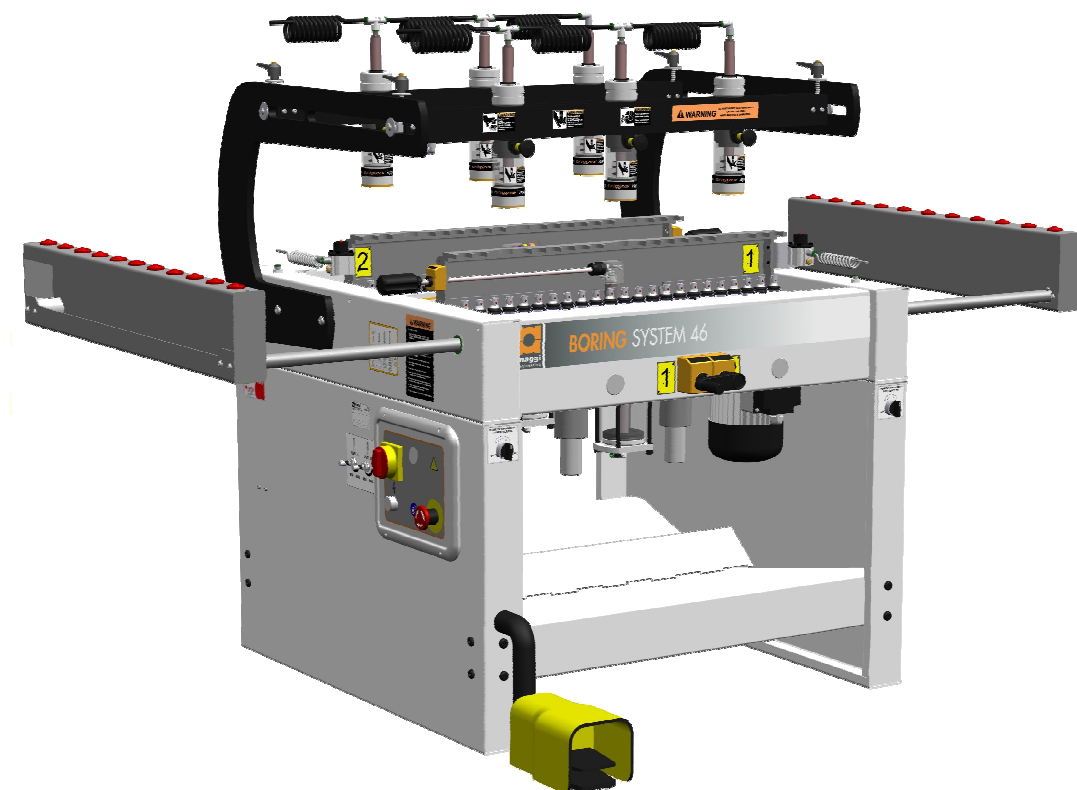
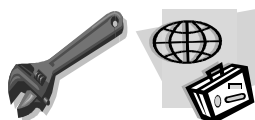




WOODWORKING MACHINERY



MANUAL CODE 00008030 EDITION 03/2018 - REV01



EN

BS 46 MACHINE CODE 16430201



THIS MANUAL SHOULD ALWAYS BE KEPT NEAR THE MACHINE FOR FUTURE REFERENCE

BORING SYSTEM 46

ORIGINAL USE and MAINTENANCE MANUAL



CE Declaration of Conformity

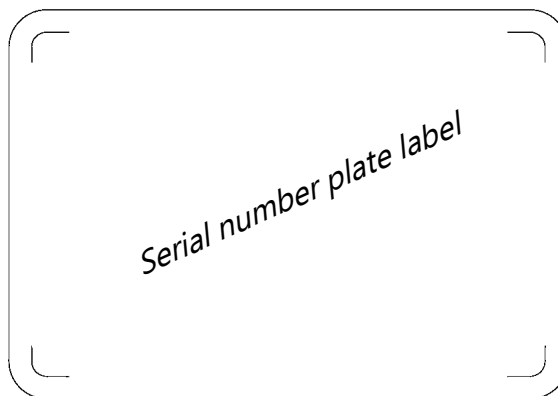
The manufacturer

Maggi Technology S.r.l.

Via delle Regioni, 299 - 50052 Certaldo (FI) ITALIA

Declares that the machine

<i>The machine</i>	<i>BORING SYSTEM</i>
<i>Model</i>	<i>46</i>



is in compliance with all provisions pursuant the following directives:

2006/42/EC (Machine)

2014/30/EU (EMC)

2014/35/EU (Low voltage)

and represents the technical file.

-Certaldo - Issues date :

The General Manager
Giacomo Landi



WE WISH TO THANK YOU FOR CHOOSING ONE OF OUR PRODUCTS

All the information, advices and important warnings for a correct use of the machine, have been inserted into this manual. This manual also contains the rules for a correct periodical maintenance to keep this machine in perfect efficiency. We suggest that all the chapters of this manual are thoroughly read before you use the machine for the very first time.

INTRODUCTION

Some information and illustrations in this manual may differ from the machine in your possession, since all the configurations inherent in the machine complete with all the **OPTIONALS are described and illustrated. Therefore, refer only to that information strictly connected with the machine configuration you have purchased. The manufacturer in his pursuit of a policy of constant development and updating of the product may make any modifications without any prior notice.**

This manual has been drawn up exclusively for our customers' use, guaranteeing that at the date of issue it constitutes the latest update of the documentation related to use of the product. Use of this manual is on full responsibility of the user. The manufacturer does not grant any further guarantee for any imperfections, incompleteness and/or operating difficulties, expressly excluding any responsibility for direct or indirect damage deriving from use of this documentation. MAGGI TECHNOLOGY reserves the right to make any modifications to the product described in this manual at any time without prior notice.

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NOTES



Lined area for taking notes, consisting of horizontal lines.

GENERAL INFORMATION ON THE MANUFACTURER

Manufacturer: MAGGI TECHNOLOGY S.r.l.
 Address: Via delle Regioni, 299 - 50052
 Town: CERTALDO (FI)
 Country: ITALIA
 Tel. +39 0571 63541
 Fax. +39 0571 664275
 E-mail: service@maggi-technology.com

1. SAFETY RULES AND GENERAL INFORMATION

1.1 RECOMMENDATION FOR USE AND MAINTENANCE

In this manual we put into evidence all the operations for a correct use and ordinary maintenance of the machine.

We strongly recommend not to make any other type of work repair or operation not suggested in this manual. We suggest also to keep this manual in a place where the user can easily find and read it.



ANY ADULTERATION OR REMOVAL OF SAFETY PROTECTION DEVICES CAN CAUSE SEVERE DAMAGE. ANY REMOVAL, EXCLUSION OR MODIFICATION OF THESE DEVICES IS STRICTLY FORBIDDEN.

YOU MUST VERIFY AND GUARANTEE THE PERFECT RUNNING OF SAFETY DEVICES BY MEANS OF PERIODIC CHECKS. ANY DEFECT OR PROBABLE DRAWBACK MUST BE IMMEDIATELY RESOLVED.

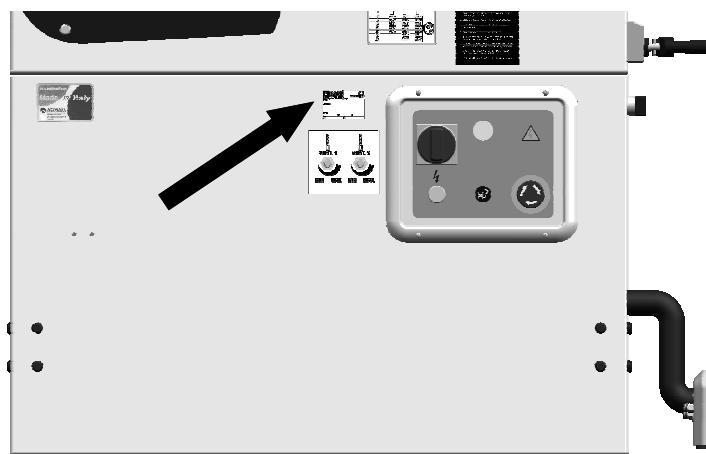
1.2 MACHINE IDENTIFICATION

The data impressed in the plate placed on the left side of the machine (from the point of view of the operator) identify the machine itself.

When you eventually order spare parts or ask for any suggestions for use or maintenance, you have always to transmit the model type and identification number contained in the plate.

It is absolutely forbidden to remove the plate or modify the data it contains.

The following identification plate is placed on the boring system machine described into this manual:



3. OPERATIVE NOTES

WOODWORKING MACHINES CAN BE DANGEROUS

- 1) To operate the machine safely and correctly, follow the indications contained in this manual carefully and scrupulously.
- 2) The machine will have to be operated only by personnel who is both qualified and over 18. People responsible for safety should make sure that the machine operator has read and fully understood all the information contained in this manual.
- 3) Maintenance interventions must be carried out only by personnel who is both qualified and over 18.
- 4) Personnel responsible for routine and extraordinary servicing must have a good knowledge of mechanics and electronics.
- 5) Keep away from any moving part in the machine.
Never touch the spindles and /or the drills when the machine is operational.
- 6) Never superimpose wood pieces to be worked. Always bore one piece at a time, after having adjusted the machine correctly.



ANY ADULTERATION OR REMOVAL OF SAFETY PROTECTION DEVICES CAN CAUSE SEVERE DAMAGE. ANY REMOVAL, EXCLUSION OR MODIFICATION OF THESE DEVICES IS STRICTLY FORBIDDEN. YOU MUST VERIFY AND GUARANTEE THE PERFECT RUNNING OF SAFETY DEVICES BY MEANS OF PERIODIC CHECKS. ANY DEFECT OR PROBABLE DRAW-BACK MUST BE IMMEDIATELY RESOLVED.

4. DESCRIPTION OF THE MACHINE

Our Boring Machines have been manufactured to make a series of holes at a fixed 32-mm distance between centres on wooden pieces (with maximum precision).

The pieces to be bored are fed by the operator, who places them on the machine table. The operator will first carry out the required adjustments by pressing the control pedal. He will then lock the pieces into place with the relevant hold down clamps and will start boring operations.

The following parts make up the machine:

- A steel frame
- Spindlehead unit with transmission (rapid-attachment).
- Hold down clamps unit to clamp the piece to be cut in a vertical position.
- Pneumatic system for head positioning and head feed.
- Crank mechanism to adjust spindles distance equipped with mechanical counter and device to adjust hole depth from 0 mm to 100 mm.
- Rapid head-positioning device and head depth-adjustment device
- Electric Power plant complying with standards.

4.1 APPLICABLE TOOLS

Drills for quick change spindles, 10 mm O. D. and 20 mm length shank (Fig. A)

Drills up to 35 mm O. D. can be used (Fig. B)

85 mm max useful length (connection excluded)

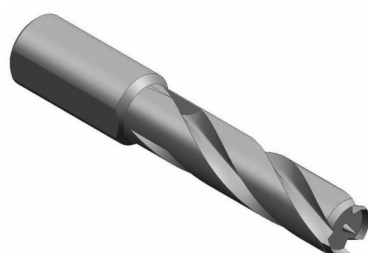


Fig. A

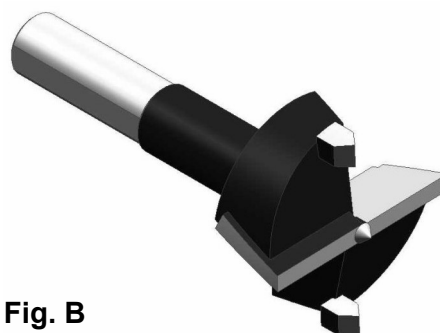
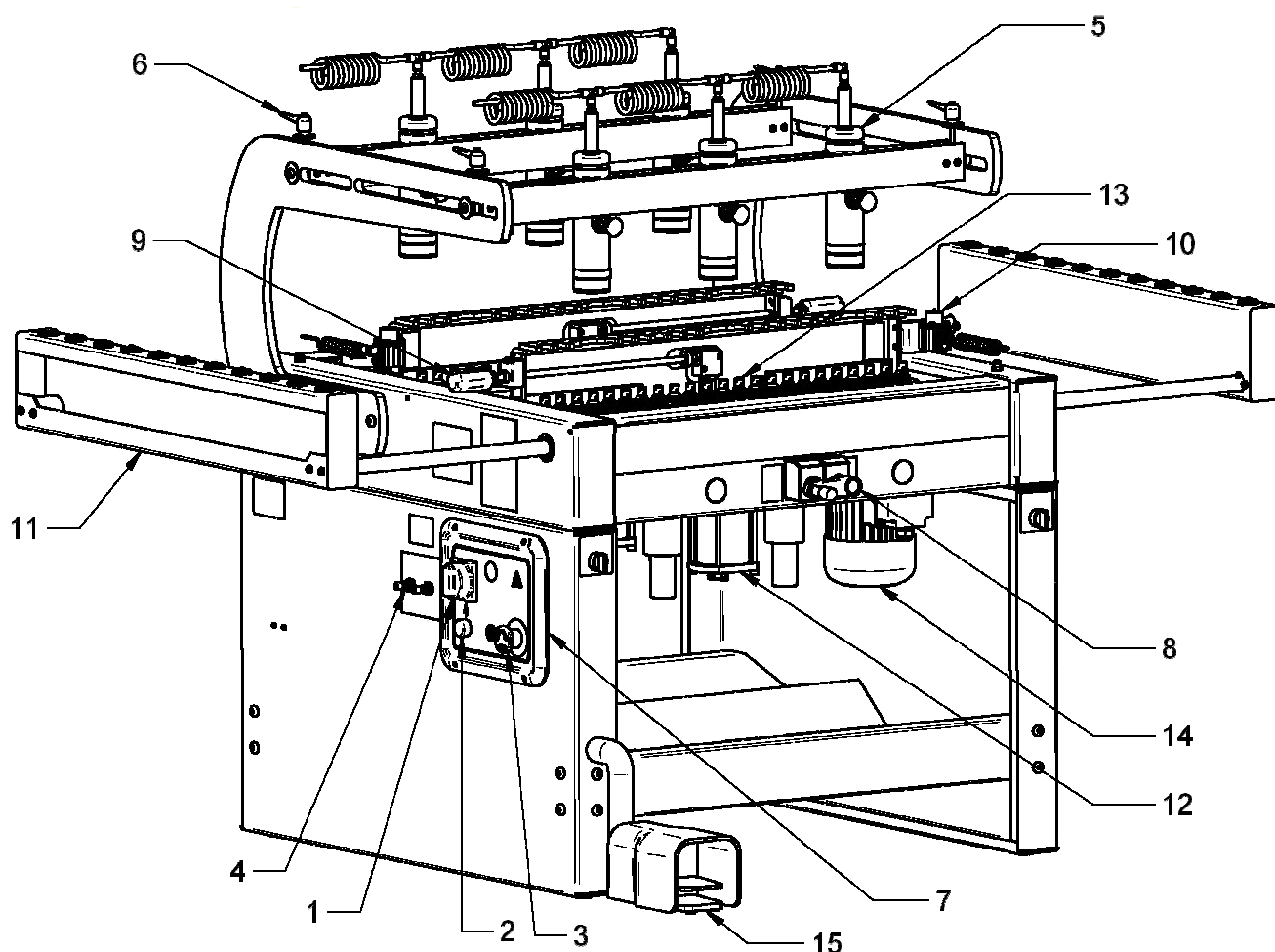


Fig. B

4.2 MACHINE PARTS

1. Electrical main switch
2. Electric power line light
3. Emergency pushbutton
4. Piston adjustment and drills feed speed
5. Fast-positioning safety hold down clamps
6. Clamping handle for hold down clamps rail
7. Electric control board

8. Control handle for drills movement
9. Drills depth adjustment for piece to be bored
10. Reference pin to repeat sets of holes
11. Support roller
12. Drills feed cylinder
13. Spindlehead
14. Electric Engine
15. Pneumatic control pedal



5. SUPPLIED EQUIPMENT

The machine comes with the following equipment to adjust the machine itself:

- N°6 Fast-positioning safety hold down clamps
- N°4 T.E. wrenches sizes 6/7, 10/11, 12/13, 16/17.
- N°7 hexagon ring wrenches sizes 2.5-3-4-5-6-8-10
- 3-meter extension fence with millimetrical scale and 4 movable stops (Fig. A)
- N°2 Reference pin for line boring (Fig. B)

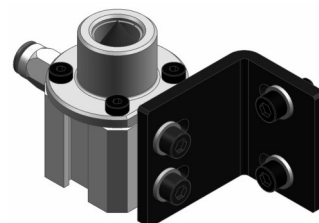


Fig. B



Fig. A

The following equipment is optional:

- Reference fence 704 mm (Fig. C)



Fig. C

6. SAFETY PROTECTIONS DEVICES AND ADHESIVE WARNING

The main risk is due to the revolving drills. To reduce this risk to the minimum, our machines have been equipped with the following safety devices:

1) Emergency Pushbutton

It is located on the control board in the front part of the machine. When it is pressed, all machine movements are halted immediately.

2) Set of Plates

They contain an accurate description of safety precautions and indications on how to operate the machine correctly and make it possible to identify the machine parts. One of these plates contains the identification data and the serial number of the machine itself.

3) Side Protections

They prevent the operator from inserting his/her hands accidentally into the machine when the spindlehead is moving.

4) Safety hold down clamps (patented)

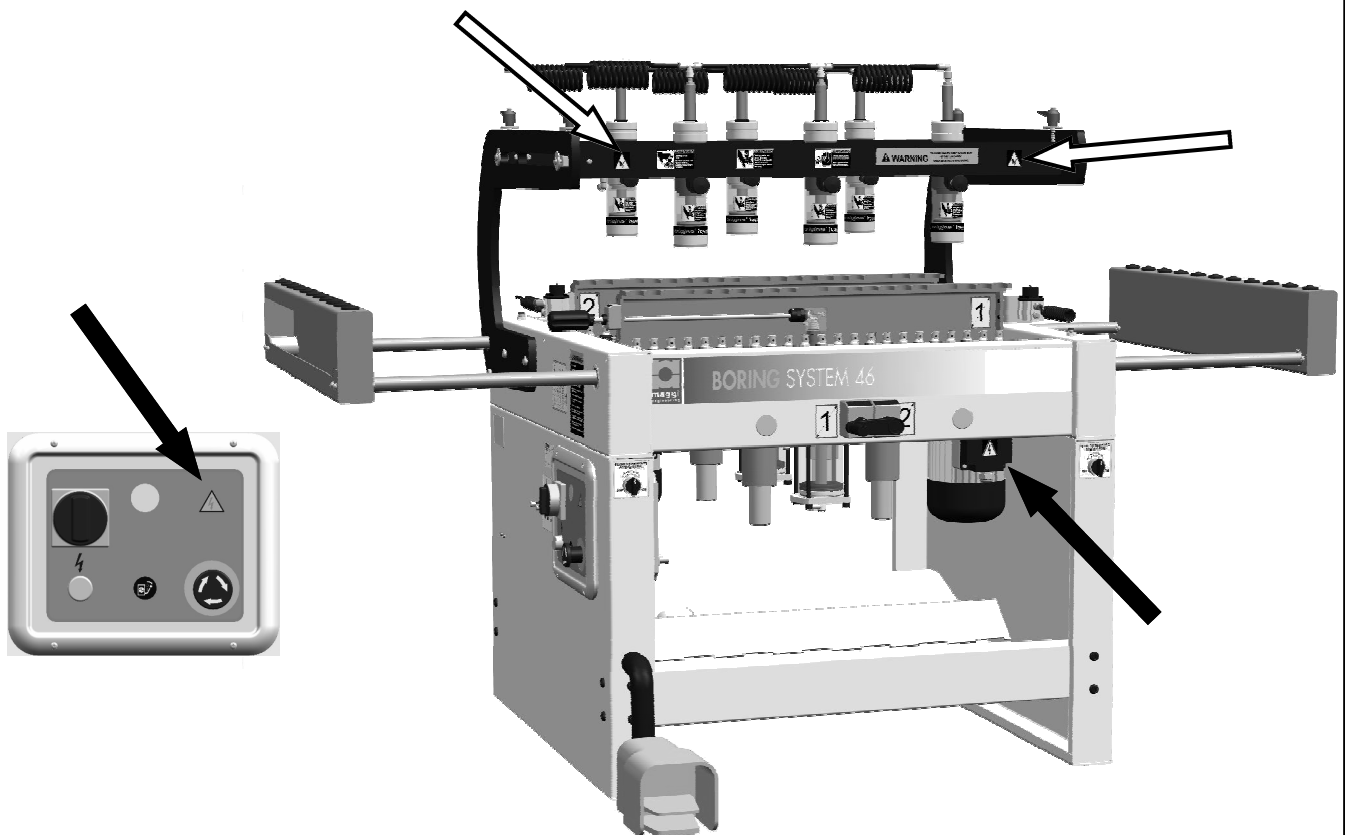
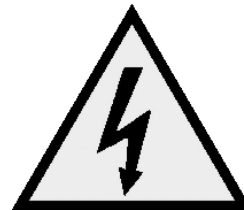
They remain either on the machine table surface or on the already positioned piece to be worked, thus preventing the operator from accidentally placing his/her hands under one of them.

