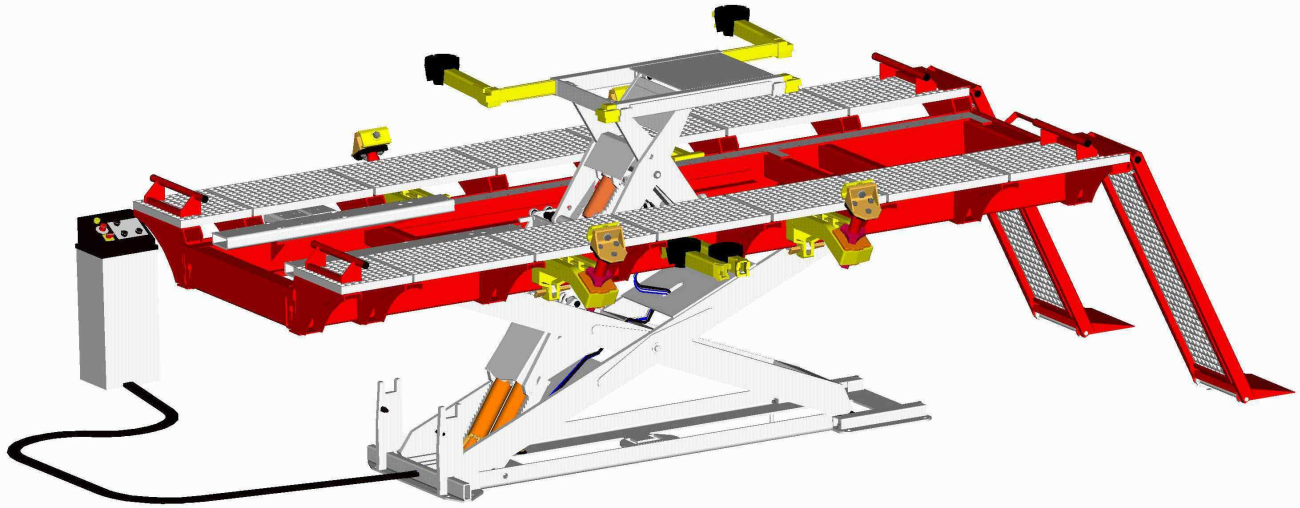
GRIFFON 2800 Evolution



TECHNICAL MANUAL
ref. GR04.ML

Up Dating :	**06**
Date :	**10/2010**

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SOMMAIRE

Foreword :

This instruction leaflet is designed to answer most of the question about **technical matters, utilization and safety instructions** concerning your **GRIFFON 2.8T EVOLUTION** lifting bench.

Consequently, we recommend each user to **read this leaflet carefully** and to keep it nearby while using the device, for the best and safest possible utilization.

In fact, **CELETTE S.A** can not be held responsible in following cases :

- **utilization** of the lifting bench **GRIFFON 2.8T EVOLUTION** for any other purpose than the one it is designed for .
- **intervention** or **modification** carried out without the manufacturer's previous agreement.
- utilization **of non homologated or non suitable accessories** with the bench.

Instructions to be stricktly followed :

- The present installation and utilization instructions are intented for the installation staff and for the technical team, and should be accessible at any time
- The lifting unit is to be used by experienced and trained personal only.
- Before a first starting of the unit, the installation and state of the lifting device are to be checked by an authorized person.

Test type	Load	Duration
Static test	4200 Kg	1 hour
Dynamic test	3220 Kg	Complete operation : lifting/lowering

- The state of the unit has to be checked and maintained by a specialist at least once a year.

⚠ The installation and utilization are to be read carefully

⚠ Before each utilization, check the state of the unit. Possible defects have to be notified to CELETTE immediatly and the device has to be placed out of order

⚠ Make sure that nobody stands within the lifting unit function area. Should it be the case, stop all operations immediatly

⚠ Do not stand under the unit

⚠ Never lift people by means of the lifting unit

⚠ Make sure that the device cannot be blocked or collide

⚠ Respect the balance of weights : 3/5 2/5

⚠ Respect the conditions of installation and the concrete load standards (Compressive strength : 450 kg/cm).

⚠ Respect the maximal load : **2800daN**

⚠ The handling of the load once lifted is stricktly prohibited

Introduction :

We duly thank you for granting us your confidence.

We are convinced that your lifting bench **GRIFFON 2.8T EVOLUTION**

will meet your needs, more especiallly thanks to its lifting capacity :

- **2800 KG** load until **1.33 m** high for easier and more comfortable work conditions

and to its total autonomy for the installation of running or non running vehicle :

- **2800 KG** load which can be placed in position again on the bench thanks to its inner lifting unit.

GRIFFON 2.8T EVOLUTION will make the repair of light or important impacts easier, thanks to the MZ System **but** will also enable the checking and straigntening by means of various adaptable CELETTE options and accessories.

The important stroke of its inner lifting unit (**520mm**) and its concept of utilization enable the straightening of most of the vehicles without complementary accessories.

THE LIFTING BENCH GRIFFON 2.8T EVOLUTION HAS TO BE FIXED TO THE GROUND BEFORE ANY INSTALLATION OF A VEHICLE.

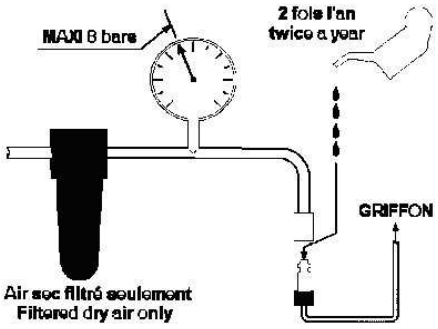
This equipment is composed of :

- a COMPLETE BASE **9177.311/312** including a base and an inner lifting unit.
- a MAIN LIFTING UNIT **9177.01.601/603/606** including one « X » system and an hydropneumatic power unit.
- a COMPLETE RUNWAY DECKING PLATE SYSTEM including a runway decking plate **GR05.0028**.
- a SET OF ANCHORING CLAMPS **9123.023**.
- STANDARD OR SPECIFIC OPTIONS and ACCESSORIES.

Technical datas :

- **Hydraulic power unit**

  - Outlet pressure 280 bars
  - Compressed air supply , cleaned & oiled 6/8 bars
  - Electric motor, voltage & frequency according to the country of utilization :
    110V / 230V / 400V – 50Hz / 60Hz
  - Oil tank : 7 liters
  - Oil type : MOBIL DTE 13 (Grad ISO 32)



- **Pneumatic unlocking of the safety elements :**

  - Compressed air, cleaned & no oiled 6/8 bars.

⚠ **COMPRESSED AIR HAS TO BE CLEANED**

- **Locking of the safety elements :**

  - Automatic by absence of air

- **Weight of the equipment :**

9177.31	9177.01	9177.02	9123.023	GR05.0028	TOTAL
677 kg	610+57 kg	285 kg	190 kg	275 kg	2094 kg

955.900	MZ450.000	Bracket set	9128.013	TOTAL
214 kg	115 kg	100 kg	214 kg	643 kg

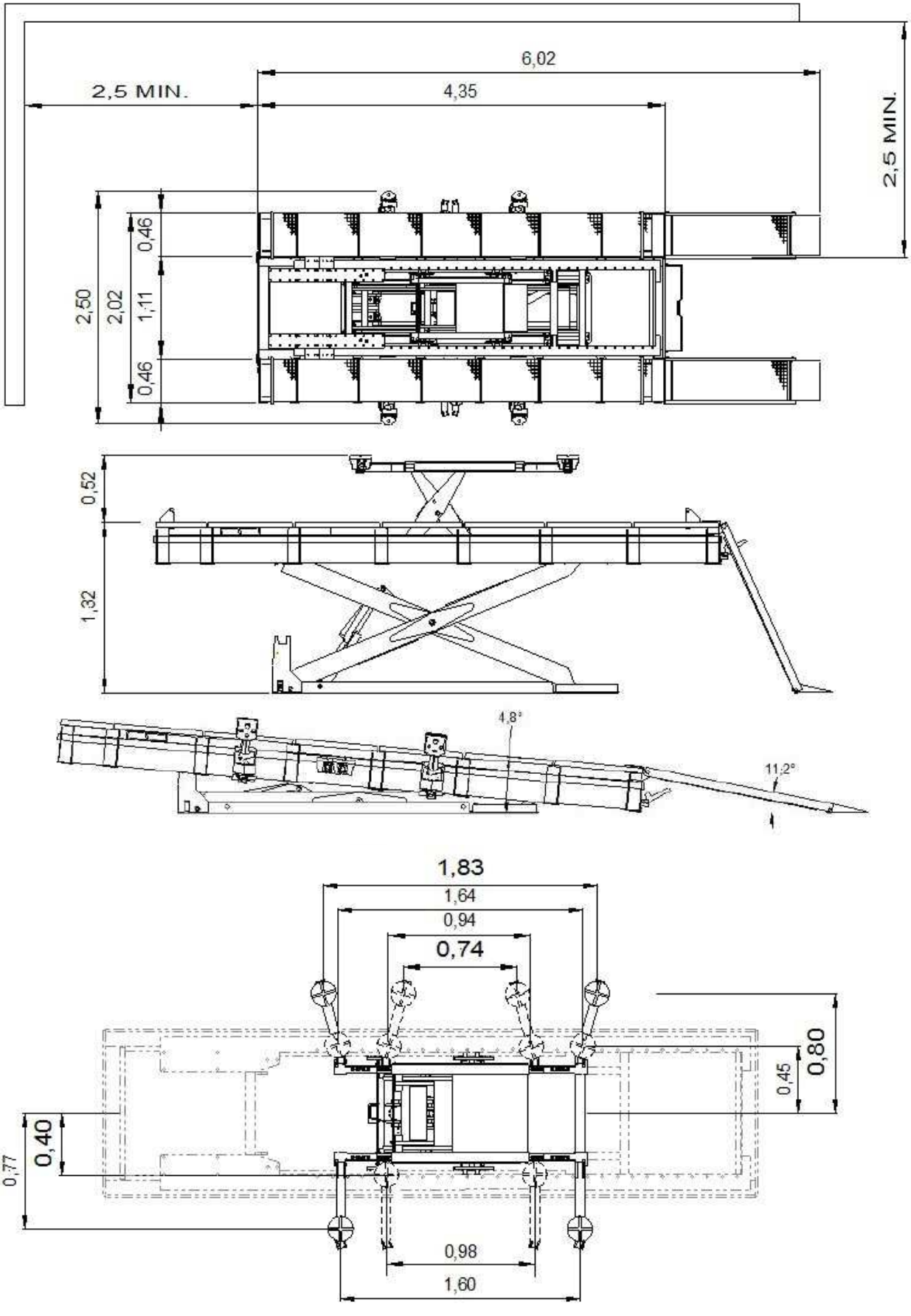
- **Maximal load on the bench :** - 2800 daN
- **Noise level** - 65 dB (A)
- **Lifting time :**

Main lifting unit	:	**unloaded :**	45''
		with a 1500 daN load :	47''
Inner lifting unit :		**unloaded :**	10''
		with a 1500 daN load :	11''

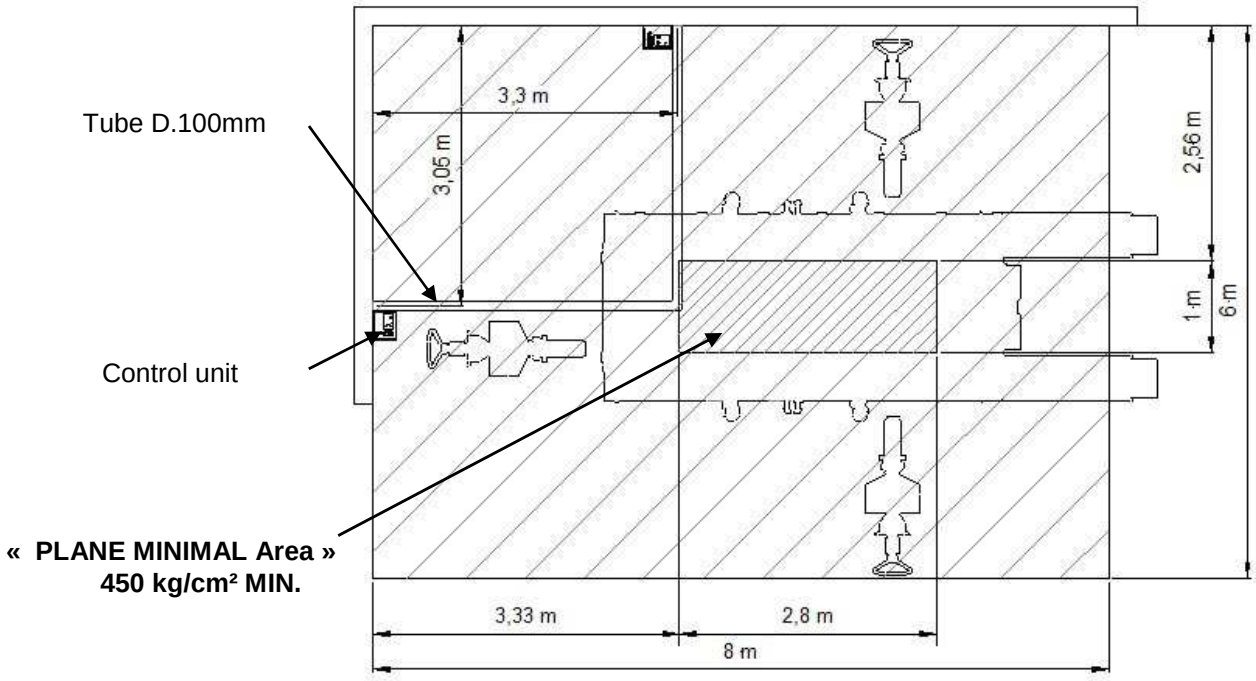
- **Lowering time :**

Main lifting unit	:	**unloaded :**	35''
		with a 1500 daN load:	35''
Inner lifting unit :		**unloaded :**	30''
		with a 1500 daN load :	30''

