CORGHI

CE

HD 900

Codice 4-141386 - 02/2021

English Operator's manual 60

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TRANSLATION OF ORIGINAL INSTRUCTIONS (ITALIAN)

The included information may be changed without notice.

Thank you for choosing our Tyre Changer

HD 900

Dear Customer,
Your Tyre Changer has been designed to provide years of safe and reliable service, as long as it is used and maintained in accordance with the instructions provided in this manual. Anyone using and/or carrying out maintenance on this Tyre Changer must read, understand and follow all warnings and instructions provided in this manual, and be properly trained. This Instruction Manual should be considered an integral part of your Tyre Changer and should remain with the Tyre Changer. However, nothing in this manual, and none of the devices installed on the Tyre Changer, can replace proper training, correct operation, careful evaluation of procedures and safe working practices.
Always be sure that your Tyre Changer is in excellent working order. In case any malfunction or possible dangerous situation are observed, immediately shut down the Tyre Changer and resolve the situation before you proceed.
For any question related to the correct tyre changer use or maintenance, contact your local official dealer.

USER INFORMATION

Name
User_____

Address
User_____

Number
of the model _____

Serial
number_____

Date of
purchase_____

Date of
installation _____

Spare parts and service
manager _____

Telephone
number_____

Sales
manager _____

Telephone
number_____

TRAINING CHECK

	Qualified	Rejected
Safety measures		
Warning and caution labels	☐	☐
High risk areas and other potential hazards	☐	☐
Operative safety procedures	☐	☐
Do not inflate tyres on the tyre changer	☐	☐
Maintenance and performance checks		
Moving part assembly inspection	☐	☐
Oil level check	☐	☐
Periodical lubrication	☐	☐
Clamping		
Steel / aluminium wheels	☐	☐
Difficult wheels (side ring)	☐	☐
Different types of rims	☐	☐
Use of extensions	☐	☐
Use of protections for aluminium rims (optional)	☐	☐
Bead breaking		
Standard Wheels	☐	☐
Difficult wheels (side ring)	☐	☐
Bead lubrication during bead breaking	☐	☐
Demounting		
Standard Wheels	☐	☐
Difficult wheels (side ring)	☐	☐
Bead lubrication during demounting phase	☐	☐
Mounting		
Standard Wheels	☐	☐
Difficult wheels (side ring)	☐	☐
Bead lubrication during mounting phase	☐	☐
Accessories		
Instructions for using accessories correctly	☐	☐

EN

Personnel and training dates

Contents

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INTRODUCTION

The purpose of this manual is to provide the instructions necessary for optimum operation, use and maintenance of your machine. If you sell this machine, please deliver this manual to the new owner. In addition, in order to provide the customers with any necessary safety information, please ask the new owner to complete and return to the manufacturer the ownership transfer form attached to the previous page of this manual. Alternately, the new owner can send an email to service@CORGHI.com.
This manual presumes that the technicians have a thorough understanding of rims and tyre identification and maintenance. He/she must also have a thorough knowledge of the operation and safety features of all associated tools (such as the rack, lift, or floor jack) being utilized, and have the proper hand and power tools necessary to work in a safe manner.
The first section contains basic information for the safe operation of the HD900 range of tyre changers. The following sections of this manual contain detailed information regarding equipment, procedures and maintenance. Italics are used to refer to specific parts of this manual that offer additional information or clarifications.
These references must be read in order to obtain information additional to the instructions provided.
The owner of the tyre changer is the only person responsible for the observance of the safety procedures and the organisation of technical training. The tyre changer must only be used by qualified, specifically trained technicians. The owner or management is exclusively responsible for storing the documentation relative to qualified personnel.
The HD900 range of tyre changers has been designed and built to demount and mount truck, agricultural tractor and operating machinery tyres.
The tyre changer can work with tyre sizes from 14" to 46", up to a maximum wheel diameter of 2300 mm.
Additional copies of this manual and the documentation enclosed with the machine can be requested from the manufacturer, specifying the machine type and serial number.
CAUTION: Design details are subject to change. Some illustrations may vary slightly in appearance from the machine you have.

FOR YOUR SAFETY

Outlined below are the definitions of the levels of danger associated with the use of the equipment, and the warning captions used in this manual.

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DANGER: Imminent hazards leading to severe injury or death.

CAUTION

CAUTION: **It indicates a potentially dangerous situation that, if not avoided, could lead to serious injury or death.**

WARNING: Hazards or unsafe procedures that may lead to minor injury or property damage.

WARNING

WARNING: **It indicates a potentially dangerous situation that, if not avoided, could cause slight or mild injuries.**

CAUTION: Adhere to the instructions and indications provided in this manual. The manufacturer declines all liability in the event the equipment is used for purposes other than those expressly described in this manual.

CAUTION

CAUTION: **Used without the safety hazard symbol indicates a potential situation of hazard that, if not avoided, could cause material damage.**

NOTE

Read these instructions carefully before operating the equipment. Keep this manual and the illustrated materials supplied with the equipment in a folder near the place of operation so as to allow the machine operators to consult the documentation at any time.

The technical documentation supplied is considered as an integral part of the equipment and should remain with it if the equipment is re-sold.

The manual only applies to the equipment identified by the model and serial number indicated on the nameplate applied to it.

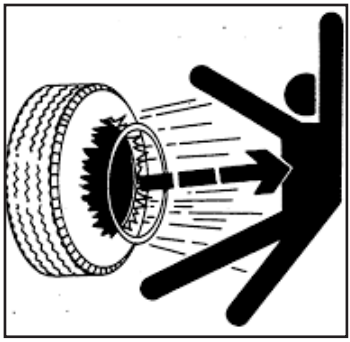
Some of the illustrations in this manual have been obtained from photographs of prototypes: standard equipment may differ in some details.

These instructions are for the attention of personnel with a certain level of mechanical skills. We have therefore skipped the description of some operations such as, how to loosen or tighten the fixing devices on the machine. Never carry out operations which exceed your operational skills, or with which you have no prior experience. If you need assistance, contact an authorised service centre.

GENERAL WARNINGS AND INSTRUCTIONS

CAUTION

Proceed with caution to prevent any injuries. Carefully read, understand and follow the warnings and instructions given in this manual. This manual is an integral part of the product. For future reference, store it together with the machine in a safe place.



1. Accidents could occur if the maintenance procedures described in this manual are not executed correctly, or if the other instructions it contains are not observed. This manual makes continuous reference to the possibility that accidents can occur. Any accident could lead to serious or fatal injuries to the operator or people nearby, or cause material damage.
2. Never attempt to mount tyres and rims that do not correspond. It is very dangerous. Tyres and rims that do not correspond could explode and cause accidents.
3. Only the bead insertion operation is allowed on the tyre changer, without exceeding a pressure of 0.5 bar.
4. To inflate the tyre, remove it from the tyre changer and place it in the inflation cage
5. It is not permitted to use inflation devices (e.g. gun) connected to the tyre changer through power sources outside the machine.
6. Never bring your head or other body parts close to a tyre during bead insertion operation. This machine is not a safety device against the possible risk of explosion of tyres, air chambers or rims.
7. Maintain a safe distance from the tyre changer during bead insertion operation. Do not approach it.

DANGER

A bursting tyre can cause projections of its parts in surrounding areas with a force sufficient to cause serious injury or death.

Do not mount a tyre if its dimensions (indicated on the side) do not correspond exactly to the rim dimensions (printed inside the rim) or if the rim or the tyre is defective or damaged.

The tyre changer is not a safety device and does not prevent tyres and rims from exploding. Keep all persons not working on the machine out of the working area.

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8. Risk of crushing. Presence of moving parts. Contact with moving parts can cause accidents.

   • The machine can only be used by one operator at a time.
   • Keep bystanders away from the tyre changer.
   • Keep your hands and fingers away from the rim edge during the demounting and mounting process.
   • Keep your hands and fingers away from the mounting tool during operation.
   • Keep your hands and fingers away from the bead breaker disc during operation.
   • Keep your hands and other body parts away from moving parts.
   • Do not use tools other than those supplied with the tyre changer and always use the manufacturer's original accessories.
   • Use lubricant that is specific for tyres in order to prevent tyre seizure.
   • Pay attention while handling the rim or the tyre and while using the lever
9. Danger of electric shock.

   • Do not clean electric parts with water or high pressure air jets.
   • Do not operate the machine in the presence of a damaged electrical cable.
   • If an extension is necessary, use a cable with rated features equal to or greater than those of the machine. Cables with rated features that are lower than those of the machine could overheat and cause a fire.
   • Make sure that the cable is positioned so that it cannot be pulled and the risk of tripping is avoided.
10. Risk of eye injuries. During the bead insertion and inflation phase, debris, dust and fluids could be projected into the air. Remove any debris present on the tyre tread and on the tyre surface. Wear protective goggles with OSHA, CE approval or other certified devices during all work phases.

11. Always carefully inspect the machine before using it. Missing, damaged or worn equipment (including the hazard adhesive labels) must be repaired or replaced before start-up.
12. Never leave nuts, bolts, tools or other materials on the machine. They could be entangled in moving parts and cause malfunctions or be ejected.
13. Do NOT mount or inflate tyres that are cut, damaged, decayed or worn. Do NOT mount tyres on damaged, bent, rusted, worn, warped or deformed rims.
14. Should the tyre get damaged during the mounting phase, do not try to complete the mounting operation. Remove it, take it away from the service area and mark it as damaged.
15. The internal parts in this equipment could create contacts or sparks if exposed to flammable vapours (petrol, paint thinners, solvents, etc.). Do not install the machine in a narrow area or position it below floor level.
16. Do not operate the machine while under the influence of alcohol, medicines and/or drugs. If you are taking prescription or non-prescription medicines, contact a physician to be aware of the side effects that they might have on the ability to operate the machine safely.

17. Always use OSHA, CE approved and authorised personal protective equipment (PPE) or equipment with equivalent certification while operating the machine. Consult your supervisor for additional instructions.
18. Do not wear jewellery, watches, loose clothing, ties and tie up long hair before using the machine.
19. Wear protective, non-slip footwear while using the tyre changer.
20. While positioning, lifting or removing wheels from the tyre changer, wear an appropriate back support and use a correct lifting technique.
21. Only appropriately trained personnel can use, service and repair the machine. Repairs must only be performed by qualified personnel. Manufacturer technicians are the most qualified individuals. The employer must determine if an employee is qualified to carry out any machine repair safely if the operator has attempted to make the repair.
22. Before starting the machine, the operator must pay close attention to the warnings of the adhesive labels affixed to the equipment.

LABEL POSITIONING

No.	Code	Adhesive	Description
1	4-406159	GEAR OIL ISO VG 320	GEAR OIL ISO VG 320 LABEL
2	4-113651	⚠ I ATTENZIONE: INGRASSARE E LUBRIFICARE PERIODICAMENTE GB ATTENTION: GREASE AND LUBRICATE PERIODICALLY F AVERTISSEMENT: GRAISSER ET LUBRIFIER PERIODIQUEMENT D WARNUNG: REGELMASSIG EINFETTEN UND SCHMIEREN E ADVERTENCIA: ENGRASAR Y LUBRICAR PERIODICAMENTE P AVISO: APLICAR GRAXA E LUBRIFICAR PERIODICAMENTE	LUBRICATION LABEL
3	4-407331A	HD 900	VERTICAL HD 900 LABEL
4	421502		TURNTABLE ROTATION DIRECTION
5	425083B		GROUND POINT LABEL

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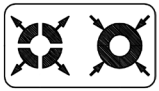
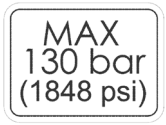
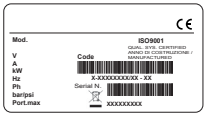
No.	Code	Adhesive	Description
6	425011A		HIGH VOLTAGE HAZARD LABEL
7	4-327360		ISO VG 32 OIL VISCOSITY LABEL
8	446388C		V-HZ-PH PLATE
9	461236		CORGHI LOGO LABEL
10	446505		SELF-CENTRING ARM WARNING LABEL
11	446504		TOOL ARM WARNING LABEL
12	4-401298		ARROW LABEL
13	445834		RIGHT/LEFT AND UP/DOWN TRANSFER

No.	Code	Adhesive	Description
14	444848		TURNTABLE OPENING/ CLOSING
15	446506		WORK WARNING LABEL
16	3008885		MAX 130 BAR LABEL (1848 PSI)
17	446598		WARNING DISCONNECT MACHINE LABEL
18	-		SERIAL NUMBER PLATE