5) EL Safety Device

No-return coil to prevent accidental starting of the machine.

WARNING SYMBOL

ALL THE OPERATIONS HIGHLIGHTED WITH THIS SYMBOL ARE DANGEROUS TO THE OPERATOR; PLEASE BE VERY CAREFUL IN DOING THESE OP-



CAUTION SYMBOL: ALL OPERATIONS MARKED WITH THIS SYMBOL ARE DANGEROUS FOR THE OPERATOR. AS A RESULT THE OPERATOR MUST PAY THE GREATEST ATTENTION WHILE CARRYING THEM OUT.



WARNING

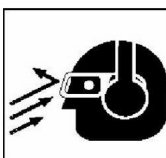
TO AVOID INJURY, KEEP HANDS-OUT
OF DRILLING AREA
WHEN MACHINE IS OPERATING.



WARNING
Rotating cutter
head.
Do NOT operate with
guard removed.
Lockout/tagout before
servicing.



WARNING
Moving parts can
crush and cut.
Do NOT operate with
guard removed.
Lockout/tagout before
servicing.



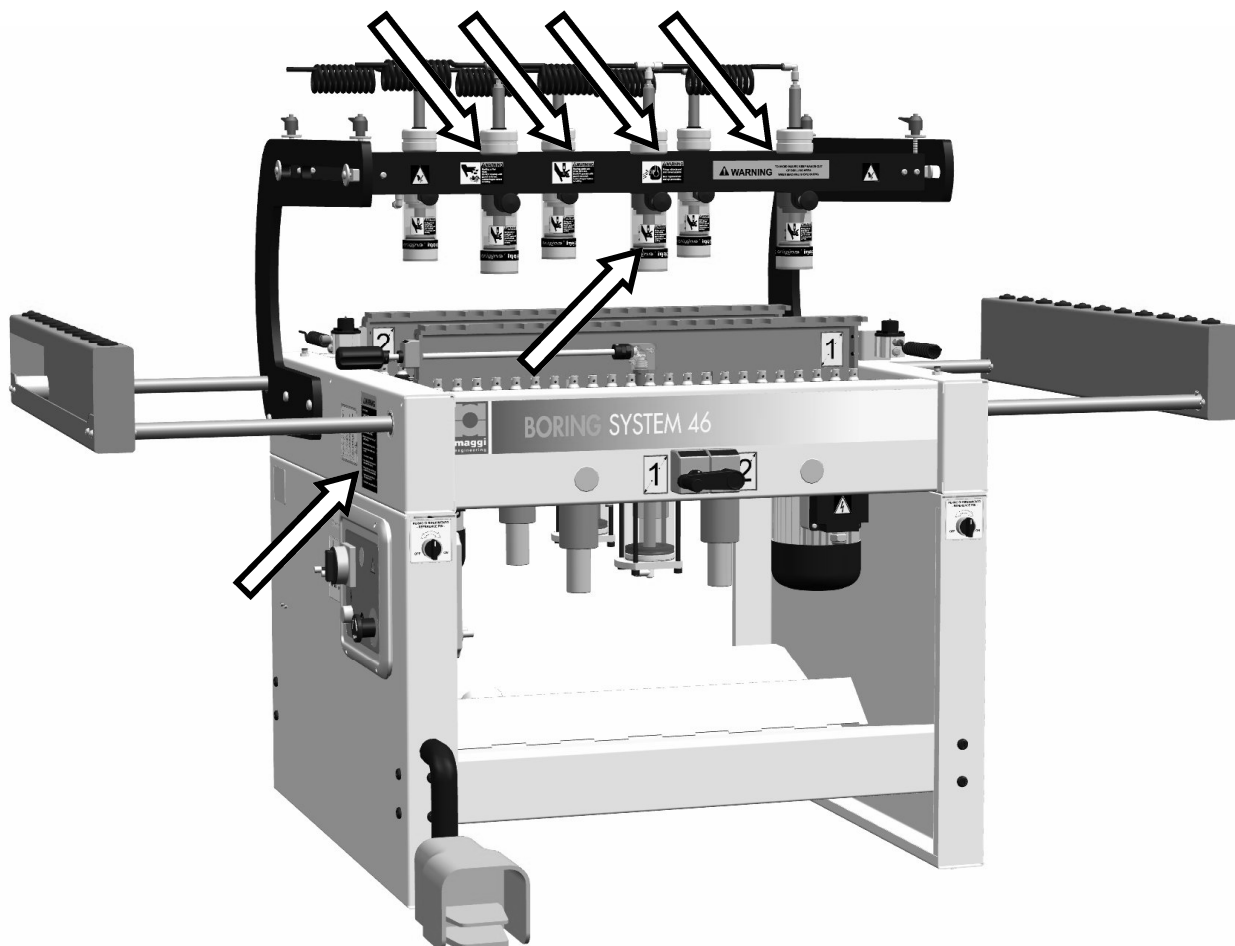
WARNING
Flying objects and
loud noise hazards.
Wear approved ear
and eye protection.



WARNING

FOR YOUR SAFETY

1. READ AND UNDERSTAND INSTRUCTION MANUAL BEFORE OPERATING BORING MACHINE.
2. Always wear proper eye protection.
3. Do not operate while wearing gloves, neckties, jewelry or loose clothing.
4. Keep guards in place at all times and in good operating condition.
5. Support work material firmly against fence.
6. Use clamps or fixtures for small or narrow work stock.
7. Keep hands away from rotating bits.
8. Make sure that drill bits are not damaged and properly secured before operating.
9. Disconnect and lock out machine from power source before making repairs or adjustments.
10. Do not operate while under the influence of drugs, alcohol or medication.
11. Do not expose to rain or use in damp locations.



7. INDIVIDUAL PROTECTION DEVICES AND RESIDUAL RISKS

Despite all adopted safety protection devices, following situations may be dangerous:

- fall or throw of wood sliver during working operation
- entangling parts of clothes in moving parts of the machine
- danger of fire
- danger of electrocution
- danger of damage due to noise emission
- danger of damage due to dust emission

To prevent risks during placing, installation, adjustment, use, ordinary and extraordinary maintenance, we strictly recommend to use the following individual protection devices:

- gloves (for example during machine parts handling)
- anti-crushing and anti-sliding shoes
- glasses or face-shields against chip or wood sliver during working or cleaning operation of the machine
- anti-dust masks

Moreover, the clothes must be suited to avoid danger of:

- catching
- dragging
- crushing
- sliding
- abrasion
- contact lenses are prohibited



NEVER LEAVE THE MACHINE UNATTENDED WHEN CONNECTED TO THE ELECTRICAL POWER SUPPLY

8. TECHNICAL DATA

GENERAL	
WEIGHT	370
SIZE (mm)	950 x 970 x 1150
SPINDLE RIGHT / LEFT ATTACHMENT SIZE	10 mm
MAX WIDTH FOR HOLES IN A ROW	0 / 645
MINIMUM WIDTH BETWEEN HEADS	145 mm
MAX THICKNESS UNDER HOLD DOWN CLAMPS	75
OVERALL NUMBER OF SPINDLES	23 + 23
MAX BORING DEPTH (mm)	55
MAXIMUM BORING DISTANCE BETWEEN CENTRES (mm)	704
DISTANCE BETWEEN CENTRES BETWEEN EACH SPINDLES (mm)	32
SPINDLES REVOLUTIONS RPM	2800
NUMBER OF ENGINES + ENGINE POWER (Kw)	N° 2 x 1,1 Kw
ATTACHMENT TYPE T= THREADED R= RAPID	R

9. INTENDED USE

9.1 MATERIALS

The boring system machine has been designed and built to drill the following materials:

- solid wood
- m.d.f.
- panels of shaving wood, laminated wood, ennobled wood, etc.

The maximum panel thickness is 80 mm and its maximum dimensions are those described in chapter 8.

- Other materials, different from the ones described above, can be machined only after the written approval of the manufacturer. In particular it is not allowed to machine materials having toxic or dangerous substances for operator's health and safety, metals or other materials that can modify the correct working of the machine or cause fire or explosion..
- Any modification is forbidden without the written authorization of the manufacturer.
- It is not allowed to tamper with the safety protection devices.

9.2 IMPROPER USE

Any operation that does not comply with the instructions given herein is to be regarded as improper use.

Moreover:

WE ADVISE YOU NOT TO lay tools against or on the machine for any reason whatsoever during machine installation, use or maintenance.

WE ADVISE YOU NOT TO get on the machine or on any of its parts.



The manufacturer cannot be considered liable for any damage caused to people, animals or property resulting from improper use of the machine.

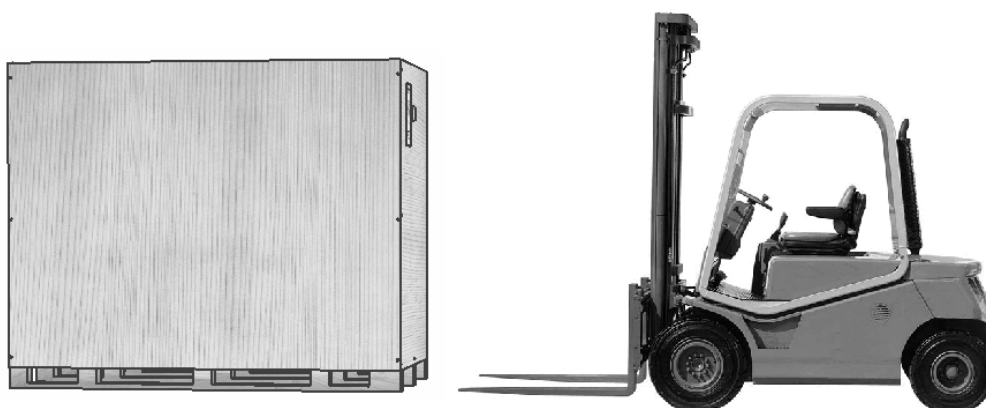
10. TRANSPORT

The boring machine is packed in a wooden box and/or in cardboard and nylon. It is possible to move it by means of:

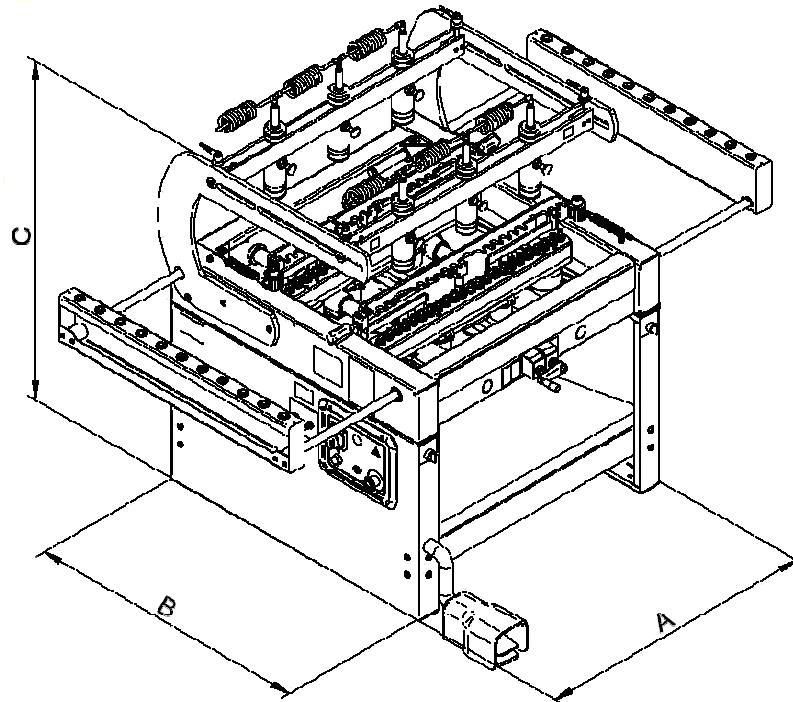
- Forklift
- crane
- transpallet

Weight data are written in chapter 8. Before moving the machine verify that the entire surrounding area is free of obstacles. In case of stocking, the machine must be kept in dry places, away from rain, snow or humidity.

During all moving operations we recommend to be extremely careful to avoid danger of damage for persons, things and the machine itself.



11. MACHINE SIZE



Ref.	A	B	C
Mod.4632	950	970	1150

12. INSTALLATION

12.1 PLACING THE MACHINE

The machine must be placed on a stable plain surface, capable to support the weight of the machine itself; any possible difference in height must be in conformity with building rules. When the machine has to be placed on raised plain surface (higher floor) the load-bearing slab must be adequate to the weight of the machine.

Put the machine in the right place, as requested operative requirements, where it is easy to connect it to electrical and pneumatic power supply.

Put the machine in a place where there is enough lighting to see every part of the machine itself.

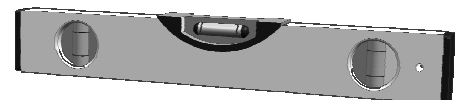
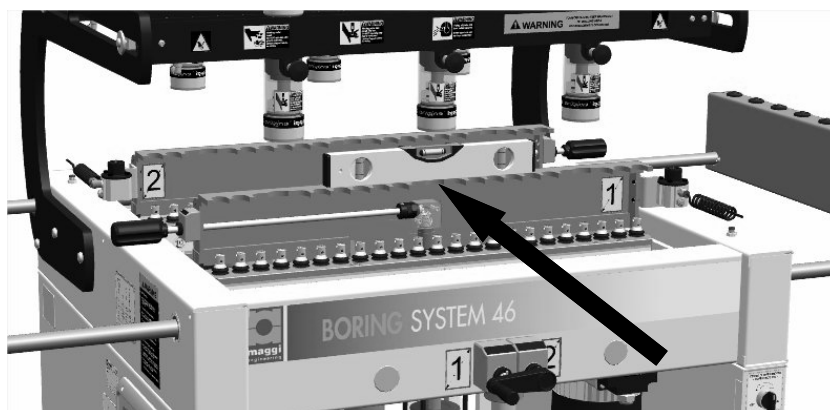
We suggest also to arrange an exhaust fan nearby the machine to clean it periodically.

12.2 LEVELLING

Adjust the levelling feet so that the machine is perfectly leaned on the floor, then align the working table of the machine by using a spirit level.

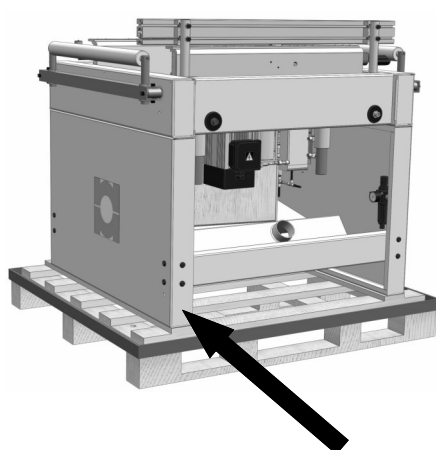
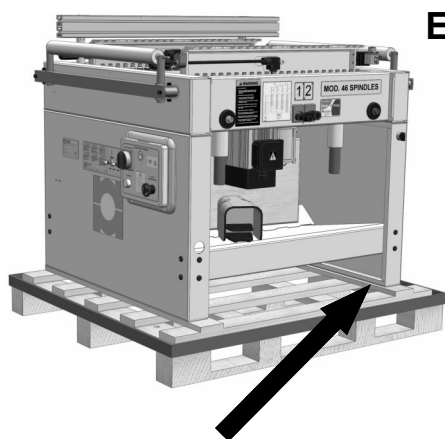
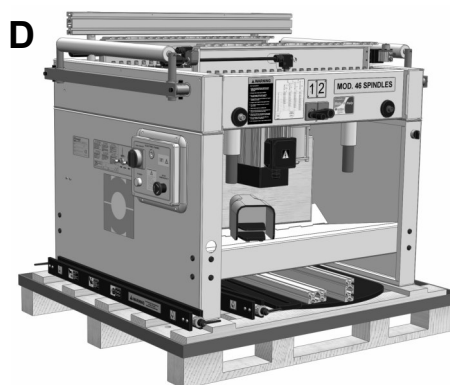
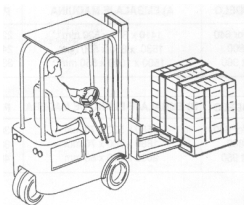
Before going on with levelling, tighten the alignment pins into the threaded holes of the bed frame, remove the protective oil film from planes and every not painted surface, by using petroleum or kerosene only.

Do not use any solvent as gasoline and diesel oil, because they can damage the paint, making it dull, or oxidize other parts.



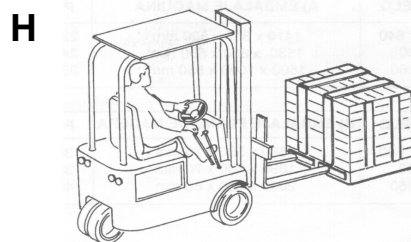
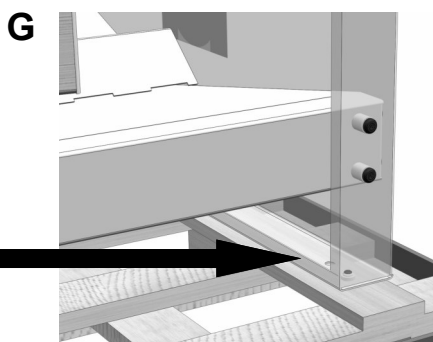
13. ASSEMBLING AND CHECKING PROCEDURE

The Boring System 23V boring machine is packed in a large wooden box. We strongly suggest to apply a careful and correct procedure to transport the box to the area where the boring machine will be installed.



Remove the two fixing devices, which lock the machine to the pallet, placed on the lower part of the machine frame by unscrewing the screws (see figure on the left). Now it is possible to separate completely the machine from the packaging.

Level the machine loosening / tightening the T.E. screws placed on the lower part of the machine frame (see figure on the left).



Transport and put the machine in the place selected for working. Please be careful in doing this procedure and follow the instructions described in chapter 10

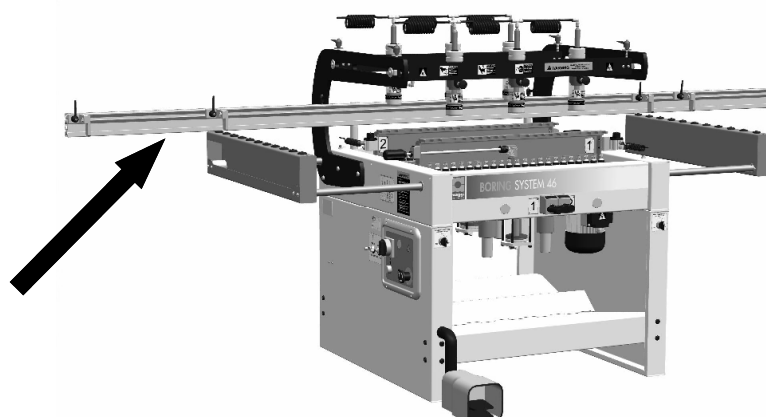
The packaging contains also the long fence group, clamping unit, clamp holder support and a cardboard box with some other accessories inside, as shown in the figure below.