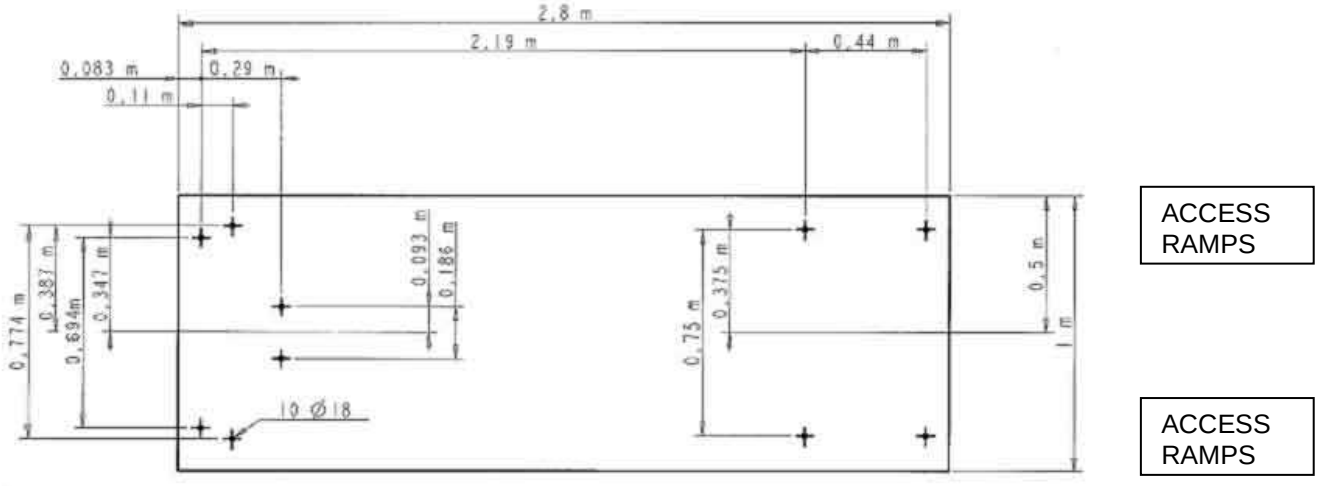
Dimensions and implantation :



Selection of the location and conditions of installation :



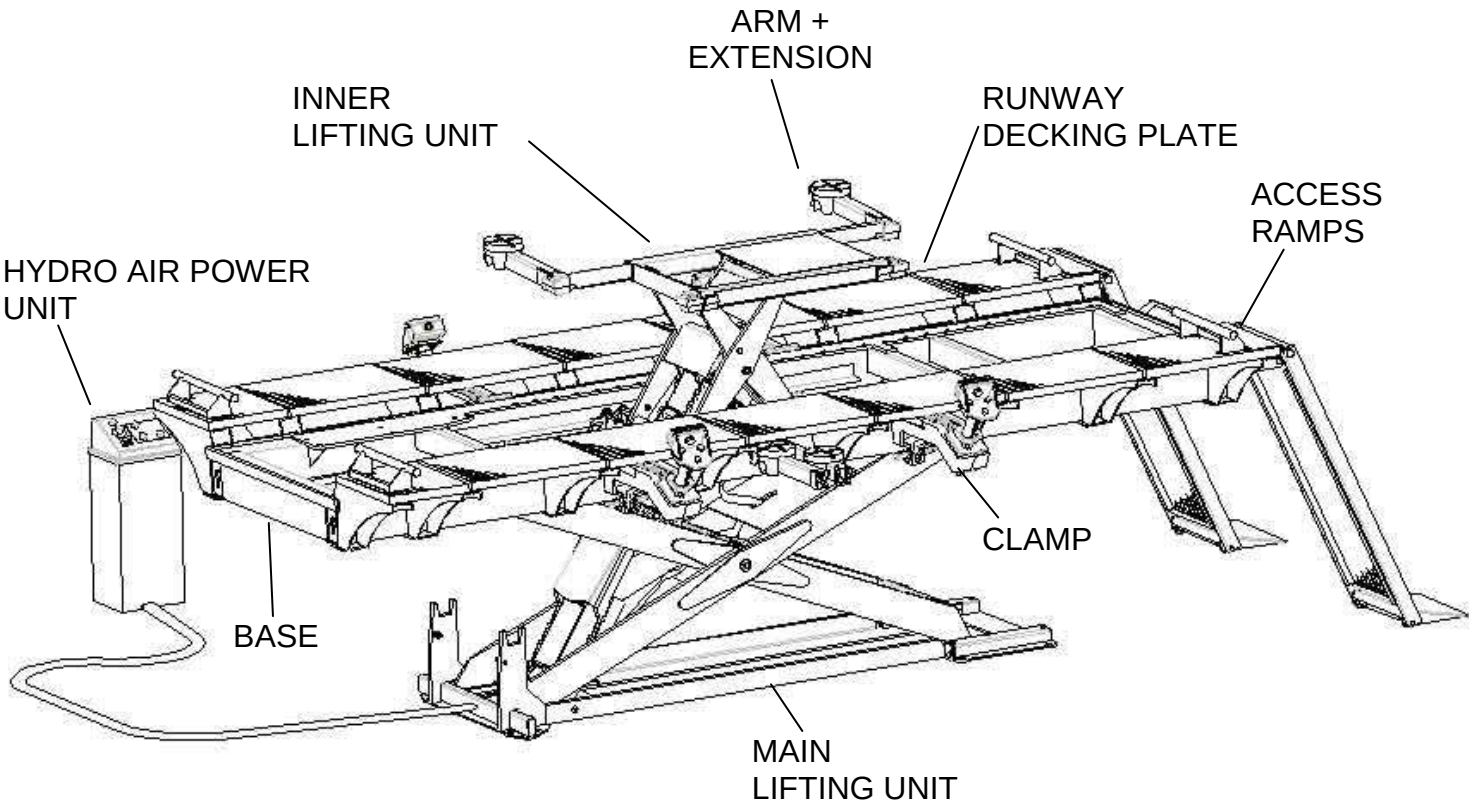
- The **perfectly flat** ground should be able to withstand a total load of 5600 daN and have a minimal compressive strength of 450 kg/cm² **under the whole surface** of the bench.
- CELETTE SA recommends a minimal thickness of **100 mm** for the pavement .
- The bench will **be fixed to the « minimal plan area » through the 10 expansion dowels (SPIT MEGA E12-18/45)**, length 140 mm, supplied with the equipment.



- No obstacle (Extension arm, energy box,…) should be placed lower than 3,70 m above the equipment (to lift a classic commercial vehicle with standard height).

- We advise to foresee a free area (Refer to the drawings on pages 6 and 7) around the base of the lifting unit to use the pulling unit SEVENNE 9128.013.
  This represents a work bay (not including the storage of accessories and tools) of 6m wide x 8m deep.
  Caution : The access ramps are not included within the 8m.
  Caution : We also recommend to foresee a free area for the access of the vehicle to the GRIFFON.
- Following equipment is to be foreseen nearby the device :
  - A compressed air supply – cleaned, no oiled - 6 to 8 bars.
  - A power supply – protected by a 30mA differential.
    Cable section 2,5² - 16A – 3P or 1P – N + E (according to the country).
- The connection to an IT power supply is not allowed.
- The control keyboard should not be exposed to fluid projection. Do not use a water spray to clean the control keyboard. Place it in a easily accessible area. Use option 9171.01.7007 to guide the sheath on the ground to prevent it from being damaged.

Description of the bench :



Starting of the bench in the workshop :

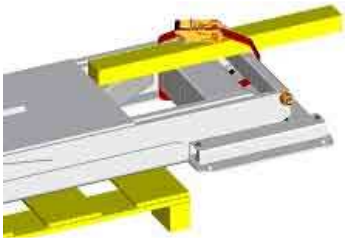
1. Place the box containing the main lifting unit in the final location of the bench while respecting :
   - distances to the walls and obstacles (Pages 6 and 7).
   - the direction (front / rear)

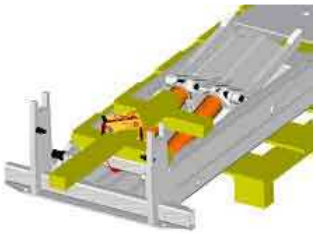
FRONT

REAR

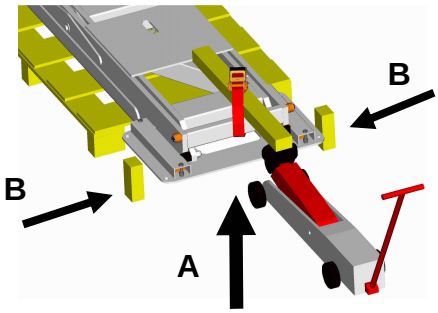
2. Remove the 4 sides of the box, unpack the power unit and non assembled accessories :

3. Keep the locking rafters and place them as shown herunder. Fix with straps :

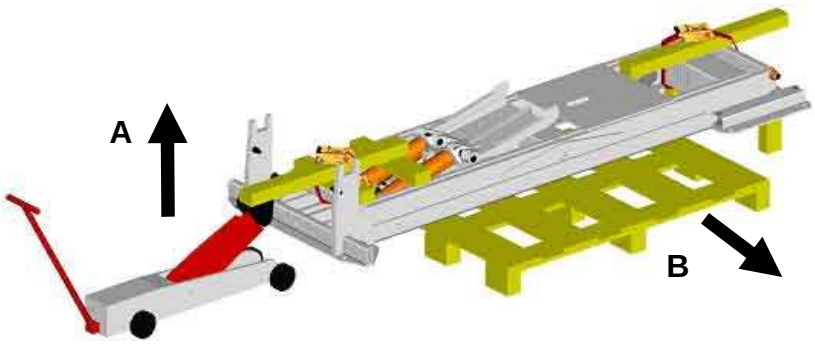




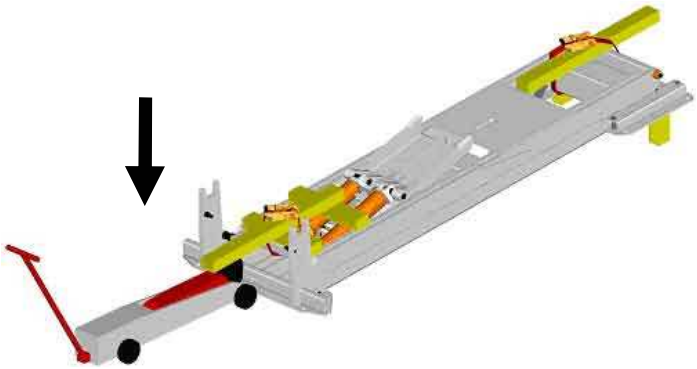
4. With a rolling jack, lift the rear end of the lifting unit , (**A**) and insert 180 mm high plates (**B**), lower again :



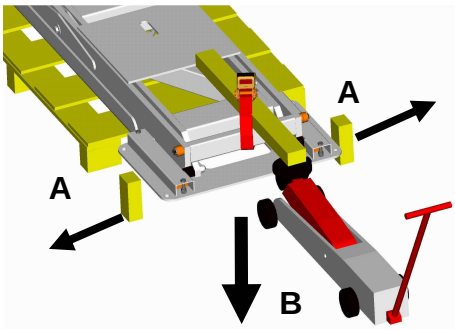
5. With the rolling jack, lift the front end of the lifting unit to release the pallet (**A**) and take it out (**B**) :



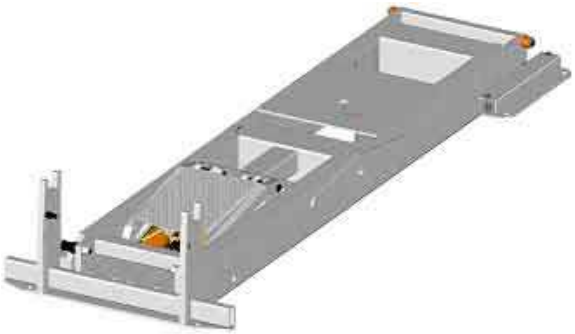
6. Lower the front end :



