



7300-M006-1_R

G6441.XX - G6441I.XX - G6441V.20

G7441.XX - G7441I.XX

G7441I.22EX - G7441V.XX

G7441IV.XX - G7441ID.22

G7641.XX - G7641I.XX

G7641V.XX - G7641IV.XX

G7641D.XX - G7641ID.XX

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 or call:

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7300-M006-1_R - Rev. n. 1 (05/2018)

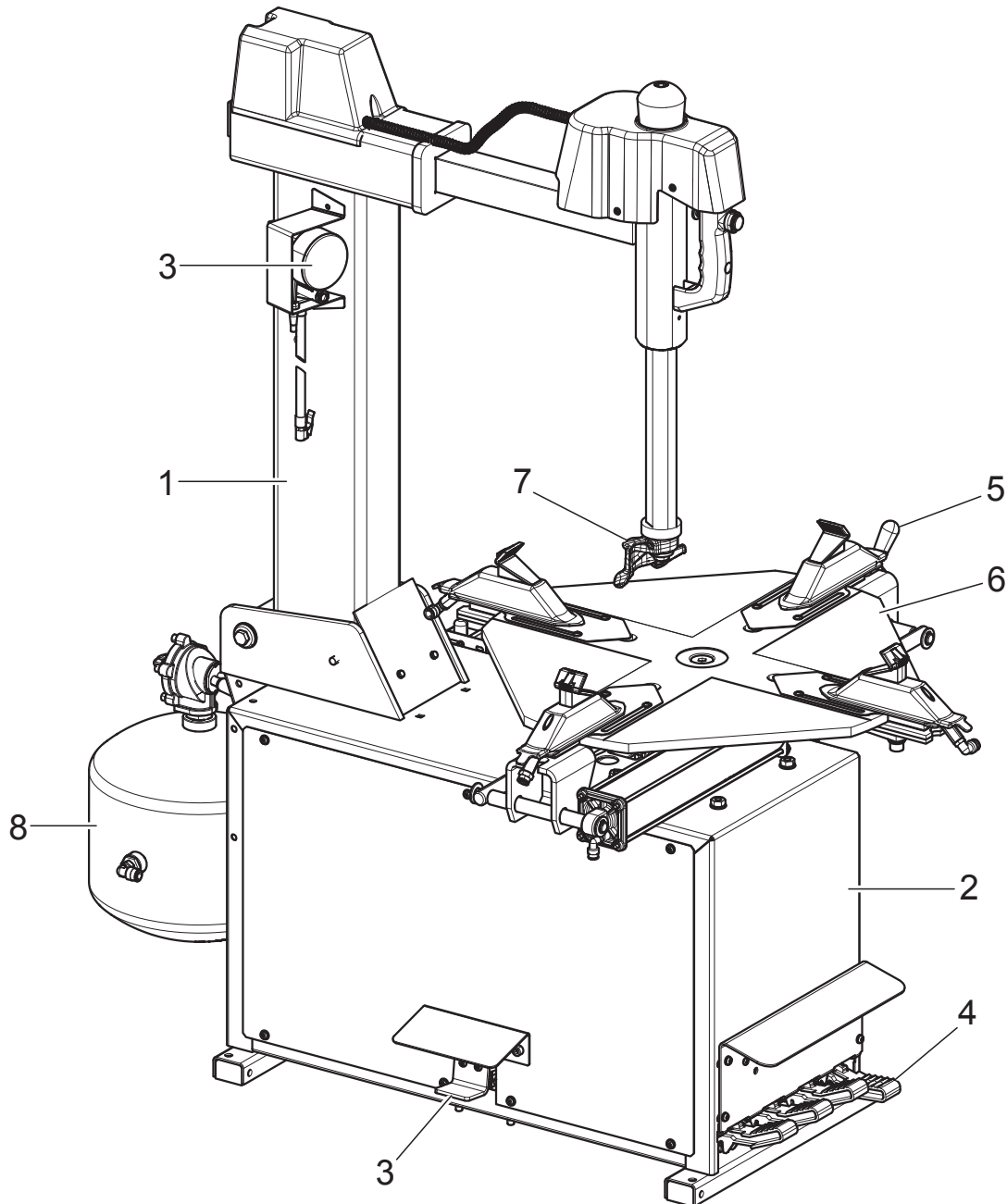


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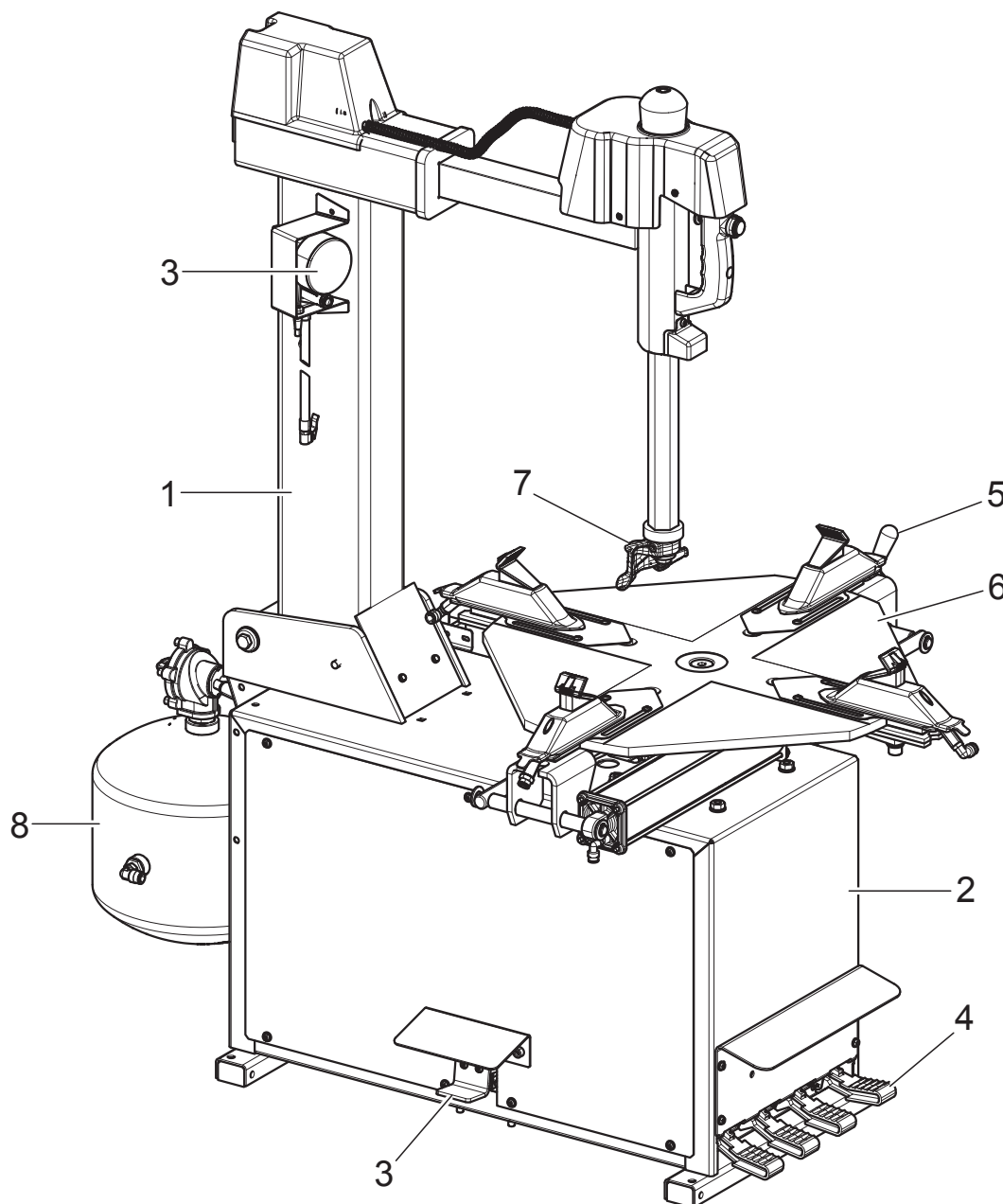
20.0 LIST OF COMPONENTS

Fig. 1 - G6441.XX - G6441I.XX - G6441V.20

KEY

- 1 - Rod
- 2 - Machine body
- 3 - Inflation unit (*)
- 4 - Pedal control unit
- 5 - Bead breaker unit
- 6 - Complete self-centring chuck
- 7 - Tool
- 8 - Tank (only for G6441I.XX version)

(*) Standard for G6441I.XX.
On demand for G6441.XX and G6441V.20.

Fig. 2 - G7441.XX - G7441I.XX - G7441I.22EX - G7441V.XX - G7441IV.XX - G7441ID.22



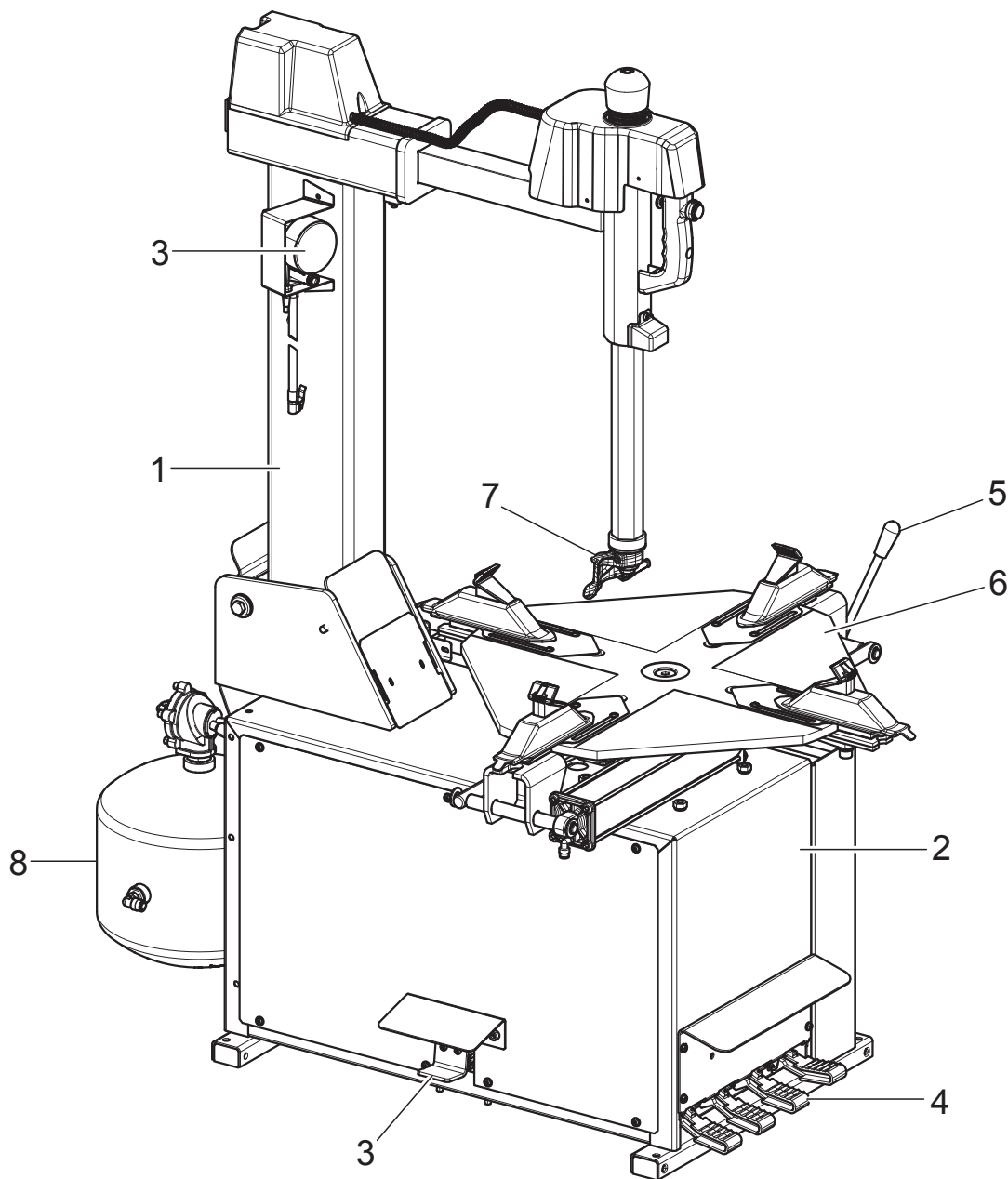
KEY

- 1 - Rod
- 2 - Machine body
- 3 - Inflation unit (*)
- 4 - Pedal control unit
- 5 - Bead breaker unit
- 6 - Complete self-centring chuck
- 7 - Tool
- 8 - Tank (only for G7441I.XX - G7441I.22EX - G7441IV.XX - G7441ID.22 version)

(*) Standard for G7441I.XX - G7441I.22EX - G7441IV.XX - G7441ID.22.
On demand for G7441.XX - G7441V.XX.



**Fig. 3 - G7641.XX - G7641I.XX - G7641V.XX - G7641IV.XX - G7641D.XX -
G7641ID.XX**











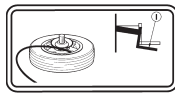


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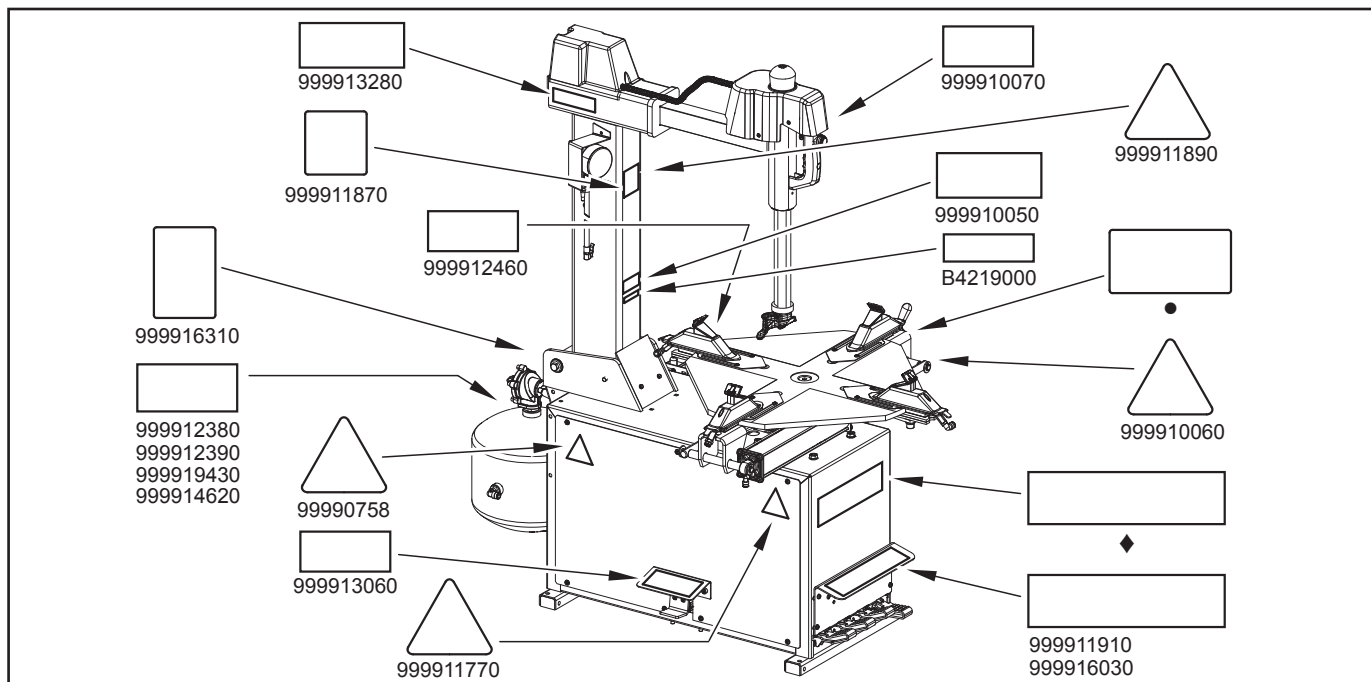
- 1 - Rod
- 2 - Machine body
- 3 - Inflation unit (*)
- 4 - Pedal control unit
- 5 - Bead breaker unit
- 6 - Complete self-centring chuck
- 7 - Tool
- 8 - Tank (only for G7641I.XX - G7641IV.XX - G7641ID.XX version)

(*) Standard for G7641I.XX - G7641IV.XX - G7641ID.XX.
On demand for G7641.XX - G7641V.XX.

SYMBOLS USED IN THE MANUAL AND ON THE MACHINE

Symbols	Description
	Read instruction manual.
	FORBIDDEN!
 2167000	Wear work gloves.
	Wear work shoes.
 2167000	Wear safety goggles.
	Wear safety earcaps.
 99990758	Shock hazard.
 999911770	Danger! Moving mechanical parts.
	Caution: hanging loads.
	Mandatory. Operations or jobs to be performed compulsorily.
	Warning. Be particularly careful (possible material damages).

Symbols	Description
	Danger! Be particularly careful.
	Move with fork lift truck or pallet truck.
	Lift from above.
 2168000	Tyre burst danger.
 710211210	Spindle rotation direction.
 2166000	Hands crushing danger.
 1541000	General danger.
 2170000	Max inflation pressure rating.
 3691000	Inflation pedal.
	Technical assistance necessary. Do not perform any intervention.
	Note. Indication and/or useful information.

**INFORMATION PLATE LOCATION TABLE****Code numbers of plates**

B4219000	<i>Rotation indicating plate</i>
99990758	<i>Electricity danger plate</i>
999910050	<i>Protection device use plate</i>
999910060	<i>Bead breaker danger plate</i>
999910070	<i>Head danger indicating plate</i>
999911770	<i>Unit move indicating plate</i>
999911890	<i>Bursting tyre hazard plate</i>
999912380	<i>Voltage plate 400V 50Hz 3Ph (G6441.XX-G6441I.XX-G6441V.XX-G7441.XX-G7441I.XX - G7441V.XX-G7441IV.XX-G7641.XX-G7641I.XX-G764V.XX-G764IV.XX)</i>
999912390	<i>Plate 230V 50 Hz 3 Ph (G6441.XX-G6441I.XX-G6441V.XX-G7441.XX-G7441I.XX-G7441I.22EX-G7441V.XX-G7441IV.XX-G7641.XX-G7641I.XX-G764V.XX-G764IV.XX)</i>
999912460	<i>Supply pressure indicating plate</i>
999913280	<i>Column tilting plate</i>
999916310	<i>Rubbish skip label</i>
999911870	<i>Earcaps plate (G6441I.XX-G7441I.XX-G7441I.22EX-G7441IV.XX-G7441ID.XX-7641I.XX-7641IV.XX-7641ID.XX)</i>
999911910	<i>Pedals plate (G6441.XX-G6441I.XX-G7441.XX-G7441I.XX-G7641.XX-G7641I.XX-G7641V.XX-G7641IV.XX-G7641D.XX-G7641ID.XX)</i>
999916030	<i>Pedals plate (G6441V.20-G7441IV.XX-G7641V.XX-G7641IV.XX)</i>
999913060	<i>Pedal plate (G7441ID.XX)</i>
999919430	<i>Voltage 200V 50-60Hz 3ph (G7441I.22EX)</i>
999914620	<i>Voltage 200/265V 50/60Hz 1Ph (G7441ID-G7641D-G7641ID-G7441ID.22)</i>
•	<i>Serial number plate</i>
◆	<i>Manufacturer name plate</i>



**IF ONE OR MORE PLATES ON THE MACHINE ARE LOST OR BECOME ILLEGIBLE, IT/
THEY MUST BE REPLACED, STATING THE RELATIVE CODE NUMBER WHEN ORDER-
ING THE REPLACEMENT.**



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 electro-hydraulic tyre-changer. We feel sure you will not regret your decision. The machine has been designed for use in professional workshops and in particular it stands out for its reliability, safe and rapid operation: with just a small degree of maintenance and care, this will give you many years of trouble-free service and lots of satisfaction. This manual contains all operating instructions and details on how to service and use the machine correctly.

2.0 INTENDED USE

Model machines "G6441 - G7441 - 7641" and relevant versions are car tyre changers intended for use solely for mounting, demounting and inflating wheels having max. diameter 41" and width max 12". (G6441-G7441) - 15" (G7641).



THIS ACCESSORY MUST ONLY BE USED FOR THE PURPOSE FOR WHICH IT IS SPECIFICALLY DESIGNED. ANY OTHER USE IS CONSIDERED IMPROPER AND THEREFORE UNACCEPTABLE.



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



AN INTENSIVE USE OF THE EQUIPMENT 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 machine and to 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

All the machines are equipped with:

- **Fixed guards.**

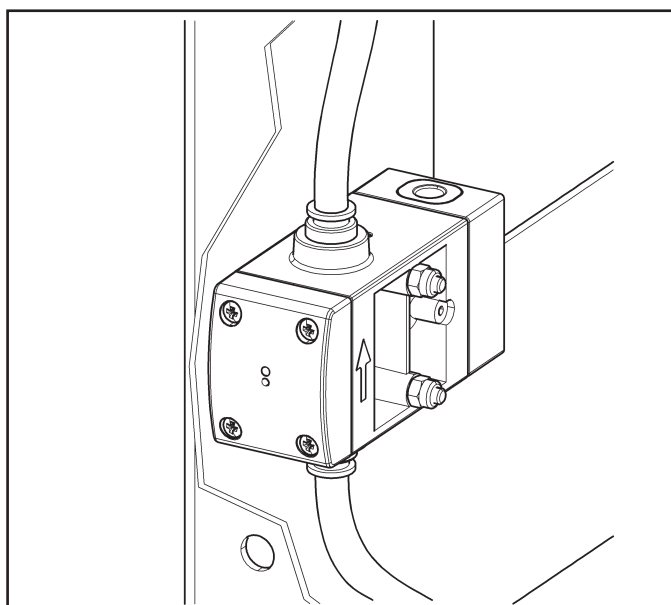
The machine is fitted with a number of fixed guards intended to prevent potential crushing, cutting and compression risks.

- **“operator attending” controls** (immediate stop by releasing control) for: mandrel rotation, beader blade motion, inflating; other drives such as rim clamping on spindle, head clamping cannot be of the operator-attending type, seen their function. In these cases safety is guaranteed by compliance with indications or precautions on machine residual risks (warning plates) also mentioned in the user’s guide.

All machines can also be used for inflating tires (“I” versions), and are equipped with the following:

- pressure gauge for tyre pressure reading, EC-certified and in compliance with 86/217/EEC Standard;
- motor protection devices (for G7441ID.22 - G7641D.XX - G7641ID.XX models). The new “Invemotor” motor is equipped with electronic protection devices. They stop the motor if working defected conditions appear to avoid that the motor itself can be damaged and that the operator safety can be compromised (overvoltage, overload, overtemperature). For other details, see the chapter 14 “Fault-Finding”.
- Max. pressure valve fitted on compressed air reservoir (preset – see pneumatic diagram) in compliance with 87/404/EEC Standard;
- **Non-adjustable (balancing valve) pressure limiter.**

This allows inflation of tyres in reasonable safety. Inflation of tyres to over $4,2 \pm 0,2$ bar (60 PSI) is not allowed.



3.1 Residual risks

The machine 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.

This manual stresses possible residual risks, also highlighted in pictograms on the present manual and adhesive warning signals placed on the machine: their location is represented in “PLATE LOCATION ON MACHINE INFORMATION TABLE” on page 8.

4.0 GENERAL SAFETY RULES



- Any tampering with or modification to the machine 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 machine leads to serious dangers and represents a transgression of European safety rules.
- The machine may be used only in areas free from the danger of explosion or fire.
- 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 machine if it miss-functions and contact the assistance service of an authorized dealer.
- In emergency situations and before carrying out any maintenance or repairs, disconnect all supplies to the machine by using the main switch.
- 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.



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



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, dry and not exposed to atmospheric agents. Make sure that the working premises are properly lit. The machine can be operated by a single operator. Unauthorised personnel must remain outside the working area, as shown in **Figure 6**. Avoid any hazardous situations. Do not use air-operated or electrical equipment when the shop is damp or the floor slippery and do not expose such tools to atmospheric agents.
 - During inflation do not lean on the tyre or remain above it. When beading in the tyre, keep hands away from tyre and the rim edge.
 - During inflation always stay to the side of the machine and never in front of it.
 - When operating and servicing this machine, carefully follow all applicable safety and accident-prevention precautions.
- The machine must not be operated by professionally unskilled persons.



IN CASE OF A CHANCE SUPPLY FAILURE (WHETHER ELECTRICITY OR COMPRESSED AIR), MOVE THE PEDALS TO THE NEUTRAL POSITION.

5.0 PACKING AND MOBILIZATION FOR TRANSPORT



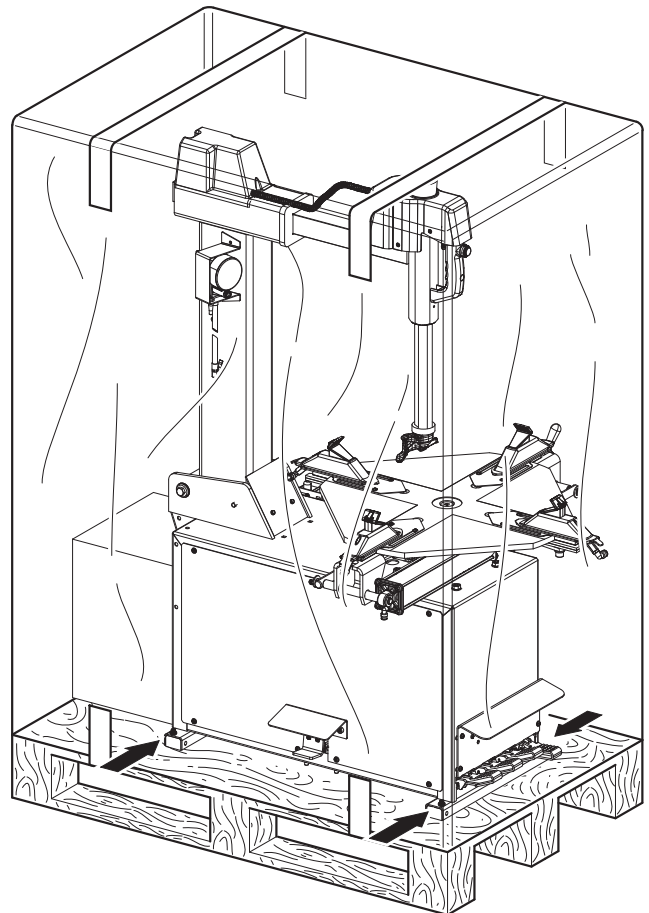
HAVE THE MACHINE HANDLED BY SKILLED PERSONNEL ONLY.

THE LIFTING EQUIPMENT MUST WITHSTAND A MINIMUM RATED LOAD EQUAL TO THE WEIGHT OF THE PACKED MACHINE (see paragraph "TECHNICAL SPECIFICATIONS").

The machine is packed completely assembled. The cardboard box containing it, according to the model, has dimensions of 1080x780x1620 or 1070x950x1620 mm.

Movement must be by pallet-lift or fork-lift trolley. The fork lifting points are indicated on the packing.

Fig. 4





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, and in the case of the machine packed fully assembled, check that the machine is complete and that there is no visible damage.

If in doubt **do not use the machine** 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

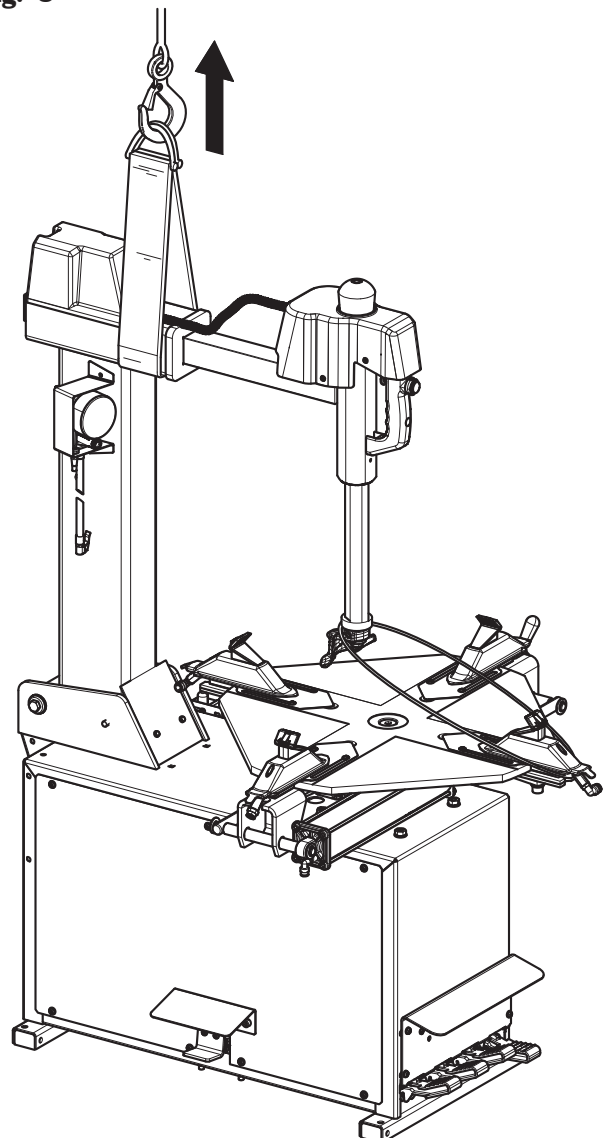


THE LIFTING EQUIPMENT MUST WITHSTAND A MINIMUM RATED LOAD EQUAL TO THE WEIGHT OF THE MACHINE (SEE PARAGRAPH TECHNICAL SPECIFICATIONS). DO NOT ALLOW THE LIFTED MACHINE TO SWING.

During the machine handling from the unpacking position to the installation one, follow the instructions listed below.

- Protect the exposed corners with suitable material (Pluribol/cardboard).
- Do not use metallic cables for lifting.
- Make sure that the electricity supply is not connected.
- Sling with belts long at least 100 cm and with a capacity load greater than 1000 kg (see **Fig. 5**).

Fig. 5



8.0 WORKING ENVIRONMENT CONDITIONS

The machine must be operated under proper conditions as follows:

- temperature: 0° + 55° C
- relative humidity: 30 - 95% (dew-free)
- atmospheric pressure: 860 - 1060 hPa (mbar).

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

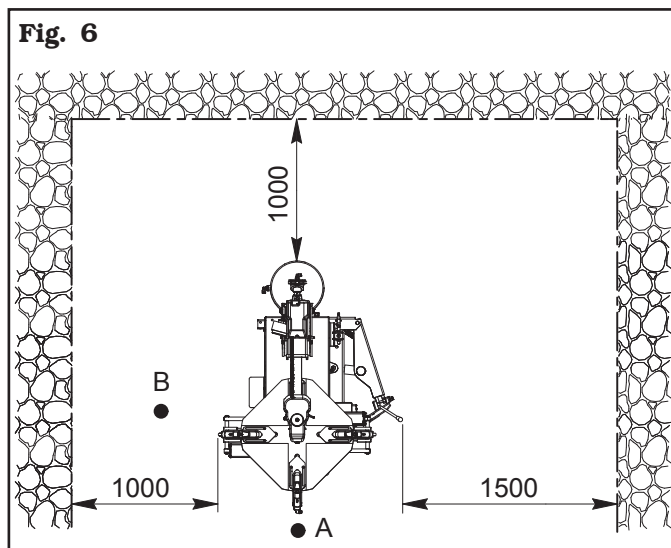
8.1 Working position

In **Figure 6** it is possible to identify working positions **A** and **B**.

Position **A** is the main position for wheel fitting and removal with the mandrel, while position **B** is ideal to follow wheel bead breaking operations.

Working in these positions allows better precision and speed during operating phases as well as greater safety for the operator.

8.2 Installation space




USE THE MACHINE 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 machine requires a usable space as indicated in **Figure 6**. The positioning of the machine 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 machine 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.

8.3 Lighting

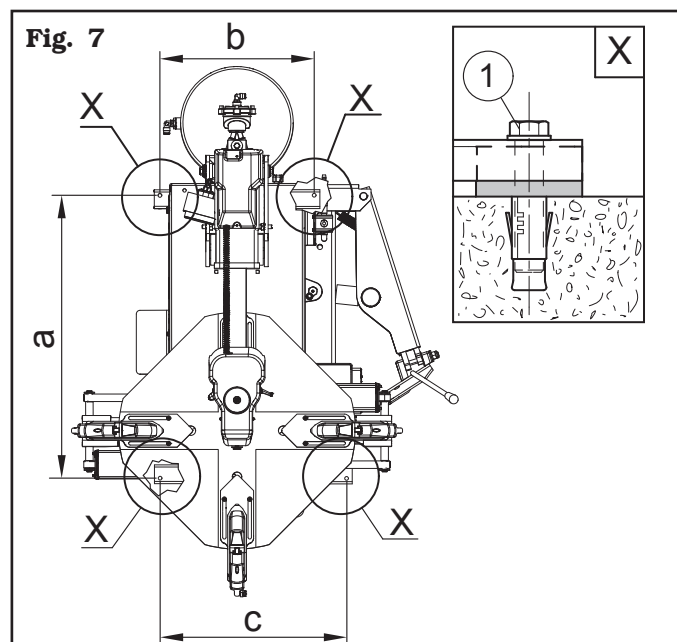
The machine does not require its own lighting for normal working operations.

However, it must be placed in an adequately lit environment.

For correct lighting, use lamps having total power 800/1200 Watt as envisaged by UNI 10380.

9.0 ANCHORING SYSTEM

The packed machine is fixed to a pallet by support feet. Such feet also fix the machine to the ground through anchor small blocks as shown in **Fig. 7**.



	G6441 G7441	G7641
a	762	762
b	410	410
c	410	520

The holes in the solid floor must be about 10 cm deep with a diameter of 8 MA.

The bolts (**Fig. 7 ref. 1**) must be inserted in the holes pre-arranged and fully tightened until reaching the system full seal.

10.0 ASSEMBLY AND PREPARATION FOR USE

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.

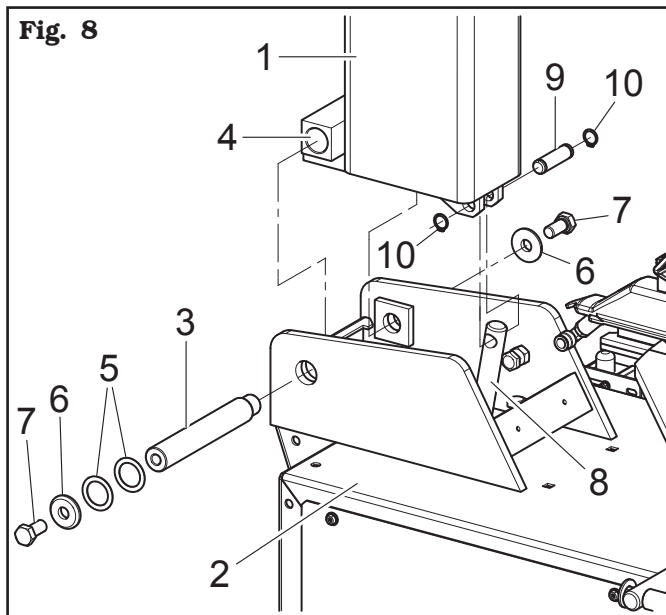
10.1 Assembly procedures

Remove the packaging and free the machine from the wrapping. Lift the machine and position it on the floor.

10.2 Post assembly

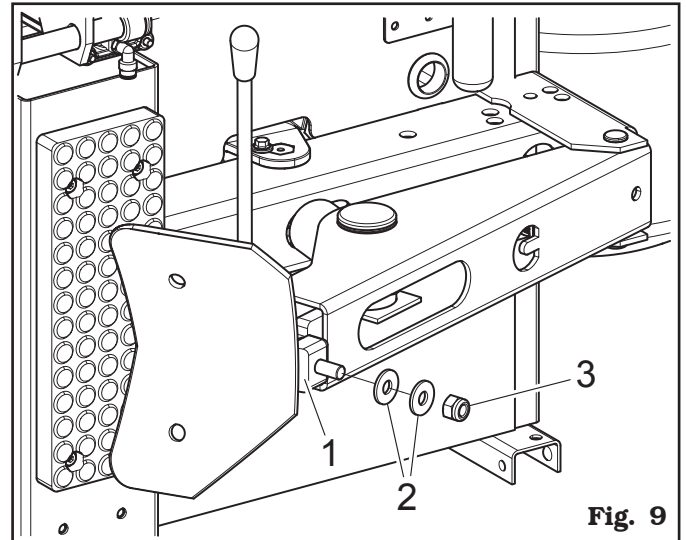
In case the post is supplied demounted, proceed following the instructions below.

1. Remove the fixing elements needed to fix the machine to the pallet.
2. Unpack the vertical post (**Fig. 8 ref. 1**) and put it vertically onto the base.
3. Put the post (**Fig. 8 ref. 1**) onto the base (**Fig. 8 ref. 2**) and fit the pin (**Fig. 8 ref. 3**) into the special hole (**Fig. 8 ref. 4**) and block it through the washers (**Fig. 8 ref. 5**), the spacers (**Fig. 8 ref. 6**) and the screws (**Fig. 8 ref. 7**). Fix the post control cylinder (**Fig. 8 ref. 8**) using the pin (**Fig. 8 ref. 9**) and the seegers (**Fig. 8 ref. 10**).



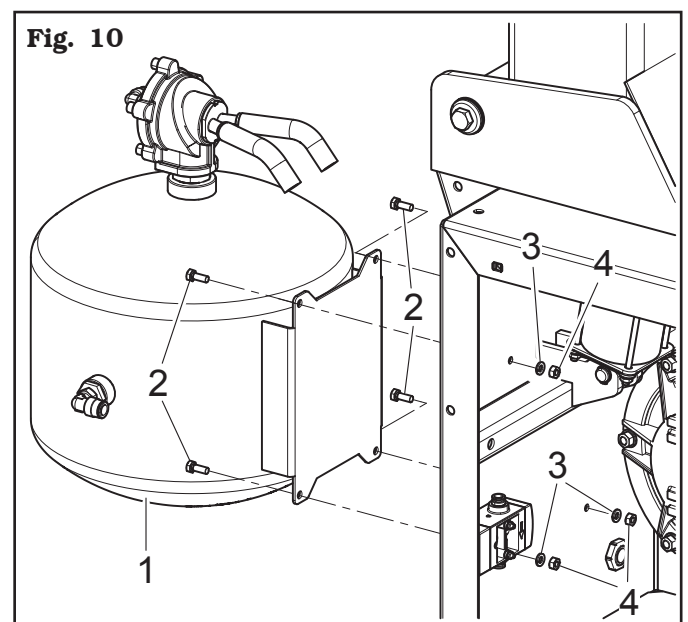
10.3 Beading arm mounting (only for G6441 and G7441)

Secure the beading arm vane (**Fig. 9 rif. 1**) using the washers (**Fig. 9 rif. 2**) and the nut (**Fig. 9 rif. 3**), on issue (nut and washers are clamped on the bead breaker vane).



10.4 Tubeless inflation mounting (only for I version)

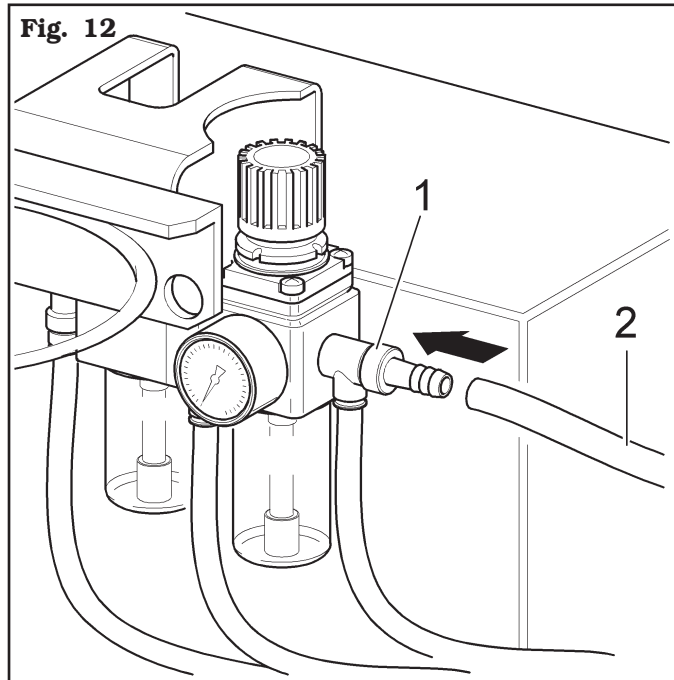
1. Mount the tank (**Fig. 10 ref. 1**) on the base rear part, as shown in **Fig. 10**, using the screws (**Fig. 10 ref. 2**) (tightening torque approx. 8 N·m), the washers (**Fig. 10 ref. 3**) and the nuts (**Fig. 10 ref. 4**).