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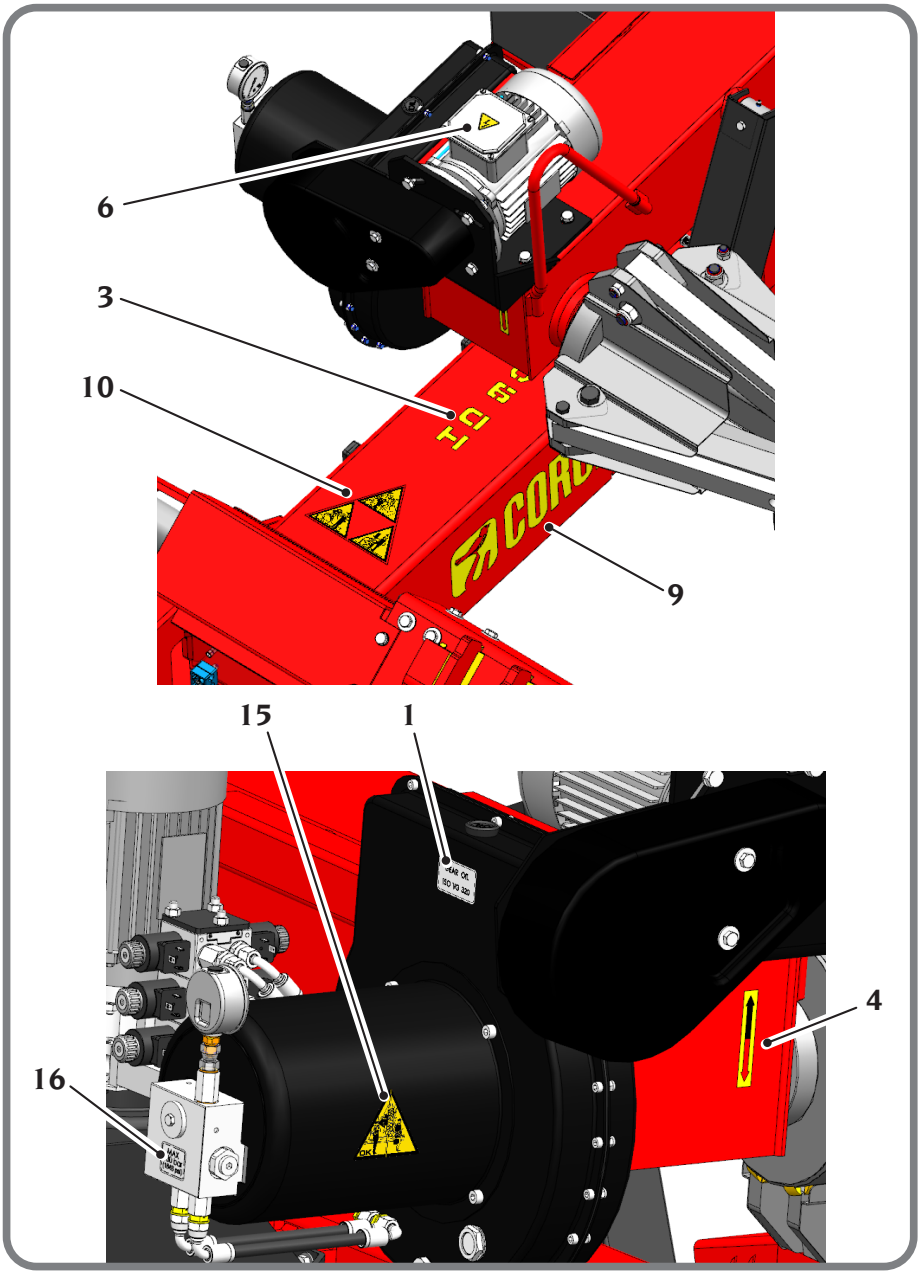
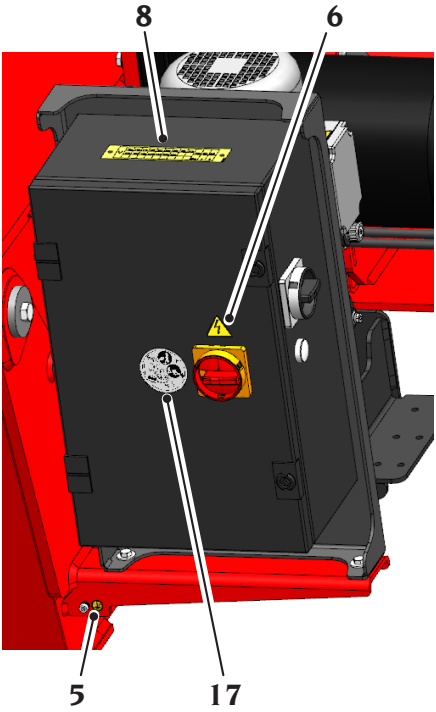
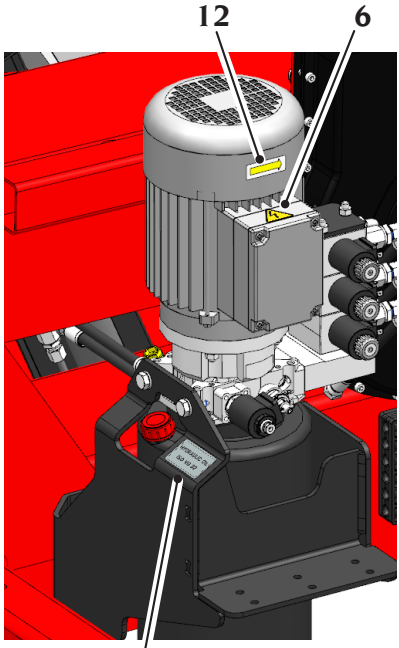
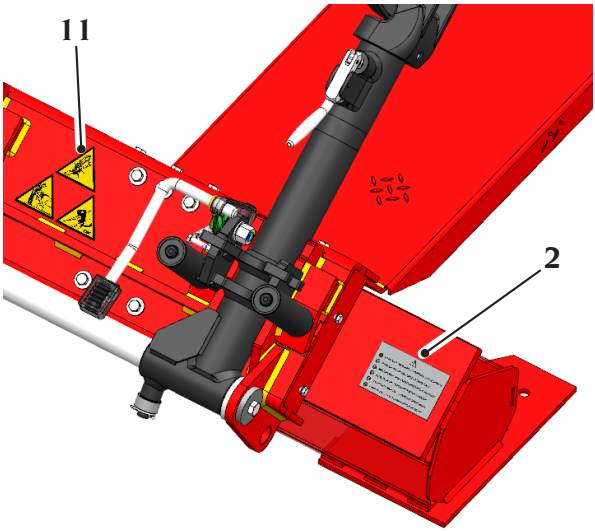
MACHINE WITH INDICATION OF POSITION AND LABEL TYPE HAZARD LABELS KEY









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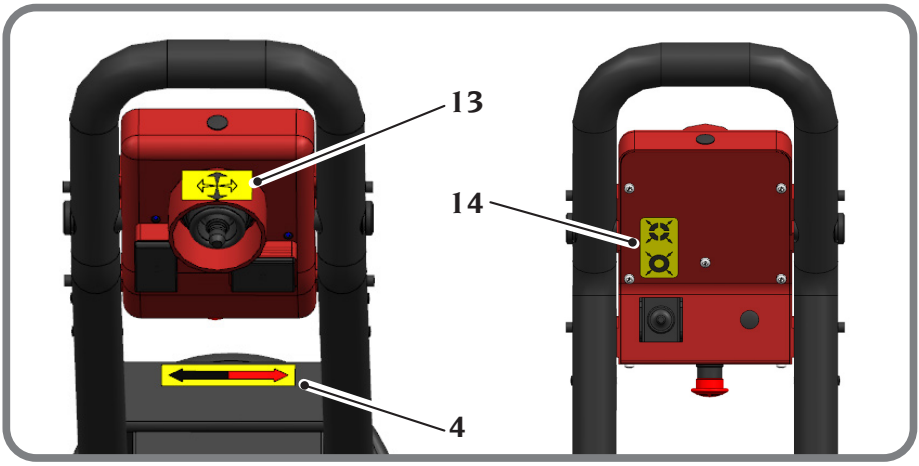

DANGER LABELS LEGEND

code 446505.
Crushing hazard for hands, arms when opening and closing the self-centring spindle.
Crushing hazard for feet and legs during spindle descent.
Crushing hazard between tool unit and self-centring spindle.

code 425211A.
Risk of electrocution.

code 446506.
Generic hazard: do not approach the machine during work intervals.

code 446504.
Impact and crushing hazard due to tool unit overturning.
Generic hazard: before working, check the correct coupling of the ratchets.
Hand crushing hazard when replacing the tool unit.

code 425083.
Earth ground terminal.

ELECTRICAL CONNECTION

The HD 900 must be powered with three-phase current plus ground system. The power supply voltage must be specified in the purchase order.

⚠ CAUTION

All operations required for the electrical connection of the machine to the power supply must be carried out exclusively by qualified personnel.

- Electrical wiring must be sized according to:
• Current draw of the equipment as specified on the rating plate.
• Distance from equipment to power mains connection, so that voltage drops under full load do not exceed 4% (10% during start-up) below the rated voltage specified on the rating plate.
- The user must:
• a dedicated power plug in compliance with the relevant electrical safety standards;
• connect the machine to its own electrical connection fitted with a suitable 30-mA current sensitive circuit breaker;
• fit the protection fuses on the power supply line, suitably sized according to the specifications indicated on the main wiring diagram contained in this manual;
• provide the electrical system of the workshop with a protective earth circuit in good working order.
- To avoid the machine being used by unauthorised personnel, it is recommended to disconnect the power supply plug when the machine is not used (switched off) for long periods.
- If the equipment is hard-wired to the main electrical panel (without using a plug), provide for a key switch or a padlockable switch to restrict use of the equipment to authorised personnel only.

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⚠ CAUTION

A good earth connection is essential for correct operation of the machine. NEVER connect the machine ground wire to the gas pipe, water pipe, telephone cable or other unsuitable objects.

TECHNICAL DATA

Overall dimensions:

- Maximum width ..... 2040 mm
- Maximum length ..... 2500 mm
- Maximum height ..... 1500 mm

Wheel size range:

- Rim dimensions ..... da 14" a 46" (56" with PA)
- Maximum wheel diameter ..... 2300 mm
- Maximum wheel weight ..... 1000 kg
- Maximum wheel width ..... 1065 mm

Bead breaker:

- Bead breaking force ..... 25000 N

- Machine weight ..... 782 kg
- Control lever weight ..... 9 kg
- Oil tank capacity ..... 8 l
- Hydraulic oil ..... ISO VG 32

Noise level:

- A-weighted sound pressure level (LpA) at the working position ..... < 70 dB (A)

The noise values indicated are emission levels and do not necessarily represent safe operating levels. Although emission levels and exposure levels are connected, this relation cannot be used as a safe parameter to determine whether or not further precautions are necessary. The noise level to which the operator is exposed to depends on a number of factors, such as duration of exposure, characteristics of the workplace, other sources of noise etc. Permissible noise exposure levels may also vary from country to country. In all cases, this information will enable machine users to better assess the danger and risks involved.

ADDITIONAL RIM/TYRE INFORMATION

CAUTION

Wheels equipped with pressure sensors and special rims or tyres could require particular work procedures. Consult wheels and tyre manufacturer's service manuals.

INTENDED MACHINE USE

This machine must only be used to demount and mount vehicle tyres from/on the rims, using the provided tools. Any other use is improper and may result in injury.
The machine is not designed for working with motorcycle wheels.

PERSONNEL TRAINING

1. Employers are responsible for providing a training program for all employees who work on the wheels concerning the hazards deriving from maintenance and the safety procedures to be observed. Service or maintenance refer to mounting and demounting wheels and all the correlated activities, such as deflation, installation, removal and handling.
- Employers are required to make sure that operators do not work on the wheels unless they have received suitable training regarding the correct maintenance procedures for the type of wheel being serviced and the operative safety procedures.
- Information to be used for the training program includes, as a minimum, the information contained in this manual.

2. Employers are required to make sure that every employee demonstrates and maintains the ability to work on the wheels safely, including the performance of the following activities:
- Demounting of tyres (including deflation).
- Inspection and identification of the rim wheel components.
- Tyre mounting.
- Use of any restraint device, cage, barrier, or other systems.
- Handling of wheels with rims.
- Tyre inflation inside inflation cages
- Wheel installation and removal.

3. Employers must evaluate the ability of their employees to carry out these tasks and work on the wheels in absolute safety and must provide additional training as required to make sure that all employees maintain their skills.

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PRELIMINARY CHECKS

Before starting to work, carefully check that all machine components, particularly rubber or plastic parts, are in place, in good condition and operate correctly. If the inspection reveals any damage or excessive wear, no matter how slight, immediately replace or repair the component.

DURING USE

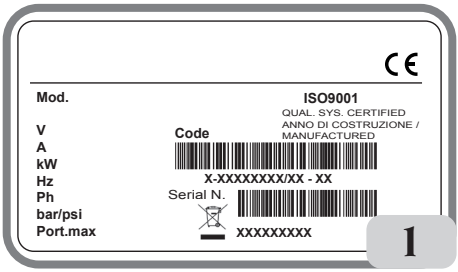
If strange or unusual noises are heard or any unusual vibration is detected, if a component or system is not operating correctly or if you observe anything unusual, immediately stop using the machine.

• Identify the cause and implement all the necessary corrective measures.
• Contact your supervisor if necessary.

Make sure that all other people are standing at least 6 metres (20 feet) from the machine.
To switch off the machine in case of emergency:
• disconnect the power supply plug;

Each machine carries a plate Fig. 1 reporting its identification data and some technical data.

As well as the manufacturer's details, it indicates:
Mod. - Machine model;
V - Power supply voltage in Volts;
A - Input voltage in Amperes;
kW - Absorbed power in kW;
Hz - Frequency in Hz;
Ph - Number of phases;
bar - Operating pressure in bar;
Serial No. - machine serial number;
ISO 9001 - company Quality System Certification;
CE - CE marking.

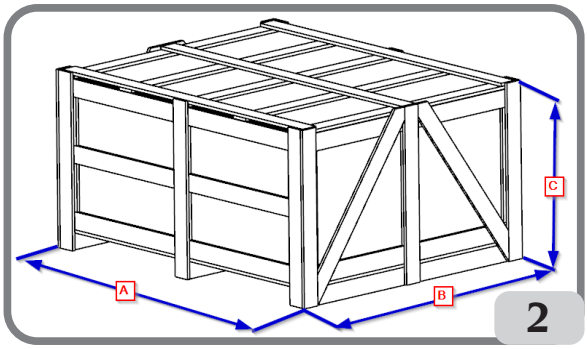


TRANSPORT, STORAGE AND HANDLING

Machine transport conditions

The tyre changer must be transported in its original packing and kept in the position indicated on the packing.

- Packaging dimensions (Fig. 2):
• width (B) ..... 1950 mm
• length (A).....2290 mm
• height (C).....1140 mm



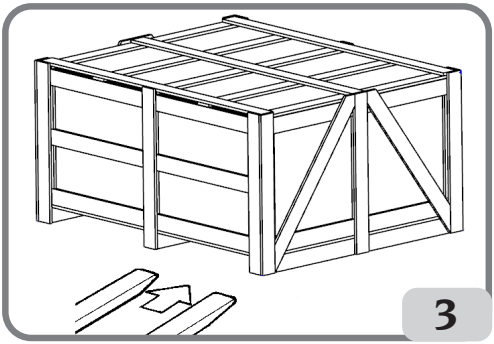
- Weight:
• HD 900 without packaging.....782 kg
• HD 900 with packaging.....912 kg

Ambient conditions for machine transport and storage
Temperature: -25° ÷ +55°C.

