CEMB® USA
BALANCING MACHINES

SM 1120

Operation Instructions

Ed.09/15 Cod.3036000

Original Instructions

(QJ 0VK

EC DECLARATION OF CONFORMITY

We, **TAG by Dedra s.r.l. - Via Costituzione, 70 - 42015 Correggio (RE) ITALY**

do hereby declare on our own responsibility that the product:

Passenger Car Tyre Changer

TAG 1100

which this statement refers to meets the following directive

86/217/CEE - 2006/42/CE -
2006/95/CE - 2004/108/CE

as well as the following:

EN 12100 - EN 60204-1

The signature of this declaration of conformity is the person authorised to provide for the technical literature file.

Correggio, 02/01/13

The model of the present declaration complies with directive EN ISO / IEC 17050-1

The legal representative

ROHS DECLARATION OF CONFORMITY

We, **TAG by Dedra s.r.l. - Via Costituzione, 70 - 42015 Correggio (RE) ITALY**

do hereby declare on our own responsibility that the product:
Passenger Car Tyre Changer *TAG 1100*
which this statement refers to meets the following directive:

2011/65/EU (RoHS)

Scrapping must be made in accordance with the following directive:

2012/19/EU (RAEE)

as well as with the national laws in force in the Country of Installation.

Correggio, 24/06/14

The legal representative

RAEE DECLARATION OF CONFORMITY

We, **TAG by Dedra s.r.l. - Via Costituzione, 70 - 42015 Correggio (RE) ITALY**

do hereby declare on our own responsibility that the product:

Passenger Car Tyre Changer *TAG 1100*

which this statement refers to meets the following directive:

2012/19/EU (RAEE)

This equipment is subject to the regulations foreseen by Directives 2012/19/EU (RAEE) and therefore it cannot be scrapped as a generic scrap material but through specific collection circuits; the symbol with “barred tank” marked on the product refers to this prescription. Scrapping must be made in accordance with Directives 2012/19/EU (RAEE) as well as with the local Regulations in force in the Country of installation, the non-respect of the Directive is subject to sanctions according to the national Laws of the Country of destination. Abandonment or wrong scrapping of the equipment subject to Directive 2012/19/EU (RAEE) can cause serious damage to the environment.
The manufacturer is available, according to the Directive, to scrap the equipment; for this service, please contact the manufacturer or your dealer.

Correggio, 24/06/14

The legal representative

&+$37(5 **Page**

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1.0 INTRODUCTION

Thank you for purchasing one of our Professional Tyre-Changer designed for demounting and mounting operations on standard, UHP and “run-flat” tyres.

To prevent accidents or damages to the tyre-changer, use only recommended procedures and accessories.

1.1 Tyre-Changer data:

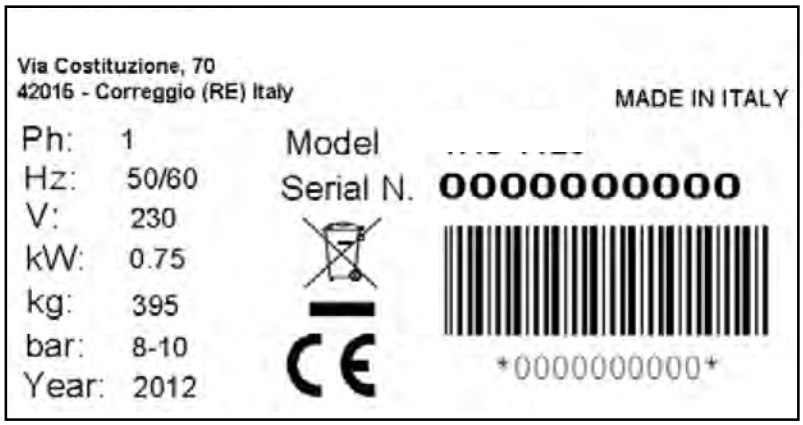
Please refer to “Tyre-Changer Model” and “Serial Number” data on the Data-Plate (see sample below) to provide our Technical Service Dept. with the necessary details for prompt assistance and spare-parts tracking.

In case of discrepancies between Tyre-Changer data on Data-Plate and this Manual, please refer to Tyre-Changer data-plate only.

1.2 Manufacturer data:

Please check the “Declarations of Conformity” at page 2 of this Manual and Tyre-Changer Data-Plate

1.3 Data-plate:



2.0 GENERAL DESCRIPTION

The Tyre-Changer is intended for mounting and demounting most tyres with alloy or steel rim diameter from 12” to 30” and standard, Run-Flat and UHP tyres with maximum diameter of 1.200 mm (47”).

The Tyre-Changer is NOT intended for demounting completely- or partially-inflated tyres, dirty tyres, nor for rim bending or industrial wheels with split ring rims demounting.
All these operations are forbidden.

This Manual is part of this Tyre-Changer.
Use equipment only as described in this Manual.
Read and understand all instructions before operating this machine.

Keep this Manual in good conditions for further references.
Keep all instructions permanently with the unit.

3.0 SPECIFICATIONS

Connections:
-Electrical Feeding: 230V - 1Ph - 50/60 Hz
-Working air pressure: 8÷10 bar (116÷145 psi)
-Air-feeding pressure regulator set at 10 bar (145 psi) included
-Inflating air-pressure regulator set at 3,5 bar (50 psi) included

Working capacity:
-Rim diameter clamping: 12” a 30”
-Maximum rim width: 16” (410 mm)
-Maximum wheel diameter: 47” (1200 mm)
-Maximum weigth capacity of the wheel lifter: Kg 80

Motoinverter chuck details:
-Motor power: 0,75 Kw
-Maximum torque: 1200 Nm
-Clockwise rotation speed: 6÷12 rpm
-Working noise level: < 70 dB

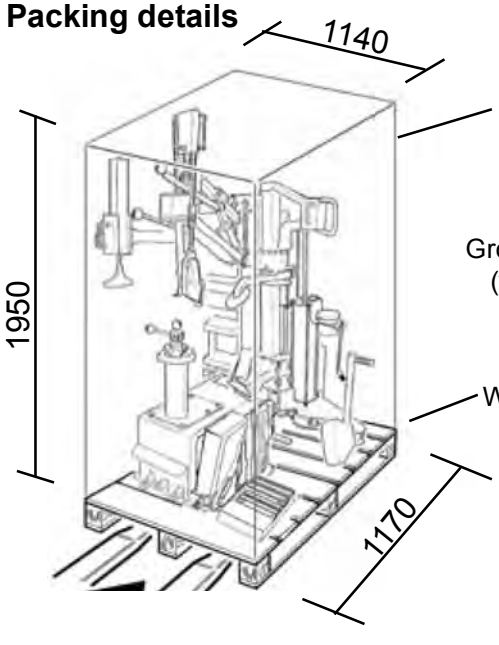
Bead-Breaking units:
-Blade BB cylinder power at 10 bar: 31390 N (3200kg)
-Blade BB maximum span: 430 mm (17”)
-Rollers BB cylinders power at 10 bar: 11770 N (1200 kg)
-Rollers BB maximum span: 610 mm (24”)
-Bead-pressing cylinder power at 10bar: 4218 N (430 kg)

Layout details:
-Minimum overall dimensions mm: 1140 x 1390 x 1770 H
-Net weight (optional accessories excluded): 395 kg
-Standard main-frame colour: Red Ral 3002
-Standard mobile parts colour: Dark grey Ral 9011
-Operating temperature range: min +5° C max +50° C (+41°÷+122° F)

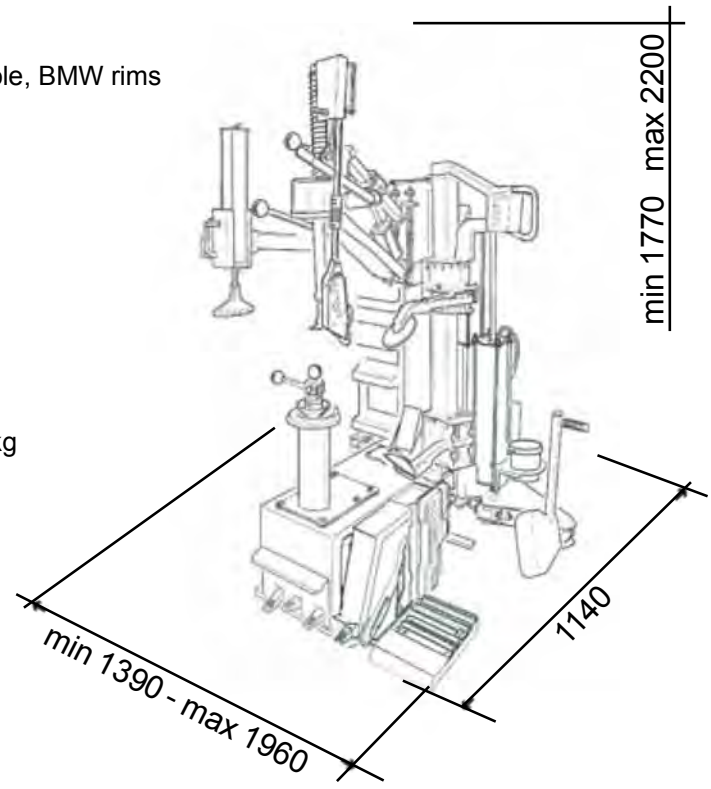
Standard accessories (ref. page 25):
-Reduction ring for centre-plate
-WDK bead pressing clamp with rubber protections
-Plastic lever
-Set of plastic protections

Main optional accessories (ref. page 26):
-Clamping adaptor for reverse rims, rims without centre hole, BMW rims
-Centering cones adaptors kit for light truck rims locking
-Tubeless tyres inflating device

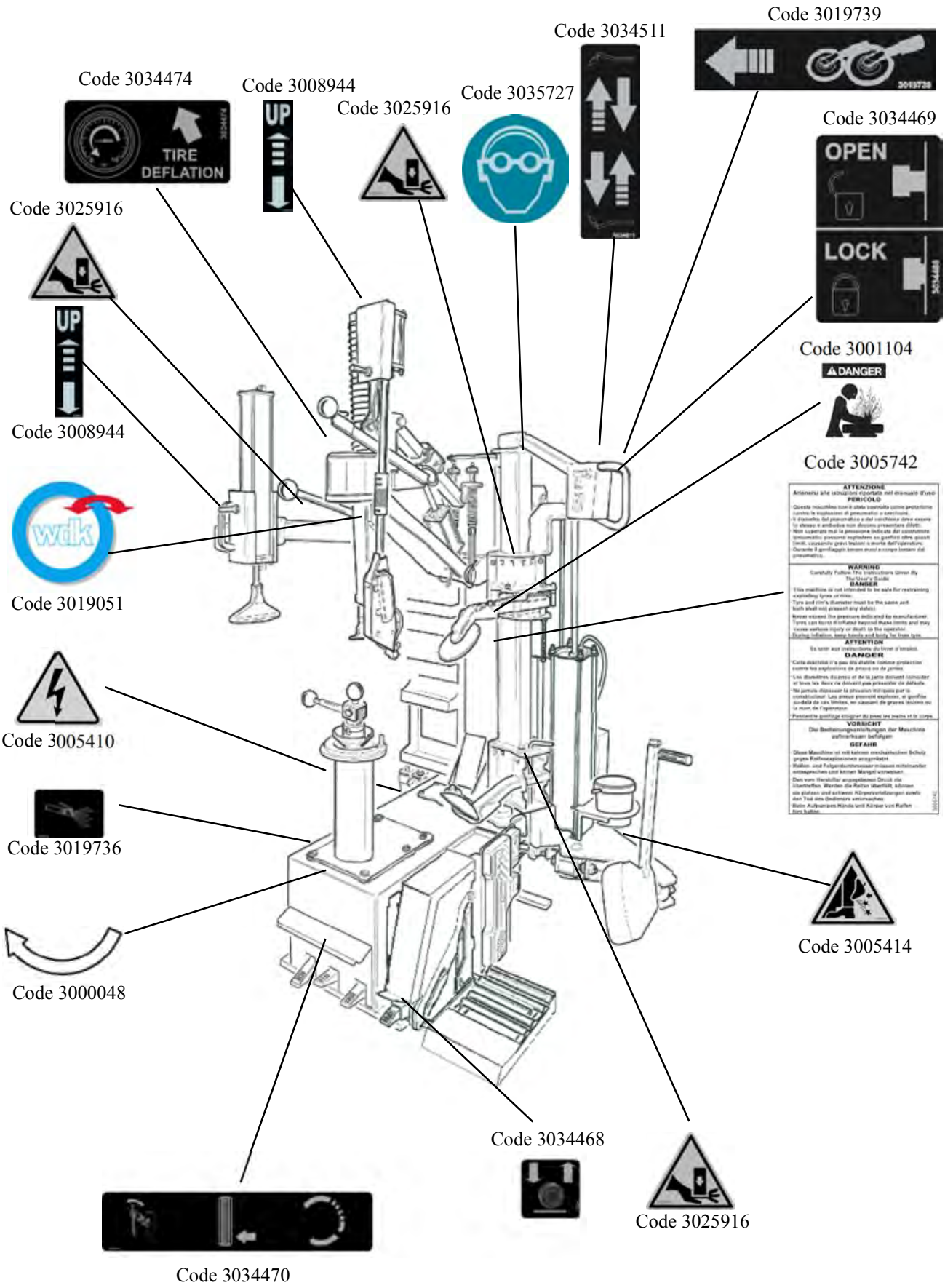
Packing details



Overall dimensions (mm)



4.0 DECALS PLACEMENT



Replace any warning label immediately in case of damage or loss.
Do not operate the Tyre Changer in case of warning labels lack.
Do not hide any warning label by any mean.
Refer to the above mentioned codes for warning labels ordering.