2. Connect the flexible pipes (**Fig. 11 ref. 1**) pre-assembled on the mandrel rotary distributor (**Fig. 11 ref. 2**), on the valve (**Fig. 11 ref. 4**) hosesnipple (**Fig. 11 ref. 3**). Fasten the pipes (**Fig. 11 ref. 1**) with the prepared clamps (**Fig. 11 ref. 5**).

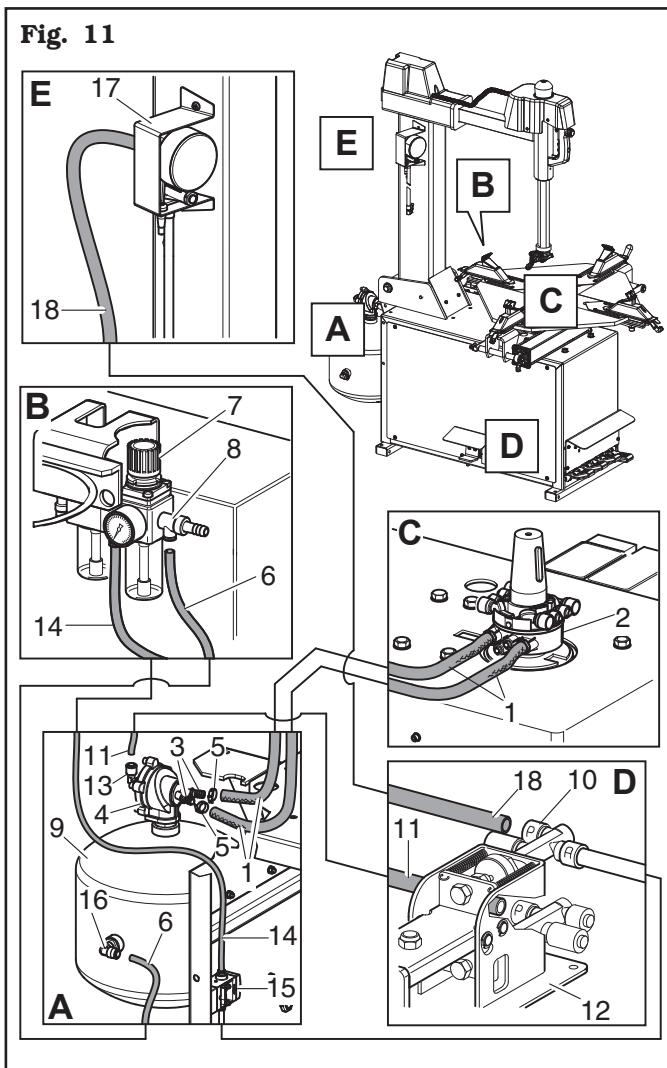
3. Connect the pipe (**Fig. 11 ref. 14**) from the greaser reduction gear filter (**Fig. 11 ref. 7**) (air not lubricated) to the compensation balancing valve (**Fig. 11 ref. 15**).
4. Connect the pipe (**Fig. 11 ref. 11**) from the pedal board lower valve (**Fig. 11 ref. 12**) to the blow valve (**Fig. 11 ref. 4**) union (**Fig. 11 ref. 13**).
5. Connect the pipe (**Fig. 11 ref. 6**) to the T coupling (**Fig. 11 ref. 8**) and the coupling (**Fig. 11 ref. 16**) placed on the tank (**Fig. 11 ref. 9**).
6. Connect the pipe (**Fig. 11 ref. 18**) from the blowing unit (**Fig. 11 ref. 17**) to the pedal board (**Fig. 11 ref. 12**), upper union (**Fig. 11 ref. 10**).

Connect the net pneumatic supply to the coupling (**Fig. 12 ref. 1**) placed on the machine filter unit.



The pressurized pipe coming from the mains must have a section of 1/4x10 (**Fig. 12 ref. 2**).
The filter unit is already mounted on the machine.

Fig. 11



IN CASE OF A CHANCE SUPPLY FAILURE, AND/OR BEFORE ANY PNEUMATIC CONNECTIONS, MOVE THE CONTROLS TO THE NEUTRAL POSITION.

10.5 Electrical connection



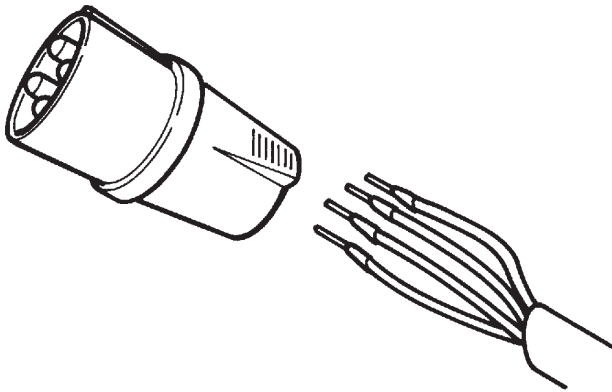
EVEN THE TINIEST PROCEDURE OF AN ELECTRICAL NATURE MUST BE CARRIED OUT BY PROFESSIONALLY QUALIFIED STAFF.



BEFORE CONNECTING THE MACHINE MAKE SURE THAT:

- **THE MAIN POWER RATING CORRESPONDS TO THE MACHINE RATING AS SHOWN ON THE MACHINE PLATE;**
- **ALL MAIN POWER COMPONENTS ARE IN GOOD CONDITION;**
- **THE ELECTRICAL SYSTEM IS PROPERLY GROUNDED (GROUND WIRE MUST BE THE SAME CROSS-SECTION AREA AS THE LARGEST POWER SUPPLY CABLES OR GREATER);**
- **MAKE SURE THAT THE ELECTRICAL SYSTEM FEATURES A CUTOUT WITH DIFFERENTIAL PROTECTION SET AT 30 MA.**

As envisaged by the regulations in force, the machine is not equipped with a master circuit breaker, but simply has a plug-socket connection to the electrical mains.



The machine is supplied with **3 m** of free cable. A plug corresponding to the following requirements must be connected to the cable:

- **Conformity to Norm IEC 309**
- **230/400 Volt – 16A**
- **3P + Ground**
- **IP 44**



FIT A TYPE-APPROVED PLUG TO THE MACHINE CABLE (THE GROUND WIRE IS YELLOW/GREEN AND MUST NEVER BE CONNECTED TO THE PHASE LEADS). MAKE SURE THAT THE ELECTRICAL SYSTEM IS COMPATIBLE WITH THE RATED POWER ABSORPTION SPECIFIED IN THIS MANUAL AND APT TO ENSURE THAT VOLTAGE DROP UNDER FULL LOAD WILL NOT EXCEED 4% OF RATED VOLTAGE (10% UPON START-UP).

On delivery, the machines are preset to operate at a voltage of 230/400 V - 50 Hz three-phase (for versions G6441, G7441, G7641-G7641I-G7641V-G7641IV) or with a monophasic voltage of 200/265 V - 50/60 Hz (for versions G7441ID.22, G7641D and G7641ID).

10.6 Direction of rotation of motor (versions with three phase motor)

Once all power connections have been made, make sure that the mandrel is rotating in the right direction (pedal lowered, clockwise rotation). If the direction of rotation is wrong, swap two phase wires in the plug.



FAILURE TO OBSERVE THE ABOVE INSTRUCTIONS WILL IMMEDIATELY INVALIDATE THE WARRANTY.

10.7 Controls



BEFORE STARTING UP THE TYRE-CHANGER, BE SURE TO BECOME FAMILIAR WITH THE LOCATION AND OPERATION OF ALL CONTROLS AND CHECK THEIR PROPER OPERATION (SEE PAR. "CONTROLS").



CARRY OUT A DAILY CHECK OF MAINTAINED-TYPE CONTROLS CORRECT FUNCTIONING, BEFORE STARTING MACHINE OPERATION.

11.0 CONTROLS

The pedal control unit comprises 4 (four) pedals.

11.1 4 pedals control unit

“Pedal 1” on this type of pedal control unit activates the automatic post and has two fixed operative functions:

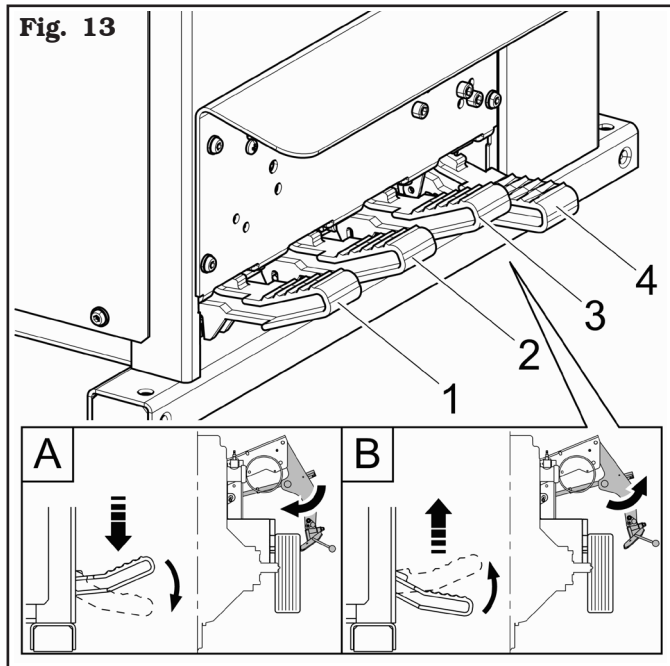
the first one (with pedal up) overturns the post from the operator's opposite side; the second one (with pedal down) brings back the post to working position.

“Pedal 2” opens and closes the locking jaws of the self-centering device. It has three stable positions: open – close – approach jaws.

“Pedal 3” has 2 operative positions: when it is pressed downwards, the cylinder for bead breaking with lateral arm (A) is operated; when such pedal is released, the bead breaking arm is moved back to the initial position (open bead breaker) (B).

“Pedal 4” controls turntable rotation and has 3 stable positions:

1. 0 position, turntable stopped;
2. Pressed down, the turntable is rotated clockwise;
3. Raised, the turntable is rotated anti-clockwise.



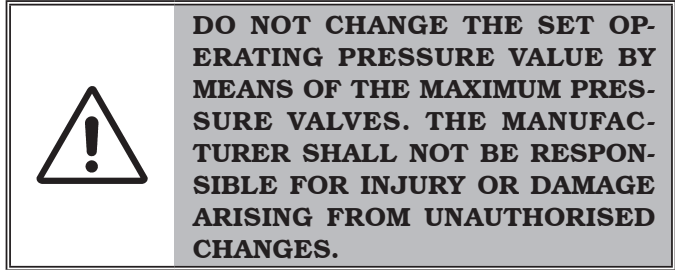
ONLY FOR VERSIONS WITH THREE-PHASE 230/400 V - 50 HZ 2 SPEED

“Pedal 4” controls turntable rotation and has 4 stable positions:

1. 0 position, turntable stopped;
2. Position 1 downwards - clockwise rotation of turntable;
3. Position 2 downwards from position 1 - clockwise rotation of turntable at double speed;
4. Position 1 upwards - counterclockwise rotation of turntable;

11.2 – Inflation pedal (on demand)

The pressure on the inflation pedal and the keeping it pressed, delivers air at controlled pressure (max 4,2 ± 0,2 bar).



11.3 Pedal for tubeless tyre inflating device (only for I versions)

The inflating pedal (Fig. 14 ref. 1) has three positions:

- lowered (unstable) to cause air (contained in the reservoir) to be jetted out through air lances;
- middle stroke (unstable): it let air out from inflating head;
- released (stable): it closes all air outlets.

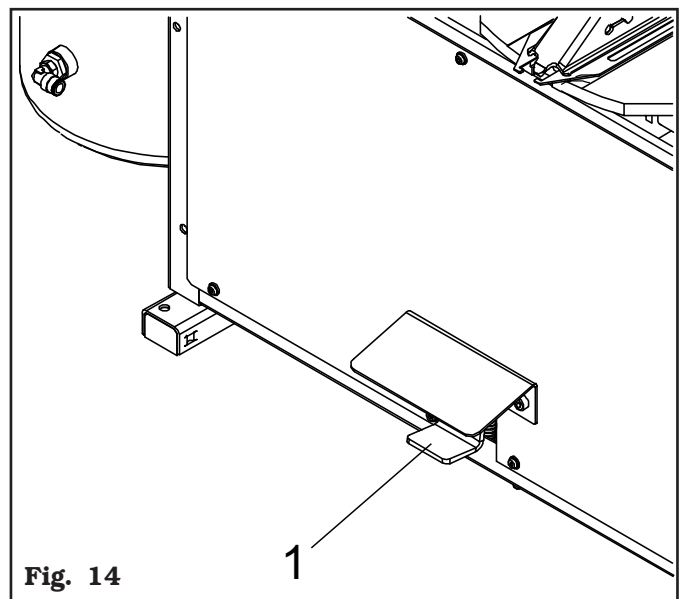
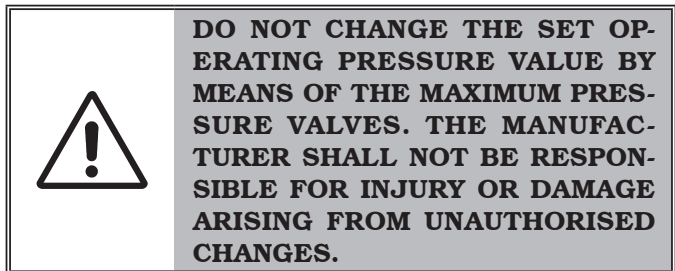


Fig. 14

11.4 Post handle

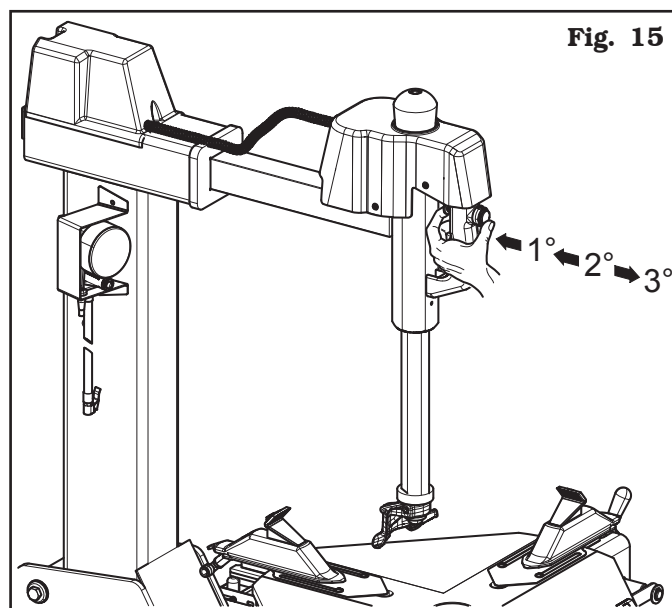
On the post is placed a pneumatically controlled handle that allows the locking and unlocking of the vertical and horizontal arm.

Pushing the push-button located on this handle (**Fig. 15**) the following operations can be carried out:

1st tripping: vertical arm descent (manual control);

2nd tripping: locking of the vertical and horizontal arm in working position;

3rd tripping: unlocking of vertical and horizontal arm and manual rise of vertical arm in rest position (all upward).



12.0 USING THE MACHINE

12.1 Precaution measures during tyre removal and fitting



Before fitting a tyre, observe the following safety rules:

- rim and tyre must be clean, dry and in good condition. If necessary, remove the balancing weights and clean the rim. Check:
 - neither the bead nor the tread of the tyre are damaged.
 - the rim does not produce dents and/or deformation (especially for alloy rims, dents can cause internal micro-fractures, that pass unobserved at visual inspection, and can compromise the solidity of the rim and constitute danger even during inflation);
- adequately lubricate the contact surface of rim and tyre bead. Use specific tyre lubricants only.
- replace the inner tube valve with a new valve. If the tyre tube has a metal valve, replace the grommet.
- make sure that the tyre is the right size for the rim. Never fit a tyre unless you are sure it is the right size (the rated size of the rim and tyre is usually printed directly on each of them).
- do not use compressed air or water jets to clean the wheels on the machine.

12.2 Preliminary operations - Preparing the wheel

- Remove the wheel balancing weights from both sides of the wheel.



**REMOVE THE VALVE STEM AND
ALLOW THE TYRE TO COMPLETELY
DEFLATE.**

- Establish from which side the tyre should be demounted, checking the position of the groove.
- Find the rim locking type.
- Try to establish the special types of wheels, such as "TD" and "AH", in order to improve locking, bead breaking, assembly and disassembly performances.

12.3 Bead breaking

TYRE BEADING MUST BE CARRIED OUT AFTER THE TYRE HAS BEEN COMPLETELY DEFLATED AND OBSERVING ALL SAFETY RULES: BEADING PEDAL START-UP CAUSE SUDDEN, STRONG ARM CLAMPING, THUS REPRESENTING POTENTIAL CRUSHING DANGER FOR ANYTHING WITHIN THE OPERATING AREA. DURING TYRE BEADING DO NOT LEAN HANDS ON TYRE SIDES. DURING TYRE BEADING SUDDEN NOISE LEVEL PEAKS CAN OCCUR: WEAR SAFETY EARCAPS.

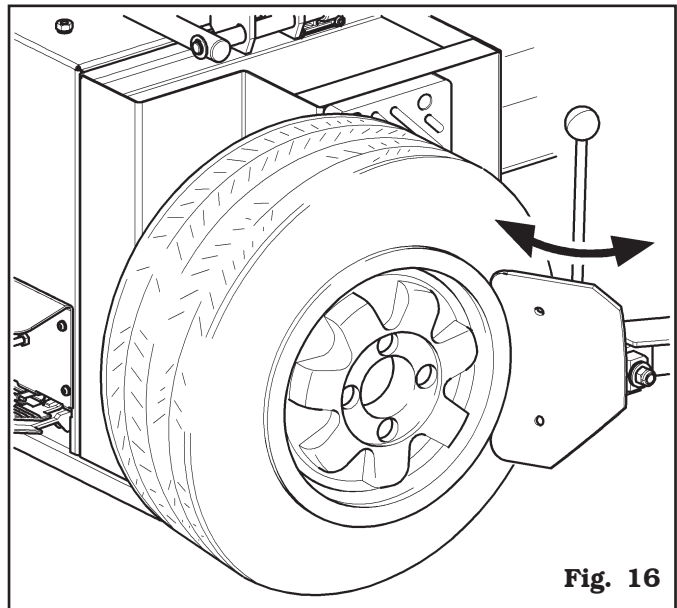
After preparing the wheel as described in the previous point, follow the instructions given below to carry out the bead breaking procedure:

1. Position the wheel as indicated in **Fig. 16** and move the bead breaker tool toward the edge of the rim.



PLACE THE BLADE SO THAT IT CAN OPERATE ON TYRE SIDE AND NOT ON THE RIM.

2. Operate the bead breaker vane by pressing the relative pedal until the bead has detached. If the bead does not detach the first time, repeat the operation, on different points of the wheel, until it has come away completely.
3. Reverse the position of the wheel and repeat the operation on the other side.
4. Lubricate the tyre carefully along the entire circumference of the bead on both sides. Failure to lubricate might cause friction between the mounting tool and the tyre, and would cause damage to the tyre and/or the bead.

**Fig. 16**

NEVER INSERT ANY PART OF YOUR BODY BETWEEN THE BEAD BREAKER TOOL AND THE TYRE, OR BETWEEN THE TYRE AND THE WHEEL SUPPORT.

12.4 Wheel clamping on the mandrel

To block the wheel from inside:

1. Grease tyre edges with the grease contained in the appropriate cup (see operating figure **Fig. 17**).
2. Release the hexagon shaft (**Fig. 17 ref. 2**) through the relevant push-button on handle (**Fig. 17 ref. 1**) and take it up, fully home. Control horizontal arm (**Fig. 17 ref. 3**) tilting through the pedal.
3. The wheel can be secured to the mandrel by placing jaws either inside or outside the rim (see Chapter 15 "Technical specifications" for required rim size).



WHEN SECURING THE WHEEL DO NOT KEEP HANDS UNDER THE TYRE.

Make sure that the wheel is placed at the centre of the self-centring table (**Fig. 17 ref. 6**). Make sure the the wheel is clamped by jaws (**Fig. 17 ref. 7**) symmetrically.

A) WHEEL SECURING (OUTSIDE THE RIM) (for allowed rim size see Chapter 15. "Technical specifications")

In order to carry out the clamping of the wheel from the outside:

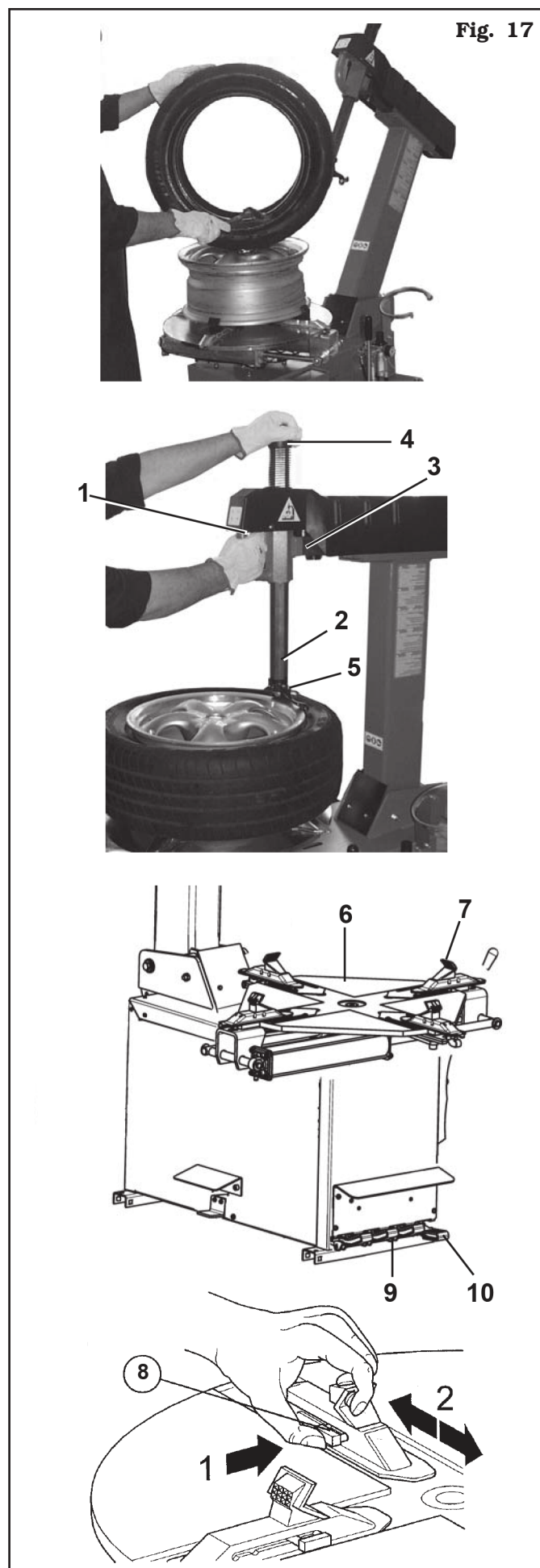
1. place the 4 self-centering jaws by using the appropriate sub base (**Fig. 17 ref. 8**) in correspondence to the required clamping range.
- 2 place pedal (**Fig. 17 ref. 9**) in intermediate position, place the 4 fixing jaws (**Fig. 17 ref. 7**), so that the reference notch on the mandrel is at about the same level of the tyre diameter notched on the sliding element.

3. Place the wheel on the mandrel, press the rim downward and completely lower pedal (**Fig. 17 ref. 9**) to secure the wheel.

B) WHEEL SECURING (INSIDE THE RIM) (for allowed rim size, see Chapter 15. "Technical specifications")

To block the wheel from inside:

1. place the 4 self-centering jaws by using the appropriate sub base (**Fig. 17 ref. 8**) in correspondence to the required clamping range.
2. close preventively fixing jaws (**Fig. 17 ref. 7**), by means of pedal (**Fig. 17 ref. 9**). Place the wheel on the mandrel. Push down the rim while completing lowering the pedal and releasing it. The jaws release, thus securing the rim.

Fig. 17


12.5 Demounting



KEEP YOUR HANDS AND BODY AWAY FROM MOUNTING TOOL DURING DISASSEMBLY/ASSEMBLY OPERATIONS TO AVOID SQUASHING DANGER.

After clamping the wheel, the tyre is demounted following the instructions given below, with reference to **Fig. 18**.

1. Press the rotation pedal to rotate the wheel clockwise until the valve stem reaches "hour 1" position.
2. Place arm (**Fig. 17 ref. 3**) in working position.



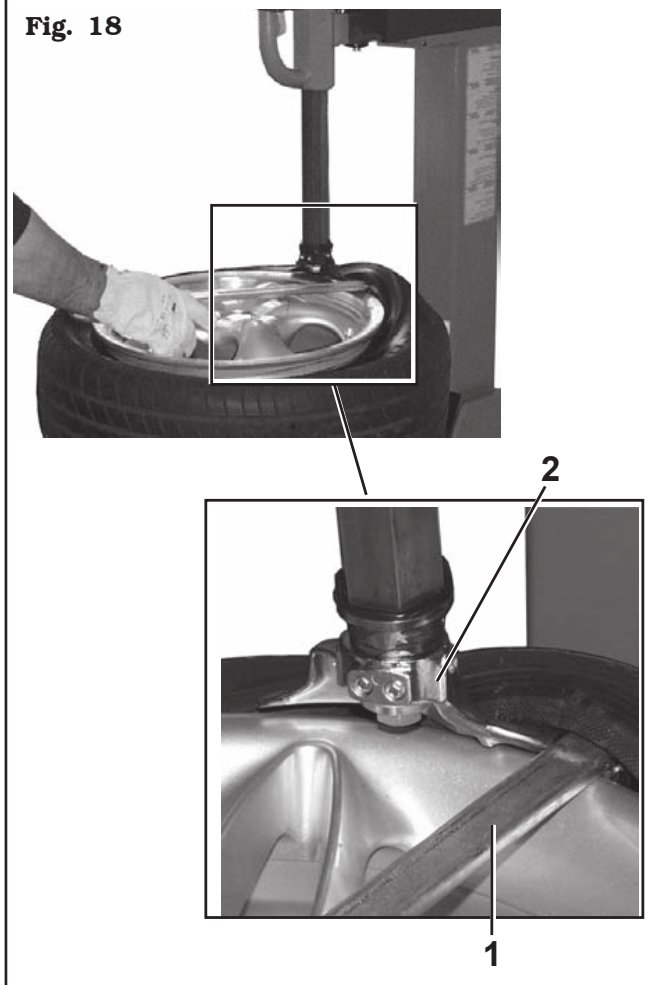
WHEN PLACING ARM IN WORKING POSITION, DO NOT LEAN HANDS ON THE RIM: DANGER OF SQUEEZING BETWEEN HEAD AND RIM.

3. Release the hexagon shaft (**Fig. 17 ref. 2**) and set tool (**Fig. 17 ref. 5**) radially and vertically on rim and lock it in place using the push-button on handle (**Fig. 17 ref. 1**);
4. operate lever (**Fig. 18 ref. 1**) to place tyre bead on the head nail (**Fig. 18 ref. 2**).
5. While keeping the lever in this position, turn the mandrel clockwise by means of pedal (**Fig. 17 ref. 10**), until the bead is out of the rim. Operate the pedal by quickly pressing and releasing it.



WHEN OPERATING ON VERY "HARD" RIMS, THE TYRE BEAD TENDS TO SLIP DOWN THE HEAD. BEFORE TURNING THE MANDREL CLOCKWISE, TURN IT ANTICLOCKWISE BY A FEW CENTIMETERS WHILE KEEPING LEVER (Fig. 18 ref. 1**) IN THE SAME POSITION.**

Fig. 18



- 6 remove the inner tube (if fitted);
- 7 place the head as indicated at point 3; then by means of lever (**Fig. 19 ref. 1**) place the other tyre bead on the head nail (**Fig. 19 ref. 2**);
8. while keeping the lever (**Fig. 19 ref. 1**) in this position, turn the mandrel clockwise until the bead is out of the rim.
9. place the arm in idle position and remove the tyre from the rim.

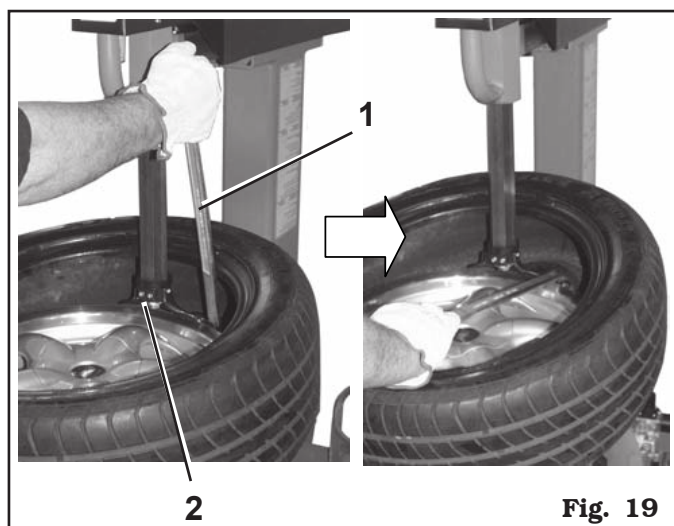
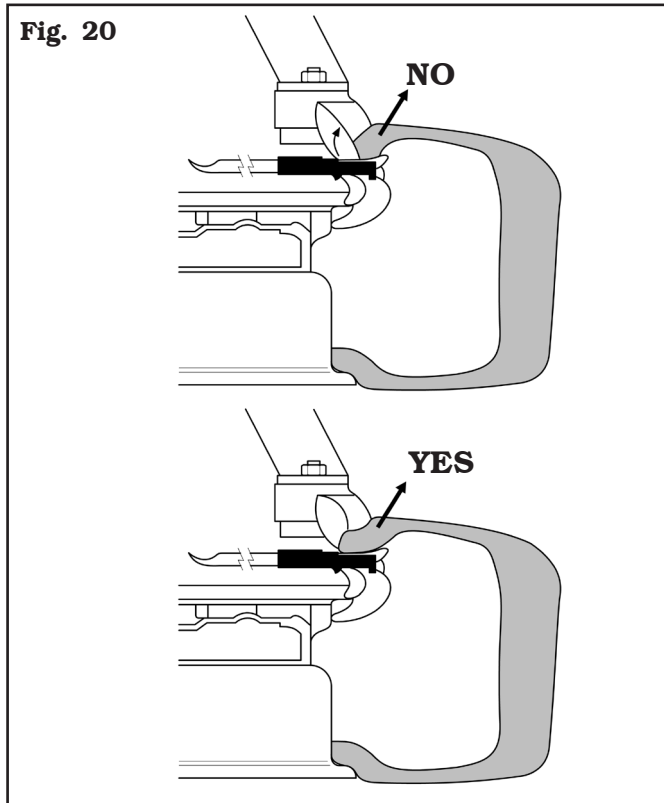


Fig. 19

10. When demounting hard tyres, it may happen that the bead comes onto the mounting tool with the lip turned. This causes the bead to slide from the lever when clockwise rotation begins. To avoid this problem rotate the wheel slightly anti-clockwise until the bead flattens. Now the clockwise demounting cycle can begin (See **Fig. 20**).



If the motor slows down or stops during tyre demounting and mounting, make the following checks:

- check that the bead has been lubricated;
- check that the bead has been pushed into the well;
- check that the right side of the rim has been chosen for demounting or mounting the tyre;
- check that the rim well is not off-centre.

12.6 Setting the tool for tyre fitting and removal

The tool is locked in position to a hexagon stand through 4 upper horizontal-axis dowels and a lower vertical-axis screw. The adjusting clamps lock the tool in its working position. Adjusting clamps also set head distance from the wheel rim. Head top is concave for smoother positioning. For tool setting a 14" rim with good concentricity degree and standard profile, better if with flat upper edge and proper right angle to its spin axis, is required.

12.6.1 Setting the clamps travel



SET THE CLAMPS BEFORE POSITIONING THE HEAD. AT THIS STAGE THE HEAD HAS NOT BEEN SET TO ITS FINAL POSITION YET BUT IT IS CLOSE TO ITS FINAL POSITION BEING LOCKED THROUGH THE UPPER DOWELS.

- **Setting the travel (Fig. 21)**

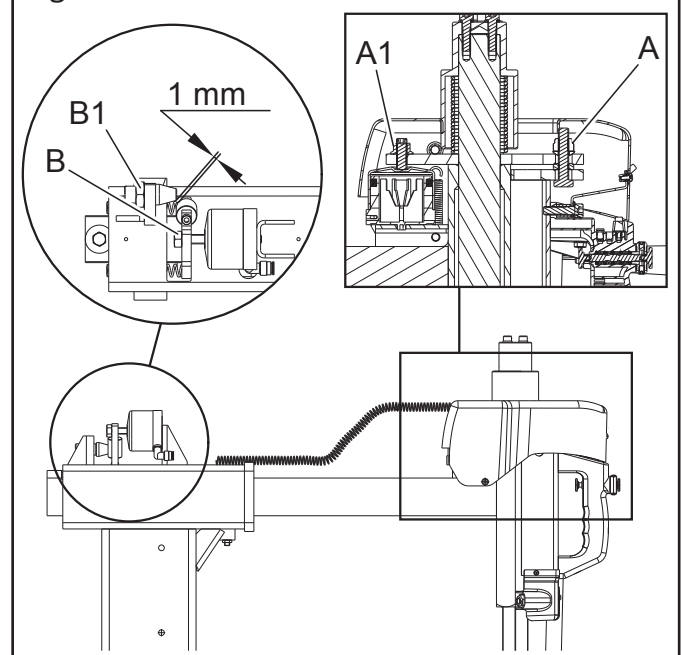
Tyre changers equipped with collapsible stand and telescopic arm, tyre changers, have both horizontal and vertical adjusting clamps for horizontal and vertical distance of the head from the rim, respectively. Depressurize the air-operated cylinder (remove upper guard and **tighten the nut A1 first so to keep the adjusting clamp horizontally, that is it should be perpendicular to the hex. shaft**) and then turn the nut **A** to adjust:

- turn the nut **A** clockwise for shorter travel of the head;
- turn the nut **A** anti-clockwise for longer travel of the head.

Depressurize the air-operated cylinder (remove upper guard and **tighten the nut B1 first to lock the cone with respect to the roller – see figure 21**), and then turn the nut **B** to adjust the vertical clamp.

- turn the nut **B** clockwise for shorter travel of the head;
- turn the nut **B** anti-clockwise for longer travel of the head.

Fig. 21



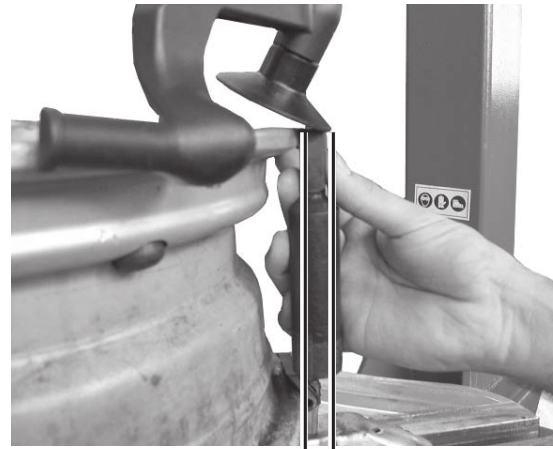
12.6.2 Setting the tool for tyre fitting and removal

When finished with clamp adjustment, set head position along its three orthogonal axes using the 14" diameter sample rim. Tighten the dowels and the lower screw firmly to lock the head in position. When finished, **correct head working position** (equipped with roller or insert) **when locked** should be as shown in **Fig. 22A-22B**. Tighten bolts and nuts to the following torque values:

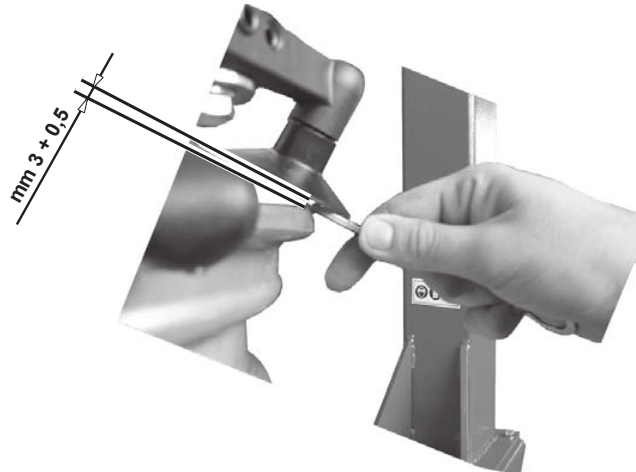
- lower screw: 70 Nm.
- adjusting clamp bolts: 40 Nm.

Fig. 22B

Rims with projecting spokes



mm 12 + 0,5



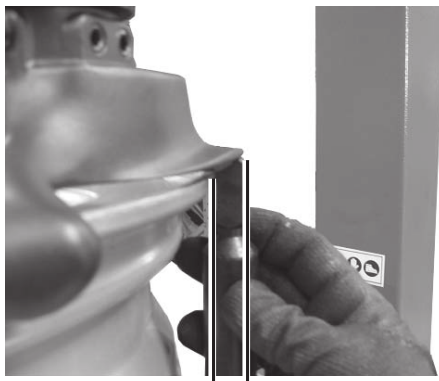
mm 3 + 0,5



mm 2 + 1

Fig. 22A

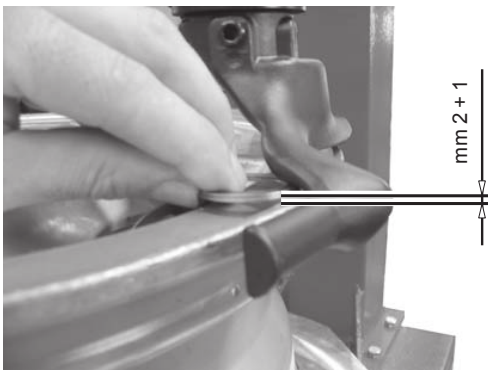
Car rim



mm 3 - 3,5



mm 2 + 0,5

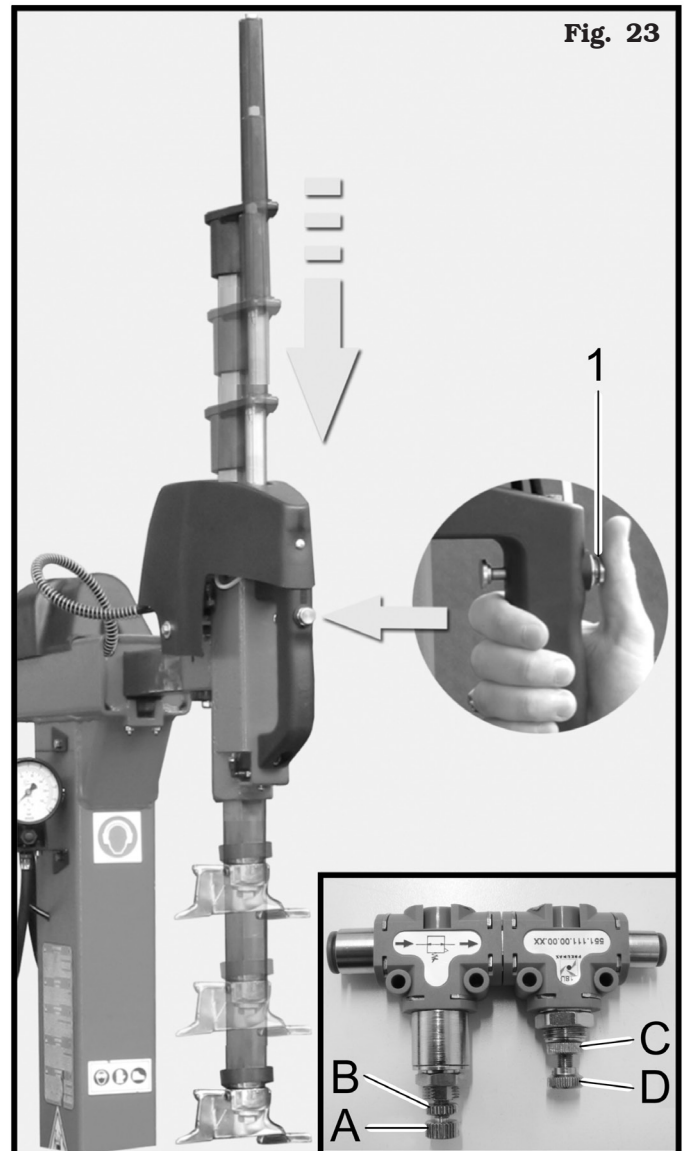


mm 2 + 1

12.7 Adjusting descent of the hexagonal shaft (on demand)

On models with pneumatic movement of the hexagonal arm, in order to adjust the descent speed, please follow the instructions listed below (see **Fig. 23**):

1. Regulators **A** and **D** are pre-calibrated at the warehouse.
2. To modify the descent speed of the tool shaft, please follow the instructions listed below:
 - Unscrew nut **C**
 - Press and release the push-button placed on the handle repeatedly in order to move the hexagonal shaft downward and upward and set the speed through nut **D** so that the descent of the hexagon is slower than the rising or equal. To slow the descent, rotate nut **D** counterclockwise. To speed the descent, rotate nut **D** clockwise.
3. When regulation is done, lock the arm in an intermediate position acting the button, then unlock the arm to the rest position. Start the arm descent pressing the button and check if the speed descent is the same as previously scheduled.
4. Screw nut **C**.
5. To vary the tool arm rising speed, please follow the instructions listed below:
 - Unscrew nut **B**
 - Press and release the push-button placed on the handle repeatedly in order to move the hexagonal shaft downward and upward and set the speed through nut **A**.
To slow the rising, rotate nut **A** counterclockwise.
To speed the rising, rotate nut **A** clockwise.
6. Check if the speed descent is the same as previously set. If not, please repeat operations b) c) d).
7. Screw nut **B**.



