATION FOR TRANSPORT



HAVE THE MACHINE HANDLED BY SKILLED PERSONNEL ONLY. THE LIFTING EQUIPMENT MUST WITHSTAND A MINIMUM RATED LOAD EQUAL TO THE WEIGHT OF THE PACKED ACCESSORY (SEE PARAGRAPH "TECHNICAL SPECIFICATIONS").

The fixture is supplied disassembled. The machine is inside a carton box which size is mm 1600x950x1780. Movement must be by pallet-lift or fork-lift trolley. The fork lifting points are indicated on the packing.

Fig. 2



6.0 UNPACKING



DURING UNPACKING, ALWAYS WEAR GLOVES TO PREVENT ANY INJURY CAUSED BY CONTACT WITH PACKAGING MATERIAL (NAILS, ETC.).



The cardboard box is supported with plastic strapping. Cut the strapping with suitable scissors. Use a small knife to cut along the lateral axis of the box and open it like a fan.

It is also possible to unnailed the cardboard box from the pallet it is fixed to. After removing the packing, check that the device is complete and that there is no visibly damaged parts.

If in doubt **do not use the device** and refer to professionally qualified personnel (to the seller).

The packing (plastic bags, expanded polystyrene, nails, screws, timber, etc.) should not be left within reach of children since it is potentially dangerous. These materials should be deposited in the relevant collection points if they are pollutants or non biodegradable.



THE BOX CONTAINING THE FIXTURES IS CONTAINED IN THE WRAPPING. DO NOT THROW IT AWAY WITH THE PACKING.

7.0 MOBILIZATION



THE LIFTING EQUIPMENT MUST WITHSTAND A MINIMUM RATED LOAD EQUAL TO THE WEIGHT OF THE ACCESSORY (SEE PARAGRAPH TECHNICAL SPECIFICATIONS). DO NOT ALLOW THE LIFTED DEVICE TO SWING.

If the device has to be moved from its normal work post, the movement must be conducted following the instructions listed below.

- Protect the exposed corners with suitable material (Pluribol/cardboard).
- Do not use metallic cables for lifting.
- Make sure that the device pneumatic supply is not connected.
- Place again the device onto the original pallet with whom it was delivered.
- Use transpallet or fork-lift for handling.

8.0 WORKING ENVIRONMENT CONDITIONS

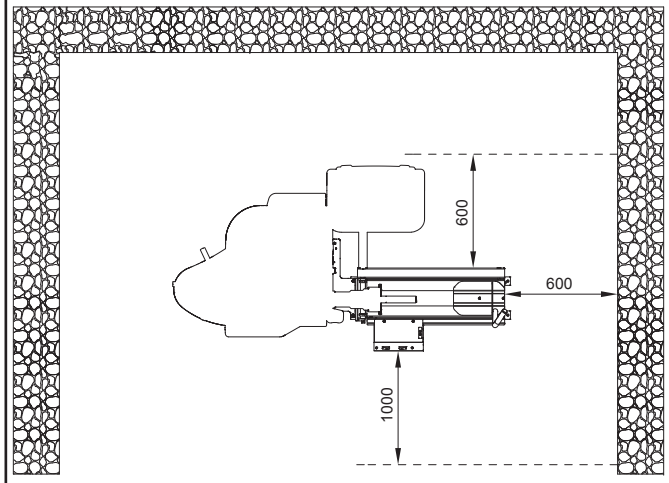
The device must be operated under proper conditions as follows:

- temperature: 0° + 45° C
- relative humidity: 30 - 90% (dew-free)
- atmospheric pressure: 860 - 1060 hPa (mbar).

The use of the device in ambient conditions other than those specified above is only allowed after prior agreement with and approval of the manufacturer.

8.1 Working area

Fig. 3



USE THE DEVICE INDOORS OR IN A ROOFED AREA. PLACE OF INSTALLATION MUST BE DRY, ADEQUATELY LIT AND IN COMPLIANCE WITH APPLICABLE SAFETY REGULATIONS.

The location of the device requires a usable space as indicated in **Fig. 3**. The positioning of the device must be according to the distances shown. From the control position the operator is able to observe all the machine and surrounding area. He must prevent unauthorized personnel or objects that could be dangerous from entering the area.

The device must be fixed on a flat floor surface, preferably of cement or tiled. Avoid yielding or irregular surfaces.

The base floor must be able to support the loads transmitted during operation.

This surface must have a strength of at least 500 kg/m². The depth of the solid floor must be sufficient to guarantee that the anchoring bolts hold.

8.2 Lighting

The device does not require its own lighting for normal working operations. However, it must be used in an adequately lit environment.

In case of poor lighting use lamps having total power 800/1200 Watt.

9.0 DEVICE ASSEMBLY

After having freed the various components from the packing check that they are complete, and that there are no anomalies, then comply with the following instructions for the assembly of the components making use of the attached series of illustrations.

9.1 Fixtures contained in the packing

The packing case contains also the fixtures box. Check that all the parts listed are there.

For all the models

Code	Description	N.
VS129793540	Lifting mechanism unit	1
VS129718780	Wheel support	1
VS129793850	Template	1
VS236004	Flat washer 6,4	4
VS236007	10,5x21x2 Flat washer	4
VS236043	Washer Fe 10,5x30x4	1
VS238007	Elastic washer 10,5	5
VS206193	VTCEI M10x30	1
VS266019	TBEI M6x16 screw	2
VS271012	TBEI M6x10 screw	2
VS203106	VTE M10x35	4
VS599095	Short clamp	2
VS1949000	Long clamp	2
VS317007	Black rilsan pipe 8x6 L=500	1

For GAR324 model

Code	Description	N.
VS129793550	Lifting motor unit	1

For GAR325 model

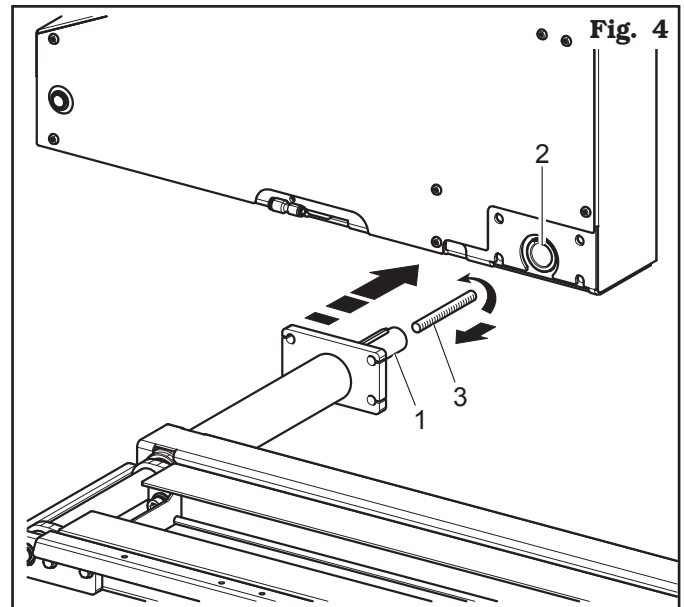
Code	Description	N.
VS129793560	Lifting motor unit	1

9.2 Assembly procedures

Clean the pin (Fig. 4 ref. 1) of the lifting device mechanism and the hole (Fig. 4 ref. 2) of the motor unit, without demounting anything.

Grease the pin (Fig. 4 ref. 1) and screw the threaded rod M10x200 (Fig. 4 ref. 3) inside the pin hole, without tightening too hard.

Insert the pin into the hole of the Motor unit.

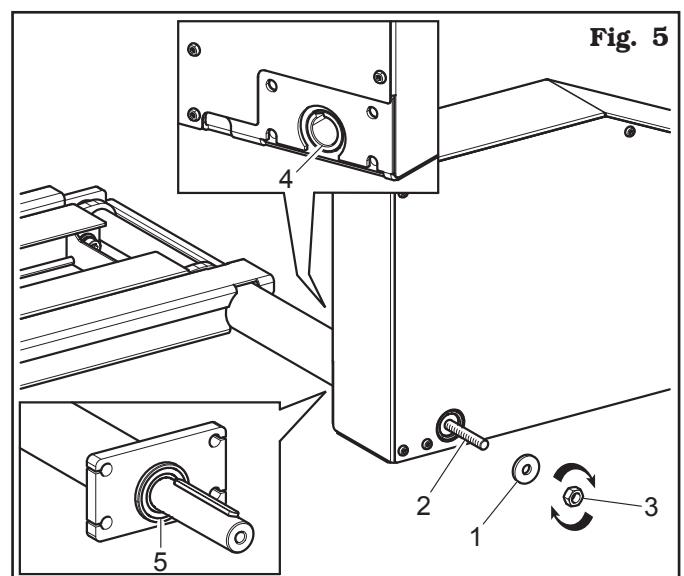


Insert the washer (Fig. 5 ref. 1) (# VS236043) onto the threaded rod M10 (Fig. 5 ref. 2) and screw the nut M10 (Fig. 5 ref. 3) until the hub (Fig. 5 ref. 4) of the Motor unit touches the bearing (Fig. 5 ref. 5) that is on the Lifting device mechanism unit.

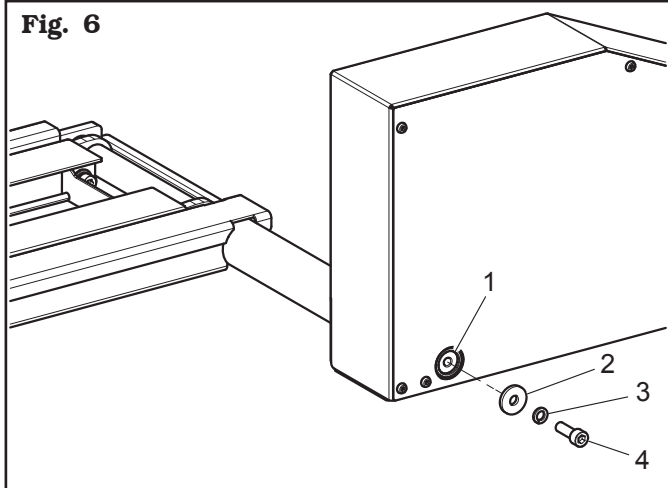
Unscrew the nut (Fig. 5 ref. 3) and the washer (Fig. 5 ref. 1) from the the threaded rod M10 (Fig. 5 ref. 2).



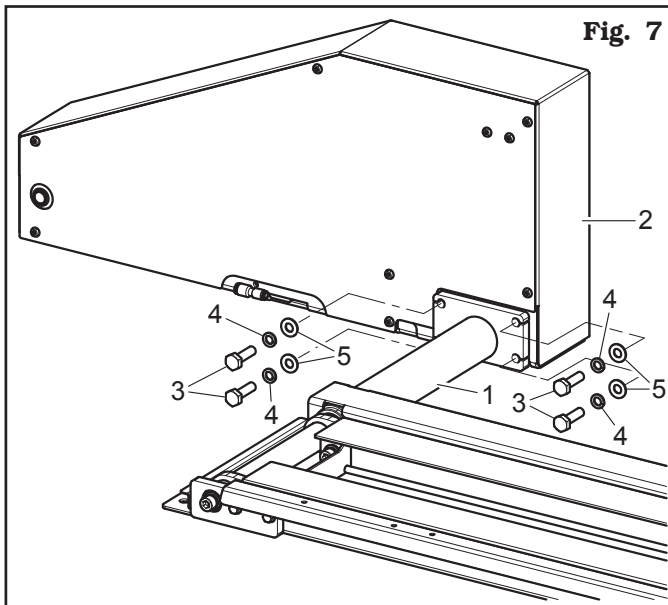
IF THE THREADED ROD M10 (FIG. 5 REF. 2) IS STUCK IN THE PIN OF THE LIFTING MECHANISM UNIT, USE A SECOND NUT M10 AS A COUNTER-NUT IN ORDER TO UNLOCK IT.



Block the bearing (**Fig. 6 ref. 1**) of the Motor unit with the washers (**Fig. 6 ref. 2**) (# VS236043), (**Fig. 6 ref. 3**) (# VS238007) and the screws (**Fig. 6 ref. 4**) (# VS206193).