5.0 SAFETY INSTRUCTIONS

The Tyre-Changer has to be used by qualified and authorised personnel only.
A qualified operator is someone who has fully understood the instructions described in the operation instructions manual supplied by the manufacturer, who has been specifically trained and who is aware of safety standards at the workplace. It is essential to use proper service methods and change tyres in an appropriate and acceptable manner that does not endanger your safety, the safety of others in the work of area or the equipment or vehicle in a safe manner.
It is assumed that, prior to using the Tyre-Changer, the operator has a thorough understanding of the wheels and tyres being changed. In addition, it is assumed he has a thorough knowledge of the operation and safety features of the Tyre-Changer accessories being utilized, and has the proper hand and power tool necessary to service the vehicle in a safe manner.

Those in charge of using the machine shall not be under the influence of drugs, alcohol or other substances, which could compromise their physical and mental work capabilities.

For greater safety, operators shall wear health & safety footwear, gloves, protection goggles and shall NOT wear any form of clothing that could get caught up or restrict the operator's movements.

The operator must be able to:
- read and ensure full comprehension of the use and maintenance manual to be able to use the machine correctly and safely.
- read and understand the danger warnings.
- understand the characteristics of the machine.
- keep unauthorised people away from the work area.
- make sure the machine is started in full observance of all the applicable safety standards and rules.
- make sure all operators are familiar with the machine and how to use it safely and correctly.
- avoid touching moving parts or pressurised parts without first disconnecting the machine from the electrical and air power supply.
- keep the operation instruction manual with care in an easily accessible place, so that it can be consulted whenever needed.

The Tyre-Changer may exclusively be used by expert, specifically trained and authorised personnel only.

- The use of the machine is forbidden to disabled operators if their disabilities may affect the safety of the working RSHUDWRQV
- Tampering or modifications to the equipment that are not authorised in advance by the manufacturer, relieve the lat ter from all forms of liability as regards to damages deriving from or referable to such actions.
- Removal or tampering with the safety devices provides grounds to immediately cancel the warranty and involves violation of European Safety Regulations and codes.
- The Tyre-Changer is equipped with informative and warning decals, which are designed and produced to last in time. If they should deteriorate, user may request replacement decals.

IN CASE OF FIRE, USE ONLY DRY CHEMICHAL OR CO_2 EXTINGUISHERS TO PUT THE FIRE OUT.

	WATER H[WLQJXLVKHU	)2$0 H[WLQJXLVKHU	32:'(5 H[WLQJXLVKHU	&2₂ H[WLQJXLVKHU
DRY materials	2.	2.	2.	2.
FLAMMABLE liquids	12	2.	2.	2.
ELECTRICAL equipment	12	12	2.	2.

6.0 SAFETY DEVICES

This Tyre-Changer is provided with the following safety devices in order to grant the operator's safety.
-Pressure limit valve, installed into the Tyre-Changer to avoid inflations over 4,2 bar (61 psi) pressure.
-Pressure regulator with manometer, to limit the maximum system pressure to 10 bar (145 psi).
-(on Tyre-Changers equipped with "TubeLess inflating device") Limit Valve, installed onto the air tank to avoid exceeding 11 bar (160 psi) pressure value.

Removing or tampering with safety devices immediately invalidates the guarantee and it is in contravention of European Safety Rules.

7.0 TRANSPORT

The Tyre-Changer must be transported in its original packaging

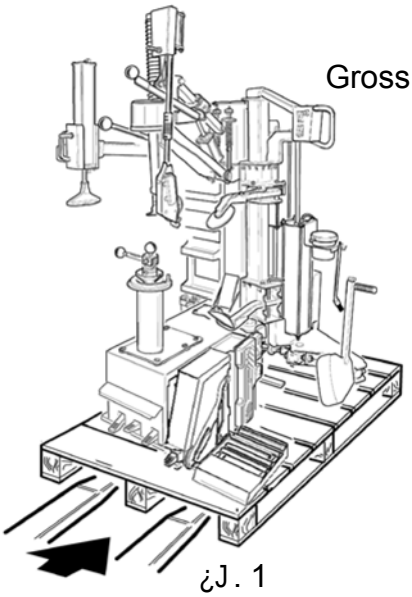
The packaged machine has to be moved by mean of a fork lift of suitable capacity (500 kg min.). Please, insert the forks as shown by the following picture “fig. 1”.

8.0 UNPACKING

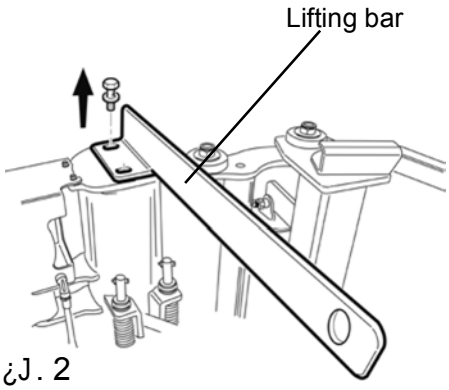
Remove the protective cardboard, remove all fixing screw and free the Tyre-Changer from its original pallet.
Check the perfect condition of the machine, making sure that no part is damaged or missing, referring to the picture at page 10.
If in doubt, please do not use the machine and get in touch with your Distributor for further steps.

Keep packing elements away from children.
All packing elements must be stored in the proper stocking areas.

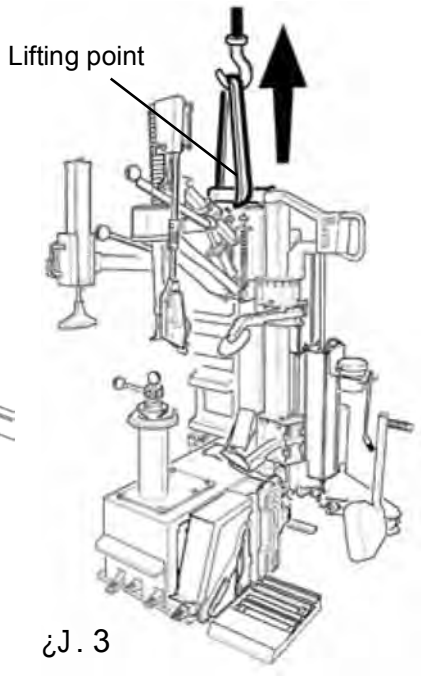
Note: All the most delicate surfaces of the Tyre-Changer are coated by a special rust-proof oil.
Some oil traces may leak after coating procedure: please, remove them accordingly.



¿J. 1



¿J. 2



¿J. 3

After Tyre-Changer positioning, take off the lifting-bar by unscrewing both fixing screws (as per “fig. 2”) and keep it for further displacements.
The machine must be moved by means of suitable capacity (fork-lift: 500 kg min. as per “fig. 1” or crane with lifting-belt: 500 kg min. as per “fig. 3”).

9.0 INSTALLATION

9.1 Tyre-Changer site requirements

When choosing the place of installation be sure that it complies with current safety-at-work regulations.

The Tyre-Changer must be connected to the main electric power supply and the compressed air system. It is therefore advisable to install the machine near these power sources.

The installation area must leave at least the room shown in picture "fig. 4", so as to allow all parts of the machine to operate correctly and without any restriction.

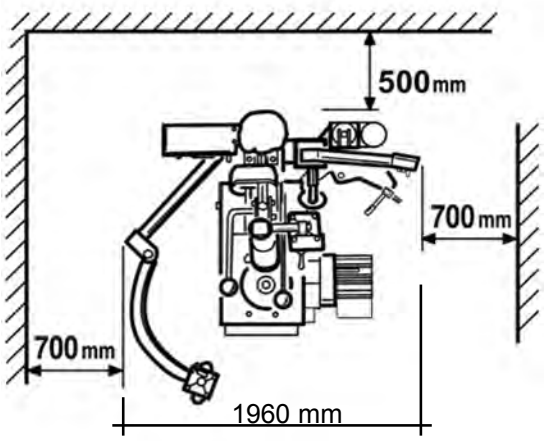


Fig. 4

9.2 Tyre-Changer placement and connections

Place Tyre-Changer onto a levelled-out, smooth and not slippery floor with a suitable load capacity.

No bolt down installation is required. In case of bolt-down installation, please refer to all 4 holes on the base of the machine, drilling through 100 mm into the floor and using suitable bolts for fixing.

If the machine is installed outside it must be protected by a appropriate lean-to shed.
The electric network of the installation area must be provided with adequate earth plate and connected to an automatic circuit-breaker (differential) set at 16 mA.

Should the Tyre-Changer be lacking in electric plug, the user must set one - at least 16 A and conform to the voltage of the machine, in compliance with the regulations in force.

Before connecting the machine, please check that the characteristics of your networks correspond to those indicated by machine's data-label.

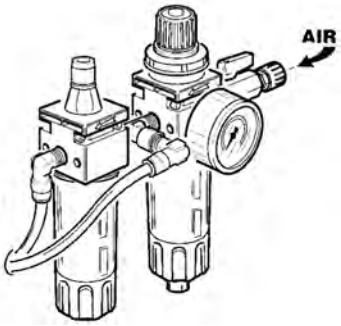
Even small jobs done on the electrical system must be carried out by professionally qualified personnel.

The Manufacturer is not responsible for damages caused by electrical connection different from the original indications.

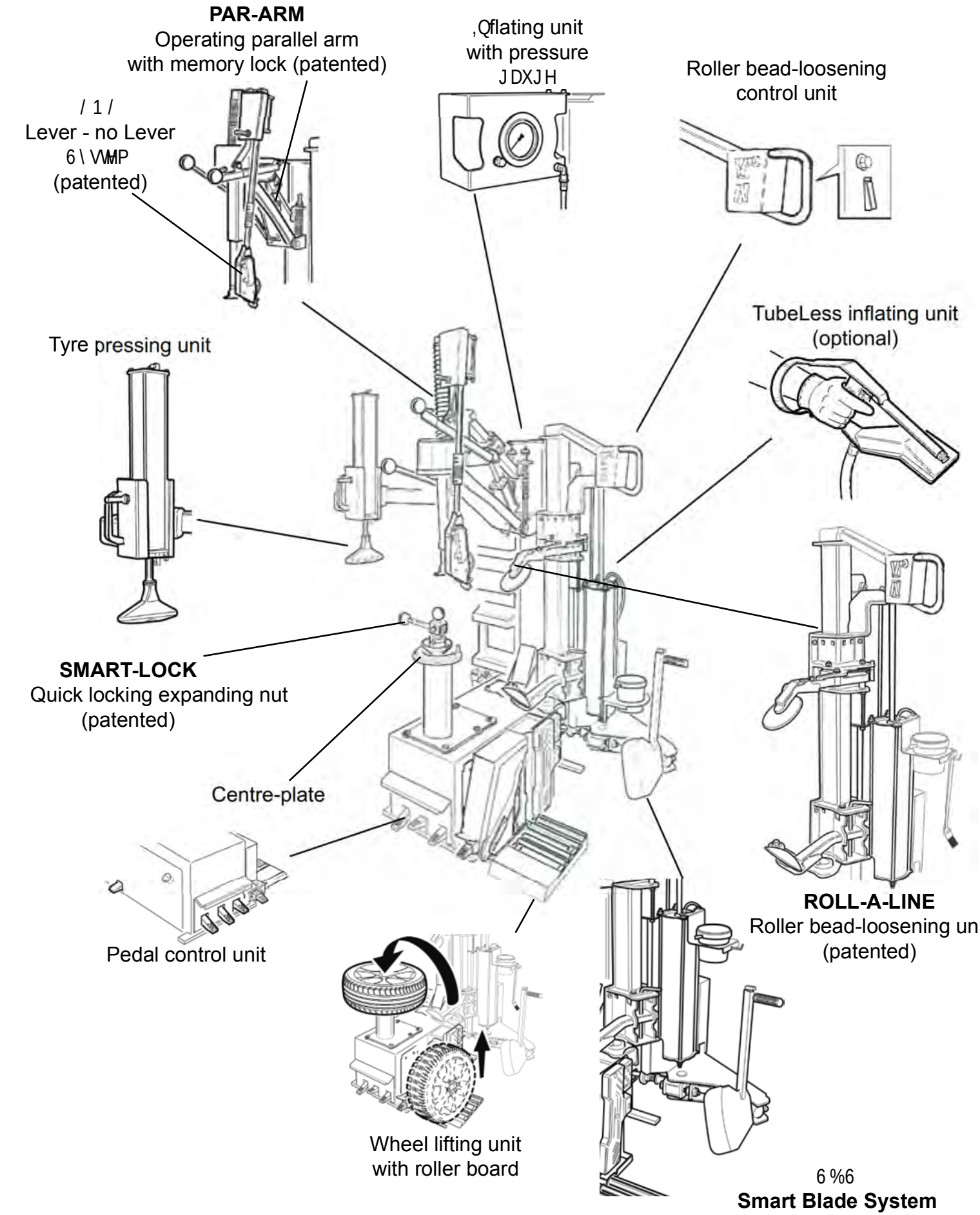
Unplug the unit from electrical and pneumatic outlets before moving and servicing.

The pneumatic network of the installation area must be provided with min. 8 bar working pressure outlet.