12.8 Mounting the tyre



KEEP YOUR HANDS AND BODY AWAY FROM MOUNTING TOOL DURING DISASSEMBLY/ASSEMBLY OPERATIONS TO AVOID SQUASHING DANGER.

To mount the tyre, proceed as follows:

1. Position the work arm in working position depressing pedal (Fig. 24 ref. A).

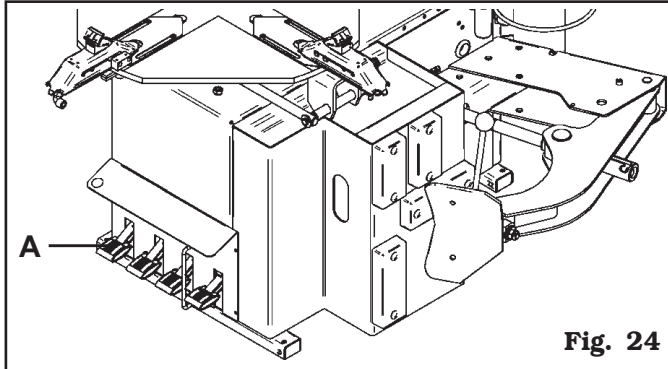


Fig. 24



WHEN PLACING ARM IN WORKING POSITION, DO NOT LEAN HANDS ON THE RIM: DANGER OF SQUEEZING BETWEEN HEAD AND RIM.

2. Place head (Fig. 25 ref. 1) against the rim edge and lock arm (Fig. 25 ref. 2).



IF TYRE IS FITTED ON THE WHEEL PREVIOUSLY REMOVED OR WHEEL SIZE CORRESPONDS TO RIM SIZE, IT IS NOT NECESSARY TO OPERATE HANDLE (Fig. 25 ref. 3) TO SECURE AND RELEASE THE HEAD, ONLY ARM (Fig. 25 ref. 2) NEEDS TO BE REPOSITIONED.

3. Place the tyre so that the bead passes under head nail (Fig. 25 ref. 1) and outside head support (see Fig. 25 for lower bead).



WHEN TYRE IS TUBELESS TYPE, START ASSEMBLY PROCEDURES WITH VALVE SET AT 180° WITH RESPECT TO THE HEAD ("5/6 O' CLOCK").

4. Turn mandrel (Fig. 25 ref. 4) clockwise. Keep the correspondent lowered and the tyre bead in the inner rim groove.

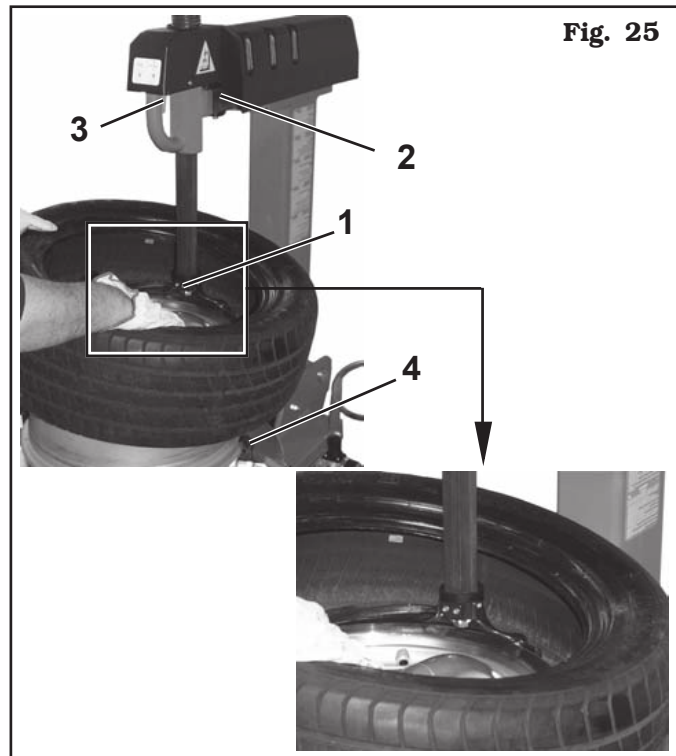


Fig. 25



BE VERY CAREFUL, KEEP HANDS AND OTHER BODY PARTS FAR OFF THE HEAD WHEN THE MANDREL IS TURNING: DANGER OF SQUEEZING.

5. If an inner tube tyre must be fitted, insert the inner tube after the first bead is completely inside the rim;
6. repeat the same operations for the upper tyre bead, as shown in Fig. 26;
7. once assembly is completed, remove arm and take it to rest position by depressing pedal (Fig. 24 ref. A);
8. push the pedal to release the wheel from the mandrel.

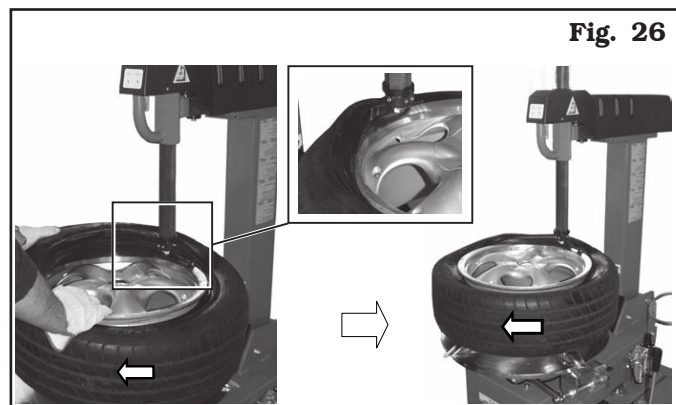


Fig. 26



BOTH TYRE FITTING AND REMOVAL MUST BE CARRIED OUT WITH THE MANDREL TURNING CLOCKWISE. TURN THE CHUCKING TABLE ANTICLOCKWISE ONLY IF ADJUSTMENTS ARE REQUIRED.

12.9 Tyre inflation with pressure gauge (on demand)

Connect the inflation device to the tyre valve and inflate the tyre using the left pedal.

Well lubricated beads and rims make the beading in and inflation much safer and easier.



A LIMITATION DEVICE IS PRESENT IN THE AIR SUPPLY LINE FOR THE TIRE INFLATION ($4,2 \pm 0,2$ BAR/60 PSI).

In case the beads are not seated at 4.2 ± 0.2 bar, release all the air from the wheel, remove it from the tyre changer and put it in a safety cage to complete the inflation procedure.

12.10 Tubeless tyre inflation device

Some types of tyres can be difficultly inflated if the beads are not in contact with the rim.

The tubeless inflating device, assembled only on some models, supplies air at high pressure to the self-centering chuck nozzles (**Fig. 27 Pos.1**) and therefore facilitates the positioning of the beads against the rim starting the normal inflation of the tyre.

In order to carry out the inflation of the tyre on these models follow these indications:

- Connect the inflation terminal to the valve of the tyre.
- Lift the lower bead while the pedal, placed on the left side of the machine, is pushed at its second stage, supplying that way the required air jet.
- Go on inflating the tyre until the required pressure is reached with the lateral pedal pushed on its first stage.



IN ORDER TO ALLOW THE AIR JET TO BREAK BOTH BEADS, DO NOT KEEP THE BEAD LIFTED FORCING IT.

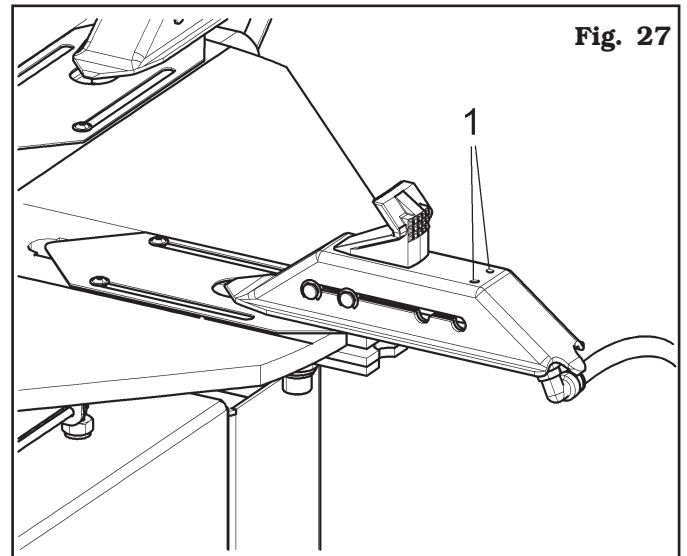



Fig. 27

13.0 ROUTINE MAINTENANCE




BEFORE CARRYING OUT ANY ROUTINE MAINTENANCE PROCEDURE, DISCONNECT THE MACHINE FROM ITS POWER SUPPLY SOURCES, TAKING SPECIAL CARE OF THE ELECTRICAL PLUG/SOCKET CONNECTION.

To guarantee the efficiency and correct functioning of the machine, 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.

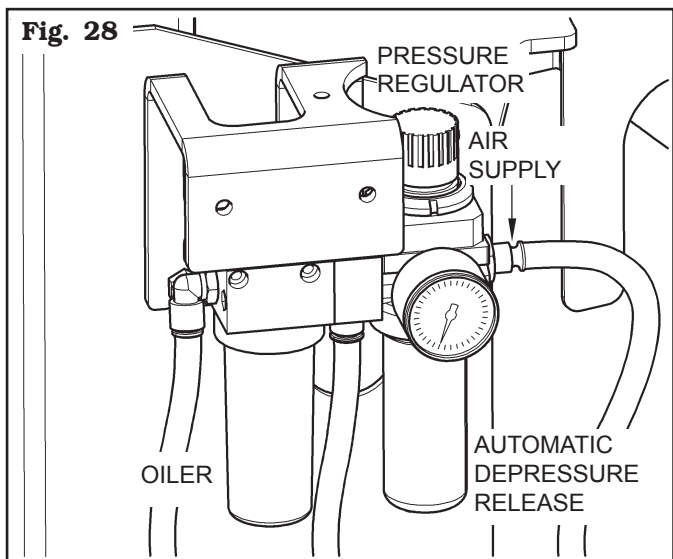

- Disconnect the mains power supply before starting any cleaning or routine maintenance operations.
- Periodically check the calibration of lubricator of pressure/oiler gauge unit: one oil drop every four complete strokes of self-centering chuck jaws.
- Remove deposits of tyre powder and other waste materials with a vacuum cleaner.



BEFORE CARRYING OUT ANY MAINTENANCE OPERATIONS, MAKE SURE THERE ARE NO WHEELS CLAMPED ON THE MANDREL AND THAT ALL SUPPLIES TO THE MACHINE HAVE BEEN DISCONNECTED.

DO NOT BLOW IT WITH COMPRESSED AIR.

- Do not use solvents to clean the pressure regulator.
- The conditioning unit is equipped with an automatic vacuum-operated drain therefore it requires no manual intervention by the operator (see **Fig. 28**).

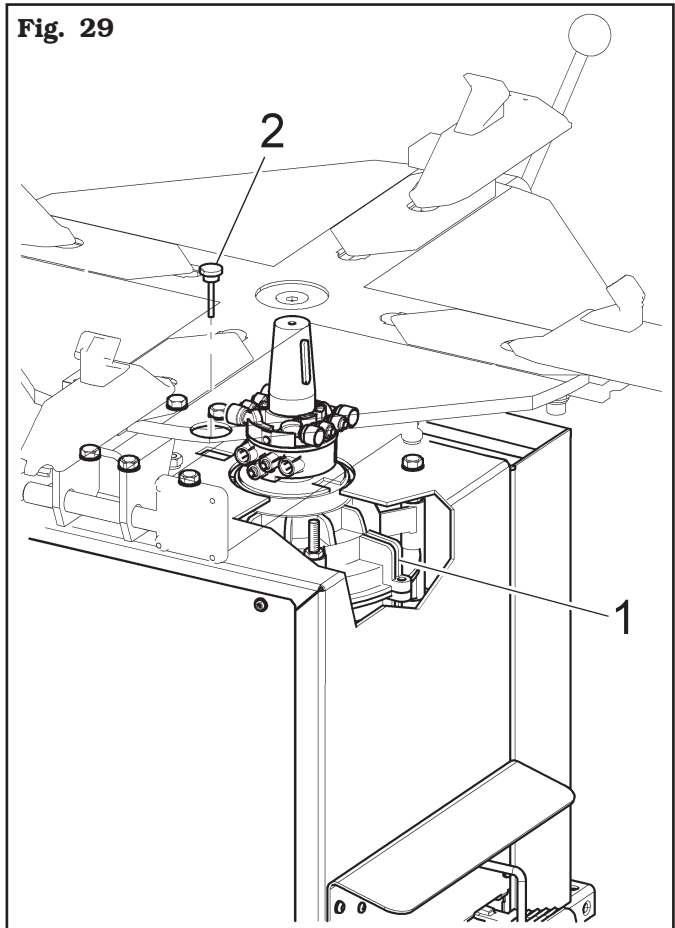
IN ORDER TO ALLOW A LONGER LIFE OF THE FILTER AND OF ALL MOVING PNEUMATIC DEVICES, YOU HAVE TO MAKE SURE THAT THE SUPPLIED AIR IS:

- EXEMPT FROM THE LUBRICATING OIL OF THE COMPRESSOR;
- EXEMPT FROM HUMIDITY;
- EXEMPT FROM IMPURITY.

- Every **week** and/or when necessary, top up the oil tank using the filler hole provided closed by a cap or screw on the lubricator filter.

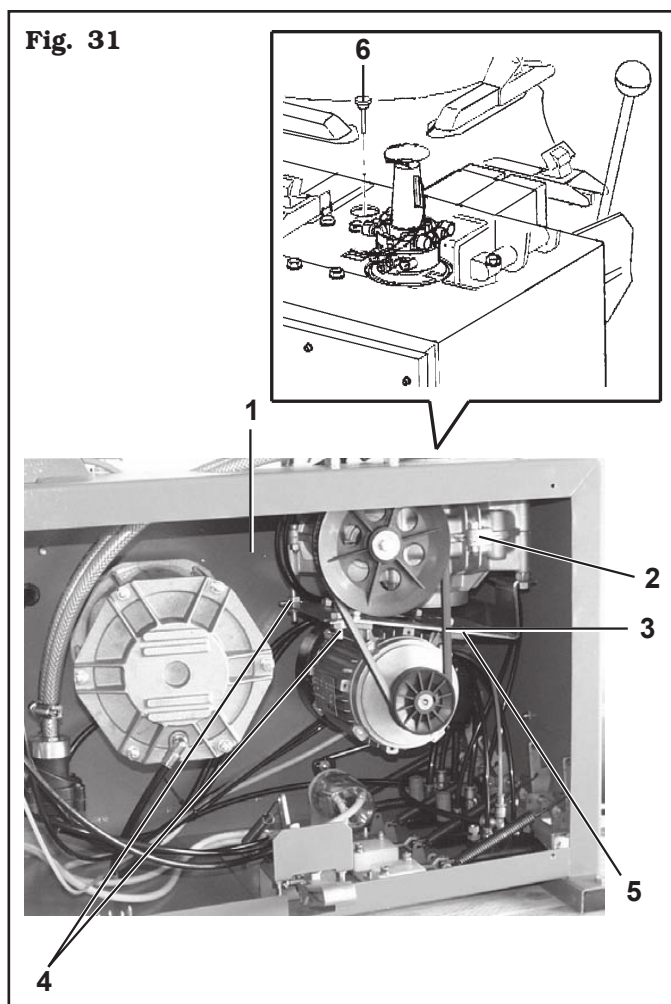
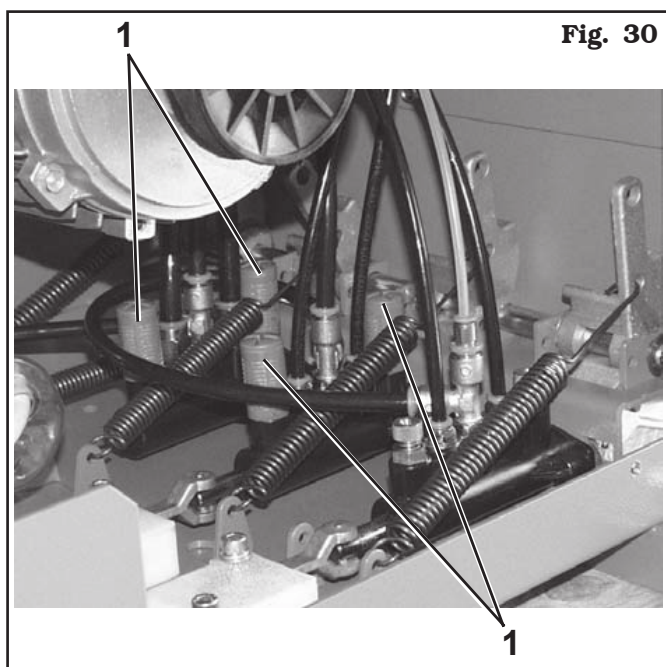
N.B: This operation should not be carried out by unscrewing the cup of the lubricator filter.

- The use of synthetic oil might damage the pressure regulator filter.
- Replace worn pieces (tool supports, rubber pads, lever guard, mounting tool) immediately.
- Periodically (preferably once a month) make a complete check on the controls, ensuring that they provide the specified actions.
- **Every week** check operation of the safety device.
- **Periodically** (at least each 100 working hours) check the lubricant level into the reduction unit (**Fig. 29 ref. 1**) removing the plug (**Fig. 29 ref. 2**) through the spy hole prearranged on the frame.



Interventions every 1000 working hours

- Clean and/or replace silencers (**Fig. 30 ref. 1**):
 1. Undo the four retaining screws and remove the left side of the tyre changer or undo the fastening screws to remove the whole pedal support unit from machine front;
 2. Undo the silencers (**Fig. 30 ref. 1**) onto the pedal distributor controlling mandrel and bead breaker;
 3. Blow compressed air to clean or replace in case of damages referring to spare parts catalogue;
 4. Fit the filters onto their distributors;
 5. Fit the tyre changer pedal support or side and secure with the screws.
- Check the transmission belt (**Fig. 31 ref. 3**) for wear or proper tensioning:
 1. Undo the four retaining screws and remove tyre changer side panel;
 2. to tension up the belt (**Fig. 31 ref. 3**) Turn the screws (**Fig. 31 ref. 4**) motor support (**Fig. 31 ref. 5**);
 3. Replace the belt (**Fig. 31 ref. 3**) if worn out using genuine parts;
 4. Fit the tyre changer side panel before continuing with assembly and disassembly procedure;



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!!

13.1 Lubricants

Special lubricant for mandrel movement control gear-box. Use **ESSO GEAR OIL GX140** (for G6441.XX, G6441I.XX, G6441V.20, G7441.XX, G7441I.XX, G7441I.22EX, G7441V.XX, G7441IV.XX, G7641.XX, G7641I.XX, G7641V.XX, G7641IV.XX version) and **ESSO GEAR OIL GX90** (for G7441ID.XX, G7641ID.XX, G7641ID.XX version).

Lubricate slides, screws/nut screws or racks and pinion with a soft brush using lubricant of **ESSO GP** type.



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 TROUBLESHOOTING TABLE


Possible troubles which might occur to the tyre-changer are listed below. The manufacturer disclaims all responsibility for damages to people, animals or objects due to improper operation by non-unauthorised 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 tyre-changer, set the 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 mandrel does not work if pedal is pressed.	<ol style="list-style-type: none"> 1. No voltage available. 2. Motor faulty. 3. Safety fuses for machine system blown. 	<ol style="list-style-type: none"> 1. Check that the plug is properly connected and power supply is working. 2. Check for correspondence of electric data of the machine with the mains. 3. Check for proper working conditions. Check connections and parts (motors and switches).
The self-centring device stops during tire assembly/disassembly.	Transmission belt slow or worn out.	Check for proper working conditions of the transmission belt. Tension up and/or replace, if necessary.
The mandrel does not clamp the rim properly.	<ol style="list-style-type: none"> 1. Clamps worn out. 2. One or more pneumatic cylinders faulty. 	<ol style="list-style-type: none"> 1. Replace clamps. 2. Replace pneumatic cylinder gaskets.
The head gets in contact with the rim during assembly/disassembly.	<ol style="list-style-type: none"> 1. Clamping plate not adjusted or faulty. 2. Mandrel retaining screw loose. 	<ol style="list-style-type: none"> 1. Adjust or replace the clamping plate. 2. Tighten the screw.
One or more pedals do not return to their original position.	<ol style="list-style-type: none"> 1. Return spring released. 2. Return spring broken. 	<ol style="list-style-type: none"> 1. Fasten the spring. 2. Replace the spring.
Pneumatic controls do not work (mandrel, bead breaker, post tilting and tool clamping).	<ol style="list-style-type: none"> 1. Machine pneumatic system not connected. 2. Air lines clogged. 	<ol style="list-style-type: none"> 1. Check pneumatic connections and supply. 2. Ensure that the air filter is clean and undamaged, if fitted. If no air filter is fitted, remove all dirt into the pneumatic system and then fit a suitable filter. Clean and/or replace the silencers.
Some single pneumatic devices do not work (bead-breaker, clamps or post tilting device).	Ensure that device and/or distributor seals are not damaged.	Call for technical assistance. 

ONLY FOR G7441ID.XX - G7641D.XX - G7641ID.XX MODELS

Problem	Possible cause	Remedy
The mandrel doesn't rotate.	Inverter overload alarm Or Inverter undervoltage alarm Or Inverter overvoltage alarm Overtemperature alarm	Shorten the length of a possible machine extension cable or increase the conductors section (disconnect and connect again). Lift the motor pedal and wait for the automatic reset. Wait until the motor system cools (the machine does not restart if the temperature level does not go below the set safety threshold).
The mandrel does not rotate in counter-clockwise direction.	Pedalboard microswitch breakage.	Replace microswitch.
The mandrel rotates slowly but it does not operate on the motor pedal.	Pedalboard reversible de-calibration.	1. Keep the pedal in rest position. 2. Keep the machine connected to the net. 3. Wait for 30 seconds that the pedalboard recalibration automatic attempt ends.
The mandrel doesn't rotate, but it attempts rotation when the machine is switched on again.	Pedalboard irreversible de-calibration.	Call for technical assistance. 
The mandrel does not reach the maximum rotation speed.	The mechanical resistance of the gearmotor system has increased.	Turn the mandrel without wheel for a few minutes so that the system heats, thus reducing frictions. If in the end the mandrel does not accelerate again, call for technical assistance. 

15.0 TECHNICAL DATA

15.1 G6441 technical data

	G6441.18	G6441.20 G6441I.20	G6441V.20	G6441.22 G6441I.22	G6441.24 G6441I.24
Three-phase motor	230/400V 50Hz 0,55 kW		230/400V 50Hz 0,8-1,1 kW	230/400V 50Hz 0,55 kW	
Mandrel rotating speed (revolutions/min)	7.3		6.5/13	7.3	
Mandrel max torque (Nm)	1200				
Self-centering table locking from outside	10"-18"	10"-20"	10"-20"	11"-22"	10"-24"
Self-centering table locking from inside	12"-20.5"	12"-22.5"	12"-22.5"	13"-24.5"	12"-26.5"
Tool working area	8"-24"				
Maximum tyre diameter (mm)	1050 (41")				
Max rim width	12"				
Bead-breaker cylinder force 10 bar	30000 N				
Bead breaker max. opening (mm)	359/14,1"				
Bead breaker min. opening (mm)	50/2"				
Operating pressure	8-10 bar				
Basic version weight (kg)	200	202 222	202	214 234	220 240

15.2 G7441 technical data

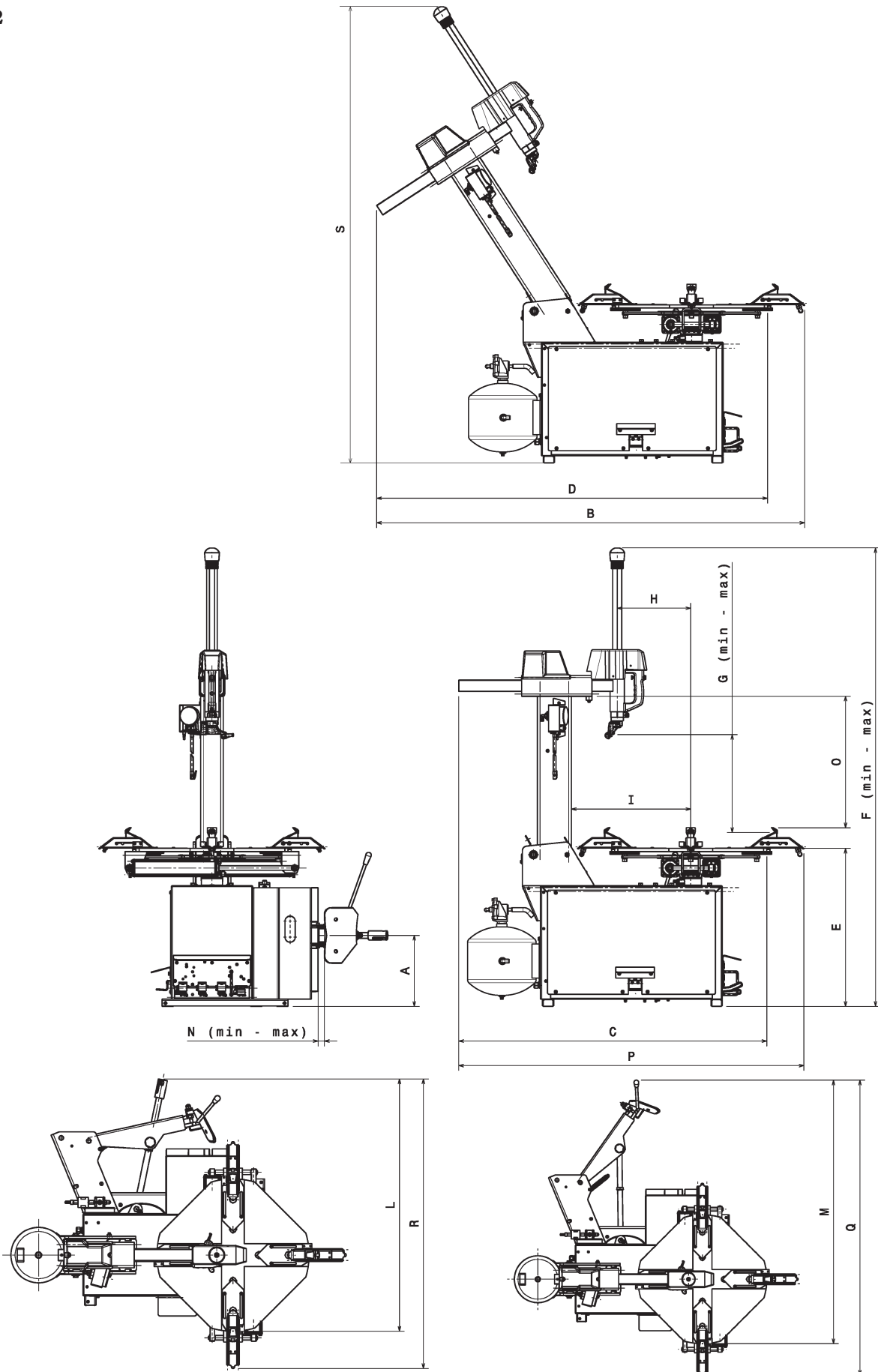
	G7441.18 G7441V.18	G7441.20 G7441I.20 G7441V.20 G7441IV.20	G7441.22 G7441I.22 G7441V.22 G7441IV.22	G7441.24 G7441I.24 G7441V.24 G7441IV.24	G7441I.22EX	G7441ID.22
Three-phase motor	230/400V 50Hz 0,75 kW 230/400V 50Hz 0,8-1,1 kW (models V)				200/220V 50-60Hz 0,75 kW	200/265V 50-60Hz 0,75 kW
Mandrel rotating speed (revolutions/min)	7.3 6,5/13 (models V)				6.5/8	0-15
Mandrel max torque (Nm)	1200					
Self-centering table locking from outside	10"-18"	10"-20"	11"-22"	10"-24"	11"-22"	
Self-centering table locking from inside	12"-20.5"	12"-22.5"	13"-24.5"	12"-26.5"	13"-24.5"	
Tool working area	8"-24"					
Maximum tyre diameter (mm)	1050 (41")					
Max rim width	12"					
Bead-breaker cylinder force 10 bar	30000 N					
Bead breaker max. opening (mm)	359/14,1"					
Bead breaker min. opening (mm)	50/2"					
Operating pressure	8-10 bar					
Basic version weight (kg)	200	202 222 202 222	214 234 214 234	220 240 220 240	234	234

**15.3 G7641 technical data**

	G7641.18 G7641V.18 G7641D.18	G7641.20 G7641I.20 G7641V.20 G7641IV.20 G7641D.20 G7641ID.20	G7641.22 G7641I.22 G7641V.22 G7641IV.22 G7641D.22 G7641ID.22	G7641.24 G7641I.24 G7641V.24 G7641IV.24 G7641D.24 G7641ID.24
Motor	0,75 kW - 230/400V 50-60Hz 3ph 1,5 kW - 200/265V 50-60Hz 1ph (version D) 0,8-1,1 kW - 230/400V 50Hz 3ph (version V)			
Mandrel rotating speed (revolutions/min)	6.5 6,5/13 (version V) 0-15 (version D)			
Mandrel max torque (Nm)	1200			
Self-centering table locking from outside	10"-18"	10"-20"	11"-22"	10"-24"
Self-centering table locking from inside	12"-20.5"	12"-22.5"	13"-24.5"	12"-26.5"
Tool working area	8"-24"			
Maximum tyre diameter (mm)	1050 (41")			
Max rim width	15"			
Bead-breaker cylinder force 10 bar	30000			
Bead breaker max. opening (mm)	392/15,4"			
Bead breaker min. opening (mm)	30/1,2"			
Operating pressure	8-10 bar			
Basic version weight (kg)	216	218 238 218 238 218 238	230 250 230 250 230 250	236 256 236 256 236 256

15.4 Dimensions

Fig. 32





Model	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)		G (mm)		H (mm)	GB (mm)	L (mm)	M (mm)	N (mm)		O (mm)	P (mm)	Q (mm)	R (mm)	S (mm)
						Min.	Max.	Min.	Max.					Min.	Max.					
G6441.18	310	1764	1279	1641.5	693.5	1529	1796	67	334	311.5	525	827.5	1137	50	323.5	512	1400	1254	945	1950
G6441.20	310	1784	1299	1661.5	693.5	1529	1796	47	314	311.5	525	878	1157	50	323.5	492	1421	1279	1000	1950
G6441.22	310	1809	1323	1686.5	693.5	1529	1796	47	314	311.5	525	903	1182	50	323.5	492	1449	1303.5	1025	1950
G6441.24	310	1871	1385	1748.5	693.5	1529	1796	47	314	311.5	525	965	1244	50	323.5	512	1511	1365	1087	1950
G6441I.20	310	1784	1299	1661.5	693.5	1529	1796	47	314	311.5	525	878	1157	50	323.5	492	1421	1279	1000	1950
G6441I.22	310	1809	1323	1686.5	693.5	1529	1796	47	314	311.5	525	903	1182	50	323.5	492	1449	1303.5	1025	1950
G6441I.24	310	1871	1385	1748.5	693.5	1529	1796	47	314	311.5	525	965	1244	50	323.5	512	1511	1365	1087	1950
G6441V.20	310	1784	1299	1661.5	693.5	1529	1796	47	314	311.5	525	878	1157	50	323.5	492	1421	1279	1000	1950
G7441.18	310	1764	1279	1641.5	693.5	1529	1796	67	334	311.5	525	827.5	1137	50	359	512	1400	1254	945	1950
G7441.20	310	1784	1299	1661.5	693.5	1529	1796	47	314	311.5	525	878	1157	50	359	492	1421	1279	1000	1950
G7441.22	310	1809	1323	1686.5	693.5	1529	1796	47	314	311.5	525	903	1182	50	359	492	1449	1303.5	1025	1950
G7441.24	310	1871	1385	1748.5	693.5	1529	1796	47	314	311.5	525	965	1244	50	359	512	1511	1365	1087	1950
G7441I.20	310	1784	1299	1661.5	693.5	1529	1796	47	314	311.5	525	878	1157	50	359	492	1421	1279	1000	1950
G7441I.22	310	1809	1323	1686.5	693.5	1529	1796	47	314	311.5	525	903	1182	50	359	492	1449	1303.5	1025	1950
G7441I.22EX	310	1809	1323	1686.5	693.5	1529	1796	47	314	311.5	525	903	1182	50	359	492	1449	1303.5	1025	1950
G7441I.24	310	1871	1385	1748.5	693.5	1529	1796	47	314	311.5	525	965	1244	50	359	512	1511	1365	1087	1950
G7441V.18	310	1764	1279	1641.5	693.5	1529	1796	67	334	311.5	525	827.5	1137	50	359	512	1400	1254	945	1950
G7441V.20	310	1784	1299	1661.5	693.5	1529	1796	47	314	311.5	525	878	1157	50	359	492	1421	1279	1000	1950
G7441V.22	310	1809	1323	1686.5	693.5	1529	1796	47	314	311.5	525	903	1182	50	359	492	1449	1303.5	1025	1950
G7441V.24	310	1871	1323	1748.5	693.5	1529	1796	47	314	311.5	525	965	1244	50	359	512	1511	1365	1087	1950
G7441IV.20	310	1784	1299	1661.5	693.5	1529	1796	47	314	311.5	525	878	1157	50	359	492	1421	1279	1000	1950
G7441IV.22	310	1809	1323	1686.5	693.5	1529	1796	47	314	311.5	525	903	1182	50	359	492	1449	1303.5	1025	1950
G7441IV.24	310	1871	1385	1748.5	693.5	1529	1796	47	314	311.5	525	965	1244	50	359	512	1365	1087	1365	1950
G7441ID.22	310	1809	1323	1686.5	693.5	1529	1796	47	314	311.5	525	903	1182	50	359	492	1449	1303.5	1025	1950
G7641.18	312	-	-	-	695	1634	1955	71	391	324	525	-	-	30	392	601	-	-	-	2091
G7641.20	312	1798.5	1311	1676	695	1634	1955	57	370	324	525	1065	1325	30	392	581	1433	1446.5	1186.5	2091
G7641.22	312	1823.5	1336	1701	695	1634	1955	57	370	324	525	1090	1350	30	392	581	1458	1471.5	1211.5	2091
G7641.24	312	1885	1356	1721	695	1634	1955	57	370	324	525	1110	1370	30	392	581	1519.5	1533	1273	2091
G7641I.20	312	1798.5	1311	1676	695	1634	1955	57	370	324	525	1065	1325	30	392	581	1433	1446.5	1186.5	2091
G7641I.22	312	1823.5	1336	1701	695	1634	1955	57	370	324	525	1090	1350	30	392	581	1458	1471.5	1211.5	2091
G7641I.24	312	1885	1356	1721	695	1634	1955	57	370	324	525	1110	1370	30	392	581	1519.5	1533	1273	2091
G7641V.18	312	-	-	-	695	1634	1955	71	391	324	525	-	-	30	392	601	-	-	-	2091
G7641V.20	312	1798.5	1311	1676	695	1634	1955	57	370	324	525	1065	1325	30	392	581	1433	1446.5	1186.5	2091
G7641V.22	312	1823.5	1336	1701	695	1634	1955	57	370	324	525	1090	1350	30	392	581	1458	1471.5	1211.5	2091
G7641V.24	312	1885	1356	1721	695	1634	1955	57	370	324	525	1110	1370	30	392	581	1519.5	1533	1273	2091
G7641IV.20	312	1798.5	1311	1676	695	1634	1955	57	370	324	525	1065	1325	30	392	581	1433	1446.5	1186.5	2091
G7641IV.22	312	1823.5	1336	1701	695	1634	1955	57	370	324	525	1090	1350	30	392	581	1458	1471.5	1211.5	2091
G7641IV.24	312	1885	1356	1721	695	1634	1955	57	370	324	525	1110	1370	30	392	581	1519.5	1533	1273	2091
G7641ID.18	312	-	-	-	695	1634	1955	71	391	324	525	-	-	30	392	601	-	-	-	2091
G7641ID.20	312	1798.5	1311	1676	695	1634	1955	57	370	324	525	1065	1325	30	392	581	1433	1446.5	1186.5	2091
G7641ID.22	312	1823.5	1336	1701	695	1634	1955	57	370	324	525	1090	1350	30	392	581	1458	1471.5	1211.5	2091
G7641ID.24	312	1885	1356	1721	695	1634	1955	57	370	324	525	1110	1370	30	392	581	1519.5	1533	1273	2091
G7641ID.20	312	1798.5	1311	1676	695	1634	1955	57	370	324	525	1065	1325	30	392	581	1433	1446.5	1186.5	2091
G7641ID.22	312	1823.5	1336	1701	695	1634	1955	57	370	324	525	1090	1350	30	392	581	1458	1471.5	1211.5	2091
G7641ID.24	312	1885	1356	1721	695	1634	1955	57	370	324	525	1110	1370	30	392	581	1519.5	1533	1273	2091

16.0 STORING

If storing for long periods disconnect the main power supply and take measures to protect the machine from dust build-up. Lubricate parts that could be damaged from drying out. When putting the machine back into operation replace the rubber pads and the mounting tool.

17.0 SCRAPPING

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


Instructions for the correct management of waste from electric and electronic equipment (WEEE) according to the Italian legislative decree 49/14 and subsequent amendments.

In order to inform the users on the correct way to dispose the product (as required by the article 26, paragraph 1 of the Italian legislative decree 49/14 and subsequent amendments), we communicate what follows: the meaning of the crossed dustbin symbol reported on the equipment indicates that the product must not be thrown among the undifferentiated rubbish (that is to say together with the "mixed urban waste"), but it has to be managed separately, to let the WEEE go through special operations for their reuse or treatment, in order to remove and dispose safely the waste that could be dangerous for the environment and to extract and recycle the raw materials to be reused.