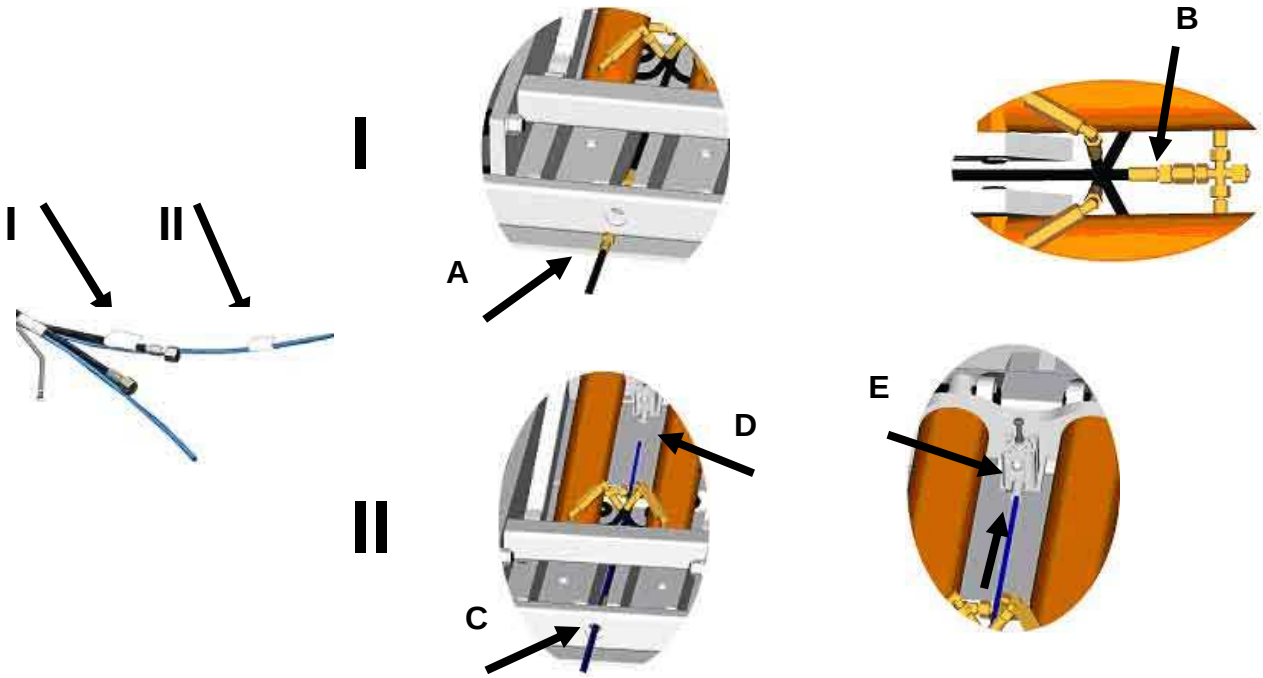
7. Remove the plates (**A**) and lower (**B**) :



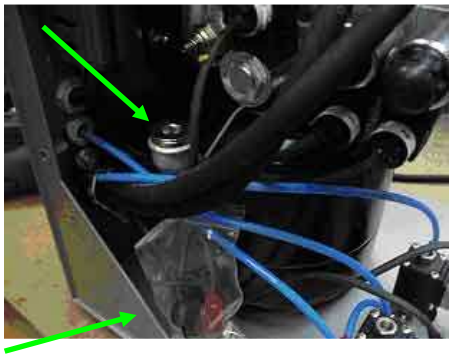
8. Take of the rafters



9. Effect the pneumatic and hydraulic connections from the power unit to the lifting unit.



10. Open the power unit and fill up the oil tank with the small supplied can (1L). Replace the transport cap with the ventilation cap (packed in a bag fixed to the tank).



11. Equip the power supply cable with corresponding socket (according to the motor type) and connect it to the appropriate network socket.

SHOULD THE LIFTING BE IMPOSSIBLE IN SPITE OF A CORRECT WORKING OF THE PUMP INVERT 2 PHASES TO MODYFY THE ROTATION DIRECTION OF THE MOTOR .

12. Connect the compressed air hose of the power unit to the air network. The air has to be cleaned, no oiled, and compressed from 6 to 8 bars:

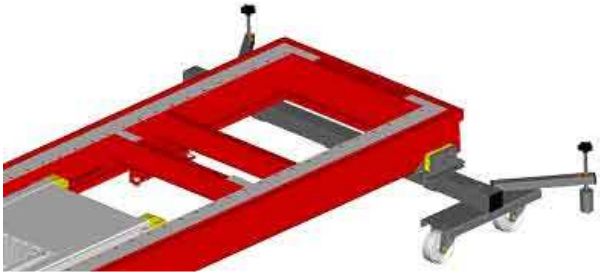
An uncleaned network may lead to the filling-in of the electrovalves included in the power unit.

13. Check the correct working of the lifting unit (Page 18 § Control and handling of the main lifting unit).

14. By means of the rolling jack, lift the rear end of the base to slide wheels 9121.513 or the vehicle transport trolley GR97.0073.

WEIGHT OF THE BASE: 960 KG

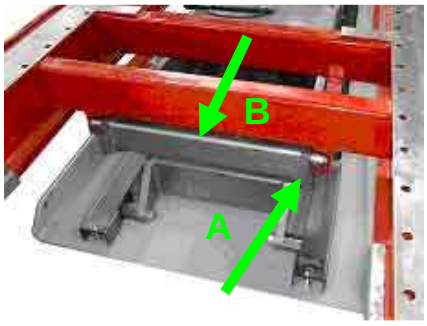
or

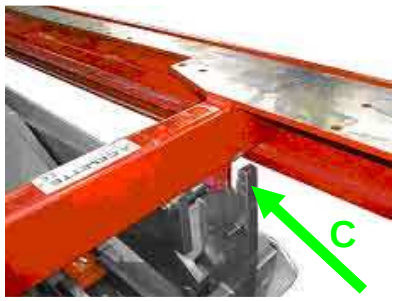


15. Place the jack at the front of the base, which has to be installed in horizontal position :

16. Roll the base above the lifting unit, which has to be lowered completely (see photos). To avoid the upper part of the lifting unit, adjust the base height by means of the jack :

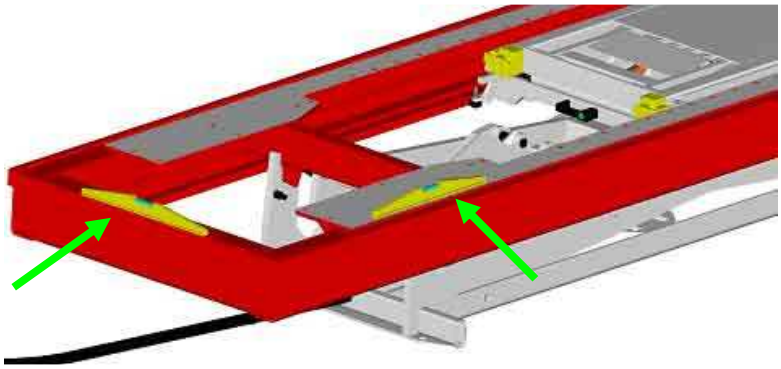
17. Lift the lifting unit to align its rollers with the U parts of the base (**A**) and insert them inside (**B**) until the front crossmember is in front of its location (**C**).



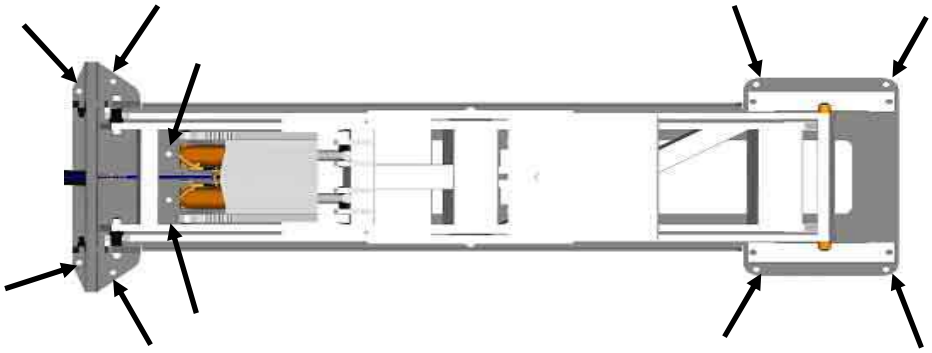


18. Lift the base with the lifting unit to release the jack and the wheels. Take them off.

19. Confirm distances to the walls and obstacles (Pages 6 and 7) and check the levelness of the bench within both directions. Use wedges if necessary :

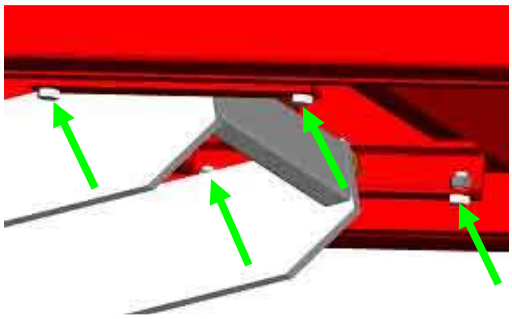


20. Fix the lifting unit to the ground with 10 expansion dowels (delivered), using :
    - either the ground plate of the lifting unit as drilling gauge.
    - or the drilling plan on page 7 (procedure to be effected before installing the bench).



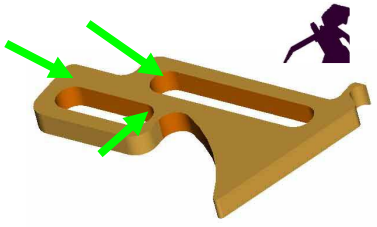
THE GRIFFON BENCH HAS TO BE FIXED TO THE GROUND BEFORE ANY UTILIZATION .

21. Secure the whole unit while screwing the 4 safety bolts supplied with the base. The nuts have to be placed inside the U parts.



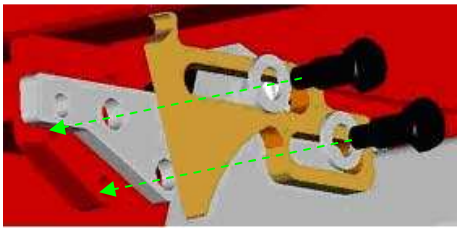
22. It is **IMPERATIVE** to assemble the anti rotating elements at the front end of the base, the lifting unit being on the 2nd safety notch (minimum).

I

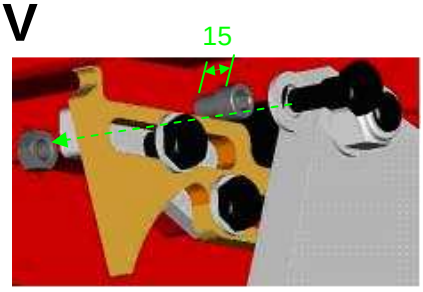


II

III

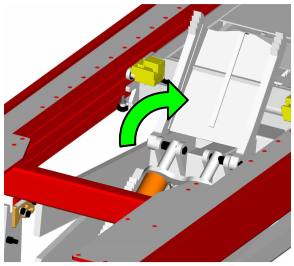


IV

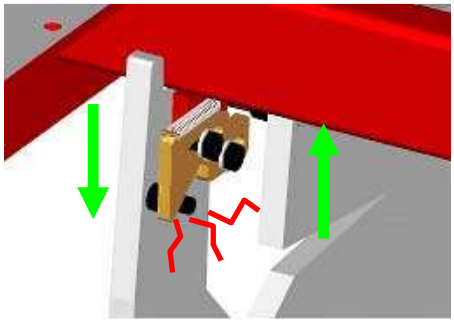


V

23. The assembly being effected, check the correct running of anti rotating parts, while activating them several times (without any load) for them to take their corrrct position without damaging the equipment. To effect this operation :



I Lift up the safety element of the lifting unit

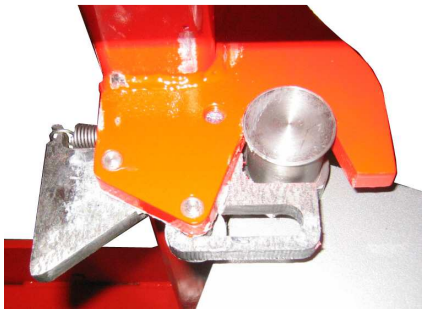


II Slowly lower the bench. In case the anti rotating part is jaming, slightly lift and slowly lower the bench again. Effect this operation until the anti rotating parts are blocked at the rear end. **If necessary, proceed manually.**

24. Activate the lifting unit several times (without any load) to lubricate the contact surfaces and for the anti rotating parts to operate smoothly. The running in being effected, do not forget to lower the safety element down again.

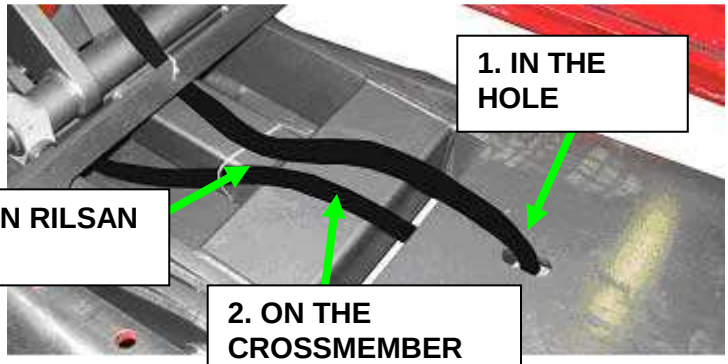
ANTI-ROTATING PART

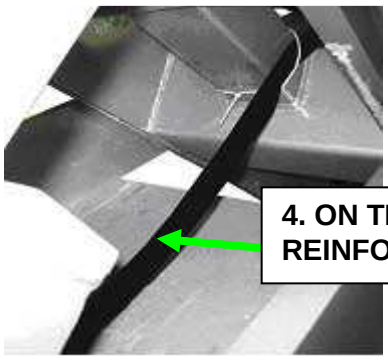
LOCKED
Position of the pulling unit
=> Max. Height
UNLOCKED
Base is tilted



THE RUNNING IN OF ANTI ROTATING PARTS IS MANDATORY .