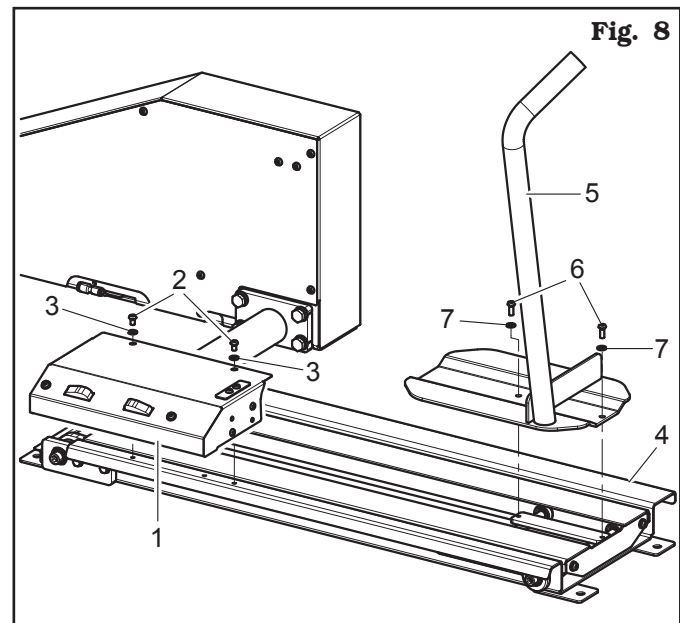
Then fix the lifting mechanism unit (**Fig. 7 ref. 1**) to the Motor unit (**Fig. 7 ref. 2**) with the screws (**Fig. 7 ref. 3**) (# VS203106), the washers (**Fig. 7 ref. 4**) (# VS238007) and (**Fig. 7 ref. 5**) (# VS236007).



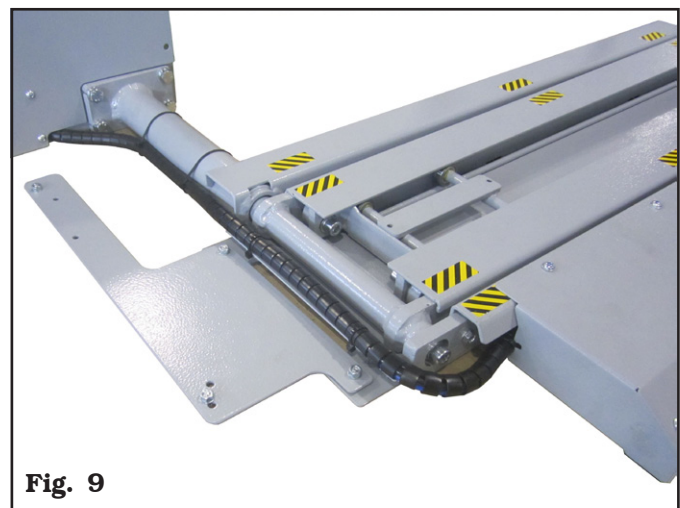
THE MOTOR UNIT MUST NOT BE LIFTED FROM THE GROUND.

Fasten the pedal support (**Fig. 8 ref. 1**) (# VS129793570 for GAR324 or VS129793560 per GAR325) with the screws (**Fig. 8 ref. 2**) (# VS271012) and the washers (**Fig. 8 ref. 3**) (# VS236004).

Mount the welded wheel support (**Fig. 8 ref. 5**) on the the lifting mechanism unit (**Fig. 8 ref. 4**) (# VS129718780) using the screws (**Fig. 8 ref. 6**) (# VS266019) the washers (**Fig. 8 ref. 7**) (# VS236004).



CLAMP THE PNEUMATIC PIPES SHEATH, AS INDICATED IN FIG. 9.



9.3 Anchoring system



IN CASE OF WHEEL WEIGHING MORE THAN 30 KG, IT IS COMPULSORY TO FIX TO THE GROUND BY MEANS OF SCREW ANCHORS.

9.3.1 Installation of the lifting device without fastener

In case the wheel balancer is not fastened to the ground (wheels weight lower than 30 kg), the lifting device takes place next to the wheel balancer using the template on issue (**Fig. 10 ref. 1**). On the template the screws, the washers and the nuts (**Fig. 10 ref. 2, 3 e 4**) must be inserted in couples (A-A, B-B of C-C) into the Ø11 holes on the wheel balancer frame.

To carry out the fastening, proceed as described below:

- mount the template (**Fig. 10 ref. 1**) to the lifting device (**Fig. 10 ref. 5**).
- place the whole assembly next to the wheel balancer (**Fig. 10 ref. 6**), using the existing holes in the feet of the wheel balancer.

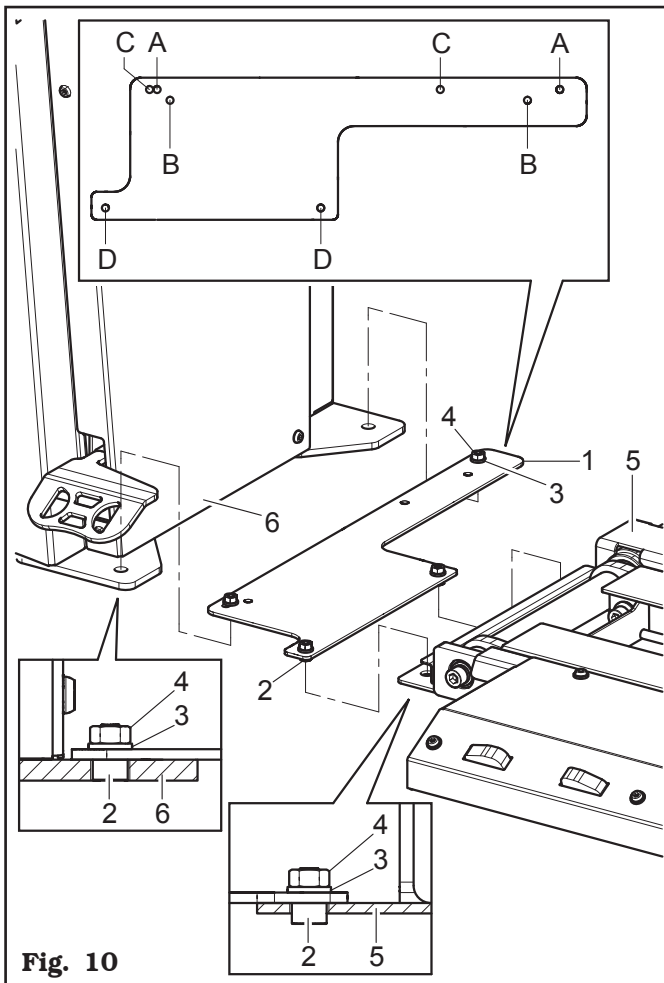


Fig. 10

9.3.2 Installation of the lifting device with fastening to the ground

In case the wheel balancer is fastened to the ground (wheels weight higher than 30 kg), the template is needed to mark out the position of the 2 small blocks (excluded from supply) lifting device wheel balancer side.

To carry out the fastening, proceed as described below:

- remove the screws, the washers and the nuts (**Fig. 10 ref. 2, 3 and 4**) from the template (**Fig. 10 ref. 1**);
- place the template (**Fig. 10 ref. 1**) next to the wheel balancer small blocks, widening to Ø11 only the couple of holes (A-A, B-B or C-C see **Fig. 10**) that correspond to the small blocks;
- place the template (**Fig. 11 ref. 1**) on the wheel balancer (**Fig. 11 ref. 2**) and mark out the position of the holes of the 2 small blocks (excluded from supply) lifting device wheel balancer side (**Fig. 11 ref. 3**), using the two D-D holes (see **Fig. 10**).

The decision rests on the discretion of the installer whether to fix the lifting device (**Fig. 11 ref. 3**) using the 2 small blocks (**Fig. 11 X ref. 4**) (excluded from supply) or 4 small blocks (**Fig. 11 X and Y ref. 4**) (excluded from supply).

Extract the template before carrying out the drilling. The holes in the solid floor must be about 10 cm deep with a diameter of 10 MA.

The bolts (**Fig. 11 ref. 4**) (excluded from supply) must be inserted in the prearranged holes and fully tightened (tightening torque: about 22 Nm) until reaching the system full seal.

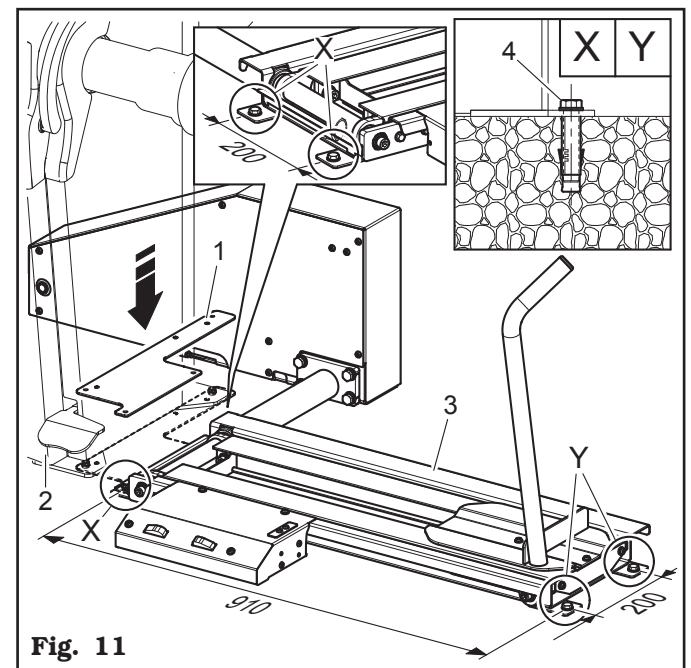
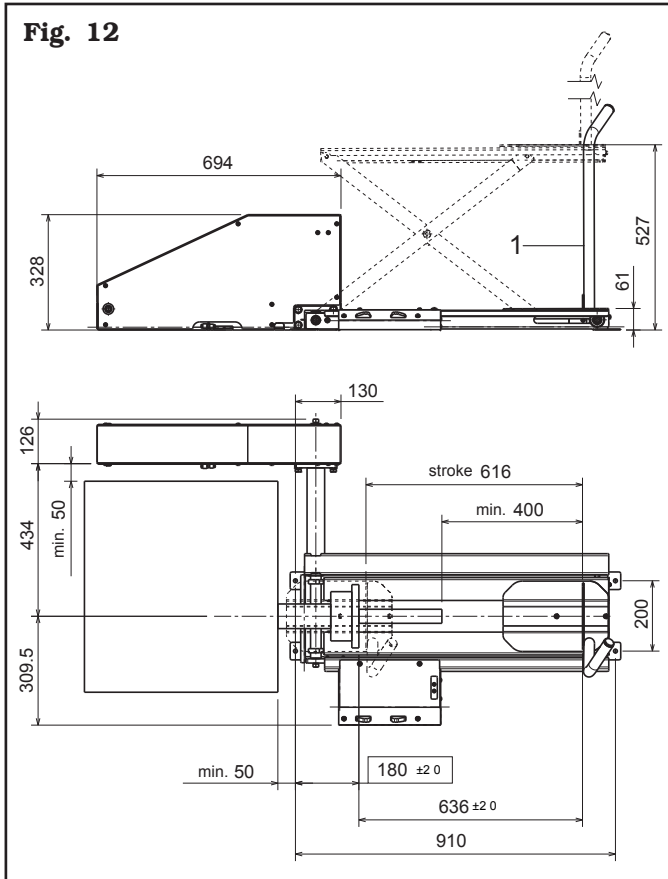


Fig. 11

Universal assembly

To carry out the device fastening, proceed as described below.

- Place the lifting device (**Fig. 12 ref. 1**) referring to the quoted dimensions indicated in **Fig. 12**.

Fig. 12

- Once the lifting device is placed, fix it to the ground through the expansion small blocks (**Fig. 11 ref. 4**) (excluded from supply).

The holes in the solid floor must be about 10 cm deep with a diameter of 10 MA.

The bolts (**Fig. 11 ref. 4**) (excluded from supply) must be inserted in the prearranged holes and fully tightened (tightening torque: about 22 Nm) until reaching the system full seal.

10.0 AIR CONNECTIONS

IN CASE OF A CHANCE SUPPLY FAILURE, AND/OR BEFORE ANY POWER SUPPLY CONNECTIONS, MOVE THE FOOTBOARD TO THE GROUND AND DISCONNECT THE MEMORY.