18.0 REGISTRATION PLATE DATA

		Ravaglioli s.p.a. 40037 - PONTECCHIO MARGONI/ITALIA TEL. 051-6781511 - TELEX 510697 RAV I P.O.B. 1690 - 40100 BOLOGNA/ITALIA FAX + 39 (051) 846349	
MODEL			
SERIAL N°	YEAR		

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

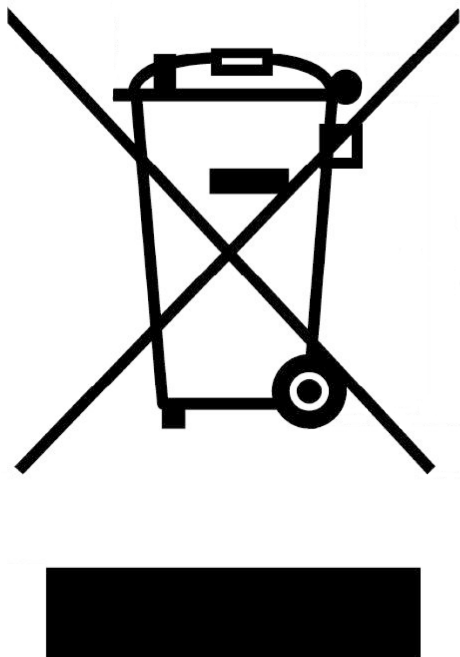
	ATTENTION: DO NOT TAMPER WITH, CARVE, CHANGE OR REMOVE THE MACHINE IDENTIFICATION PLATE; DO NOT COVER IT WITH PANELS, ETC., SINCE IT MUST ALWAYS BE VISIBLE.
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WARNING: Should the plate be accidentally damaged (removed from the machine, damaged or even partially illegible) inform immediately the manufacturer.

19.0 FUNCTIONAL DIAGRAMS

Here follows a list of the machine functional diagrams.

Fig. 33



**SCHEMA ELETTRICO SINGOLA VELOCITÀ 3 Ph
3 PHASE SINGLE SPEED MOTOR WIRING DIAGRAM**

Installazione a carico del cliente
Installation to be made by the user
L'installation doit etre faite per le client
Die Installation geht zu Lasten des Kunden
La instalación corre a cargo del cliente

Cavo d'alimentazione 3P + GND x 1,5 mm²
Supply cable 3P + GND x 1,5 mm²
Cable d'alimentation 3P + GND x 1,5 mm²
Versorgungskabel 3P + GND x 1,5 mm²
Cable de alimentación 3P + GND x 1,5 mm²

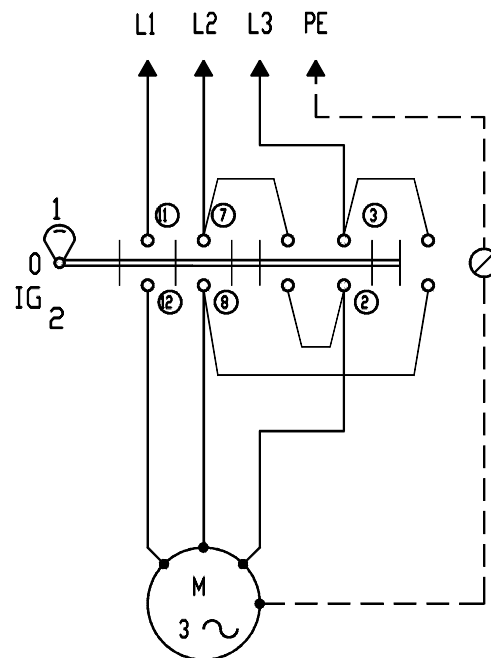
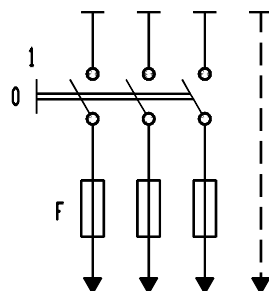
HZ	V	
	230	400
50	6 A	4 A
60	6 A	4 A

ESCLUSE VERSIONI G7441.XXEX - G7441.XXEX MODELS EXCLUDED

Cavo d'alimentazione 3P + GND x 2,5 mm²
Supply cable 3P + GND x 2,5 mm²
Cable d'alimentation 3P + GND x 2,5 mm²
Versorgungskabel 3P + GND x 2,5 mm²
Cable de alimentación 3P + GND x 2,5 mm²

HZ	V	
	200	220
50	3,6 A	
60	3,2 A	3,1 A

SOLO VERSIONI G7441.XXEX - ONLY G7441.XXEX MODELS



RAVAGLIOLI S.p.A.

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

Tavola N°A - Rev. 0

SCHEMA ELETTRICO SINGOLA VELOCITÀ 3Ph
3 PHASE SINGLE SPEED MOTOR WIRING DIAGRAM
ELEKTRISCHE SCHEMA EINZELGESCHWINDIGKEIT 3Ph
SCHEMA ÉLECTRIQUE SEULE VITESSE 3Ph
ESQUEMA ELÉCTRICO UNA VELOCIDAD 3Ph

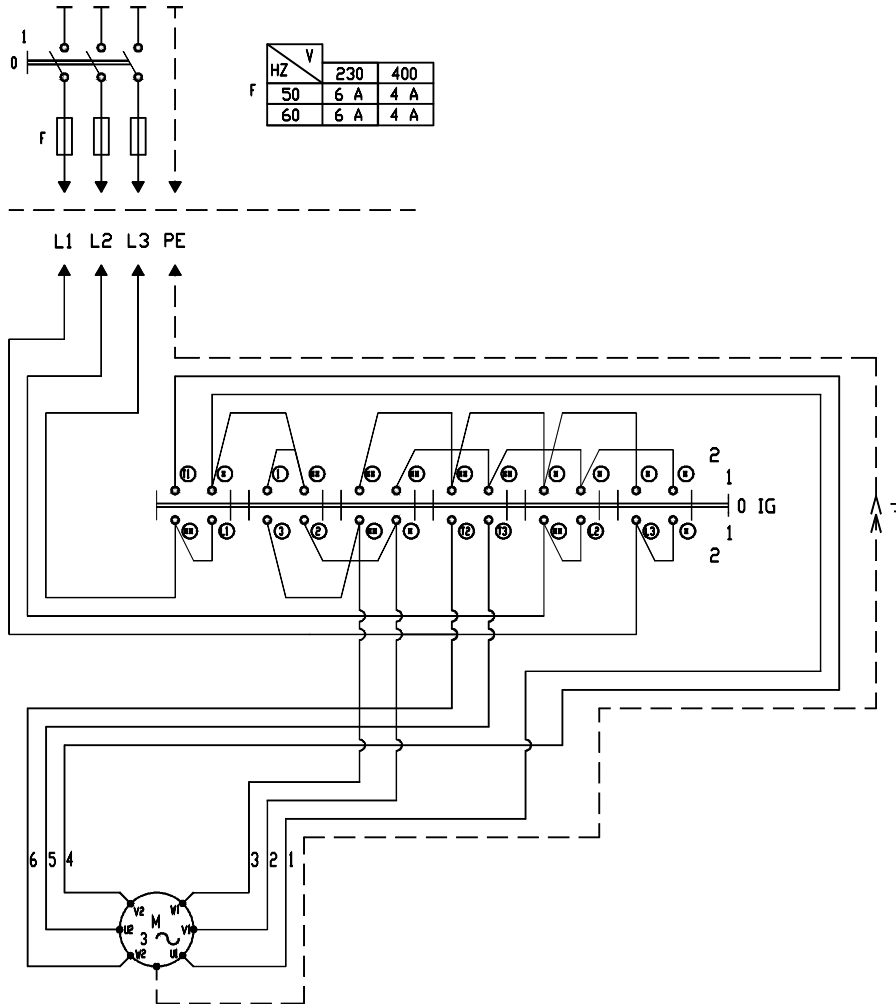
Pag. 36 di 45

G6441 - G7441 - G7641

SCHEMA ELETTRICO DOPPIA VELOCITÀ 3 Ph 3 PHASE DOUBLE SPEED MOTOR WIRING DIAGRAM

Installazione a carico del cliente
 Installation to be made by the user
 L'installation doit etre faite per le client
 Die Installation geht zu Lasten des Kunden
 La instalación corre a cargo del cliente

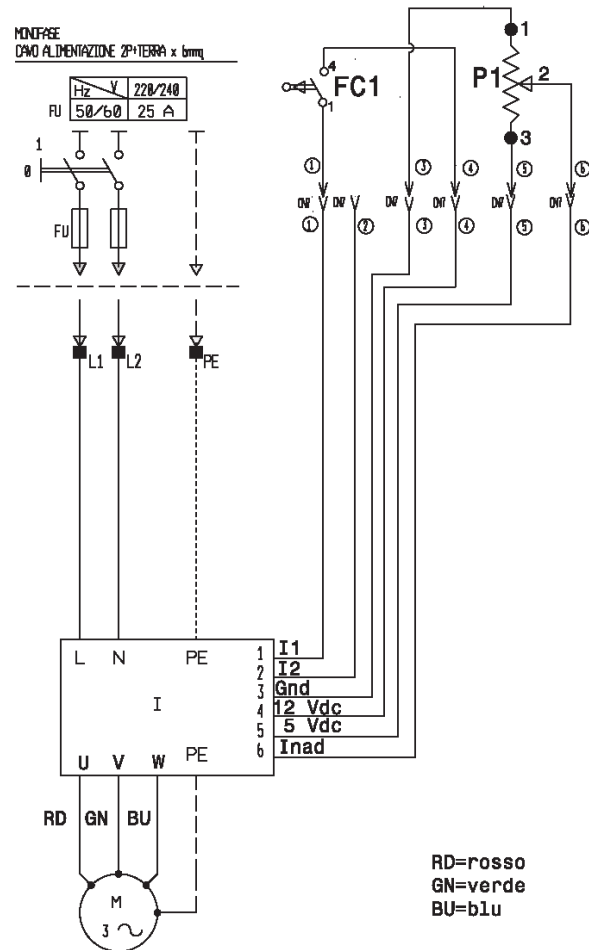
Cavo d'alimentazione 3P + GND x 1,5 mm²
 Supply cable 3P + GND x 1,5 mm²
 Cable d'alimentation 3P + GND x 1,5 mm²
 Versorgungskabel 3P + GND x 1,5 mm²
 Cable de alimentación 3P + GND x 1,5 mm²



SCHEMA ELETTRICO SINGOLA VELOCITÀ 1 Ph (INVE MOTOR) 1 PHASE SINGLE SPEED MOTOR WIRING DIAGRAM

Installazione a carico del cliente
Installation to be made by the user
L'installation doit etre faite per le client
Die Installation geht zu Lasten des Kunden
La instalación corre a cargo del cliente

Cavo d'alimentazione 2P + GND x 2,5 mm²
Supply cable 2P + GND x 2,5 mm²
Cable d'alimentation 2P + GND x 2,5 mm²
Versorgungskabel 2P + GND x 2,5 mm²
Cable de alimentación 2P + GND x 2,5 mm²



RAVAGLIOLI S.p.A.

**LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÉCES DETACHÉES - LISTA DE PIEZAS**

Tavola N°C - Rev. 0

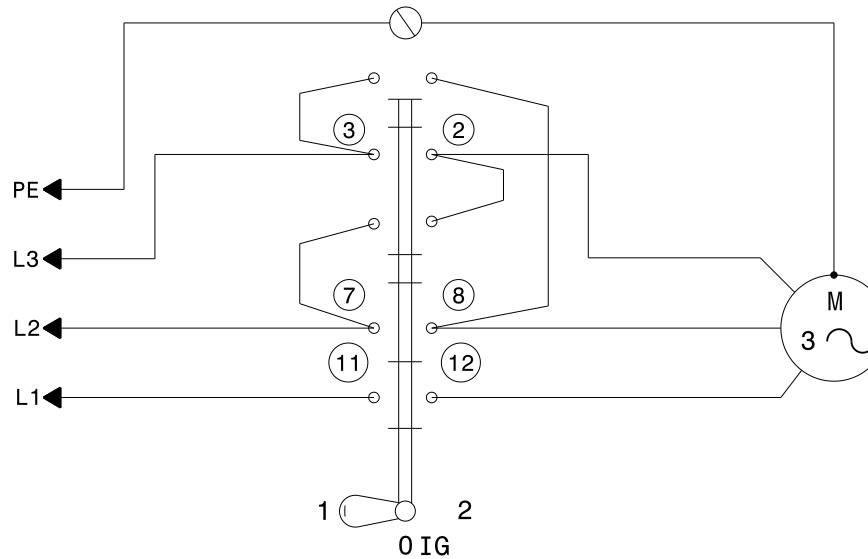
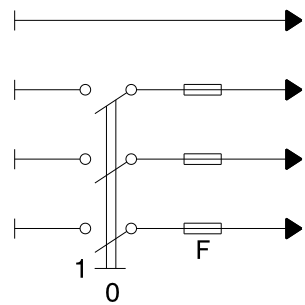
SCHEMA ELETTRICO SINGOLA VELOCITÀ 1Ph
1 PHASE SINGLE SPEED MOTOR WIRING DIAGRAM
ELEKTRISCHE SCHEMA EINZELGESCHWINDIGKEIT 1Ph
SCHÉMA ÉLECTRIQUE SEULE VITESSE 1Ph
ESQUEMA ELÉCTRICO UNA VELOCIDAD 1Ph
(INVE MOTOR)

Pag. 38 di 45

G6441 - G7441 - G7641

	Hz	200V	220V
F	50	3.6A	
	60	3.2A	3.1A

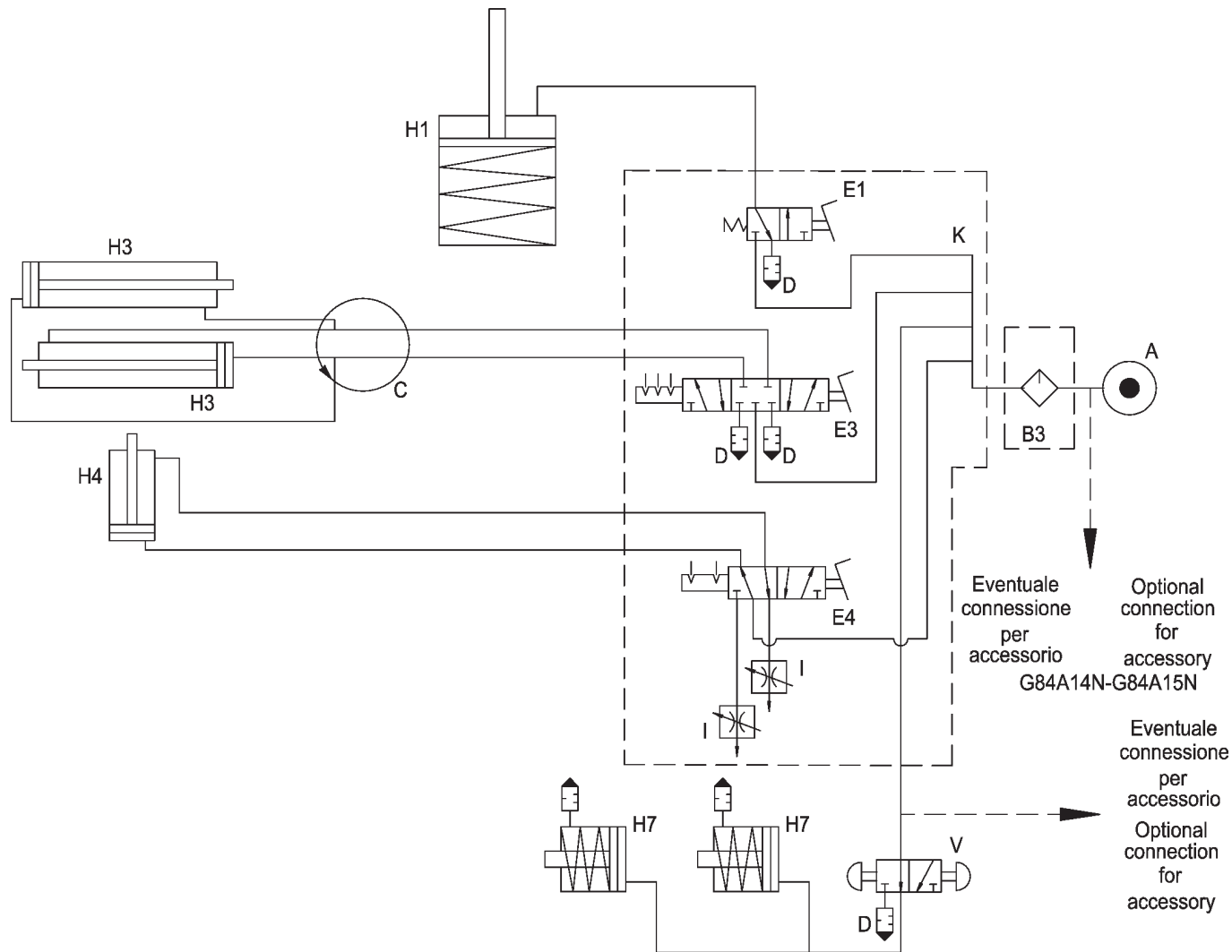
CAVO ALIMENTAZIONE 3P+TERRA x 2.5mmq
 SUPPLY CABLE 3P+GROUND x 2.5mmq



MORSETTI IG IG TERMINAL

- 11 = T/L3
- 7 = S/L2
- 3 = R/L1
- 12 = W
- 8 = V
- 2 = U

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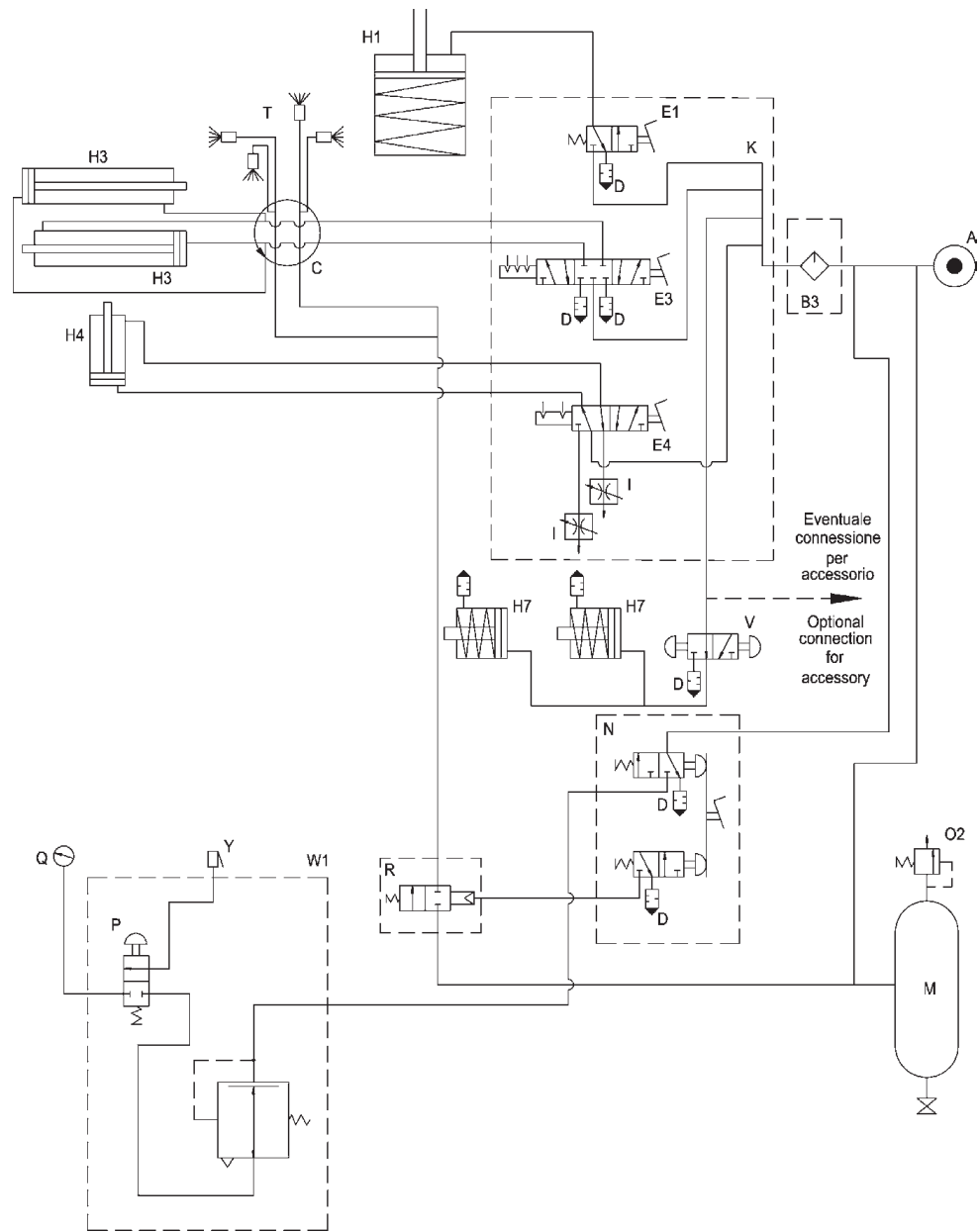
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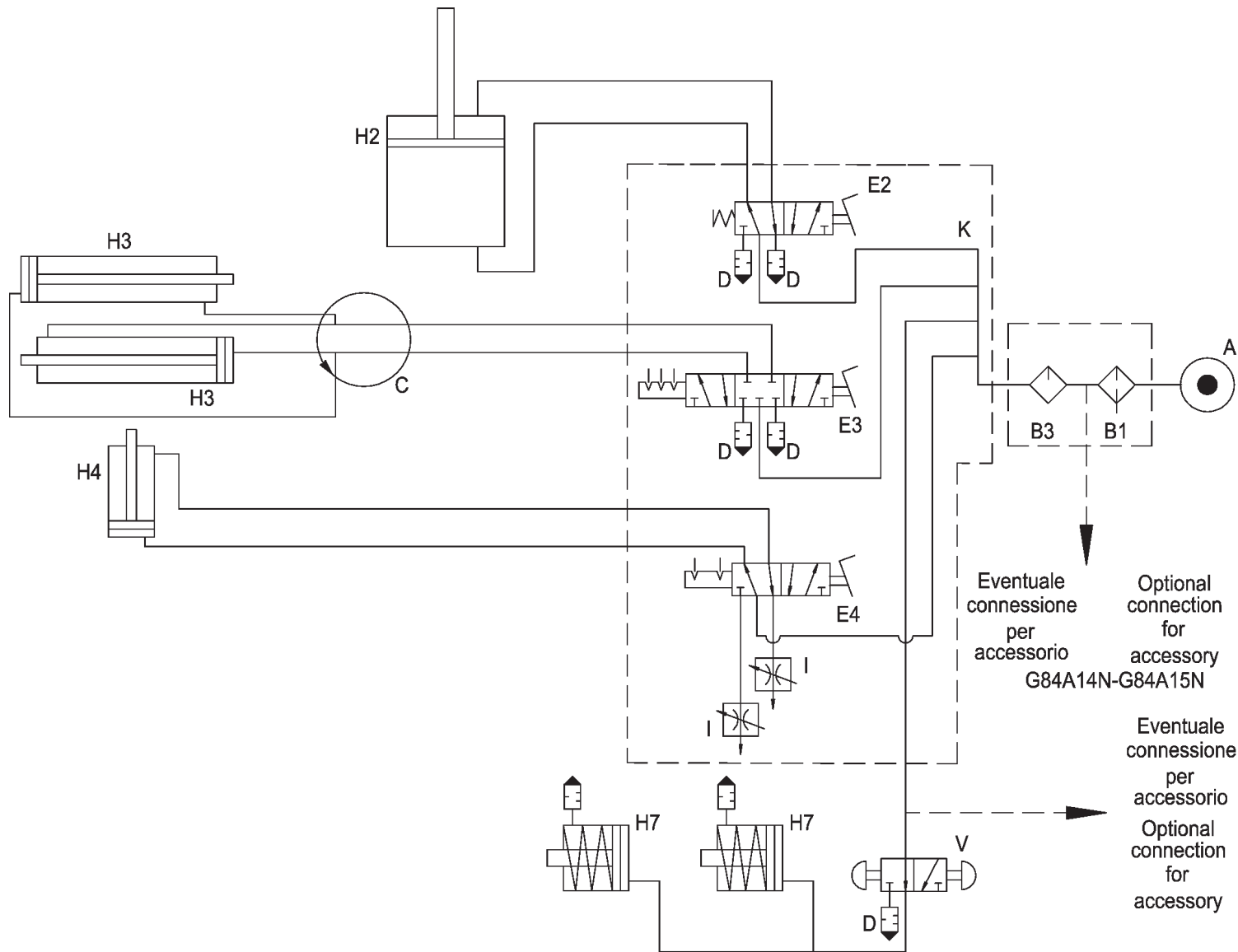
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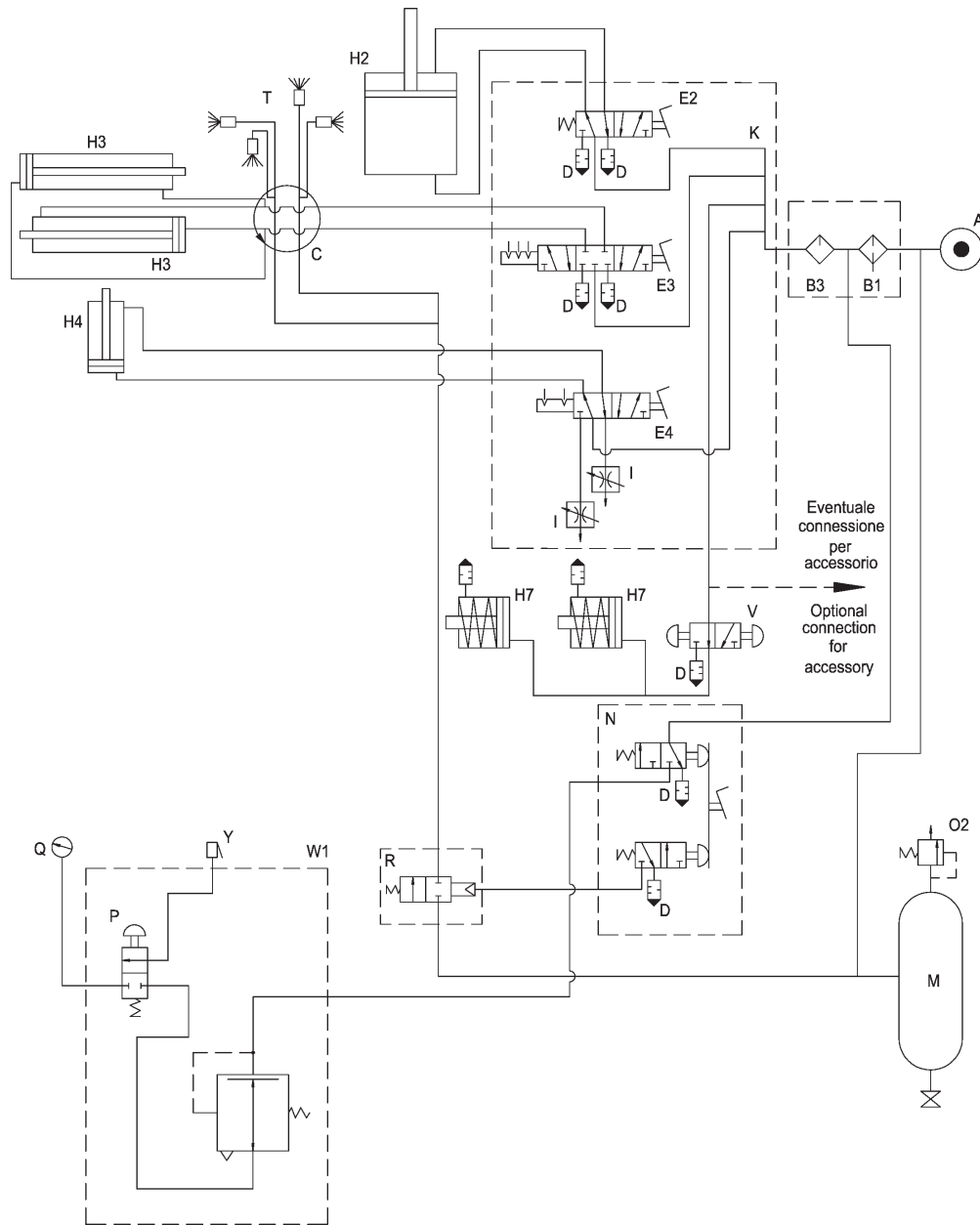
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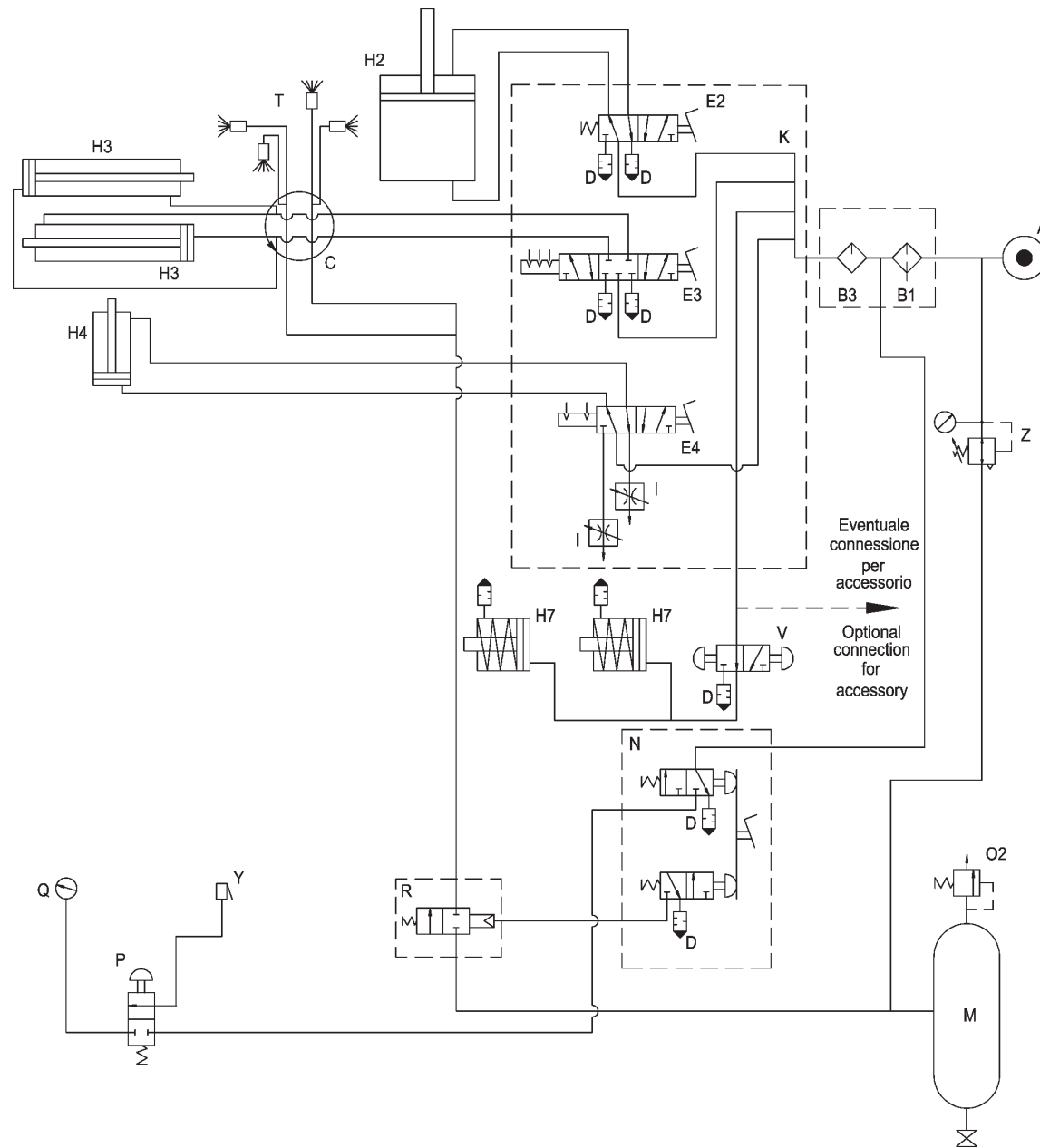
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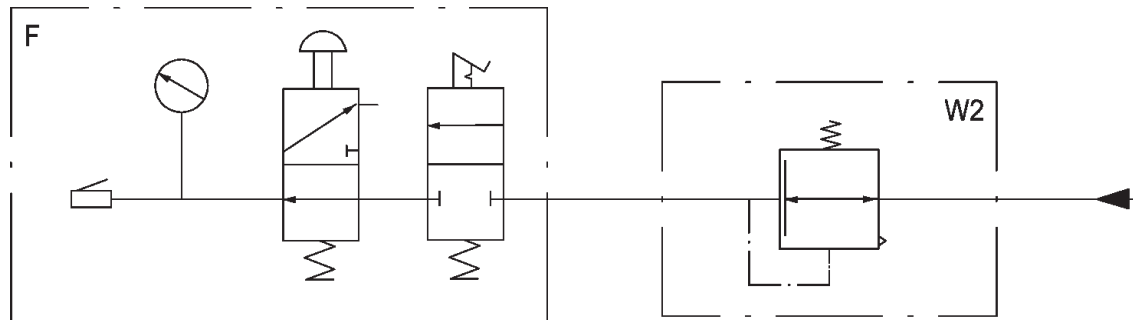
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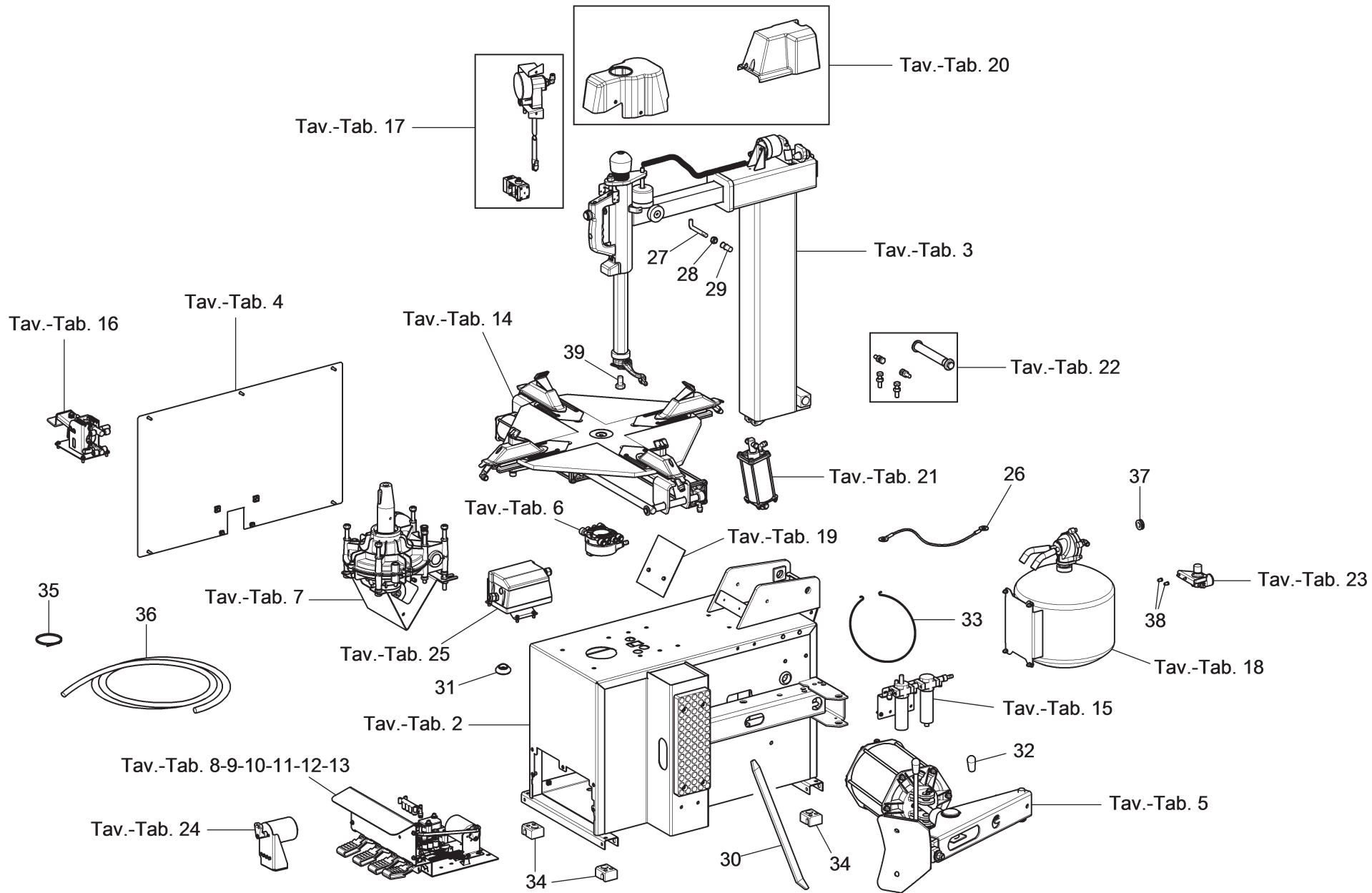
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GROUPE PLAQUE AVEC VARIATEUR