25. Then connect the inner lifting to the power unit. The power supply sheath has to be guided as follows :



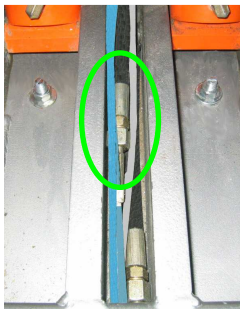


USING ANY OTHER WAY TO GUIDE THE POWER SUPPLY SHEATH MAY CREATE DAMAGES .

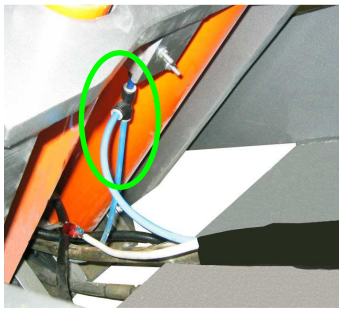
26. The sheath outlet is designed with 4 connections to be joined :

ELECTRICAL SUPPLY

I Insert the 3 unpluged linkings (hydraulic, pneumatic and electric) through the hole of the lifting unit base

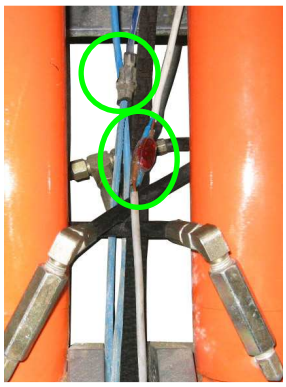


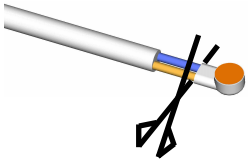
II Connect the 2 hydraulic hoses.



III Unplug the pneumatic jack hose of the main lifting unit and plug it again on the T element. Connect the small hose of the T element to the pneumatic jack of the main lifting unit

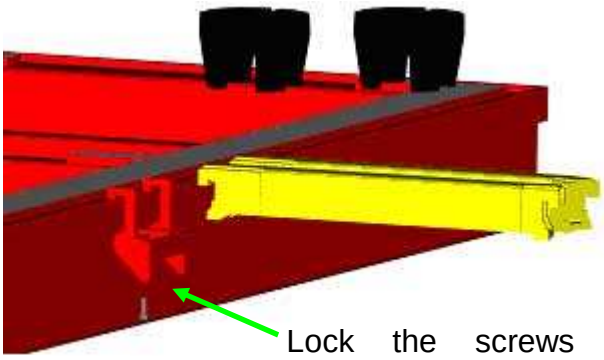
IV Connect the two pneumatic hoses .



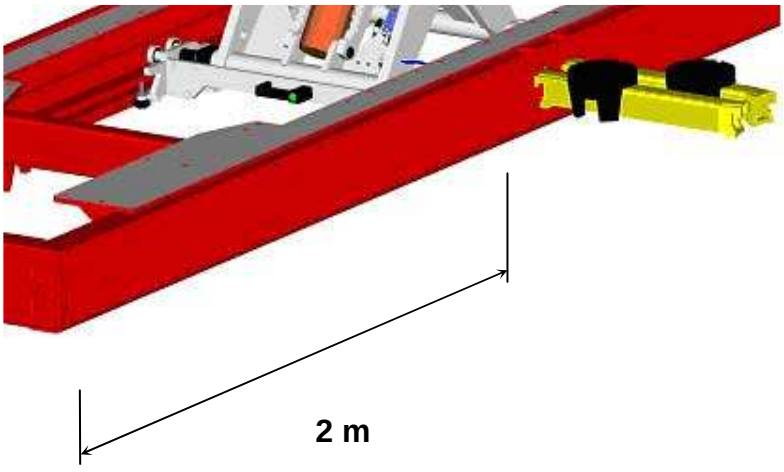


V Cut the simple connector, join the two electric wires to the double connector **without striping them**

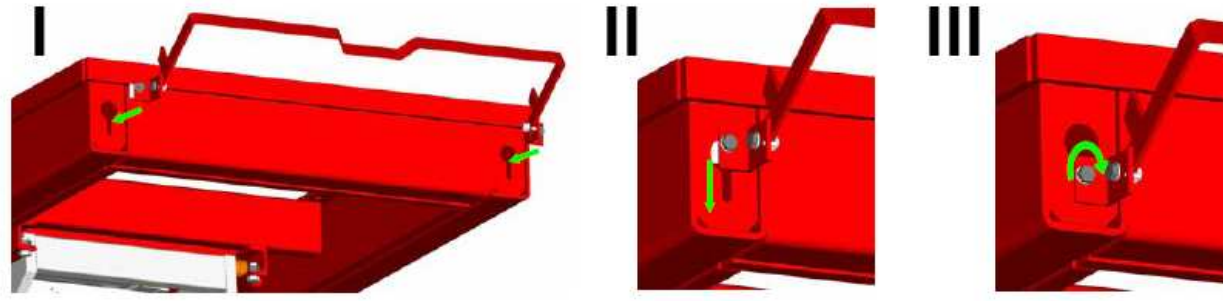
27. Fix the supports of the inner lifting unit arms on the base :



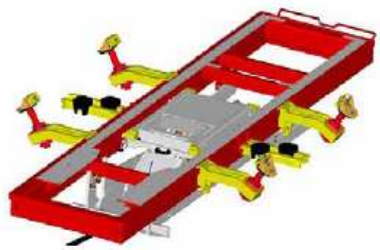
Lock the screws under the peripheral frame.



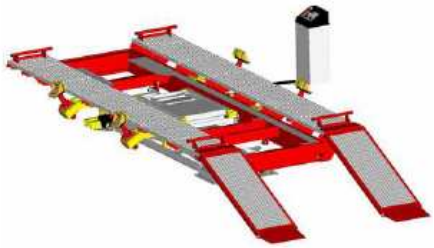
28. At the rear end of the base, fix the foot protecting bar :



29. Place the set of clamps on the base ; The anchoring clamp arms being fixed on the peripheral frame, the clamps will be inserted on the outer bended part of the arms.



30. Install the runway decking plate, the extension and the access ramps on the base, refer to page 48:



The equipement being installed as described above, the bench GRIFFON 2,8 T EVOLUTION is ready to be equipped with any adaptable checking, measuring, repair systems, and corresponding accessories of the CELETTE range.

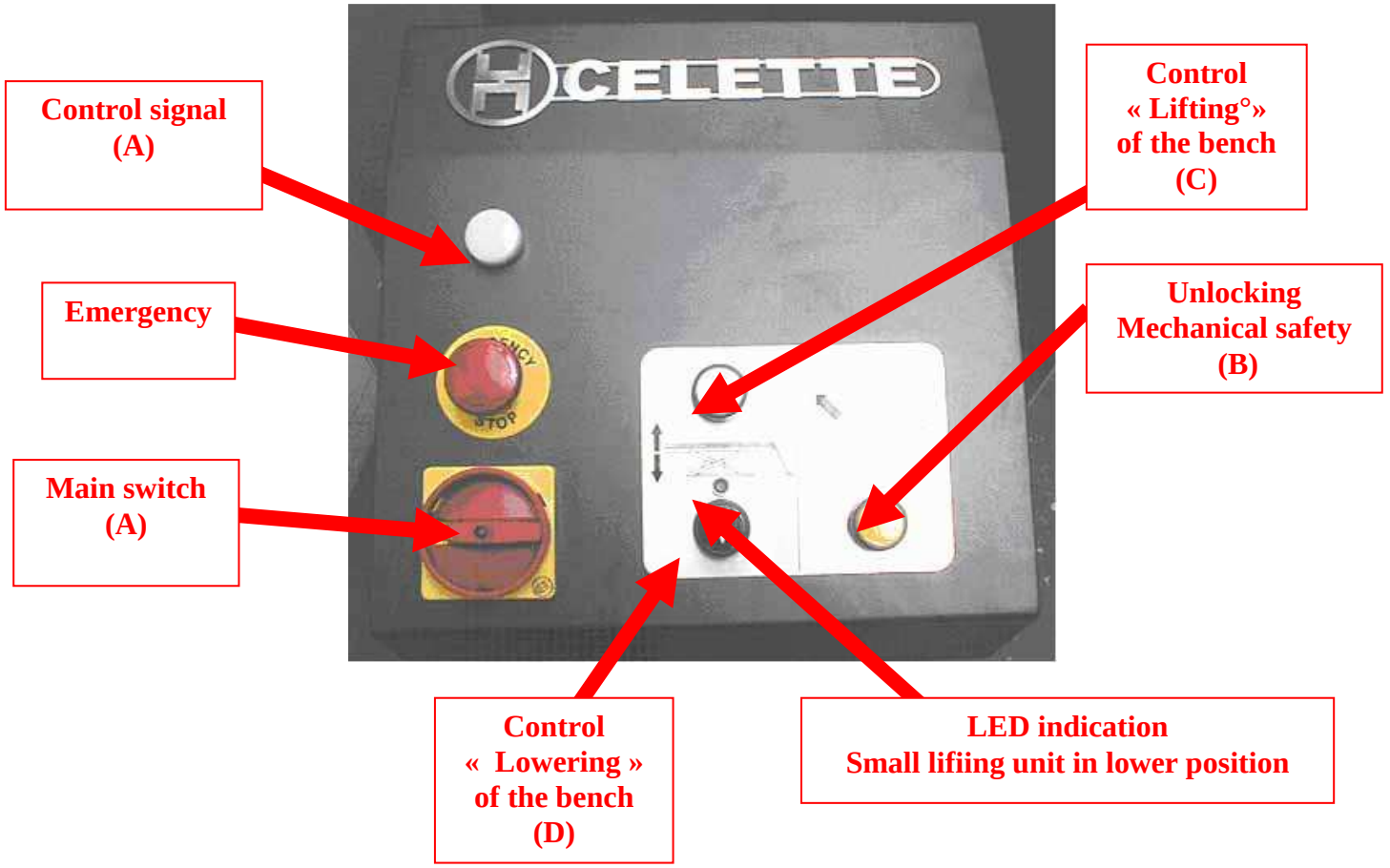
AFTER THE FIRST UTILIZATION, WE STRONGLY RECOMMEND TO CHECK THE TIGHTENING OF THE 10 EXPANSION DOWELS FIXING THE BENCH TO THE GROUND. AN UNCORRECT FIXING COULD GENERATE

NB : a load test has to be effected to validate the installation of the equipment. The chart hereunder precises the tests to be effected. The load test sheet has to be signed at the end of the installation procedure. Should the customer not be in a position to effect this test, he would have to effect or have this load test effected as soon as possible, while signing the form enclosed at this end of this manual.

Test type	Load	Duration
Static test	3500 Kg	1 hour
Dynamic test	3220 Kg	complete lowering/liftiing process

Control and handling of the main lifting unit :

1. CONTROL :



2. HANDLING :

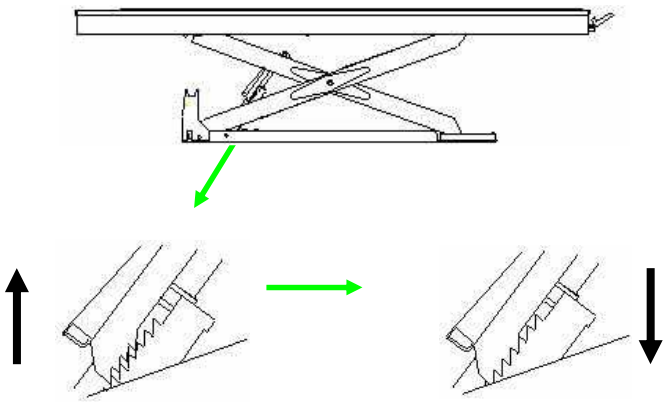
Follow the safety instructions on the rear panel of the hydraulic power unit.
Before each operation, check that the power unit is under pressure (**A**).

To lift or lower the main lifting unit, check that the inner lifting unit is in lower position (Green LED light is on).

- **LIFTING :**

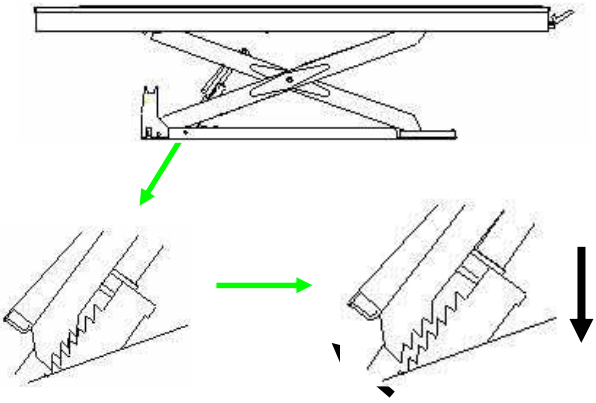
I Activate drive **(C)** while pressing the key until selected height

II Activate drive **(D)** to lower the safety units on its safety racks.



While in use, place the lifting unit safety system on its safety racks.

- **LOWERING :**



I Activate drive **(C)** to unlock the safety system.

II Activate the drive **(B)** and the drive **(D)** until selected height

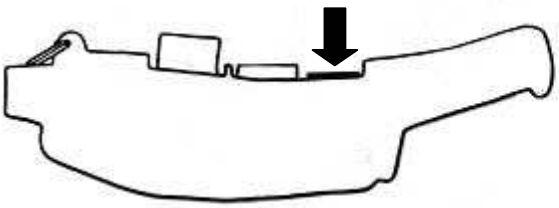
Remote control and handling of the inner lifting unit :

CAUTION : When lowering or lifting the inner lifting unit, make sure that nobody is standing less than 1,50 m away from the device. The load will have to be controlled during all the operation.