The box contains the following accessories:

- Dowel hole boring machine use and maintenance manual
- Wrenches Kit
- n° 6 clamping unit
- n° 4 Movable stop unit
- n° 1 handle
- n° 8 long fence pins
- n° 4 lever M8x20
- n° 4 kasher
- n° 4 screw vtstei M8x20

Remember to assemble the long fence group and the movable stops following the procedure described in chapter 15.6



The next step consists of machine connection to:

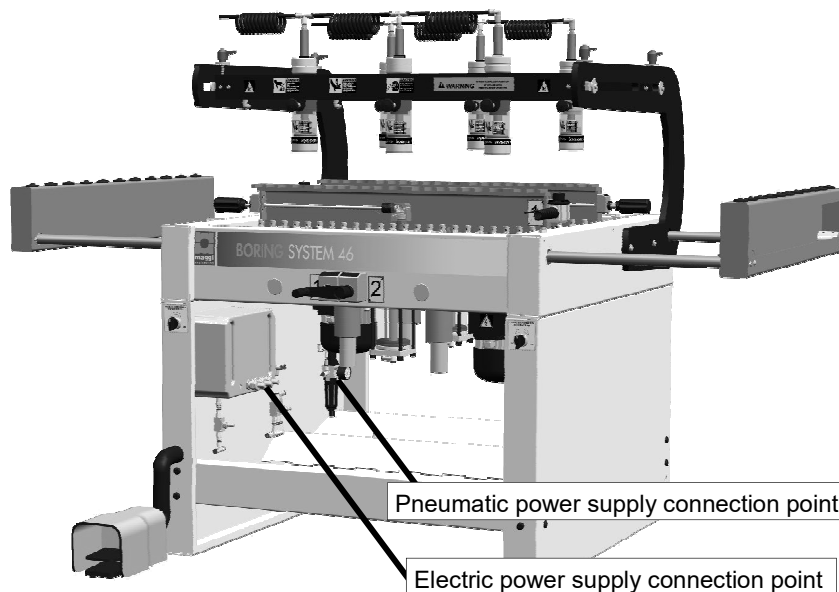
- Electric power supply (see chapter 15.1)
- Pneumatic power supply (see chapter 15.2)



ATTENTION

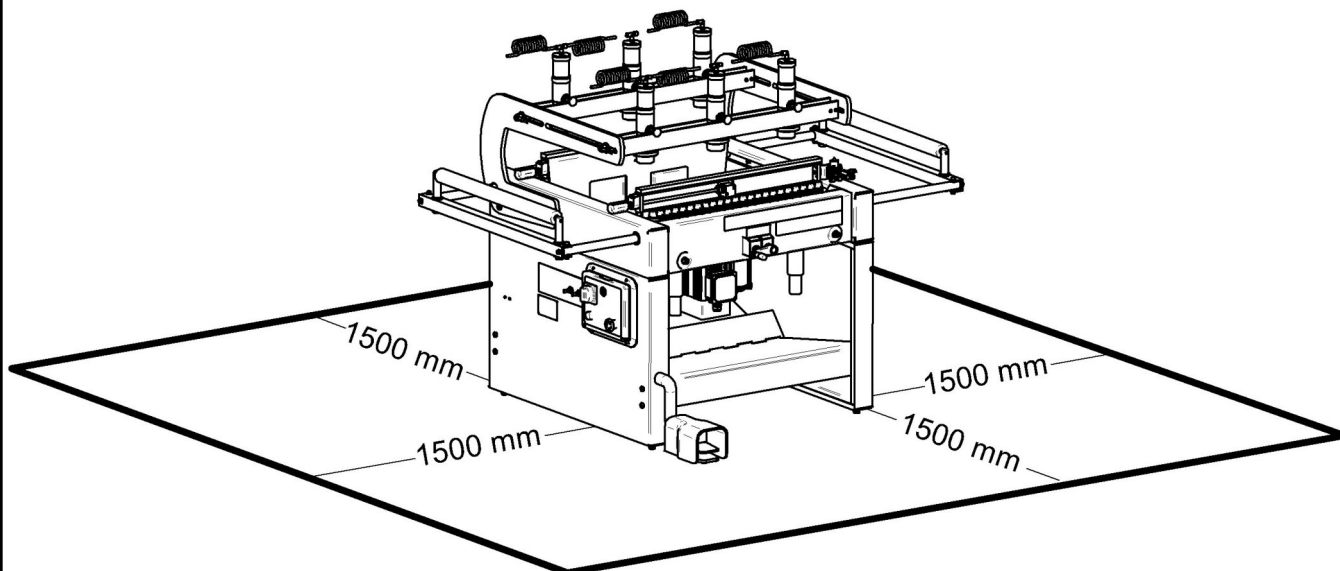
Machine connection:
we strongly suggest to carefully follow the procedures described in chapter 16

Drilling set-up procedure:
carefully follow the procedures described in chapter 17



14. WORKING AREA

To use the machine properly, the areas indicated in the picture below must be left free.



15. ASSEMBLY AND PRELIMINARY PREPARATION FOR SET UP

The machine is delivered partially assembled, so it is necessary to mount all those parts left not assembled for packaging reasons.

The buyer must verify that all the machine parts are safe and not damaged after transportation, before going on with assembling.

In particular we suggest to verify the most delicate parts, as electrical or mechanical components, pneumatic tubing or the safety protection devices of the machine itself.

After assembling, it is necessary to clean all surfaces from protective oil so that the working pieces remain clean during working operations.

SAWDUST REMOVAL

The removal of sawdust and wood scrap, has to be effected in accordance to the current rules of the country where the machine is installed.

We suggest to ask the qualified body of the country where the machine is installed for the rules concerning this removal to know exactly how to behave properly.



ATTENTION: THE MACHINE IS DELIVERED WITHOUT EXHAUST SYSTEM. THE USER HAS TO INSTALL A PROPER EXHAUST FAN DEPENDING ON THE TYPE OF USE, THE MATERIAL AND THE TIMING OF USE OF THE MACHINE. THIS SYSTEM HAS TO KEEP THE DUST CONCENTRATION BELOW THE VALUE ALLOWED BY THE LAW OF THE COUNTRY WHERE THE MACHINE IS INSTALLED.

16. MACHINE CONNECTION TO EXTERNAL POWER SUPPLY

After machine assembling and installation, connect it with:

- Electrical power supply
- Pneumatic power supply
- Dust suction system



Never leave the machine unattended when connected to the electrical power supply

16.1 CONNECTION TO ELECTRICAL POWER SUPPLY

To gain access to the machine electric system, open the main board door by loosening the screws on the front of it. We recommend not to connect the machine to the electrical power supply until it is not correctly placed in the right place. Before connecting the machine to the electrical power supply, it is necessary to verify that the electrical system corresponds to the following necessary power and safety requirements:

- Grounded equipotential electrical system
- Presence of fuses or protection switches against short circuits on every conducting cable R-S-T, except the grounded one
- The electrical power system must be in conformity with CEI 64.8 (CENELEC HD 384, IEC364-4-41) rules
- Voltage and frequency for the motors are specified on the plates placed on them
- Connect the power supply cable to R-S-T terminals
- Automatic protection devices installed upstream respect to the machine; they have to be coordinated to guarantee the automatic break according to above mentioned rules.

The electrical connection is done by three-phase plug (or single-phase plug, depending on the panel).

The cable for ground connection is yellow-green.

The tolerance of admissible voltage is $\pm 10\%$

When voltage is applied to the electrical power supply, check that the spindles rotation direction is the one written in the plate placed on the head (Black=Right; Red=Left).

If the rotation direction does not match the one impressed in the plate, please invert the connection cables to three phase power supply. For any information please see the electrical diagrams included in this manual.



Attention: we strongly recommend that the connection to the electrical power supply is done by technical qualified personnel only.

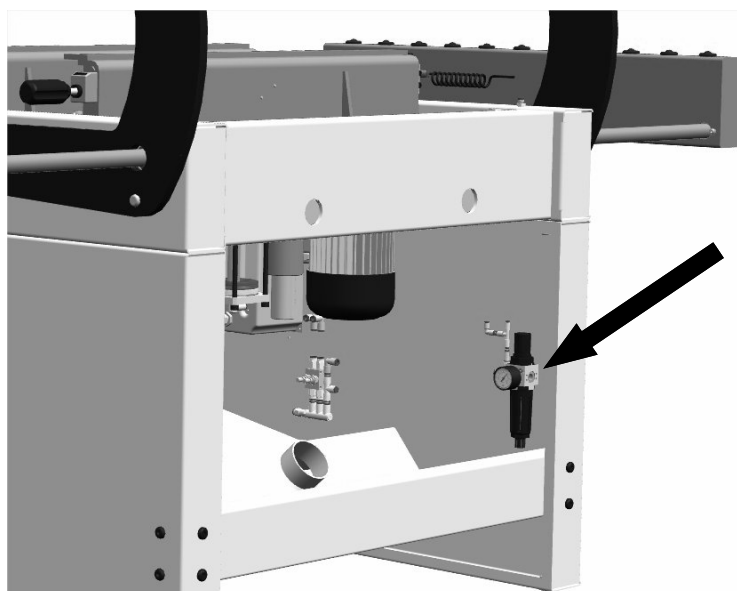
16.2 PNEUMATIC CONNECTION

1) Connect the machine to the compressed air system and make sure that the connection tube is compatible with the one provided alongside the machine itself and located on the lubrication-filter-regulator unit at the back of the machine, in the lower right-hand side.

Working pressure should range between 6 and 7 bar.

2) The lubrication-filter-regulator unit is made up by:

- A filter, whose function is to purify air from dust and humidity that might damage the valves or gaskets in pneumatic cylinders.
- A regulator that adjusts compressed air working pressure by keeping this value within the above-mentioned limits.
- A lubricator that puts a determined amount of oil into the system to lubricate cylinders, valves, gaskets and moving parts.



16.3 MACHINE STARTING

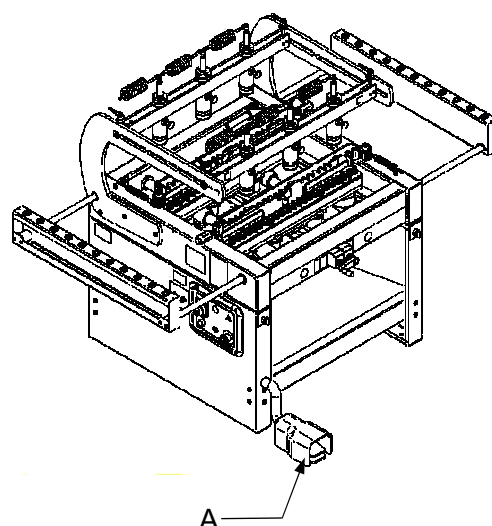
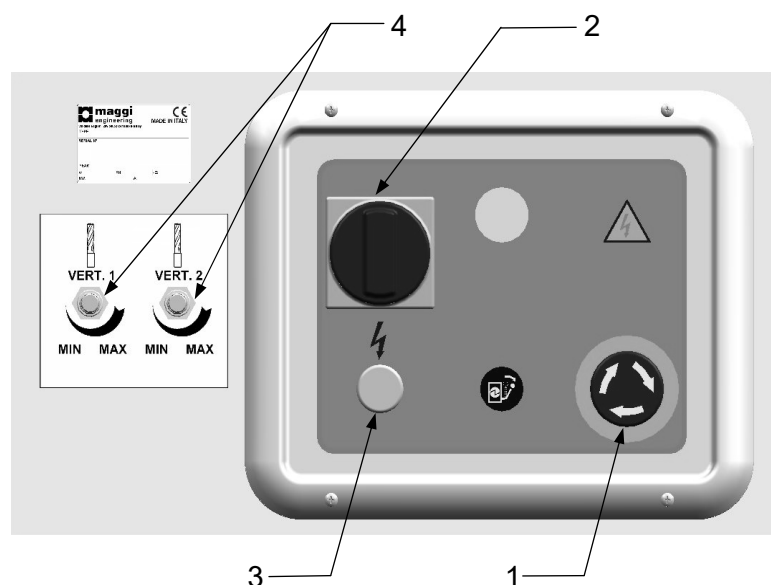
The operator's site and the control board are located in the machine electrical control panel. The operator will position the wood pieces on the working table after having adjusted stops.

15.4 WORKING CYCLE

After having programmed the machine, follow the instructions given in the following paragraph to start the working cycle:

- 1) Turn the main switch (2) and set it to position 1. The machine is ready to start the working cycle.
- 2) Press the pedal (A); the spindles will turn and the head will start the working cycle while the hold down clamps will clamp the piece.
- 3) If the pedal is released, the head will return in its initial position and the spindles will stop.
- 4) Hold down clamps will release the block when the head returns to its initial position.

Should you need to interrupt the working cycle, press the emergency pushbutton (1)



16.5 CONTROL PANEL

The control panel is located on the left-hand side of the machine:

EMERGENCY PUSHBUTTON TO HALT THE ENGINE (THE BUTTON IS NOT AUTOMATICALLY RELEASED)	By pressing this button all electrical functions of the machine are switched off. To switch electric functions on, turn the mushroom pushbutton in the direction indicated by the arrows.	1
PUSH BUTTON TO MAKE ENGINE OPERATIONAL; MAIN SWITCH	1 - It gets the engines ready to be started and hence it gets the spindles ready to rotate during the working cycle. It the switch is turned on power is supplied	2
ON/OFF POWER INDICATOR PILOT LIGHT	1 - If the light is on power is available. 2 – If the light is off power is not available.	3
FEED SPEED ADJUSTMENT (HEAD 1 and HEAD 2)	1 – It adjusts drills boring feed speed	4 (Head 1) (Head 2)

17. CHECKS AND ADJUSTMENTS



WE ADVISE YOU TO DISCONNECT THE MACHINE FROM POWER SUPPLY AND FROM THE PNEUMATIC SYSTEM WHENEVER YOU NEED TO SERVICE THE MACHINE OR TO REPLACE DAMAGED OR WORN PARTS. FOLLOW THE PROCEDURES INDICATED BELOW AND PAY ATTENTION TO THE ADVICE GIVEN IN PARAGRAPH 6 OF THIS MANUAL

17.1 DISCONNECTING PROCEDURE

Before starting any maintenance intervention on the machine, follow this procedure:

Make sure the machine is in a suitable position to carry out the needed intervention. After having fastened the machine mechanically in this position, disconnect the machine from power supply and pneumatic system.

Make sure the machine is not connected to any other energy supply and that no residual power is left.

It is essential that this procedure is carried out by a single person only, who will then have to make the state of the machine known by attaching a visible sign.

17.2 PREVENTIVE CHECKS

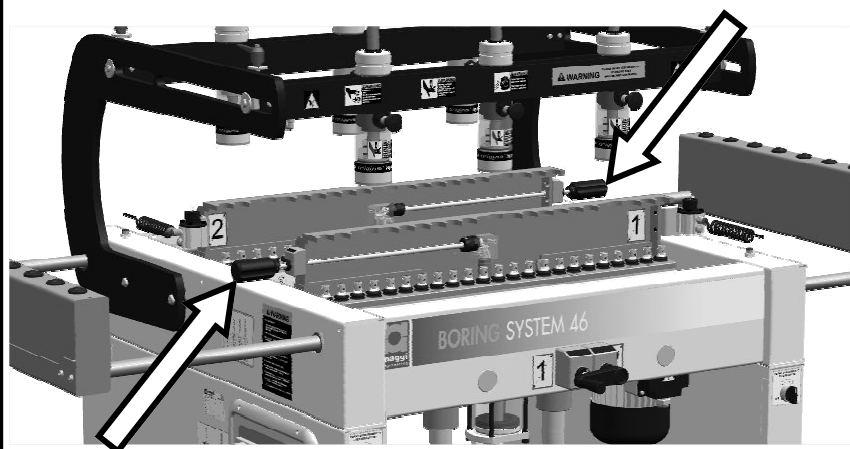
Make sure the area surrounding the machine is neat and clean and that no working scraps are left around, such as saw dust and wood pieces. Make sure all safety and protection devices are in place, in good working order and ready for the machining that have to be carried out.

17.3 BORING DEPTH

To carry out the required boring, follow this procedure:

A) Insert suitable drills in the desired position on the spindleheads (A) – (B).

B) To set boring depth do as follows: once the reading the digital counter (1), it is possible to set (no calculation is needed) the actual boring depth value. Usually use a scrap wood piece to test the machine settings before boring a good piece of wood. For references of drilling depth to see the detail (2)

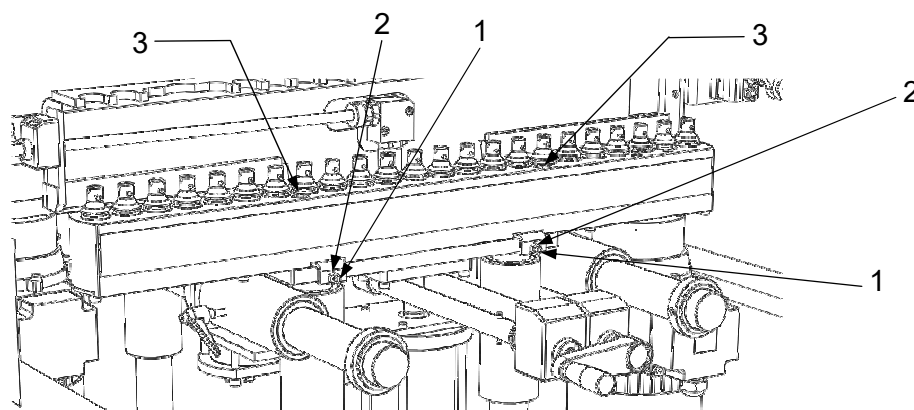


0	000.0	987.5	980.5
5	005.0	992.5	985.5
10	010.0	997.5	990.5
15	015.0	002.5	995.5
20	020.0	007.5	000.5
25	025.0	012.5	005.5
30		017.5	010.5
35		022.5	015.5
40			020.5

DETAIL 2

17.4 HOW TO ADJUST SPINDLEHEAD PARALLELISM

To adjust head parallelism to reference stop operate alternatively on the screws (1) and screw nuts (2) located on the spindlehead back plate after having partially unscrewed the screws (3).



17.5 HEAD POSITIONING FOR LINE BORING



“ CAUTION: DANGER “ CAREFULLY FOLLOW THE PROCEDURE DESCRIBED BELOW

POINT 1: to position spindleheads from zero position (A reference stop), do as follows: Position counter of head n°1 at desired height by operating on (B) crank and likewise set height of head n° 2 by operating on (C) crank. Make sure the heights correspond to heights of piece to be bored.

POINT 2: insert the chosen drills on the spindles and monitor the direction of rotation of each spindle.

POINT 3: set holes depth by operating on the devices of each head (refer to paragraph 16.3).