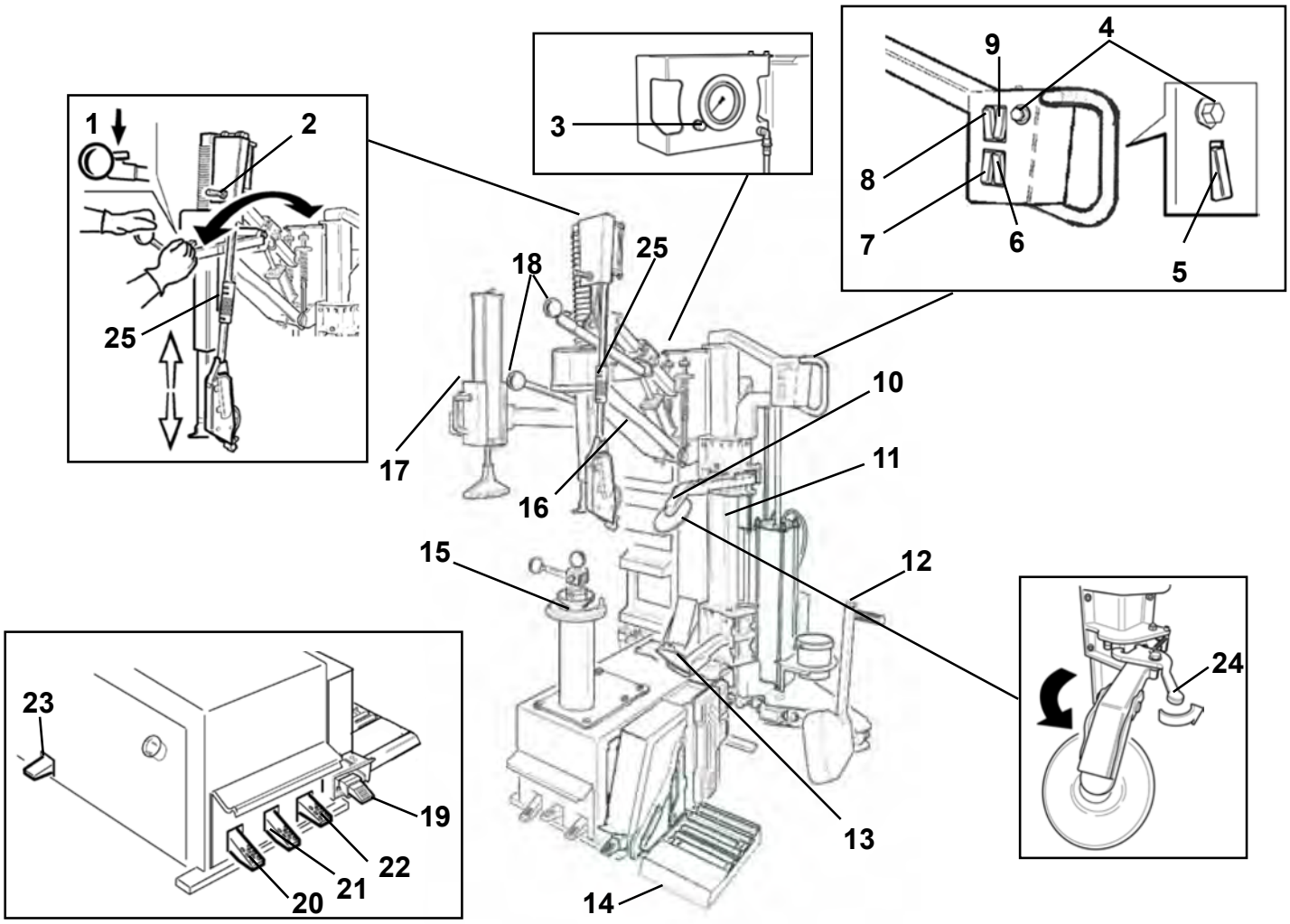
Connect the machine to the pneumatic network by means of the air fitting on oiler filter/ regulator installed onto the rear section of the machine.



10.0 EQUIPMENT COMPONENTS



11.0 CONTROLS DESCRIPTION



1-Operating par-arm (ref. 16) release & locking button
2-Leverless system control button
3-' Hflation button (inflating: by pedal ref. 23)
4-Roller bead-loosening unit locking/unlocking release button
5-Bead-loosening rollers override engaging button
6-Lower bead-loosening roller (ref. 13) lifting button
7-Lower bead-loosening roller lowering button
8-Upper bead-loosening roller lifting button
9-Upper bead-loosening roller lowering button
10-Upper bead-loosening roller arm (unlocking: by lever ref. 24)
11-Roller bead-loosening unit (manual approaching by control console) handle.
12-Shovel blade bead-loosening unit positioning lock button (SBS System)
13-Lower Bead-loosening roller arm (adjustable to match with reverse drop-centre rims)
14-Wheel lifter with roller board
15-Center plate
16-Operating par-arm
17-Tyre pressing unit control button
18-Operating par-arm (ref. 16) positioning knobs (keeping pressed button ref. 1)
19-Wheel lift (ref. 14) control pedal
20-Operating par-arm (ref. 16) movement pedal control
21-Shovel blade bead-breaker (SBS System) pedal control
22-Clockwise and anti-clockwise centre-plate (ref. 15) rotation pedal control
23-,Qflation pedal control (deflation by button ref. 3)
24-Upper bead-loosening roller arm (ref. 10) unlock & rotation lever
25-Handle for disengagement of the Lever-Less mounting tool

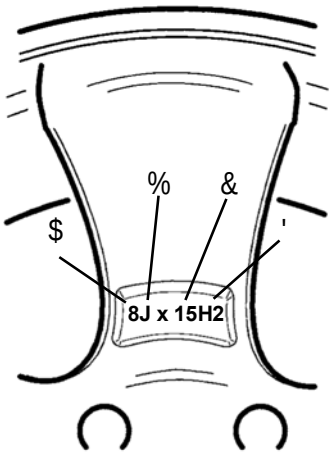
Any test must be operated with no tyre onto the machine.
Mind any component which could interfere with machine testing operations.

12.0 RIM AND TYRE IDENTIFICATION

Before starting demounting a tyre, it is of CRUCIAL IMPORTANCE to identify the measurements of the rim and of the tyre, as well as to make sure that neither the rim nor the tyre are damaged.

Warning: these very important procedures have to be correctly performed to reduce risks of tyre bursting while re-mounting and inflating the tyre on the rim.

Each rim bears an indication of their diameter, width, number of humps etc.
Example: 8Jx15H2



A = 8 nominal width of the rim in inches (1 inch= 25.4 mm)

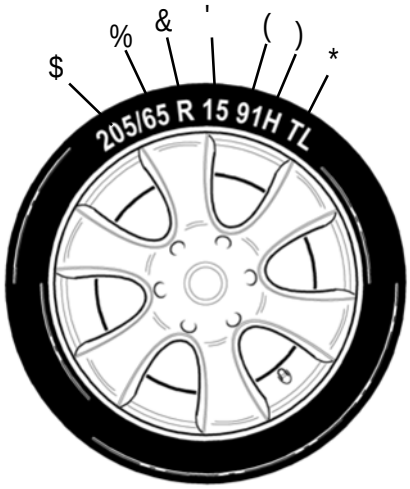
B = J size of the ÀDQJH

C = 15 nominal diameter of the rim

D = H2 double hump (anti bead removing edge)

Each tyre bears a considerable amount of details, among which are the dimensions, type and maximum speed.

Example: **205/65 R 15 91H TL**

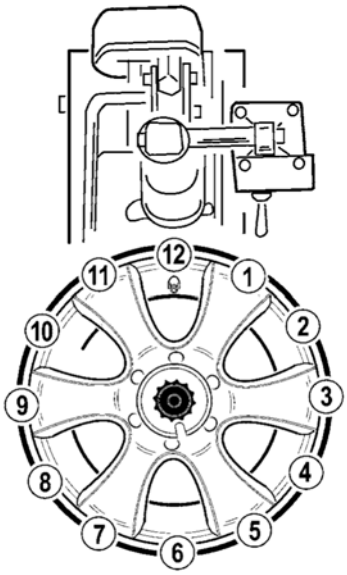


A = 205 width of the tyre (the distance between tyre sides, expressed in millimetres)
B = 65 ratio percentage between the height of the section and its width
C = R type of tyre (R= radial)
D = 15 keying diameter(diameter of wheel and rim) in inches
E = 91 index of the maximum load born by each wheel
F = H maximum admitted speed of the tyre (H= 210 Km/h)
G = TL type of tyre (T= Tubeless)

13.0 VALVE POSITION

The picture on the right side symbolizes a rim as a clock face.

The valve positions described by the following working steps always refer to the represented clock-face hours-marks.



Mind the position indications (hour-marks) in order to put the valve and the pressure-sensor in correct and safe positions.

It is strictly forbidden to mount tyres on rims with mismatching parameters (diameter and width). It is also forbidden to mount tyres with dimensions which are different from the ones stated in the car logbook.

14.0 WHEELS AND TYRES CLASSIFICATION

14.1 Standard wheels

A “standard wheel” is a car wheel with steel or alloy rim, with center hole, drop centre close to the external border of the rim and a standard tyre (not RUN-FLAT nor LowProfile).

14.2 Low-profiled tyres (UHP) wheels

Low profile tyres (UHP) are those in which the height (H) and the width (C) have a ratio lower than 0.5 (i.e. low profile series 45 stands for a ratio of H/C = 0.45).
For tyres to be considered as low profile (UHP), they must also have a maximum speed code of equal to and/or higher than V.

Maximum speed codes

Q= to 160 km/h
R= to 170 km/h
S= to 180 km/h
T= to 190 km/h
U= to 200 km/h
H= to 210 km/h
V= to 240 km/h
W= to 270 km/h
ZR= > 240 km/h
ZR(Y)= > 300 km/h

14.3 RUN-FLAT tyres wheels

RUN-FLAT tyres are those which allow to continue to drive the vehicle for a preset number of miles and at a preset speed, even if they have no internal pressure. These parameters change from one manufacturer to another.
The market currently offers 2 different types of RUN-FLAT tyres:
- Those with reinforced sidewall (self-supporting) where, thanks to a different mix and a reinforced structure, the shoulder of the tyre can bear the weight of the vehicle even when the internal pressure of the tyre is zero.
- Those with internal support which have a ring inside the rim that bears the sidewall of the tyre when there is no pressure inside it. The internal support may be made of plastic (Pax-Sistem) or of metal (Support-Ring).

All the tyres which do not correspond to the above mentioned descriptions have to be considered as “standard tyres”.

This Tyre-Changer is able to handle all types of wheels with “standard” tyres, LowProfile (UHP) and RUN-FLAT tyres with reinforced side.
RUN-FLAT tyres with internal support (PAX System or Support-Ring type) mounting/demounting procedures need special accessories to be used according precise dedicated instructions.

The mounting and demounting procedure is similar with “standard” tyre, LowProfile tyre (UHP) tyre or RUN-FLAT tyre with reinforced side (self-supporting).

The bead-breaking procedure should be operated by shovel-blade bead-breaker with “standard” wheels – in order to save time – while the rollers bead-breaking unit has to be used for all LowProfile (UHP) and RUN-FLAT tyres.

It is compulsory to follow the demounting/mounting instructions carefully, in order to avoid tyre damages and the consequent risks for the vehicle and the passengers safety.

15.0 WDK RULES

WDK is a German certified body charged with the evaluation of tyre-changers functioning and their capability to perform good and safe operations on RUN-FLAT and UHP tyres correctly, to avoid permanent and potentially dangerous damages to tyres.

In order to perform a correct demounting and mounting process, the following premises are strictly compulsory:
1. Guidelines knowledge - WDK literature provides all necessary guidelines for all tyre brands and models, including all theoretical and practical instructions to avoid any possible damage to tyre, rim and pressure sensor.
2. Certified tyre-changer - This Tyre-Changer is WDK certified and fulfils all WDK requirements.
3. Qualified operator – The specific technical courses provide the operators with the necessary WDK guidelines and service instructions. Dedicated WDK official courses are available to get the WDK diploma, when necessary.

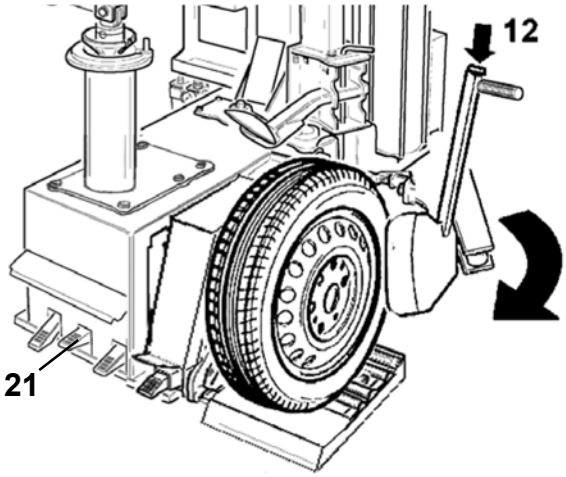
16.0 BEAD LOOSENING BY SHOVEL-BLADE

16.1 SBS (Smart Blade System)

The tyre-changer is provided by an exclusive patented shovel-blade bead-loosening system which lets the operator work faster, with reduced efforts and preserving the tyre integrity (in conformity to WDK regulation).

Make sure the tyre is completely deflated before starting any operation on the wheel.

-Remove all weights from the rim by a proper tool, paying attention not to damage the rim.
-Before starting any operation, please check the eventual presence of a pressure sensor. In positive case, it is preferable to check its efficiency by a dedicated diagnostic tool.
-Place the wheel onto the roller board.
-Keep button ref. **12** pressed while approaching the shovel-blade to the rim border (without touching it).
-Release the button ref. **12** to record and lock the shovel-blade at stroke start position.
-Press and release repeatedly the pedal ref. **21** while turning the wheel onto the roller board by both free hands, until the bead-breaking of the tyre is completed.
-Turn the wheel then repeat the above mentioned procedure in order to bead-break also the other side of the tyre



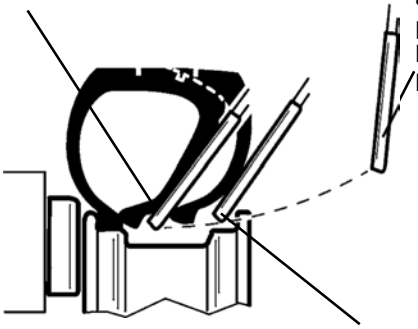
16.2 SBS Smart Blade System advantages

-The patented “in-and-out stroke memory” system lets the operator record the correct shovel-blade position just once, with no need to adjust it during the bead-breaking steps.
This feature leaves both operator’s hands free, for a correct and comfortable hold and rotation of the wheel.
-The “Power-Out” system frees the shovel-blade when it gets stuck between tyre and rim borders, restoring the recorded correct working distance from the rim border. This feature avoid operator’s effort for unlocking the shovel-blade from the wheel, making the whole bead-breaking session more comfortable and faster.
-All WDK regulation rules are satisfied with no extra accessory needed, thanks to the controlled stroke of the shovel-blade from the rim border to the pre-fixed position preventing tyre deformation and squeezing.