2. CONTROL :

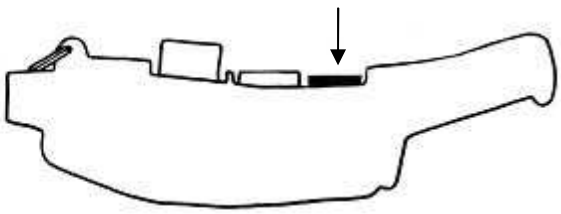
Unlocking of safety units and Lowering

Important pressure



Lowering for safety locking

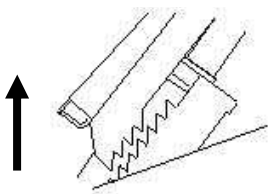
Light pressure



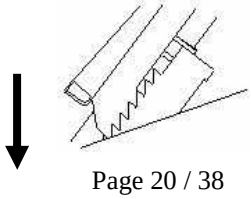
2. HANDLING :

- **LIFTING :**

I Activate drive **(C)** until selected height

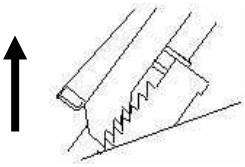


II Sightly activate drive **(D)** to place the safety un on the racks

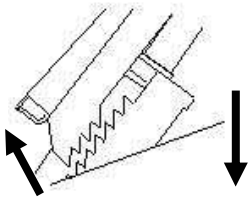


- **LOWERING :**

I Activate drive **(C)** to unlock the safety unit

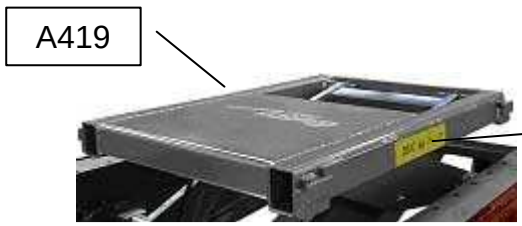


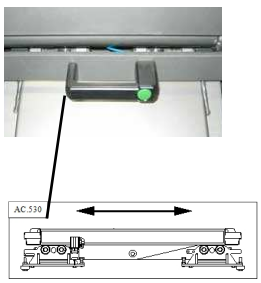
II Strongly activate drive **(D)** until selected height.



Stickers :

Stickers	Qty
A603	2
A606	2
A346	2
A387	2
A611	1
A419	2
A494	6





AC.530

Should stickers **A346**, **A.387** or **A419** be damaged, it it imperative to replace them upon request to CELETTE S.A.
Should the other stickers be damaged, it is possible to replace them in the same way.

A346

INSTRUCTIONS D'UTILISATION - CONSIGNES DE SECURITE

Cet élévateur doit être utilisé uniquement lorsqu'il est relié et verrouillé au marbre.
L'utilisation de l'élévateur n'est autorisée qu'aux personnes de plus de 18 ans.
La présence de personnes sous ou dans le véhicule lors des opérations de levage et de descente est strictement interdite.
Le levage de charges dont le poids est supérieur à celui indiqué sur l'élévateur est interdit.
Le personnel utilisant le matériel doit constamment surveiller le véhicule lors des montées et descentes.
Avant la descente, tous les accessoires se trouvant dans la zone de travail du marbre doivent être éloignés.
Les instructions d'utilisation de l'élévateur et les contrôles réguliers sont à suivre soigneusement.

****

OPERATING INSTRUCTIONS - SAFETY PRECAUTIONS

The lifting unil will be used only after connection and locking to the bench.
The utilization of the lifting unit is not allowed to people under 18 years old.
It is prohibiled to stay under or in the car during lifting or lowering operations.
The lifting of weight exceeding the one stated on the lifting unit is not allowed.
The staff using the device must continuously check the vehicle during lifting or lowering operations.
Before placing the unit down, remove all accessories withing the bench area.
Operating instructions and regular checkings have to be carefully followed.

****

VERWENDUNGSANLEITUNGEN UND SICHERHEITSVORSCHRIFTEN

Die Hebebühne darf nur in Verbindung und nach Verriegelung mit der Richtbank verwendet werden.
Das Hebesystem darf nicht von Personnen unter 18 Jahren bedien werden.
Es ist strikt verboten, sich unter oder auf der Hebebühne beim Heben oder Ablassen zu befinden.
Die zulässige Nutzlast darf nicht überschritten werden.
Beim Anheben oder Ablassen soll das Fahzeug ständich überwacht werden.
Vor jedem Ablassen müssen alle Störteile, die sich in der Nähe der Richtbank befinden, entfernt werden.
Die Betriebsanleitungen des Hebesystems und die regelmäβigen Überwachungen müβen sorgfältig beachtet werden.

****

ISTRUZIONI PER L'USO - NORME DI SICUREZZA

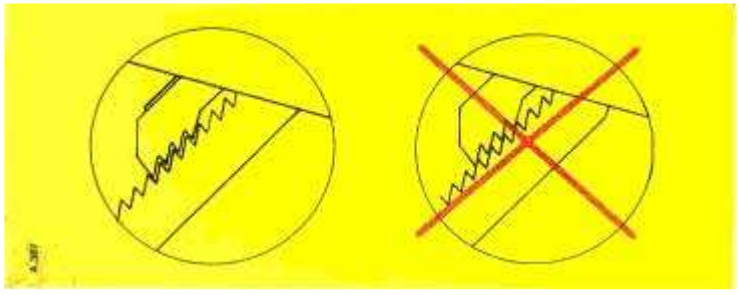
Il sollevatore deve essere utilizzato soltanto dopo collegamento e bloccaggio sul banco.
L'utilizzazione del sollevatore non é autorizzata ai minori di 18 anni.
E vietato restare sotto o dentro al veicolo durante le operazioni di sollevamento e di discesa.
Il sollevamento di carichi superiori al peso indicato sul sollevatore ó proibito.
Gli utilizzatori del sollevatore devono sorvegliare costantemente il veicolo durante il sollevamento o la discesa.
Prima della discesa, tutti gli accessori presenti nella zona di lavoro del banco devono venire rimossi.
Le istruzioni per l'uso e i controlli regolari del sollevatore devono essere seguiti accuratamente.

****

INSTRUCCIONES DE UTILIZACION - CONSIGNAS DE SEGURIDAD

Este elevador deber ser utilizado solamente cuando esta conectado y sujeto al banco.
Unicamente puede ser utilizado por mayores de 18 años.
La presencia de personas debajo o dentro del vehículo en el momento de la subida y bajada esta estrictamemnte prohibida.
La subida de cargas cuyo peso sea superior a lo indicado en el elevador esta prohibida.
Los operarios deben vigilar continuamente el vehículo durante las subidas y bajadas.
Antes de la bajada, todos los accesorios que se hallen en la zona de trabajo cerca del banco deben ser retirados.
Seguir con suma atención las instrucciones de utilización del elevador asi como los controles periodicos del mismo.

A.387



A419

Identification plates:

1. On the power unit, the identification plate is located on the rear panel :

ELEVATEUR DE VEHICULE / VEHICLE LIFT

CELETTE SA - 13 Route de Bechevienne - 38200 Vienne - France

GRIFFON 2800 Evolution

MADE IN FRANCE CE

TYPE: GR04	N°	Year:

PRIMARY VOLTAGE	PHASE NUMBER	FREQUENCY	AMPERAGE
V	~	Hz	A

SECONDARY VOLTAGE	MAX AIR PRESSURE	HYDRAULIC PRESSURE
	8 Bar	280 Bar

P91

NB : In case of trouble, the information stated on this plate will be requested by the SAV.

2. On the lifting unit, the identification plate is located on the safety element of the main lifting unit :

ELEVATEUR DE VEHICULE / VEHICLE LIFT

CELETTE SA - 13 Route de Bechevienne - 38200 Vienne - France

GRIFFON 2800 Evolution

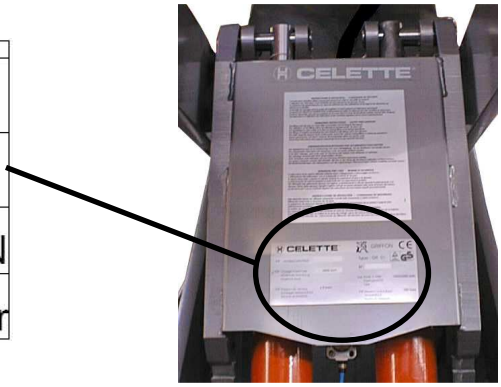
MADE IN FRANCE CE

TYPE: GR04	N°	Year:

MAXIMAL LOAD	TARE
2800 daN	1650 daN

MAX AIR PRESSURE	HYDRAULIC PRESSURE
8 Bar	280 Bar

P90



3. On the base, the identification plate is on the front crossmember :

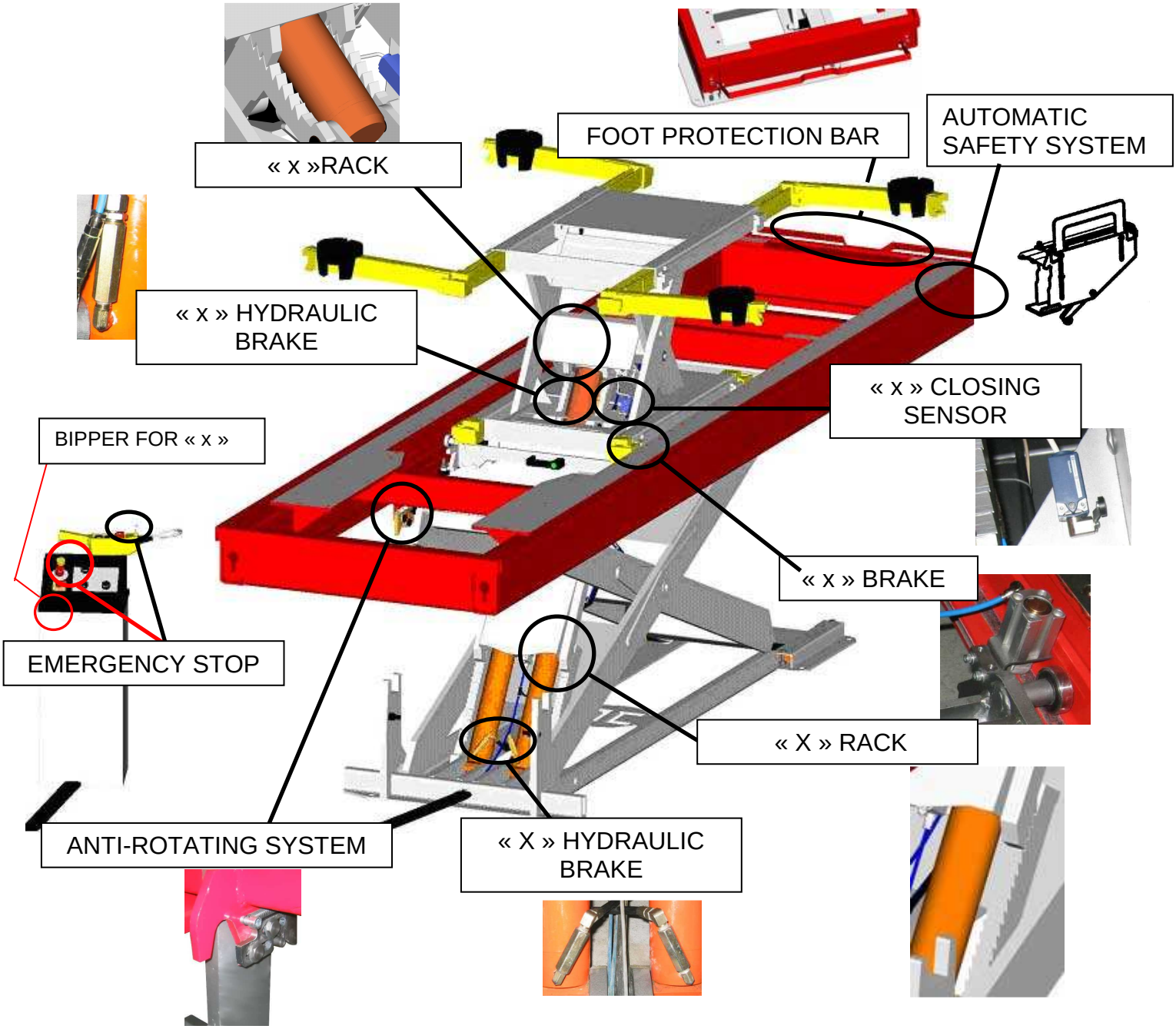
CELETTE®

TYPE : GRIFFON - MZ

N° CE

NB : Should one of these plates be damaged, it is imperative to replace it upon request to CELETTE S.A.

Safety units :



ANTI-ROTATING SYSTEM : Automatic system locking the base on the main lifting unit as soon as the base separates front the leg

FOOT PROTECTION BAR : Safety bar to prevent the feet from going under the base being tilted.

EMERGENCY STOP : Safety button to stop the bench instantaneously

CLOSING SENSOR : Avoid the handling of the main lifting unit when using the inner lifting unit. Can only be separated once the inner lfiting unit is in low.position.

SAFETY RACK : Mechanical safety system blocking the lowering operation by means of steel notches in case of hydraulic trouble

BRAKE : Locks the inner lifting unit within the base, whatever its position may be, when the main lifting unit is being used

HYDRAULIC BRAKE : System limiting the oil leaking in the jacks area and enabling a slow and souple lowering , whatever the load may be.