CAUTION

Do not stack other goods on top of the packing to avoid damaging it.

Handling
To move the packing, insert the forks of a forklift truck into the slots on the base of the packing itself (pallet) (Fig.3). Before moving the machine, refer to the LIFTING/HANDLING section.


3

CAUTION

Keep the packing material intact for possible future transport of the machine.

UNPACKING

Remove the upper part of the packaging and make sure the machine has not been damaged during transport.

ASSEMBLY/HANDLING

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⚠ CAUTION

Install the machine in compliance with all the applicable safety standards, including, but not limited to, those issued by OSHA.

⚠ CAUTION

Carry out carefully the assembly and handling operations described.
Failure to observe these recommendations may result in damage to the equipment and injury to operator.

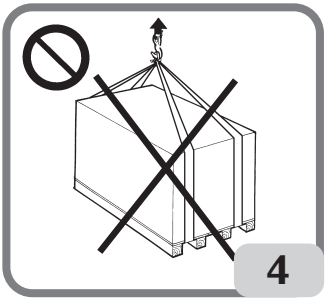
LIFTING/HANDLING

⚠ CAUTION

Before handling the machine, compare its barycentre and weight with the capacity of the lifter you have chosen.
To move the packaged machine, insert the forks of a fork-lift truck into the slots on the base of the packaging itself (pallet) (Fig. 3).

⚠ CAUTION

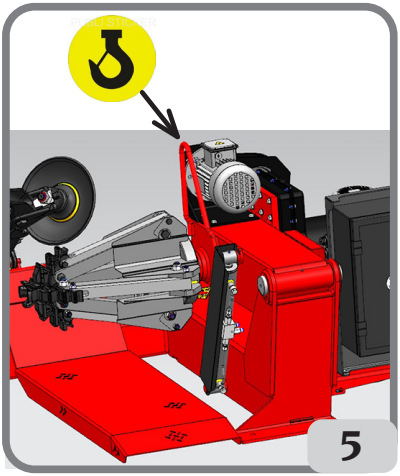
The packaged machine must not be lifted using a crane or hoist (Fig. 4).



4

⚠ CAUTION

To handle the unpacked machine:
- **fully lower the turntable arm**
- **move the tool arm inside, towards the turntable**
- **lift the machine with suitable lifting equipment using only the point indicated in fig. 5.**



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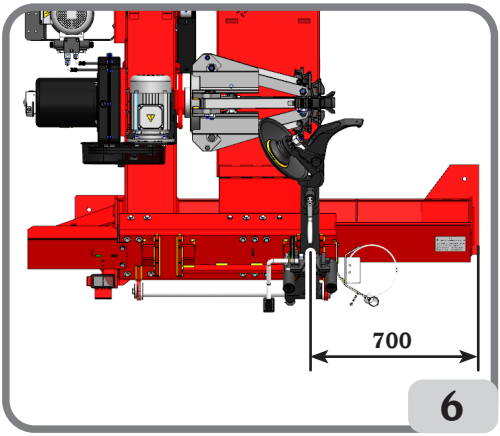
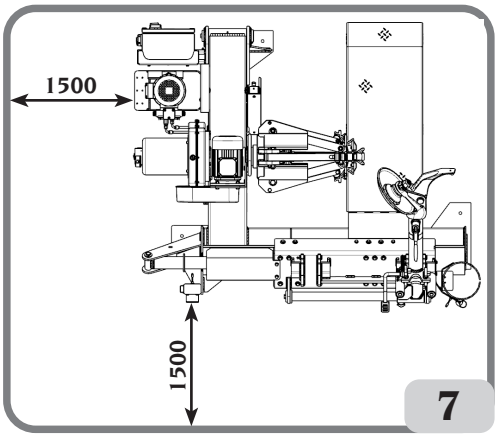
⚠ WARNING

It is strictly forbidden to use unsuitable holds on the various protruding parts of the structure.
For movements after installation, position the machine as indicated in fig.6 to ensure a correct load balancing.
If necessary, disconnect the electro-hydraulic control unit.



INSTALLATION AREA

The machine must be installed on a stable and rigid floor to prevent and avoid any structure deformation.
Position the machine in a manner that guarantees access to all four sides. In particular, check the minimum space required for the work indicated in Fig. 7:
- at the front for wheel loading and unloading;
- at the rear to be able to view the work being performed.



EN

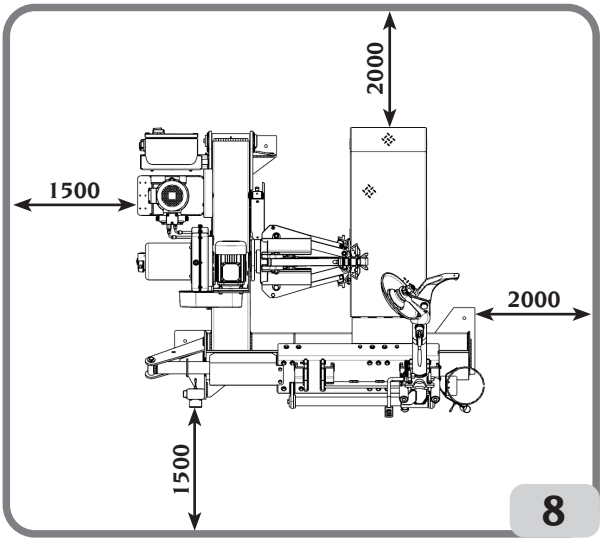
⚠ CAUTION

When choosing the installation spot it is necessary to respect the current regulations on safety at work.

⚠ CAUTION

If the machine is to be installed outdoors, it must be protected by a roof.

Install the tyre changer in the chosen work position, complying with the minimum clearances shown in **fig.8.**



Ambient working conditions

- Relative humidity 30% ÷ 95% without condensation.
- Temperature 0°C ÷ +55°C.

WARNING

IMPORTANT: for the correct and safe operation of the equipment, the ambient lighting level should be at least 300 lux.

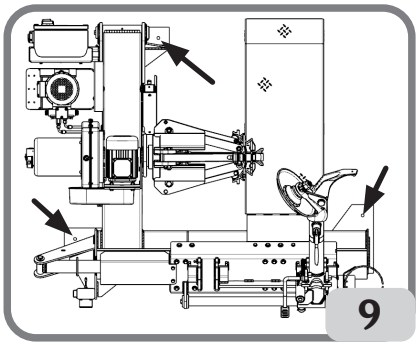
DANGER

RISK OF EXPLOSION OR FIRE. Do not use the machine in areas that could be exposed to inflammable vapours (petrol, paint solvents, etc.).

Do not install the machine in a narrow area or position it below floor level.

FIXING TO THE GROUND

If the machine is to be fixed to the ground, use M10 expansion plugs in the areas indicated in Fig. 9.



SAFETY REGULATIONS

The equipment is intended for professional use only.

⚠ WARNING

Do not operate the machine until you have read and understood all the danger/warning/caution notices in this manual.

⚠ CAUTION

Only one operator at a time can work with the machine.
Failure to observe these instructions and warnings can cause serious injuries to operators or any other person present.

⚠ CAUTION

The correct use of this machine requires a qualified and authorised operator. This operator must be able to understand the manufacturer's written instructions, be suitably trained and be familiar with the safety procedures and regulations. Operators must never use drugs or alcohol which could impair their physical and mental abilities.
The following conditions are essential under any circumstances:

- the operator must be able to read and understand the contents of this manual;
- have a thorough knowledge of the features and characteristics of the machine;
- keep unauthorised persons well clear of the working area;
- make sure that the machine has been installed in compliance with all relevant standards and regulations in force;
- make sure that all machine operators are suitably trained, that they are capable of using the machine correctly and safely and that they are adequately supervised during work;
- do not touch power lines or the inside of electric motors or any other electrical equipment before making sure that they have been powered off;
- read this booklet carefully and learn how to use the machine correctly and safely;
- always keep this user manual in a place where it can be readily consulted and do not fail to refer to it.

EN

⚠ CAUTION

During work and maintenance operations, always tie back long hair and do not wear loose clothing, ties, necklaces, wristwatches or any other items that may get caught up in the moving parts.

⚠ CAUTION

Do not remove or make the DANGER, CAUTION, WARNING or INSTRUCTION labels illegible. Replace any missing or illegible labels. If one or more labels have been detached or damaged, they can be replaced by your nearest manufacturer dealer.

- Observe the standardised industrial accident prevention regulations for high voltage and rotating machinery whenever the machine is in use or being serviced.
- The manufacturer shall not be liable for any damage or accident resulting from unauthorised alterations or changes to the machine. In particular, tampering or removing the safety devices is a breach of the regulations relating to Safety at work.

⚠ CAUTION

Keep unauthorised persons away from the working area (Fig. 8).

⚠ CAUTION

Before performing any service operations on the hydraulic system, set the machine to resting mode (Fig. 6) with the self-centring arm lowered and the turntable completely closed.

TYRE CHANGER DESCRIPTION

The HD 900 is an electro-hydraulically operated tyre changer, with exclusive technologies patented by the manufacturer.
It works on any type of integral wheels (drop centre and with a bead rim) with the maximum dimensions and weights indicated in the TECHNICAL DATA paragraph.
The machine is solidly constructed and has relatively reduced dimensions in comparison to its operative capacity. It holds the wheel in a vertical position and is activated by the operator by means of a special radio control.

SUPPLIED ACCESSORIES

- Rim clamp
  The locking clamp, when fixed firmly to the rim edge prior to mounting, makes it easier to lift the tyre, insert it into the rim channel and keep it in position.
- Side ring lever
  The side ring lever facilitates the removal of the side ring from its rim.
- Bead lifting lever
  The bead lifting lever allows removing the tyre from the rim

SPECIFIED CONDITIONS OF USE

The HD 900 tyre changer was designed exclusively for tyre mounting and demounting.

⚠ CAUTION

Any use other than those described in this manual is to be considered improper and unreasonable.

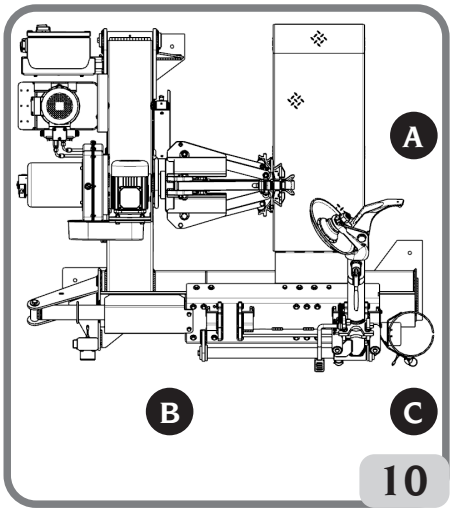
⚠ DANGER

The manufacturer does not intend the machine to be used for inflation operations. If the operator decides to proceed with partial bead insertion in the tyre on the machine using his/her own equipment, a pressure of 0.5 bar must NOT be exceeded (unless the tyre manufacturer does requires lower pressure levels). In any case, the standards applicable in the tyre changer country of use must be complied with.

⚠ CAUTION

When working, never use equipment and accessories not manufactured by the manufacturer.

The figure shows the safety distances and the positions used by the operator during the various work phases:
A Positioning the wheel on the turntable
B Inner bead breaking
C Outer bead breaking, demounting and mounting.



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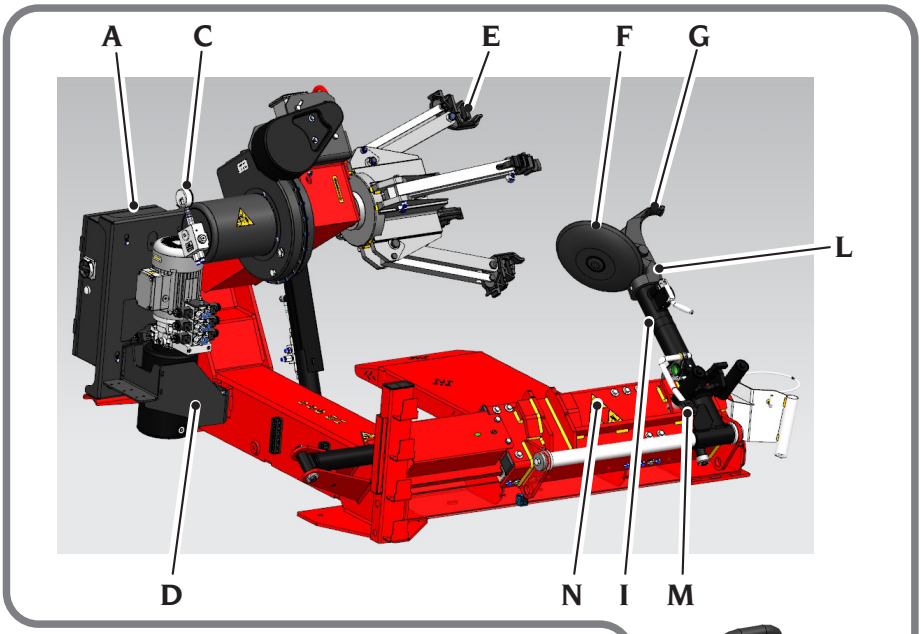
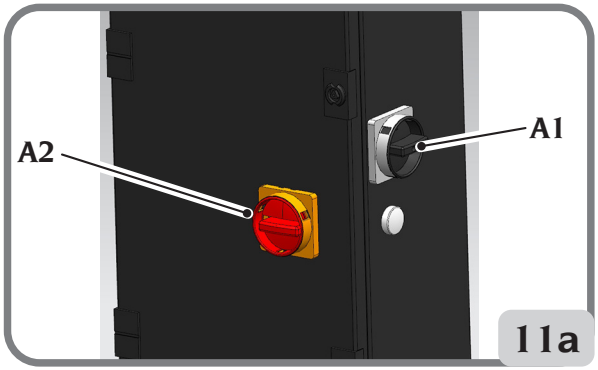
MAIN WORKING ELEMENTS OF THE MACHINE

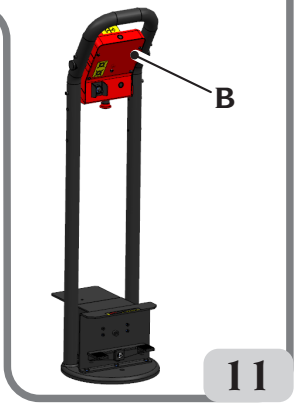
⚠ CAUTION

Get to know your machine. The best way to prevent accidents and obtain top performance is for all the operators who use the equipment to know how it works.
Learn the function and layout of all controls.
Check all equipment controls for proper operation.
To avoid accidents and injuries, the machine must be installed, operated correctly and serviced regularly.