Typical shovel-blade bead-breaking system Disadvantages:

Excessive in-stroke with violent deformation and squeezing of the tyre

Excessive out-stroke of the arm with time loss and forcing a manual re-positioning of the shovel-blade against the rim border



Compressed air and energy consumption

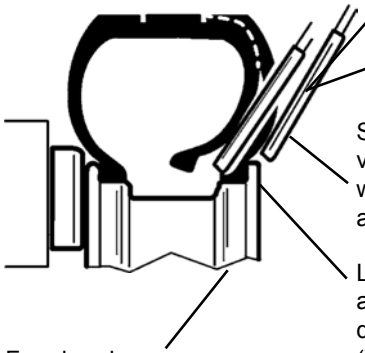
Heavy efforts and much time necessary to unlock the shovel-blade when it gets stuck between tyre and rim ERUGHUV

SBS Smart Blade System Advantages:

Shovel-blade with memorized stroke start to avoid risks of damages to the UP

Time-saving start of the shovel stroke from rim border

Self-locking shovel back movement to unlock the shovel when stuck between bead and rim (power-out effect)



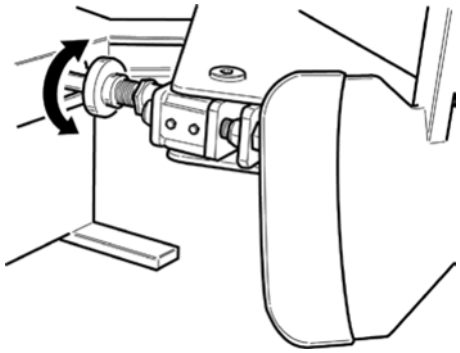
Limited stroke-in to avoid squeezing and deformations to the tyre (WDK)

Free hands on the wheel to roll it while moving the shovel by foot pedal

Less air and energy FRQVXP SWRQ

16.3 Blade stroke calibration

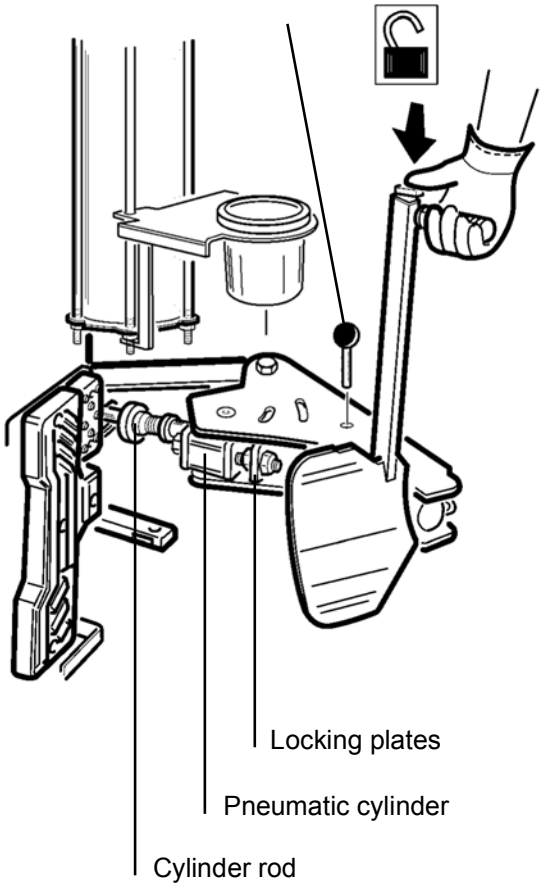
The Tyre-Changer is provided with the shovel-blade set up with an approx. 12 cm stroke.
The original stroke can be modified by turning the gear as shown by the picture beside: clockwise spinning for stroke reduction, anti-clockwise spinning for stroke increase.

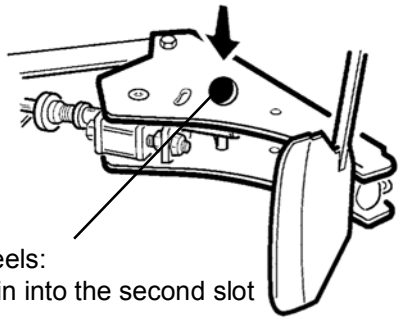


16.4 Emergency locking pin use.

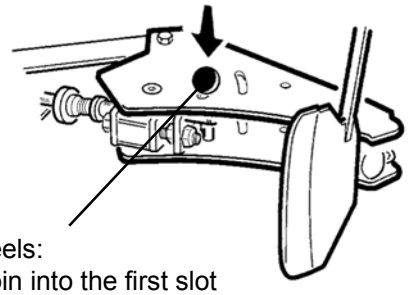
- In case of malfunction, SBS system may loose wheel width memory, therefore making the shovel bead-breaking arm loose its effectiveness.
- In order to restore SBS correct functioning, it is necessary to adjust its locking plates and check the pneumatic cylinder which controls them.
- Waiting for the necessary technical intervention, the bead-breaker use can be immediately restored by using the proper emergency pin, connecting the bead-breaking cylinder rod to the shovel blade arm.
- Particularly, the bead-breaker stroke can be adjusted according to the wheel width by inserting the emergency pin into one of the two available slots and into the cylinder rod.
- In case of extra large wheels – up to 470mm / 17”, the bead breaker can work properly leaving the emergency pin into its housing.

Pull the pin out of its housing





Narrow wheels:
Insert the pin into the second slot



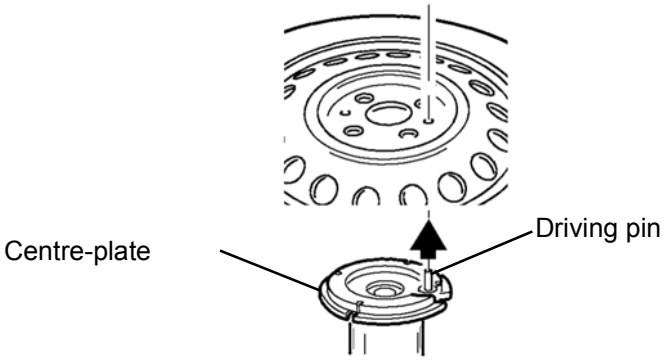
Larger wheels:
Insert the pin into the first slot

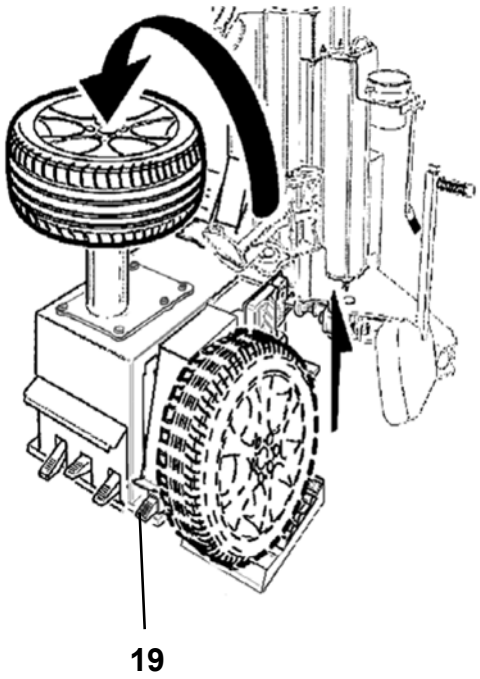
17.0 WHEEL LIFTING AND CENTERING ONTO CENTER-PLATE

Before lifting and positioning the wheel onto the centre-plate, please:
- remove all weights from the rim by a proper tool carefully,
- remove any object or tool which could interfere with lifting.

-Put the wheel vertically onto the roller board (rim back facing the Tyre-Changer)
-Lift the wheel by pedal ref. **19** completely.

-Position the wheel onto the centre-plate making the drop-centre hole match-up with the rotation axle of the centre-plate
-Lower the lift by releasing pedal ref. **19** and match one of the lug holes with the driving pin of the centre-plate.



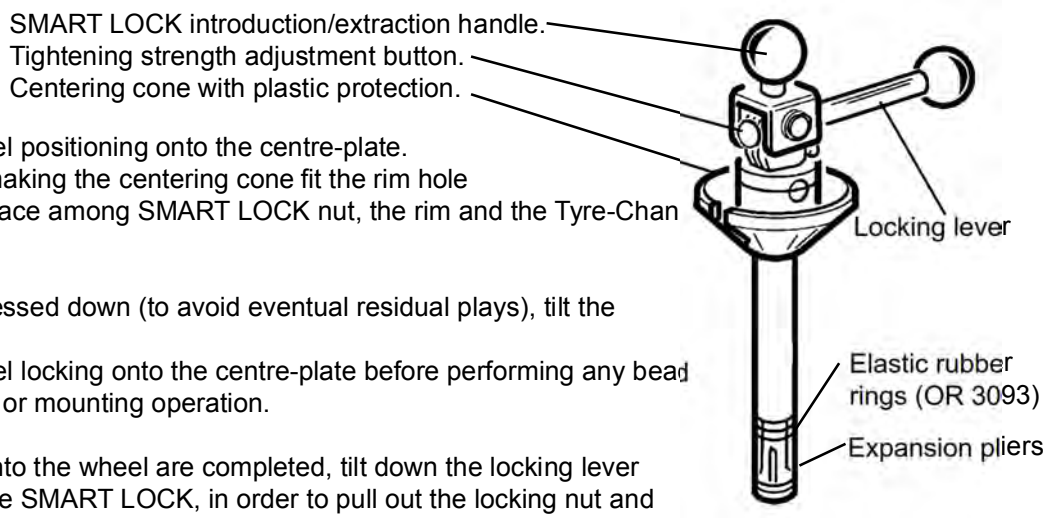


18.0 WHEEL LOCKING WITH SMART LOCK

-The patented quick locking expanding nut SMART LOCK, makes operators' work easier by granting a tough and steady wheel locking simply by rising the lever.

- The locking is performed by an expanding-pliers system. Both strength and grip can be easily adjusted by the proper button.

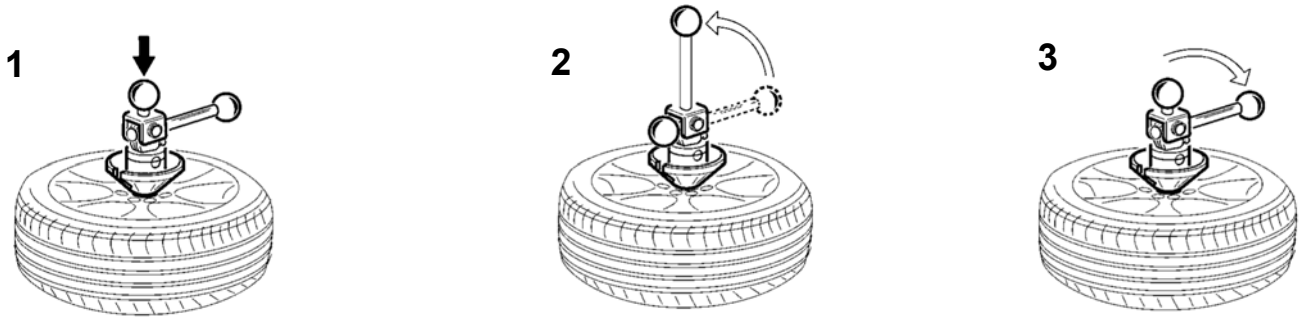
- Light weight: 3,9 Kg.



1 Check the correct wheel positioning onto the centre-plate.
Insert SMART LOCK making the centering cone fit the rim hole correctly, leaving no space among SMART LOCK nut, the rim and the Tyre-Changer centre-plate.

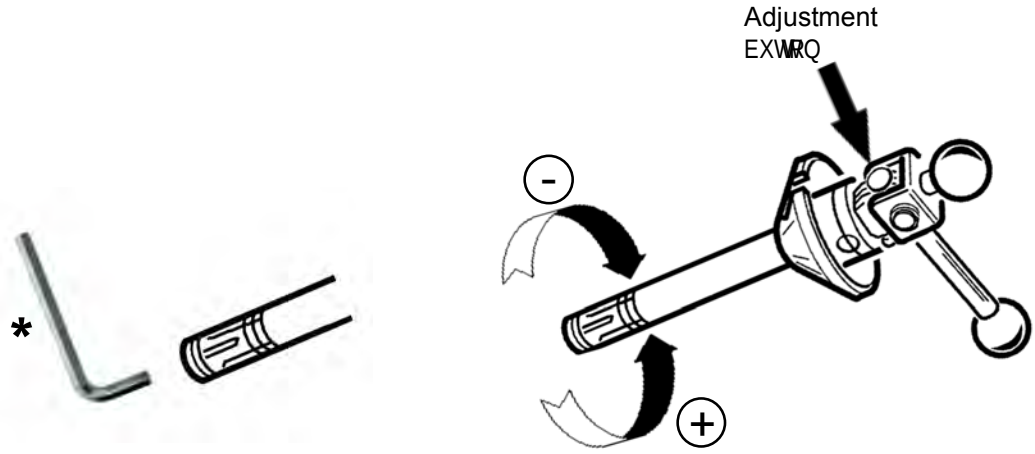
2 Keeping the handle pressed down (to avoid eventual residual plays), tilt the locking lever vertically.
Check the perfect wheel locking onto the centre-plate before performing any bead loosening, demounting or mounting operation.

3 Once the operations onto the wheel are completed, tilt down the locking lever completely to unlock the SMART LOCK, in order to pull out the locking nut and remove the wheel from the centre-plate.



18.1 Tightening adjustment

The locking tightening of SMART LOCK could be loosened after a long time use by a progressive wearing of some components, this revealed by a progressive slack of the locking lever.
To restore / increase / decrease the lever and the SMART LOCK tightening: press adjustment button, start turning the locking pliers manually, release the button and go on turning the pliers until the button pops up again.
- Clockwise pliers turning = tightening increasing.
- Anti-clockwise pliers turning = tightening decreasing.



** 8 mm*
(supplied)

18.2 Service

The regular cleaning and lubrication of the SMART LOCK components grant a long-lasting correct functioning of the tool. The replacement of the OR rubber rings is suggested every 12 ÷ 18 months use of SMART LOCK.