BIPPER FOR « x » : Sound signal informing the technician when the inner lifting unit is moving downwards

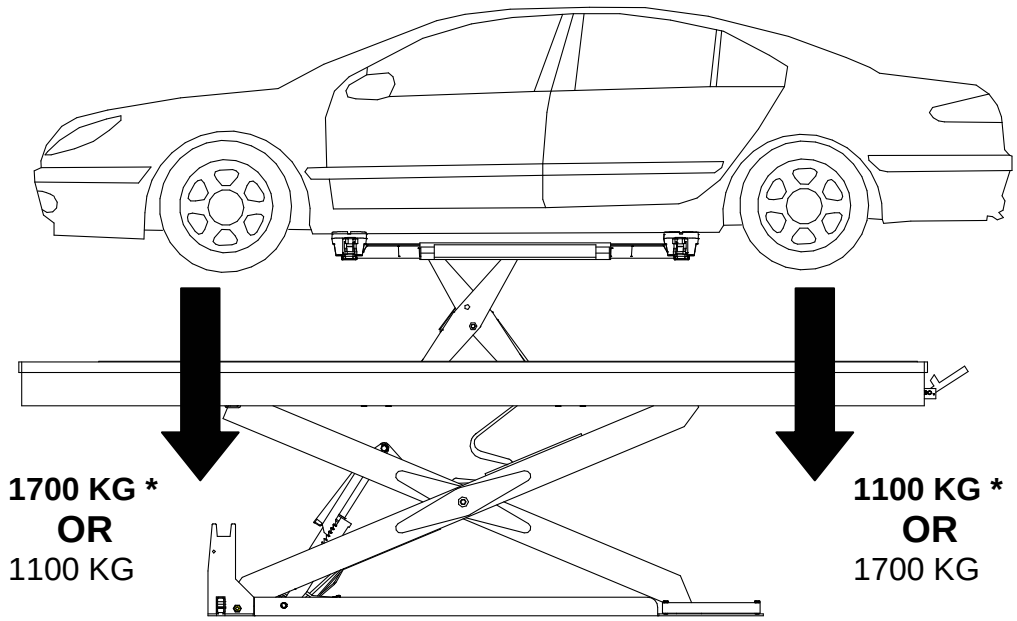
AUTOMATIC SAFETY SYSTEM : Device designed to fix the vehicle on the runway decking plates.

POSSIBLE RISKS

RISKS	SOLUTIONS
Crushing – Pinching out	Sound signal for mobile lifting unit. Foot protection bar for main lifting unit
Cutting	Control with continuous activation system
Hydraulic leakage	Automatic locking of safety systems (mechanical rack)
Hose breaking	Lowering control system with valve
High pressure fluid projection	Overpressure preventer
Activation of the lifting unit during a repair or maintenance operation	Main switch with padlock system
The vehicule is moving around on the lifting unit	Automatic anchor post / Removable support
Fluid projection	IP54 Power unit

Balance of weights :

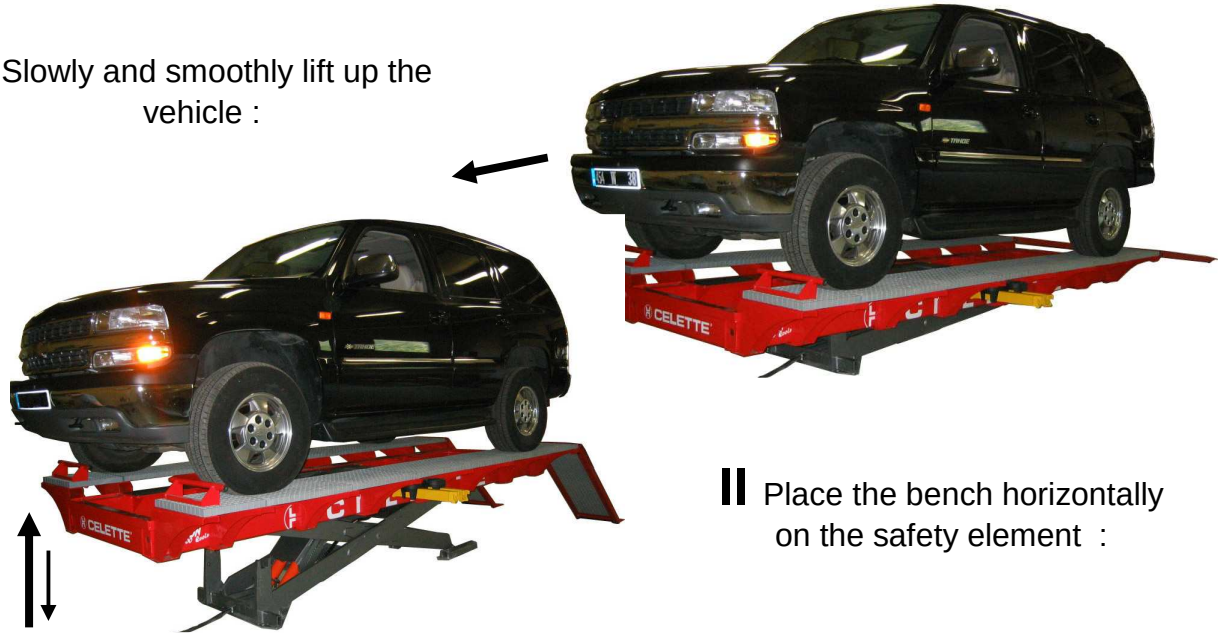
MAXIMAL LOAD CAPACITY : **2800 KG** divided in 3/5, 2/5 on each axle



Utilization :

1. Installation of a running vehicle on the base :

I Slowly and smoothly lift up the vehicle :



II Place the bench horizontally on the safety element :

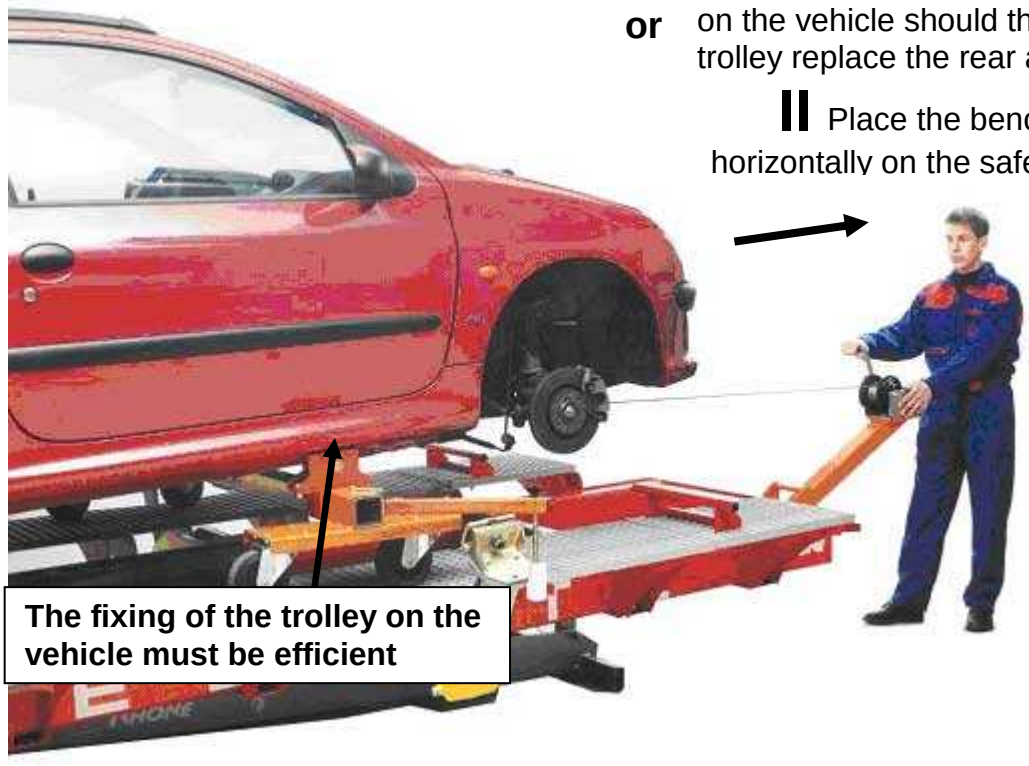
1BIS. Installation of a vehicle with one non rolling axle on the base :

- Use the option **GR97.0073** including the installation trolley and the manual winch.

I The vehicle will be towed with the winch, which cable will be fixed directly to the trolley or to the vehicle, in case this trolley is replacing the front axle

or on the vehicle should this trolley replace the rear axle.

II Place the bench horizontally on the safety unit



The fixing of the trolley on the vehicle must be efficient

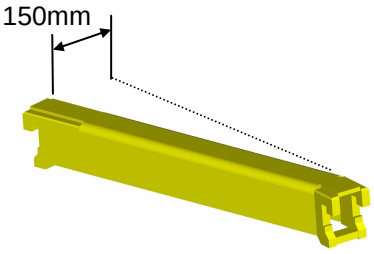
2. The inner lifting unit :

- LAYOUT :

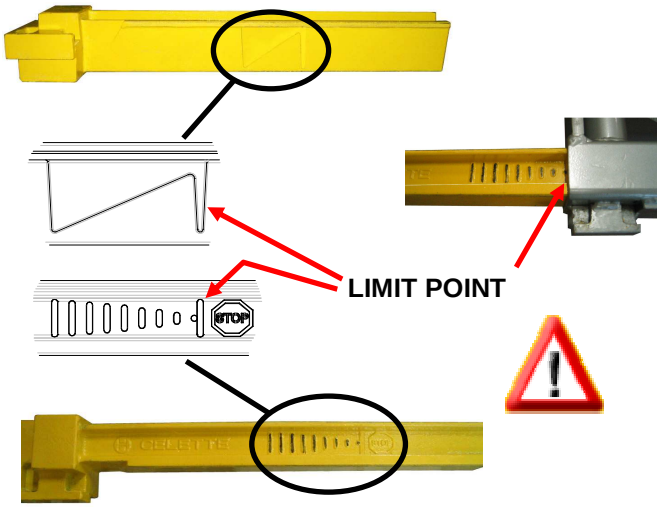
I In lower position within the base, the lifting unit comes as follows :

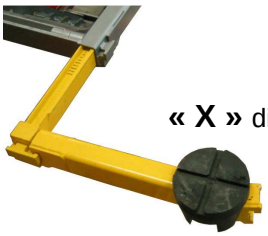
The arms are placed under the runway decking plates, 2 on each side.

II When lifted, the plastic pads can be installed in various positions



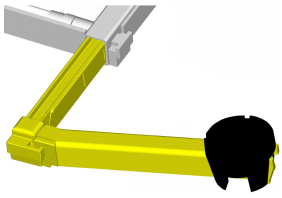
The arms can be fixed at both ends. The 15°angle enables a 150mm extension in « X » direction (inside or outside according to the case).





« **X** » dimension

Dimension **« X+150mm »**



Dimension **« X-150mm »**

IT IS STRICTLY FORBIDDEN TO USE THE EXTENSIONS WHILE GOING BEYOND THE LIMIT POINT

- UTILIZATION (The vehicle is placed on the base) :

I Separate the lifting unit from the base with the remote control unit, to place it between the underframe of the vehicle and the bench. Should the vehicle be to low, take off the runway decking plates.

II If necessary, pull the extensions **without going beyond the limit point** to place them in front of the vehicle lifting points. When lifting the vehicle, mind its correct levelling

III Remove the central duckboard to have access to the arms

IV Hook the arms in the best suitable position

V Place the pads on the arms, under the vehicle lifting points.

VI Lift up the lifting unit, while placing the pads near the lifting points.Check the centring in the Y direction to improve this possible and future shifting

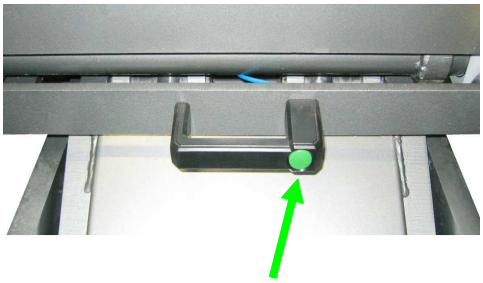
VII Slowly lift the vehicle. Should the balance seem precarious, lower it again and check the extensions (To effect this operation, it is not necessary to remove the arms .)
Place the lifing unit in safety position.