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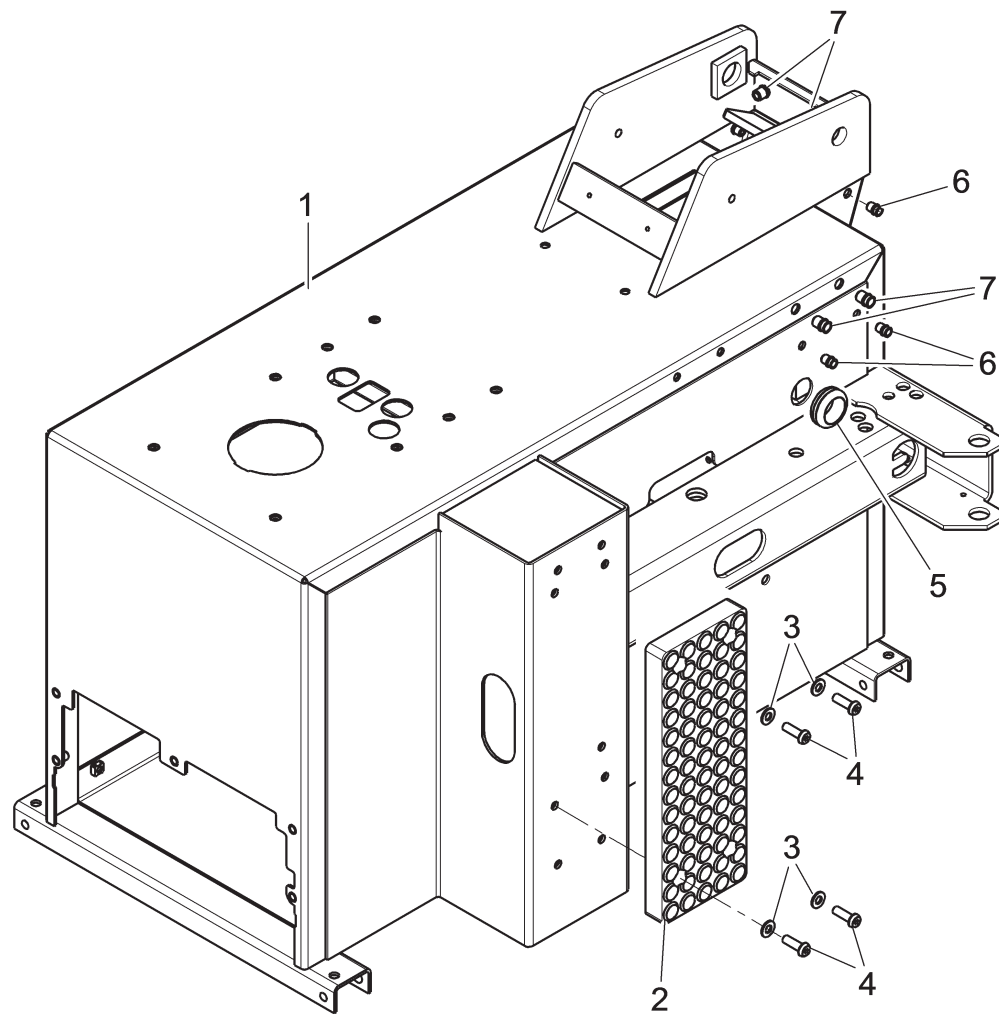
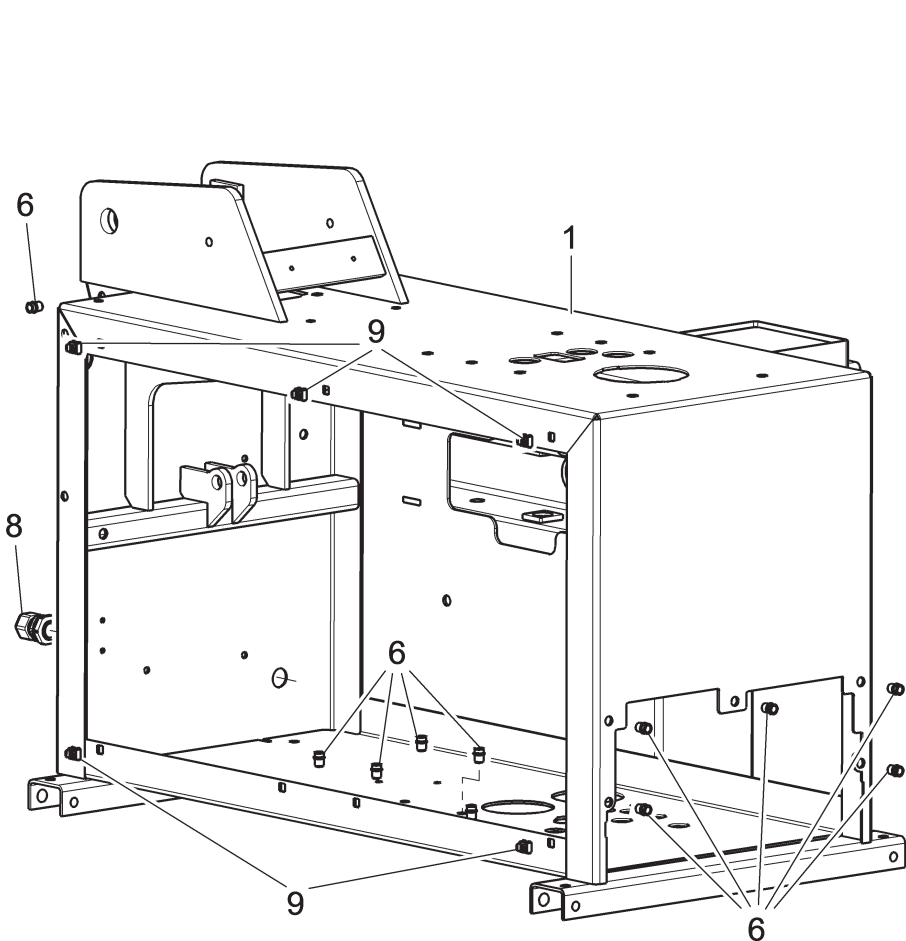
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ASSIEME GENERALE
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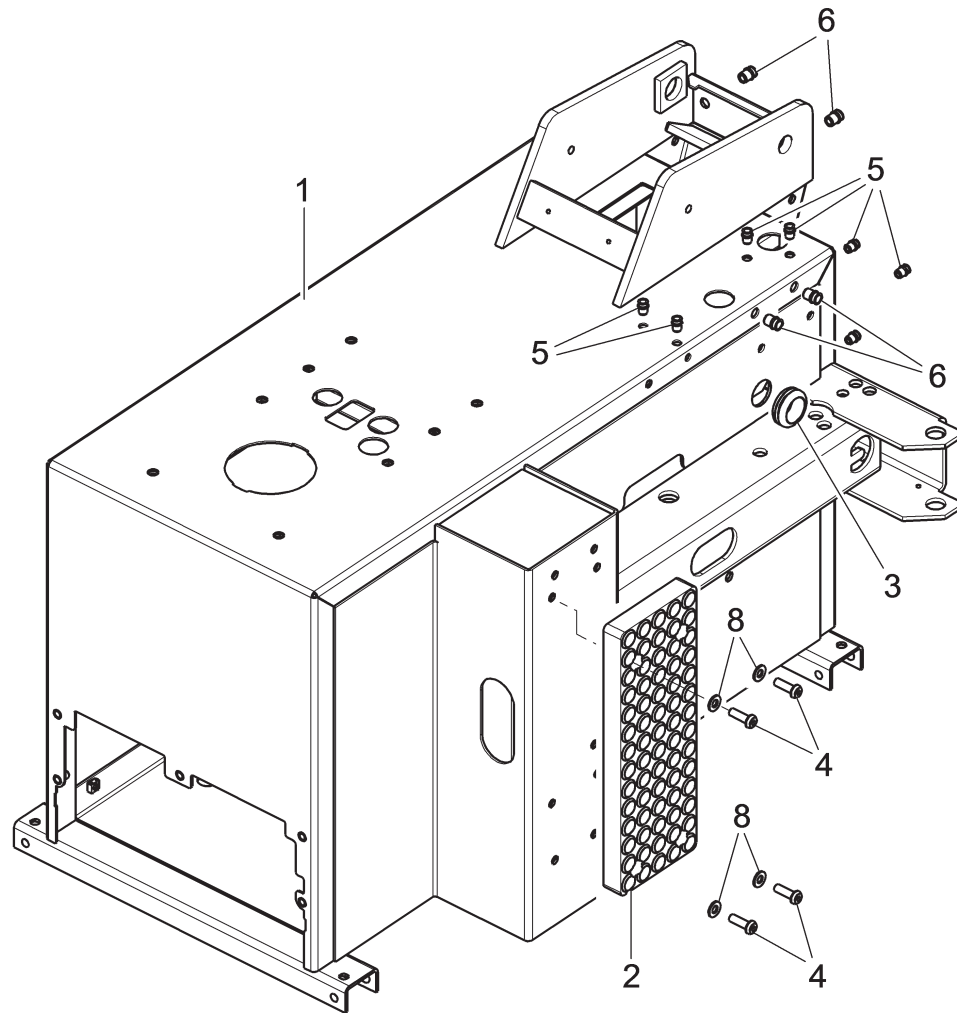
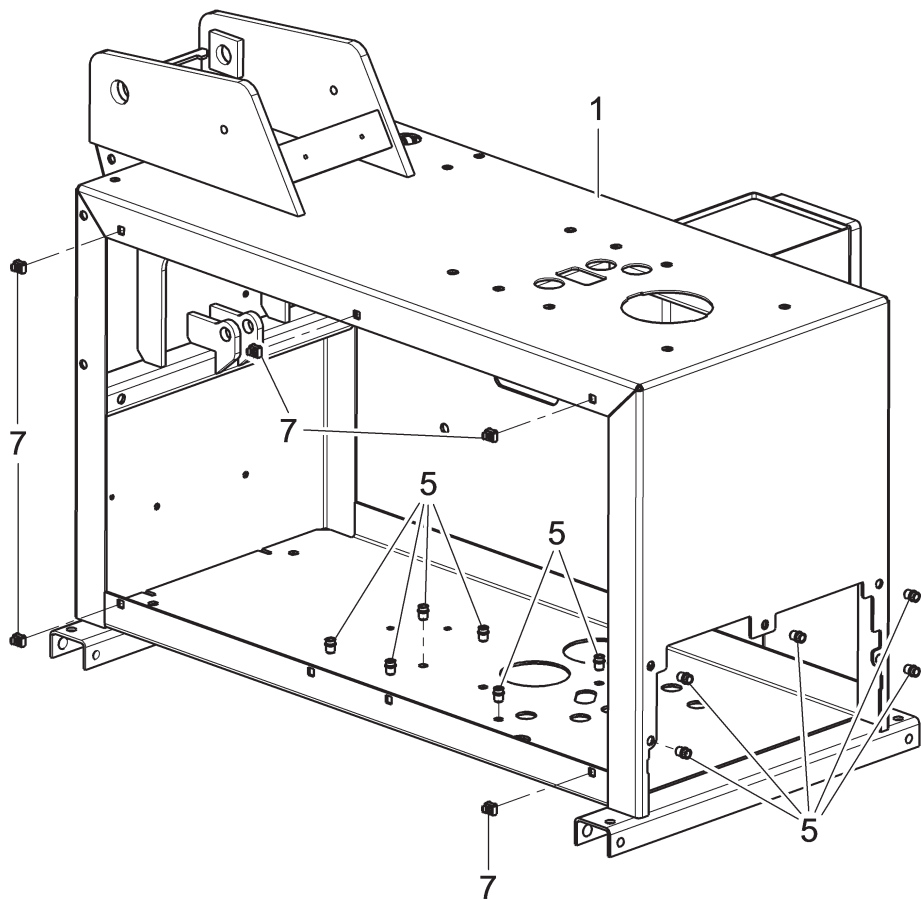
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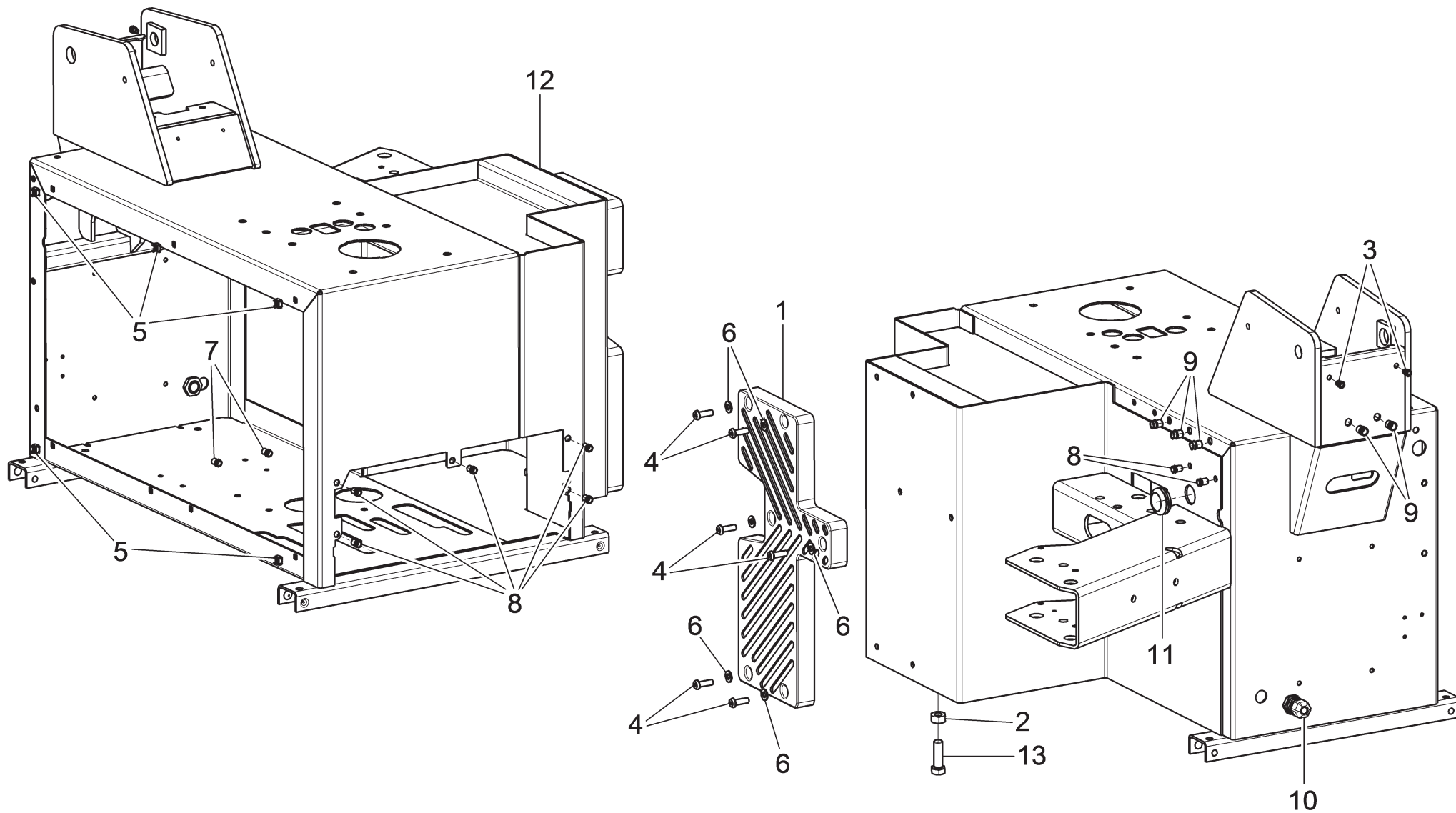
Tav. / Pos.	Cod.	G6441								G7441													G7641																																	
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2A	730094280	●	●	●		●	●				●	●	●	●	●		●		●	●	●	●	●	●	●																															
2B	730094240														●																																									
2C	730094300																													●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●						
3A	730091580	●	●	●		●	●																																																	
3B	730091401										●	●	●	●	●	●		●	●	●	●	●	●	●	●				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
4A	730094220	●	●	●							●	●	●					●	●	●									●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●					
4B	730094171					●	●				●	●	●	●								●	●	●	●																															
5A	730091291	●	●	●		●	●				●	●	●	●	●	●		●	●	●	●	●	●	●																																
5B	730090732																													●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●					
6A	140390221	●	●	●							●	●	●					●	●	●									●	●	●																									
6B	140302093					●	●				●	●	●	●							●	●	●	●				●	●	●																										
7A	730094210	●	●	●		●	●																																																	
7B	730094690										●	●	●	●	●		●																																							
7C	730094110																	●	●	●	●	●	●	●																																
7D	730092251																																																							
7E	730093980																													●	●	●	●	●	●																					
7F	730093970																													●	●	●	●	●	●																					
7G	730093872																																																							
7H	730094690 (G7441I.22EX)														●																																									
8A	140990133	●	●	●		●	●				●	●	●	●	●		●																																							
8B	730092342														●																																									
8C	730094270																			●	●	●	●	●	●																															
8D	730091410																																																							
8E	730094120																														●	●	●	●	●	●																				
8F	730094330																																																							
8G	730094350																																																							
9	140990431	●	●	●		●	●				●	●	●	●	●	●		●	●	●	●	●	●	●																																
10	140990411	●	●	●		●	●				●	●	●	●	●		●																																							
11	140990401	●	●	●		●	●				●	●	●	●	●	●		●	●	●	●	●	●	●																																
12	140990391	●	●	●		●	●				●	●	●	●	●	●		●	●	●	●	●	●	●																																
13A	730094200																			●	●	●	●	●	●																															



G6441								G7441														G7641																													
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24							
●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIECES DETACHEES - LISTA DE PIEZAS																GRUPPO TELAIO FRAME UNIT RAHMENSATZ GROUPE CHASSIS GRUPO ESTRUCTURA				Pag. 9 di 70																											
Tavola N°2A - Rev. 1				730094280																																															



G6441							G7441																	G7641																												
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24								
 RAVAGLIOLI S.p.A.							LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS																	GRUPPO TELAIO FRAME UNIT RAHMENSATZ GROUPE CHASSIS GRUPO ESTRUCTURA																	Pag. 10 di 70											
							Tavola N°2B - Rev. 1								730094240																																					



G6441								G7441																G7641																										
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24						



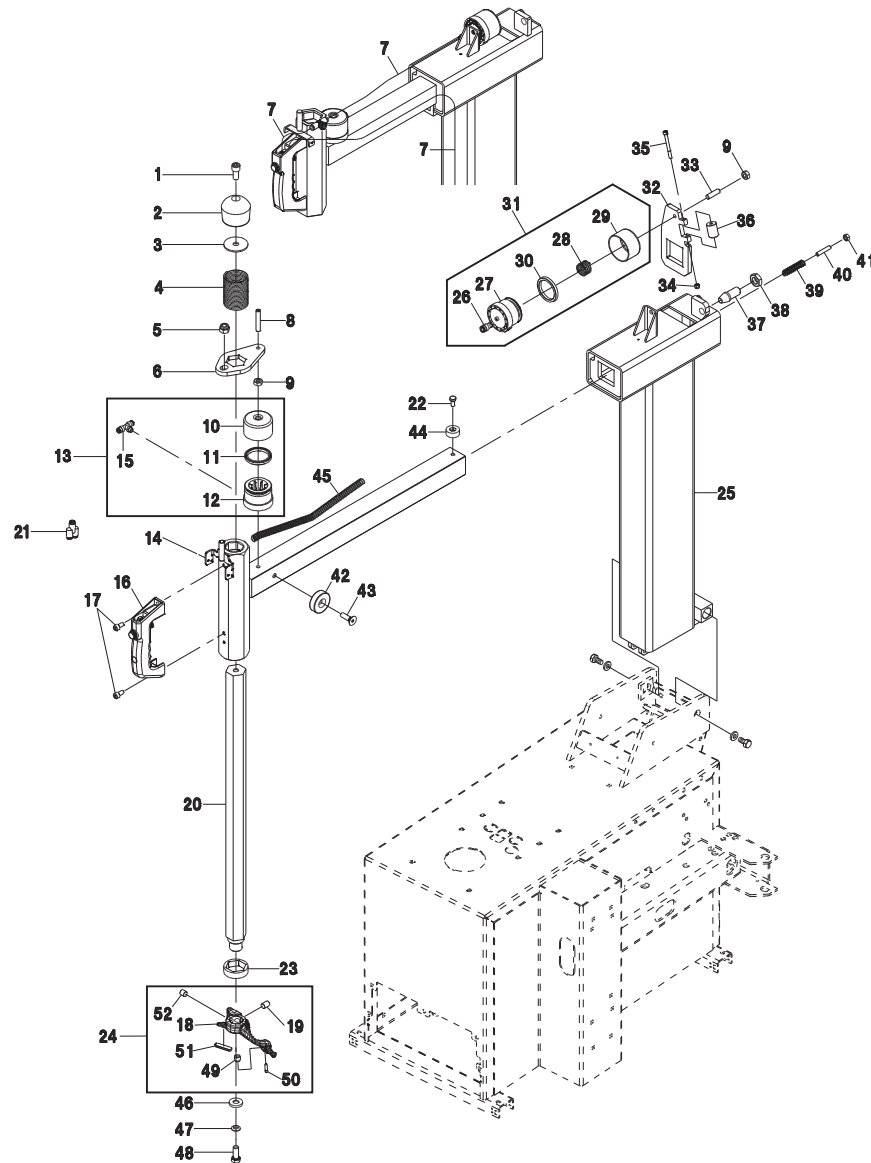
LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

Tavola N°2C - Rev. 1

730094300

GRUPPO TELAIO
 FRAME UNIT
 RAHMENSATZ
 GROUPE CHASSIS
 GRUPO ESTRUCTURA

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G6441								G7441														G7641																								
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24		
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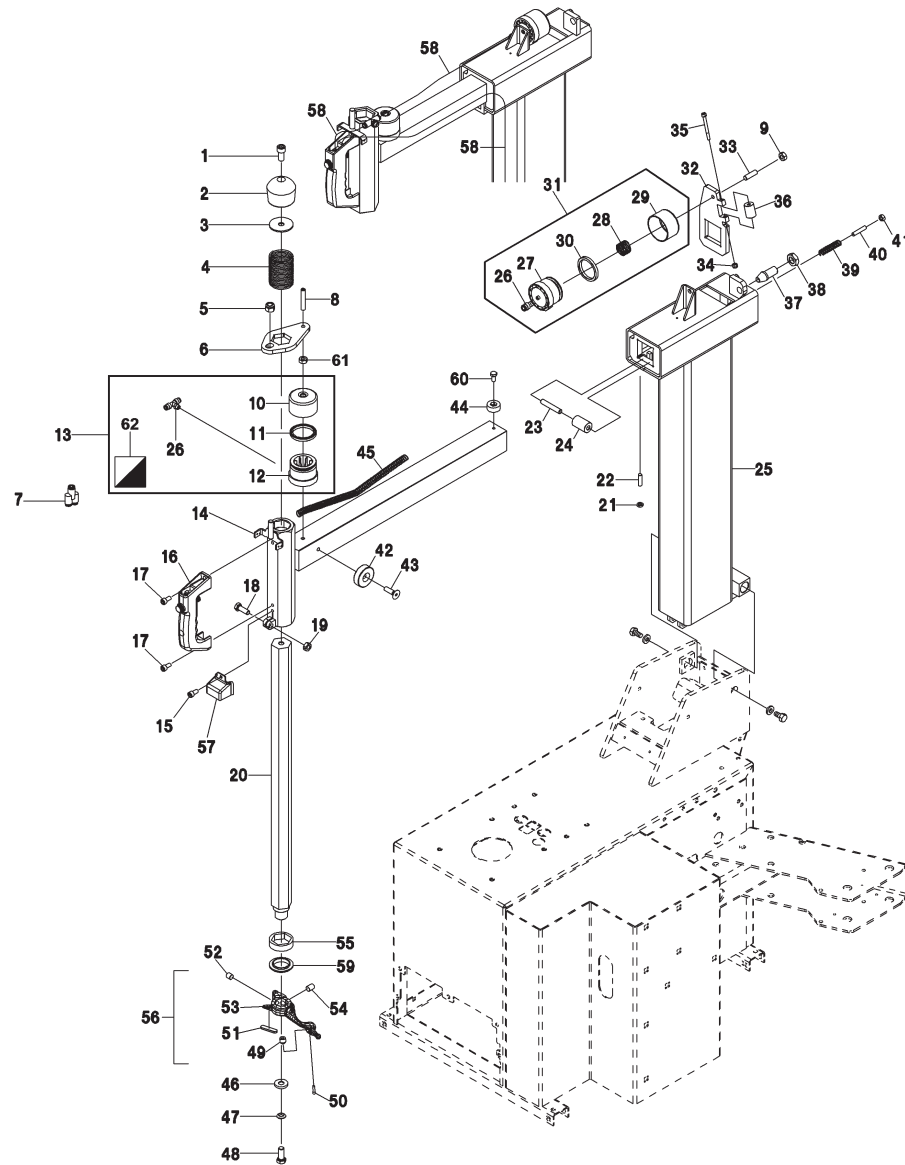
**LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS**


Tavola N°3A - Rev. 1

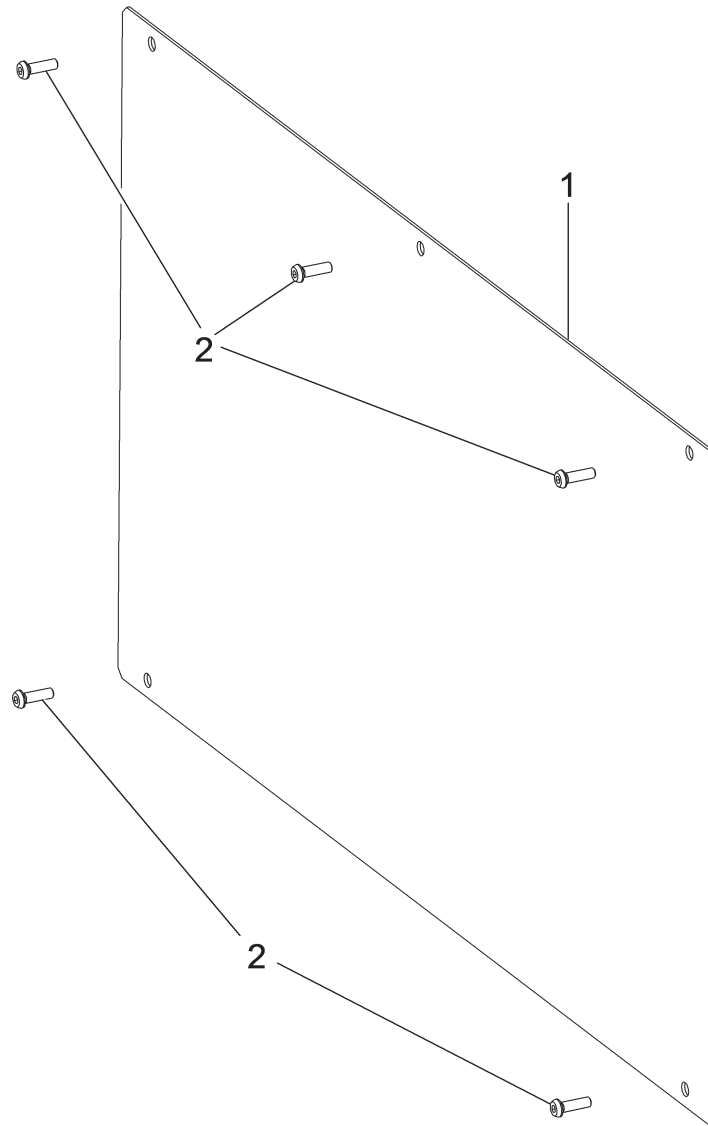
730091580

GRUPPO PALO
ROD GROUP
PFAHLSATZ
GRUPE MÂT
GRUPO PALO

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G6441				G7441													G7641																														
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24			
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 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS													GRUPPO PALO ROD GROUP PFAHLSATZ GROUPE MÂT GRUPO PALO													Pag. 13 di 70																	
				Tavola N°3B - Rev. 1						730091401																																					



G6441								G7441												G7641																									
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24	
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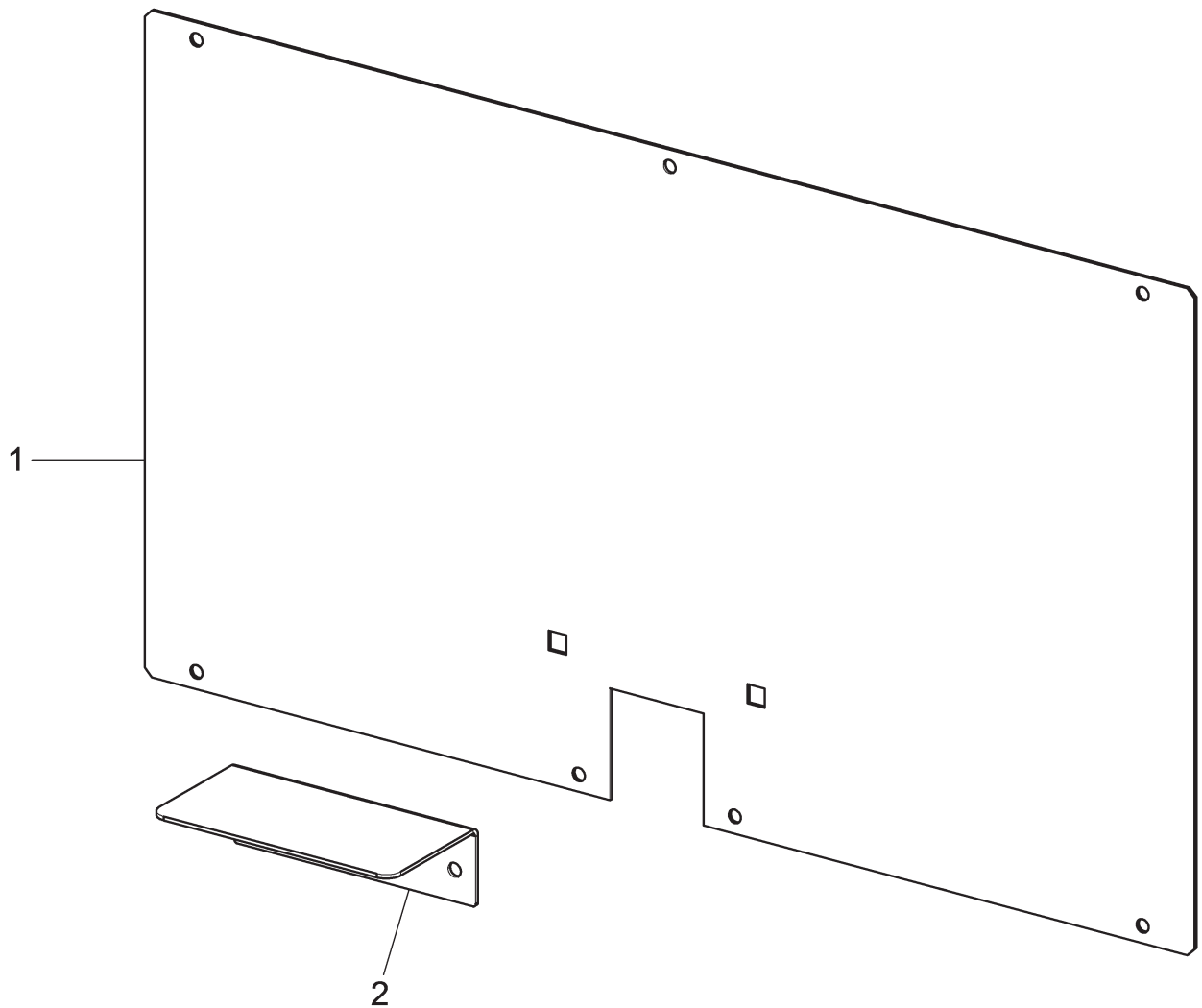



**LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS**

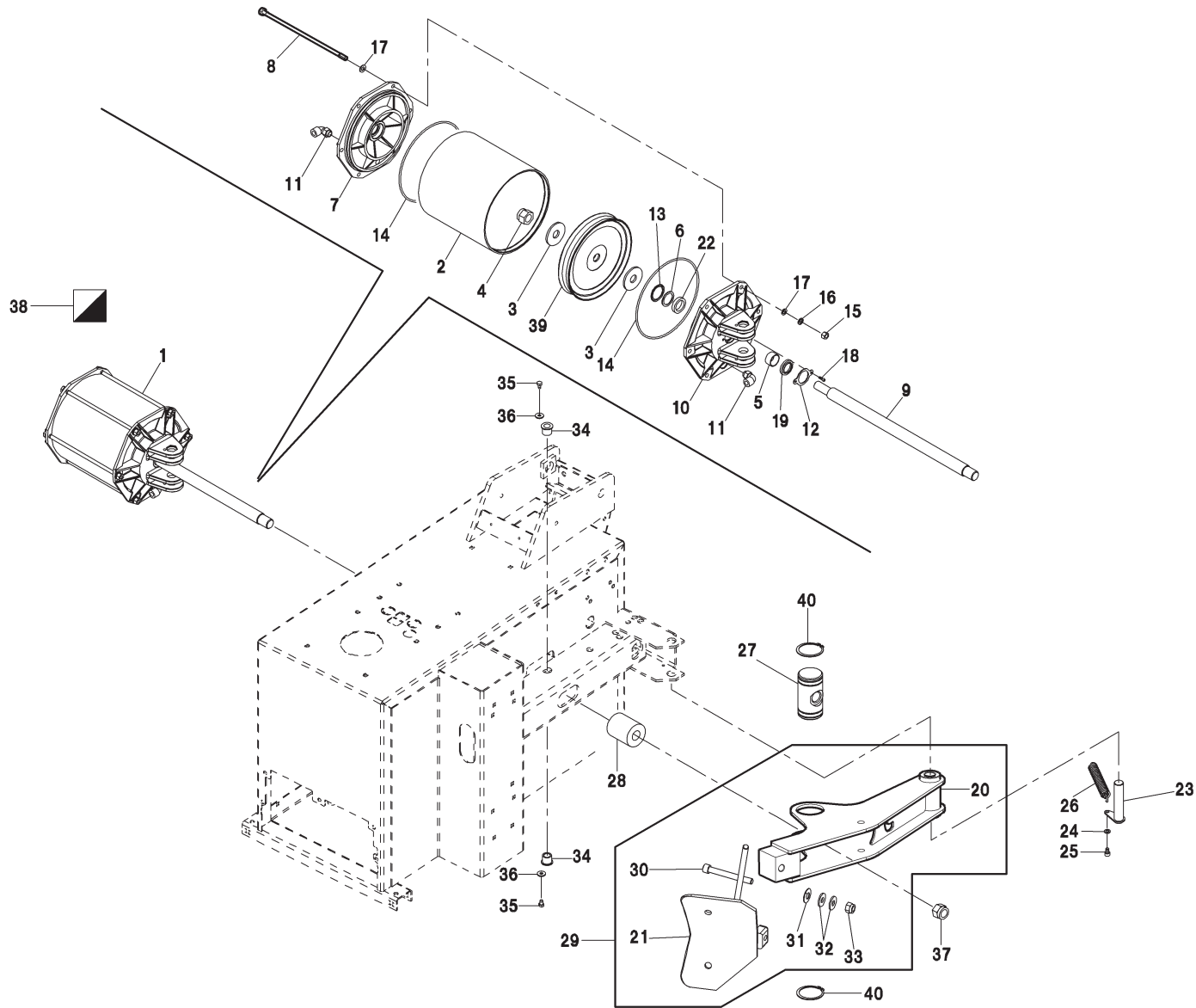
Tavola N°4A - Rev. 1

730094220

GRUPPO COFANO LATERALE
LATERAL CASING UNIT
LATERAL CASING UNIT
GROUPE COFFRE LATÉRAL
GRUPO CAPOT LATERAL



G6441								G7441																G7641																							
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24			
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 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS																GRUPPO COFANO LATERALE LATERAL CASING UNIT LATERAL CASING UNIT GROUPE COFFRE LATÉRAL GRUPO CAPOT LATERAL								Pag. 15 di 70																			
				Tavola N°4B - Rev. 1								730094171																																			



G6441								G7441														G7641																									
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24			
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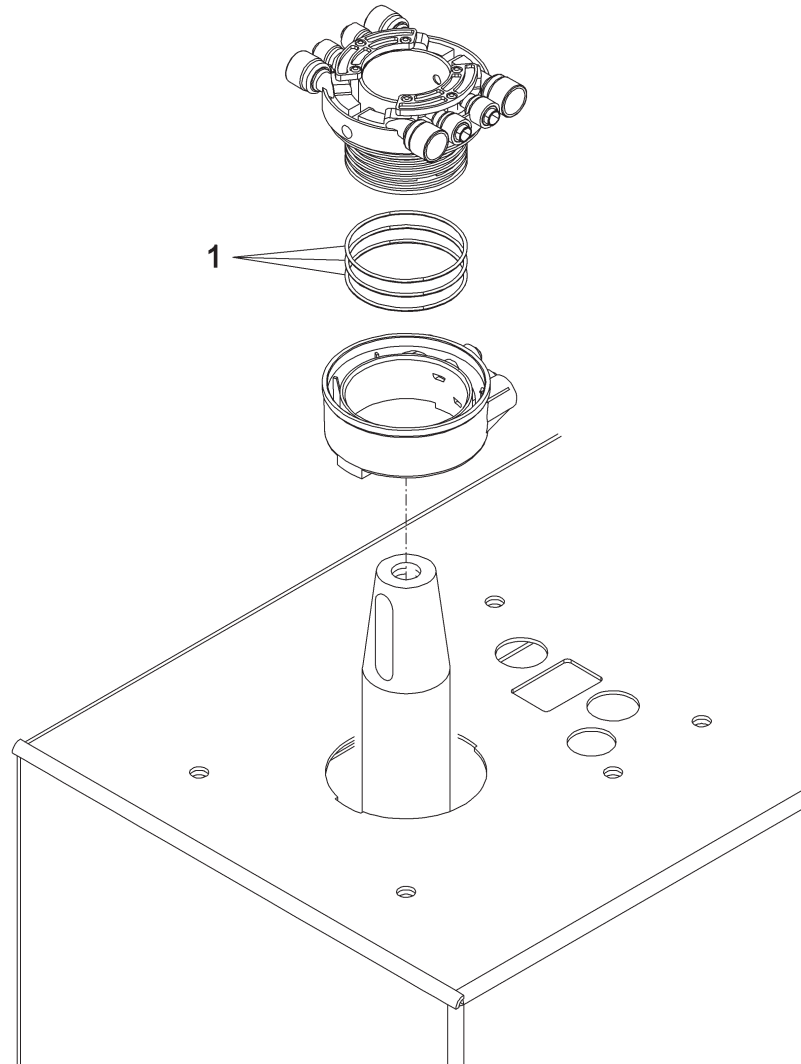

 RAVAGLIOLI S.p.A.

LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS
Tavola N°5A - Rev. 1

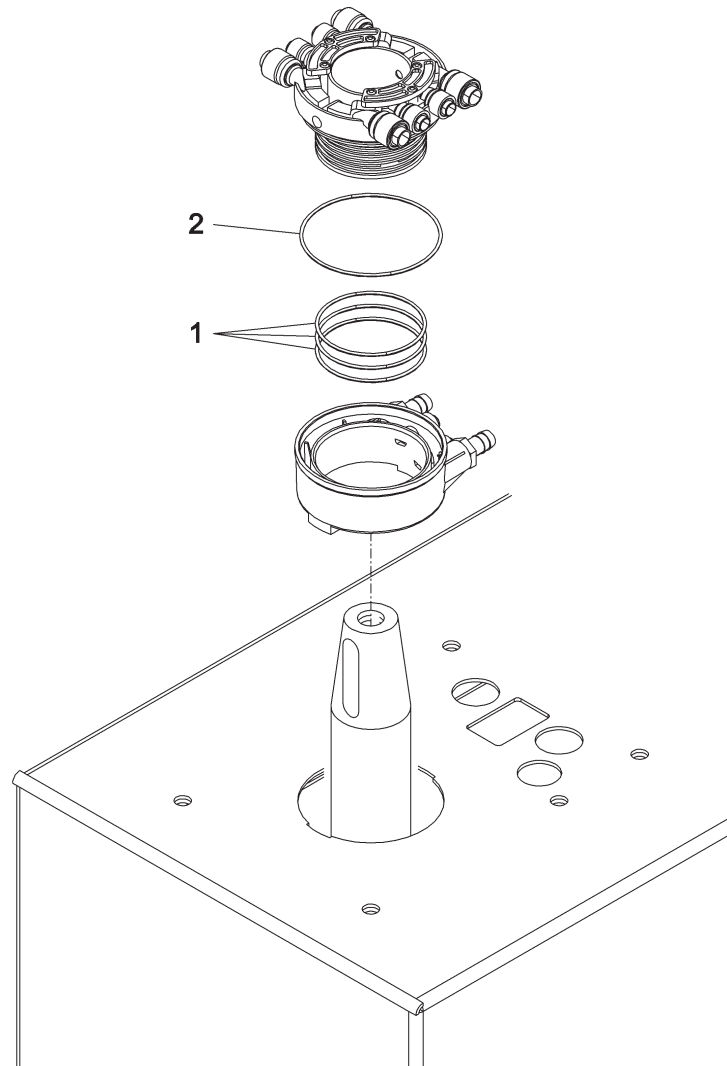
730091291

GRUPPO BRACCIO STALLONATORE
 BEAD BREAKER ARM UNIT
 ABDRÜCKARMSATZ
 GROUPE BRAS DECOLLE TALONS
 GRUPO BRAZO DESTALONADOR

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G6441								G7441																G7641																															
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24											
•	•	•							•	•	•					•	•	•							•	•	•					•	•	•					•	•	•														
 RAVAGLIOLI S.p.A.								LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS																INSIEME DISTRIBUTORE ROTANTE ROTARY DISTRIBUTOR ASSEMBLY ROTATIONSVERTEILERSATZ ASSEMBLAGE DISTRIBUTEUR ROTATIF CONJUNTO DISTRIBUIDOR ROTANTE																Pag. 18 di 70															
								Tavola N°6A - Rev. 0								140390221																																							



G6441								G7441												G7641																								
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24
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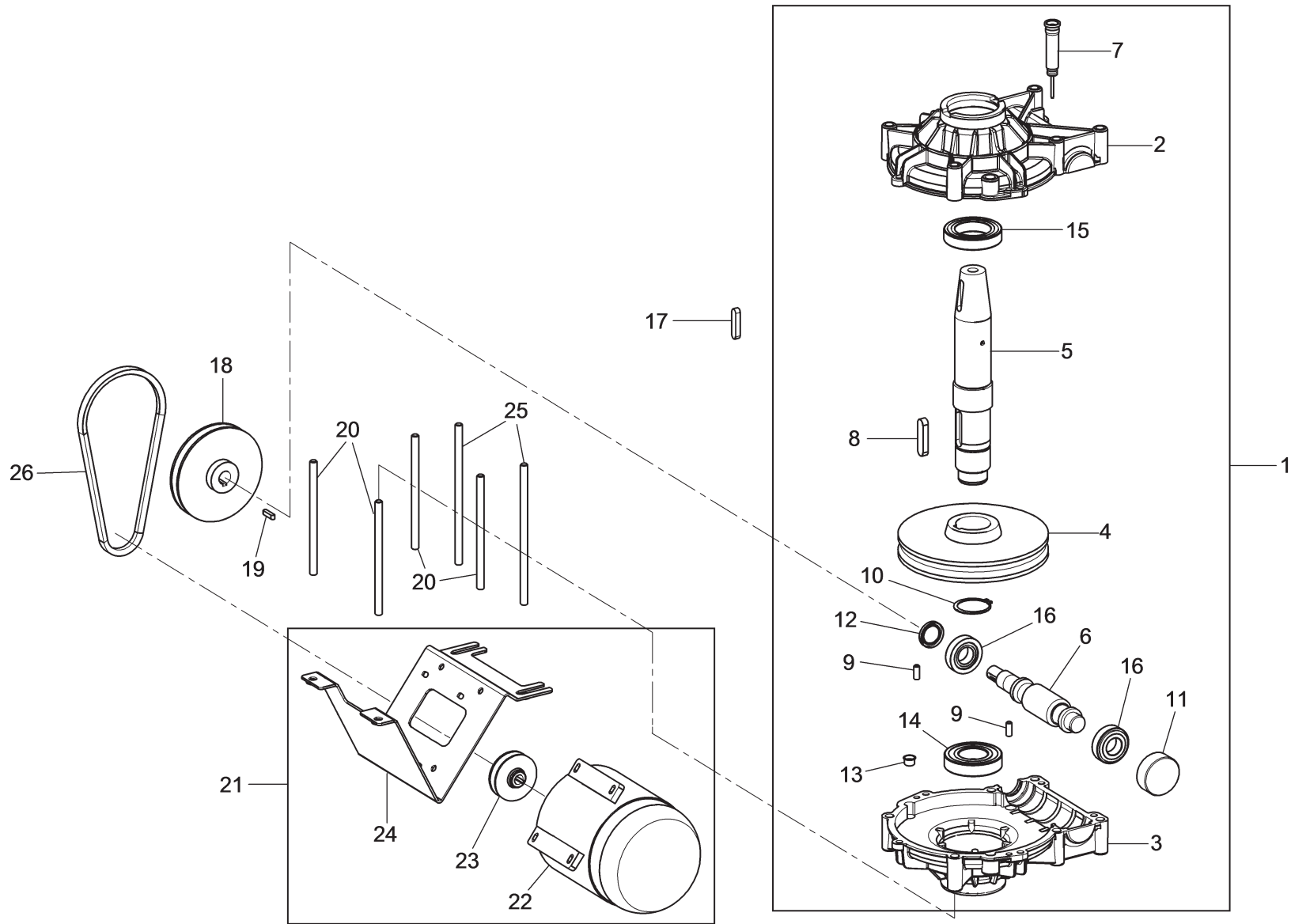
LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

Tavola N°6B - Rev. 0

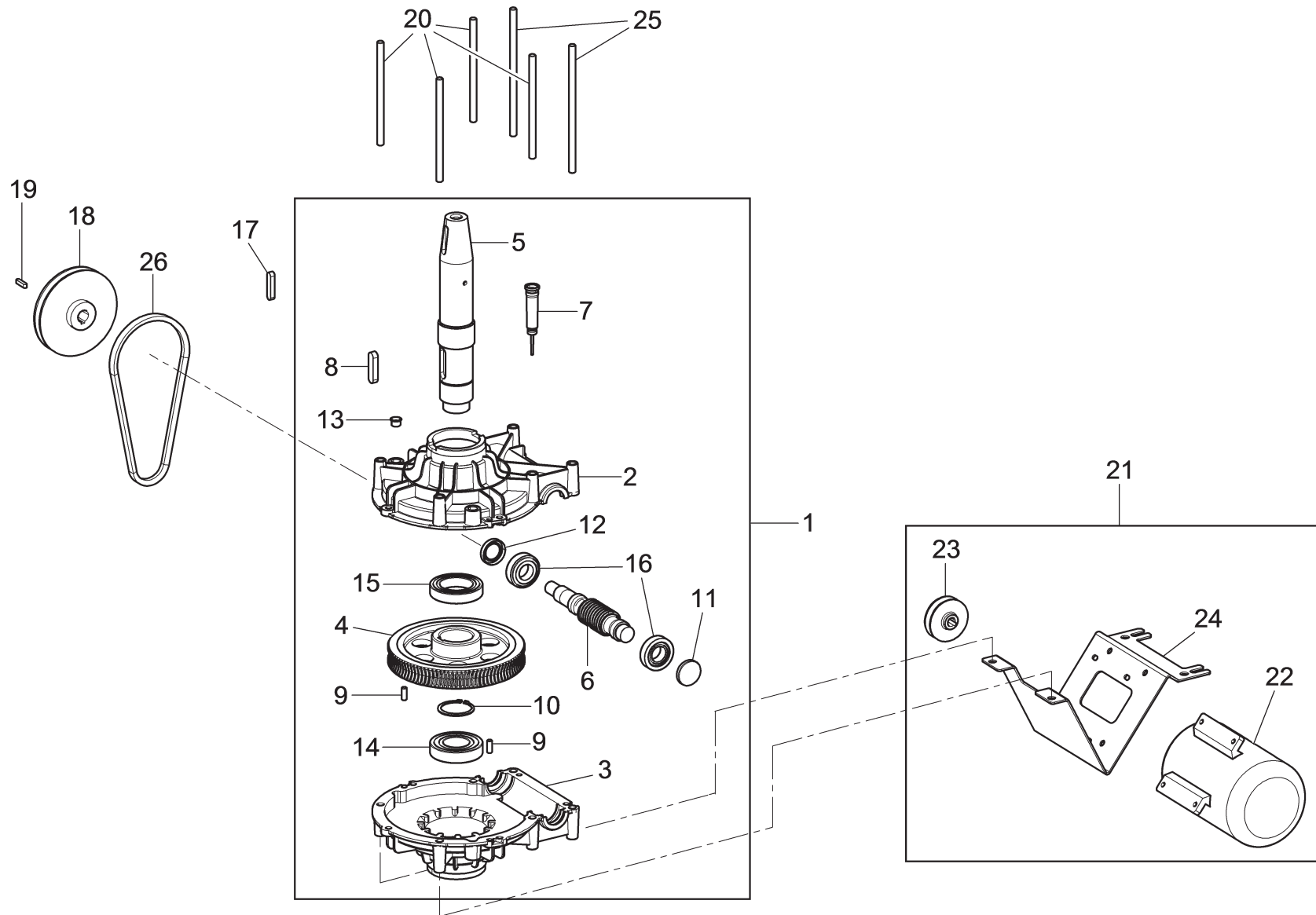
140302093

INSIEME DISTRIBUTORE ROTANTE
 ROTARY DISTRIBUTOR ASSEMBLY
 ROTATIONSVERTEILERSATZ
 ASSEMBLAGE DISTRIBUTEUR ROTATIF
 CONJUNTO DISTRIBUIDOR ROTANTE

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G6441								G7441												G7641																											
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24			
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 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS																		INSIEME MOTORIDUTTORE GEARMOTOR ASSEMBLY UNTERSETZERSATZ ASSEMBLAGE MOTOREDUCTEUR ASSEMBLAGE MOTOREDUCTEUR						Pag. 20 di 70																			
				Tavola N°7A - Rev. 1									730094210																																		



G6441								G7441												G7641																										
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24		
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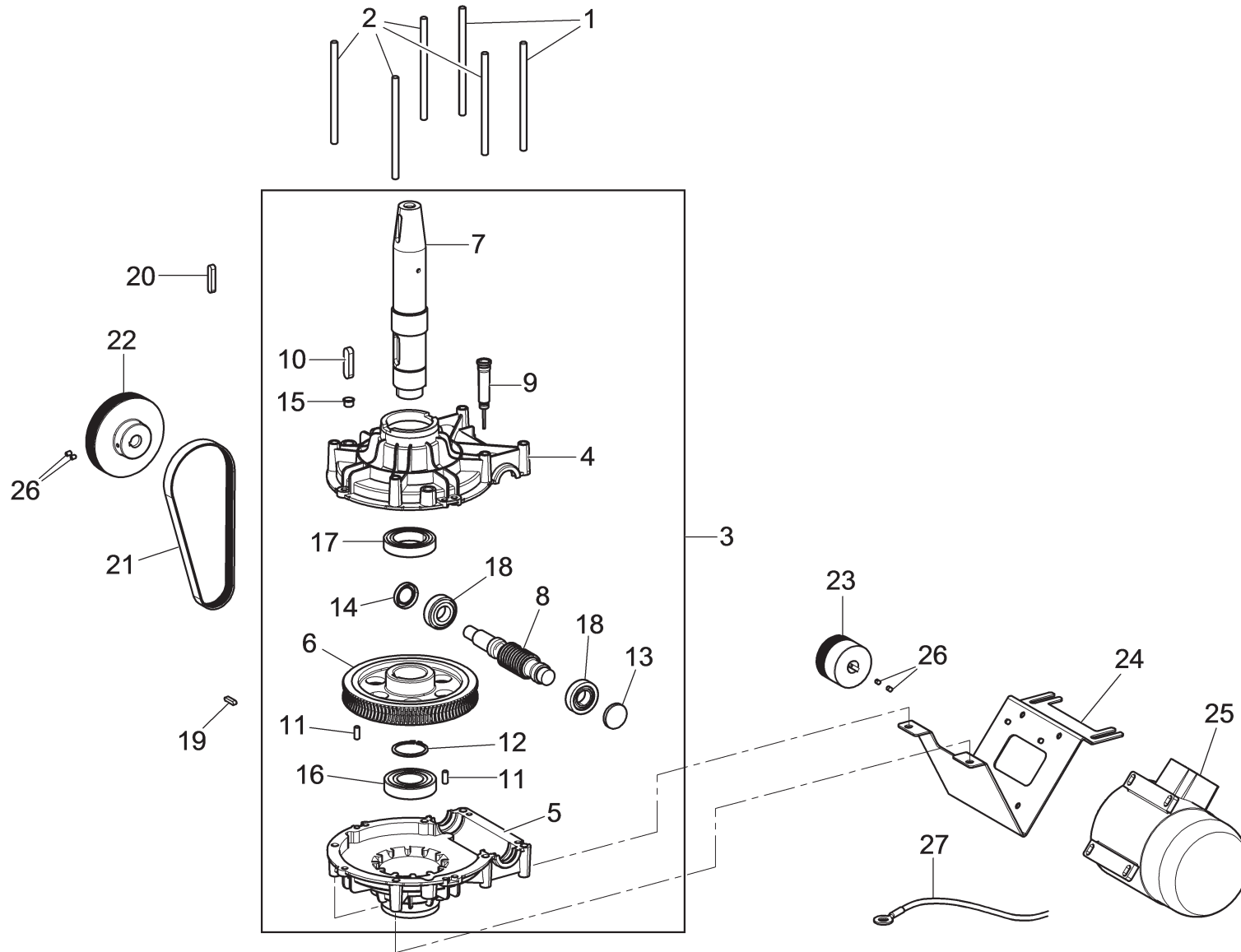
LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

Tavola N°7B - Rev. 1

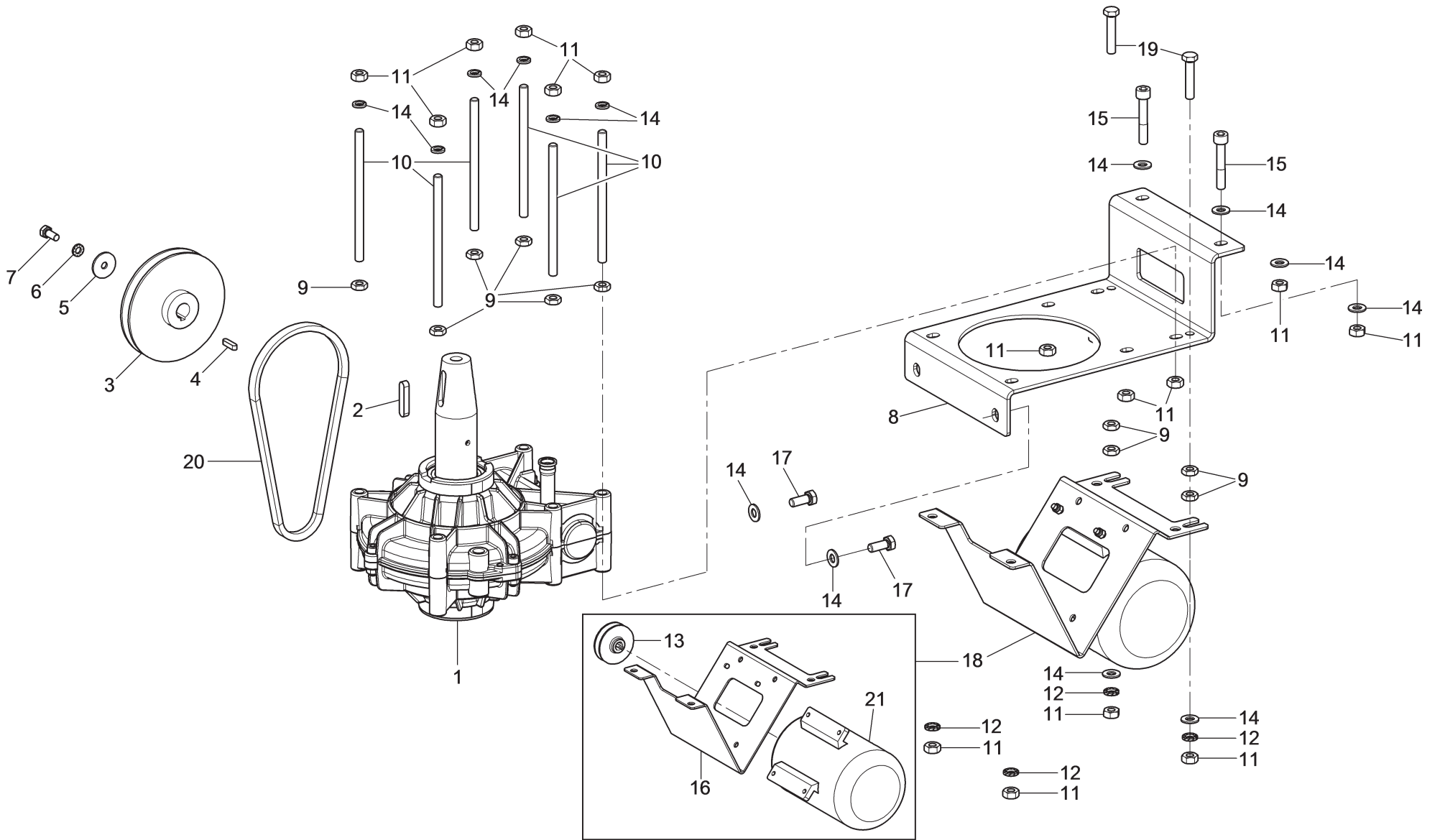
730094690

INSIEME MOTORIDUTTORE 230-400-50 0,75 KW
 230-400-50 0,75 KW GEARMOTOR ASSEMBLY
 UNTERSETZERSATZ 230-400-50 0,75 KW
 ASSEMBLAGE MOTOREDUCTEUR 230-400-50 0,75 KW
 ENSAMBLADO MOTORREDUCTOR 230-400-50 0,75 KW

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G6441								G7441																G7641																							
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24			
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 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS																INSIEME MOTORIDUTTORE 230-400-20-2 VELOCITÀ 230-400-50 2 SPEED GEARMOTOR INSERT UNTERSETZERMOTORSATZ 230-400-50 2 GESCHWINDIGKEIT RENFORT MOTOREDUCTEUR 230-400-50 2 VITESSE INSERCIÓN MOTORREDUCTOR 230-400-50 2 VELOCIDAD																Pag. 22 di 70											
				Tavola N°7C - Rev. 1								730094110																																			



G6441								G7441														G7641																													
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24							



RAVAGLIOLI S.p.A.

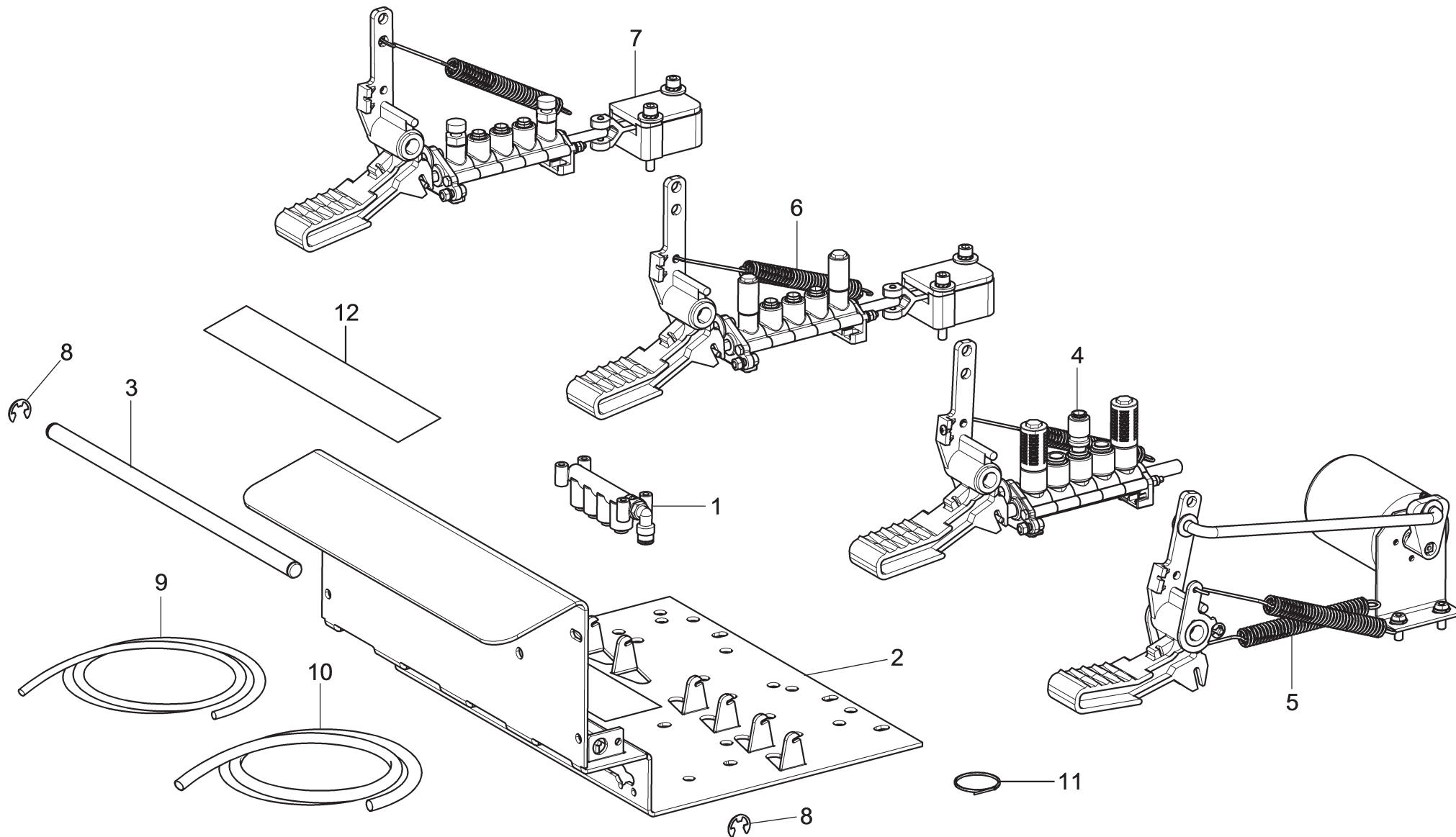
LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIECES DETACHEES - LISTA DE PIEZAS

Tavola N°7E - Rev. 1

730093980

GRUPPO MOTORIDUTTORE TRIFASE 1 VELOCITÀ
1-SPEED THREE-PHASE GEARMOTOR UNIT
UNTERSETZERSATZ DREIPHASEN 1 GESCHWINDIGKEIT
GRUPE MOTORREDUCTEUR TRIPHASE À 1 VITESSE
GRUPO MOTORREDUCTOR TRIFÁSICO 1 VELOCIDAD

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G6441								G7441																G7641																							
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24			
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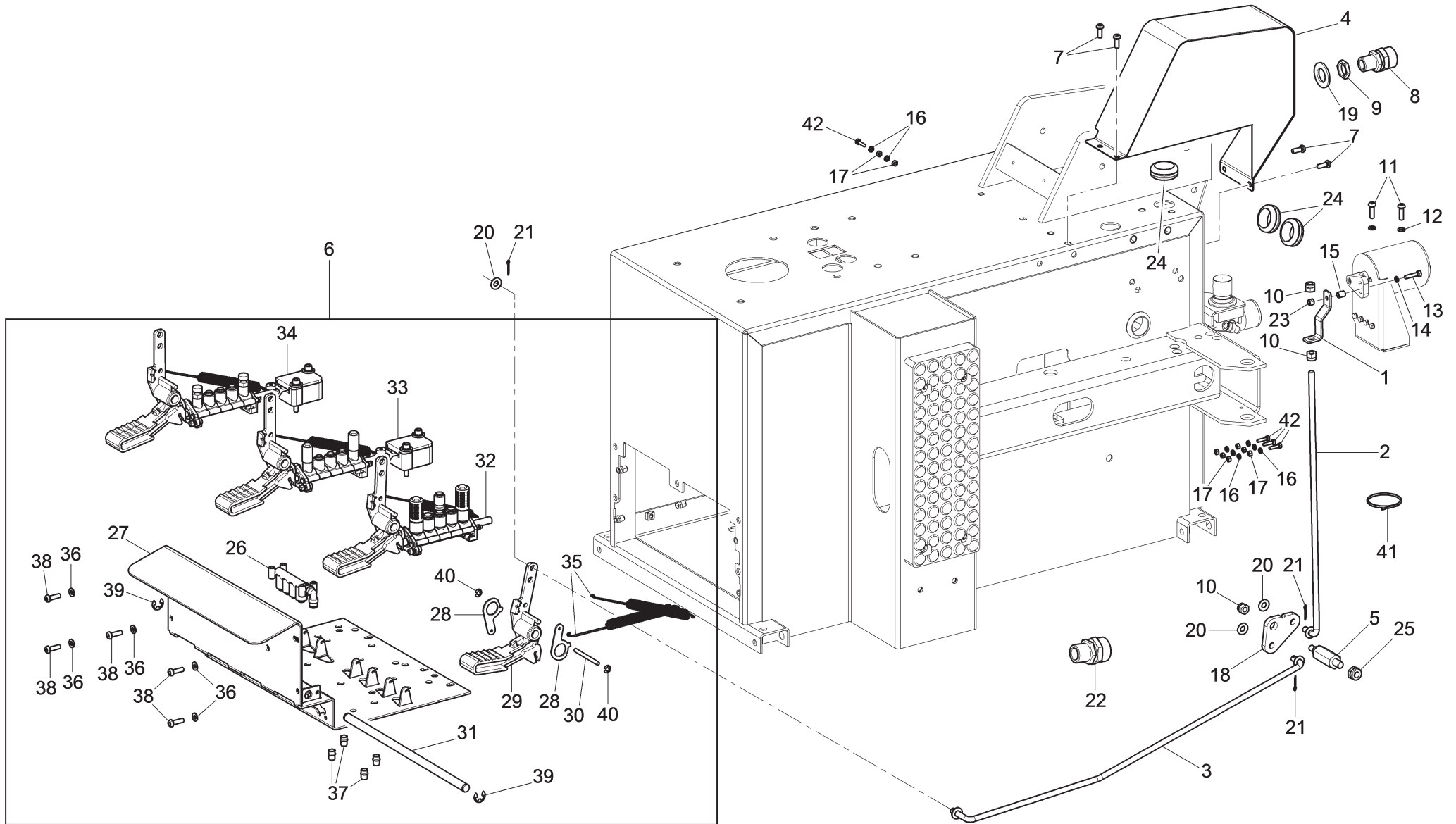

 RAVAGLIOLI S.p.A.

LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS
Tavola N°8A - Rev. 1

140990133

GRUPPO PEDALIERA
 PEDALBOARD UNIT
 PEDALLEISTESATZ
 GROUPE PÉDALES DE DIRECTION
 GRUPO PEDALERA

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G6441								G7441																G7641																				
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24



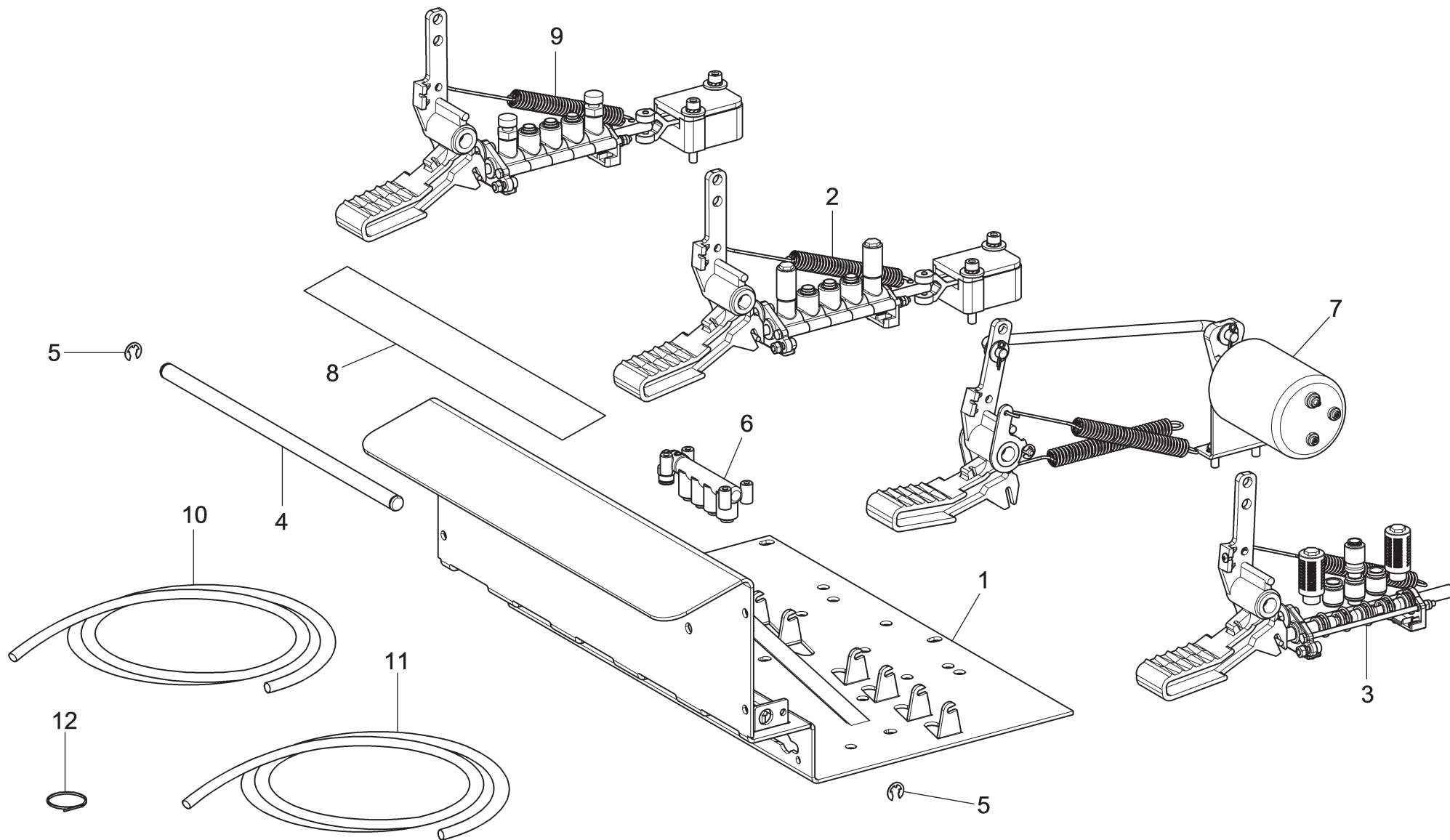
RAVAGLIOLI S.p.A.

LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIECES DETACHEES - LISTA DE PIEZAS

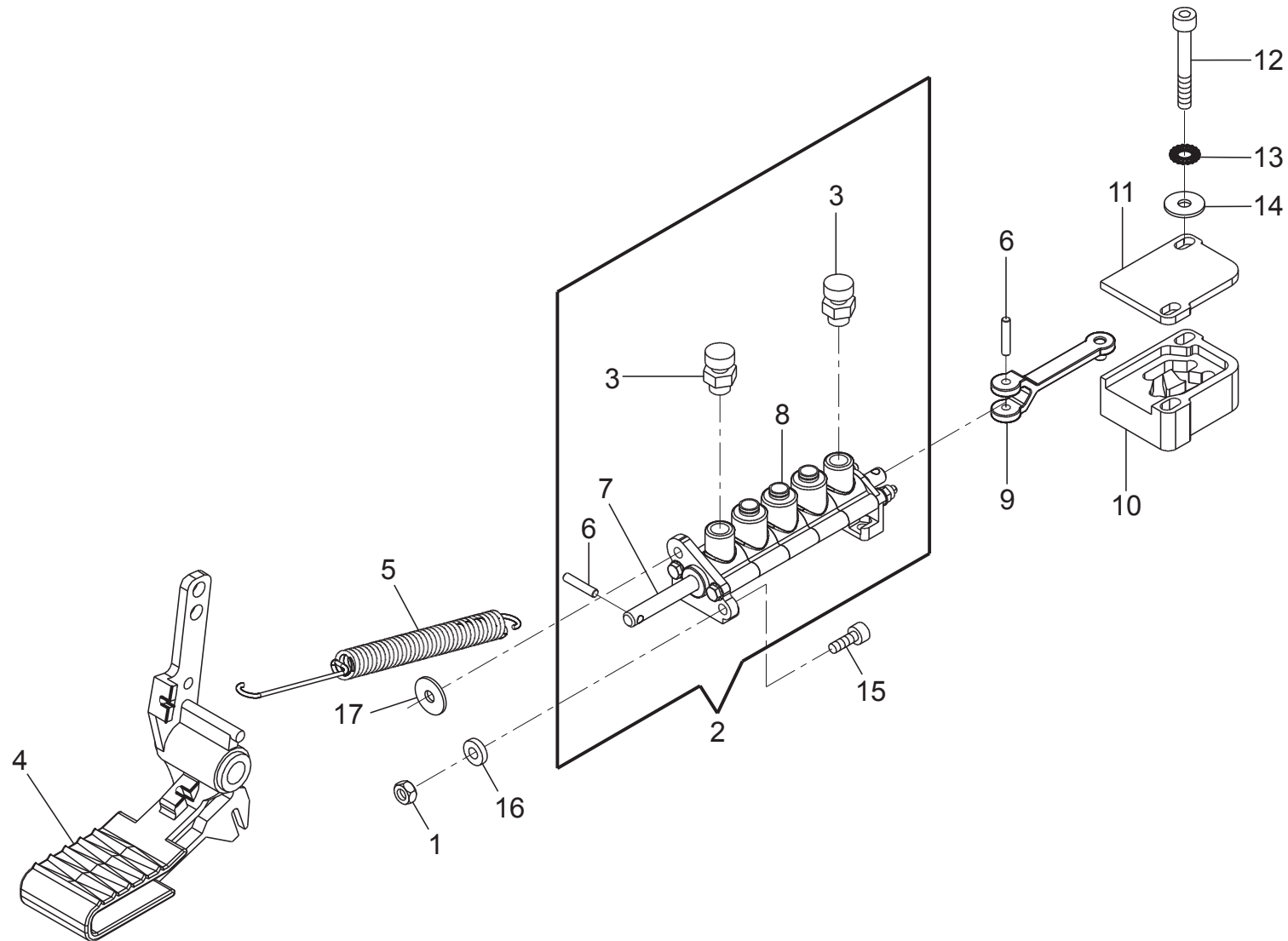
Tavola N°8B - Rev. 1 **730092342**


GRUPPO LEVERAGGIO
 LEVERAGE UNIT
 HEBELWERKSATZ
 GROUPE LEVIER
 GRUPO APALANCAMIENTO

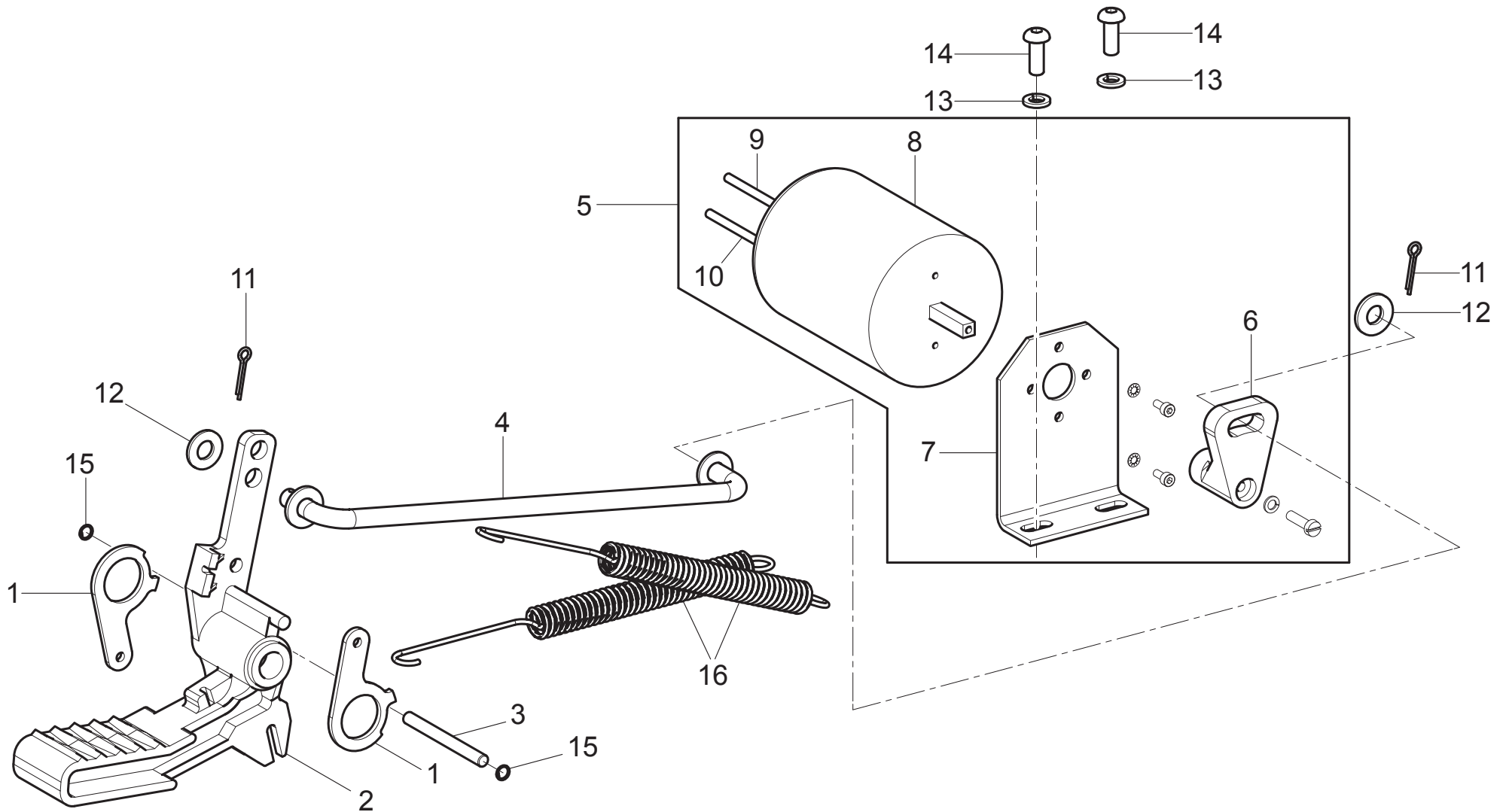
Pag. 29 di 70



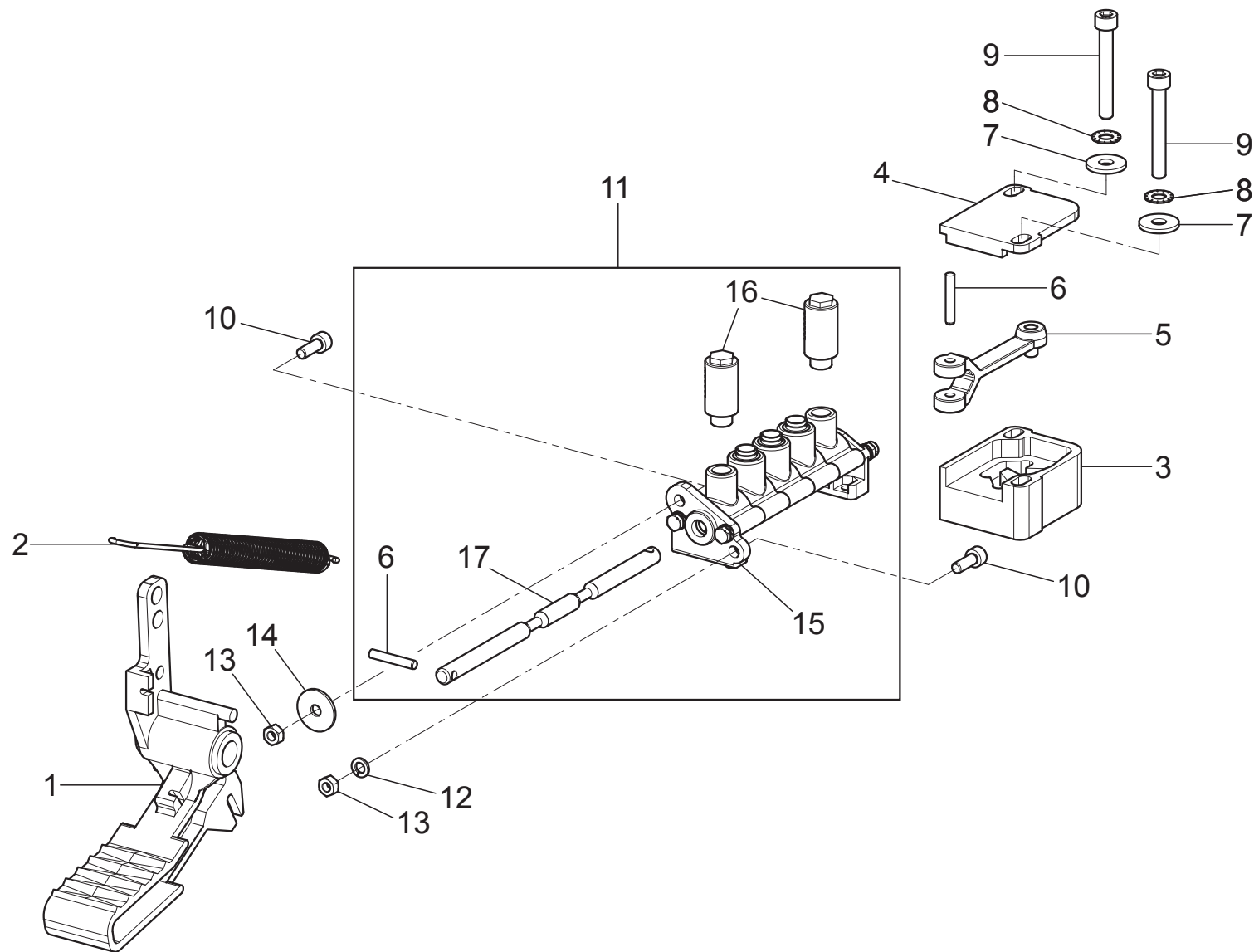
G6441								G7441															G7641																																						
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24																	
																									•	•	•	•	•																																
LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS																																										GRUPPO PEDALIERA MACCHINA 1 VELOCITÀ MACHINE PEDALBOARD UNIT 1 SPEED MASCHINE PEDALLEISTESATZ 1 GESCHWINDIGKEIT GROUPE PÉDALES DE DIRECTION MACHINE 1 VITESSE GRUPO PEDALERA MÁQUINA 1 VELOCIDAD														Pag. 32 di 70					
 RAVAGLIOLI S.p.A.				Tavola N°8E - Rev. 1														730094120																																											