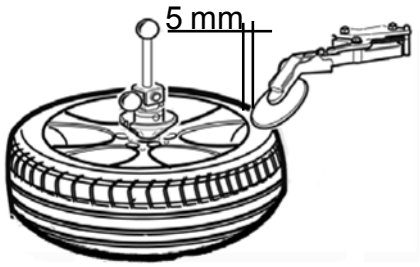
19.0 BEAD LOOSENING BY ROLLERS

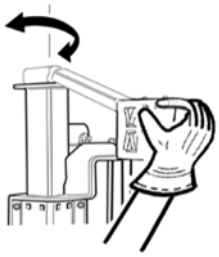
Make sure the tyre is completely GHÀDWHG before starting any operation on the wheel.

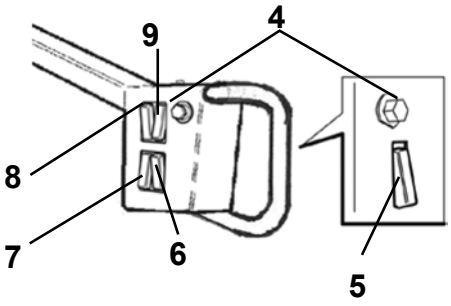
-Remove all weights from the rim by a proper tool, paying attention not to damage the rim.
-Before starting any operation, please check the eventual presence of a pressure sensor. In positive case, it is prefe rable to check its efficiency by a dedicated diagnostic tool.

19.1 Upper bead

Check the correct centering and locking of the wheel onto the centre-plate, then push front button **4** to free the roller bead-breaking unit and position it by handling the console, in order to let the upper roller keep a 5 mm distance from the rim border, then lock the bead-breaking unit by pushing again the rear button **4**.







Pay attention to the valve sensor position during bead loosening steps.
Wrong movements of the upper roller could damage the sensor.

- Spin the centre-plate until the valve reaches position at “3 o’clock” position.

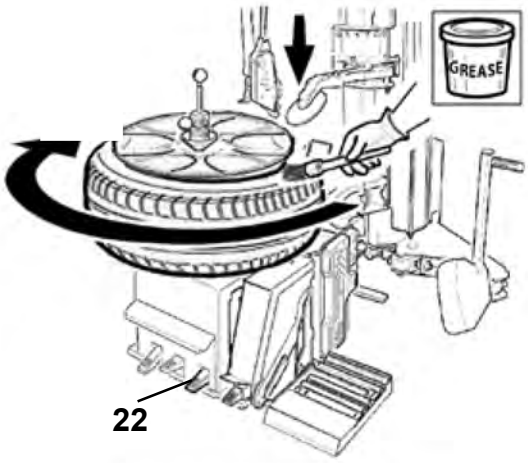
- Lower the bead loosening roller until it touches the tyre using controls **9** for lowering and **8** for lifting.

- Start spinning clockwise pressing pedal **22**.

Note: the centre-plate can spin at 2 different speeds, according to operator’s preferences

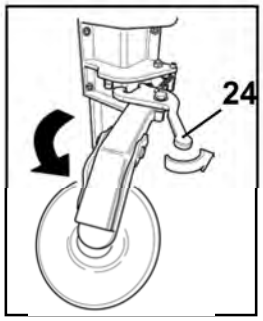
- While spinning the wheel, push the bead loosening upper roller down under the edge of the rim, then press and hold down the “over-stroke” function button **5** going on lowering the roller until the bead detaches from the rim.

- As soon as enough space is available, grease both inner surface of the rim and tyre bead carefully with a proper tyre lubricating paste.



Avoid contacts between the lubricating paste and the valve sensor, if any.

- Once the bead gets loosened, raise and move away the upper roller by acting on lever **24**.



19.2 Lower bead

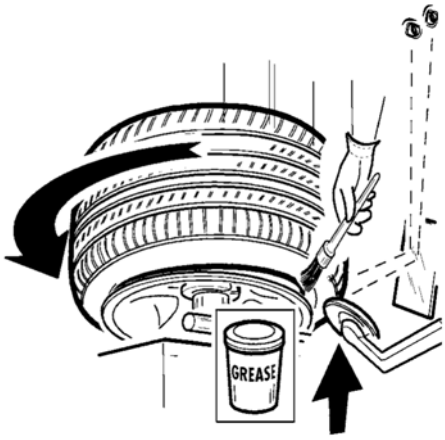
Keep the bead-loosening unit set up as for upper bead release: the lower roller is always aligned with the upper one, at 5 mm distance from rim lower border already.

Lift the lower roller until it touches the lower bead using controls **6** for lifting and **7** for lowering.
Start spinning the wheel clockwise by pressing pedal **22**.

- While spinning the wheel, push the lower roller up over the edge of the rim, then press and hold down the “over-stroke” function button **5** going on lifting the roller until the bead detaches from the rim.

- As soon as enough space is available, grease both inner surface of the rim and tyre bead carefully with a proper tyre lubricating paste.

Note: for a better control of the lower bead loosening please refer to the dedicated mirror fitted onto the Tyre-Changer main frame.



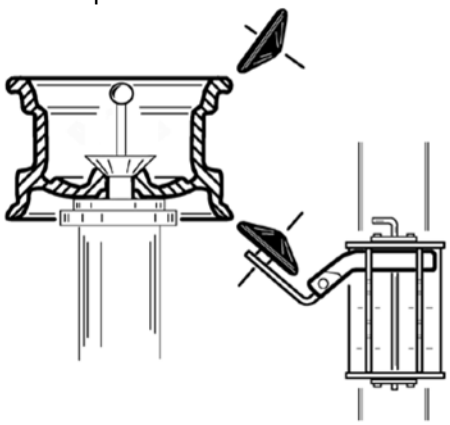
Press on the bead – never on the sidewall of the tyre while loosening the bead.

20.0 BEAD LOOSENING ON SPECIAL TYRES

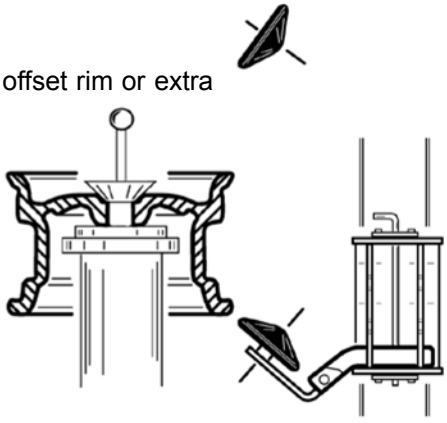
All wheels with the following characteristics:
- Reverse drop centre rim
- Positive offset
- Extra wide rim

require a special positioning of the lower roller for a correct bead loosening.
The Tyre-Changer is provided with the lower bead-loosening roller on mid-position seat.
Make reference to the pictures below to find the correct special positioning (upper or lower position):

Reverse drop centre rim

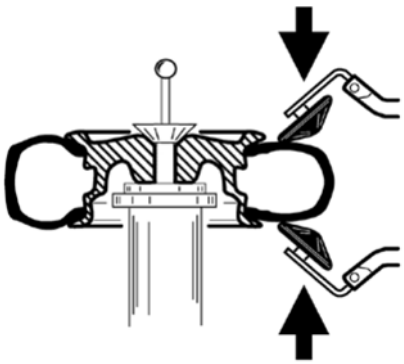


Positive offset rim or extra wide rim



21.0 RIM AND TYRE MATCHING

Driving could be affected by vibrations caused by deformations of the rim and/or of the tyre. To optimize the wheel-balancing, it is necessary to position the wheel onto the Tyre-Changer again to bead-break and lubricate the rim and the tyre, spinning the tyre around the rim to a proper position.
Both upper and lower rollers make this process easier, by gently holding the tyre steady while the centre-plate spins the rim until the correct matching position.

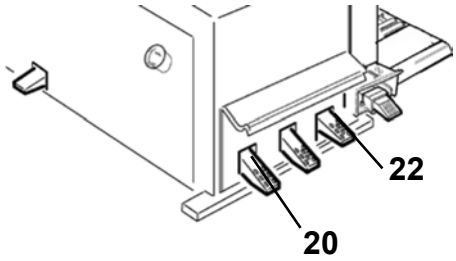


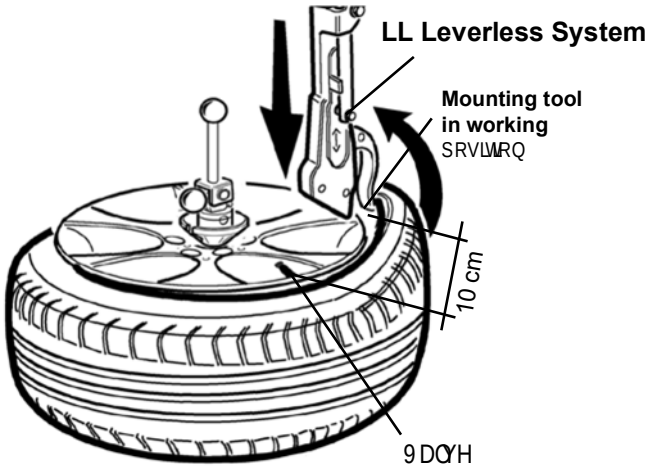
22.0 TYRE DEMOUNTING

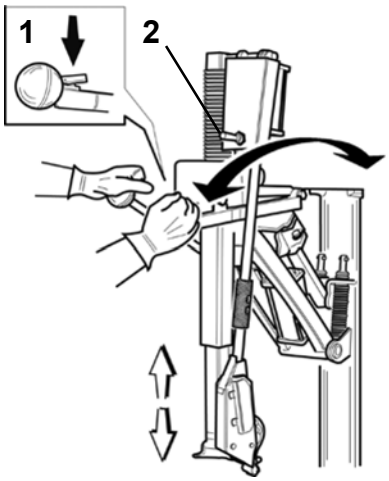
Once the bead loosening process is completed, lift and lock the wheel onto the centre-plate as per instruction at page 16.
If the bead demounting has been performed by rollers, the wheel is already positioned onto the centre-plate. Please check and ensure its correct locking and centering.

22.1 Upper bead demounting

- Turn the wheel until the valve is in the “1 o’clock” position (roughly 10 cm - 4” distance from the mounting tool) in order to avoid possible damages to the valve or the pressure sensor.







- Press the pedal ref. **20** to position the mounting arm close to the wheel while driving the mounting arm by handling both spherical knobs and pressing the switch ref. **1** to set the mounting tool onto the rim edge.

- Release switch ref. **1** to lock the mounting arm at working position.
  Automatically the mounting tool is moved up and away from the rim border to have a clearance of approx. 2 mm when locked
- Lower the lever ref. **2** to insert the mounting tool between the bead and the rim edge.
  The mounting tool should penetrate enough to hook the tyre bead to let the operator complete the tyre demounting: spin slowly the wheel until the mounting tool is positioned correctly.
  A gentle pressure on the tyre sidewall by the upper roller could help the mounting tool positioning.

- As soon as the bead is perfectly hooked, lift the mounting tool by raising lever ref. **2** to pull out the bead.
  To make the lifting easier set the tyre pressing unit at “6 o’clock” position and press the tyre side (fig. 1).
  Get a further help by contemporarily lifting the lower tyre side by the lower bead-loosening roller (fig. 2).

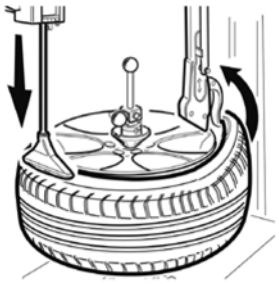


Fig. 1

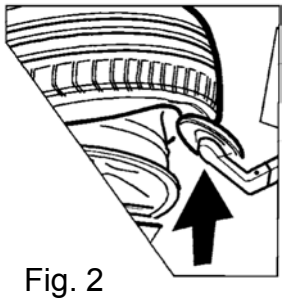


Fig. 2

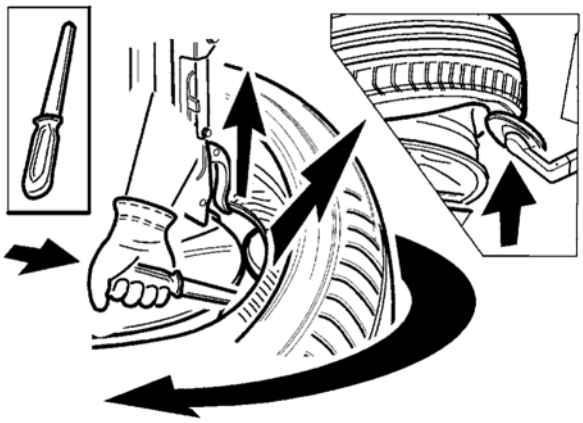
- Press down on pedal ref. **22** to rotate the wheel clockwise until the entire bead is lifted from the rim

NOTE: rim and tyre must spin together as one.

- In order to help the bead coming out and reduce the stress to the tyre: insert the plastic lever (as shown by picture aside) and spin the wheel clockwise while lifting the tyre by the lower bead-loosening roller.

NOTE: The above mentioned action is compulsory for UHP and RUN-FLAT tyres according to WDK rules.

22.2 Lower bead demounting



- Before pulling out the lower bead, spin the wheel to let the valve reach “1” or “2” o’clock position in order to avoid possible damages to the valve and the sensor - if any.

- Lower the lever ref. **2** to insert the demounting tool under the lower bead. Raise the lever ref. **2** to lift the demounting tool and the bead.

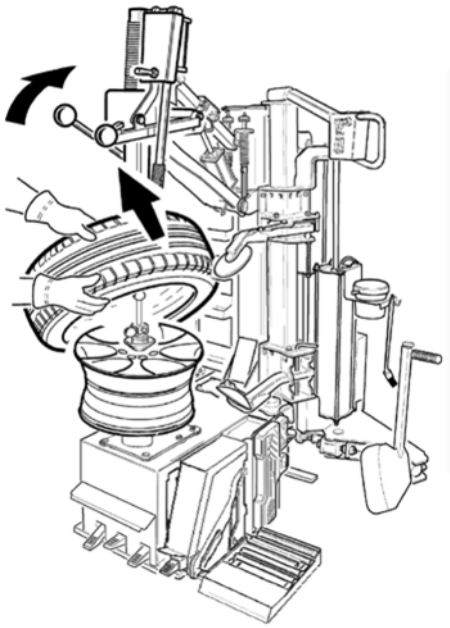
- Raise the lower bead loosening roller to lift the tyre until the lower bead is 1 cm over the upper rim edge.