VIII In this position, the vehicle can be shifted manually in both direction : horizontal and vertical, thanks to the remote control, to be installed on :

- the « MZ System »
- the measuring device « METRO 2000 »
- the electronic measuring device « NAJA »

NB : After utilization of the main lifting unit, the brake of the inner lifting unit is automatically engaged. To release it, **the bench being in horizontal position**, and lower the inner lifting unit, two solutions are available :

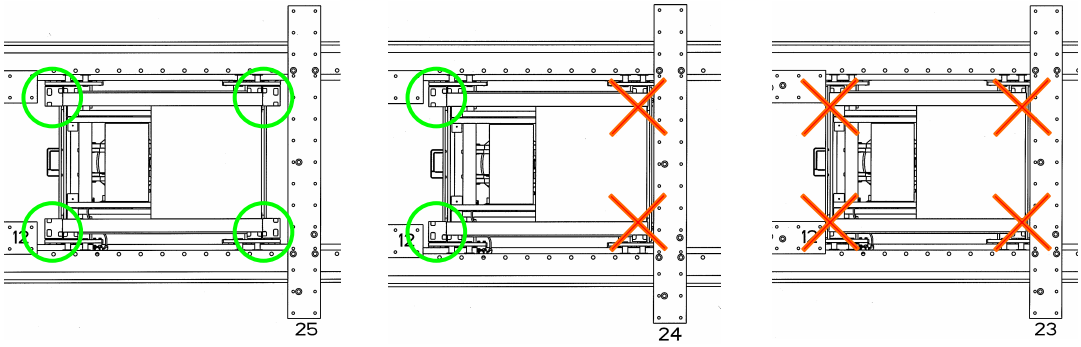
- Lift the inner lifting unit by means of the remote contol.
- Press the button of the inner lifting unit handle



Options :

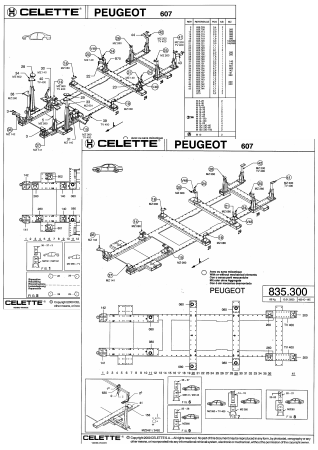
1. « MZ System» :

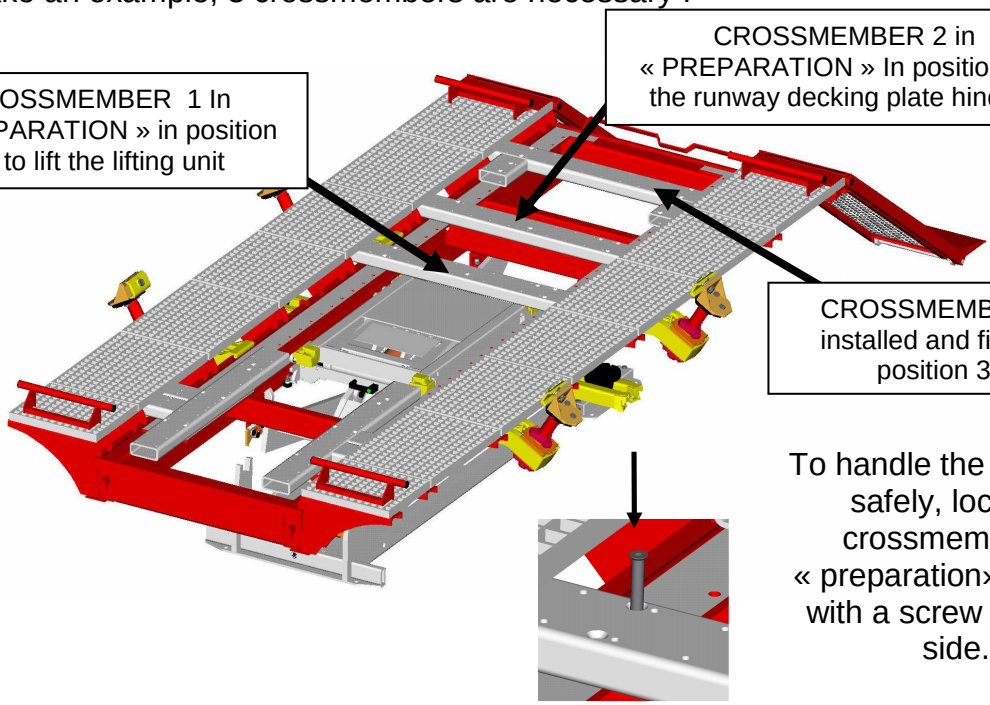
- Adjust the bench according to the « MZ » data sheets, while effecting a first installation of the crossmembers (it is easier to place them before installing the vehicle on the bench) :



NB : Position 25 is the last crossmember position enabling a lifting of the lifting unit in its basic display. To lift the lifting unit with a crossmember in position 24, 2 extensions have to be removed. With a crossmember in position 23, the 4 extensions have to be taken off. Positions 13 to 22 cannot be used during the first installation step of the vehicle on « MZ » elements .

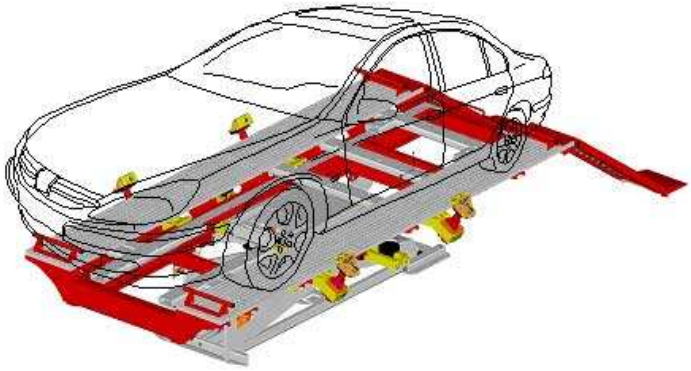
- To take an example, 3 crossmembers are necessary :



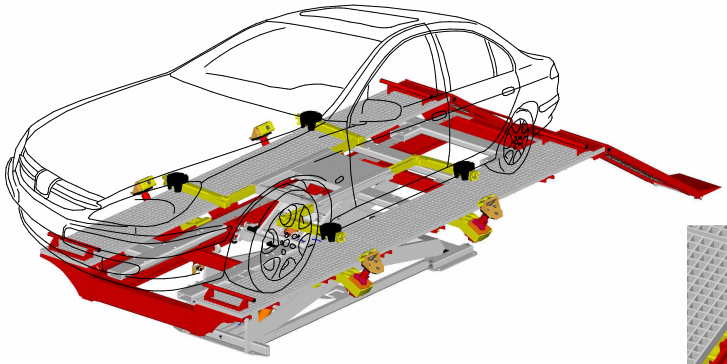


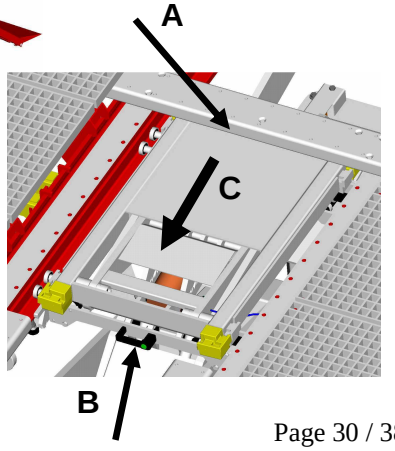
To handle the elements safely, lock the crossmember in « preparation» position with a screw on each side.

- Lift the vehicle on the bench as shown on page 25 :



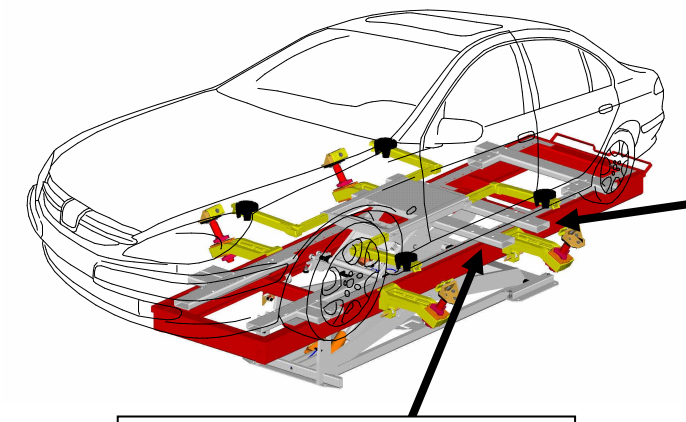
- Lift the vehicle with the inner lifting unit as shown on page 27 :



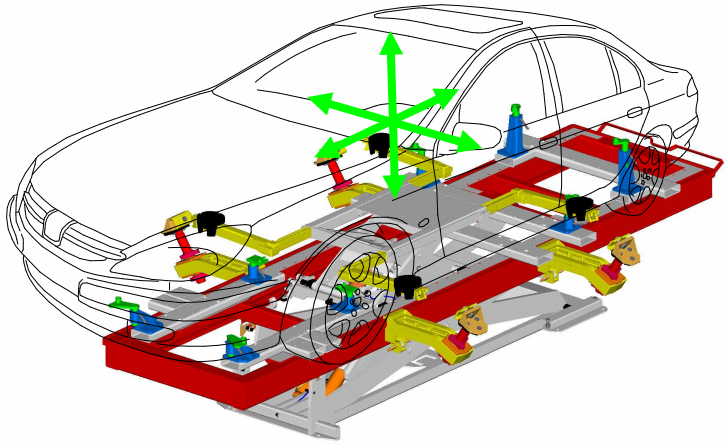


Should the vehicle be under a crossmember (**A**), do not forget to unlock the brake (**B**) to shift the lifting unit forward(**C**).

- When not effected, remove the elements of the runway decking plate which hinder the fixing of the crossmembers in their final locations (except crossmembers in position 13 to 24 included).

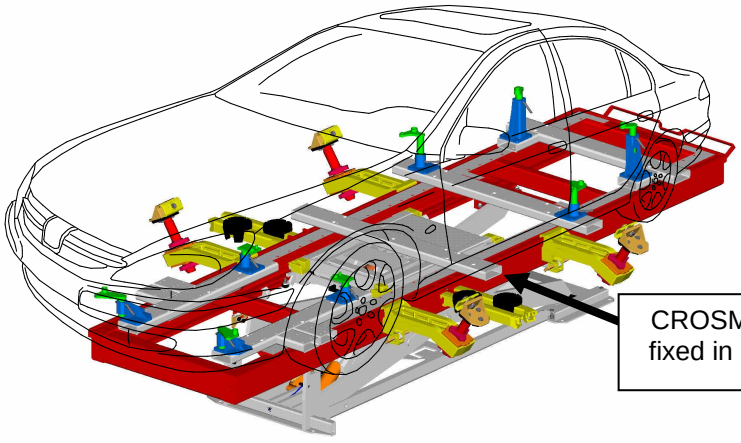


- Install the necessary and sufficient MZ elements to place the vehicle on the bench. Adjust its position on the jigs while shifting the lifting unit :

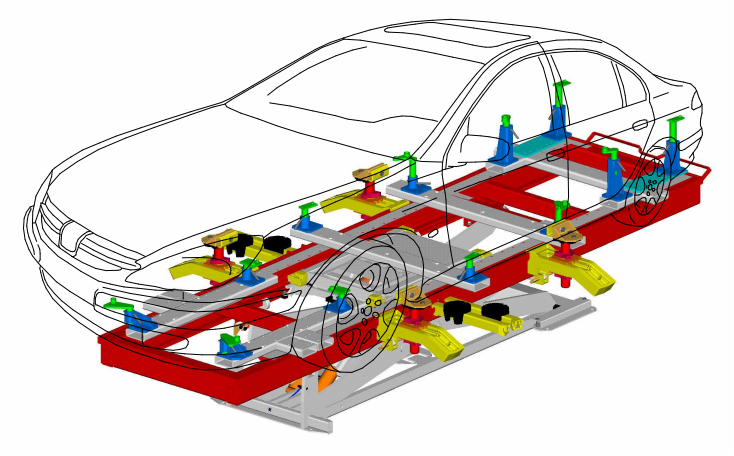


CAUTION : The technician, as well as any other people on the work bay, have to stand **1,50m** away from the load during lifting or lowering operations.

- The vehicle being in position on the brackets, lower the inner lifting unit while removing the arms and folding the crossmembers. Fix the crossmembers in positions 13 to 24 included :



- Complete the installation of towers and jigs, lock the vehicle through the sill panels with the anchoring clamps.



The vehicle is ready to be repaired.

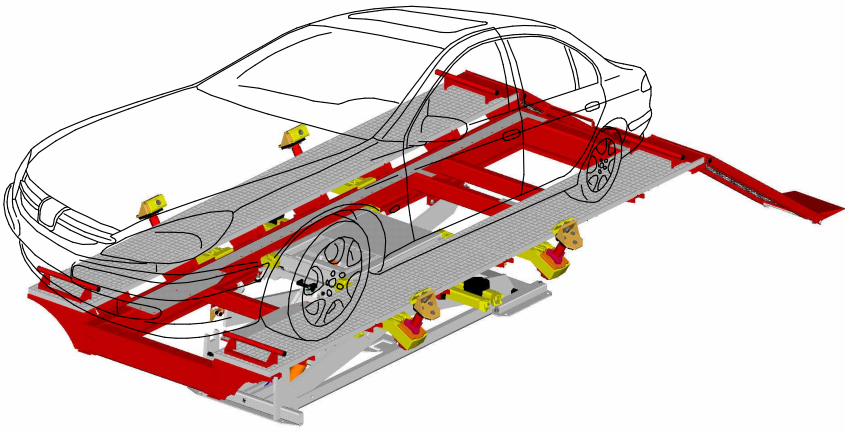
- The repair being effected, release the vehicle while proceeding in the reverse way.