Connect the device to the filtered and lubricated compressed air system of the plant, making sure that the greaser reduction gear filter unit is upstream.



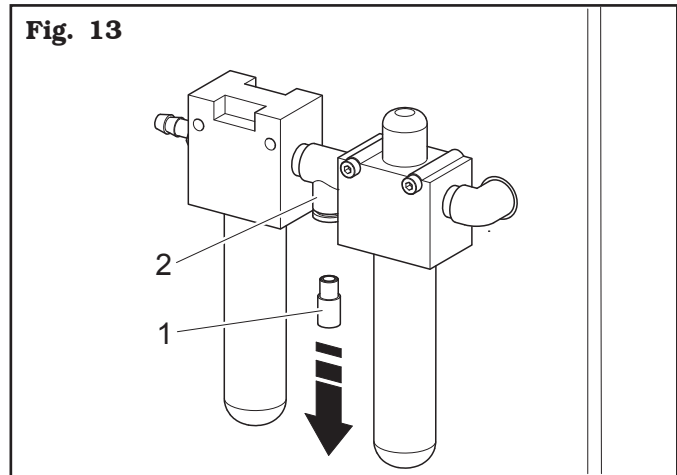
THE SUPPLY PRESSURE MUST BE 8 BAR MAX.

If the wheel balancer is pneumatic, the lifting device must be connected to then greaser filter unit on the machine.

In order to carry out the connection, before connecting the D.8 air pipe, remove the existing plug (**Fig. 13 ref. 1**) from the T-union (**Fig. 13 ref. 2**).



THE WHEEL BALANCER SUPPLY PRESSURE MUST NOT EXCEED THE 8 BAR MAX.

Fig. 13

11.0 OPERATION

For GAR324

11.1 Fitting the wheel on the mandrel



MAKE SURE THAT THE PEDAL FOR WHEEL WEIGHT MEMORIZATION (FIG. 14 REF. 1) IS IN THE CLOSEST POSITION TO THE OPERATOR (SEE FIG. 14).

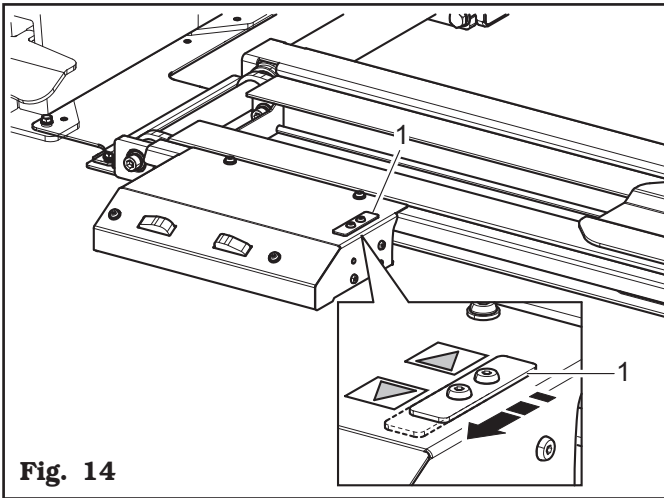


Fig. 14

- Place the wheel (Fig. 15 ref. 1) on the wheel support (Fig. 15 ref. 2).

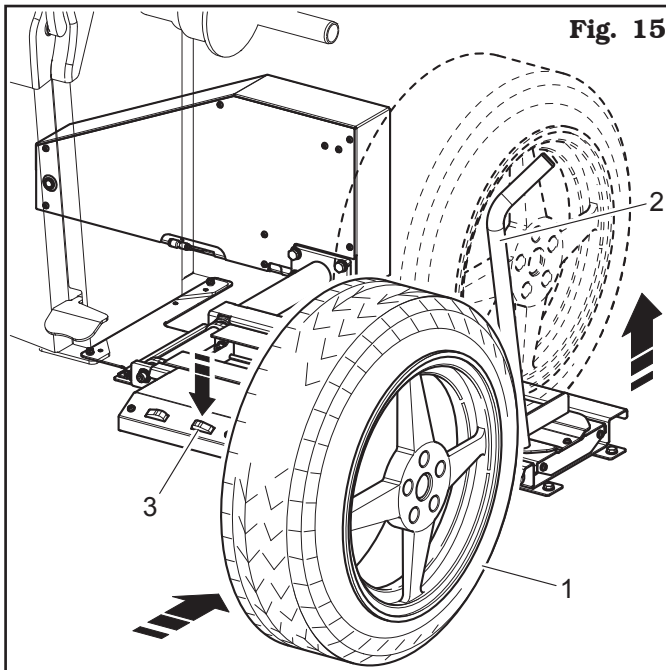


Fig. 15

Perform the storage operation as follows:

- Press the pedal for rising (Fig. 15 ref. 3) to make the wheel rise (Fig. 15 ref. 1) of a few centimetres.



ONCE THE WISHED HEIGHT HAS BEEN REACHED, REMOVE THE FOOT FROM THE PEDAL FOR RISING.

- Wait for 1-2 seconds to let the possible footboard oscillations end.



IN THIS PHASE THE WHEEL (FIG. 15 REF. 1) AND THE WHEEL SUPPORT (FIG. 15 REF. 2) MUST NOT BE TOUCHED.

- Press the pedal for wheel weight memorization (Fig. 16 ref. 1) and push it forward for the of the wheel weight.

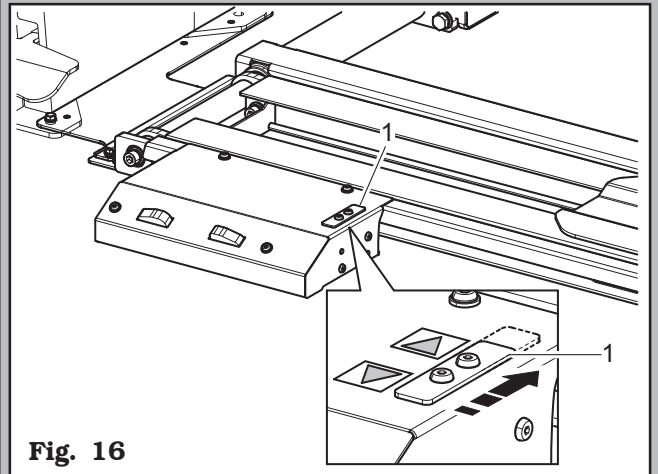


Fig. 16

- The memorization procedure is over.

- Press the pedal for rising (Fig. 17 ref. 1) and, by keeping it pressed, centre manually the wheel (Fig. 17 ref. 2) on the mandrel (Fig. 17 ref. 3) with a minimum effort, independently from the wheel weight, moving the wheel support (Fig. 17 ref. 4) in all directions.



ONCE THE WISHED HEIGHT HAS BEEN REACHED, REMOVE THE FOOT FROM THE PEDAL FOR RISING.

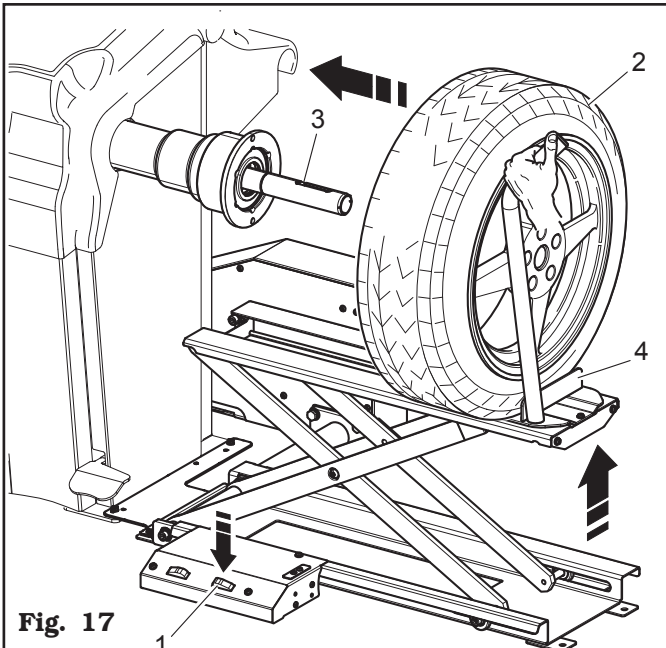


Fig. 17

- Block the rim (Fig. 18 ref. 2) on the mandrel with special devices (Fig. 18 ref. 1).
- Press the descent pedal (Fig. 18 ref. 3), make the footboard descend (Fig. 18 ref. 4) and move rightwards the wheel bearing (Fig. 18 ref. 5).

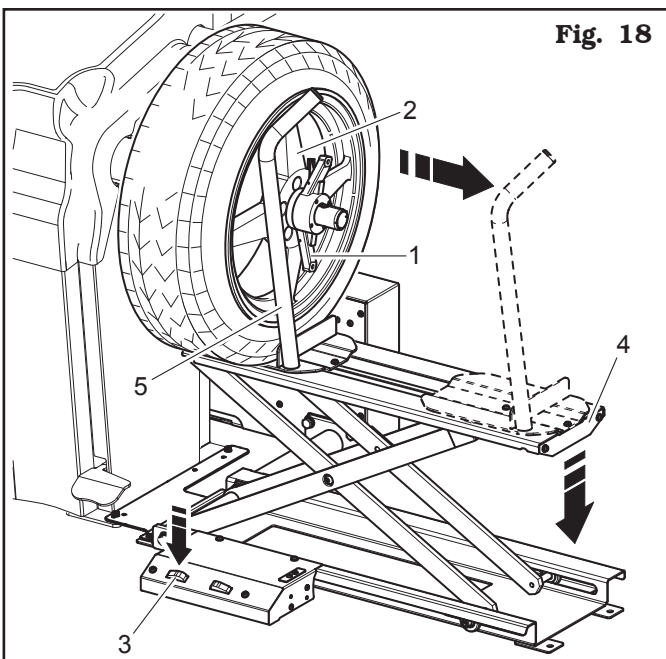


Fig. 18

11.2 Demounting the wheel from the mandrel

- Move leftwards the wheel support (Fig. 19 ref. 1) and bring it into contact with the tyre (Fig. 19 ref. 2).
- Press the pedal for rising (Fig. 19 ref. 3) and lift the footboard (Fig. 19 ref. 4) until the wheel bearing (Fig. 19 ref. 5) comes in contact with the tyre (Fig. 19 ref. 2).
- Keep the rising pedal pressed (Fig. 19 ref. 3) for a few seconds in order to let the accessory compensate the wheel weight.

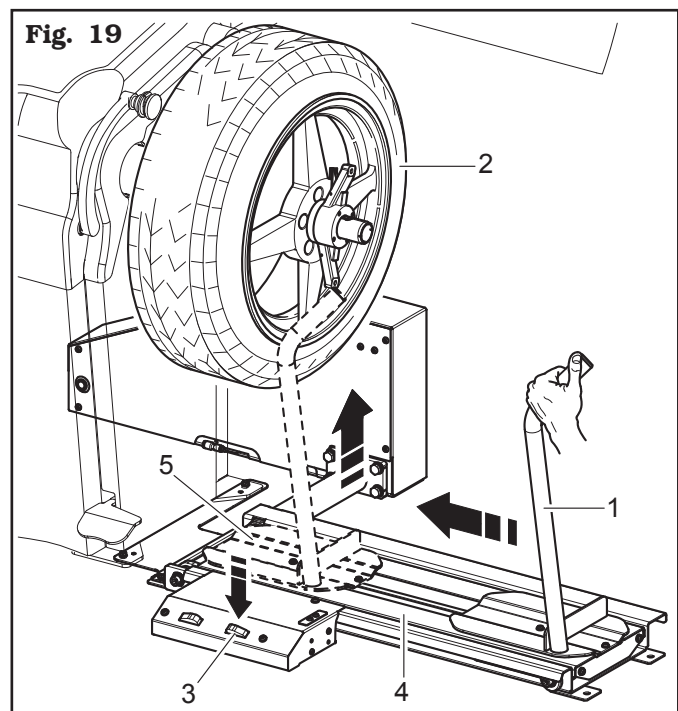


Fig. 19

- Unlock the wheel (Fig. 20 ref. 1) engaged to the mandrel, removing the locking devices (Fig. 20 ref. 2).
- Move rightwards the wheel support (Fig. 20 ref. 3) together with the tyre that is leaning against it.
- Press the lowering pedal (Fig. 20 ref. 4) and then lower the footboard (Fig. 20 ref. 5).