11a

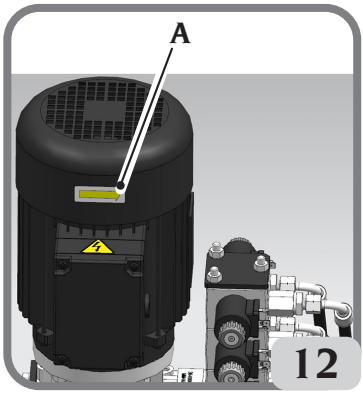


11

Fig.11-11A

A Electronic control unit
A1 Turntable rotation speed switch
A2 Main switch
B Control column
C Pressure gauge
D Hydraulic control unit
E Turntable
F Bead braking disc
G Tool
I Tool arm
L Tool unit
M Tool holder arm release pedal
N Carriage

Start the machine with the main switch (A2, Fig. 11A) and make sure that the hydraulic control unit motor is rotating in the direction indicated by the arrow (A, Fig. 12) which can be seen on the motor cap. Otherwise, the rotation direction must be corrected immediately in order not to damage the pump unit. The entire machine operates at low voltage (24V) except for the hydraulic control unit and the electric motor used for the turntable clamp rotation which are powered with mains voltage.



In the HD 900, by acting on switch A1 fig.11A, the turntable rotation speed changes from 5 rpm to 9 rpm. The dual speed is required to optimise the use of the machine:
- high speed for small-size wheels;
- low speed for big-size wheels.

⚠ CAUTION

WITH WHEELS WITH WEIGHT HIGHER THAN 300 KG IT IS RECOMMENDED TO USE THE TURNTABLE LOW ROTATION SPEED. THIS IS FOR SAFETY REASONS.

EN

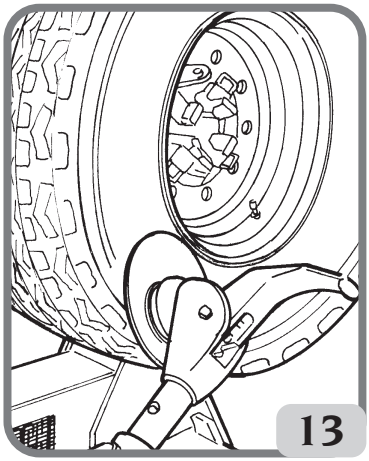
⚠ CAUTION

Make sure that all parts of the hydraulic circuit are tightened correctly. If pressurised oil escapes, it can cause serious injury.

⚠ CAUTION

HD 900: Never activate the tool arm lifting (I, fig.11) if the tool unit is not present (L, fig.11).

NOTE
To work on rims with small diameter, pull out the tool unit and place it in the second connection hole (fig. 13). The position of the tool unit is hence optimised with the turntable centre.

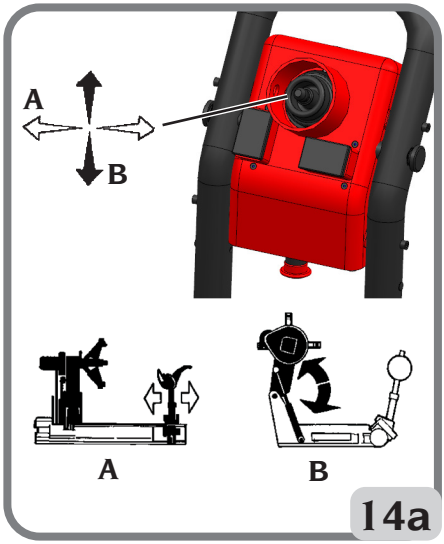


⚠ CAUTION

To prevent accidents when using the included or optional accessories, make sure that the mechanical parts have been correctly installed and well fixed to the parts. When working, firmly grip the manual accessories.

DESCRIPTION OF CONTROL LEVER COMMANDS

- Four-position lever (fig.14a) that:
  - the horizontal movement controls the translation of the tool holder (A);
  - uses a vertical movement to control the up/down movement of the self-centring chuck arm (B).
- Three-position lever (central zero) (Q, fig.14c) that drives the self-centring chuck opening and closing.



⚠ **CAUTION**

When locking a rim, continue to operate the control to make sure that the maximum pressure has been reached.

- Rocker pedal (E, fig.14d) for clockwise and anticlockwise rotation of self-centring chuck.

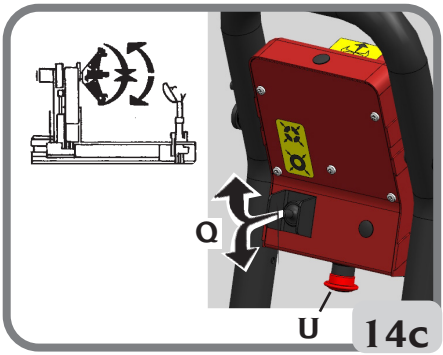
CONTROL OF TURNTABLE ROTATION SPEED 1 AND 2

On the electronic control unit there is the switch (F, Fig. 14e) that allows the turntable to rotate at 2 different speeds.

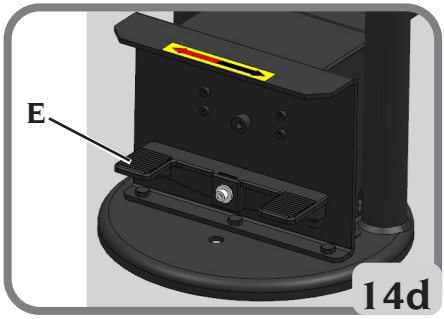
STOP COMMAND AND EMERGENCY PROCEDURE

The machine is disconnected from the power supply by turning the main switch (G, Fig. 14e) located on the electric system box to zero.
Pressing emergency button (U, Fig. 14c) immediately stops all commands (closure of the solenoid valves and motors shutting off). To restore normal operations, turn the emergency button in an anticlockwise direction until it and all commands are mechanically released.
All the commands located on the control lever are interrupted by releasing the control itself (dead-man switch).

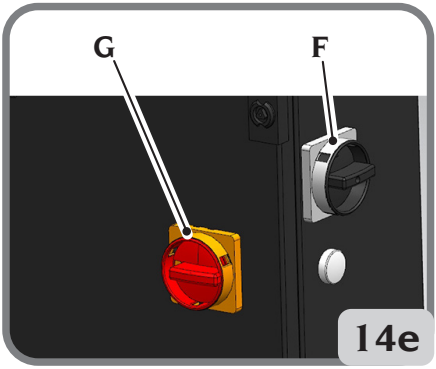
NOTE: The pressure at which the machine is set can be checked on the pressure gauge (C, Fig. 11) by operating the chuck open control to its end of stroke or by locking a rim.



14c



14d



14e

EN

⚠ CAUTION

If the machine malfunctions, retreat to a safe distance and turn the machine's main switch (A2, fig.11A) to 0.

⚠ CAUTION

Make sure that the rim is correctly and firmly locked on every gripping point of the self-centring chuck.

⚠ CAUTION

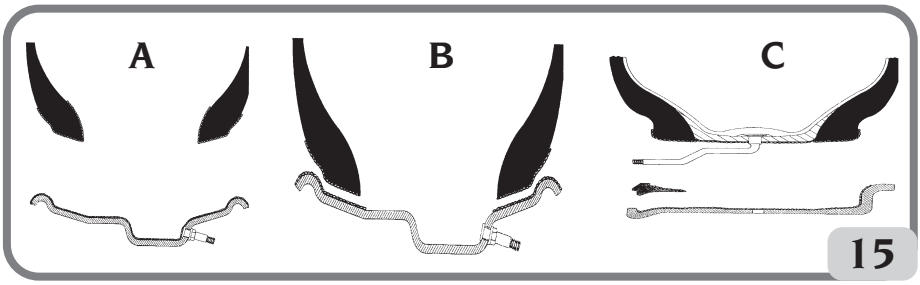
Any operation intended to modify the setting value of the relief valves is forbidden. The manufacturer declines all liability for damage resulting from tampering with these valves.

⚠ CAUTION

Do not leave the wheel locked on the clamp of the turntable for periods longer than the normal operating pauses.

LUBRICATING TYRES

Before fitting or removing the tyre, lubricate the beads carefully to protect them against possible damage and to facilitate fitting and removal operations.
For the areas to lubricate, refer to figures 15a (mounting tubeless tyres), 15b (demounting tubeless tyres) and 15c (mounting tyres with an inner tube and bead).



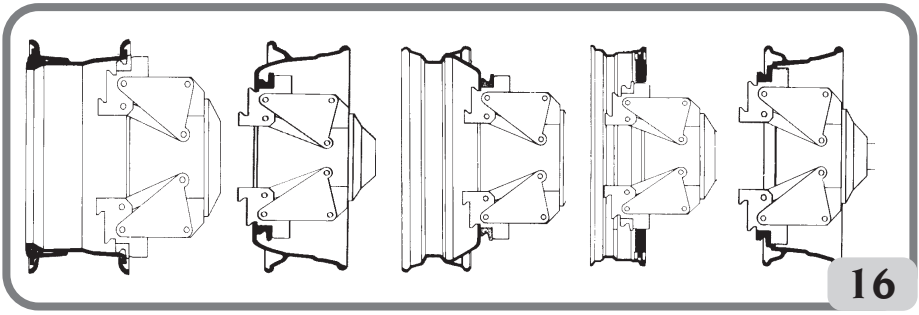
⚠ CAUTION

It is prohibited to use hydrocarbon based lubricants (oil, petroleum, etc.) or other substances that maintain the lubricating effect over time.
Note: The same safety procedure must be observed when both loading and unloading the wheel.

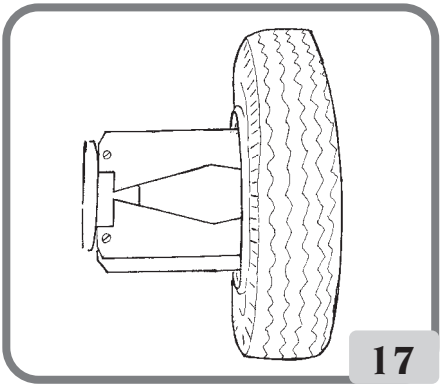
⚠ CAUTION

Bring especially heavy tyres as close as possible to the base before completing demounting.

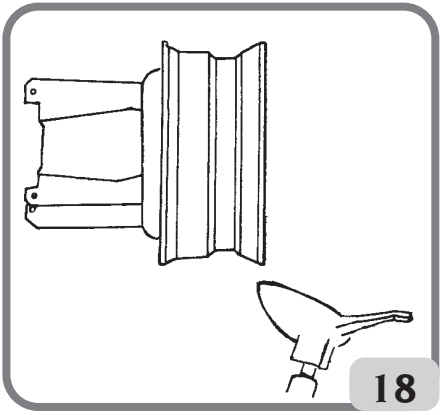
WHEEL CLAMPING


16

Raise the wheel to the ascent ramp using the control lever, and move the chuck towards the wheel. Align the chuck with the centre of the wheel, so that the rim can be clamped from the inside in the most appropriate position (Fig. 16-17).


17

The rim must have the lower shoulder facing outwards, to facilitate the exit of the tyre (Fig. 18-19).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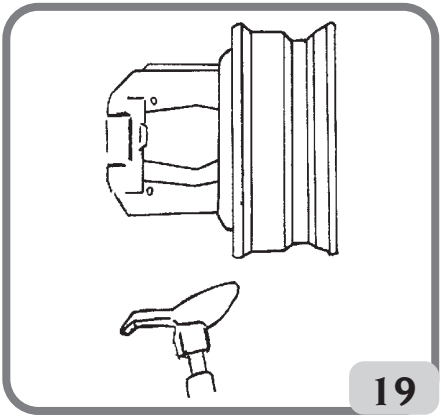

19

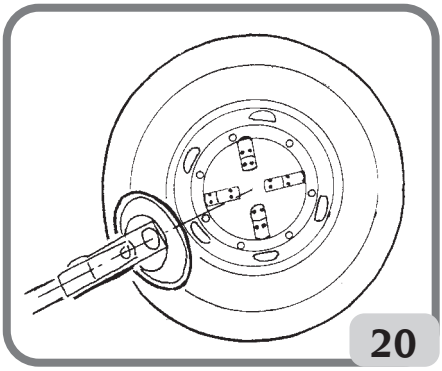
EN

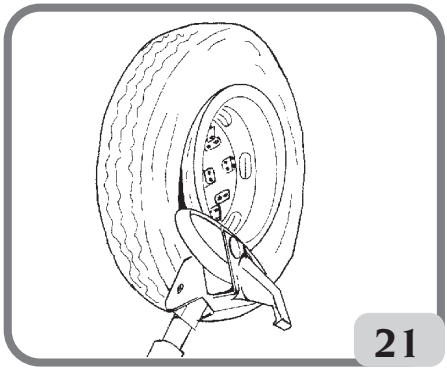
Lock the wheel on the turntable.

DEMOUNTING AND MOUNTING TUBELESS TYRES

Lift the wheel by acting on the control (A Fig. 14B) until touching the rim edge, with bead breaking disc placed on the arm (Fig. 20).

Break the bead of the deflated tyre, moving the chuck from right to left in short intervals, while it rotates continuously (in a clockwise direction). Continue the operation, moving the disc around the edge of the rim, until bead breaking is completed (Fig. 21).