HOW TO POSITION THE STOP TO START THE WORKING CYCLE

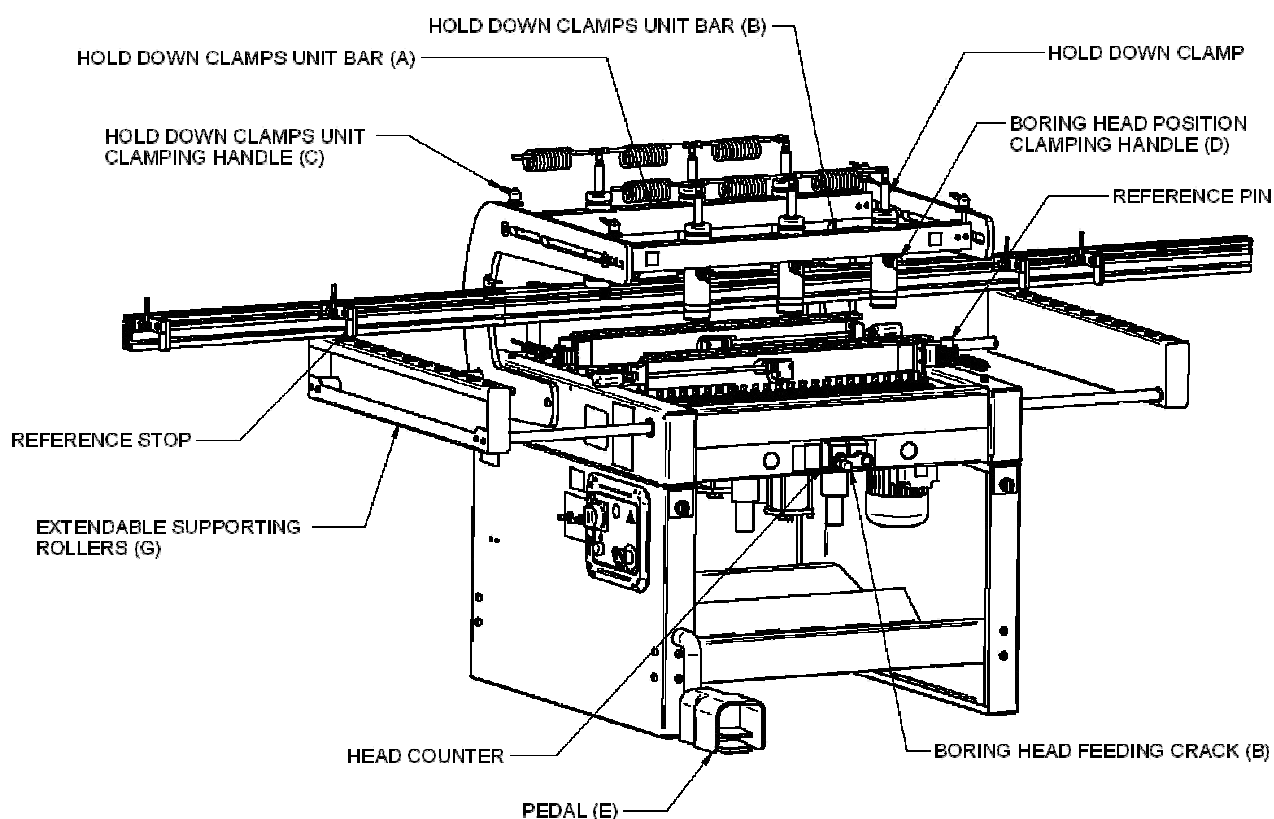
This boring machine comes with an extension fence with millimetrical scale related to drills, which makes it possible to determine the starting edge for line boring. Position the extension fence stops in the predetermined points, taking into account piece height. Positions can be obtained by calculating the overall distance from one point to the other or by using instruments. The extension fence can be equipped with a separate instrument (Fixed gauge) to bore longer rows of holes than the ones the boring machine can usually bore. Also refer to paragraph 16.7 – HOW TO USE REFERENCE PIN.

HOW TO POSITON HOLD DOWN CLAMPS

Once the machine is ready, hold down clamps units must be positioned exactly over the boring points before starting boring operations. To position hold down clamps manually move the bars (A+B) in the desired position and lock them by clamping the handles (C). Hold down clamps are then laid on the piece to be bored by operating on each handle (D).

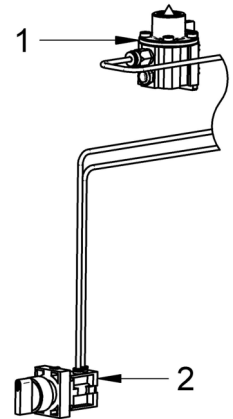
BORING OPERATIONS

Position the piece to be bored on the working table and lean it against references. Make sure electric and pneumatic connections are operational. By pressing the pedal (E) it is possible to simultaneously lock the piece into position, start the engines and feed drills at working speed. Each time you reset your boring machine, it is advisable to simulate a working cycle with a scrap wood panel to make sure size is correct and that the machine is in good working order, without damaging a good wood panel.



17.6 HOW TO USE REFERENCE PIN TO BORE SETS OF HOLES IN A ROW (optional)

As it can be complicated to use the extension fence to bore sets of holes rows on large pieces, our boring machines can be equipped with reference devices to be positioned on the machine sides. Aligned with the drills at a multiple distance (32-mm system), the pin (1) is a rapid and safe reference to carry out this type of boring. When the reference pin is not used, it fits into a slot under the table. To resume piece boring operations, the reference pin can be used once again by turning the knob (2) to unlock the spring that allows the reference pin to come out. The reference pin has to be inserted into one of the previously bored holes to make it possible for another series of holes row at constant pitch to be bored (paragraph 17).

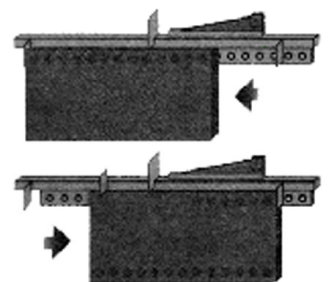
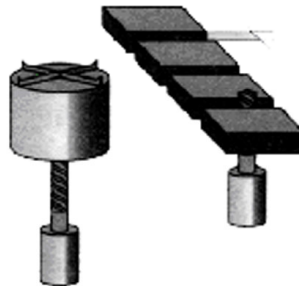


18. WOODWORKING EXAMPLES

2) Boring for hinge slot with drills having a diameter ranging between more than 20 mm and 35 mm maximum must take place outside the rack (at 40 mm from zero for maximum diameter).

3) Example of how to use extension fence to bore a row of holes along the long side.

1) Long panel with boring suitable for shelves positioning.



19. SERVICING

19.1 INSULATION PROCEDURE



MAINTENANCE:

- Disconnect the machine from any energy sources: the electrical power supply and the pneumatic air supply must be cut off and blocked
- Check that any residuals energy has been actually consumed before performing any maintenance interventions on the machine
- Any maintenance operation must be performed only by specialized and/or authorized personnel
- Put on the machine a tag (sign), in a place easy to be seen, saying that the machine is under maintenance and can not be used for working



DPI - WEAR
PROTECTIVE
CLOTHES



DPI - WEAR
PROTECTIVE SHOES



DPI - WEAR
PROTECTIVE
GLOVES



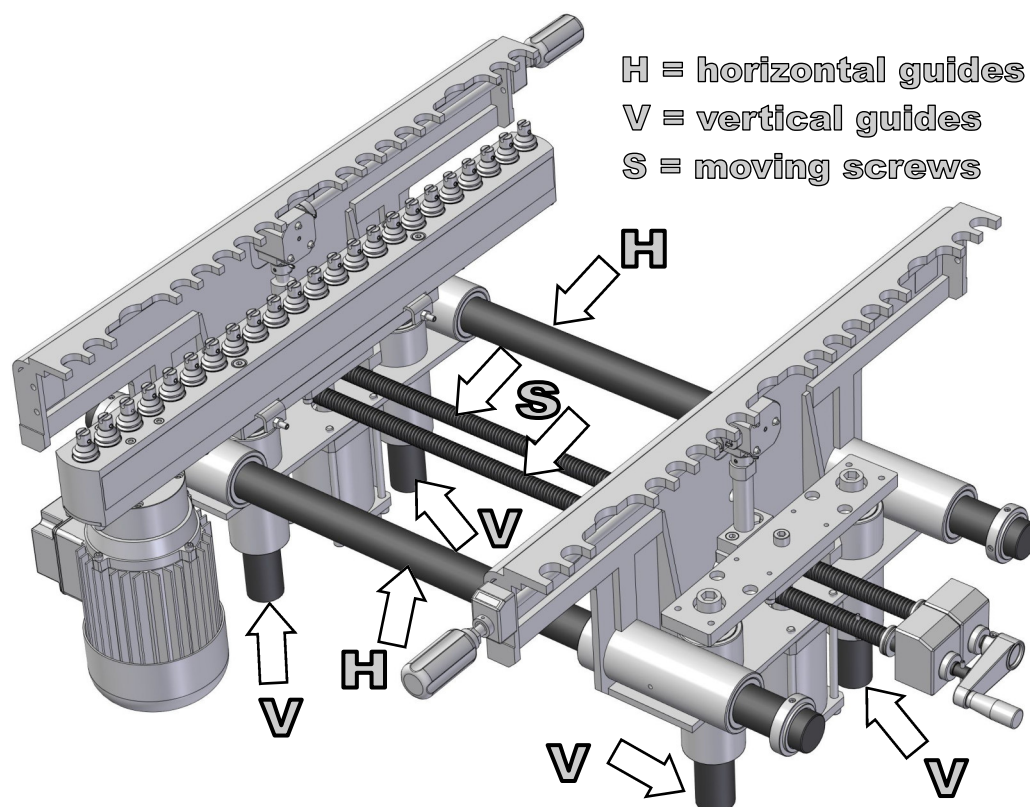
MAINTENANCE:

A SUITABLE MAINTENANCE IS A DECISIVE FACTOR FOR INCREASED LIFE OF THE MACHINE, AND TO HAVE OPTIMAL WORKING CONDITIONS

MAINTENANCE TIMETABLE

<i>WHEN</i>	<i>WHAT</i>	<i>HOW</i>
EVERY DAY	ELECTRIC CABLE INTEGRITY CHECK	VISUAL INSPECTION OF THE ELECTRICAL CONNECTIONS OF THE MACHINE WITH THE MAINS
	PNEUMATIC PIPES INTEGRITY CHECK	VISUAL INSPECTION OF PIPING AND PNEUMATIC CONNECTIONS. CHECK FOR CORRECT AIR PRESSURE LEVELS. REPLACE SUDDENLY DAMAGED AND/OR WORN PARTS IF NECESSARY
	MACHINE AND WORKING PLACE CLEANING	REMOVE WORKING RESIDUALS, DUST, SHAVINGS AND ANYTHING ELSE THAT COULD HINDER THE PROCESSING OR ACCESSIBILITY OF THE MACHINE
ONCE A WEEK	CLEAN AND LUBRICATE GUIDES, SLIDING RODS, MOVING SCREWS	REMOVE WORKING RESIDUALS , DO NOT USE DETERGENTS OR LUBRICANTS. LUBRICATE WITH OIL
EVERY 30 DAYS	ELECTRIC CIRCUIT	CHECK ELECTRICAL SYSTEM SAFETY. REPLACE SUDDENLY DAMAGE AND/OR WORN PARTS IF NECESSARY
	MECHANICAL COMPONENTS	VERIFY INTEGRITY OF THE LOCKING OF THE VARIOUS MECHANICAL COMPONENTS
	AIR FILTER UNIT INLET	CHECK THE LUBRICANT OIL LEVEL IN THE FILTER UNIT, RESTORE THE LEVELS IF NECESSARY
	AIR FILTER UNIT INLET	CHECK CONDENSATION LEVEL AND PRESENCE OF IMPURITIES. CLEAN UP IF NECESSARY
EVERY 500 WORKING HOURS	DRILLING HEAD	CHECK LUBRICATION LEVEL. LUBRICATE PARTS IF NECESSARY - USE EP2 TYPE GREASE

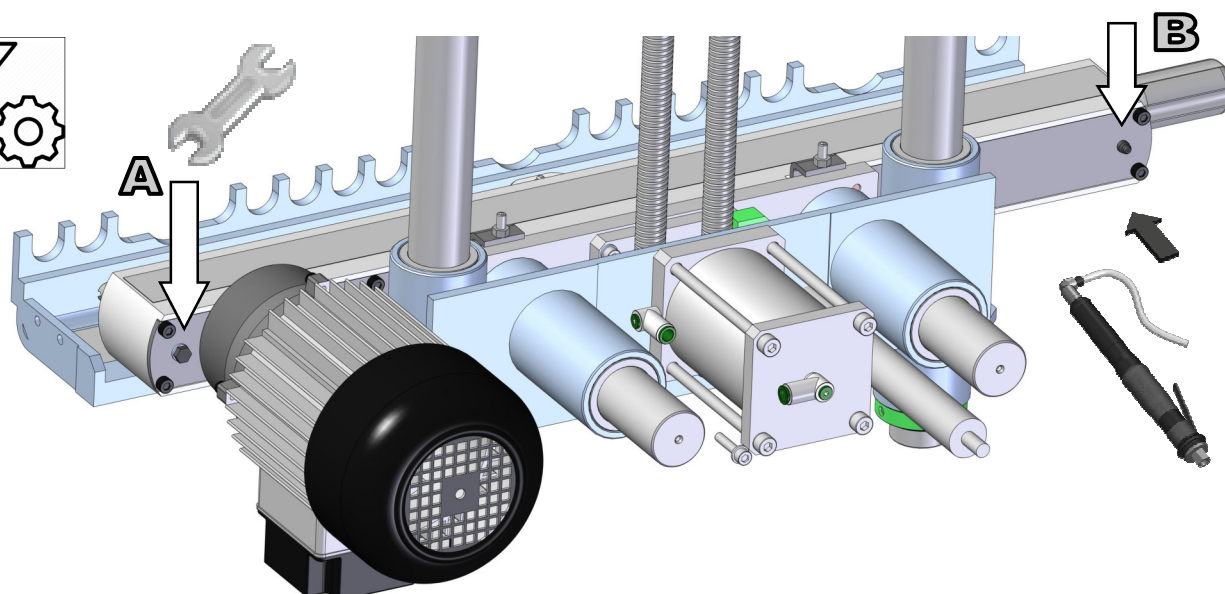
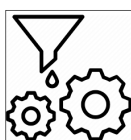
CLEAN AND LUBRICATE GUIDES, SLIDING RODS AND MOVING SCREWS



GREASING DRILLING HEAD PROCEDURE

The greasing operation of the spindle holder head must be carried out when the unit is hot so that the grease inside is more fluid.

1. remove the screw (A) so that there is a open hole in the head cover
2. Use EP2 type grease, insert the pump into the grease fitting (B) and add a small amount of lubricant
3. Switch on the machine and let the spindles turn so that the grease goes all around the gears in the head
4. Switch off the machine
5. Verify if some grease has leaked out of the hole (position A); if not, please, repeat the whole procedure once again and until the grease is leaking out
6. Lock the head cover back to the head by inserting the washer and screw in place (A)



20. COMMON FAILURES - CAUSES AND SOLUTIONS

Some failure causes can be eliminated by the operator himself, while others failures need qualified personnel intervention.



CAUTION: BEFORE CARRYING OUT ANY INTERVENTION YOU MUST STRICTLY FOLLOW THE MACHINE CUTTING-OFF PROCEDURE DESCRIBED IN CHAPTER 16.

20.1 DRILLS ARE NOT TURNING

POSSIBLE CAUSE	WHAT TO DO
A - The engine not running B - The engine is burnt out	<ul style="list-style-type: none"> - Press the engine operational button - Release emergency pushbutton and/or check fuses - Check air pressure (to switch pressure switch on) - Replace the engine

20.2 ENGINE IS RUNNING BUT DRILLS ARE NOT TURNING

POSSIBLE CAUSE	WHAT TO DO
A. Possible breakage in -gears and/or keys Transmission joint	- Replace (call technical service)

20.3 HOLE IS NOT PRECISE

POSSIBLE CAUSE	WHAT TO DO
A. Drill is not clamped correctly B. Drills are worn C. Piece to be worked is not clamped correctly	<ul style="list-style-type: none"> - Check clamping. If it is correct call service intervention. - Replace or call technical service - Check hold down clamps, hold down clamps gaskets and working pressure

21. PROBLEMS THAT MIGHT OCCUR DURING MACHINE WORKING CYCLE

21.1 DRILLS LEAVING SCORCH MARKS

This problem might occur if the piece is not positioned correctly on the table, if drills are worn or are turning in the opposite direction.

21.2 BORED PIECES ARE NOT PARALLEL TO STOP

This problem might be due to the fact that the drills are not parallel to reference stop. Check head position to stop and make sure drills line in head 1 and 2 is parallel.

21.3 HOLD DOWN CLAMPS CANNOT CLAMP WOOD PIECE

If hold down clamps cannot clamp pieces, check air pressure and connection pipes.

To solve these problems, we suggest that you contact MAGGI Post-sale Assistance Service or your local dealer.

22. A. NOISE LEVEL

Assuming the machine is functioning properly and that tool balancing and sharpness are correct, noise emissions can vary according to the material being worked, to drills diameter and to boring depth. Length of time operators are expected to stay close to the machine can vary over the 8-hour working day. Other factors play a role in determining the exposition level, such as surrounding environment and other sources of noise as well as the presence of other machines nearby. We advise you to inform operators about risks resulting from a long exposition to noise and, if necessary, provide them with suitable individual protection devices. The acoustic pressure level detected with a class-1 integrating noise meter at operator's working position is **76.1dB (A)**. This measurement has been carried out in compliance with ISO 3745 standard. During this measurement, the machine was functioning at steady state as far as pressure and speed were concerned, and was drilling a wooden shaving panel with PVC covering. The measurement has been carried out at a 1.5-meter height in front of the machine at the operator's working location. The following reference measurements have been obtained by following the same procedure:

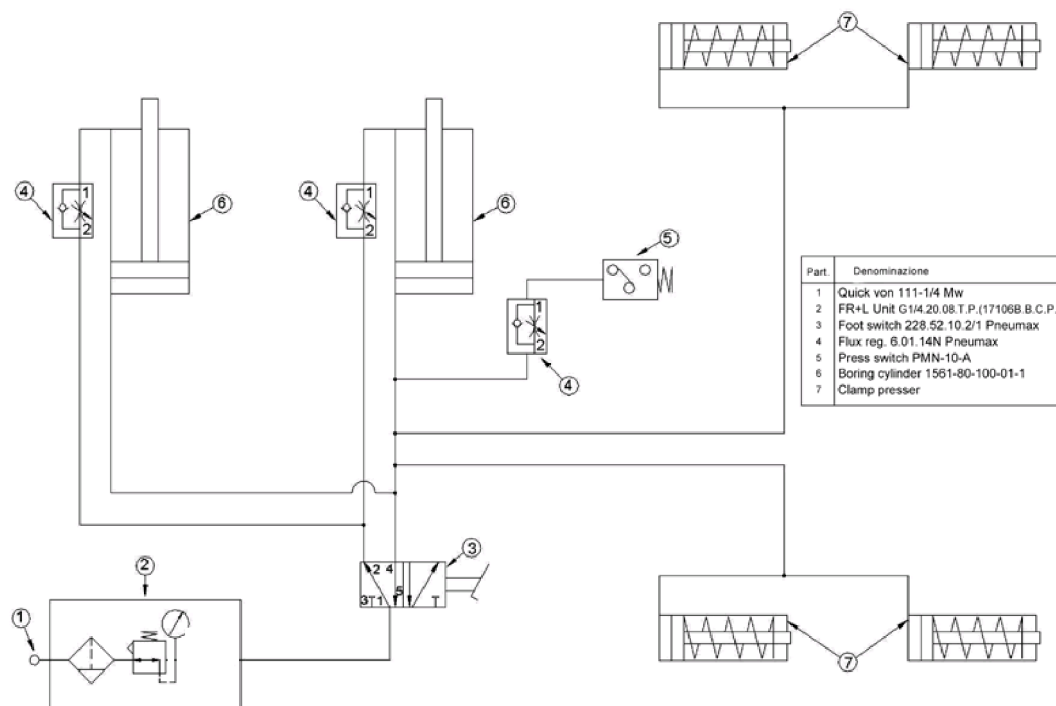
Acoustic pressure level in Atm. dB(A):78.3

Acoustic power level dB(A):93.3

22. B. DUST EMISSIONS

These are the results of a test carried out to determine the level of dust emissions during a non-stop working hour, while a 20 mm-thick fir panel with PVC covering was being bored. Dust emissions amounted to 13.9 mg/N cu.m at operator's working location, which is at a 1.5-meter height in front of the machine.