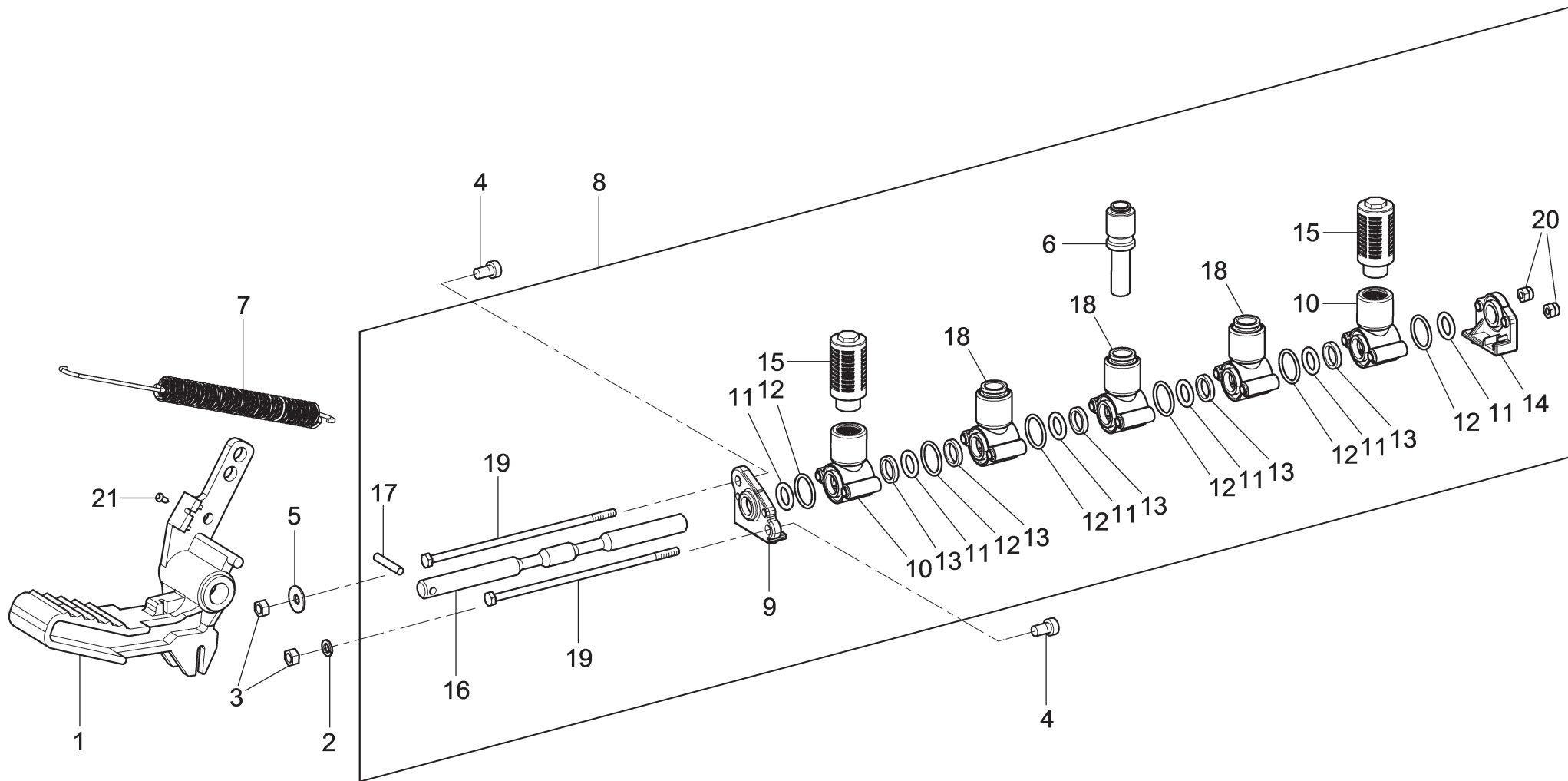
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 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS												GRUPPO PEDALE PEDAL UNIT PEDALSATZ GROUPE PÉDAL GRUPO PEDAL												Pag. 35 di 70																							
				Tavola N°9 - Rev. 0						140990431																																									



G6441								G7441												G7641																											
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24			
•	•	•		•	•			•	•	•	•	•	•	•	•																																
 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS												MONTAGGIO PEDALE INVERTITORE INVERTER PEDAL ASSEMBLY MONTAGE DES FREQUENZUMFORMERPEDAL MONTAGE PEDALE VARIATEUR MONTAJE PEDAL INVERSOR						Pag. 36 di 70																									
				Tavola N°10 - Rev. 0						140990411																																					



G6441				G7441												G7641																																			
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24							
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G6441								G7441																G7641																						
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24		
•	•	•		•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•



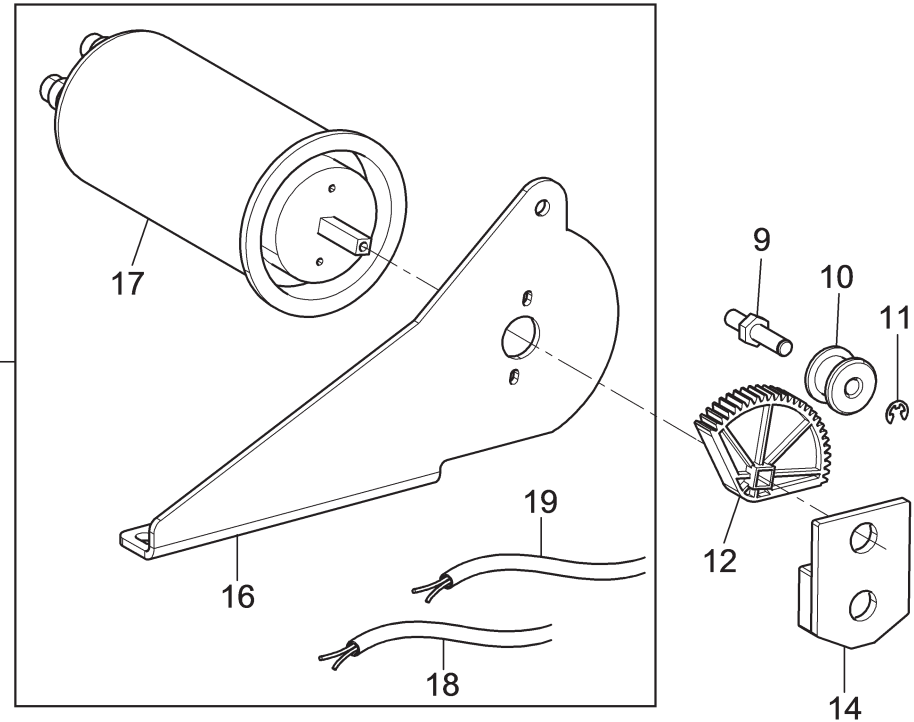
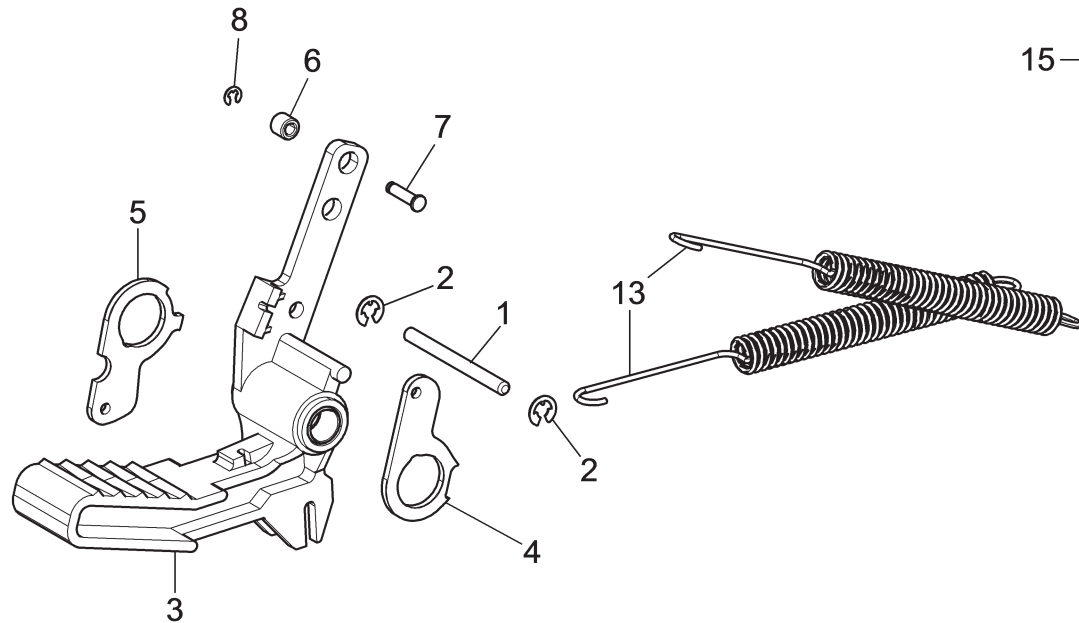
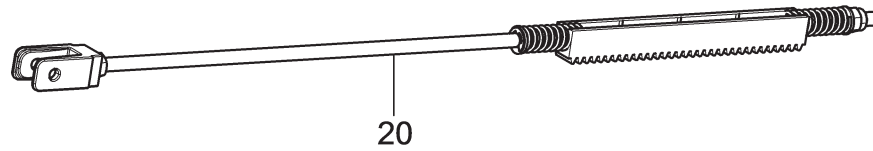
LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

Tavola N°12 - Rev. 0

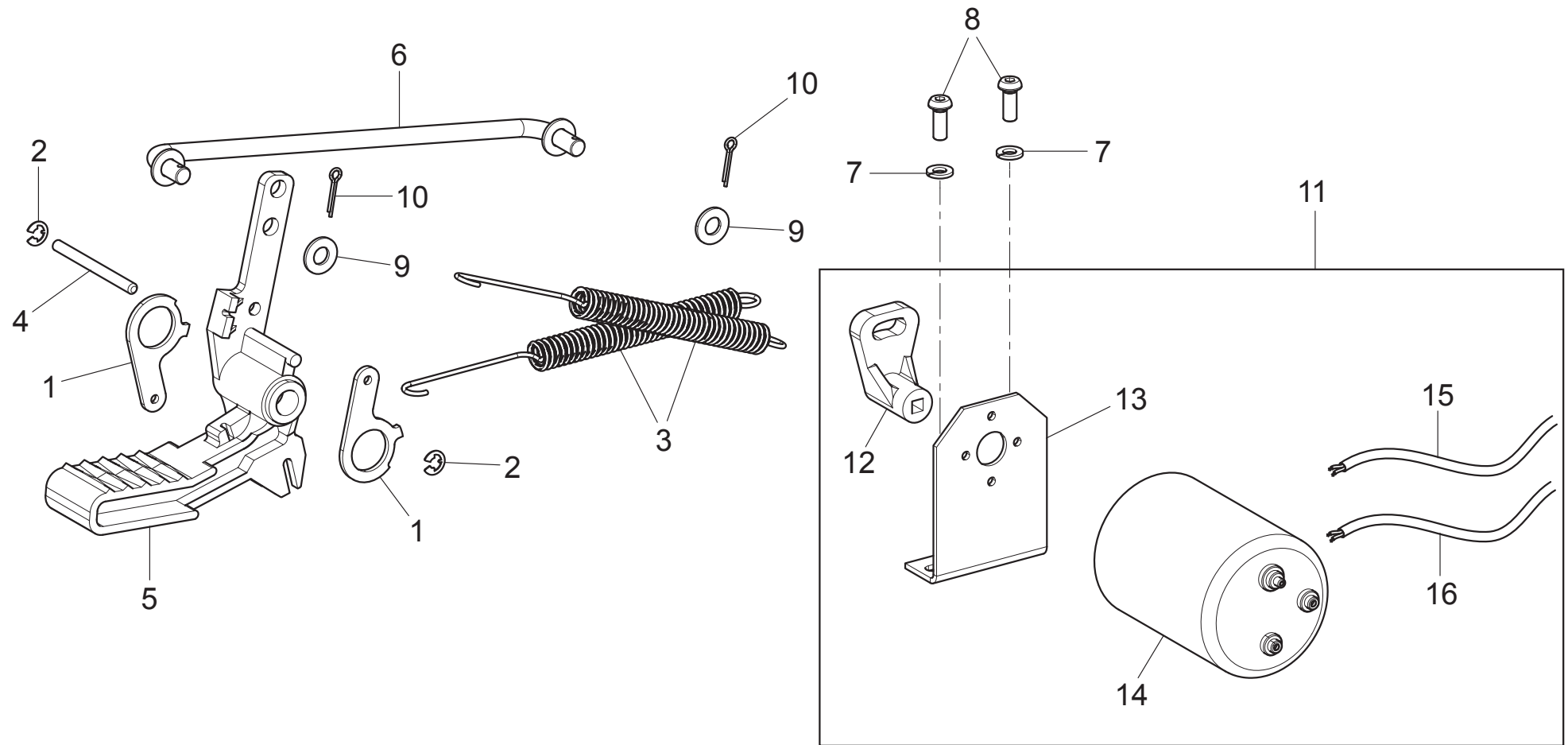
140990391

INSIEME PEDALE STALLONATORE
 BEAD BREAKING PEDAL UNIT
 ABDRÜCKPEDALSATZ
 ASSEMBLAGE PÉDAL DÉCOLLE TALON
 CONJUNTO PEDAL DESTALONADOR

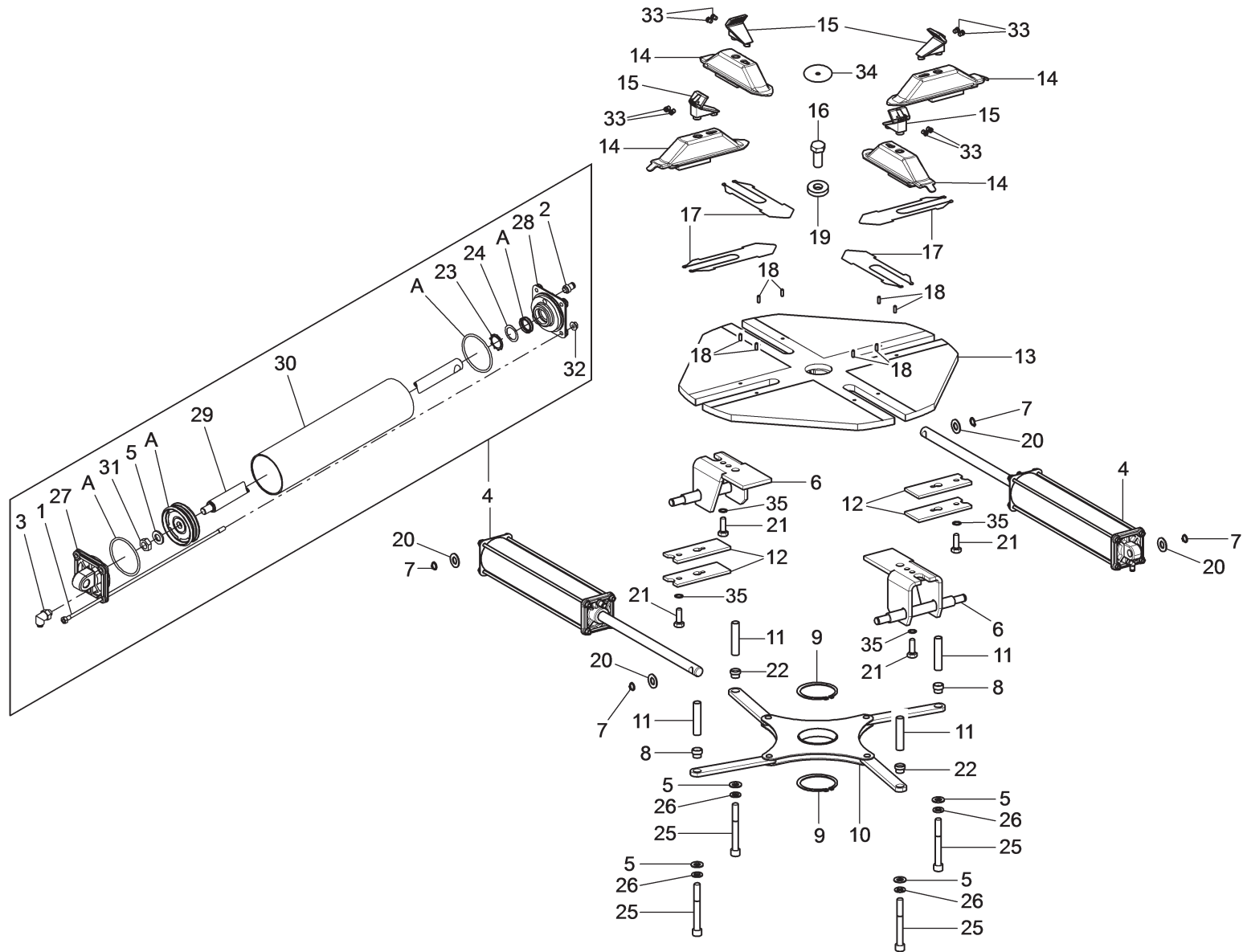
Pag. 38 di 70



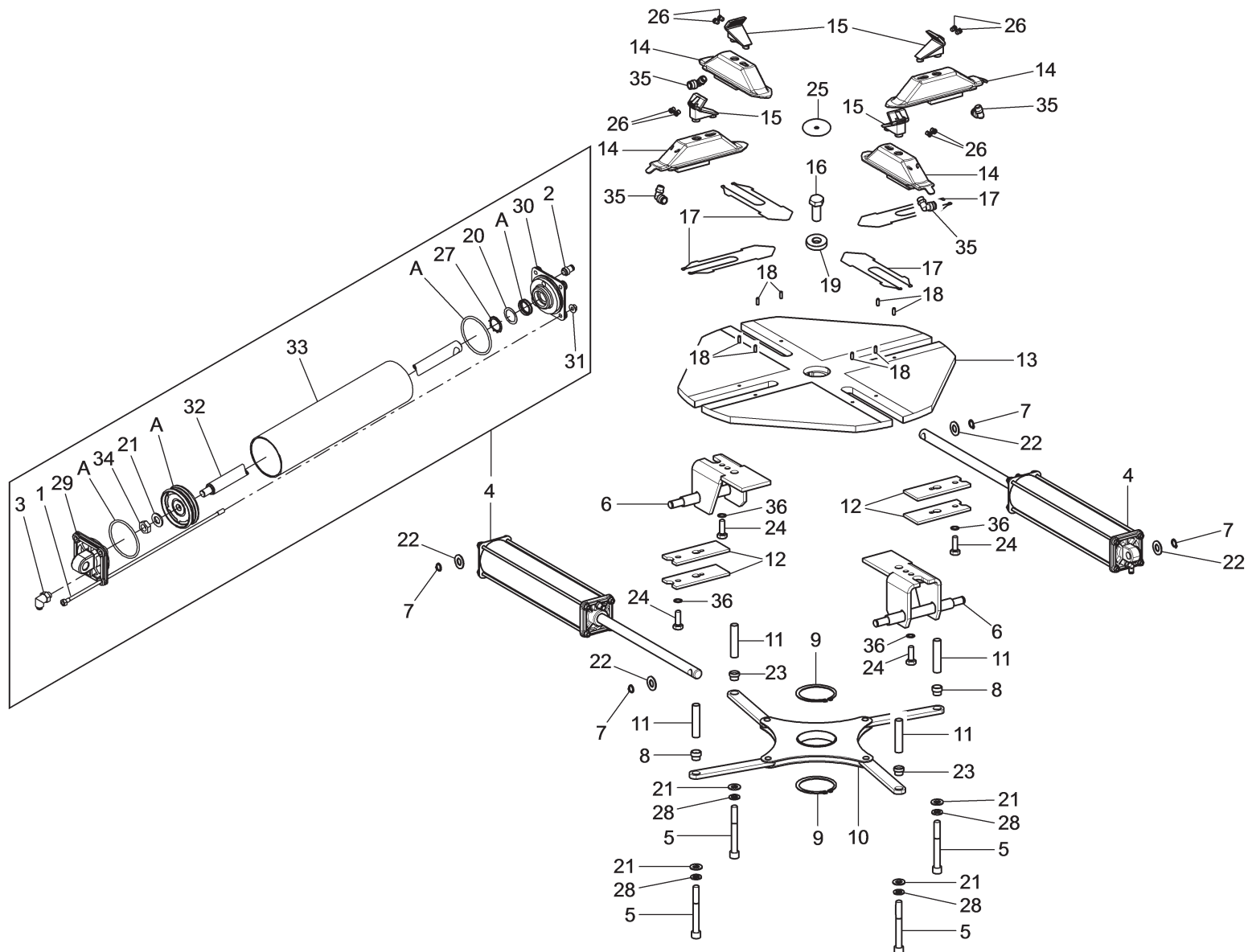
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 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS																MONTAGGIO PEDALE 2 VELOCITÀ 2-SPEED PEDAL ASSEMBLY MONTAGE DES 2 GESCHWINDIGKEITEN PEDALS ASSEMBLAGE PÉDALE 2 VITESSES MONTAJE PEDAL 2 VELOCIDADES												Pag. 39 di 70														
				Tavola N°13A - Rev. 1								730094200																																		



G6441				G7441												G7641																																					
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24									
 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIECES DETACHEES - LISTA DE PIEZAS												MTG PEDALE ROTAZIONE MANDRINO MTG MANDREL ROTATION PEDAL MTG SPINDEL ROTATIONSPEDAL MTG PÉDALE DE ROTATION MANDRIN MTG PEDAL ROTACIÓN MANDRIL												Pag. 40 di 70																									
				Tavola N°13B - Rev. 1						730094340																																											



G6441								G7441																G7641																						
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24		
	•								•								•									•																				
 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS																MTG MANDRINO QUADRO 10"-20" 10"-20" MTG SQUARE MANDREL MTG QUADRATISCHE SPINDEL 10"-20" MTG MANDRIN CARRÉ 10"-20" MTG MANDRIL CUADRADO 10"-20"																Pag. 43 di 70										
				Tavola N°14B - Rev. 1								730093190																																		



G6441				G7441												G7641																																			
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24							
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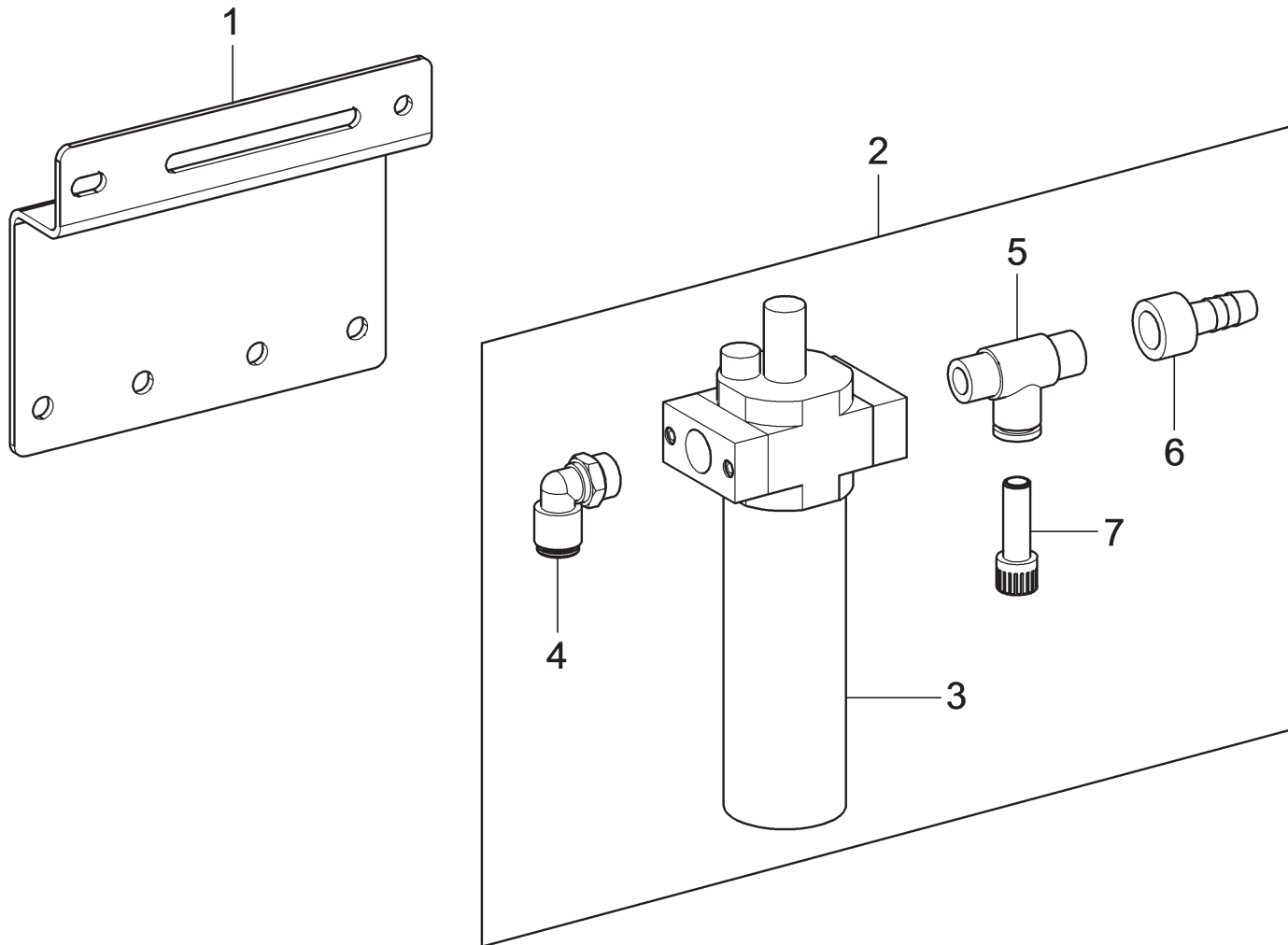

 RAVAGLIOLI S.p.A.

LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS
Tavola N°14E - Rev. 1

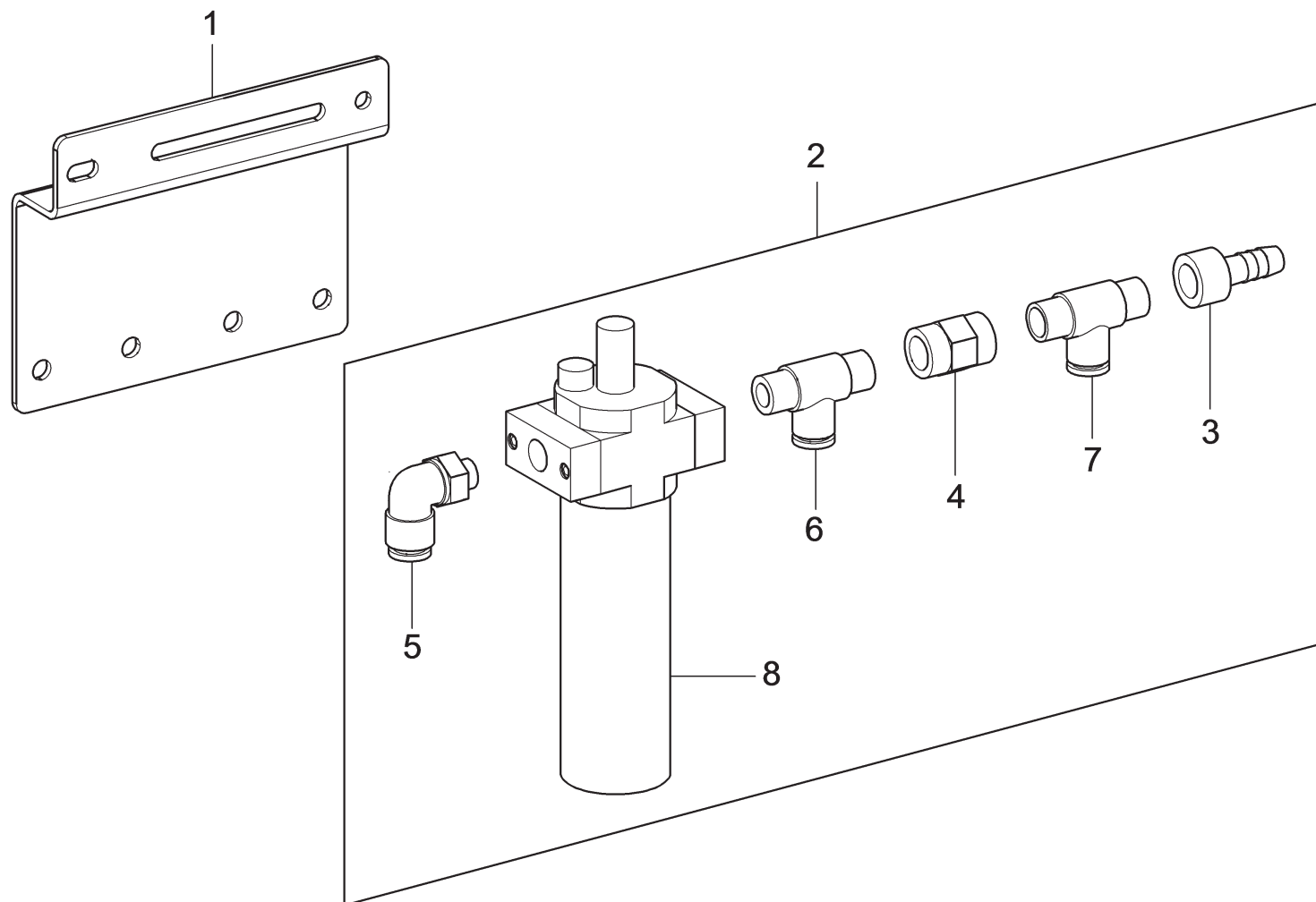
730093180

GRUPPO MANDRINO 10"-20" GT
 10"-20" GT CHUCK UNIT
 SPINDELSATZ 10"-20" GT
 GROUPE MANDRIN 10"-20" GT
 GRUPO MANDRIL 10"-20" GT

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G6441								G7441												G7641																										
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24		
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 RAVAGLIOLI S.p.A.								LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS												GRUPPO TRATTAMENTO ARIA AIR TREATMENT UNIT AUFBEREITUNGLUFTSATZ GROUPE TRAITEMENT AIR GRUPO TRATAMIENTO AIRE												Pag. 49 di 70														
								Tavola N°15A - Rev. 1						140390402																																



G6441				G7441												G7641																																					
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24									
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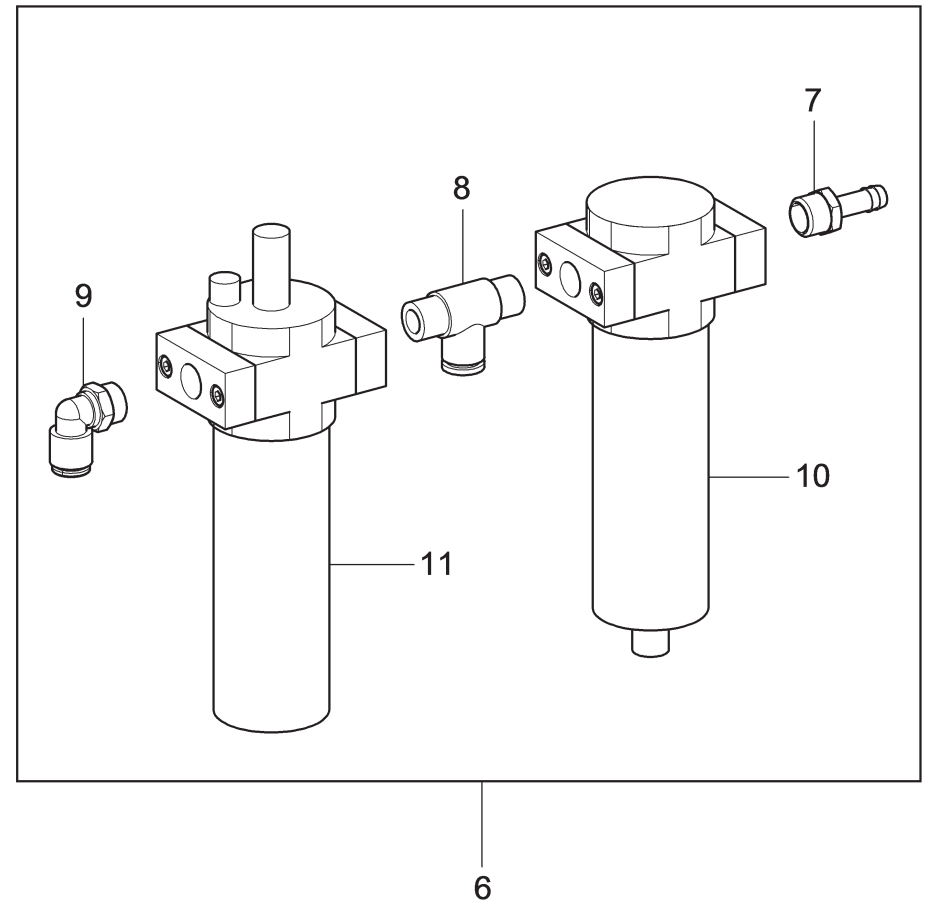
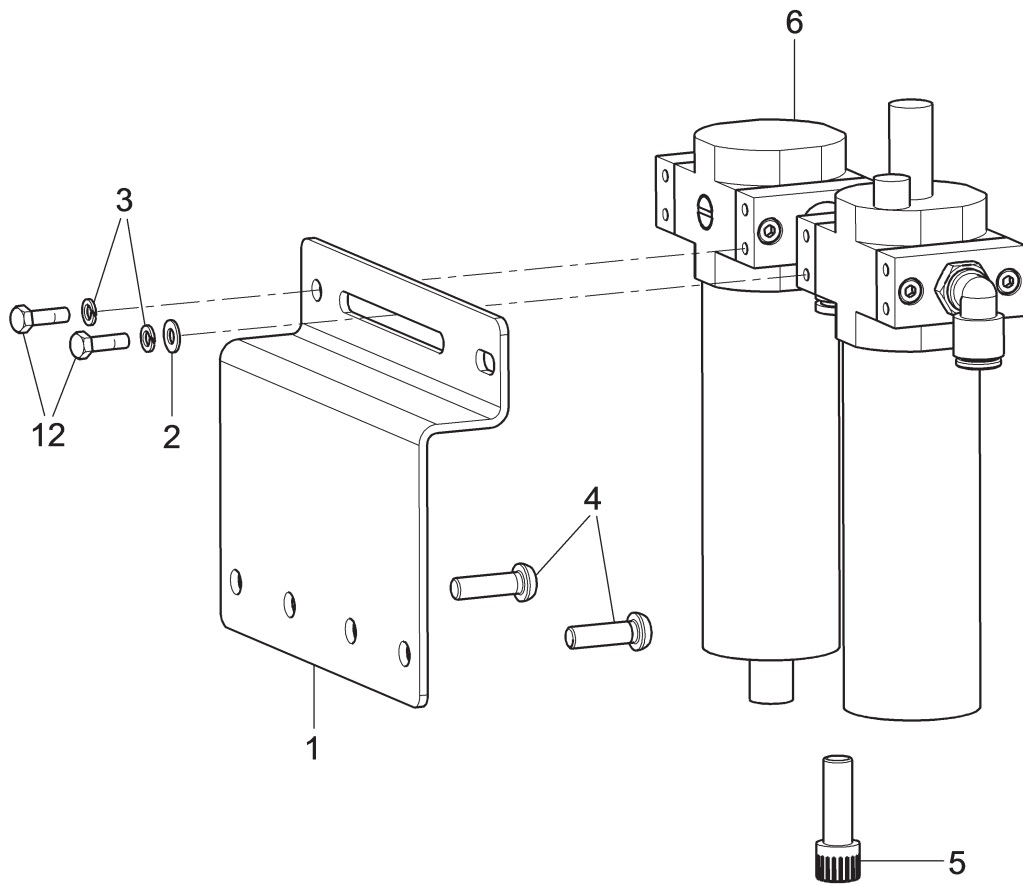
**LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS**

Tavola N°15B - Rev. 1

140390842

GRUPPO TRATTAMENTO ARIA
AIR TREATMENT UNIT
AUFBEREITUNGLUFTSATZ
GROUPE TRAITEMENT AIR
GRUPO TRATAMIENTO AIRE

Pag. 50 di 70



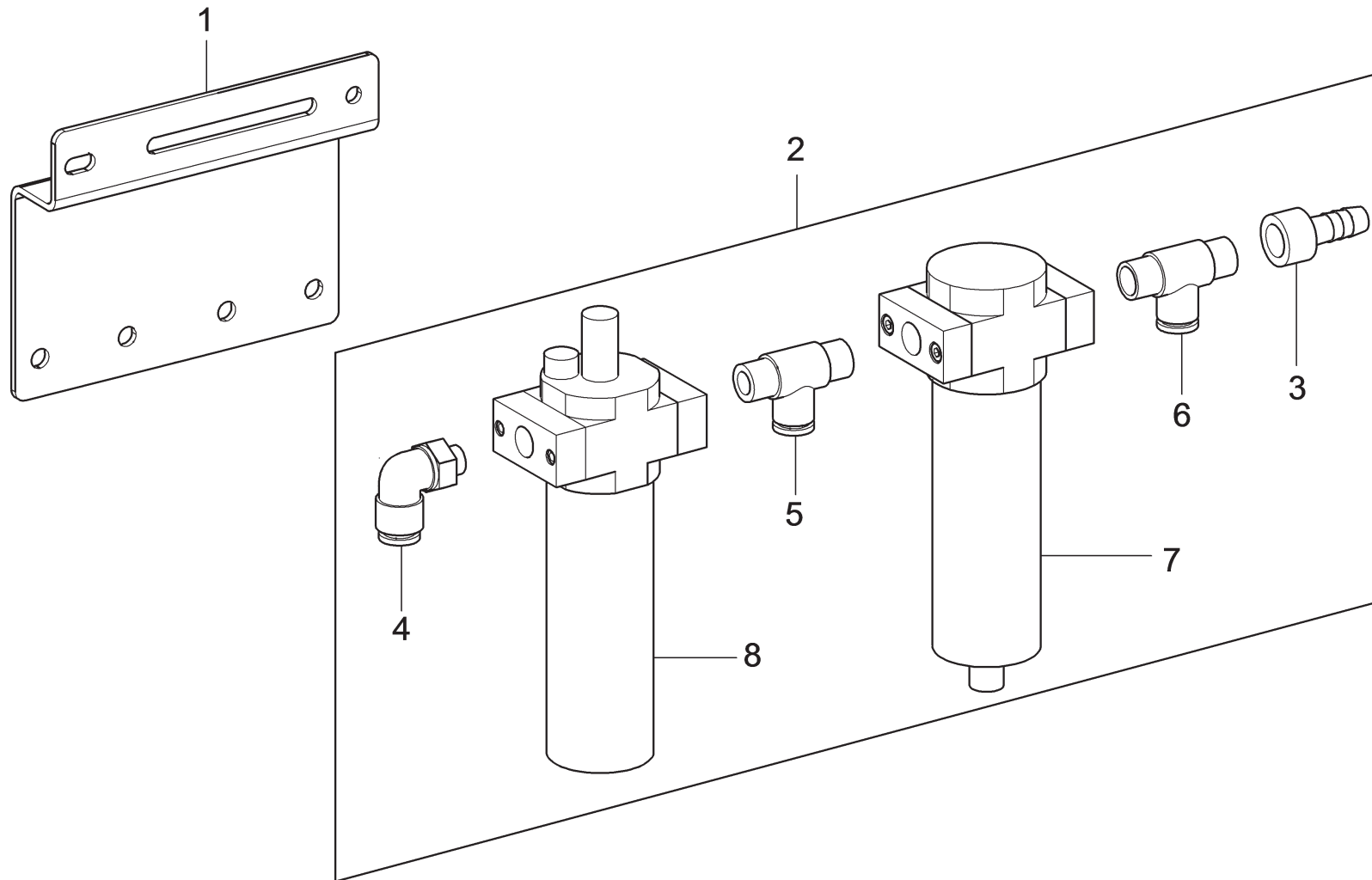
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18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24	
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 RAVAGLIOLI S.p.A.

LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS
Tavola N°15C - Rev. 1 **140490572**

GRUPPO TRATTAMENTO ARIA
 AIR TREATMENT UNIT
 AUFBEREITUNGLUFTSATZ
 GROUPE TRAITEMENT AIR
 GRUPO TRATAMIENTO AIRE

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G6441								G7441												G7641																											
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24			
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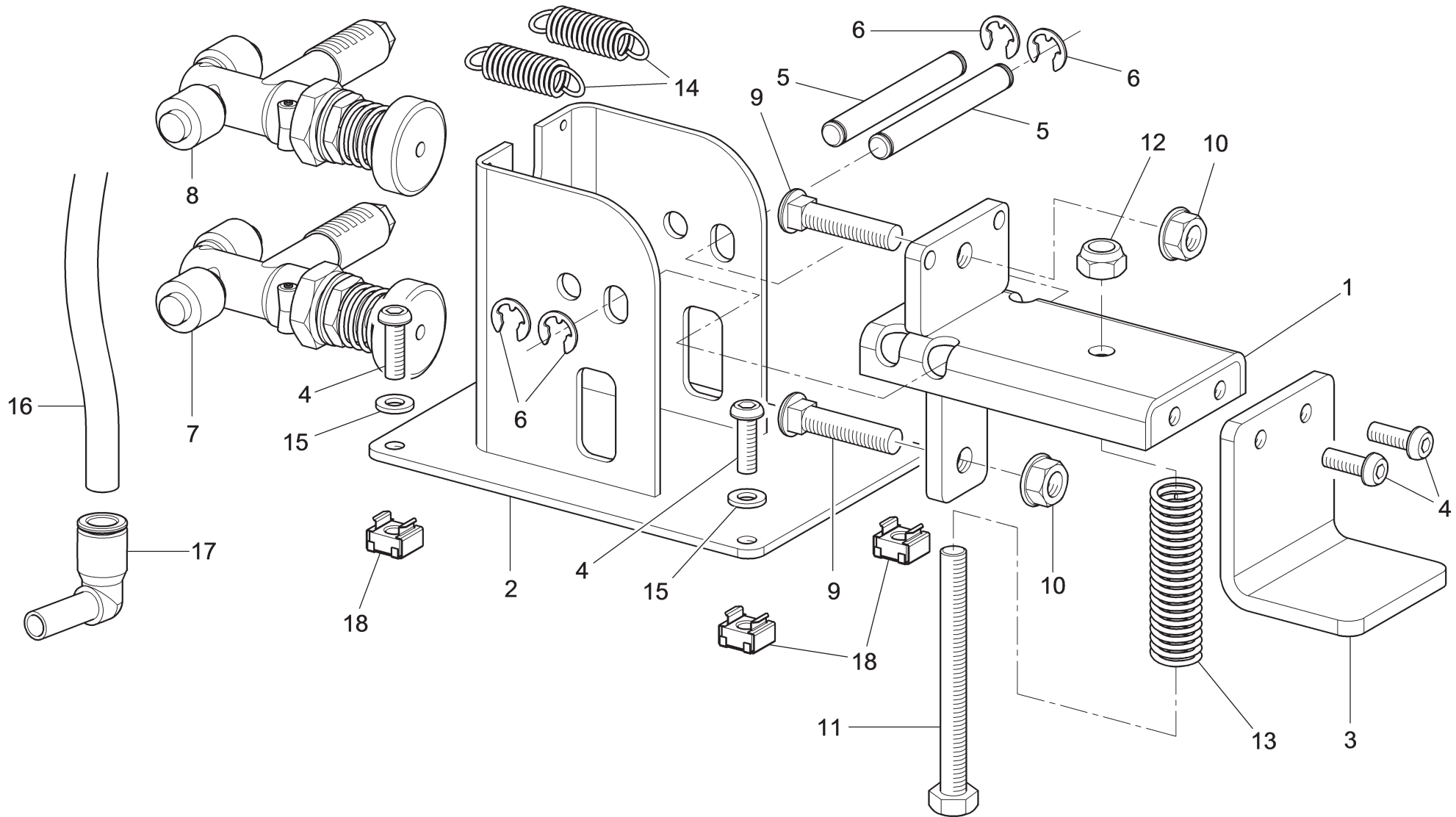
LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

Tavola N°15D - Rev. 1

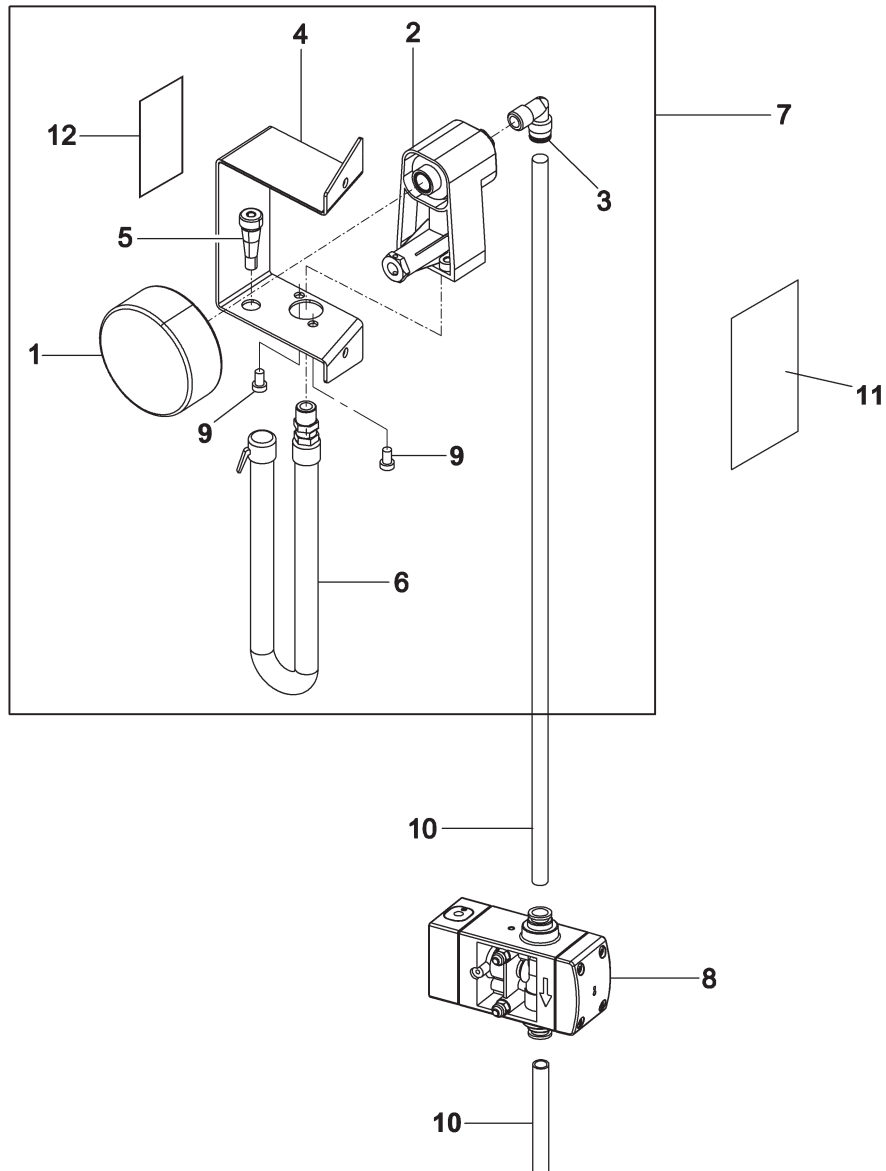
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GRUPPO TRATTAMENTO ARIA
 AIR TREATMENT UNIT
 AUFBEREITUNGLUFTSATZ
 GROUPE TRAITEMENT AIR
 GRUPO TRATAMIENTO AIRE

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G6441								G7441												G7641																													
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24					
				•	•							•	•	•	•							•	•	•	•																								
 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS												GRUPPO PEDALIERA GONFIATUBELESS TUBELESS INFLATION PEDALBOARD PEDALIERE TUBELESS PEDALES DE DIRECTION DE GONFLAGE TUBELESS PEDALERA DE INFLADO TUBELESS																		Pag. 55 di 70															
				Tavola N°16A - Rev. 1						140990371																																							



G6441				G7441												G7641																																
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24				
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 RAVAGLIOLI S.p.A.

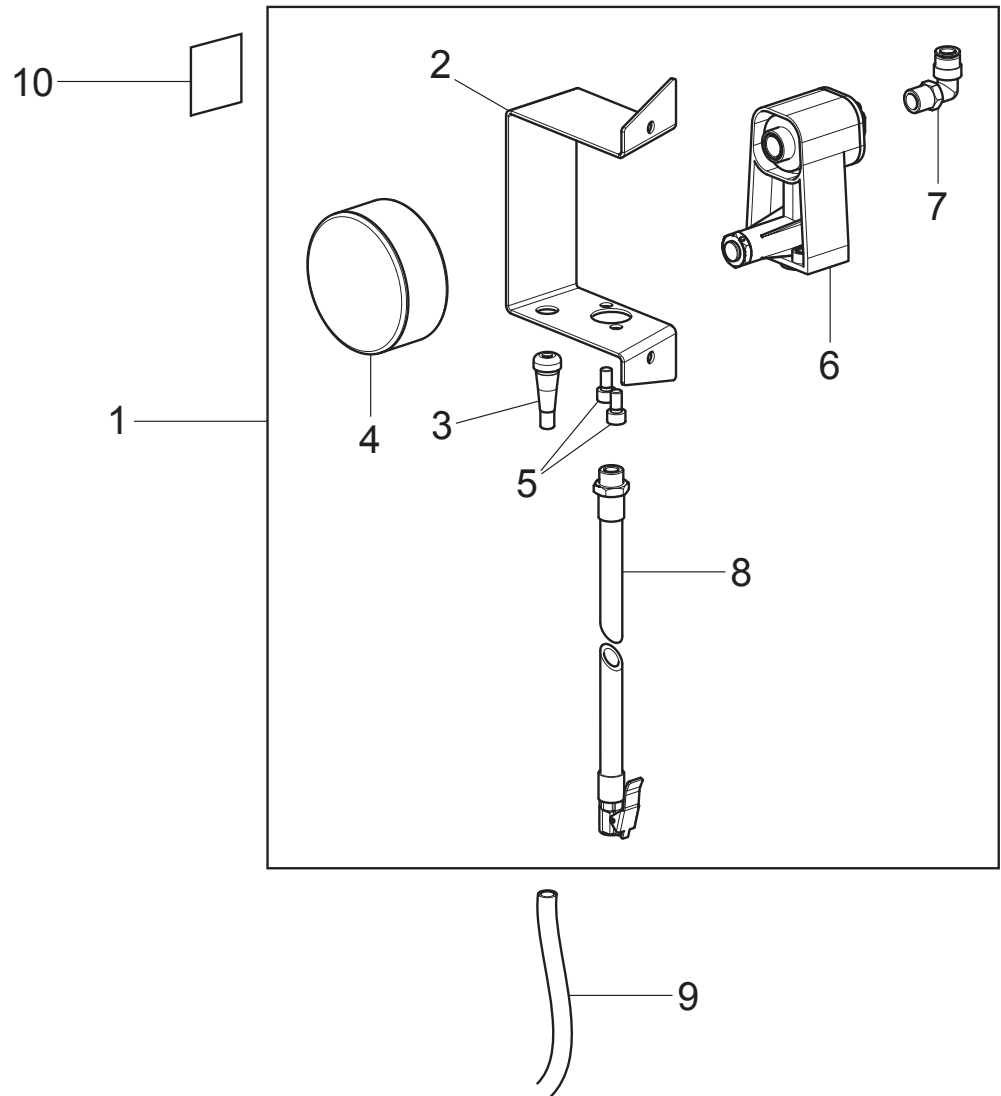
LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

Tavola N°17A - Rev. 1

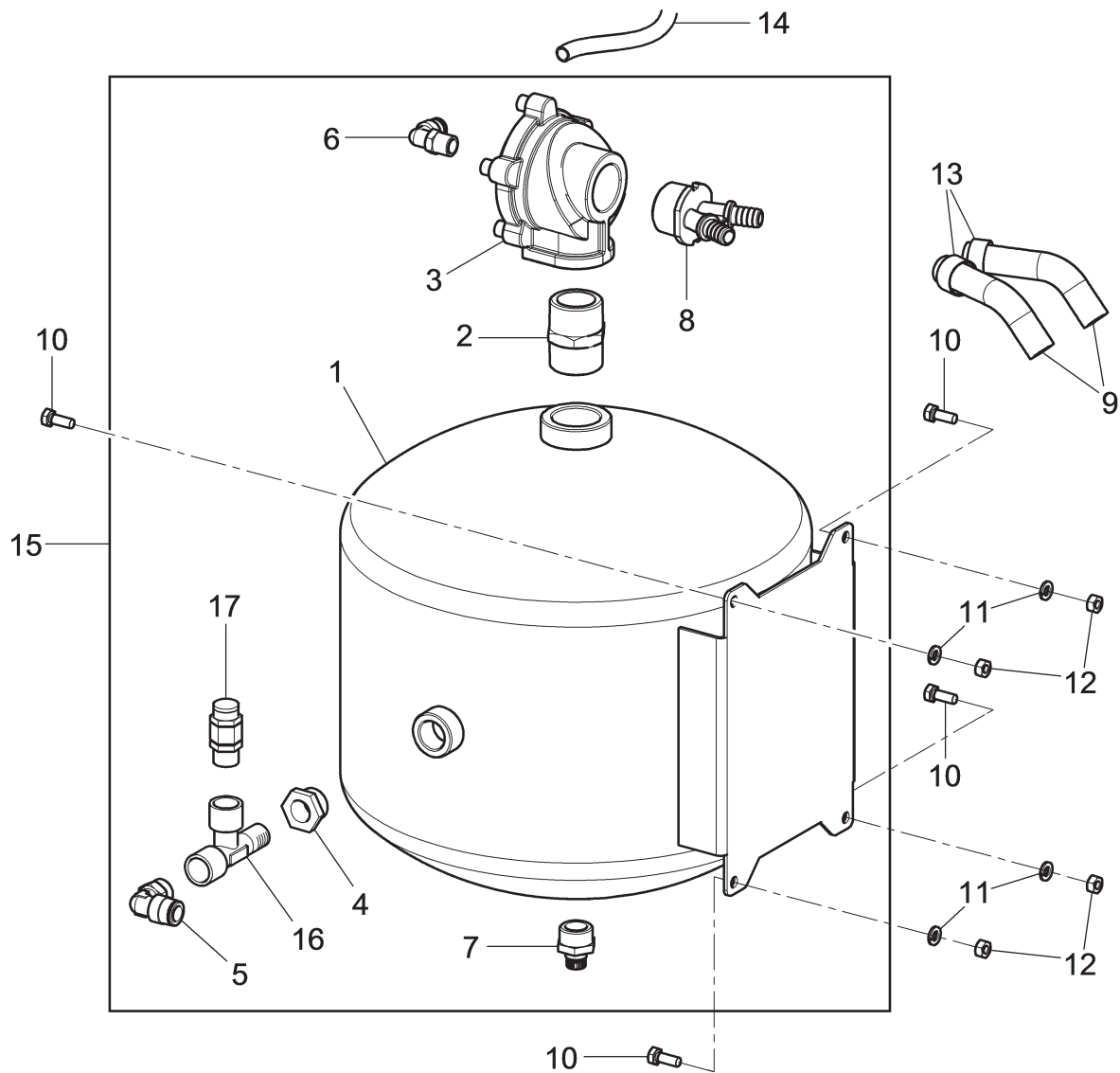
140790205

GRUPPO GONFIAGGIO
 INFLATION UNIT
 AUFPUMPSATZ
 GROUPE GONFLAGE
 GRUPO INFLADO

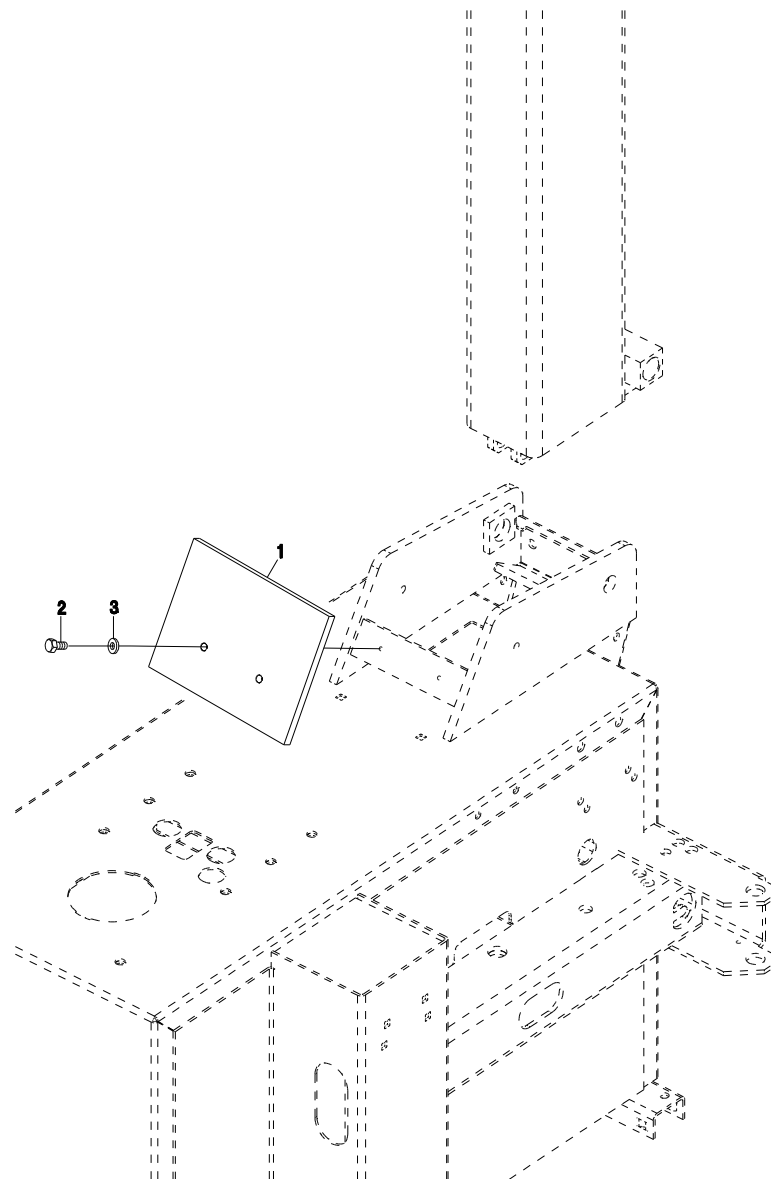
Pag. 57 di 70



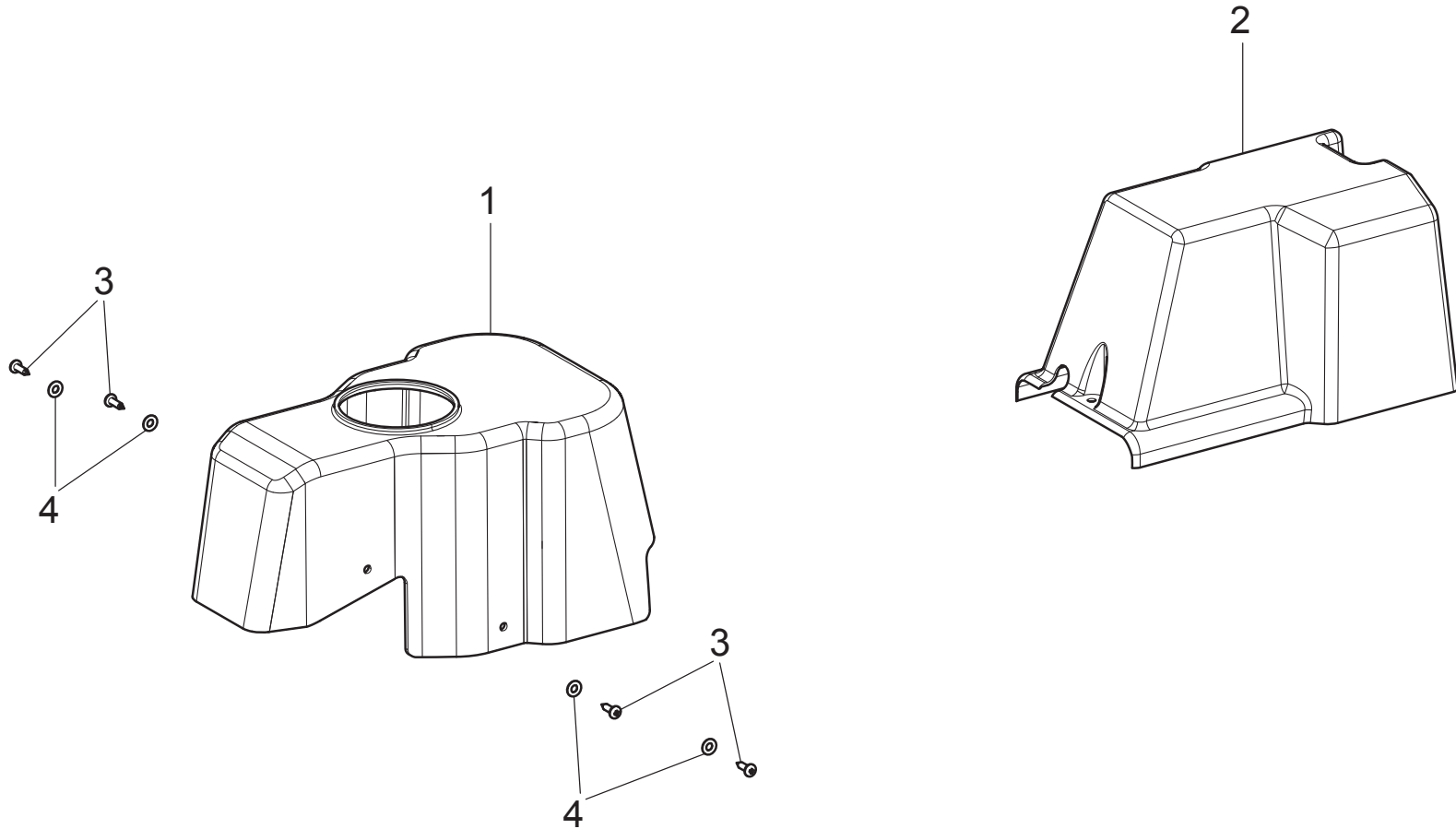
G6441								G7441																	G7641																																	
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24														
 RAVAGLIOLI S.p.A.								LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS																	GRUPPO GONFIAGGIO INFLATION UNIT AUFPUMPSATZ GROUPE GONFLAGE GRUPO INFLADO																	Pag. 58 di 70																
								Tavola N°17B - Rev. 0								730092420																																										



G6441				G7441												G7641																																				
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24								
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 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS												INSIEME SERBATOIO ARIA AIR RESERVOIR ASSEMBLY LUFTTANKSSATZ ASSEMBLAGE RÉSERVOIR AIR ENSAMBLADO TANQUE AIRE												Pag. 60 di 70																								
				Tavola N°18 - Rev. 1				730092430																																												



G6441								G7441														G7641																									
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24			
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 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS														GRUPPO PROTEZIONI BASE PALO PILE BASE PROTECTIONS UNIT BASIS PFAHL SCHUTZ SATZ GROUPE PROTECTIONS EMBASE MÂT GRUPO PROTECCIONES BASE PALO														Pag. 61 di 70															
				Tavola N°19A - Rev. 0							140390580																																				



G6441				G7441												G7641																																				
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24								
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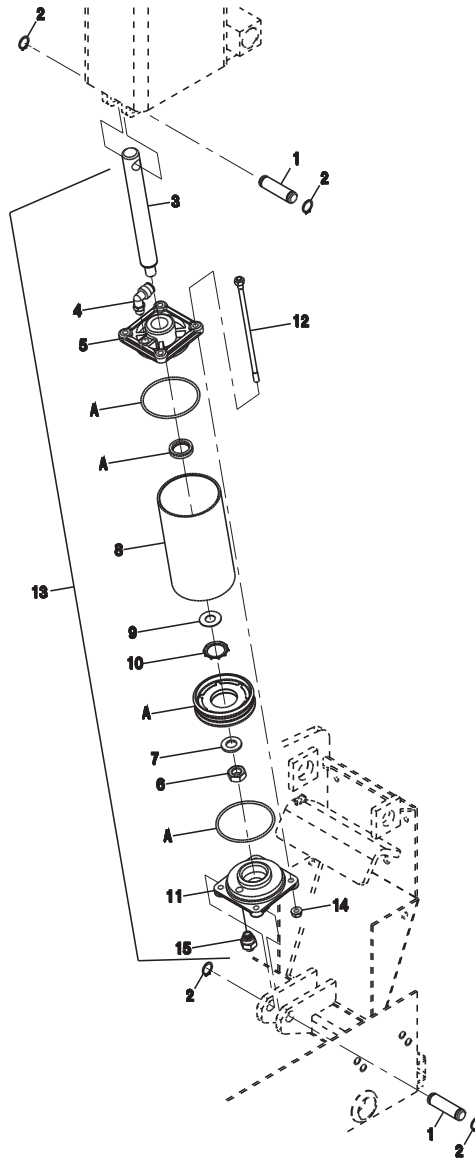
LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

Tavola N°20 - Rev. 0

140390513

GRUPPO CARTER SUPERIORE
 SUPERIOR GUARD UNIT
 OBEREGEHÄUSESATZ
 GROUPE CARTER SUPÉRIEUR
 GRUPO CARTER SUPERIOR

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G6441				G7441												G7641																																			
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24							
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 RAVAGLIOLI S.p.A.

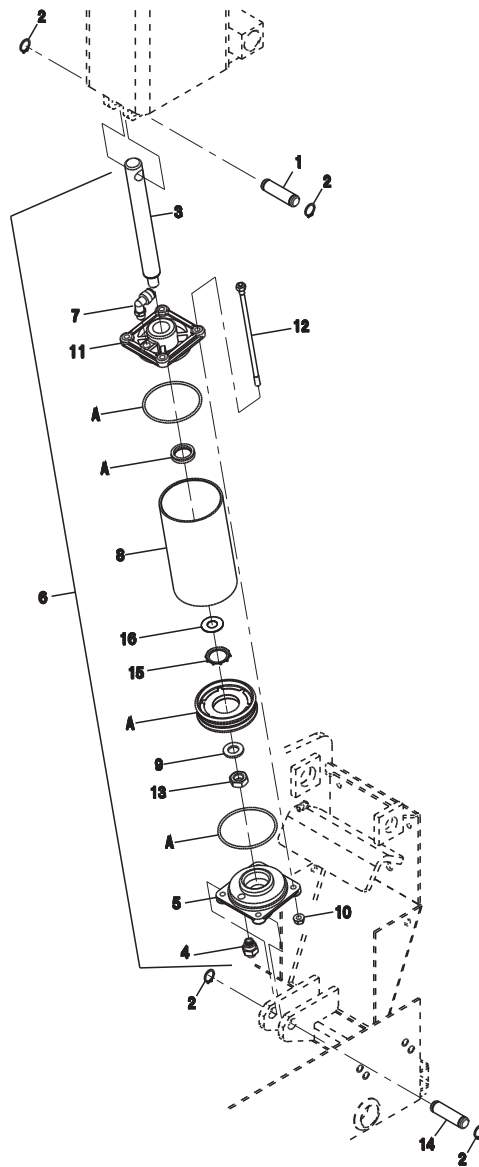
LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS

Tavola N°21A - Rev. 0

730091270

GRUPPO PISTONE RIBALTAMENTO PALO
 ROD TILTING PISTON UNIT
 PFAHLKIPPUNG KOLBENSATZ
 GROUPE PISTON BASCULAGE MÂT
 GRUPO PISTÓN VUELCO PALO

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G6441				G7441												G7641																																
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24				
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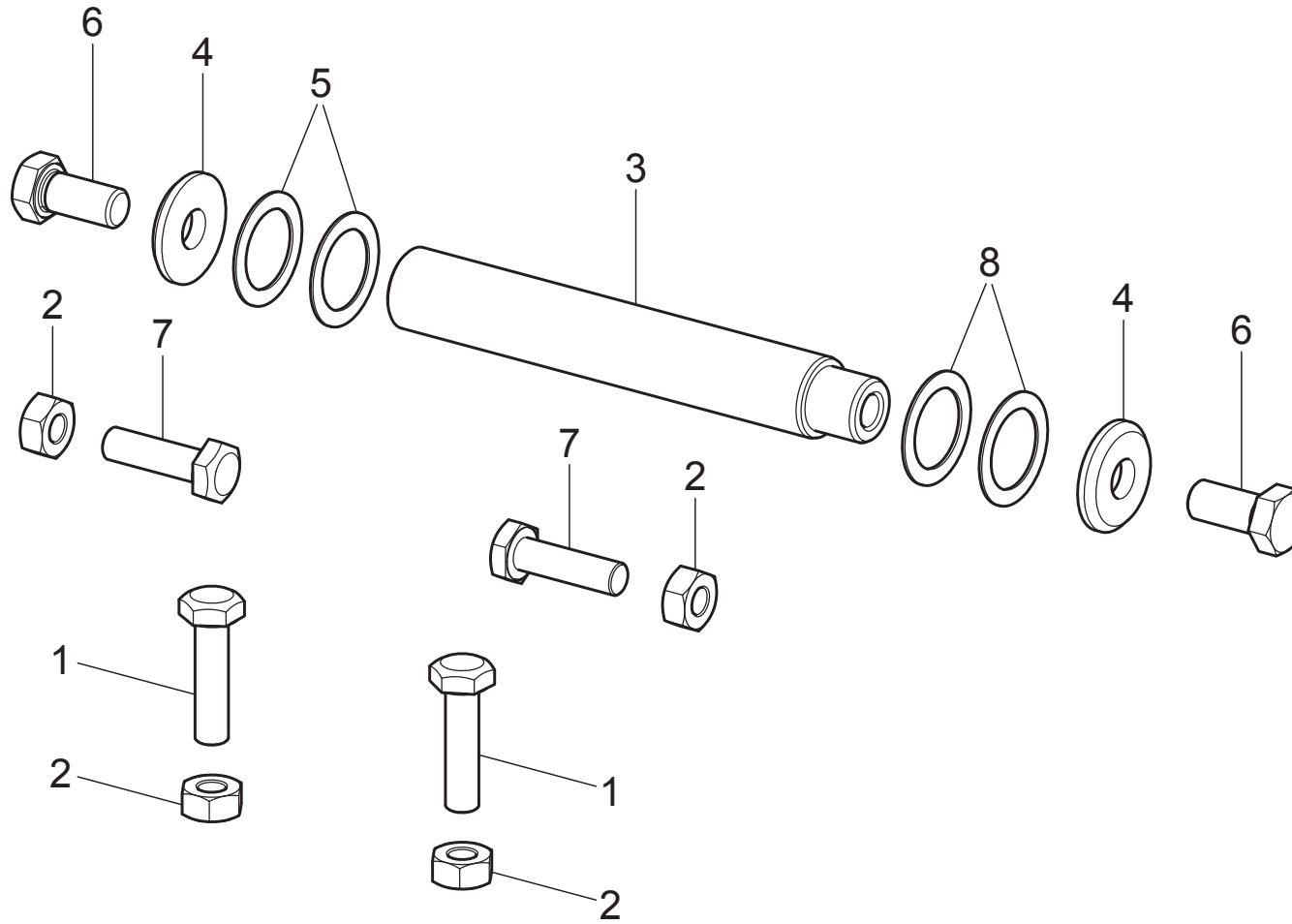

 RAVAGLIOLI S.p.A.

LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE
LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS
Tavola N°21B - Rev. 0

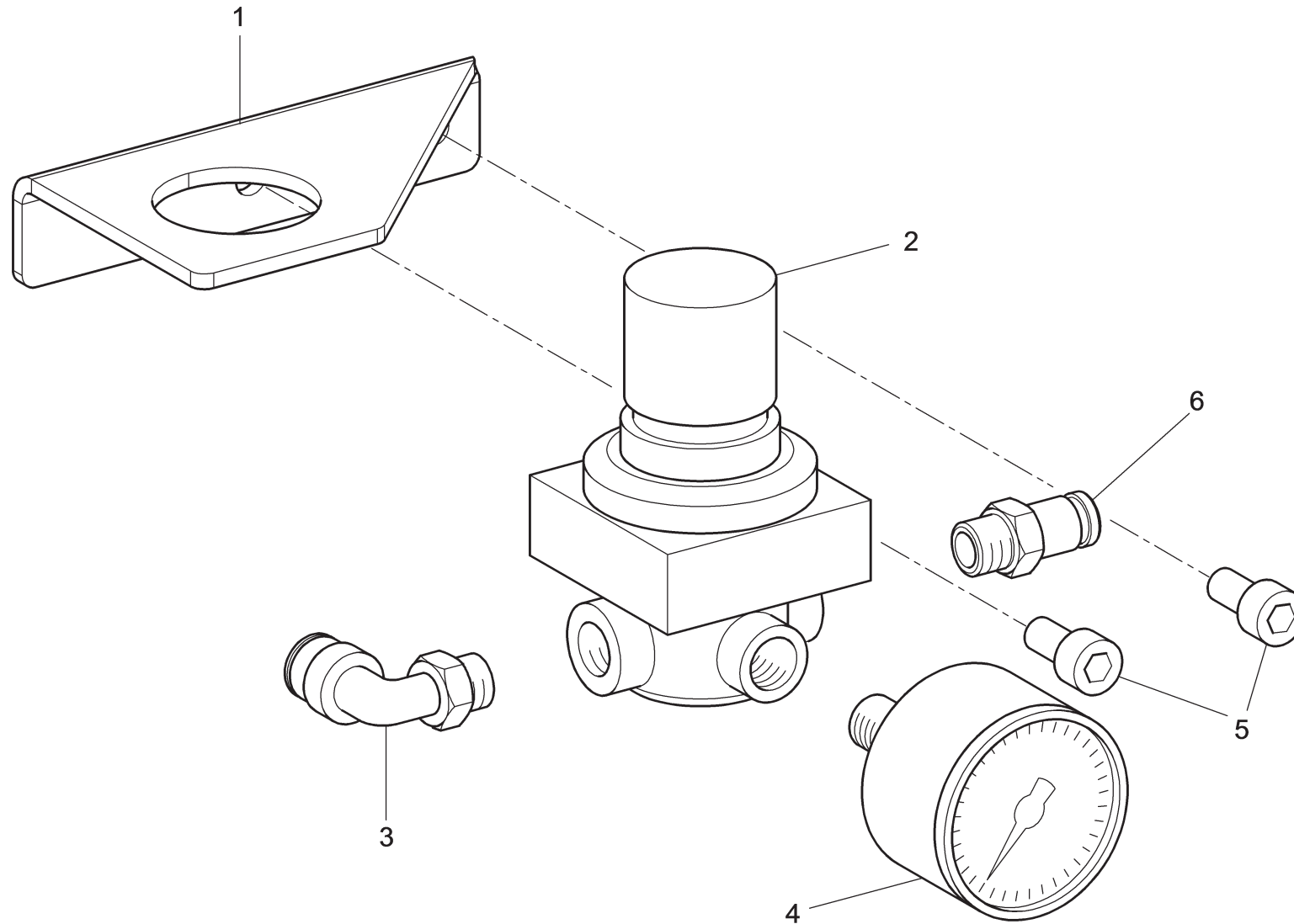
140390361

GRUPPO PISTONE RIBALTAMENTO PALO
 ROD TILTING PISTON UNIT
 PFAHLKIPPUNG KOLBENSATZ
 GROUPE PISTON BASCULAGE MÂT
 GRUPO PISTÓN VUELCO PALO

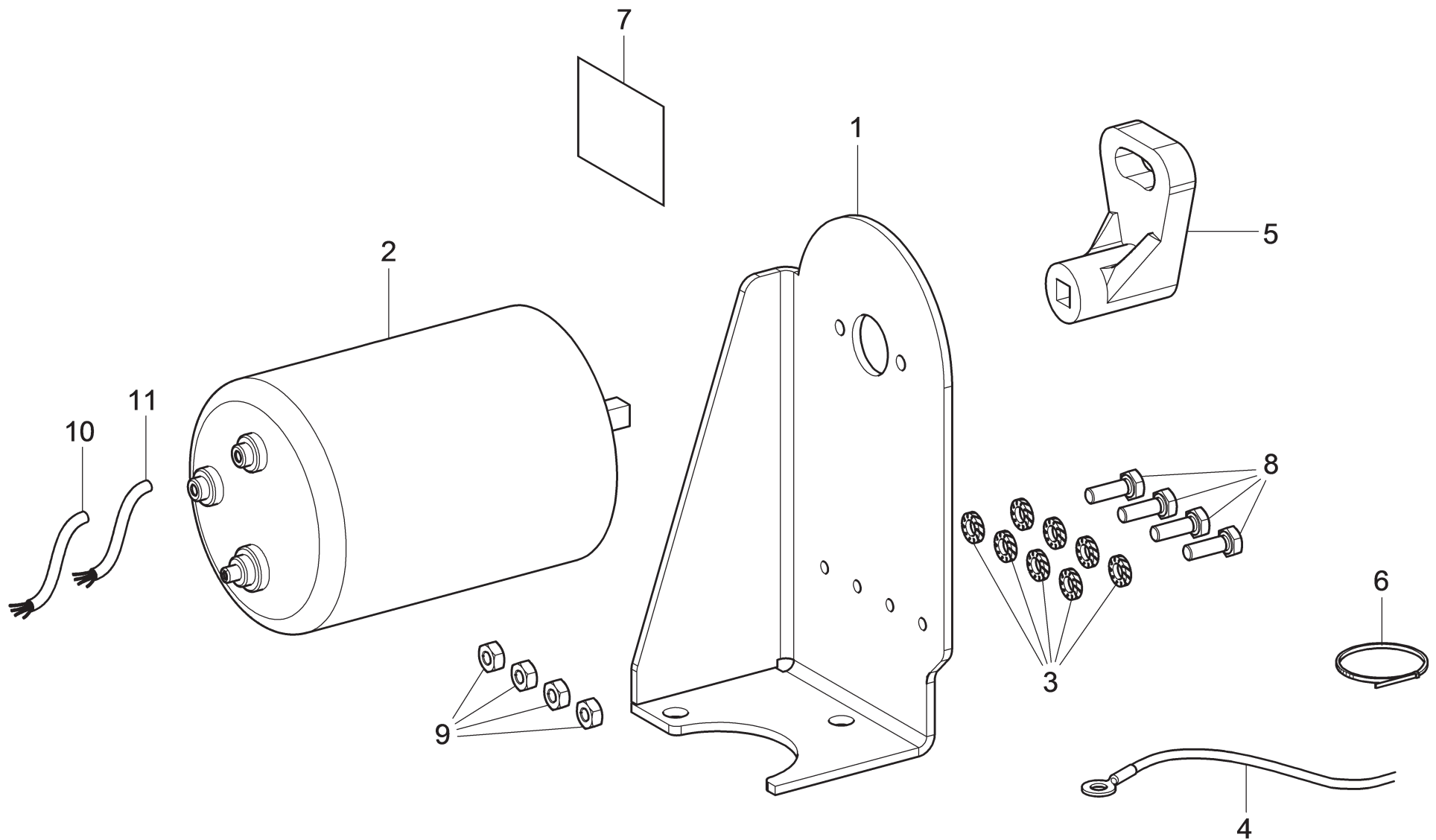
Pag. 65 di 70



G6441								G7441																G7641																							
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24			
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 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS																GRUPPO FULCRO RIBALTAMENTO PALO ROD TILTING FULCRUM UNIT PFAHLKIPPUNG FULCRUMSATZ GROUPE POINT D'APPUI BASCULAGE MÂT GRUPO FULCRO VUELCO PALO																Pag. 66 di 70											
				Tavola N°22A - Rev. 0								140392740																																			



G6441								G7441																G7641																							
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24			
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 RAVAGLIOLI S.p.A.								LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIECES DETACHEES - LISTA DE PIEZAS																GRUPPO MICROREGOLATORE MICROREGULATOR UNIT MIKROREGULATORSATZ GROUPE MICROREGULATEUR GRUPO MICROREGULADOR																Pag. 68 di 70							
								Tavola N°23 - Rev. 0								730092370																															



G6441				G7441																G7641																											
18	20	22	24	I.20	I.22	I.24	V.20	18	20	22	24	I.20	I.22	I.22EX	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	ID.22	18	20	22	24	I.20	I.22	I.24	V.18	V.20	V.22	V.24	IV.20	IV.22	IV.24	D.18	D.20	D.22	D.24	ID.20	ID.22	ID.24			
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 RAVAGLIOLI S.p.A.				LISTA DEI COMPONENTI - LIST OF COMPONENTS - TEILELISTE LISTE DES PIÈCES DÉTACHÉES - LISTA DE PIEZAS																GRUPPO INVERTITORE INVERTER UNIT FREQUENZUMFORMERSATZ GROUPE VARIATEUR GRUPO INVERSOR								Pag. 69 di 70																			
				Tavola N°24 - Rev. 1				730092460																																							