20


21

⚠ CAUTION

The bead breaker disc must not press against the rim but the tyre bead.

Lubricate the bead of the tyre and the edge of the rim with the special grease and repeat the bead breaking procedure from the inside of the wheel, moving the chuck in the same direction of the previous operation (Fig. 22).

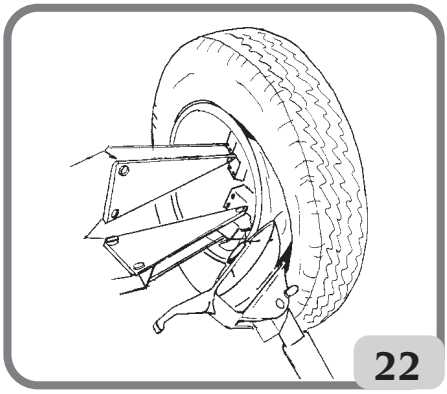
⚠ CAUTION

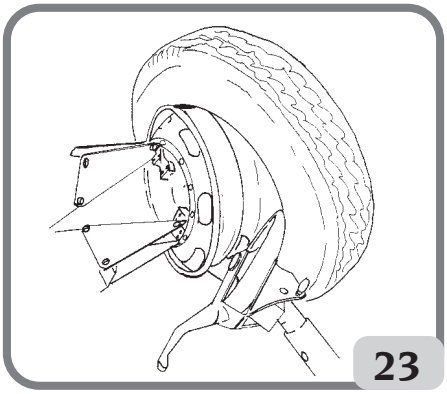
To avoid all risk, lubricate the beads turning the wheel CLOCKWISE if you are working on the outer side or ANTICLOCKWISE if working on the inner side.

Continue the bead breaking operation, moving the disc around the edge of the rim, until the tyre has been completely removed (Fig. 23).

⚠ CAUTION

When the beads come off the rim, the tyre will fall.
Make sure that no one is accidentally located in the work area.

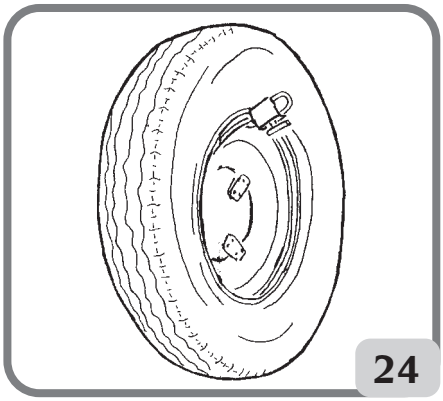


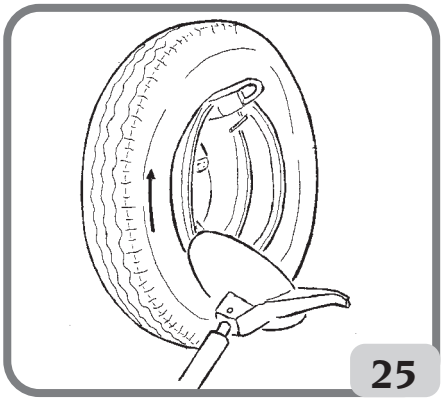


To fit the tyre, fix the clamp on the rim edge in the high position, place the two beads on it and operate the disc against the tyre (after lubricating the beads and the edge of the rim) (Fig. 24-25).

⚠ CAUTION

Make sure that the clamp is well attached to the rim.





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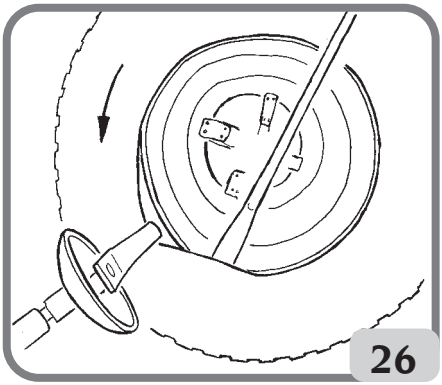
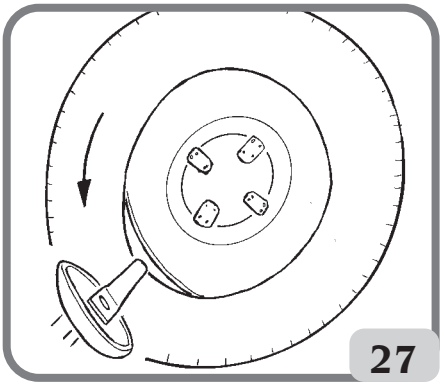
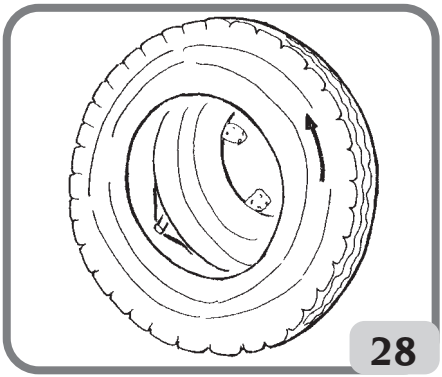
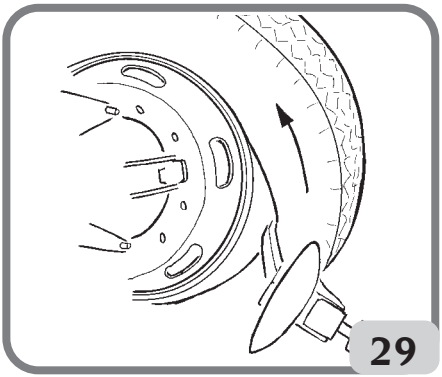
To remove the first edge of the tyre with the tool, move it forward, inserting it between the bead and the rim so that it takes hold of the bead and stretches it, then place the lever under the tool, bring the bead outside the edge of the rim and use the relevant control to rotate the chuck anticlockwise (Fig. 26-27).



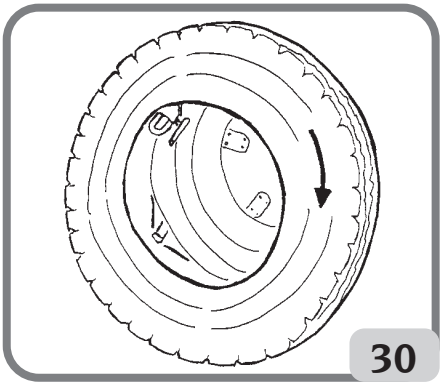


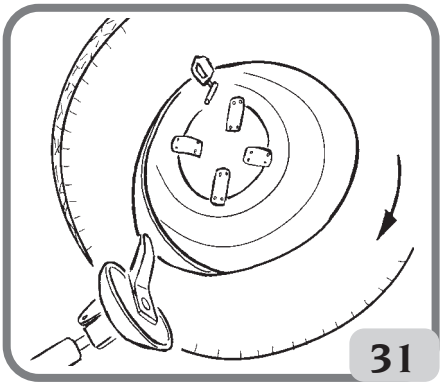
To remove the second edge, bring the tool arm to the inside of the wheel, turning the tool, and insert it between the bead and the rim, then repeat the previous removal operation (Fig. 28).





To mount the dry tyres use the tool and mounting clamp positioning it flush to the rim edge (Fig. 29-30) from the inner side, mount the bead on the tool, rotate the chuck anticlockwise (seen from behind).





Repeat the operation from the outside, rotating the chuck in the same direction (Fig. 31).

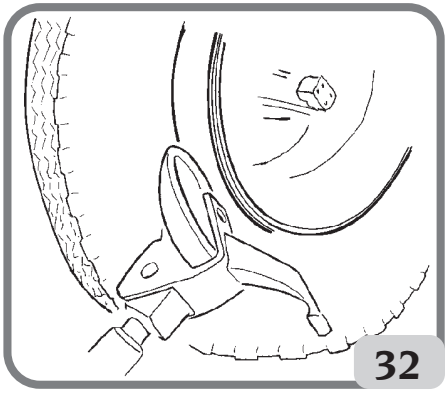
DEMOUNTING TYRES WITH SIDE RING

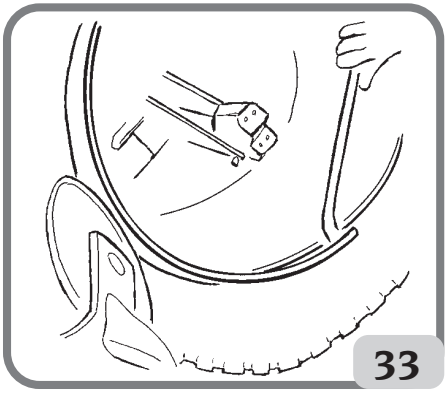
Place the bead breaker disc flush to the rim from the outside, rotate the chuck and at the same time move the carriage from right to left so that the tyre is pushed inward (Fig. 32).

The bead breaker must be moved forward gradually, so that the chuck completes at least one revolution each time the breaker is moved. Remove the locking rings (Fig. 33).

⚠ CAUTION

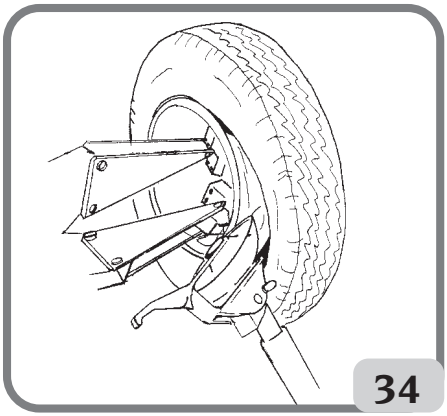
During the rotation PAY ATTENTION to the ring. Make sure it does not come out and avoid it from accidentally falling.





EN

Place the bead breaker disc on the inside of the wheel, moving the carriage to the right until the tyre is completely removed, ensuring that the inner tube valve fits into its seat (Fig. 34).

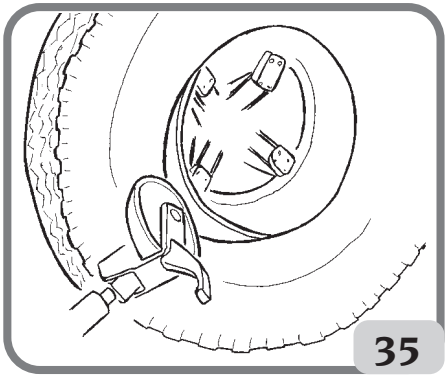


⚠ WARNING

For wheels with an inner tube, be extremely carefully when stopping the bead breaker disc from moving forward immediately after the bead is detached to prevent damaging the valve and the inner tube.

MOUNTING TYRES WITH SIDE RING

After lubricating the surface of the rim and the tyre beads with the special grease, fit the tyre complete with inner tube and flaps on the rim. Place the tyre on the table, place the rim coaxial with the tyre, move the clamp forward so that the tyre is inserted onto the rim, and fit the inner tube valve in its seat.
Press the second bead with the disc until the seats of the elastic rings on the rim are free, then fit the locking rings (Fig. 35).

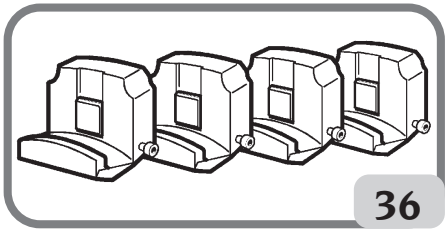


⚠ DANGER

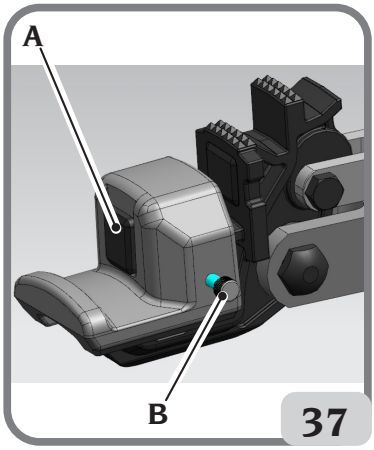
Do not inflate the tyre with the wheel still mounted on the turntable.
Tyre inflation is dangerous and should only be done by removing the wheel from the turntable and placing it inside a safety cage.

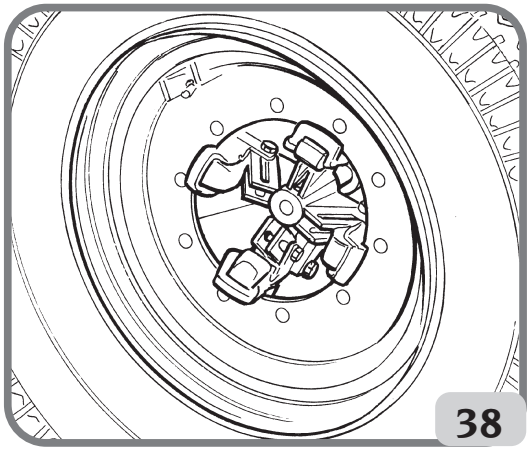
CLAMPING ALLOY RIMS

To clamp light alloy wheels, a **set of alloy rim clamps** (Fig. 36) designed specifically to clamp these wheels without damaging them, is available as an option.



The clamps are to be inserted (bayonet-like mounting) into the clamp support of the turn-table as shown in figure 37. Lock the clamp by tightening the screw B, Fig. 37 by hand.
The clamps are supplied with three different types of plastic insert (A, Fig. 37) to be used based on the thickness of the rim flange.
Clamp the rim as illustrated in fig. 38.





⚠ WARNING

The turntable may "slip" during the vari-ous operating phases when the rims are clamped on the central hole (especially with alloy wheels where the specific clamps are used).

This problem may be avoided by fitting the RE-TAINER PIN accessory (Fig. 39a) into one of the wheel fastener holes (see Fig. 39b).
As the pin turns it rests against the clamp, pulling the rim with it and preventing it from slipping.