23. PNEUMATIC SCHEME



23.1 HOW TO ADJUST AUTOMATIC PRESSURE

Adjust machine pressure at a value ranging from a minimum value of 6 bar to a maximum of 8 bar with the knob located at the back of the machine, in the lower right-hand side and check pressure on the pressure gauge.

24. ELECTRICAL SCHEME

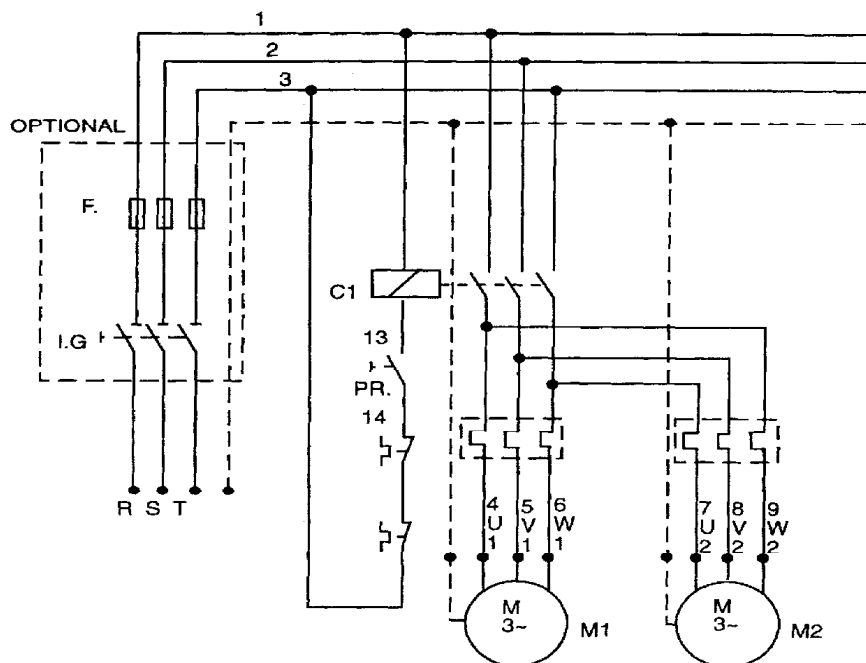
I.G.: main switch;

C1/2: engine counter;

PR: air pressure;

M1/2: driving shaft rotation;

F: main fuse.



24.1. PUTTING THE MACHINE OUT OF COMMISSION

If the machine has to be put out of commission, the following instructions will have to be followed strictly so as to guarantee people's safety and to protect the environment around the machine.

Therefore, after disconnecting the machine it is advisable to:

- Disassemble drills and put them in a suitable container, where they will be stored and protected from damage.
- Disassemble electrical, pneumatic and hydraulic components so that they can be re-used after an inspection or an overhaul.
- Empty oil out of hydraulic gearcase without spilling it into the environment.
- Disassemble all metallic components in the machine and divide them into separate groups according to material.
- Call a firm specialised in material regeneration and disposal (solid and liquid materials).

NOTES

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper has a slight shadow on its right side, suggesting it's resting on a surface.

25. GUARANTEE CERTIFICATE

The machine has been built according to technological and safety criteria and has been checked in our factory before being forwarded.

MAGGI TECHNOLOGY guarantees machine working and quality in agreement with law rules, for a period of 12 months. Improper use and incorrect maintenance, not following the rules contained in this manual, as well as adjustments or modifications not approved by the manufacturer, cancel all the terms of guarantee. The conditions of guarantee about the correct working of the machine are strictly connected to the respect of all the indications described in the

USE AND MAINTENANCE MANUAL

The free replacement of any parts found to be faulty is done only after having checked that the machine had been properly used.

Claims and guarantee interventions request are accepted only against presentation of the machine number engraved into the identification plate.

Upon receipt of the machine carefully check that packaging is safe and not damaged. Except for different agreement, the manufacturer is not responsible for any damages done during transport.

In case of evident damages on packaging, we suggest to contact immediately the carriers. Our firm will be available to give the necessary support.



COUPON TO BE FORWARDED TO THE MANUFACTURER



GUARANTEE AND LOOK-OVER COUPON

Model.....Serial number.....

Name.....

Address.....

ZIP Code.....City.....

Date of purchase..... Dealer.....

Owner's signature

.....

The purchaser states to accept all the terms of guarantee and to have checked the machine to work well

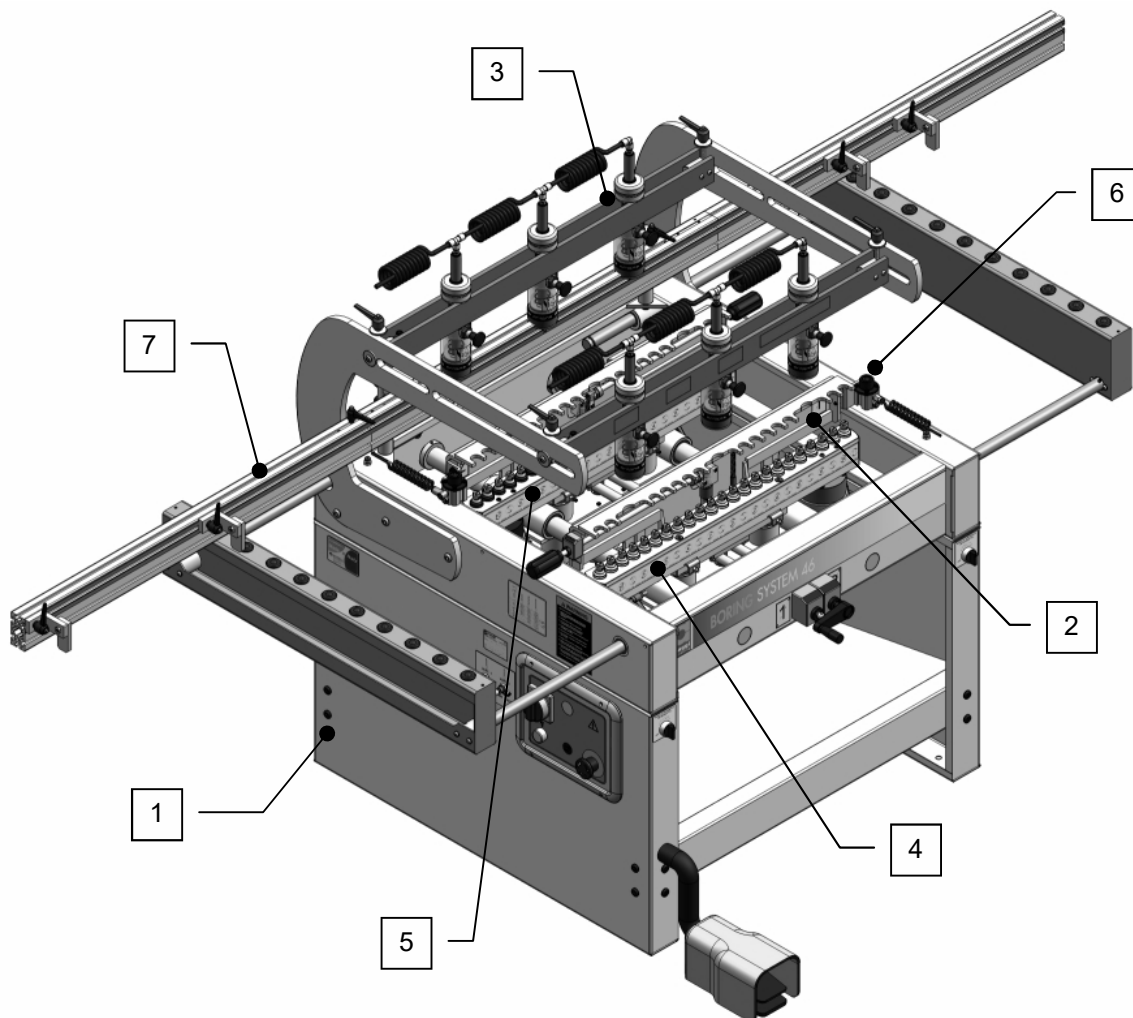
NOTES

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Ship to:

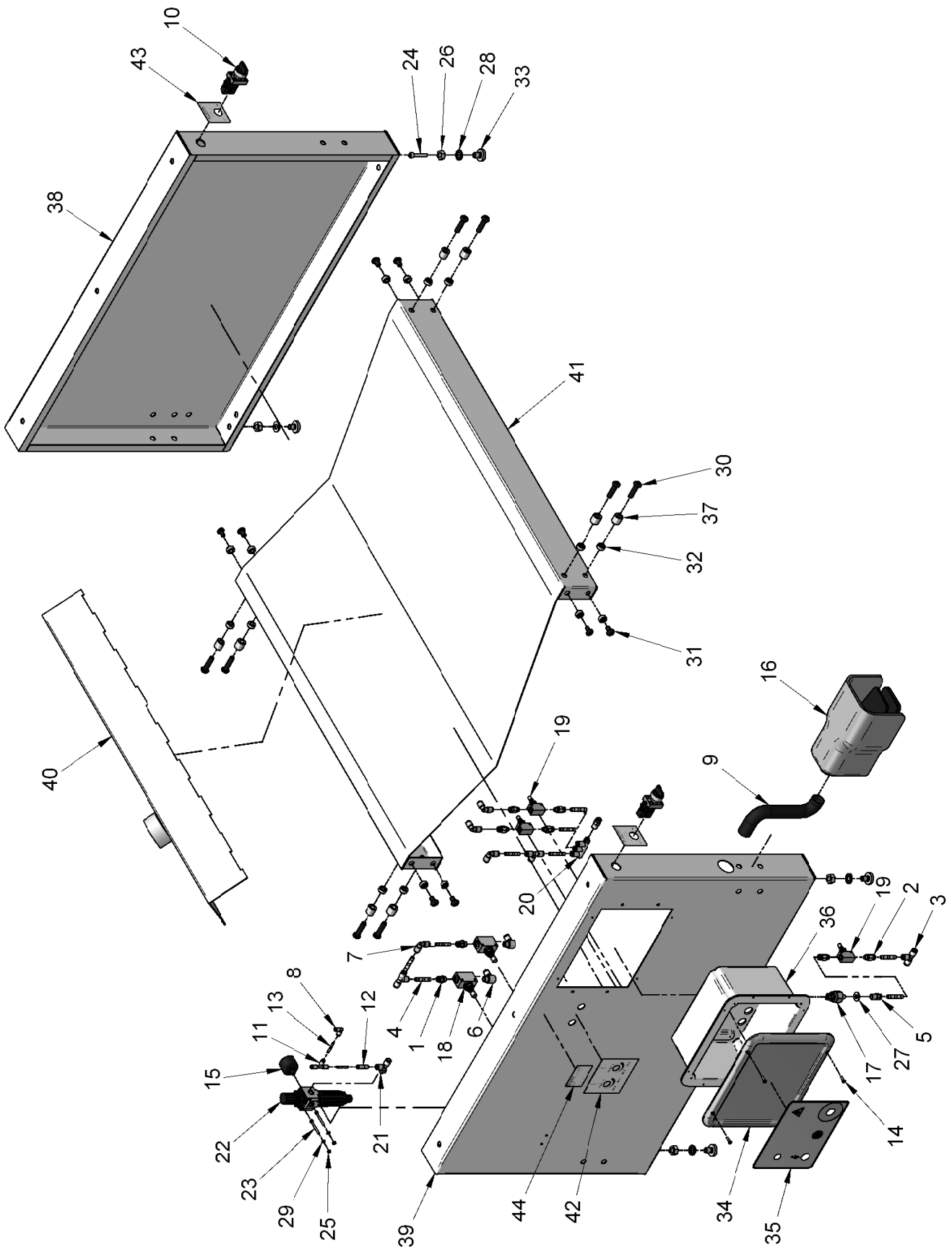
MAGGI TECHNOLOGY srl
Vendita ed Assistenza Tecnica
 Via delle Regioni n°299
 50052 CERTALDO (Fi)
 ITALIA

26. SPARE PARTS CATALOGUE



POS.	CODE	PART NAME	QUANTITY
1	26430002	FRAME GROUP	1
2	26405001	TABLE GROUP	1
3	26405100	PLANE GROUP	1
4	26405104	ANGULAR REFERENCE GROUP	2
5	26405500	HOLD DOWN CLAMPS UNIT	1
6	26054501	HOLD DOWN CLAMPS UNIT SUBGROUP	6
7	26405700/26405701	FRONT/REAR HEAD GROUP	1/1
8	26401800	LONG FENCE GROUP	1
9	26401900/26401901	FRONT/REAR REFERENCE PIN UNIT	1/1

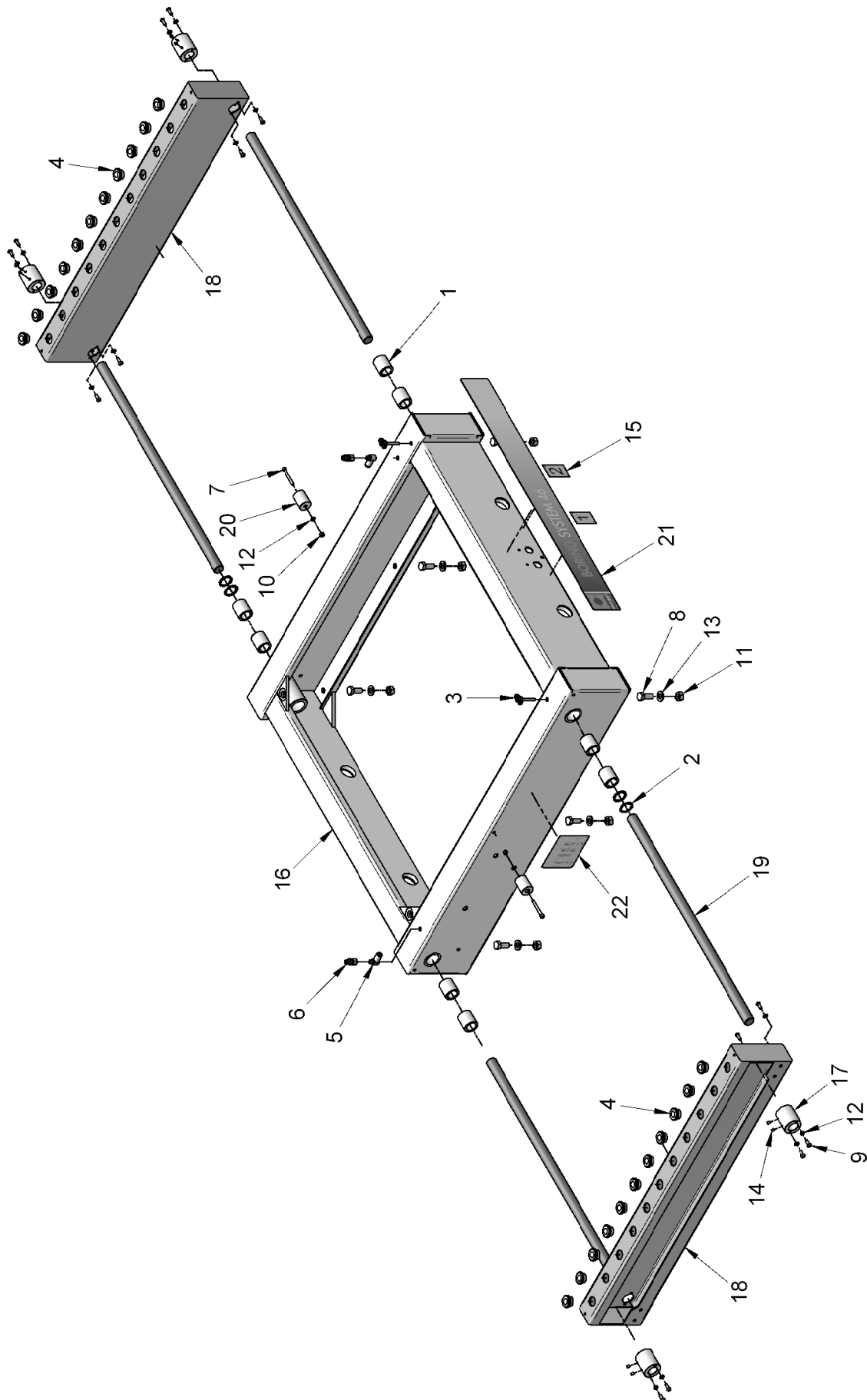
26430002 FRAME GROUP



26430002 FRAME GROUP

POS.	CODE	PART NAME	QUANTITY'
1	00001013	FITTING ART.01-8-1_4	2
2	00001101	FITTING ART.01-8-1_8	6
3	00001102	FITTING R5_8_T	3
4	00001104	CONNECTING PIPE ART. 07-8	9
5	00001107	FITTING ART.02-8-1_8-DIR-FEM	2
6	00001108	FITTING ART. 015-8-1_4	2
7	00001110	FITTING -L-ART-04-8	4
8	00001114	PNMX FITTING L 04 4	1
9	00001124	BLACK SHEAT BTM25	1
10	00004013	SELECTOR PNMX 104 32 6 30 LC	2
11	00004065	FITTING _T_ART_05_4	1
12	00004067	REDUCER PNMX 08 08 04	1
13	00004068	CONNECTING PIPE PNMX 07 070400	2
14	00005110	SCREW AUT. TC Ø 3,9 x 19 UNI 6954	4
15	00015219	MANOMETER M40	1
16	00015220	PEDAL ART-228-52-10-2-1	1
17	00015221	PRESSURE SWITCH 1_8 COD.PMN10A	1
18	00015224	FLOW REGULATOR G1-4 PNMX	2
19	00015229	FLOW REGULATOR G1 8-COD-6-01-18-NE	3
20	00015650	FITTING ART.34 340818	1
21	00015651	REVOLVING FITTING "T"	1
22	00015804	REDUCER FILTER	1
23	00018289	SCREW TCEI M4X40 UNI-5931	2
24	00018377	SCREW TCEI M8X40 UNI-5931	1
25	00018499	NUT M4 UNI-5588 6S	2
26	00018507	NUT M12 UNI-5588 6S	4
27	00018522	PLAIN WASCHER Ø10 UNI-6592	1
28	00018523	PLAIN WASCHER Ø13 UNI-6592	4
29	00018531	PLAIN WASCHER Ø4 UNI-6592	2
30	00018612	SCREW VTBCEI M10 x 40	8
31	00018627	SCREW TBCEI M10X16 ISO-7380	8
32	36050011	PRESSURE NUT	16
33	36050032	FOOT	4
34	36053002	COVER	1
35	36054032	ELECTRIC PANEL PLATE	1
36	36251005	ELECTRIC BOX GFE	1
37	36401014	FRAME SPACER	8
38	36401082	RH SIDE PANEL_46_ITG	1
39	36401084	LH SIDE PANEL_SX_46_ITG	1
40	36401085	SUCTION DUCT 46 ITG	1
41	36401086	TANK_46_ITG	1
42	36405031	SET-UP PLATE 46	1
43	36405850	REFERENCE PIN PLATE RIF.46	2
44	40000030	LABEL 3M 68x46 3690-906	1