- In order to help the above mentioned operation, lift the tyre manually at “2” or “3” o’clock position and insert the plastic lever as per WDK rules for UHP and RUN-FLAT tyres.

- Spin the wheel clockwise until the tyre complete coming out.

- Press the pedal ref. **20** to move the mounting arm away, push the rollers bead breaking unit away and pull out the tyre.

- Check the status of the pressure sensor - if any - and replace it if necessary.



22.3 Tyre demounting by hand lever (LNL Lever-no lever system)

The Tyre-Changer is provided with a patented system which allows the use of a standard steel lever to demount special wheels as:
- Wheels with very narrow rims,
- Wheels with very tender tyre sidewalls,
- Motorcycle wheels

The above wheels can not easily - or not at all demounted with the standard LeverLess system.

In order to demount a tyre manually by a standard lever:
- pull the retractable claw up away from working area by lifting the handle ref. **25**; up (fig. 1).
- lean the manual lever onto the fixed claw (fig. 2).

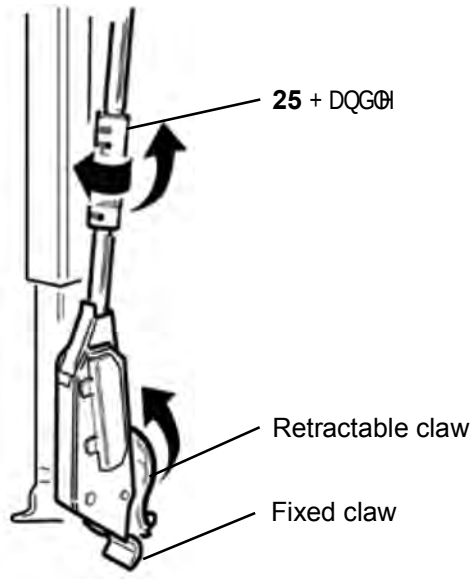


Fig. 1

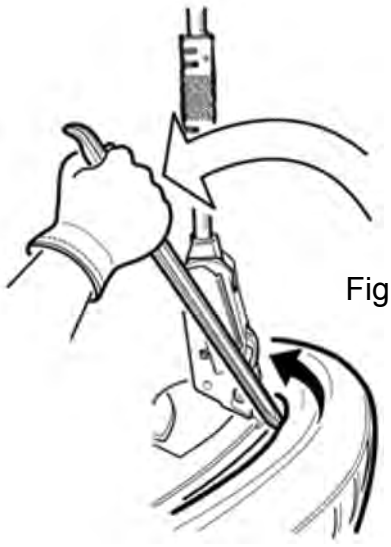


Fig. 2

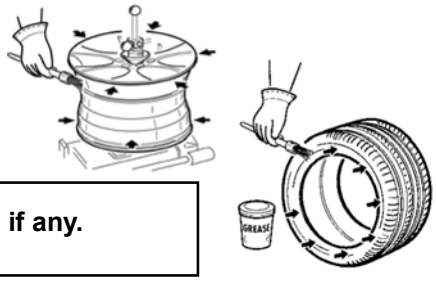
Once the manual demounting is finished, the standard position of the retractable claw can be restored by lowering the handle ref. **25**.

23.0 TYRE MOUNTING

- Check the rim and the tyre carefully, as per instructions at page 12 of this manual.

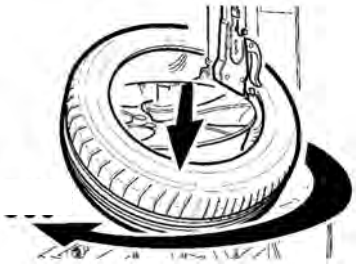
- If the rim has been moved, lock it again onto the centre-plate as per instructions at page 16 of this manual.

- Lube 3 cm thickness along the whole internal surface of the rim and internal and external surface of tyre beads.



Avoid contacts between the lubricating paste and the valve sensor, if any.

23.1 Lower bead mounting

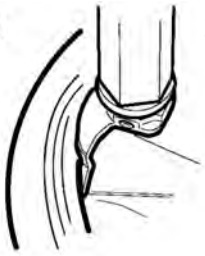


- Put the tyre onto the centre-plate tilting the tyre at “12 o’clock” position in order to make both upper and lower beads go under the upper rim edge.
- Press pedal ref. **20** to approach the mounting arm and position the mount/demount head onto rim edge.
- Incline the tyre to the bottom at “3 o’clock” position, driving the lower bead to the mounting head in order to put the lower bead over the mounting lip on the left side of the head and under the demounting claw on the right side of the head.
- Rotate the wheel by pressing the pedal ref. **22**, contemporarily press the tyre at “5 o’clock” position until the bead reaches the drop centre level. Keep the tyre pressed until “8 o’clock” position while rotating to complete the lower bead mounting.

23.2 Upper bead mounting

- Keep the mounting arm and the mount/demount head at working position, then put the tyre bead on the rim slightly tilted down to “3 o’clock” position.

Bead correctly positioned over the mounting lip.



2 .

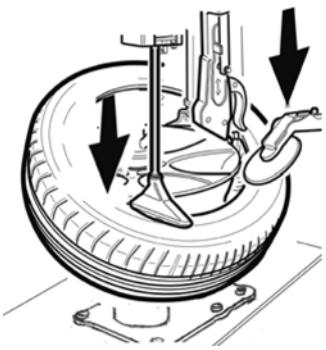
Bead incorrectly positioned causing bead damages between the head lip and the rim edge

Bead correctly positioned under the demounting claw

2 .

Bead incorrectly positioned

- Press the button ref. **9** to lower the upper bead loosening roller until the upper bead reaches 3 cm level under the rim edge.
- Make sure that the upper bead of the tyre rests on the left lip of the head and under the demountig claw on the right side of the head.
- Press the pedal ref. **22** to rotate the wheel clockwise, contemporarily press the tyre manually from “5 o’clock” position to force the bead at drop-centre position. Keep it pressed while rotating up to “8 o’clock” position to complete the upper bead mounting.



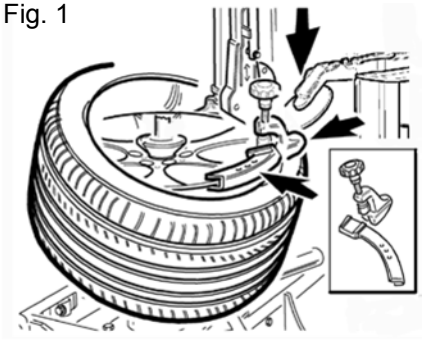
Make sure that rim and tyre always spin together.

- To make the upper bead mounting easier, use the tyre pressing unit by setting it at “5 o’clock” position and pressing lever ref. **17** to keep the bead at drop-centre level while rotating up to “8 o’clock” position until the tyre complete mounting.

23.3 UHP and RUN-FLAT tyres mounting

- Some precise and careful operations are necessary to mount UHP and RUN-FLAT tyres. It is compulsory to follow WDK rules to avoid permanent damages to these tyres.

Fig. 1

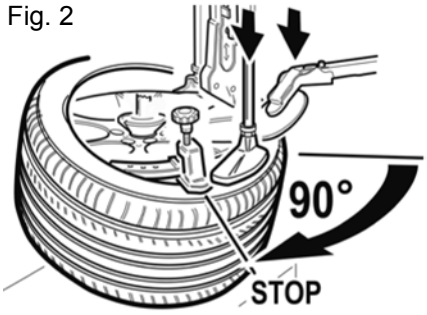


- Lower bead mounting can be performed as per standard instruction at page 22 of this manual.

- Once the lower bead is mounted, keep the mounting arm and tool at working position and start WDK upper bead mounting procedure putting the tyre slightly tilted down to “3 o’clock” position.

- Use the bead pressing clamp together with the proper rubber protection (• steel rim, •• alloy rim, ••• convex alloy rim) locking the clamp onto rim edge with the valve at “3 o’clock” position.
  If necessary, press the tyre side by the upper bead loosening roller to help the correct positioning and locking of the clamp (fig. 1).

Fig. 2



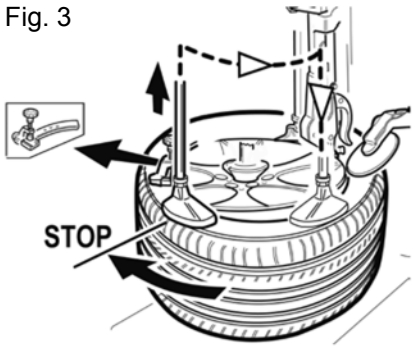
- Keep the upper bead loosening roller at drop-centre level, spin slightly to insert the pressing tool between the roller and the clamp and pressing onto the tyre side until the upper bead reaches drop-centre level (fig. 2).

- Make sure that the upper bead of the tyre rests on the left lip of the mount head and under the demounting claw on the right side of the head.

- Start spinning the wheel paying attention to the bead not going between the rim edge and the bead loosening roller.

- While spinning, when clamp is roughly at “6 o’clock” position make sure that the whole bead within this section is right inside the drop-centre.

Fig. 3

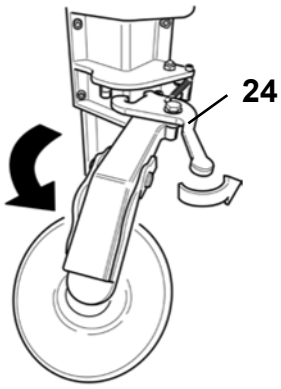


- If this necessary condition for a correct mounting is not accomplished, use the bead pressing unit pushing its tool onto the tyre side to insert the bead into the drop-centre (fig. 3).

Act gently onto tyre sidewall during the above mentioned process

- Go on spinning the wheel until the upper bead is completely mounted.

Fig. 4



- Remove the clamp and the rubber protection by the help of the pressing unit. Pull the pressing tool away and lift the roller away from the working position by acting on lever ref. **24** (fig. 4).

- Press the pedal ref. **20** to push the mounting arm up and move the roller bead breaking unit away from working position.

- Keep the wheel locked onto the centre-plate during the inflating operations. Read the inflating instructions at page 24 carefully.

- Once the tyre inflation is completed, unlock the wheel and bring it down onto the floor, taking advantage of the wheel lifting unit.

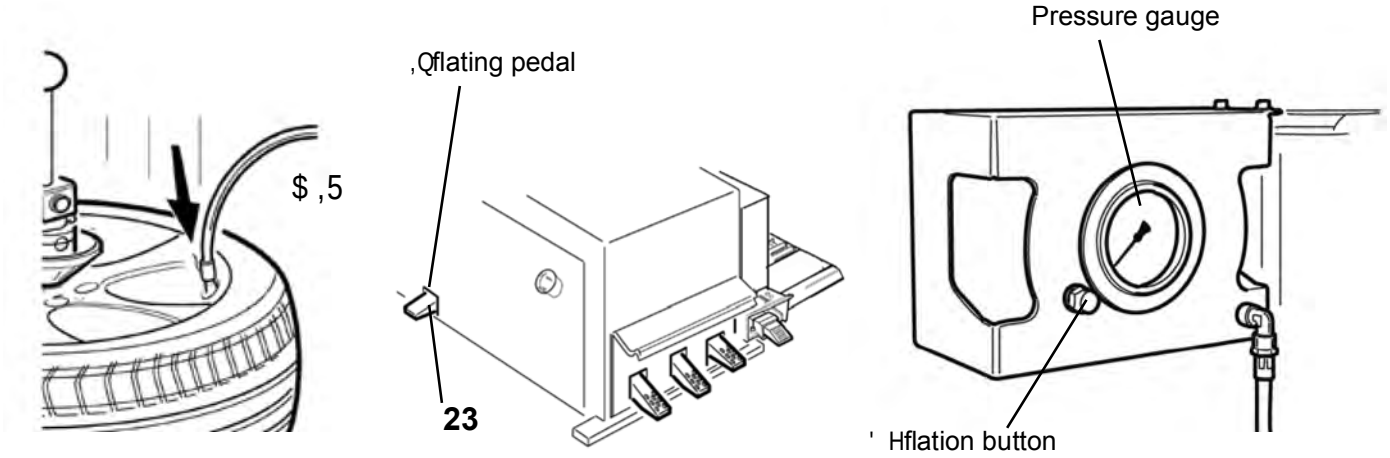
24.0 INFLATION

Tyres must be inflated with the utmost caution. The instructions below have to be read and followed strictly. This Tyre-Changer is not projected to protect operators and objects from accidental tyres explosions.

If tyre bead fails to fit in place at 3.3 bar pressure, it is necessary to repeat the bead loosening and lubricating procedures before trying again to inflate the tyre.

⚠ DANGER

If the tyre should burst or the rim should break under pressure, operators could be seriously injured or even killed. Make sure the rim and the tyre are the same size.
Also check the state of wear of the tyre and the rim to make sure there are no defects before starting to inflate.
Inflate the tyre with short blasts of air and check the pressure frequently while inflating.
This Tyre-Changer is automatically limited to an inflation pressure of 3,5 bar (50 psi).
The pressure regulator is NOT a safety device preventing explosions risks and damages.
NEVER EXCEED THE PRESSURE RECOMMENDED BY THE TYRE MANUFACTURER .
Keep hands and body as far away as possible from the tyre during inflation.