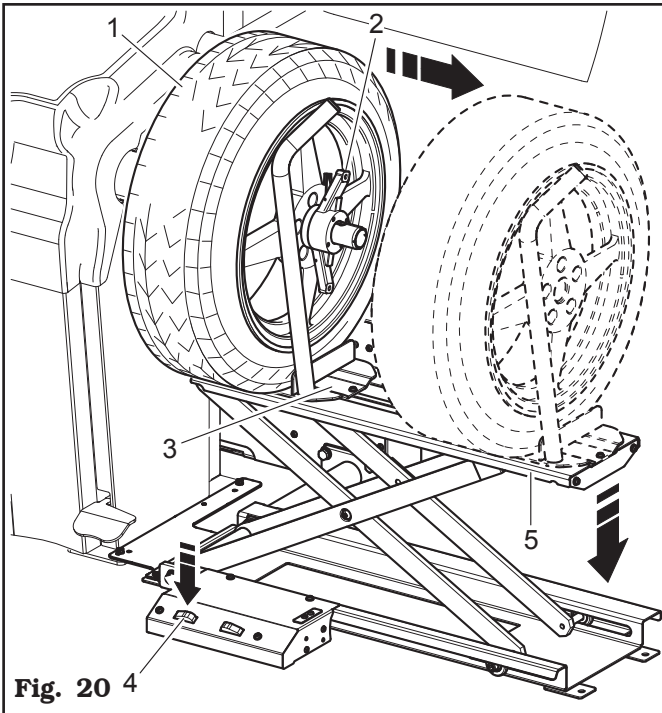


Fig. 20 4



AT THIS POINT IT IS POSSIBLE TO BALANCE THE WHEELS HAVING THE SAME WEIGHT WITHOUT CARRYING OUT AGAIN THE MEMORIZATION PROCESS.



IF THE SLOT BETWEEN THE BALANCING OF A WHEEL AND THE NEXT ONE IS HIGH, THE DEVICE COULD LOOSE THE MEMORIZATION OF THE PNEUMATIC WEIGHT. IN THIS CASE START ANEW WITH THE WEIGHT MEMORIZATION PROCEDURES.

- Remove the wheel from the lifting device.

For GAR325

11.3 Fitting the wheel on the mandrel

- Place the wheel (Fig. 15 ref. 1) on the wheel support (Fig. 15 ref. 2).
- Press the rising pedal (Fig. 15 ref. 3) to make the new wheel rise until its axis matches that of the wheel balancer mandrel.

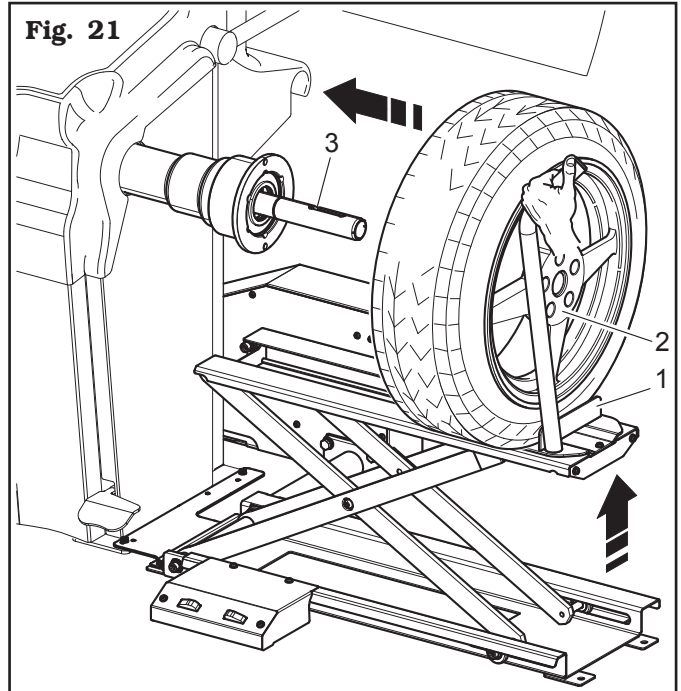


ONCE THE WISHED HEIGHT HAS BEEN REACHED, REMOVE THE FOOT FROM THE PEDAL FOR RISING.

- Translate manually the wheel support (Fig. 21 ref. 1) until inserting the rim (Fig. 21 ref. 2) onto the wheel

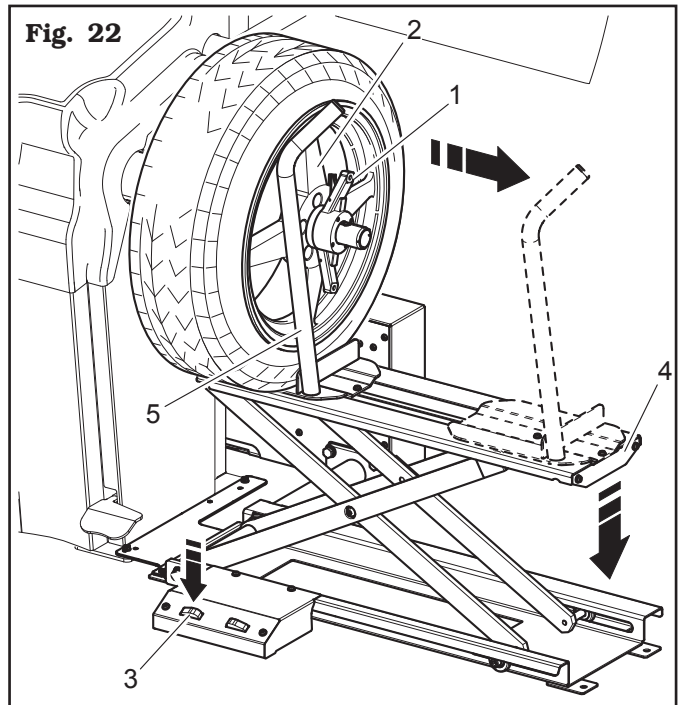
balancer mandrel (Fig. 21 ref. 3).

Fig. 21



- Block the rim (Fig. 22 ref. 2) on the mandrel with special devices (Fig. 22 ref. 1).
- Press the descent pedal (Fig. 22 ref. 3), make the footboard descend (Fig. 22 ref. 4) and move rightwards the wheel bearing (Fig. 22 ref. 5).

Fig. 22



11.4 Demounting the wheel from the mandrel

- Move leftwards the wheel support (Fig. 23 ref. 1) until bringing it into contact with the tyre (Fig. 23 ref. 2).
- Press the pedal for rising (Fig. 23 ref. 3) and lift the footboard (Fig. 23 ref. 4) until the wheel bearing (Fig. 23 ref. 5) comes in contact with the tyre (Fig. 23 ref. 2).



ONCE THE WISHED HEIGHT HAS BEEN REACHED, REMOVE THE FOOT FROM THE PEDAL FOR RISING.

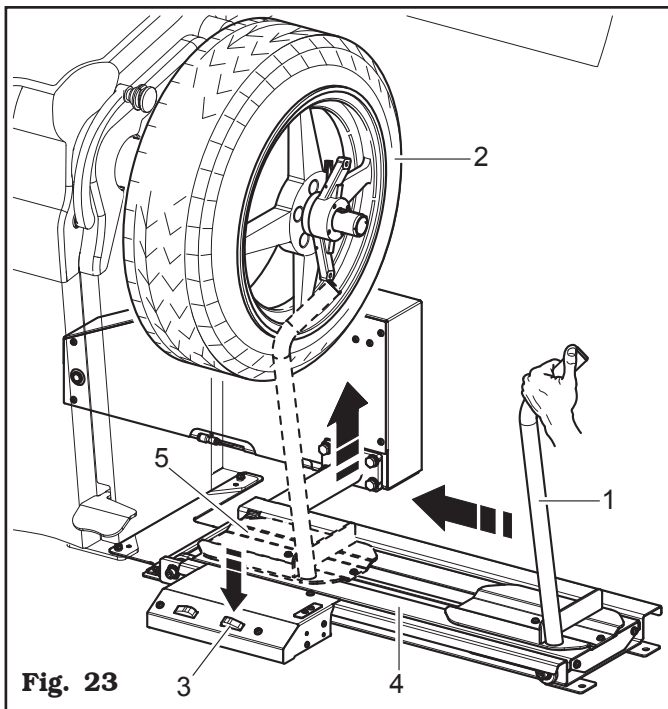


Fig. 23

- Unlock the wheel (Fig. 24 ref. 1) engaged to the mandrel, removing the locking devices (Fig. 24 ref. 2).



IF THE WHEEL (FIG. 24 REF. 1) DESCENDS OR RISES, PRESS THE PEDAL FOR RISING (FIG. 24 REF. 3) OR DESCENDING (FIG. 24 REF. 4) UNTIL THE WHEEL IS CENTRED ON THE MANDREL (FIG. 24 REF. 5).

- Move rightwards the wheel support (Fig. 24 ref. 7) together with the tyre that is leaning against it.
- Press the lowering pedal (Fig. 24 ref. 4) and then lower the footboard (Fig. 24 ref. 6).

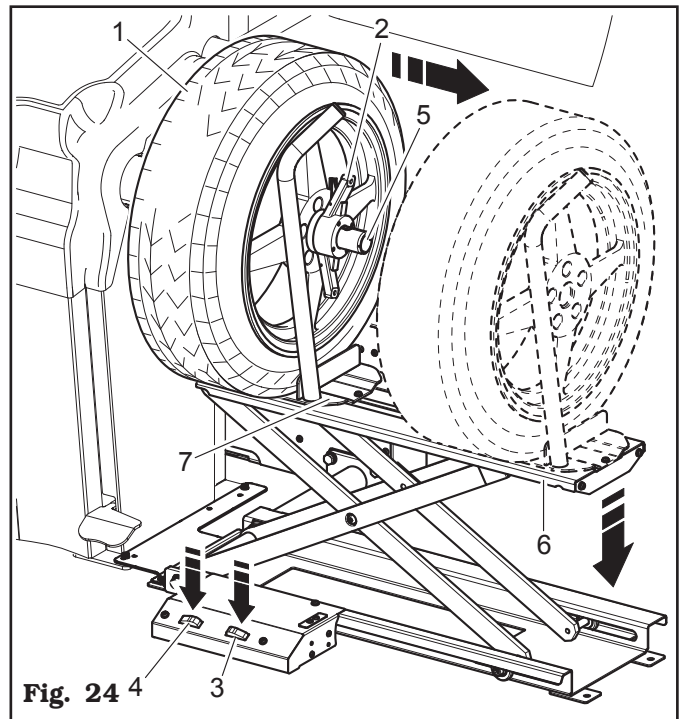


Fig. 24

- Remove the wheel from the lifting device.

12.0 TROUBLESHOOTING TABLE



Possible troubles which might occur to the device are listed below. The manufacturer disclaims all responsibility for damages to people, animals or objects due to improper operation by non-authorized personnel. In case of trouble, call Technical Service Department for instructions on how to service and/or adjust the machine in full safety to avoid any risk of damage to people, animals or objects.

In an emergency and before maintenance on device, set the wheel balancer main switch to “0” and lock it in this position.



CONTACT AUTHORIZED TECHNICAL SERVICE

Do not try and service alone.

Problem	Possible cause	Remedy
The lifting device does not work.	<ol style="list-style-type: none"> 1. No supply pressure. 2. The balancing valve was introduced when the lifting device footboard was completely lowered (only for GAR324). 	<ol style="list-style-type: none"> 1. Check if the lifting device is supplied with compressed air. 2. Disconnect the memorization valve (only for GAR324).
The lifting device cannot lift the tyre until the mandrel height (with disconnected memory, for GAR324).	<ol style="list-style-type: none"> 1. Compressed air supply pressure below 6 Bar. 2. The footboard valves do not work correctly. 	<ol style="list-style-type: none"> 1. Check supply pressure. 2. Call for technical assistance. 
The manual lifting force is too high (only for GAR324).	<ol style="list-style-type: none"> 1. The memorization procedure was not performed correctly. 2. The time between the insertion of the memory and the lifting of the wheel is excessive. 3. The balancing valve has lost its settings. 	<ol style="list-style-type: none"> 1. Repeat the memorization procedure. 2. Repeat the memorization procedure. 3. Call for technical assistance. 