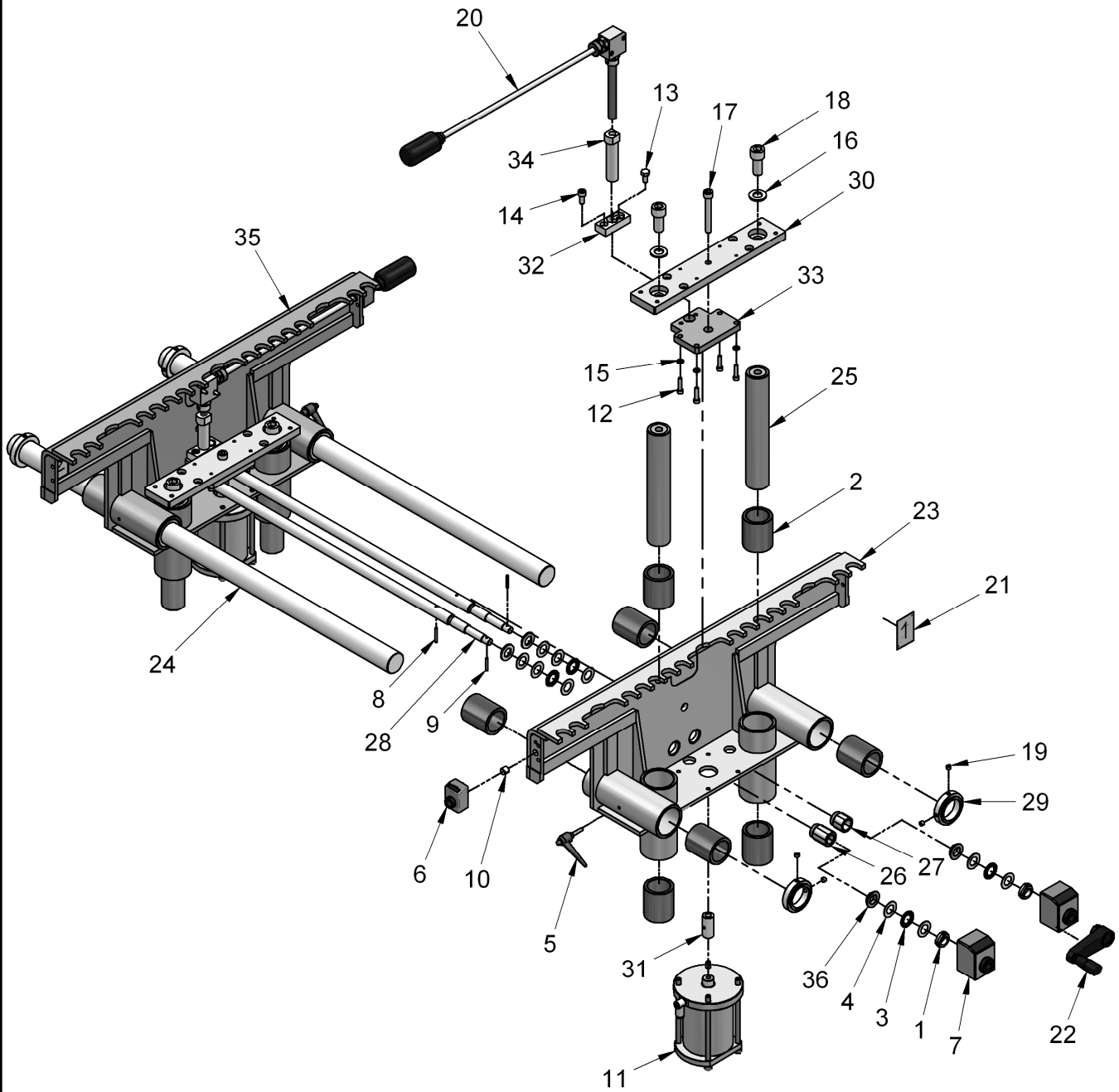
26405001 TABLE GROUP



26405001 TABLE GROUP

POS.	CODE	PART NAME	QUANTITY
1	00003033	BALL SLEEVE KH2540PP	8
2	00003343	SEEGER RING ZA25	4
3	00003913	COCKEREL L749-28 M6X40	2
4	00004111	BALL SP15LBD	22
5	00015815	REVOLVING FITTING PNMX 15 150418	2
6	00015816	FITTING PASSAPARETE PNMX 25 250418	2
7	00018321	SCREW VTCEI M6x50	2
8	00018417	SCREW TE M 12X30 UNI 5739	6
9	00018462	SCREW VTBEI M6x16 ISO7380	16
10	00018500	NUT M6 UNI-5588 6S	2
11	00018507	NUT M12 UNI-5588 6S	6
12	00018520	PLANE WASHER Ø6 UNI-6592	18
13	00018523	PLANE WASHER Ø13 UNI-6592	6
14	00140603	SCREW STEI M6X8 P.C. UNI-5927	8
15	36401011	COUNTER PLATE_46_ITG	2
16	36405001	WORKER BENCH_46_ITG_2006	1
17	36405012	BUSH 46_ITG_2006	4
18	36405013	ROLLER BEAM 46 ITG	2
19	36405014	LONG ROLLER HOLDER GUIDE CEM	4
20	36405016	CLASH ROLLER	2
21	36405023	PLATE 46	1
22	36550913	ADHESIVE_BS240	1

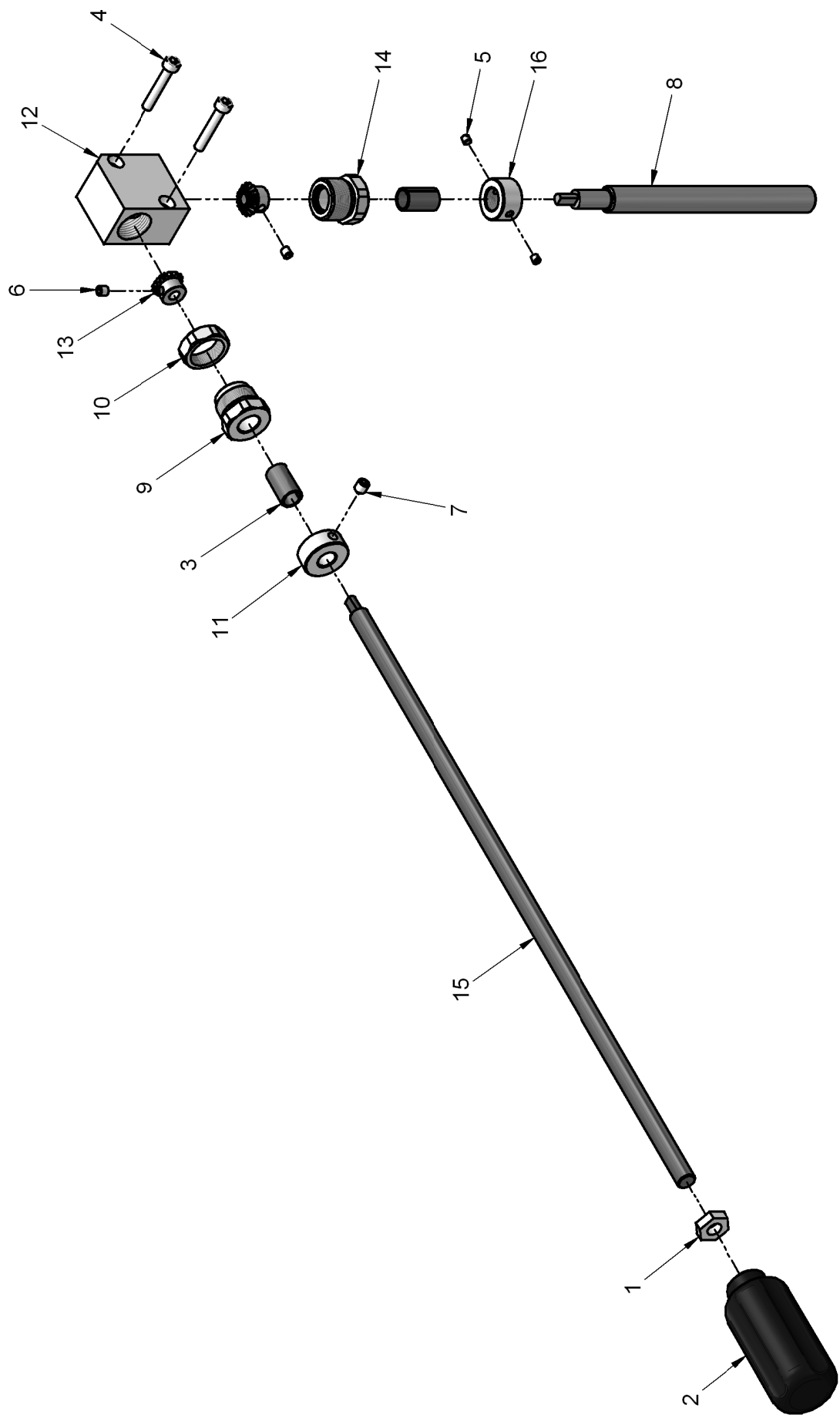
26405100 PLANE GROUP



26405100 PLANE GROUP

POS.	CODE	PART NAME	QUANTITY
1	00000168	SELF LOCKING RING-NUT M17x1S	2
2	00003034	BALL SLEEVE KH4060PP	16
3	00003455	BEARING INA AXK1730	4
4	00003456	RING INA AS 1730	10
5	00003935	SHOOTING LEVER M6x25	2
6	00003961	COUNTER VO-DX-2.0 AR.D.14	2
7	00003964	COUNTER	2
8	00004304	ELASTIC SPINEØ4X30	1
9	00004380	ELASTIC SPINE De4x26	2
10	00005046	BEARING PAP 1010P10	2
11	00015415	DRILL FEEDING CYLINDER GF	2
12	00018304	SCREW TCEI M6X25 UNI-5931	8
13	00018405	SCREW TE M8X16 UNI-5739	2
14	00018407	SCREW VTCEI M8X18	2
15	00018520	PLANE WASHER Ø6 UNI-6592	8
16	00018524	PLANE WASHER Ø17 UNI-6592	6
17	00018756	SCREW TCEI M10X75 UNI-5931	2
18	00018759	SCREW TCEI M16x35 UNI5931	4
19	00150802	SCREW VSTEI M8x8 PC UNI5927	8
20	26405104	ANGULAR REFERENCE GROUP	2
21	36401011	COUNTER PLATE_46_ITG	2
22	36401135	CRANCK_B216-80	1
23	36405101	FRONT BLOCK PLANE 46 ITG 2006	1
24	36405117	HORIZONTAL GUIDING SHAFT 46_ITG_2006	2
25	36405118	VERTICAL SHIFTING BAR 46 ITG 2006	4
26	36405120	SHIFTING LEADNUT_46_ITG	2
27	36405121	SHIFTING BUSH 46 ITG	2
28	36405123	SHIFTING SCREW 46 ITG 2006	2
29	36405126	LOCKING SLIDEWAY_46_ITG_2006	4
30	36405127	HEAD HOLDER PLATE 46itg 2006	2
31	36405136	CYLINDER SHANK EXTENSION 46 ITG 2006	2
32	36405155	GUIDE BLOCK 46	2
33	36405708	DEPTH BEARER_46_ITG	2
34	36405709	VERTICAL SHIFTING SNAIL_46_ITG	2
35	36406101	REAR TABLE 46 ITG 2006	1
36	41600004	SINTERED BUSH PER 32	2

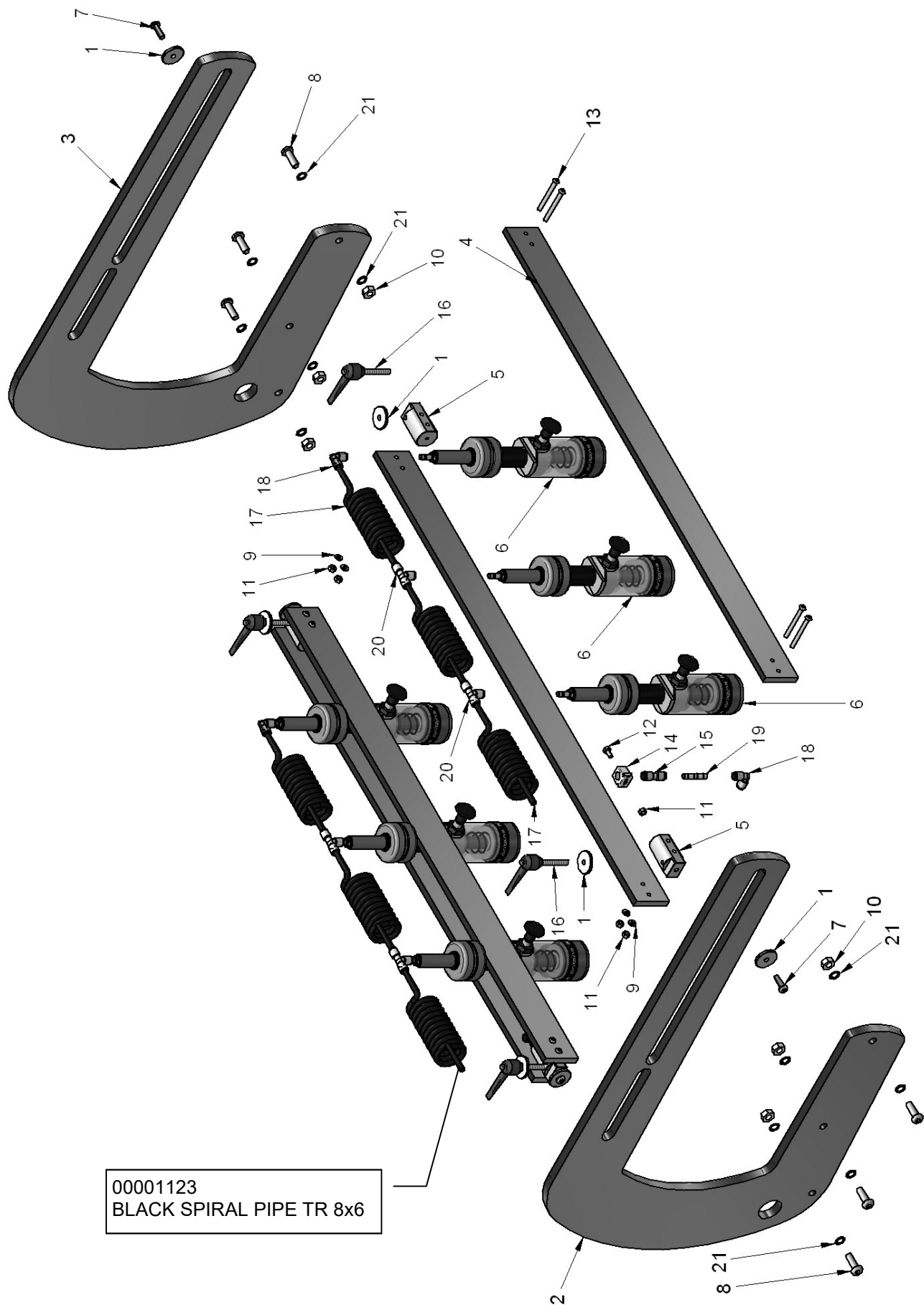
26405104 ANGULAR REFERENCE GROUP



26405104 ANGULAR REFERENCE GROUP

POS.	CODE	PART NAME	QUANTITY
1	00000113	NUT M10 basso UNI-5589 6S	1
2	00003954	SLEEVE BOTEKO 775-38 M10	1
3	00006080	BEARING PAP 1020P10	2
4	00030509	SCREW TCEI M5X30 UNI-5931	2
5	00120404	SCREW STEI M4X4 P.P. UNI-5923	2
6	00130501	SCREW STEI M5X5 P.P. UNI-5923	2
7	00140603	SCREW STEI M6X8 P.C. UNI-5927	1
8	36401129	DEPHT SCREW_46_ITG	1
9	36401130	THREADED BUSH_46_ITG	1
10	36401131	NUT TO THE BUSH_46_ITG	1
11	36401132	SHOULDER DISK_46_ITG	1
12	36401133	ANGULAR TRASMISSION_46_ITG	1
13	36401134	CONIC GEAR_M1-Z16_x_46_ITG	2
14	36401138	BUSH_FIL_OR_46_ITG	1
15	36405128	KNOB CARRIER 46 ITG	1
16	36405137	THREADED TUBE	1

26405500
HOLD DOWN CLAMPS UNIT



00001123
BLACK SPIRAL PIPE TR 8x6

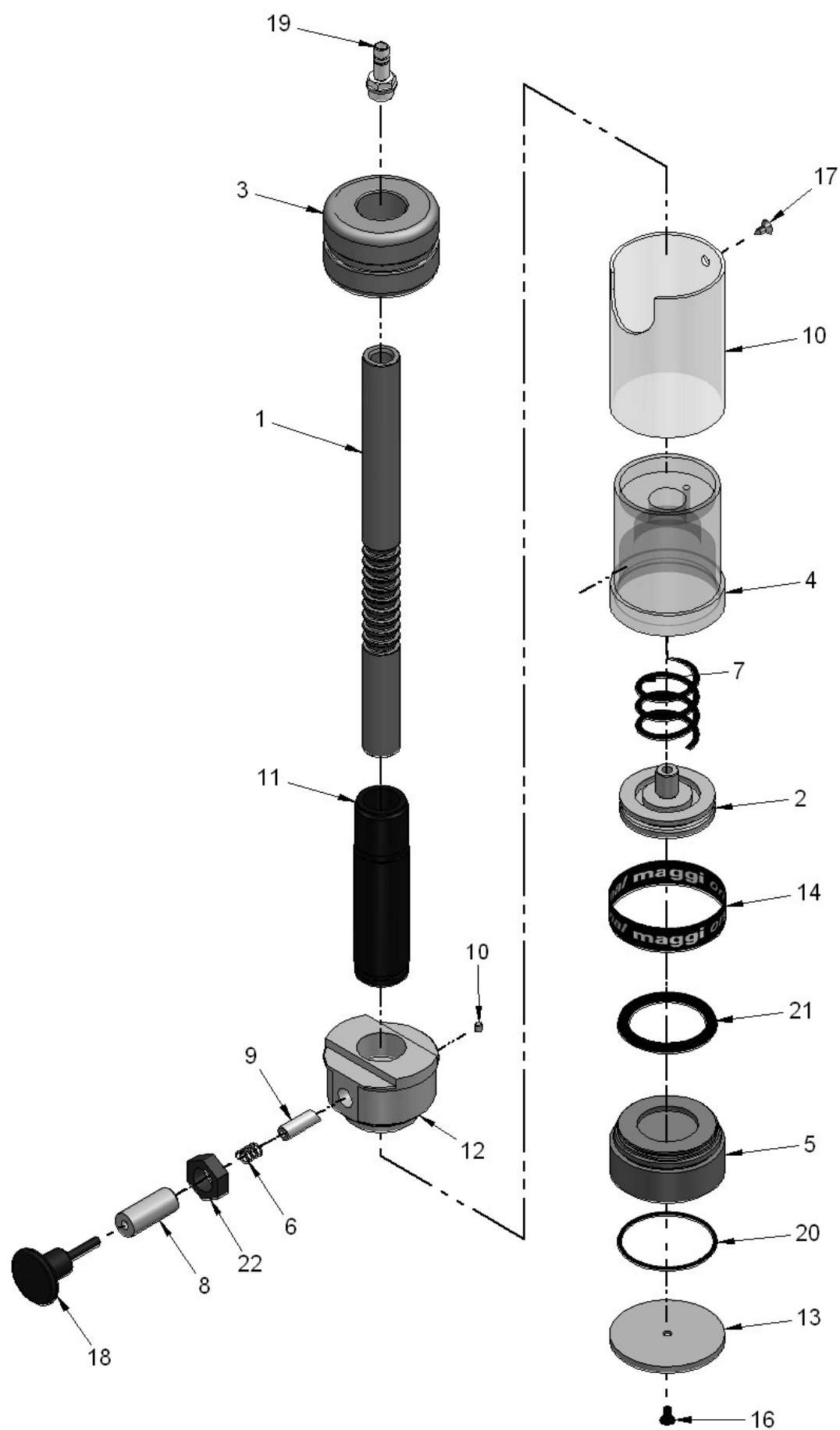
26405500
HOLD DOWN CLAMPS UNIT

Page 31

POS.	CODE	PART NAME	QUANTITY
1	49900051	CROSS BEAM CLAMPING WASHER	8
2	36402506	LH HOLD DOWN CLAMPS FRAME	1
3	36402505	RH HOLD DOWN CLAMPS FRAME	1
4	36401504	CROSS BEAM FOR DOUBLE	4
5	36051502	SPACER BLOCK	4
6*	26054501	HOLD DOWN CLAMPS UNIT SUBGROUP	6
7	00018606	SCREW VTBCEI M8x25	4
8	00018602	SCREW TBCEI M10X30 ISO-7380 ZINC.	6
9	00018520	PLAIN WASHER Ø6 UNI-6592 ZINC.	8
10	00018503	NUT M10 UNI-5588 6S ZINC.	6
11	00018500	NUT M6 UNI-5588 6S ZINC.	10
12	00018400	SCREW VTE M6x12	2
13	00009083	SCREW TBCEI M6X60 ISO-7380 ZINC.	8
14	00005041	FISCHER SUPPORT SCH-8-12-GR	2
15	00004070	FITTING PNMX T030800	2
16	00004025	RELEASE LEVER M8 L50	4
17	00001126	BLACK SPIRAL	6
18	00001110	FITTING -L-ART-04-8	4
19	00001104	FITTING ART. 07-8	2
20	00001102	FITTING R5_8_T	4
21	00000051	SCHNOR WASHER Ø10	12