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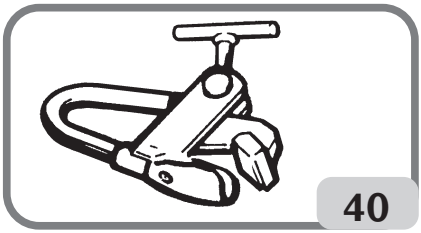
A **specific gripper for alloy wheels** (see Fig. 40) is also available for working with alloy wheels.



⚠ WARNING

Never leave your work station with the wheel clamped on the turntable and lifted off the ground.

STOP METHODS AND EQUIPMENT

The machine is disconnected from the power supply by turning the main switch (A2 fig.11A) located on the electric system box to zero.
All the commands located on the control lever are interrupted by releasing the control itself (dead-man switch).

TROUBLESHOOTING

The machine does not start

No power supply
➥ Provide power

The overload cut motor protector(s) is(are) not active
➥ Activate the overload cut motor protector(s)

Transformer fuse broken
➥ Replace the fuse

Oil leak

Union loose
➥ Tighten the union

Pipe cracked
➥ Replace the pipe

A control remains activated

Switch broken
➥ Clean or replace the switch

Solenoid valve stuck
➥ Clean or replace the solenoid valve

Turntable cylinder pressure drop

The distributor leaks
➥ Replace the distributor

Gaskets/seals worn
➥ Replace gaskets/seals

Loss of power in turntable rotation

Slack belt

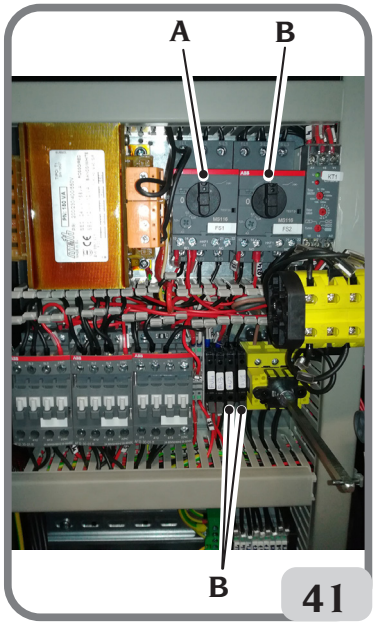
➥ Tighten the belt

- Motor brake faulty

Motors stop during use

Overload cut motor protector triggered

➥ Open the electrical system box using the special key supplied, then reactivate the motor circuit breaker of the motor involved by acting on the appropriate command (A fig.41 turntable overload cut motor protector, B fig.41 electro-hydraulic control unit overload cut motor protector); at the end of the operations close the electric system box.



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Tool arm release

Ratchets not calibrated

➥ Call the service centre

The machine does not move

The solenoid valve is not powered

➥ Check the electric connection to the solenoid valve

Solenoid valve blocked

➥ Clean or replace the solenoid valve

Transformer fuse broken

➥ Replace the fuse

Control lever faulty

➥ Call the service centre

Flat batteries (red LED on) (only in the radio versions)

➥ Charge the batteries

➥ Replace the batteries with rechargeable and equivalent batteries

EN

No hydraulic pressure

Pump broken

➥ Replace the pump

Excessive control unit noise

Worn connection joint

➥ Replace the joint

Jerky movements

Not enough oil

➥ Top up the oil

Defective switch

➥ Replace the switch

⚠ CAUTION

The "Spare parts" handbook does not authorise the user to carry out any work on the machine other than the operations specifically described in the User Manual, and is only intended to enable the user to provide the technical service with precise information in order to minimise response times.

MAINTENANCE

⚠ CAUTION

The manufacturer declines all responsibility for claims resulting from the use of non-original spare parts or accessories.

⚠ CAUTION

Unplug the machine from the power supply and make sure that all moving parts have been locked before performing any adjustment or maintenance operation.

⚠ CAUTION

Do not remove or change any part of the machine (except for maintenance purposes).

⚠ CAUTION

Before removing unions or pipes, make sure that the fluids are not pressurised. If pressurised oil escapes, it can cause serious injury.

⚠ WARNING

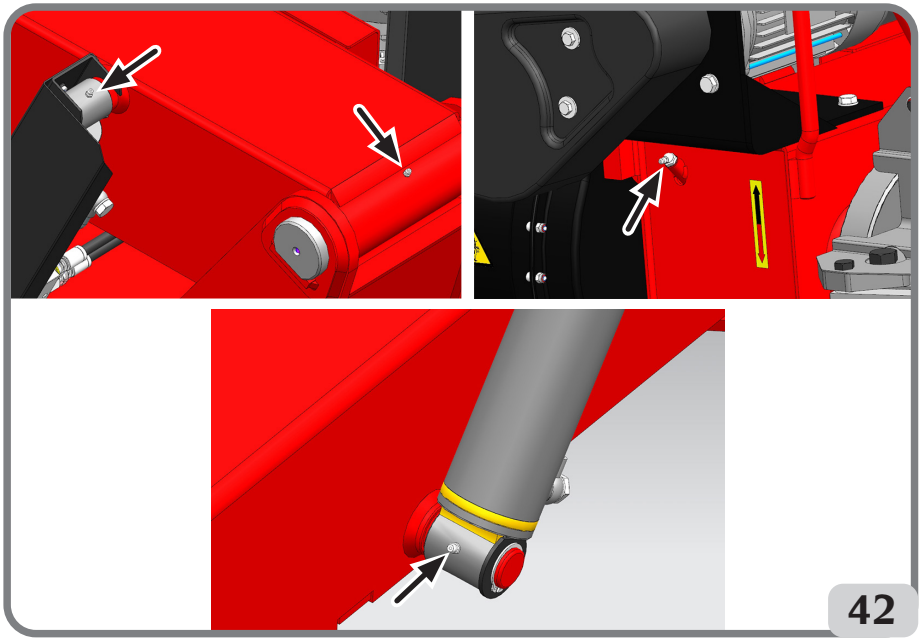
Keep the work area clean.
Never use compressed air or jets of water to remove dirt or debris from the equipment. When cleaning the area, take steps to avoid building up and raising dust as far as possible.

To make the equipment last longer and perform better, it is advisable to:

- clean the turntable and the guide pins once a week with environmentally friendly solvents;

- grease all machine moving parts at least once a month using the grease nipples indicated in fig. 42.

Use API PGX0 GREASE
alternatively
IP ATHESIA PGXO – PGX
AGIPGREASE PGX 0



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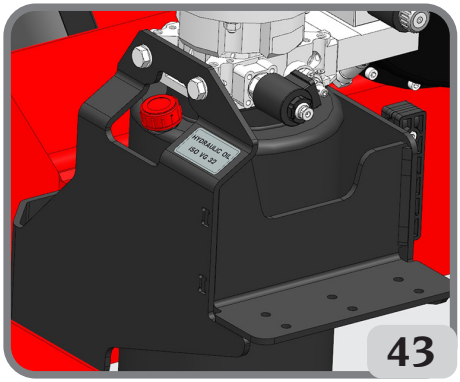
EN

- clean the filter cartridge approx. every 1500 hours of operation;

- check the oil level of the control unit (fig.43) and top up, if necessary, with AGIP OSO 32 oil or an equivalent product (the check must be performed with “closed” cylinders): in any case, it is recommended to change the oil after 1,500 hours of operation or once a year.



43

Manufacturer	oil type	
AGIP	OSO32 - ARNICA68	
ESSO	NUTO H32 - INVAROL	EP68
FINA	HYDRAN 32 - IDRAN	HV68
SHELL	TELLUS OIL32 - TELLUS	OIL68
API	CIS 32 - HS68	

⚠ WARNING

Any top-ups or oil replacements using oil whose quality is different from the one indicated may reduce the machine lifetime and impair its performance.

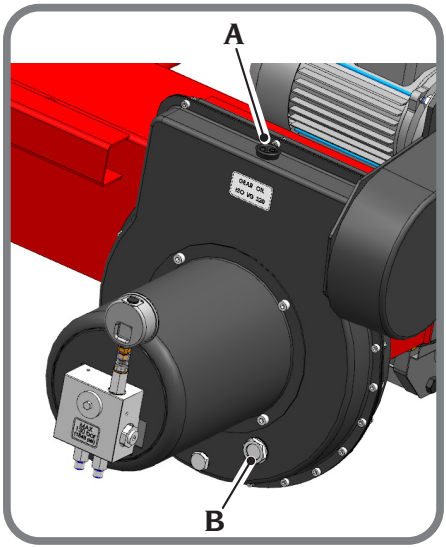
⚠ CAUTION

It is forbidden to carry out any work aimed at modifying the operating pressure calibration values for the maximum-pressure valves or the pressure limiter.
The manufacturer declines all responsibility for damages resulting from tampering with the valves mentioned above.

Gearbox oil check

Periodically check the gearbox oil level which, with the self-centring arm lowered to the end of its stroke, must never completely uncover the indicator located on the gearbox casing.
If required, top up with oil:
AGIP FI REP 237
ESSO SPARTAN EP 320
SHELL OMALA OIL 320
BP GRX P 320
CASTROL ALPHA SP 320

Unscrew the plug A, add the oil, check the level through the indicator B and close the plug.

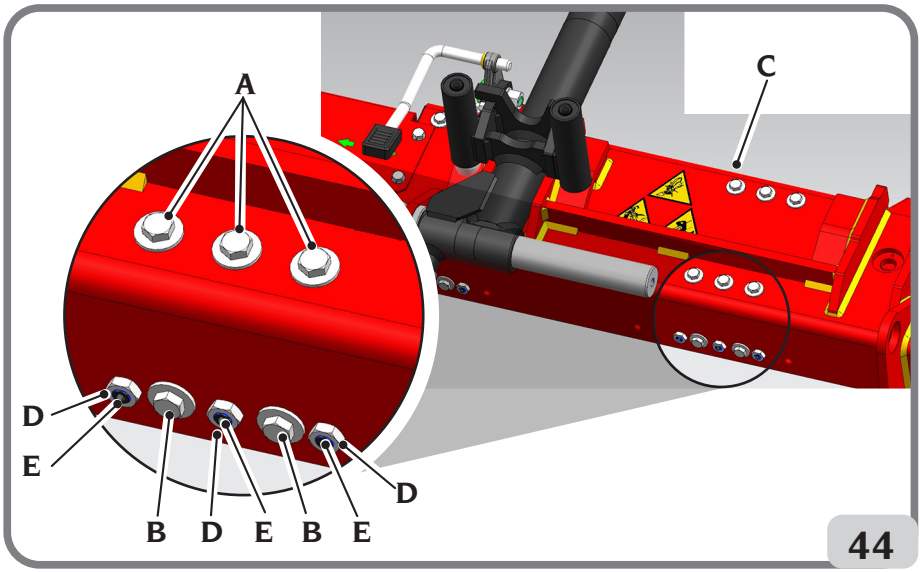


Adjusting the sliding blocks of the tool holder carriage

Check the horizontal carriage periodically: the clearance between the guides and the sliding blocks must not be evident.
N.B.: Any mechanical clearance, even if small, can be detected during the mounting/ demount-ing operations with the tool holder arm.

For longer component working life, it is advis-able to adjust the sliding blocks as described below:

a) Disconnect the equipment from the power supply.
b) Lift the tool holder arm to the non-working position.
c) Loosen the front screws (A, Fig. 44) and the lateral screws (B, Fig. 44) relative to the two lower carriage sliders (C, Fig. 44).
d) Loosen the adjuster screw lock nuts (D, Fig. 44).
e) Tighten each of the slider adjuster screws by a quarter of a turn (E, Fig. 44).
f) Tighten the fastener screws Fig. 44). or the lower sliders.
g) Tighten the adjuster screw lock nuts (D, Fig. 44).



N.B.: If the adjustment is insufficient, and there is still clearance, adjust the screws fur-ther, re-peating the procedure described above until all mechanical clearance has been eliminated.

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EXTRAORDINARY MAINTENANCE (ONLY FOR REPAIR TECHNICIANS)

a)After the first hours of operation, check and tighten (if necessary) couplings and bolts, in accordance with the tightening torques indicated in the table.

COPPIE DI SERRAGGIO CON CHIAVE DINAMOMETRICA PER VITI E DADI CON FILETTATURA METRICA PG.
TORQUE WRENCH SETTING FOR SCREWS AND NUTS WITH PG METRIC THREADING
ANZUGSMOMENTE MIT MOMENTENSCHLÜSSEL FÜR SCHRAUBEN UND MUTTERN MIT PG METRISCHEM GEWINDE.
TORQUE WRENCH SETTING FOR SCREWS AND NUTS WITH PG METRIC THREADING.
PARES DE CIERRES CON LLAVE DINAMOMÉTRICA PARA TORNILLOS CON ROSCADO MÉTRICO PG.

M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30
10 Nm 1 Kgm	25 Nm 2.6 Kgm	50 Nm 5.1 Kgm	87 Nm 8.9 Kgm	138 Nm 14.1 Kgm	210 Nm 21.5 Kgm	289 Nm 29.5 Kgm	412 Nm 42 Kgm	559 Nm 57 Kgm	711 Nm 72 Kgm	1049 Nm 107 Kgm	1422 Nm 145 Kgm

b)Check and, if necessary, correctly tension drive belt, adjusting it with the motor mounting tie-rods

⚠ CAUTION

UNSCHEDULED MAINTENANCE PROCEDURES MAY ONLY BE CARRIED OUT BY SPECIALISED TECHNICAL PERSONNEL

⚠ CAUTION

BEFORE STARTING ANY MAINTENANCE WORK ON THE HYDRAULIC SYSTEM, SET THE MACHINE IN THE REST POSITION, WITH THE MOBILE ARM LOWERED AND THE TURNTABLE CLOSED.

ENVIRONMENTAL INFORMATION

The disposal procedure described below only applies to equipment with the barred bin symbol on the rating plate.