13.0 ROUTINE MAINTENANCE

BEFORE CARRYING OUT ANY ROUTINE MAINTENANCE OR ADJUSTMENT PROCEDURE, SET THE WHEEL BALANCER MAIN SWITCH TO "0", DISCONNECT THE MACHINE FROM THE ELECTRICITY SUPPLY USING THE SOCKET/PLUG COMBINATION AND CHECK THAT ALL MOBILE PARTS ARE AT A STANDSTILL.



BEFORE EXECUTING ANY MAINTENANCE OPERATION, MAKE SURE THERE ARE NO WHEELS LOCKED ONTO THE MANDREL.



PNEUMATICALLY UNPLUG THE MACHINE (ONLY FOR PNEUMATIC MODEL).

To guarantee the efficiency and correct functioning of the device, it is essential to carry out daily or weekly

cleaning and weekly routine maintenance, as described below.

Cleaning and routine maintenance must be conducted by authorized personnel and according to the instructions given below.

- Remove deposits of tyre powder and other waste materials with a vacuum cleaner.

DO NOT BLOW IT WITH COMPRESSED AIR.

- Do not use solvents to clean the pressure regulator.



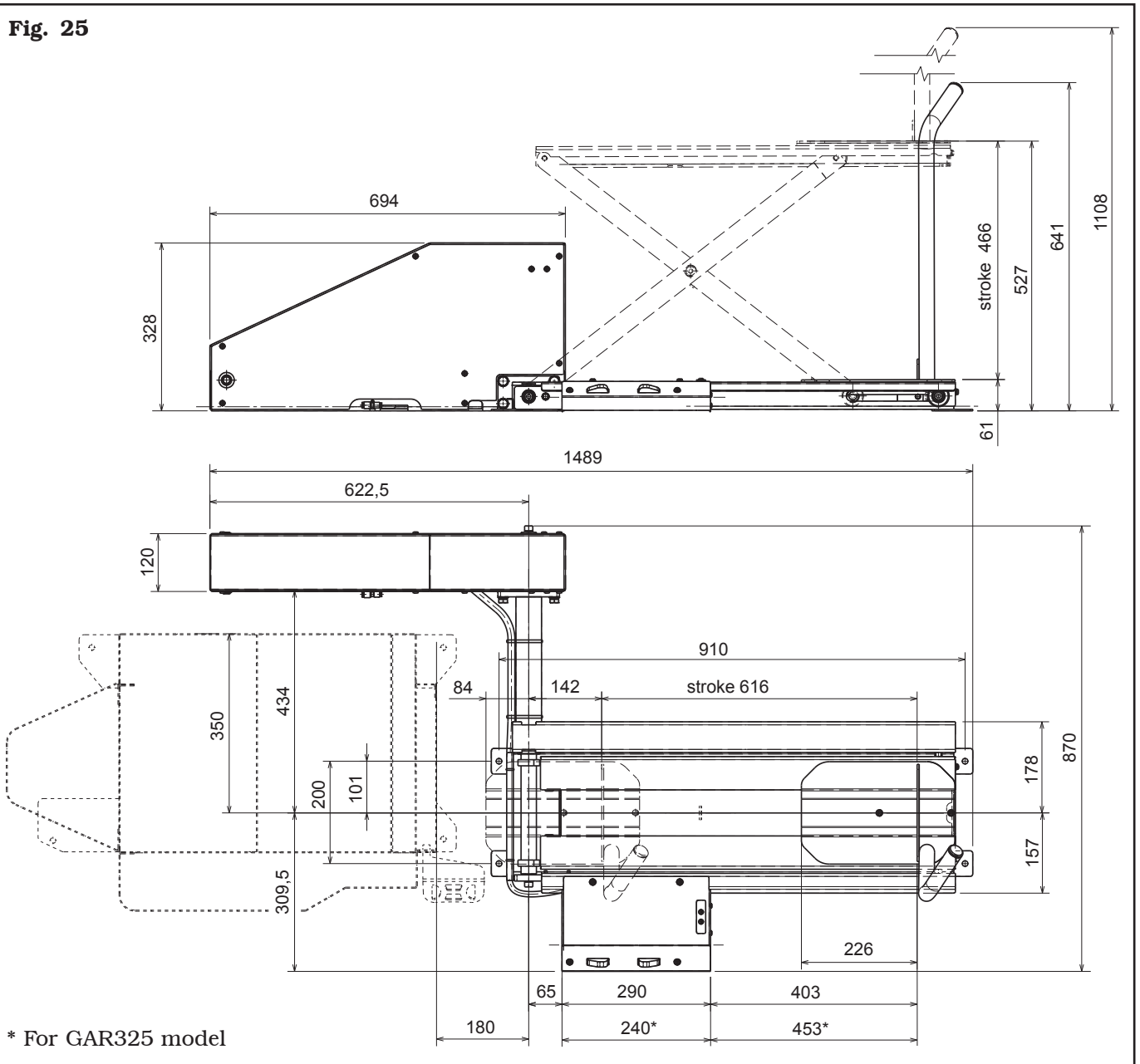
ANY DAMAGE TO THE MACHINE DEVICES RESULTING FROM THE USE OF LUBRICANTS OTHER THAN THOSE RECOMMENDED IN THIS MANUAL WILL RELEASE THE MANUFACTURER FROM ANY LIABILITY!!

14.0 TECHNICAL DATA

	GAR324	GAR325
Wheel max. weight (Kg)	80	
Power supply (bar)	6 - 8 Max.	
Weight (Kg)	63	

14.1 Dimensions

Fig. 25



* For GAR325 model

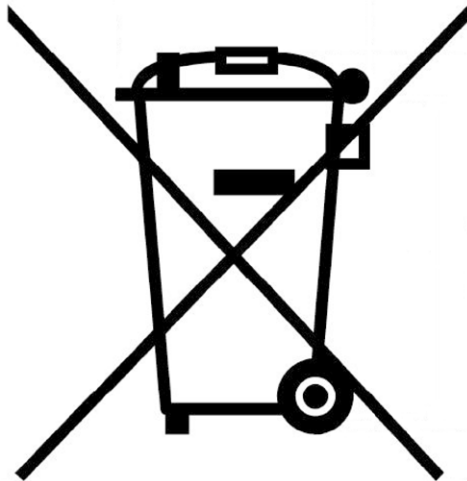
15.0 STORING

If storing for long periods disconnect the main power supply and take measures to protect the device from dust build-up. Lubricate parts that could be damaged from drying out.

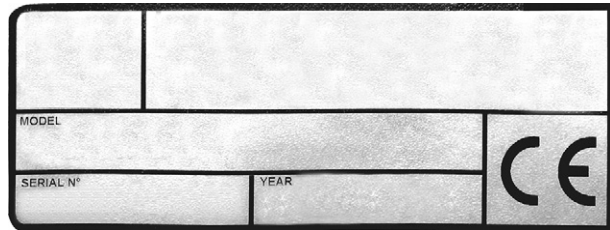
16.0 SCRAPPING

When the decision is taken not to make further use of this device, it is advisable to make it inoperative by removing the connection pressure hoses. The device is to be considered as special waste and should be dismantled into homogeneous parts. Dispose of it in accordance with current legislation.

Fig. 26



17.0 REGISTRATION PLATE DATA



The validity of the Conformity Declaration enclosed to this manual is also extended to products and/or devices the machine model object of the Conformity Declaration can be equipped with.



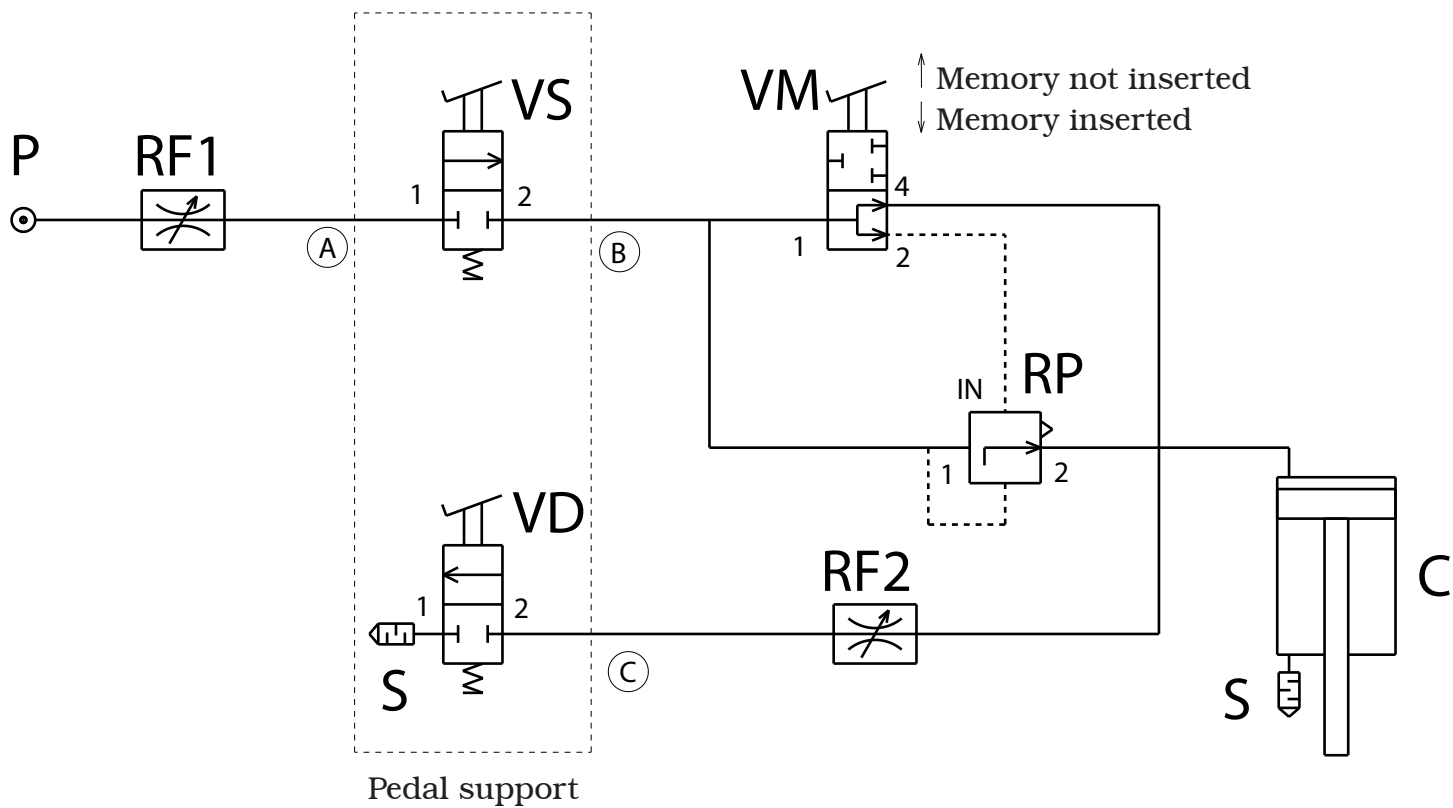
ATTENTION: DO NOT TAMPER WITH, CARVE, CHANGE OR REMOVE THE DEVICE IDENTIFICATION PLATE; DO NOT COVER IT WITH PANELS, ETC., SINCE IT MUST ALWAYS BE VISIBLE.

Said plate must always be kept clean from grease residues or filth generally.

WARNING: Should the plate be accidentally damaged (removed from the device, damaged or even partially illegible) inform immediately the manufacturer.