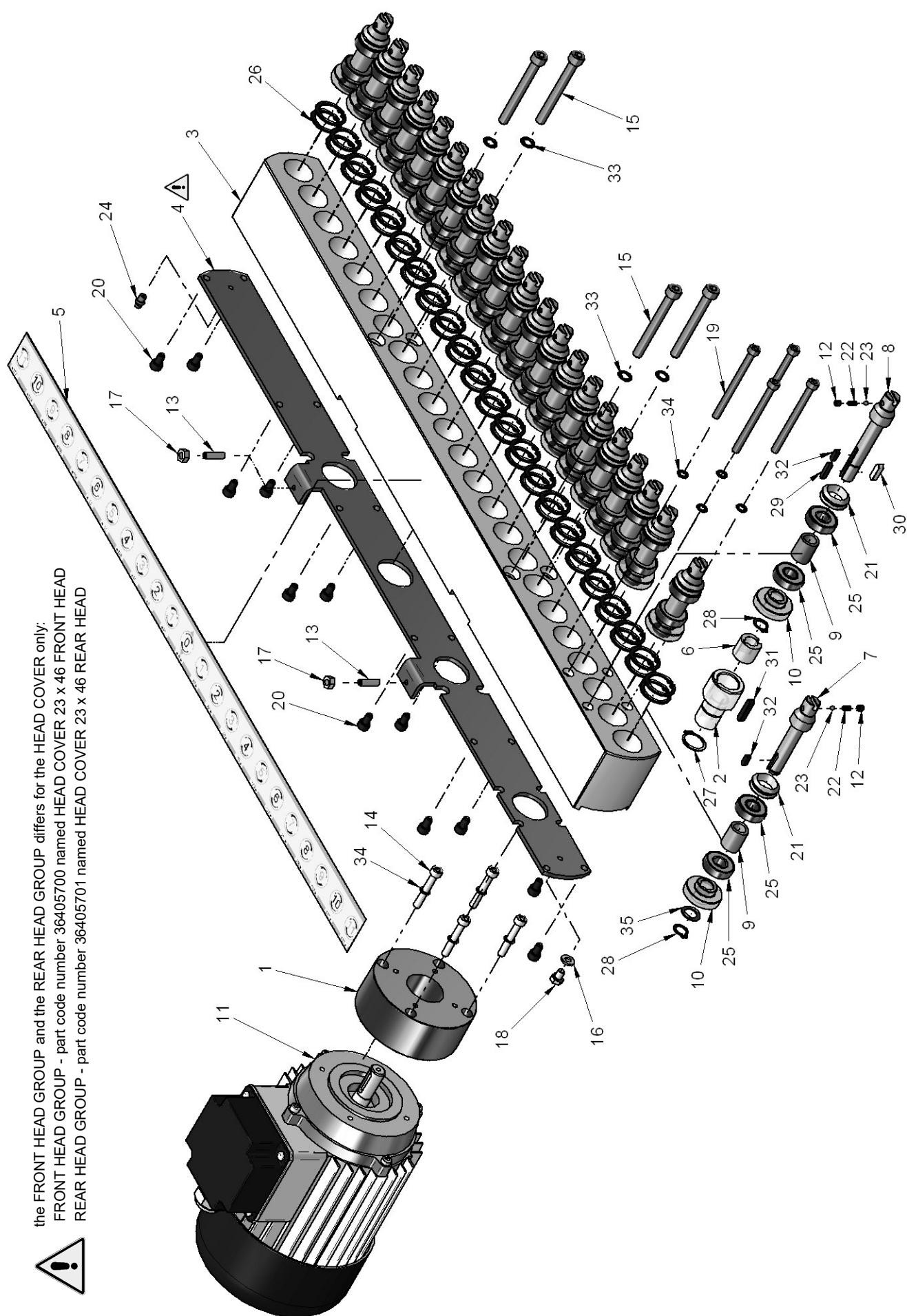
* = for detailed information on part code number 26054501 - HOLD DOWN CLAMPS UNIT SUBGROUP please see the following pages

26054501 - HOLD DOWN CLAMPS UNIT SUBGROUP



POS.	CODE	PART NAME	QUANTITY
1	49981043	PISTON SHAFT	1
2	49972052	PISTON	1
3	49972045	CLAMPING RING NUT	1
4	49972040	CYLINDER	1
5	49971051	INFERIOR HEAD	1
6	49970146	SMALL PISTON SPRING	1
7	49970053	PISTON SPRING	1
8	49970048	THREADED CYLINDER	1
9	49970047	WEDGE SHAPED PISTON	1
10	49970042	PISTON CYLINDER COVER	1
11	49901089	HEAD PIPE	1
12	49901088	SLIDING HEAD	1
13	49900095	NYLON ROUND	1
14	32700000	STICKER	1
15	00120404	SCREW STEI M4X4 P.P. UNI-5923	1
16	00018439	SCREW TSPEI M4x8 UNI-5933	1
17	00005103	SCREW AUT. 3.9x9.5 zinc.6955	1
18	00003120	BOTECO HANDLE119-32 M6	1
19	00001250	FITTING ART_06_8_1-4_CIL	1
20	00001121	O-RING PNEUMAX COD R-1502.50.5	1
21	00001120	PACKING PISTON	1
22	00000118	NUT M14 UNI-5589 6S	1

26405700 / 26405701
FRONT HEAD GROUP / REAR HEAD GROUP



the FRONT HEAD GROUP and the REAR HEAD GROUP differs for the HEAD COVER only:
FRONT HEAD GROUP - part code number 36405700 named HEAD COVER 23 x 46 FRONT HEAD
REAR HEAD GROUP - part code number 36405701 named HEAD COVER 23 x 46 REAR HEAD

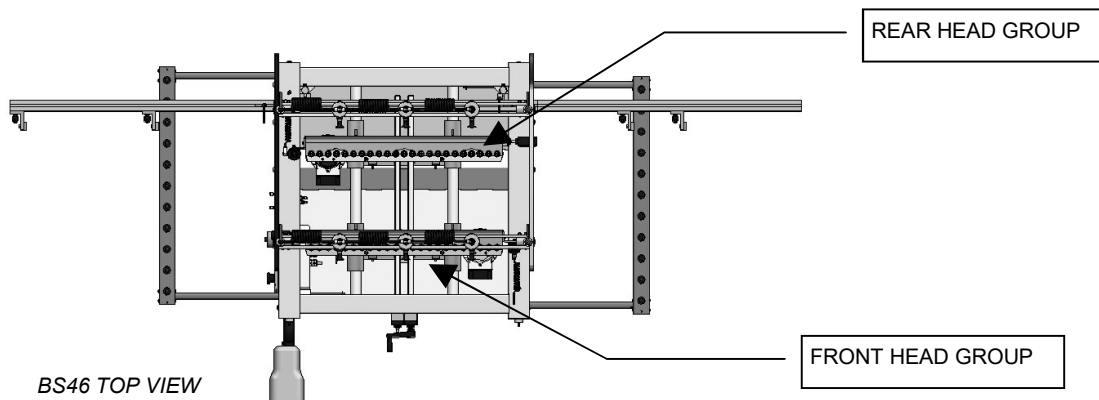
26405700 / 26405701
FRONT HEAD GROUP / REAR HEAD GROUP

Page 35

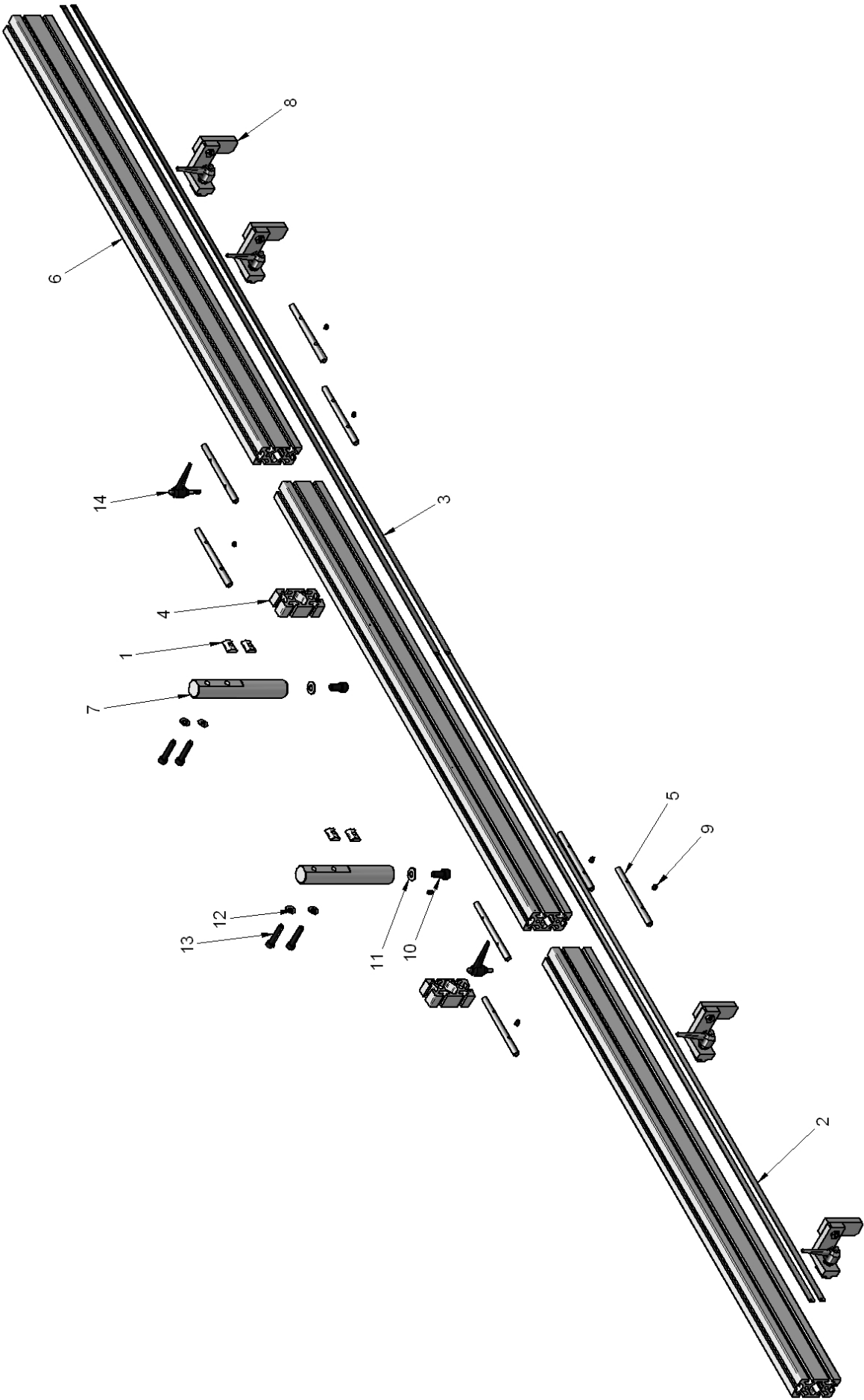
POS.	CODE	PART NAME	QUANTITY
1	36950210	ENGINE ROUND PLATE	1
2	36950209	MOTOR JOINT	1
3	36405704	HEAD BODY 23	1
* 4 - front	36405700	HEAD COVER 23 x 46 FRONT HEAD	1
* 4 - rear	36405701	HEAD COVER 23 x 46 REAR HEAD	1
5	36052710	23 PRESTIGE PLATE	1
6	36050711	NYLON JOINT	1
7	36001060	DRIVEN SPINDLE	22
8	36001059	DRIVING SPINDLE	1
9	36000063	BEARING SPACER	23
10	36000062	GEAR Z21	23
11	26405705	MOTOR M71-2T 230-400-50 HP 1,5	1
12	00130501	SCREW STEI M5X5 P.P. UNI-5923	23
13	00100614	SCREW STEI M6X20 P.P. UNI-5923	2
14	00040610	SCREW VTCEI M6x40	4
15	00018655	SCREW TCEI M8x75 UNI-5931 ZINC.	4
16	00018520	PLAIN WASHER Ø6 UNI-6592 ZINC.	1
17	00018500	NUT M6 UNI-5588 6S ZINC.	2
18	00018436	SCREW TE M6x8 UNI5739 ZINC	1
19	00018326	SCREW TCEI M6X80 UNI-5931 ZINC.	4
20	00018302	SCREW TCEI M6X10 UNI-5931 ZINC.	12
21	00005097	GASKET Øi 20 Øe 25,5	23
22	00005025	SPRING Ø4 L=9	23
23	00004103	BALL 1 / 8	23
24	00003703	GREASE NIPPLE	1
25	00003424	SKF BALL BEARING 6001 2RS1	46
26	00003337	SEEGER I 28	46
27	00003307	SEEGER E20	1
28	00003305	SEEGER E12	23
29	00000250	PARALLEL KEY 4x4x18	1
30	00000220	PARALLEL KEY 5X5X18	1
31	00000218	PARALLEL KEY 5X5X25	1
32	00000211	PARALLEL KEY 4x4x12 UNI-6604 A	23
33	00000042	SCHNOR WASHER Ø8	4
34	00000041	SCHNOR WASHER M6	8
35	00000037	WASHER PS Ø12X18X1	22



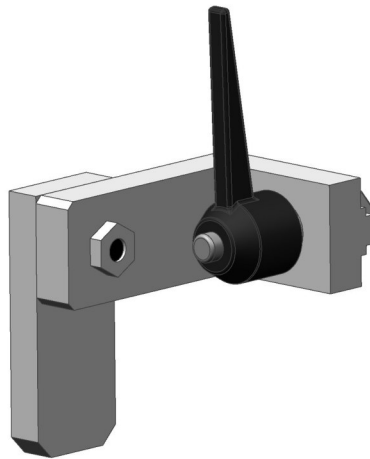
* = the FRONT HEAD GROUP and the REAR HEAD GROUP differs for the HEAD COVER only:
 FRONT HEAD GROUP - part code number 36405700 named HEAD COVER 23 x 46 FRONT HEAD
 REAR HEAD GROUP - part code number 36405701 named HEAD COVER 23 x 46 REAR HEAD



26401800
LONG FENCE GROUP

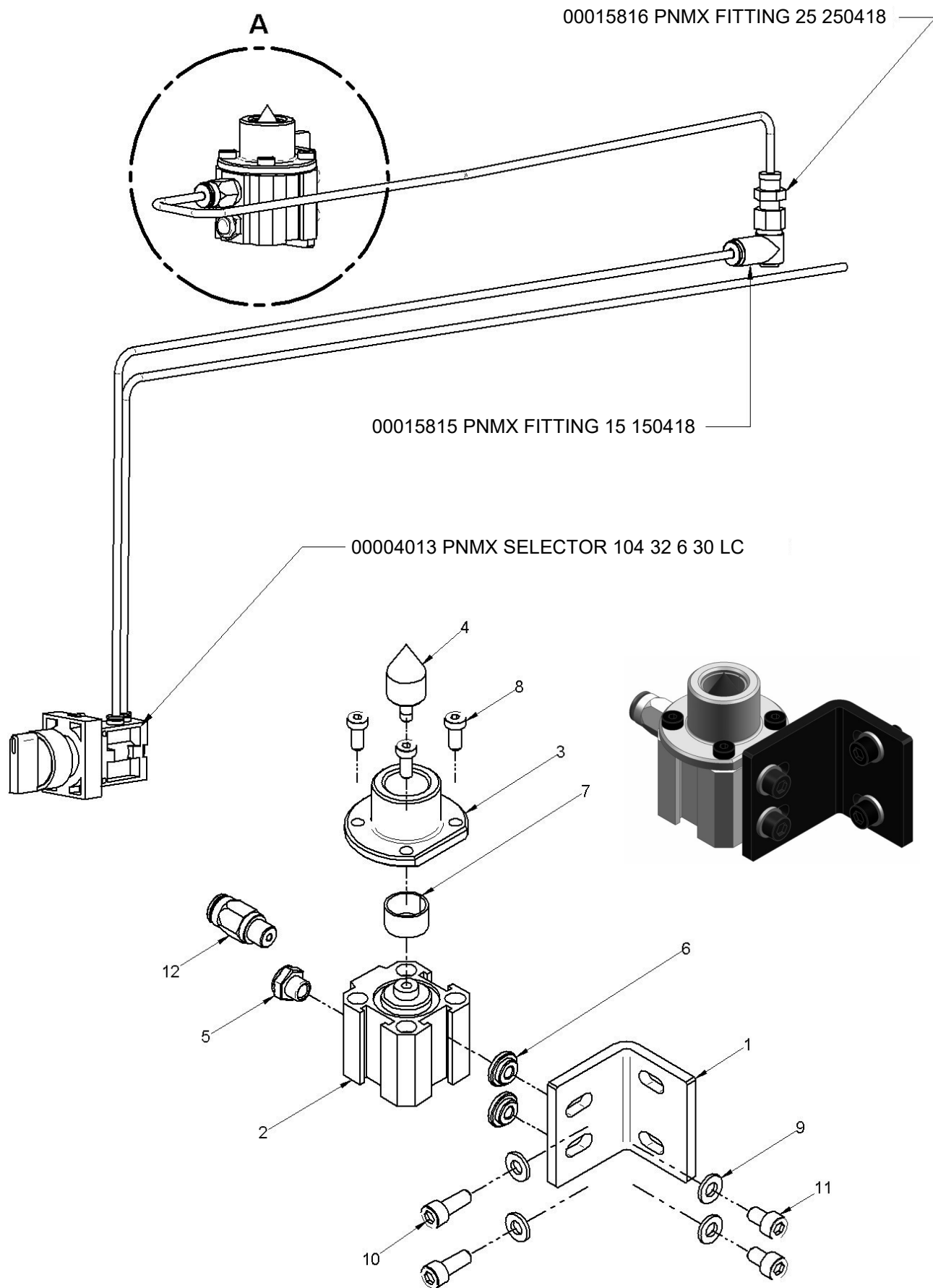


POS.	CODE	PART NAME	QUANTITY
1	49970077	LARGE SCREW ANCHOR	4
2	46050806	LH MILLIMETERS SCALE FOR EXTENSION FENCE	2
3	46050805	RH MILLIMETERS SCALE FOR EXTENSION FENCE	2
4	36401808	FRAME SPACER	2
5	36401807	CLAMP FOR EXTENSION FENCE	8
6	36401806	EXTENSION FRAME FOR DOUBLE	3
7	36401805	EXTENSION FENCE ATTACHMENT	2
8	26400606	MOVABLE STOP UNIT	4
9	00140602	SCREW STEI M6X8 P.P. UNI-5923	8
10	00060803	SCREW TCEI M10X20 UNI-5931 BRUN.	2
11	00018522	PLAIN WASHER Ø10 UNI-6592 ZINC.	2
12	00018521	PLAIN WASHER Ø8 UNI-6592 ZINC.	4
13	00018377	SCREW TCEI M8X40 UNI-5931 ZINC.	4
14	00003931	RELEASE LEVER M6x12	2
	00008905	RIVET	16



26400606 MOVABLE STOP UNIT

26401900 / 26401901
FRONT REFERENCE PIN UNIT / REAR REFERENCE PIN UNIT
(OPTIONAL)