This product may contain substances that are potentially harmful to the environment and human health unless disposed of properly.
The information provided below is intended to prevent these substances from being released into the environment, and to improve the use of natural resources.
Electrical and electronic equipment must never be disposed of in the usual municipal waste but must be separately collected for proper treatment.
The barred bin symbol affixed on the product and shown in this page is meant to remind users that the product must be disposed of properly at the end of its life cycle.
This prevents the inappropriate disposal of the substances contained in this product, or the improper use of parts of this product, and the resulting hazards for the environment and human health. It also helps to ensure that many materials contained in this product are recovered, recycled and reused.
To this end, manufacturers and dealers of electrical and electronic equipment maintain special systems for the collection and disposal of such equipment.
At the end of the product life cycle, contact your dealer for information about disposal procedures.
Upon purchase, purchasers are offered the opportunity to return their end-of-life equipment to dealer free of charge, provided that the equipment is of the same type and served the same purpose as the newly-purchased product.
Anyone disposing of the product otherwise than as described above will be liable to prosecution under the laws of the country where the product is disposed of.
We also urge you to adopt other environmental-friendly practices: recycle the internal and external packing materials which come with the product and dispose of spent batteries (installed in the product) properly.
With your help, we can reduce the amount of natural resources used to produce electrical and electronic equipment, minimise the use of landfills to dispose of old products, and improve quality of life by preventing the discharge of potentially hazardous substances into the environment.

INFORMATION AND WARNINGS ABOUT OIL

DISPOSAL OF WASTE OIL

Never pour waste oil in sewers, storm drains, rivers or streams; collect and deliver it to companies authorised to collect it.

PRECAUTIONS FOR THE USE OF OIL

- Avoid contact with skin.
- Do not allow oil mists to form or spread in the atmosphere.
- Adopt the following simple hygienic precautions:
  - protect against oil splashes (appropriate clothing, protective guards on machines);
  - wash frequently with soap and water; do not use products or solvents that can irritate your skin or remove its natural protective oil;
  - do not dry your hands with dirty or greasy rags;
  - change clothing if impregnated with oil, and in any case at the end of each work shift;
  - do not smoke or eat with greasy hands;
- Adopt the following preventive and protective measures as well:
  - gloves resistant to mineral oils, with lining;
  - goggles, in case of splashes;
  - aprons resistant to mineral oils;
  - screens to protect against oil splashes.

MINERAL OIL: FIRST AID INSTRUCTIONS

- Ingestion: seek medical attention immediately and provide all characteristics of the type of oil ingested.
- Inhalation: for exposure to high concentrations of fumes or oil mist, move the affected person to the open air and seek medical attention immediately.
- Eyes: rinse with plenty of running water and seek medical attention immediately.
- Skin: wash with soap and water.

FIREFIGHTING EQUIPMENT TO BE USED

Refer to the table below to choose the most suitable fire extinguisher:

	Dry materials	Flammable liquids	Electrical equipment
Water	**YES**	NO	NO
Foam	**YES**	**YES**	NO
Powder	YES*	**YES**	**YES**
CO_2	YES*	**YES**	**YES**

YES* Use only if more appropriate extinguishers are not at hand or when the fire is small.

CAUTION

This table contains general instructions to be used as guidelines for users. Contact the manufacturer for details of the applications of each type of extinguisher.

GLOSSARY

Lock ring
Semi-ring in steel that locks the side ring.

Sealing ring
Rubber gasket that prevents the air in the wheel from escaping.

Turntable
Chuck with jaws that centres and supports the part.

Centre of gravity
Point of application of the weight force of a body. Centre of gravity.

Tool arm
Part that supports the tool unit.

Side ring
External support for the bead of the tyre mounted on the rim.

Wheel rim
Monolithic rim without mobile parts on which the tyre is mounted.

Rim with side ring
Rim with an open side for axial tyre mounting.

Ratchet
Duly sized part featuring a pivot and a connection tooth.

Bead braking disc
Tool used for tyre bead breaking.

Jaws
Hooked mechanical part for holding or moving.

Pump unit
Assembly consisting of an electric motor and a hydraulic pump.

Tool unit
Group of equipment for tyre bead breaking and demounting.

Control lever
Remote control unit used to make the machine perform all the movements necessary for the various operations.

Grooving
Operation for restoring the groves in the tyre tread.

Inner/outer bead breaking
Separation of the tyre bead from the rim edge.

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Supersingle
Extra wide tyres that replace twin tyres.

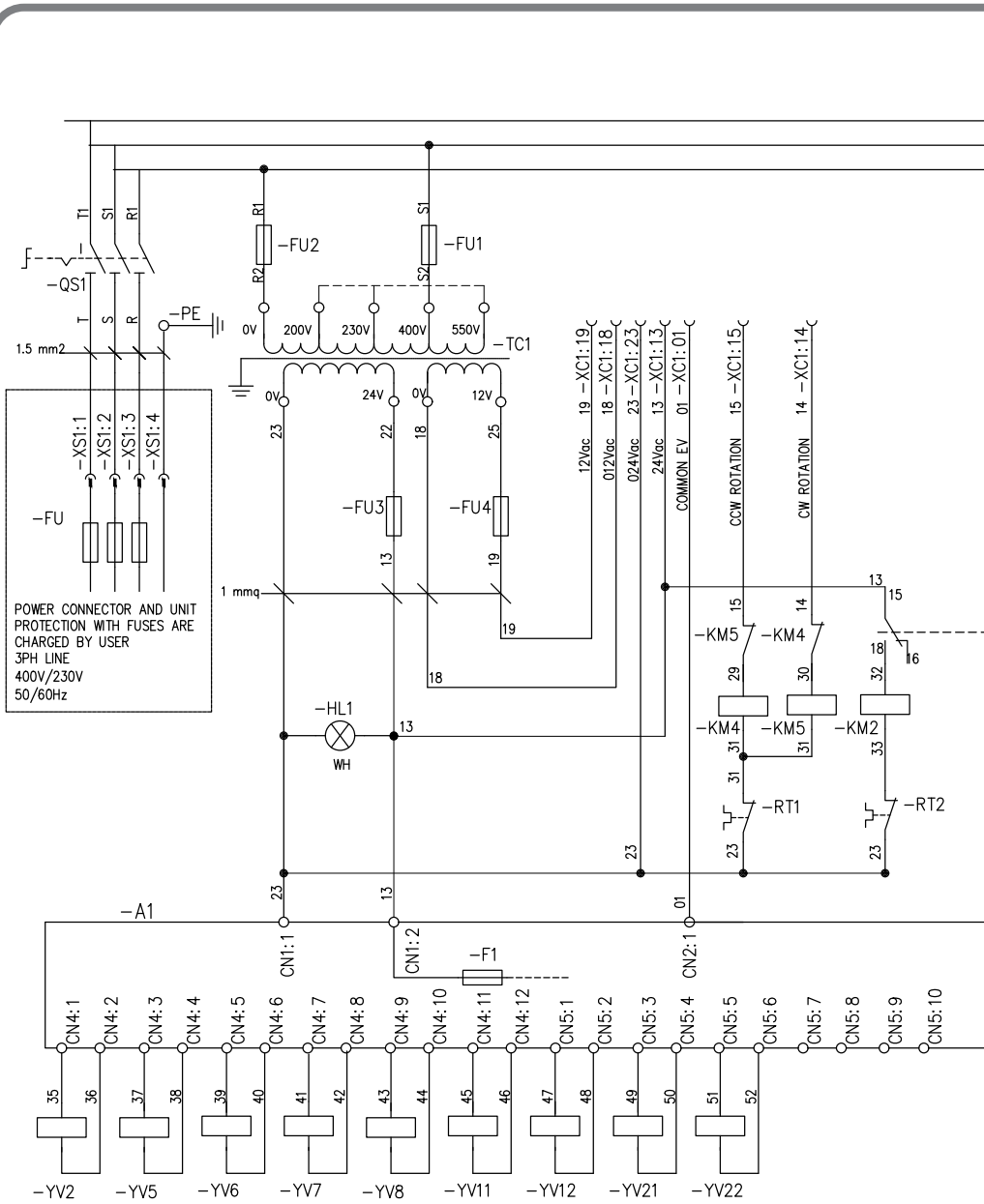
Bead
Each enlarged edge of the tyre that is in contact with the wheel rim.

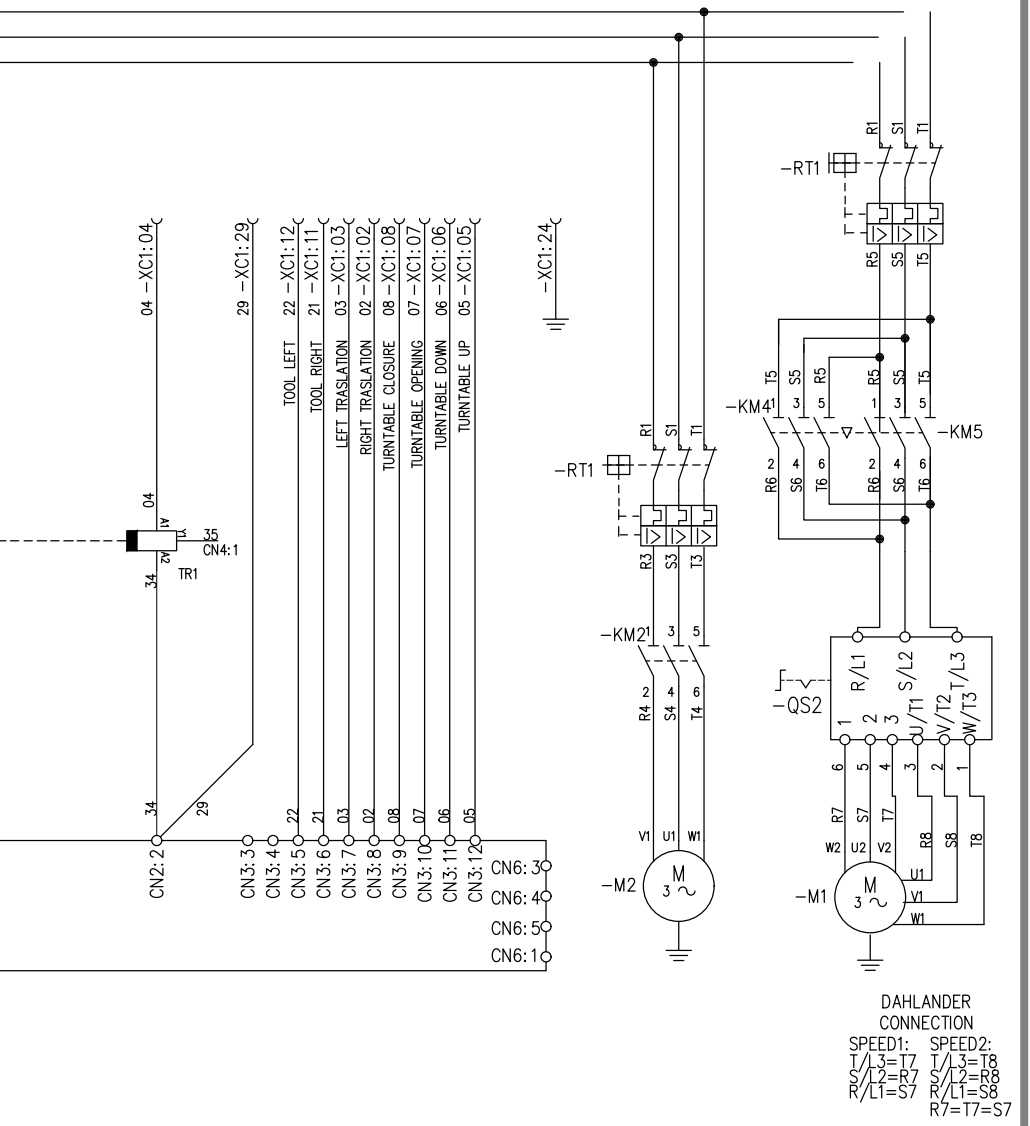
Tubeless
Tyre that does not have an inner tube.

Tool
A specifically shaped part that is used for mounting and demounting.

CONTROL UNIT WIRING DIAGRAM

A1 BOARD
F1 6.3A T FUSE
FU FUSE gG-500V 16A(400V), 25A(230V)
FU1 FUSE gG-500V 4A
FU2 FUSE gG-500V 4A
FU3 FUSE 6,3A T
FU4 FUSE 0,5A T
HL1 WHITE WARNING LIGHT
KM2 HYDRAULIC CONTROL UNIT REMOTE SWITCH
KM4 ANTICLOCKWISE SPINDLE ROTATION REMOTE SWITCH
KM5 CLOCKWISE SPINDLE ROTATION REMOTE SWITCH
M1 CHUCK MOTOR
M2 HYDRAULIC CONTROL UNIT MOTOR
RT1 M1 MOTOR THERMAL RELAY
RT2 MOTOR 2 THERMAL RELAY
QS1 MAIN SWITCH
QS2 ROTATION SPEED SWITCH
TC1 TRANSFORMER
TR1 DELAYED TIMER UPON DE-ENERGISING
XC1 CONTROL CONNECTOR
XS1 ELECTRICAL PLUG
YV2 BY-PASS SOLENOID VALVE
YV5 CHUCK LIFTING CONTROL SOLENOID VALVE
YV6 CHUCK LOWERING CONTROL SOLENOID VALVE
YV7 CHUCK OPENING SOLENOID VALVE
YV8 CHUCK CLOSING SOLENOID VALVE
YV11 RH CARRIAGE TRANSLATION SOLENOID VALVE
YV12 LH CARRIAGE TRANSLATION SOLENOID VALVE
YV21 RH TOOL TRANSLATION SOLENOID VALVE
YV22 LH TOOL TRANSLATION SOLENOID VALVE