18.0 FUNCTIONAL DIAGRAMS

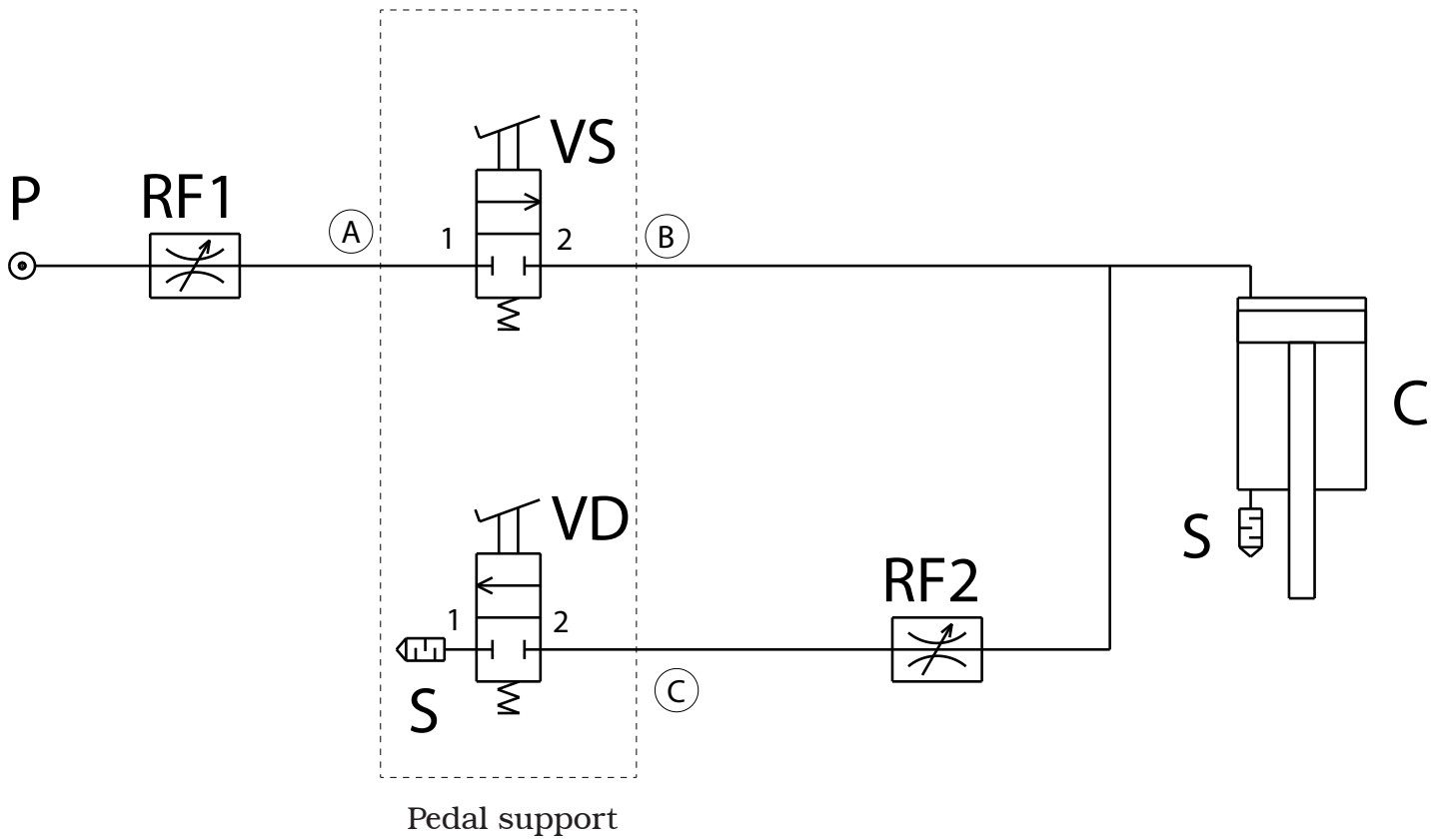
Here follows a list of the machine functional diagrams.



KEY

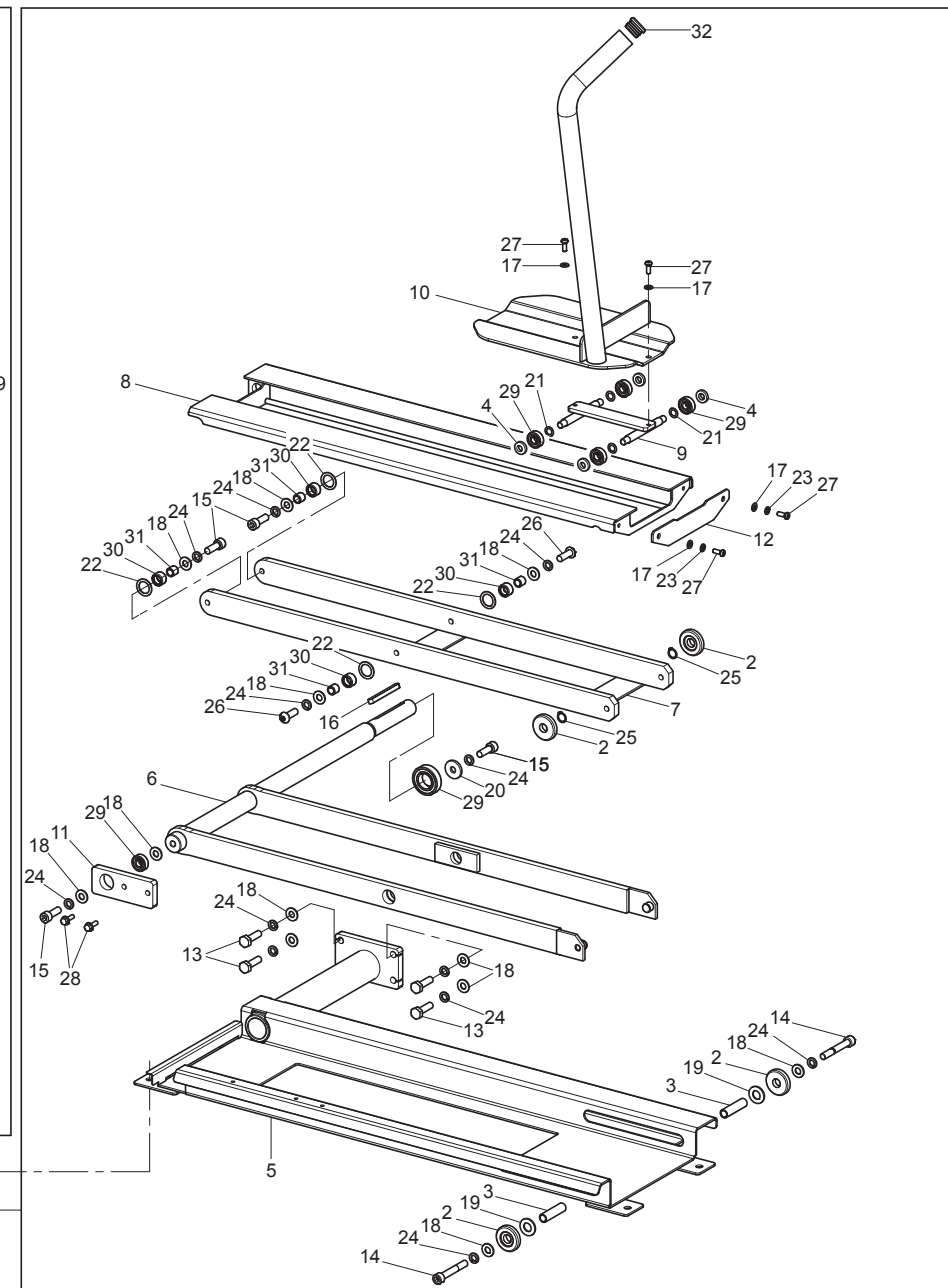
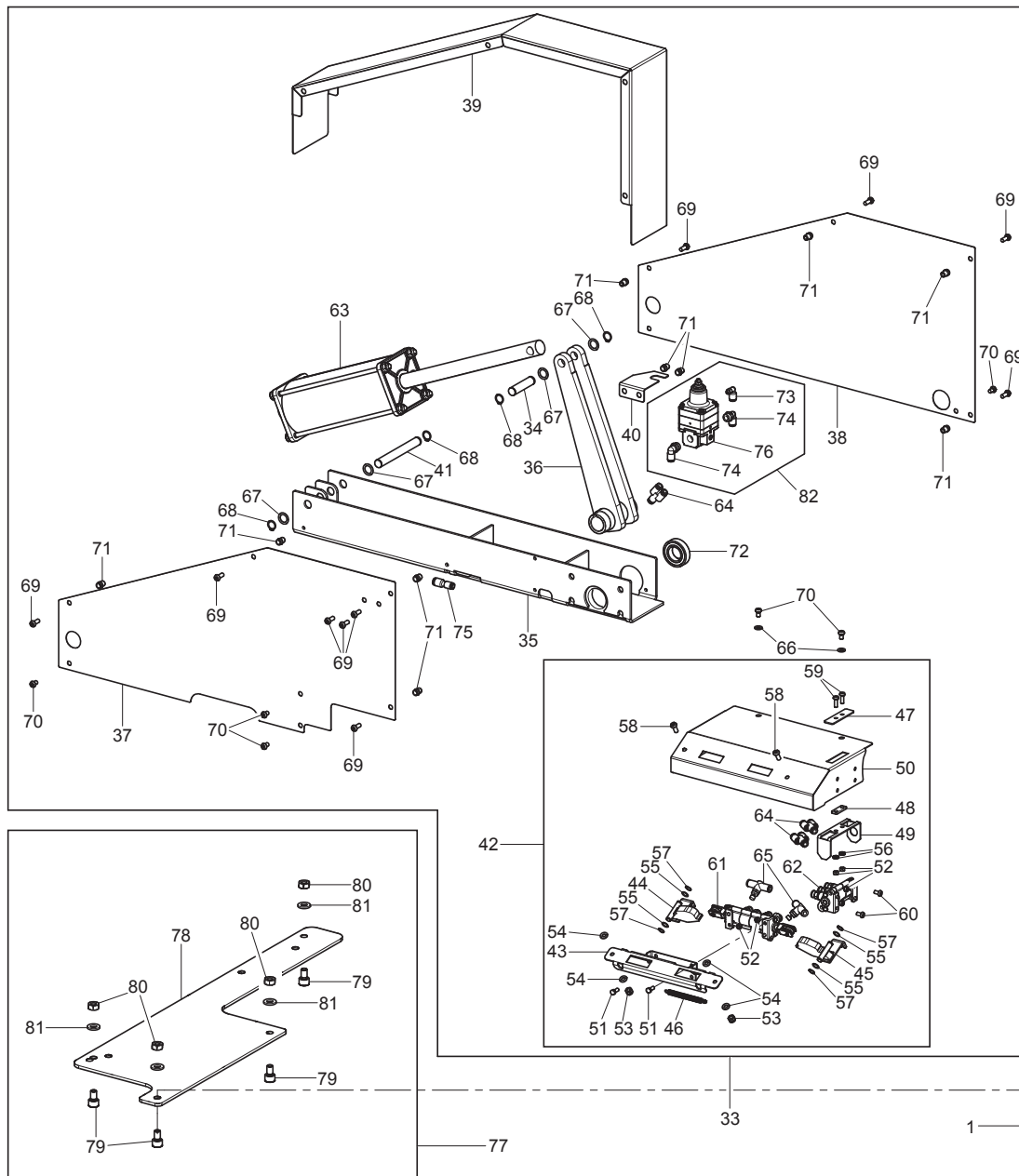
- P - Air source
- VS - Valve - rise
- VD - Valve - descent
- VM - Valve - memory
- RP - Pressure adjuster
- RF1 - Flow regulator - rise
- RF2 - Flow regulator - descent
- C - Cylinder
- S - Silencer

GAR324 - GAR325			
	PNEUMATIC CONNECTION DIAGRAM		1297-M020-0_V
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			GB



KEY

- P - Air source
- VS - Valve - rise
- VD - Valve - descent
- RF1 - Flow regulator - rise
- RF2 - Flow regulator - descent
- C - Cylinder
- S - Silencer



LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE - LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