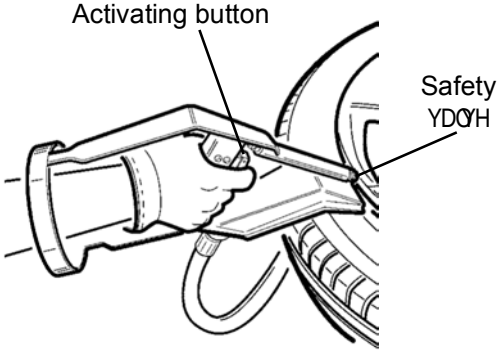


- Connect the inflation hose to the valve of the tyre.
- Make sure the rim and the tyre have the same diameter.
- Make sure the rim and tyre are sufficiently lubricated; lubricate if necessary.
- Press and release the inflation pedal ref. **23** continuously, checking the pressure on the gauge frequently until the tyre bead fits completely on the rim.
- Continue inflating to reach the pressure recommended by the tyre manufacturer. Always inflate in short blasts and always checking the pressure while doing so.
- Press the deflation button to deflate the tyre if, during inflation, the pressure exceeds the value recommended by the tyre manufacturer.

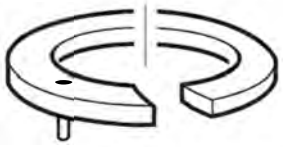
NOTE: Sometimes, even blowing air into the tubeless tyre it may not inflate.
This problem may be solved by using the optional accessory TUBELESS INFLATING DEVICE (ref. 695/11)

- In order to use the optional Tubeless Inflating Device:
  press the safety valve against the rim border,
  push the activating button onto the handle to blast air and press the LQflating pedal ref. **23** in order to feed the wheel valve.

- As soon as the tyre beading is completed, store the Inflating Device into its housing.



25.0 STANDARD ACCESSORIES



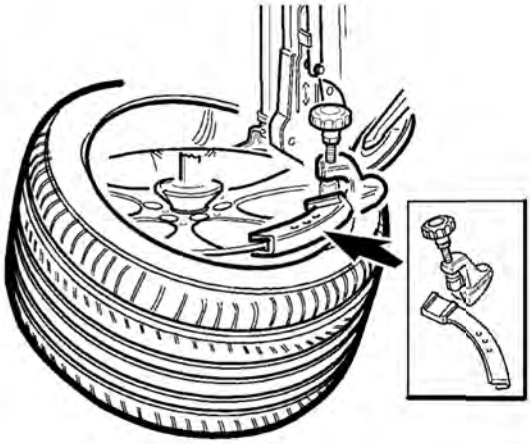
Reduction ring for centre-plate.
To be used to fit particular alloy rims.

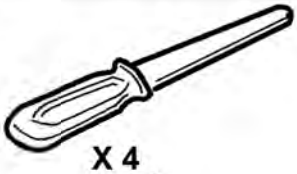
Plastic bead pressing clamp with
extra plug for alloy rims with slippery edge.
To be used together with rubber protections
for mounting UHP and RUN-FLAT tyre
according to WDK rules.

Rubber protection for steel rims
(marked with •).

Rubber protection for alloy rims
(marked with ••).

Rubber protection for alloy convex rims
(marked with •••).





X 4

Plastic lever.
To be used during tyre demounting according to WDK rules.

Plastic protections for tool head.

X 2

Centering cone plastic protection.

X 2

Centre-plate rubber protection.

X 2

Driving pin plastic protection.

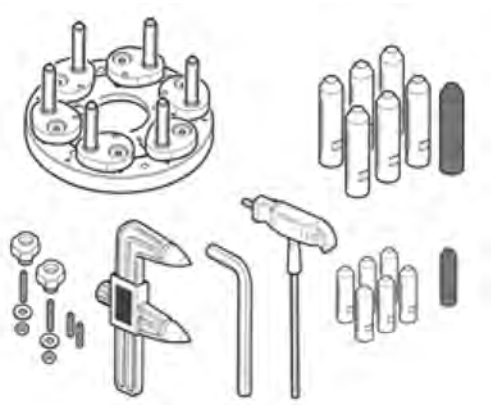
X 2

Shovel blade plastic protection.

Rim edge plastic protection

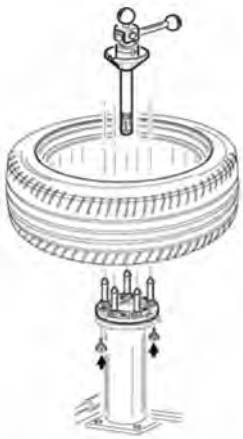
Hand lever

26.0 OPTIONAL ACCESSORIES



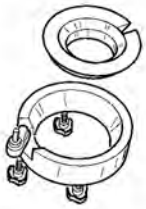
FPM 456
Clamping adaptor for reverse rims, rims without centre hole, BMW rims. Suitable to lock any rim /with any holes-number onto the centre-plate.

Reverse rims

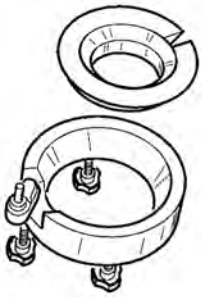


Rims without centre-holes

BMW rims

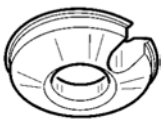


Art. 455/08
Centering cones adaptor kit for light-truck rims locking (centre hole: Ø**120** to Ø**190** mm).

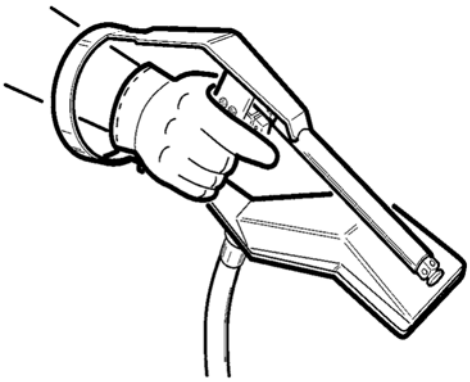


Art.458/08
Centering cones adaptor kit for light-truck rims locking (centre hole: Ø**190** to Ø**220** mm).

Art. 611/11
Centering conical adaptor for steel rims locking (centre hole: Ø**75** to Ø**120** mm).



Art. 659/11
Two-sides centering conical adaptor for steel rims locking (centre hole: Ø**75** to Ø**145** mm).



Art. 695/11

Tubeless tyres inflating device.

- Suitable for a retrofit installation to the tank inside the vertical pole of the Tyre-Changer.

27.0 RE-POSITIONING

To re-position the Tyre-Changer in a new workplace: secure the moving parts (i.e. the bead pressing arms, etc.) disconnect all the power sources and install it again following all the instruction per chapter 9.0 of this manual.
Connections to power sources and connection & inspections of the safety systems must be carried out by trained personnel.

28.0 STORAGE

If the tyre changer has to be stored away for extended periods of time:
- Disconnect the power sources.
- Empty the tanks containing operational fluids.
- Protect parts that could be damaged if dust should settle on them.
- Grease parts that could damage if they should dry up.

When re-commissioning the tyre changer:
- Follow the instructions given in chapter 9.0 of this manual.
- Replace any damaged parts, referring to the spare parts list - this to be carried out by skilled personnel.

29.0 SCRAPPING

If you should decide that the tyre changer can no longer be used, you are recommended to make it unusable by removing the power supply connections, emptying the tanks and disposing of the fluids pursuant to current state and National regulation.

The tyre changer is considered as heterogeneous waste and must consequently be split-up into parts made of similar material (electrical parts, plastic parts and ferrous parts), which must be disposed of properly, according to current National regulation.

WARNING: follow RAEE and ROHS Conformity Declaration rules for a correct disposal.

30.0 OIL TREATMENT

OIL IS HIGHLY POLLUTANT! D2 1 2 7 7+52: $: $< 287' 2256 25 3285 21 7+(*5281'.

30.1 General precautions

- Avoid direct and prolonged contact with skin.
- Avoid the formation of oil mists in the air.
- Avoid splashing.
- Wear appropriate clothing, gloves and goggles to protect against oil splashes.
- Do not use greasy rags.
- Do not eat or smoke if your hands are soiled with oil.

30.2 First Aid instructions

- If oil is swallowed, do NOT induce vomiting but go immediately to the nearest medical centre with LQIRUPDWLRQ on the type of oil swallowed.
- If oil gets in eyes, rinse abundantly with water until irritation ceases, then go to the nearest medical centre.
- If oil comes into contact with skin, rinse abundantly with neutral soap and water. do not use solvents or irritant products.

30.3 Disposing of used oil

Do not throw used oil away outdoors or pour it on the ground.
Drain into a suitable container and forward to specialised oil disposal centres, or hand it over to authorised collection companies.

30.4 Oil spillages or leakages

Eliminate the cause of the leakage and stop the oil spillage from spreading using absorbent material. Clean the area where the oil has spilled using degreasing detergents to prevent slipping and dispose of the waste according to current state and Federal regulations.
Clean up the oil and send to special disposal centres according to current National regulations.

31.0 MAINTENANCE

31.1 Standard Maintenance

Routine maintenance according to the following instructions is of crucial importance to ensure the correct operation and lasting life of the Tyre-Changer.

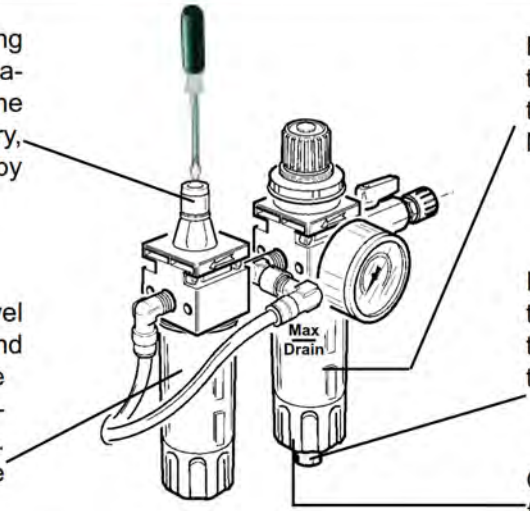
Before starting any maintenance job, disconnect the electrical power supply by unplugging the machine from the main electrical feeding and disconnect it from the pneumatic supply by shutting off the valve. To release the compressed air from the circuit, press the inflation pedal (ref. **23** at page 24) down for a few seconds.

On daily basis, keep the machine clean eliminating any mould and dirt to ensure the perfect movement of the slides and the tools and to grant the correct functioning of all centering and locking systems. Do not clean with compressed air, which can blast dirt between moving parts.

On daily basis, check for worn or damaged plastic and rubber inserts and protections that should be replaced to prevent damages to rims and tyres.

Every 2/3 days, check the oil dropping into the cup (1 drop every 4/5 activations of the bead pressing tool or of the bead loosening systems). If necessary, turn the screw on the top of the cup by a screwdriver.

On periodical basis, check the oil level which has to keep between MIN and MAX refs. If necessary, unscrew the cup and top-up by adding oil for pneumatic systems in class ISO HG (i.e. ESSO Febis K32; MOBIL Vacouline Oil 1405; KLUBER Airpress 32).



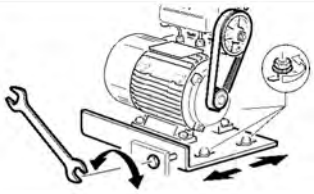
For a long lasting correct functioning of the 10bar pressure limit device, ensure that the drain level doesn't exceed the MAX DRAIN indication

If necessary, drain the condensation by turning clockwise the drain tap. (keep the pneumatic feeding on to perform this adjustment).

On monthly basis, unplug the machine from pneumatic feeding and remove the filter cup to clean it from possible solid impurities.

On periodical basis, clean the sliding guides of the bead loosening carriage by naphtha and lube them by oil or proper grease. Perform the same cleaning and lubricating actions on every junction and mechanical sliding.

On periodical basis, check the tensioning of centre-plate rotation driving belt. If necessary, use a 13mm wrench to loosen the fixing bolts of the motor support plate, then adjust the belt tension by acting on the tensioning screw and tight the fixing bolts.



31.2 Extraordinary maintenance

- **Non-routine maintenance must be carried out by factory authorized personnel ONLY.**
- **Defective parts should be exclusively replaced with genuine spare parts by factory authorized service personnel.**
- **After 5 years from installation date, the Tyre-Changer must be serviced in all its main components to grant its correct functioning and the operators safety.**

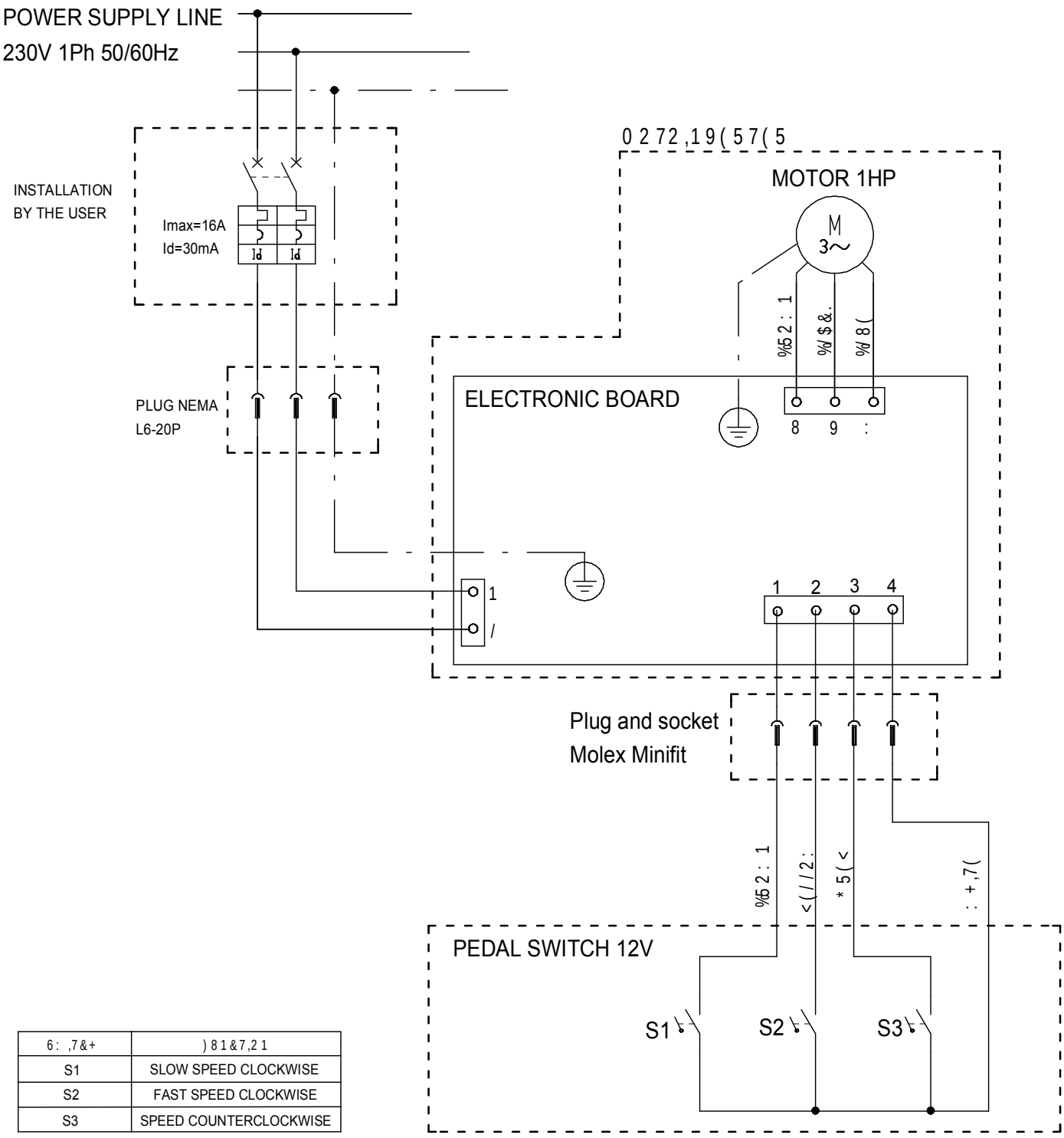
The Manufacturer is not responsible for claims due to non-original spare parts or for damages caused by removal and tampering to the safety devices.
Removal or tampering with the safety devices (max. pressure valve – pressure regulator) represents a breach of European Regulations for Workplace Safety.