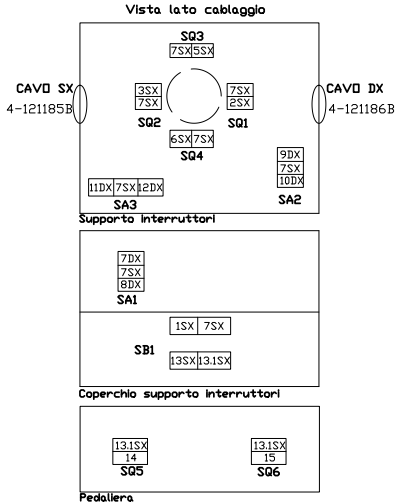

T1
S1
R1
-QS1
T
S
R
-PE
1.5 mm2
-XS1:1
-XS1:2
-XS1:3
-XS1:4
-FU
POWER CONNECTOR AND UNIT PROTECTION WITH FUSES ARE CHARGED BY USER
3PH LINE
400V/230V
50/60Hz
R1
R2
-FU2
S1
S2
-FU1
0V
200V
230V
400V
550V
-TC1
0V
24V
0V
12V
23
22
18
25
-FU3
-FU4
13
19
1 mmq
19
18
-HL1
WH
13
12Vac
012Vac
024Vac
24Vac
COMMON EV
CCW ROTATION
CW ROTATION
19 -XC1:19
18 -XC1:18
23 -XC1:23
13 -XC1:13
01 -XC1:01
15 -XC1:15
14 -XC1:14
13
15
15
14
-KM5
-KM4
18
16
29
30
32
-KM4
-KM5
-KM2
31
31
33
31
-RT1
-RT2
23
23
23
23
01
-A1
CN1:1
CN1:2
-F1
CN2:1
CN4:1
CN4:2
CN4:3
CN4:4
CN4:5
CN4:6
CN4:7
CN4:8
CN4:9
CN4:10
CN4:11
CN4:12
CN5:1
CN5:2
CN5:3
CN5:4
CN5:5
CN5:6
CN5:7
CN5:8
CN5:9
CN5:10
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
-YV2
-YV5
-YV6
-YV7
-YV8
-YV11
-YV12
-YV21
-YV22

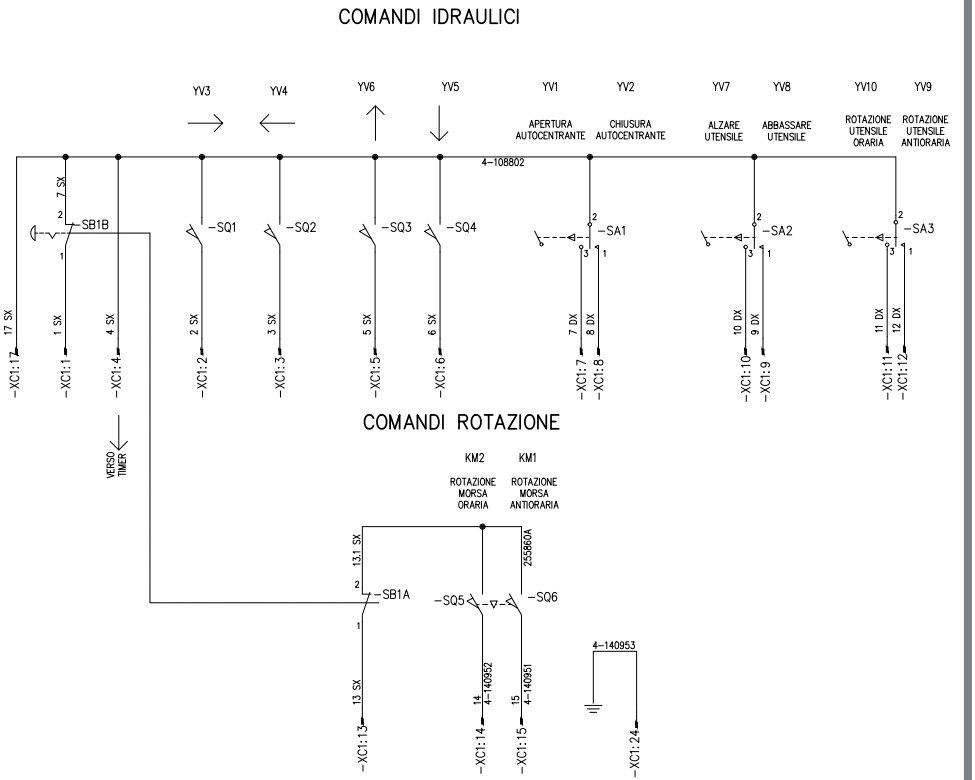

04 –XC1:04
29 –XC1:29
22 –XC1:12
21 –XC1:11
03 –XC1:03
02 –XC1:02
08 –XC1:08
07 –XC1:07
06 –XC1:06
05 –XC1:05
–XC1:24
TOOL LEFT
TOOL RIGHT
LEFT TRASLATION
RIGHT TRASLATION
TURNTABLE CLOSURE
TURNTABLE OPENING
TURNTABLE DOWN
TURNTABLE UP
CN4:1
TR1
CN2:2
CN3:3
CN3:4
CN3:5
CN3:6
CN3:7
CN3:8
CN3:9
CN3:10
CN3:11
CN3:12
CN6:3
CN6:4
CN6:5
CN6:1
–RT1
–KM2
–KM4
–KM5
–QS2
–M1
–M2
R/L1
S/L2
T/L3
U/T1
V/T2
W/T3
DAHLANDER
CONNECTION
SPEED1:
T/L3=T7
S/L2=R7
R/L1=S7
SPEED2:
T/L3=T8
S/L2=R8
R/L1=S8
R7=T7=S7

EN

CONTROL CONSOLE WIRING DIAGRAM

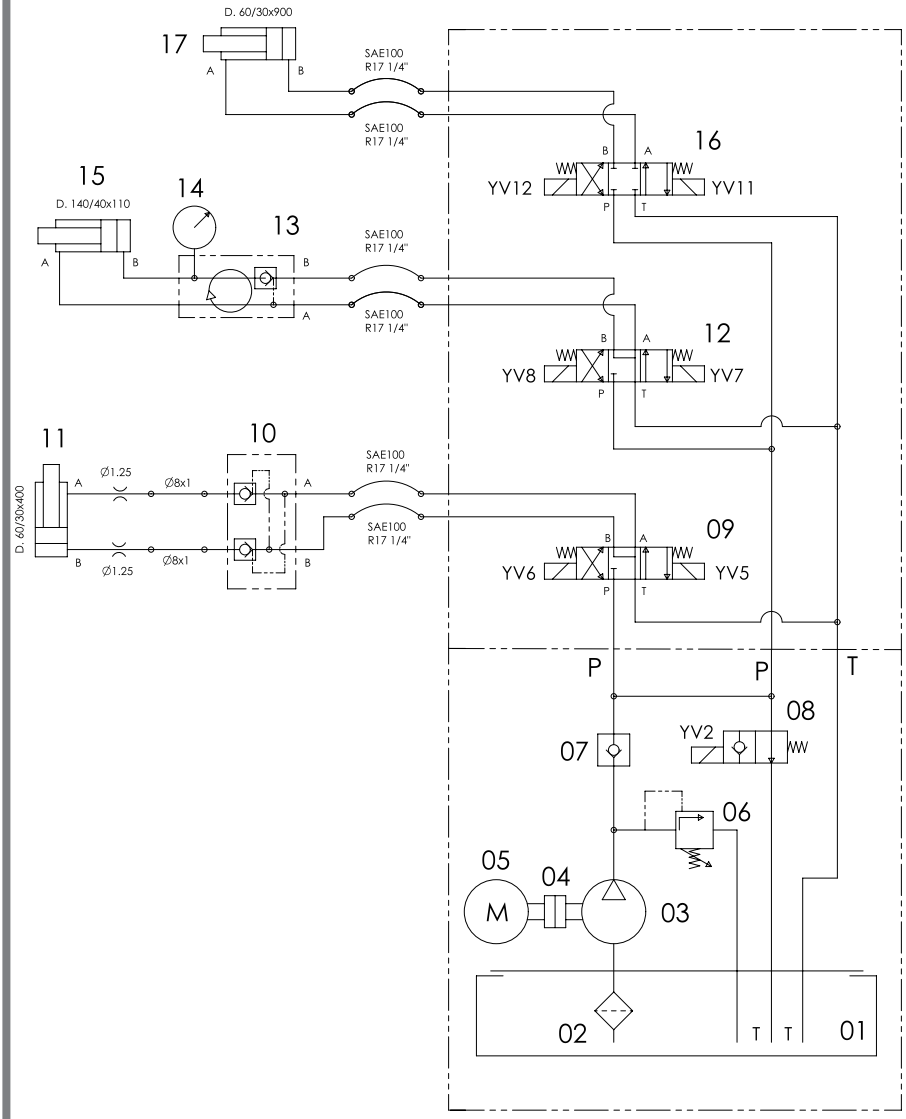
SA1	TURNTABLE OPENING/CLOSING SWITCH
SA2	TOOL UP/DOWN SWITCH
SA3	TOOL ROTATION SWITCH
SB1	EMERGENCY BUTTON
SQ1	RH CARRIAGE TRANSLATION MICROSWITCH
SQ2	LH CARRIAGE TRANSLATION MICROSWITCH
SQ3	RAISE CARRIAGE MICROSWITCH
SQ4	LOWER CARRIAGE MICROSWITCH
SQ5	SELF-CENTRING CLOCKWISE ROTATION MICROSWITCH
SQ6	SELF-CENTRING ANTICLOCKWISE ROTATION MICROSWITCH


Vista lato cablaggio
SQ3
7SX 5SX
CAVO SX
4-121185B
CAVO DX
4-121186B
3SX
7SX
7SX
2SX
SQ2
SQ1
6SX 7SX
SQ4
9DX
7SX
10DX
SA2
11DX 7SX 12DX
SA3
Supporto interruttori
7DX
7SX
8DX
SA1
1SX 7SX
SB1
13SX 13.1SX
Coperchio supporto interruttori
13.1SX
14
SQ5
13.1SX
15
SQ6
Pedaliera


COMANDI IDRAULICI
YV3
YV4
YV6
YV5
YV1
YV2
YV7
YV8
YV10
YV9
APERTURA AUTOCENTRANTE
CHIUSURA AUTOCENTRANTE
ALZARE UTENSILE
ABBASSARE UTENSILE
ROTAZIONE UTENSILE ORARIA
ROTAZIONE UTENSILE ANTIORARIA
4-108802
7 SX
SB1B
-SQ1
-SQ2
-SQ3
-SQ4
-SA1
-SA2
-SA3
17 SX
1 SX
4 SX
2 SX
3 SX
5 SX
6 SX
7 DX
8 DX
10 DX
9 DX
11 DX
12 DX
-XC1:17
-XC1:1
-XC1:4
-XC1:2
-XC1:3
-XC1:5
-XC1:6
-XC1:7
-XC1:8
-XC1:10
-XC1:9
-XC1:11
-XC1:12
COMANDI ROTAZIONE
KM2
KM1
ROTAZIONE MORSA ORARIA
ROTAZIONE MORSA ANTIORARIA
VERSO TIMER
13.1 SX
2558660A
-SB1A
-SQ5
-SQ6
4-140953
13 SX
14
4-140952
15
4-140951
-XC1:13
-XC1:14
-XC1:15
-XC1:24

HYDRAULIC SYSTEM DIAGRAM

1	8-LITRE TANK
2	FILTER
3	GEAR PUMP 7.4 - 6.0 cc/rotation
4	JOINT
5	ELECTRIC MOTOR
6	MAX. VALVE PRESSURE 130 BAR
7	UNIDIRECTIONAL VALVE
8	DISCHARGE BY-PASS SOLENOID VALVE
9	SPINDLE ARM LIFTING SOLENOID VALVE
10	SPINDLE LIFTING CYLINDER LOCKING VALVE
11	SPINDLE LIFTING CYLINDER
12	CHUCK SOLENOID VALVE
13	CONTROLLED CHECK VALVE
14	PRESSURE GAUGE
15	SPINDLE CYLINDER
16	TOOL CARRIAGE TRANSLATION SOLENOID VALVE
17	TOOLCARRIAGE TRANSLATION CYLINDER


D. 60/30x900
17
A
B
SAE100
R17 1/4"
SAE100
R17 1/4"
16
YV12
YV11
15
D. 140/40x110
14
13
SAE100
R17 1/4"
SAE100
R17 1/4"
12
YV8
YV7
11
10
D. 60/30x400
Ø1.25
Ø8x1
Ø8x1
Ø1.25
SAE100
R17 1/4"
SAE100
R17 1/4"
09
YV6
YV5
P
P
T
08
YV2
07
06
05
04
M
03
02
T
T
01

EN

Notes

Notes

IT - **Dichiarazione CE di conformità -Dichiarazione di conformità UE***

EN - **EC Declaration of conformity - EU Declaration of conformity***

FR - **Déclaration EC de conformité - Déclaration UE de conformité***

DE - **EG – Konformitätserklärung - EU-Konformitätserklärung***

ES - **Declaración EC de conformidad - Declaración UE de conformidad***

COMIM - Cod.4-141386 del 02/2021

IT Quale fabbricante dichiara che il prodotto: **HD 900**
al quale questa dichiarazione si riferisce e di cui abbiamo costituito e deteniamo il relativo fascicolo tecnico è conforme alle seguenti normative Direttive:
*: Valida solo per macchine marcate CE

EN As producer declare that the product: **HD 900**
to which this statement refers, manufactured by us and for which we hold the relative technical dossier, is compliant with the following standards and Directives:
*: Valid only for EC-marked machines

FR Déclarons que le materiel: **HD 900**
objet de cette déclaration, dont nous avons élaboré le livret technique, restant en notre possession, est conforme aux normes et Directives suivantes :
*: Valable uniquement pour les machines avec marquage CE

DE Erklärt hiermit dass das product: **HD 900**
Worauf sich die vorliegende Erklärung bezieht und dessen technische Akte diese Firma entwickelt hat und innehält, den anforderungen folgender normen und Richtlinien entspricht:
*: Gilt nur für EG-gekennzeichnete Maschinen

ES Declara que el producto: **HD 900**
al que se refiere la presente declaración y del que hemos redactado y poseemos el correspondiente expediente técnico, se conforma a las siguientes normas y Directivas:
*: Válida sólo para máquinas con marcado CE

Conforme a:/Conforms to: /Conforme à:/ Entspricht: /Conforme a: EN ISO/IEC 17050-1 - EN ISO/IEC 17050-2