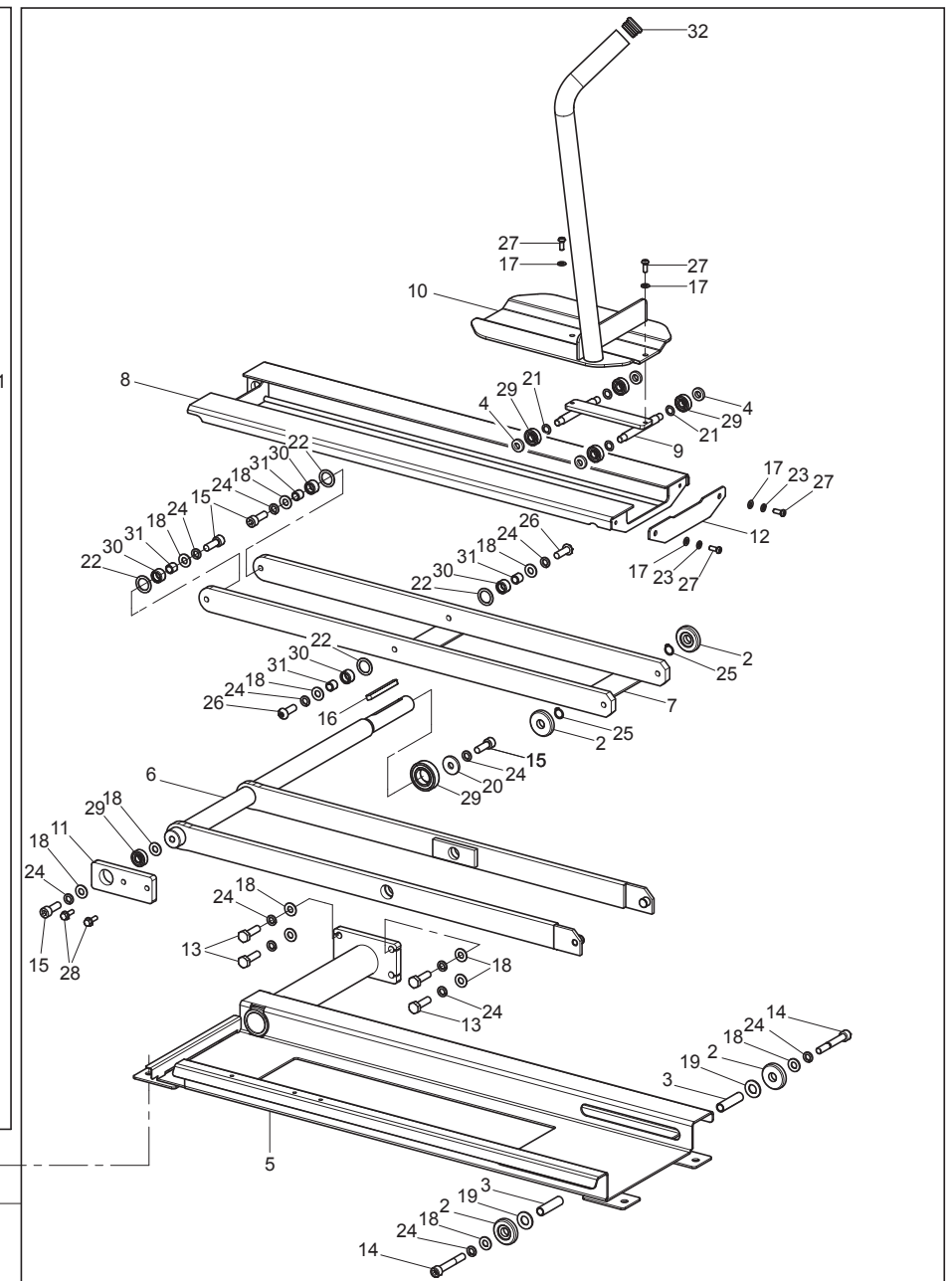
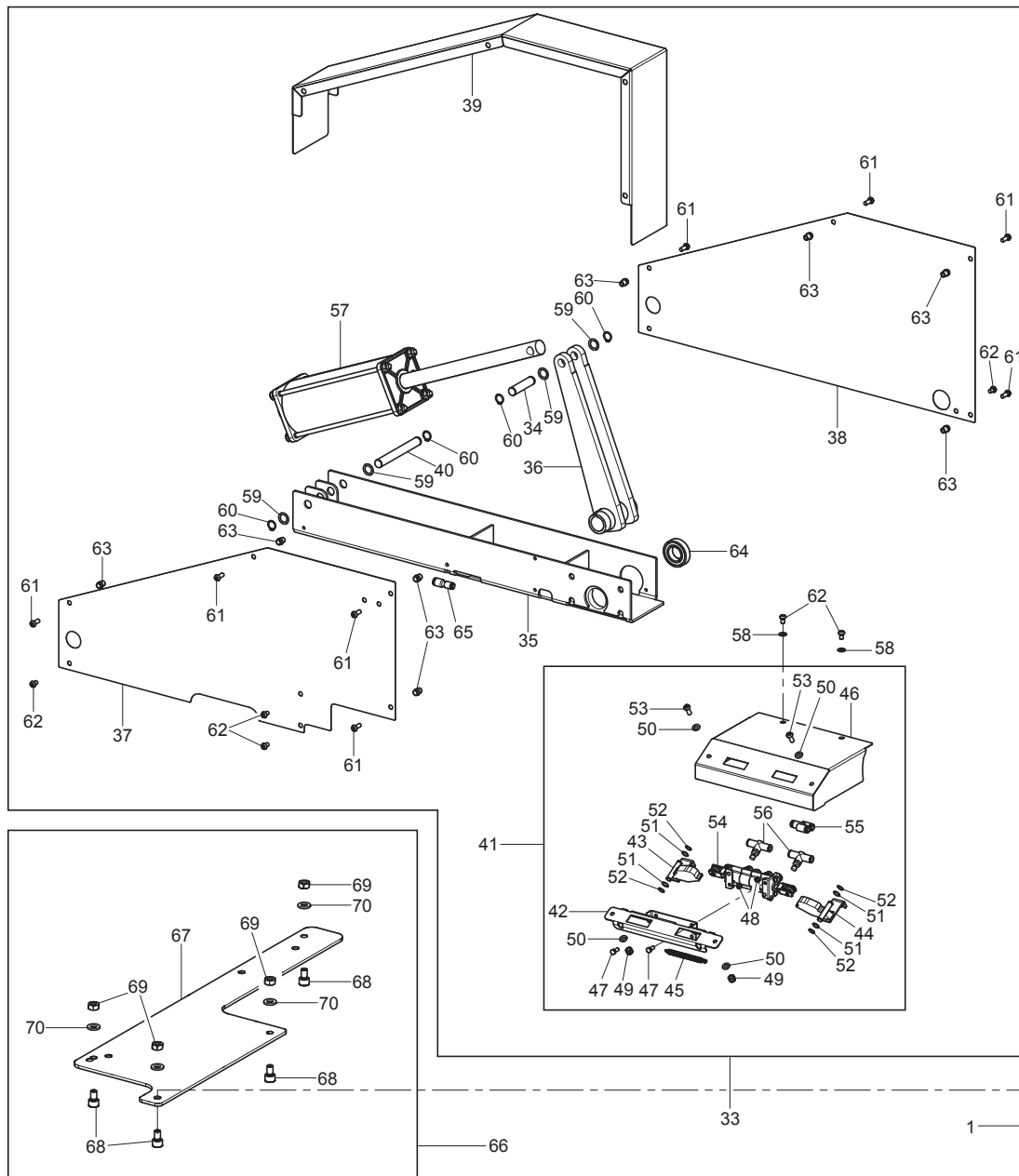
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N°	Cod.	Descrizione	Description	Beschreibung	Description	Descripción
1	VS129793540	Gruppo meccanismo sollevatore	Lifter gear unit	Hubvorrichtung Getriebesatz	Groupe mécanisme élévateur	Grupo mecanismo elevador
2	VS129426350	Rullo	Roll	Rolle	Rouleau	Rodillo
3	VS129426370	Distanziale	Spacer	Abstandsstück	Entretoise	Distanciador
4	VS129426450	Pattino	Sliding block	Schlitten	Patin	Patín
5	VS129718590	Telaio saldato	Welded frame	Geschweißter Rahmen	Chassis soudé	Chasis soldado
6	VS129718660	Biella doppia	Double connecting rod	Doppelpleuelstange	Bielle double	Biela doble
7	VS129718680	Biella interna	Internal connecting rod	Innenpleuelstange	Bielle intérieure	Biela interna
8	VS129718700	Pedana saldata	Welded footboard	Geschweißtes Trittbrett	Marchepied soudé	Plataforma soldada
9	VS129718740	Slitta saldata	Welded slide	Geschweißter Schlitten	Chariot soudé	Guía deslizador soldada
10	VS129718780	Appoggio ruota	Wheel bearing	Auflagesrad	Appui roue	Apoyo rueda
11	VS129718810	Supporto cuscinetto	Bearing support	Lagerhalterung	Support roulement	Soporte rodamiento
12	VS129719430	Lamiera	Plate	Blech	Tôle	Chapa
13	VS203106	VTE M10x35	TE M10x35 screw	Schraube TE M10x35	Vis TE M10x35	Tornillo TE M10x35
14	VS206182	VTCEI M10x70	TCEI M10x70 screw	Schraube TCEI M10x70	Vis TCEI M10x70	Tornillo TCEI M10x70
15	VS206193	VTCEI M10x30	TCEI M10x30 screw	Schraube TCEI M10x30	Vis TCEI M10x30	Tornillo TCEI M10x30
16	VS231046	Chiavetta	Wrench	Schlüssel	Clé	Llave
17	VS236004	Rondella piana 6,4	6,4 flat washer	Ebene Scheibe 6,4	Rondelle plane 6,4	Arandela plana 6,4
18	VS236007	Rondella piana 10,5x21x2	Fe 10,5x21x2 washer	Ebene Scheibe 10,5x21x2	Rondelle Fe 10,5x21x2	Roseta Fe 10,5x21x2
19	VS236008	Rondella D.15	D.15 washer	Beilagscheibe D. 15	Rondelle D.15	Arandela D. 15
20	VS236043	Rosetta Fe 10,5x30x4	Fe 10,5x30x4 washer	Rosette Fe 10,5x30x4	Rondelle Fe 10,5x30x4	Roseta Fe 10,5x30x4
21	VS237517	Rasamento 10x16x0,5	10x16x0,5 shim adjustment	Ausgleichscheibe 10x16x0,5	Rasage 10x16x0,5	Rasamiento 10x16x0,5
22	VS237563	Rosetta 20x30x2	20x30x2 washer	Rosette 20x30x2	Rondelle 20x30x2	Roseta 20x30x2
23	VS238004	Rondella elastica 6,4	6,4 elastic washer	Elastikscheibe 6,4	Rondelle elastique 6,4	Arandela elástica 6,4
24	VS238007	Rondella elastica 10,5	10,5 elastic washer	Elastikscheibe 10,5	Rondelle elastique 10,5	Arandela elástica 10,5
25	VS243006	Anello 14	Ring 14	Ring 14	Anneau 14	Anillo 14
26	VS266193	VTBEI M10x30	TBEI M10x30 screw	Schraube TBEI M10x30	Vis TBEI M10x30	Tornillo TBEI M10x30
27	VS266019	VTBEI M6x16	TBEI M6x16 screw	Schraube TBEI M6x16	Vis TBEI M6x16	Tornillo TBEI M6x16
28	VS272021	VTE M6x20 flangiata	TE M6x20 flanged screw	Schraube TE M6x20 geflanscht	Vis TE M6x20 flangée	Tornillo TE M6x20 brida
29	VS603030	Cuscinetto radiale	Radial bearing	Rundlager	Roulement radial	Rodamiento radial
30	VS617007	Astuccio	Case	Kasten	Étui	Estuche
31	VS622105	Anello interno	Inner ring	Innenring	Anneau intérieure	Anillo interno
32	VSB8004000	Tappo ad alette	Fins plug	Stöpsel	Bouchon à ailettes	Tapa
33	VS129793550	Gruppo motore sollevatore bilanciato	Balanced lifter motor unit	Ausgewuchteter Hubvorrichtung Motorsatz	Groupe moteur élévateur équilibré	Grupo motor elevador equilibrado
34	VS129710620	Perno	Pin	Zapfen	Pivot	Perno
35	VS129718830	Supporto saldato	Welded support	Geschweißter Träger	Support soudé	Soporte soldado
36	VS129718870	Mozzo	Hub	Nabe	Moyeau	Cubo
37	VS129718900	Parete anteriore	Front wall	Vordere Wand	Paroi antérieure	Pared anterior
38	VS129718910	Parete posteriore	Rear wall	Hintere Wand	Paroi postérieure	Pared posterior
39	VS129718920	Lamiera piegata	Bent plate	Gebogenes Blech	Tôle pliée	Chapa plegada
40	VS129718930	Staffa	Bracket	Bügel	Bride	Brida
41	VS129718940	Perno	Pin	Zapfen	Pivot	Perno
42	VS129793570	Gr. pedaliera sollevatore bilanciato	Balanced lifter pedalboard unit	Ausgewuchteter Hubvorrichtungpedalleistesatz	Gr. pédales de direction élévateur équilibré	Grupo pedalera elevador equilibrado
43	VS129718960	Supporto pedaliera	Pedalboard support	Halterung Pedalleiste	Support pédale de direction	Soporte pedalera
44	VS129718990	Pedale sx	Lh pedal	Linksdrehendes Pedal	Pédale gauche	Pedal izq
45	VS129719000	Pedale dx	Rh pedal	Rechtsdrehendes Pedal	Pédale droite	Pedal dra
46	VS129719160	Molla trazione	Drive spring	Antriebsfeder	Ressort traction	Resorte tracción
47	VS129719450	Lamiera per piede	Plate for foot	Blech für Fuß	Tôle pour pied	Chapa para pie
48	VS129719460	Distanziale	Spacer	Abstandsstück	Entretoise	Distanciador



LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE - LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

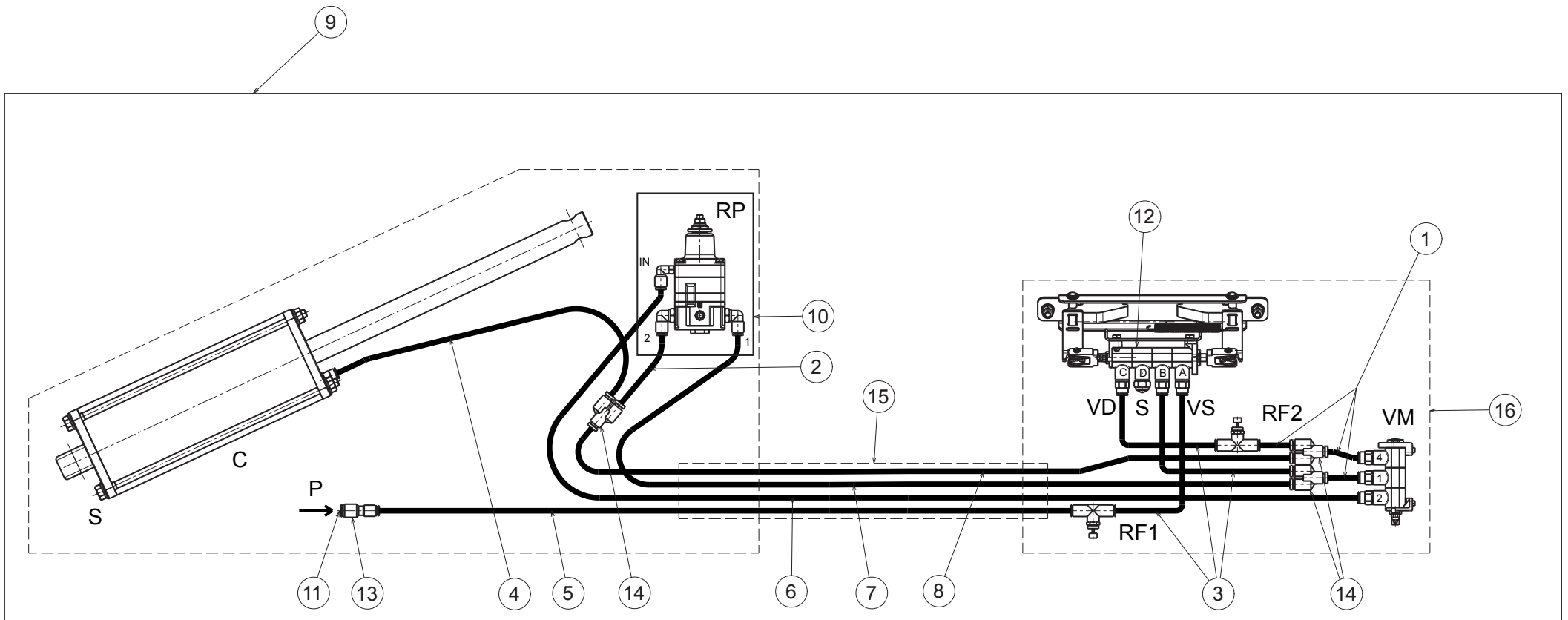
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		Tavola/Tab./Tafel N°D - Rev. 0		GAR325		GAR324 - GAR325
N°	Cod.	Descrizione	Description	Beschreibung	Description	Descripción
1	VS129793540	Gruppo meccanismo sollevatore	Lifter gear unit	Hubvorrichtung Getriebesatz	Groupe mécanisme élévateur	Grupo mecanismo elevador
2	VS129426350	Rullo	Roll	Rolle	Rouleau	Rodillo
3	VS129426370	Distanziale	Spacer	Abstandsstück	Entretoise	Distanciador
4	VS129426450	Pattino	Sliding block	Schlitten	Patin	Patín
5	VS129718590	Telaio saldato	Welded frame	Geschweißter Rahmen	Chassis soudé	Chasis soldado
6	VS129718660	Biella doppia	Double connecting rod	Doppelpleuelstange	Bielle double	Biela doble
7	VS129718680	Biella interna	Internal connecting rod	Innenpleuelstange	Bielle intérieure	Biela interna
8	VS129718700	Pedana saldata	Welded footboard	Geschweißtes Trittbrett	Marchepied soudé	Plataforma soldada
9	VS129718740	Slitta saldata	Welded slide	Geschweißter Schlitten	Chariot soudé	Guía deslizadora soldada
10	VS129718780	Appoggio ruota	Wheel bearing	Auflagesrad	Appui roue	Apoyo rueda
11	VS129718810	Supporto cuscinetto	Bearing support	Lagerhalterung	Support roulement	Soporte rodamiento
12	VS129719430	Lamiera	Plate	Blech	Tôle	Chapa
13	VS203106	VTE M10x35	TE M10x35 screw	Schraube TE M10x35	Vis TE M10x35	Tornillo TE M10x35
14	VS206182	VTCEI M10x70	TCEI M10x70 screw	Schraube TCEI M10x70	Vis TCEI M10x70	Tornillo TCEI M10x70
15	VS206193	VTCEI M10x30	TCEI M10x30 screw	Schraube TCEI M10x30	Vis TCEI M10x30	Tornillo TCEI M10x30
16	VS231046	Chiavetta	Wrench	Schlüssel	Clé	Llave
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19	VS236008	Rondella D.15	D.15 washer	Beilagscheibe D. 15	Rondelle D.15	Arandela D. 15
20	VS236043	Rosetta Fe 10,5x30x4	Fe 10,5x30x4 washer	Rosette Fe 10,5x30x4	Rondelle Fe 10,5x30x4	Roseta Fe 10,5x30x4
21	VS237517	Rasamento 10x16x0,5	10x16x0,5 shim adjustment	Ausgleichscheibe 10x16x0,5	Rasage 10x16x0,5	Rasamiento 10x16x0,5
22	VS237563	Rosetta 20x30x2	20x30x2 washer	Rosette 20x30x2	Rondelle 20x30x2	Roseta 20x30x2
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25	VS243006	Anello 14	Ring 14	Ring 14	Anneau 14	Anillo 14
26	VS266193	VTBEI M10x30	TBEI M10x30 screw	Schraube TBEI M10x30	Vis TBEI M10x30	Tornillo TBEI M10x30
27	VS266019	VTBEI M6x16	TBEI M6x16 screw	Schraube TBEI M6x16	Vis TBEI M6x16	Tornillo TBEI M6x16
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35	VS129718830	Supporto saldato	Welded support	Geschweißter Träger	Support soudé	Soporte soldado
36	VS129718870	Mozzo	Hub	Nabe	Moyeau	Cubo
37	VS129718900	Parete anteriore	Front wall	Vordere Wand	Paroi antérieure	Pared anterior
38	VS129718910	Parete posteriore	Rear wall	Hintere Wand	Paroi postérieure	Pared posterior
39	VS129718920	Lamiera piegata	Bent plate	Gebogenes Blech	Tôle pliée	Chapa plegada
40	VS129718940	Perno	Pin	Zapfen	Pivot	Perno
41	VS129793580	Gruppo pedaliera sollevatore	Lifter pedalboard unit	Hubvorrichtung Pedalleistensatz	Groupe pédales de direction élévateur	Grupo pedalera elevador
42	VS129718960	Supporto pedaliera	Pedalboard support	Halterung Pedalleiste	Support pédale de direction	Soporte pedalera
43	VS129718990	Pedale sx	Lh pedal	Linksdrehendes Pedal	Pédale gauche	Pedal izq
44	VS129719000	Pedale dx	Rh pedal	Rechtsdrehendes Pedal	Pédale droit	Pedal dra
45	VS129719160	Molla trazione	Drive spring	Antriebsfeder	Ressort traction	Resorte tracción
46	VS129719550	Carter pedaliera	Pedalboard guard	Pedalleiste Gehäuse	Carter pédale de direction	Cárter pedalera
47	VS203207	VTE M5x12	TE M5x12 screw	Schraube TE M5x12	Vis TE M5x12	Tornillo TE M5x12
48	VS224005	Dado medio M5	M5 middle nut	Mittlere Mutter M5	Écrou moyen M5	Tuerca media M5



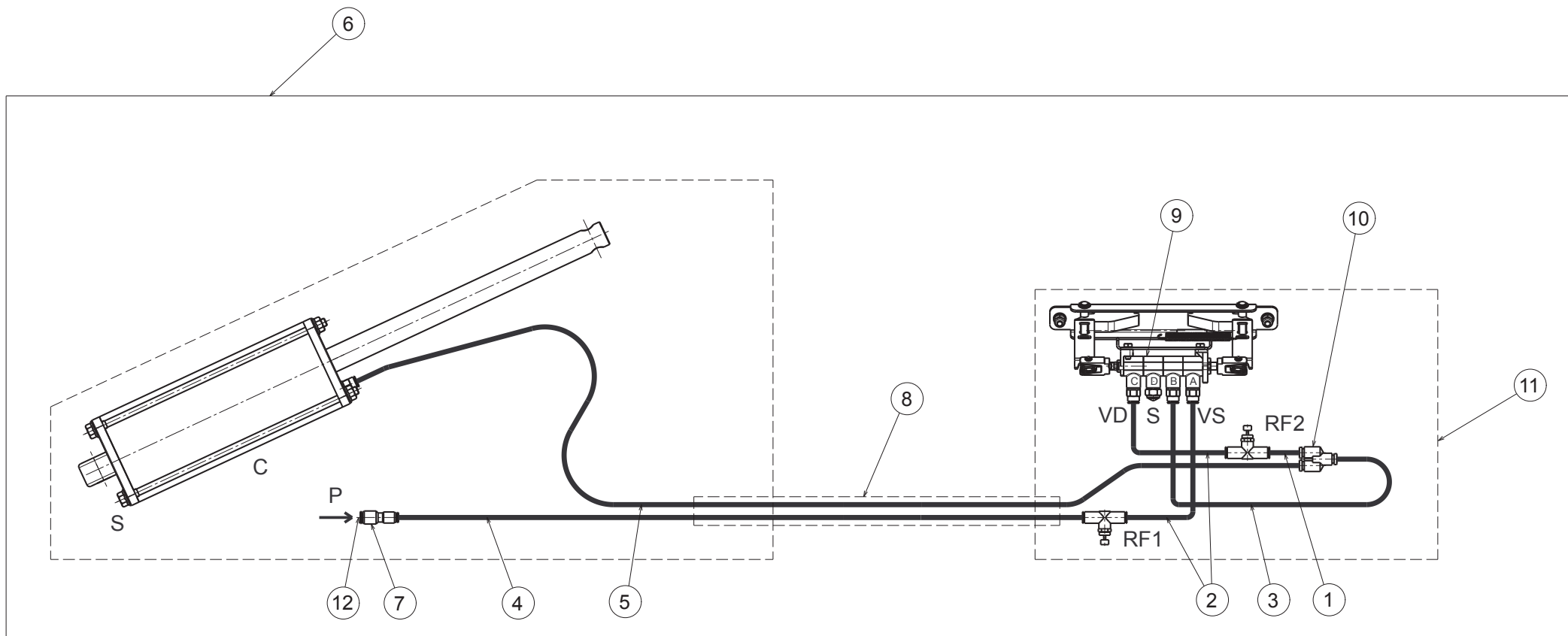
LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE - LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

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