32.0 TROUBLESHOOTING CHART

352%/(0	&$86(	62/87,21
Centre-plate does not rotate	1) Missing electrical feeding 2) Power cord missing or not plugged correctly 3) Fuses blown or differential disabled 4) Drive belt loosened or damaged 5) Motor pulley loosened 6) Micro-switches cam-shaft disconnected from pedal 7) Motor damaged or defective	1) Turn power on 2) Check cord or plug in 3) Replace fuses or enable differential 4) Tighten or replace drive belt 5) Tighten pulley by proper screw 6) Reconnect or replace shaft 7) Replace motor
Chuck turns at one speed only or in one direction only after pedal is released	1) Foot pedal connection out of adjustment or not installed correctly 2) Micro-switches fixing screws loosened or missing 3) Micro-switch damaged or defective 4) Pedal return spring broken or loosened	1) Adjust foot pedal 2) Check screws tightening or replace screws 3) Replace micro-switch 4) Replace return spring
Chuck rotating motor turns at one speed only or in one direction only	1) Micro-switch damaged or defective 2) Micro-switch cable unplugged 3) Motor damaged 4) Motor cables unplugged	1) Replace micro-switch 2) Check and connect micro-switch cable 3) Replace motor 4) Check and connect motor cables
Chuck turns but wheel stays still	1) Wheel locking nut not holding 2) Driving pin not holding	1) Secure locking nut correctly 2) Position driving pin correctly
Bead loosening unit do not move vertically or move slowly	1) Pneumatic supply missing 2) Control valve broken 3) Pilot valve broken or defective 4) Cylinder seal broken 5) Mufflers obstructed 6) Control valve air hose squeezed	1) Check line pressure 2) Replace control valve 3) Replace pilot valve 4) Replace cylinder seal 5) Clean or replace mufÀHU 6) Check or replace air hose
Roller bead loosening unit do not move KRUL]RQWDO	1) Locking/unlocking valve broken	1) Replace valve
Bead loosening rollers reach working position but do not perform overrun movement	1) Pneumatic supply missing 2) Control valve broken or defective 3) Cylinder seals broken 4) Overrun pilot valve broken 5) Pilot valve broken or defective	1) Check line pressure 2) Replace control valve 3) Replace cylinder seals 4) Replace overrun pilot valve 5) Replace pilot valve
LeverLess mounting tool doesn't move YHUWLFDO	1) Pneumatic supply missing 2) Pneumatic supply hoses broken or squeezed 3) Control valve broken 4) Mufflers obstructed 5) Cylinder seal broken	1) Check line pressure 2) Replace pneumatic supply hoses 3) Replace control valve 4) Clean or replace mufÀHUV 5) Replace cylinder seals

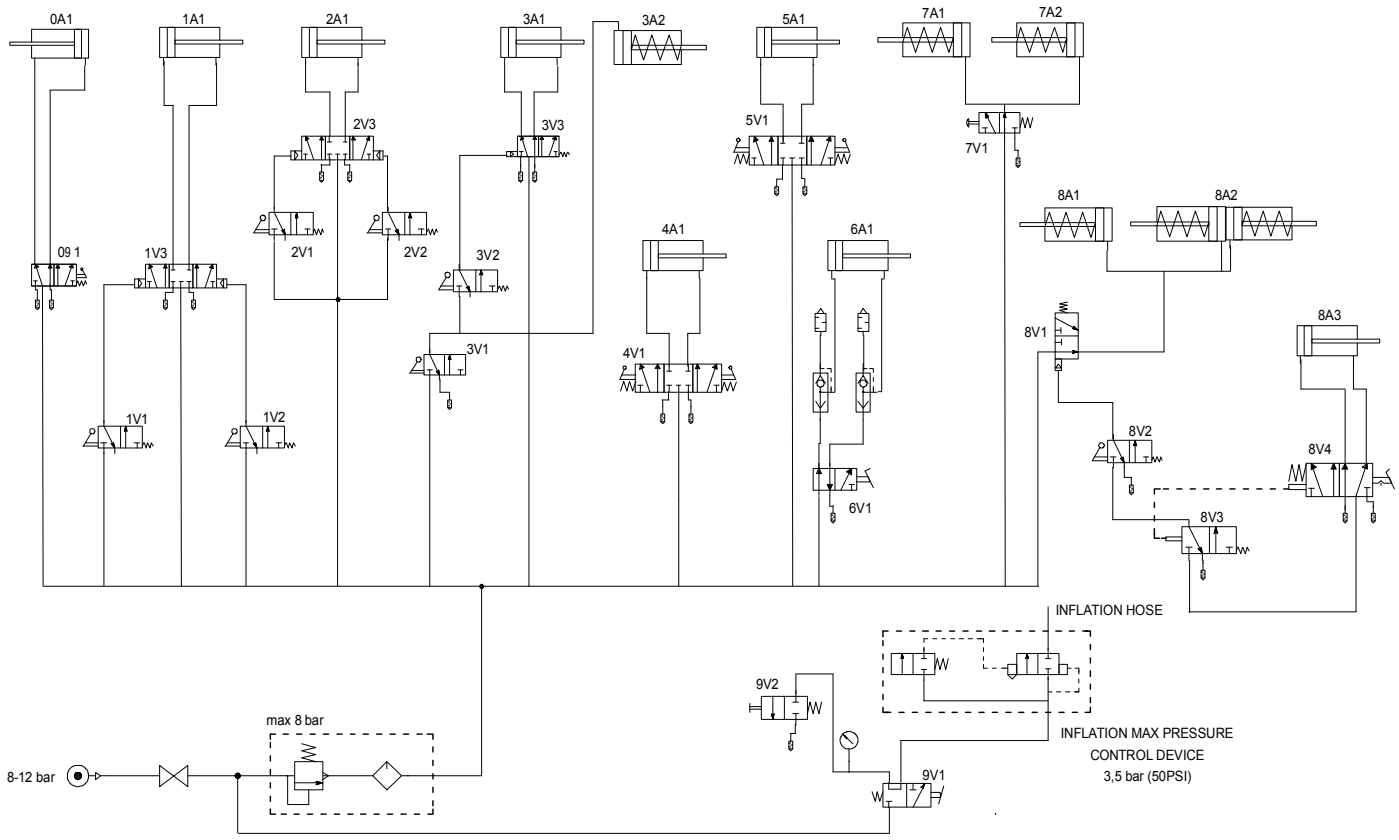
352%/(0	&$86(	**SOLUTION**
Wheel lifter tool doesn't move or it moves VORZ0	1) Pneumatic supply missing 2) Control valve broken 3) Mufflers broken or unadjusted 4) Cylinder seal broken	1) Check line pressure 2) Replace valve 3) Clean, adjust or replace mufÀHU 4) Replace seals
Mounting arm doesn't move or it moves slowly or too fast	1) Pneumatic supply missing 2) Mufflers obstructed 3) Mufflers unadjusted 4) Cylinder seal broken	1) Check line pressure 2) Clean or replace mufÀHU 3) Adjust mufÀHU 4) Replace cylinder seals
Mounting arm doesn't keep the memorized position	1) Pneumatic supply missing 2) Knob control valve broken 3) Pilot valve broken 4) Cylinder seal broken 5) Locking plates worn	1) Check line pressure 2) Replace knob control valve 3) Replace pilot valve 4) Replace cylinder seals 5) Adjust or replace plates
Mounting arm stays locked in a memorized position	1) Pedal activating valve broken	1) Replace activating valve
Bead loosening unit doesn't react to control pedal while cylinder shaft slides	1) Pneumatic supply missing 2) Bead loosening cylinder valve broken 3) Mufflers obstructed 4) Bead loosening cylinder seal broken	1) Check line pressure 2) Replace cylinder valve 3) Clean or replace mufÀHU 4) Replace cylinder valve
Shovel blade bead loosening unit doesn't keep the memorized position	1) Arm locking cylinders defective or pneumatic supply missing 2) Bead loosening control knob valve broken 3) Cylinder seal broken 4) Locking plates worn	1) Replace locking cylinders or check line pressure 2) Replace control knob valve 3) Replace cylinder seal 4) Adjust or replace plates
Bead pressing device doesn't react to controls or it moves irregularly	1) Pneumatic supply missing 2) Control valve broken 3) Mufflers obstructed 4) Cylinder seal broken	1) Check line pressure 2) Replace control valve 3) Clean or replace mufÀHU 4) Replace cylinder seal
Mounting tool touches the rim during working steps	1) Locking plates unadjusted or defective 2) Wheel locking nut loosened	1) Adjust or replace locking plates 2) Tight locking nut correctly
,Qflating device doesn't work	1) Pneumatic supply missing 2) Pedal control valve broken 3) Pressure limit valve broken	1) Check line pressure 2) Replace control valve 3) Replace pressure limit valve

33.0 WIRING DIAGRAMS



6: ,7&+	) 8 1 &7,2 1
S1	SLOW SPEED CLOCKWISE
S2	FAST SPEED CLOCKWISE
S3	SPEED COUNTERCLOCKWISE

34.0 PNEUMATIC DIAGRAMS



Ref.	Description	Ref.	Description
0A1	Wheel Lifter cylinder	4V1	Mounting Tool control valve
0V1	Wheel Lifter control valve	5A1	Bead Pressing Unit cylinder
1A1	Upper Bead Loosening Roller vertical translation cylinder	5V1	Bead Pressing Unit control valve
1V1	Upper Bead Loosening Roller up-stroke valve	6A1	Shovel Blade Bead Loosening Unit cylinder
1V2	Upper Bead Loosening Roller down-stroke valve	6V1	Shovel Blade Bead Loosening Unit control valve
1V3	Upper Bead Loosening Roller vertical translation valve	7A1	Shovel Blade Bead Loosening Unit locking plate cylinder
2A1	Lower Bead Loosening Roller vertical translation cylinder	7A2	Shovel Blade Bead Loosening Unit locking plate cylinder
2V1	Lower Bead Loosening Roller up-stroke valve	7V1	Shovel Blade Bead Loosening Unit valve
2V2	Lower Bead Loosening Roller down-stroke valve	8A1	Mounting Arm Parallelogram Locking cylinder
2V3	Lower Bead Loosening Roller vertical translation valve	8A2	Mounting Arm Parallelogram Locking cylinders
3A1	Roller Bead Loosening Unit over-run cylinder	8A3	Mounting Arm Tilting Back cylinder
3A2	Roller Bead Loosening Unit horizontal translation locking cylinder	8V1	Mounting Arm Parallelogram Locking valve
3V1	Roller Bead Loosening Unit over-run valve	8V2	Manual valve
3V2	Roller Bead Loosening Unit over-run enabling valve	8V3	Mechanical acting valve
3V3	Roller Bead Loosening Unit over-run control valve	8V4	Mounting Arm Tilting Back valve
4A1	Mounting Tool cylinder	9V1	Inflation valve
		9V2	Deflation button

35.0 SERVICE REPORTS

All the operations made on the machine in the course of time must be reported herebelow so as to have an updated situation of the efficiency of the machine.
The user must carry out both cleaning and greasing operations according to the instructions given in this manual.
Any operation concerning the replacement of parts is strictly reserved to authorized and trained staff.

' DWH	6 LJ QDWXUH
,QWHUYHQWLRQ	
5 HSODFHP HQWV	
1 RWHV	

' DWH	6 LJ QDWXUH
,QWHUYHQWLRQ	
5 HSODFHP HQWV	
1 RWHV	

' DWH	6 LJ QDWXUH
,QWHUYHQWLRQ	
5 HSODFHP HQWV	
1 RWHV	

' DWH	6 LJ QDWXUH
,QWHUYHQWLRQ	
5 HSODFHP HQW/	
1 RWHV	

' DWH	6 LJ QDWXUH
,QWHUYHQWLRQ	
5 HSODFHP HQW/	
1 RWHV	

' DWH	6 LJ QDWXUH
,QWHUYHQWLRQ	
5 HSODFHP HQW/	
1 RWHV	

' DWH	6 LJ QDWXUH
,QWHUYHQWLRQ	
5 HSODFHP HQW/	
1 RWHV	

CEMB® USA

BALANCING MACHINES