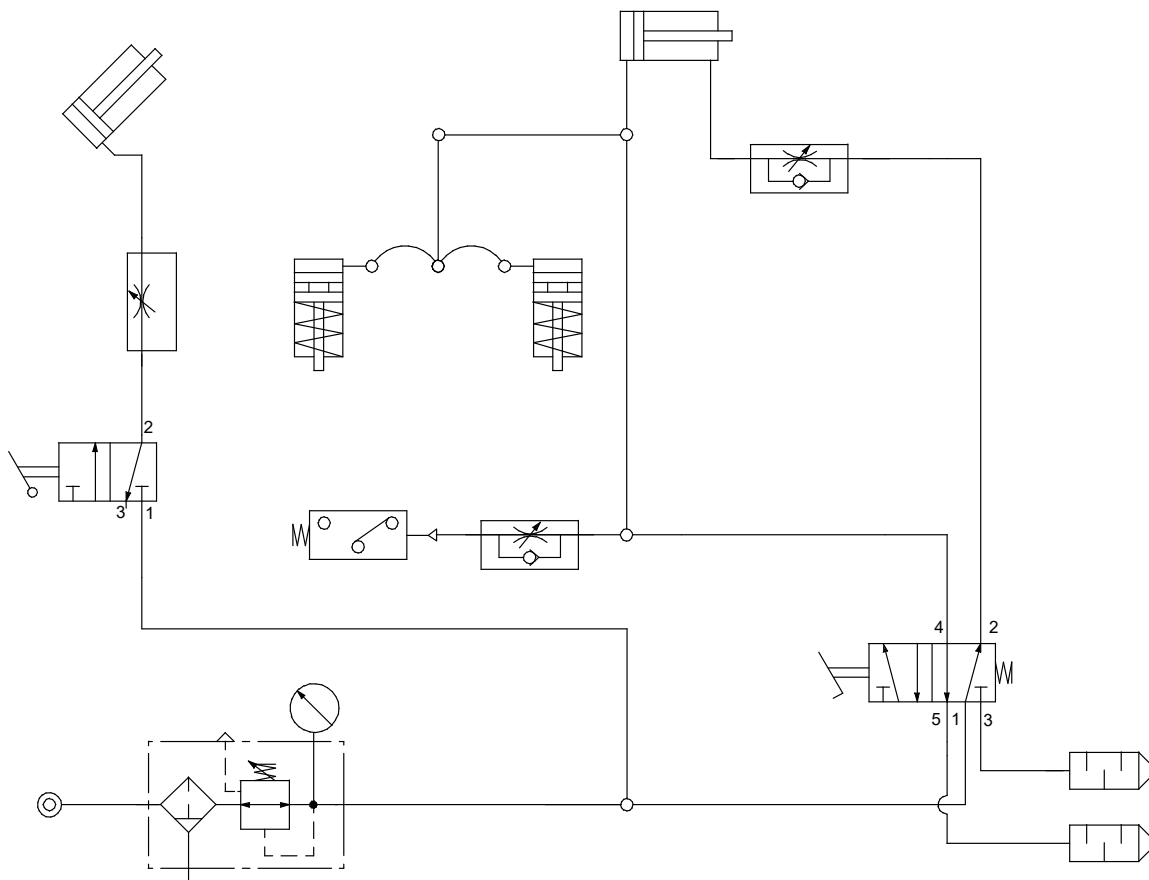
DETAIL A (Reference Pin)

**FRONT REFERENCE PIN UNIT / REAR REFERENCE PIN UNIT
(OPTIONAL)**

POS.	CODE	PART NAME	QUANTITY
1	36401906	REFERENCE PIN ASQUARE	1
2	00004041	PMX CYLINDER COD1503-25-10	1
3	36401905	SUPPORT	1
4	00002070	REFERENCE PIN	1
5	00001109	PNMX SILENCER 1 8 COD.60518	1
6	00002070	CLAMP	2
7	00006081	BEARING PAP 1610P10	1
8	00018297	SCREW VTCEI M5X12 UNI-5931	4
9	00018520	WASHER Ø6 UNI-6592	4
10	00018325	SCREW VTCEI M6X16 UNI-5931	2
11	00018302	SCREW VTCEI M6X10 UNI-5931	2
12	00001155	PNMX FITTING 01-4-1 8	1
--	00001123	RILSAN PIPE Ø 8	2,5 Meters

PNEUMATIC SYSTEM

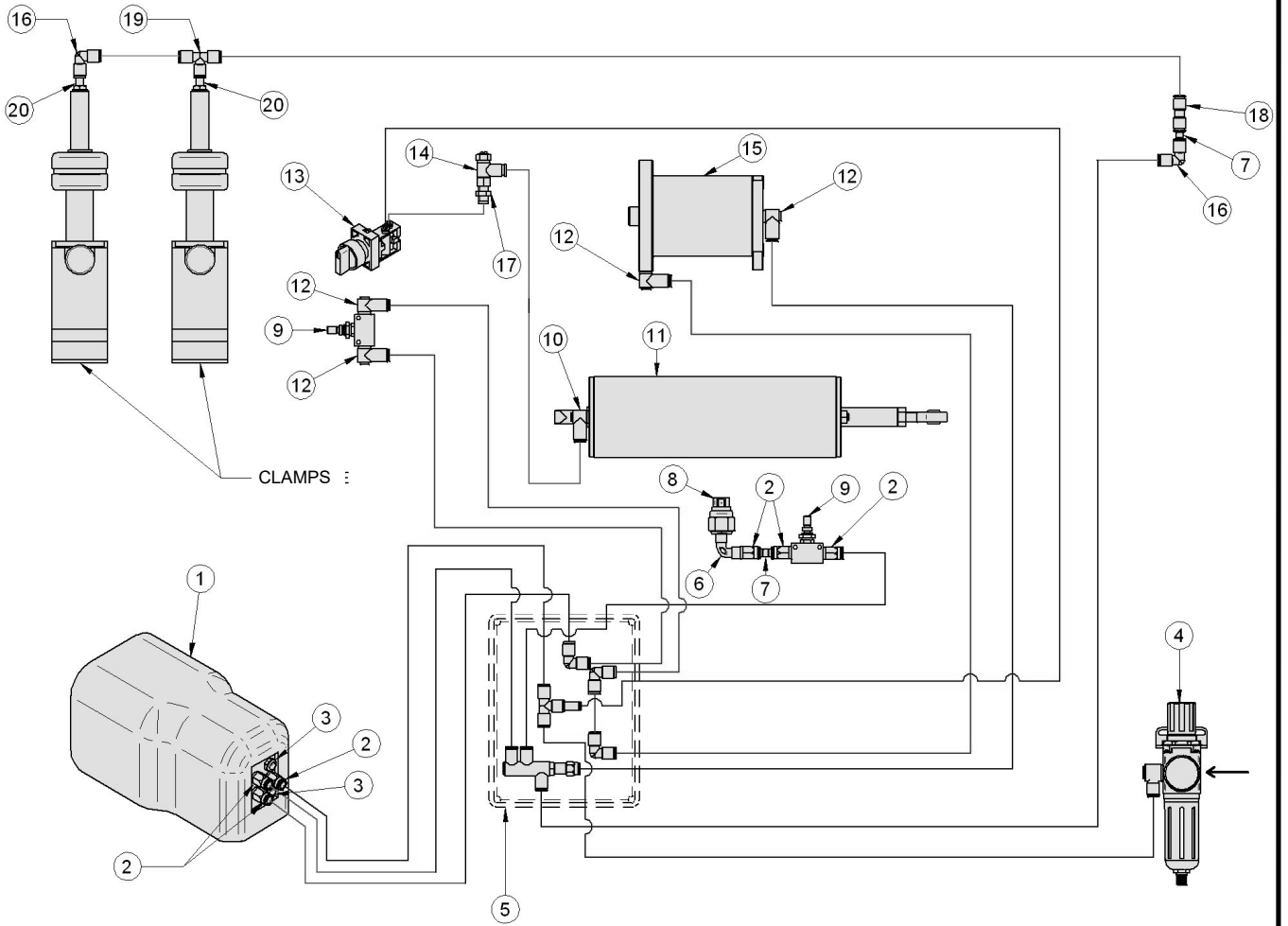
SHEET 12



SIMBOLO/SIMBOL	DESCRIZIONE/DESCRIPTION
	FILTRO RIDUTTORE FILTER PRESSURE REGULATOR G1/4 20U 0-8 BAR
	MANOMETRO PRESSURE GAUGE G1/8 Ø40
	PRESSOSTATO 250V PRESSURE SWITCH PME 10A G1/8 T4 48V
	PEDALE CON PROTEZIONE MOLLA PEDAL PROTECTION SPRING G1/8
	SILENZIATORE SILENCER G1/8
	REGOLATORE DI FLUSSO UNIDIREZIONALE FLOW CONTROL VALVE UNIDIRECTIONAL G1/8
	CILINDRO A DOPPIO EFFETTO STELO SEMPLICE CYLINDER DOUBLE ACTING VERSION, SIMPLE PISTON ROD G1/8 CODICE/CODE MAGGI ENG. 00015415
	CILINDRO A SEMPLICE EFFETTO RITORNO A MOLLA CYLINDER SINGLE ACTING VERSION WITH FRONT SPRING G1/4
	SELETTORE LEVA CORTA 3 VIE NORMALMENTE CHIUSO SWITCH SHORT LEVER 3 WAYS NORM. CLOSED Ø4
	CILINDRO A SEMPLICE EFFETTO STELO SEMPLICE CYLINDER SINGLE ACTING VERSION, SIMPLE PISTON ROD G1/8 CODICE/CODE MAGGI ENG. 00015400
	REGOLATORE DI FLUSSO BIDIREZIONALE FLOW CONTROL VALVE BIDIRECTIONAL G1/8

PNEUMATIC SYSTEM

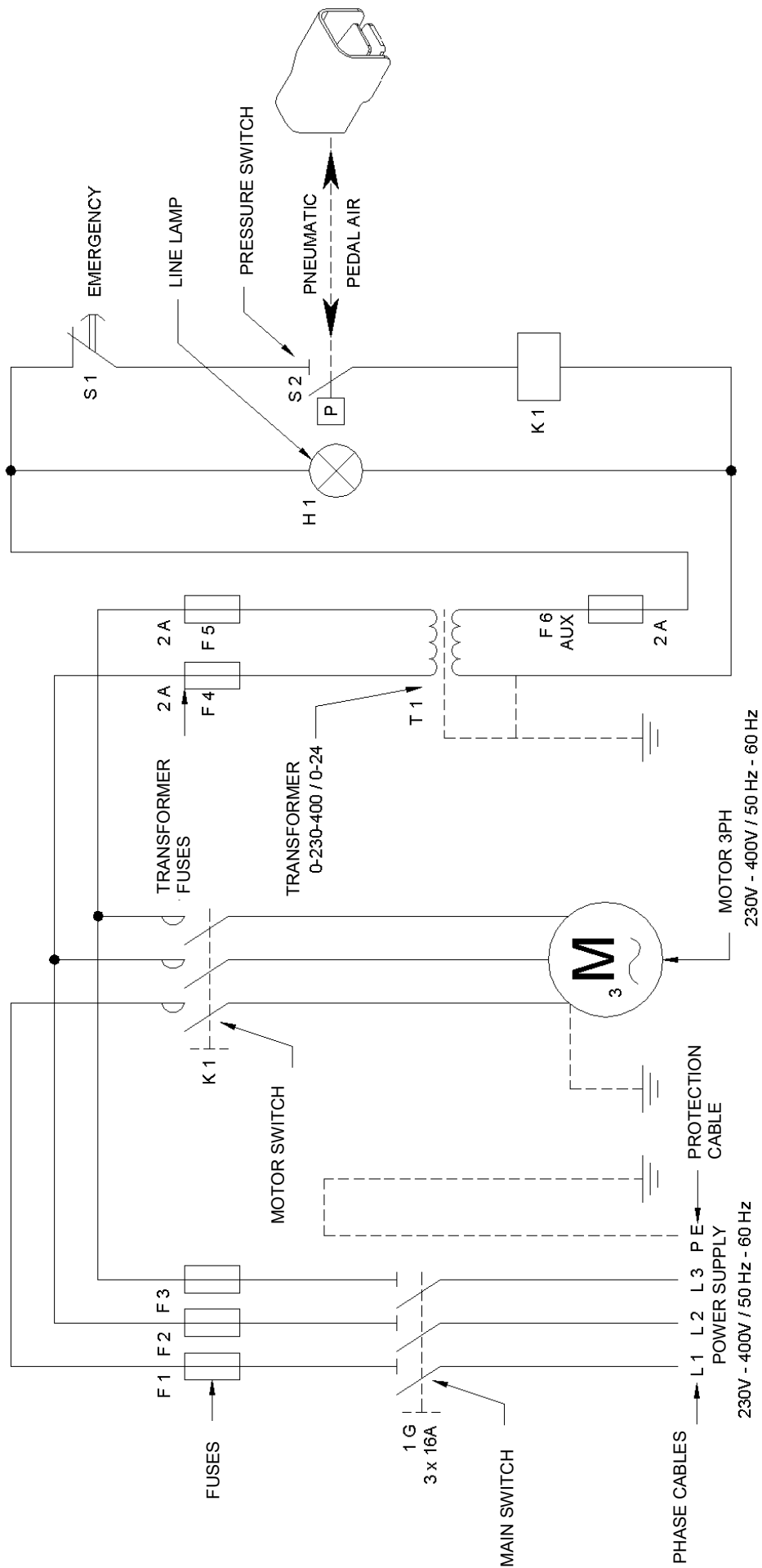
SHEET 13



POS.	CODE	PART NAME	QUANTITY
1	00015220	PNEUMATIC PEDAL	1
2	00001101	PNMX FITTING ART.01-8-1_8	6
3	00001109	PNMX SILENCER 6.05.18	2
4	00015825	REDUCTION FILTER WITH PRESSURE GAUGE	1
5	26054900	PNEUMATIC BOX	1
6	00015652	PNMX FITTING ART 109 COD 10918	1
7	00001104	EXTENSION ART. 07-8	2
8	00015221	PRESSURE SWITCH 1_8 CODEPMN10A	1
9	00015229	PNMX FLOW CONTROL G 1/8 CODE 60118NE	2
10	00015815	PNMX SWIVEL UNION 15 150418	1
11	00015400	OVERTURNING CYLINDER	1
12	00001105	PNMX FITTING ART.015-8-1_8	4
13	00004013	PNMX SELECTOR 104 32 6 30 LC	1
14	00015814	PNMX FLOW CONTROL 30 300418	1
15	00015415	FEED CYLINDER	1
16	00001110	PNMX FITTING L -ART-04-8	2
17	00015816	PNMX WALL UNION 25 250418	1
18	00004070	PNMX FITTING T030800	1
19	00001102	PNMX FITTING R5_8_T	1
20	00001250	UNION_ART_06_8_1-4_CYL	2

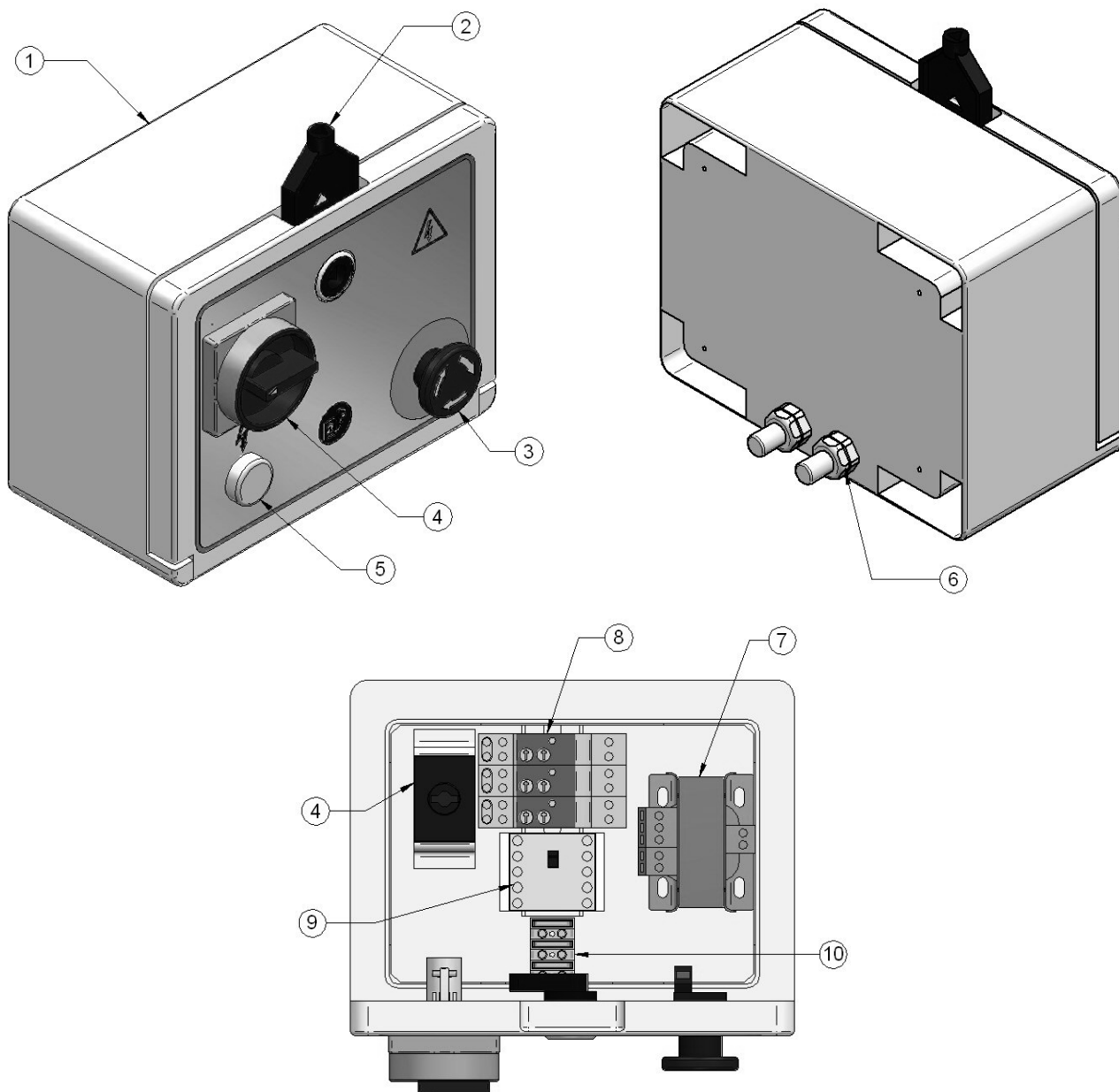
ELECTRIC SYSTEM

SHEET 14



ELECTRIC SYSTEM

SHEET 15



POS.	SYMBOL	CODE	PART NAME	QUANTITY
1	-	00005900	ELECTRICAL BOX GEWISS IP56 200X255X130	1
2	-	00006900	ELECTRICAL BOX KEY GEWISS (46522)	1
3	S1	00005070	EMERGENCY PUSH BUTTON	1
4	I6	00005091	COMPLETE MAIN SWITCH	1
5	H1	00005075	LAMP HOLDER	1
		00005076	LAMP 24V AC 2W	1
6	-	#	CABLE GLAND PG 13,5	2
7	T1	00005034	TRANSF. VA30 0-230-400-415-440 0-24	1
8	F1-F2-F3	00005077	TRIPOLAR FUSE HOLDER 10X38 32A	1
		00005078	FUSE 10X38 16A	3
9	K1	00005029	CONTACTOR 24V 50-60HZ	1
10	F4-F5-F6	00005079	FUSE HOLDER 5X20	3
		00005074	FUSE 5X20 2A	3



26. SPARE PARTS REQUEST

ATTENTION! FILL IN DETAILS THIS FORM

Customer

.....

Address

.....

.....

Date

Telephone number

.....

Telefax

.....

MACHINE TYPE	SERIAL NUMBER	DELIVERY DATE	
GROUP CODE	CODE	PART NAME	QUANTITY

NOTE

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N.B.: Please attach a copy of each table where the requested part is.



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