CAUTION :

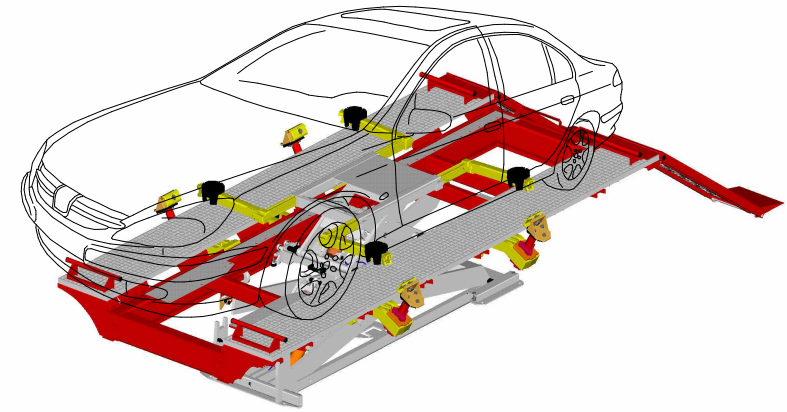
Place the duckboard plates and the access ramps in correct position again (refer to page 48)

2. The measuring device « METRO 2000 » :

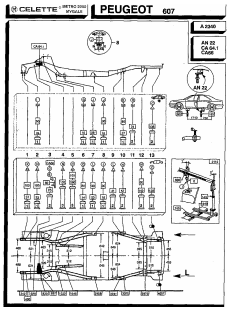
- Install the vehicle on the bench as shown on page 25 :

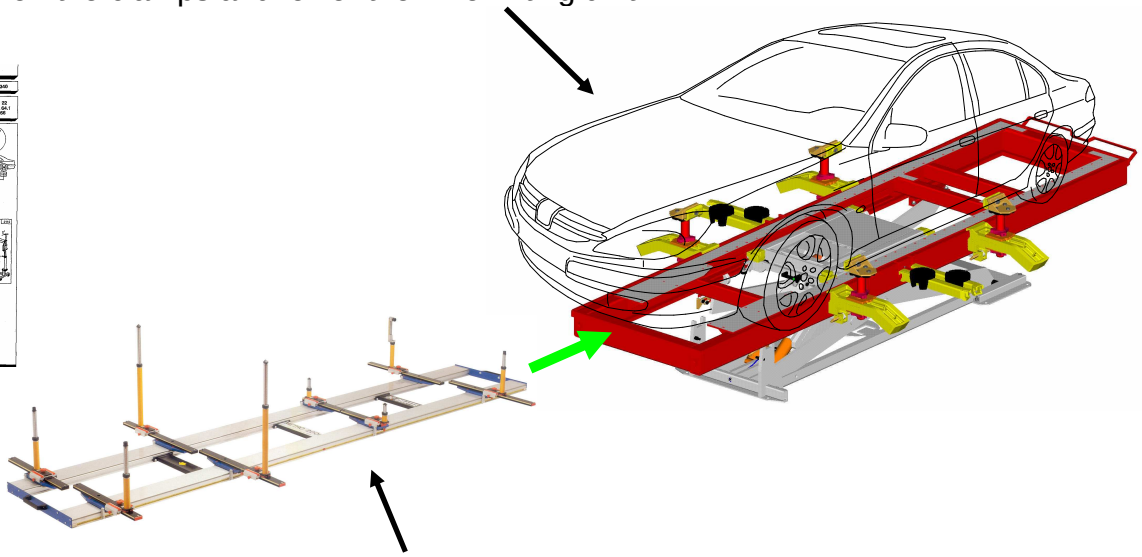


- Lift the vehicle with the inner lifting unit as shown on page 27 :



- Remove the runway decking plate, adjust the clamp height according to the indications stated in the « METRO » data sheet of the vehicle. Lock the vehicle on the clamps and lower the inner lifting unit :





- Insert the METRO 2000 frame between the base and the vehicle, and fix it. Mount the sliders according to the data sheet, repair.

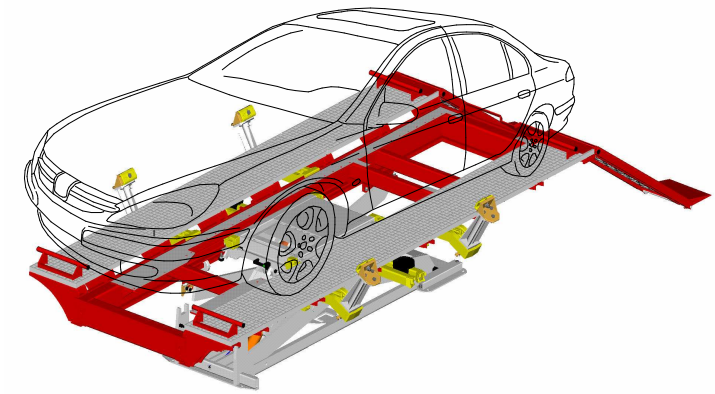
- The repair being effected, proceed in the reverse way to release the vehicle.

CAUTION :

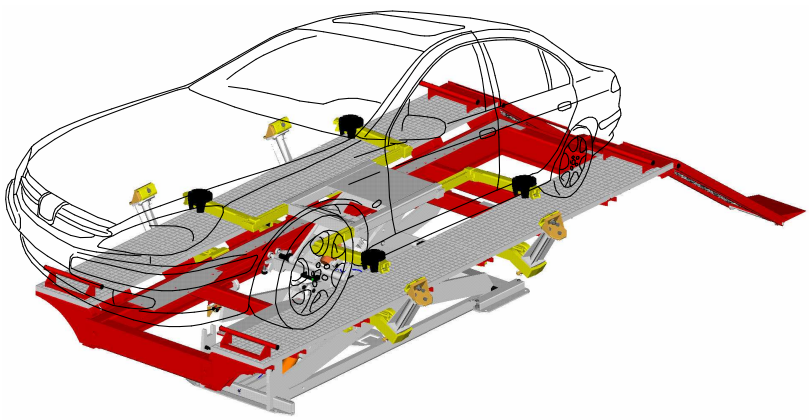
Place the duckboard plates and the access ramps in correct position again (refer to page 48)

3. Electronic measuring device « NAJA » :

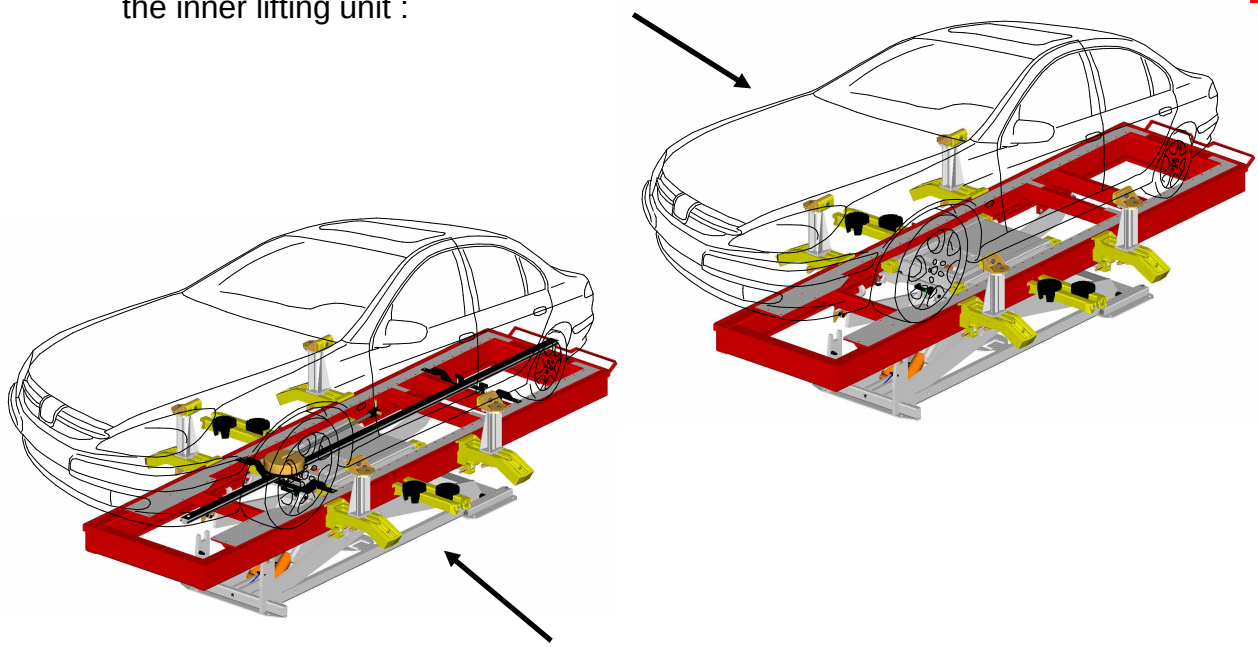
- Replace the adjustable clamps with the static ones. Then mount the vehicle on the bench as shown on page 25 :



- Lift the vehicle with the inner lifting unit as explained on page 27 :



- Take off the runway decking plates. Anchor the vehicle on the clamps. Lower the inner lifting unit :



- Fix the « NAJA » rail supports on the base and place the Naja above. Install the measuring tops, repair.

- The repair being effected, proceed in the reverse way to release the vehicle.

CAUTION :

Place the duckboard plates and the access ramps in correct position again (refer to page 48)

4. Accessories :

To make your job easier, a large range of options and accessories can be used together with this equipment.
Contact your agent to get the complete list and availability.

Maintenance :

To insure the reliability and durability of your equipment, we recommend to effect following checkings regularly (at least once a year) :

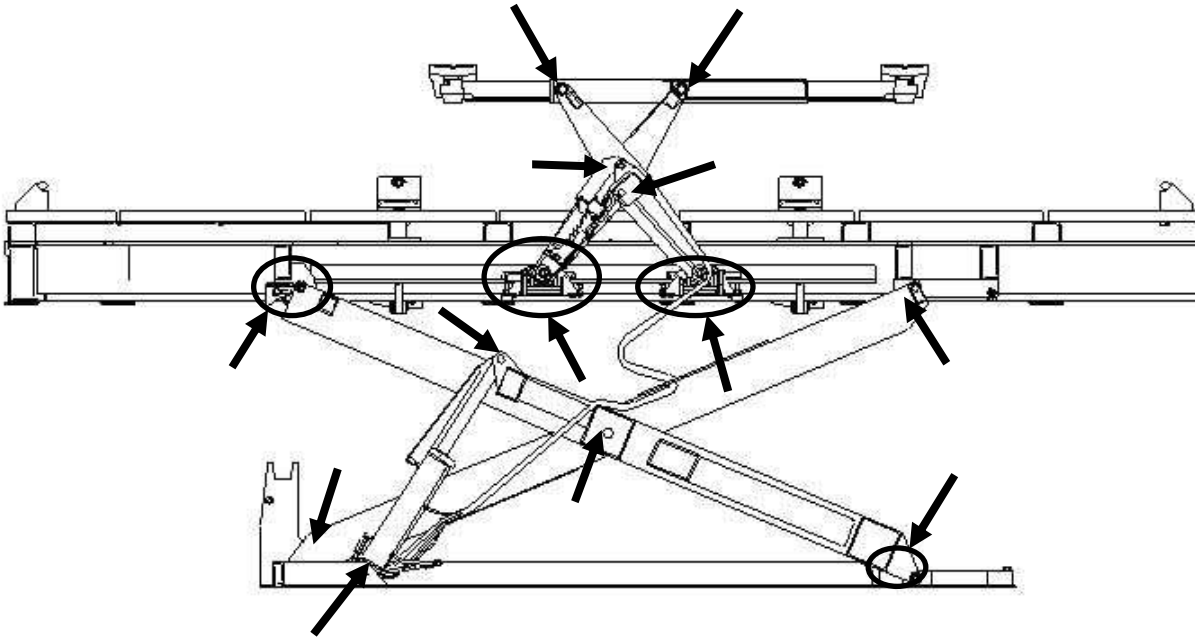
- The oil level of the power unit tank. To effect this operation, both lifting units have to be completely lowered.

- The condition of hydraulic and pneumatic hoses (Possible leakages or scratchings).

- The condition electric wires .

- The waterproofness and look of the jacks.

- All connections of the bench, of the power unit, of the possible options and accessories (hydraulic, pneumatic, electric) .
- The look of the safety system notches of both lifting units
- The condition of the ball bearings .
- The condition of the safety stickers.
- The tightening of the fixing screws to the ground.
- The lubrication of mobile or orientable points:



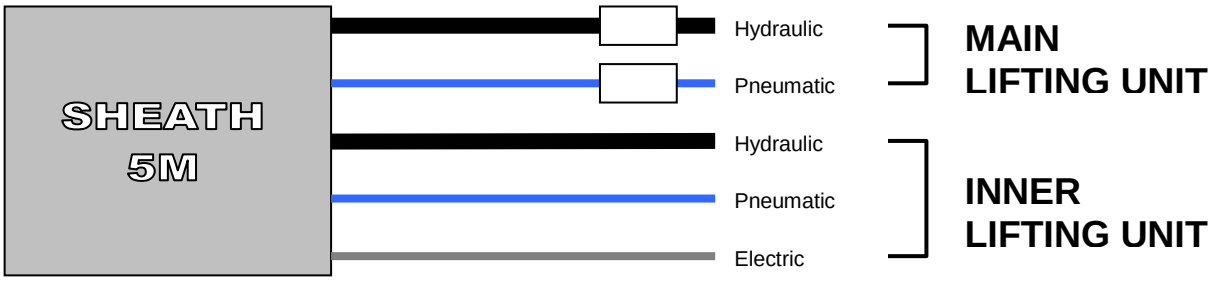
- The condition of runway decking plates.
- The levelness of the bench
- The general look of the bench.

In case of trouble, it is imperative to effect level checkings or repairs to maintain the conformity of the equipment utilization. The spare parts have to be agreed by the manufacturer

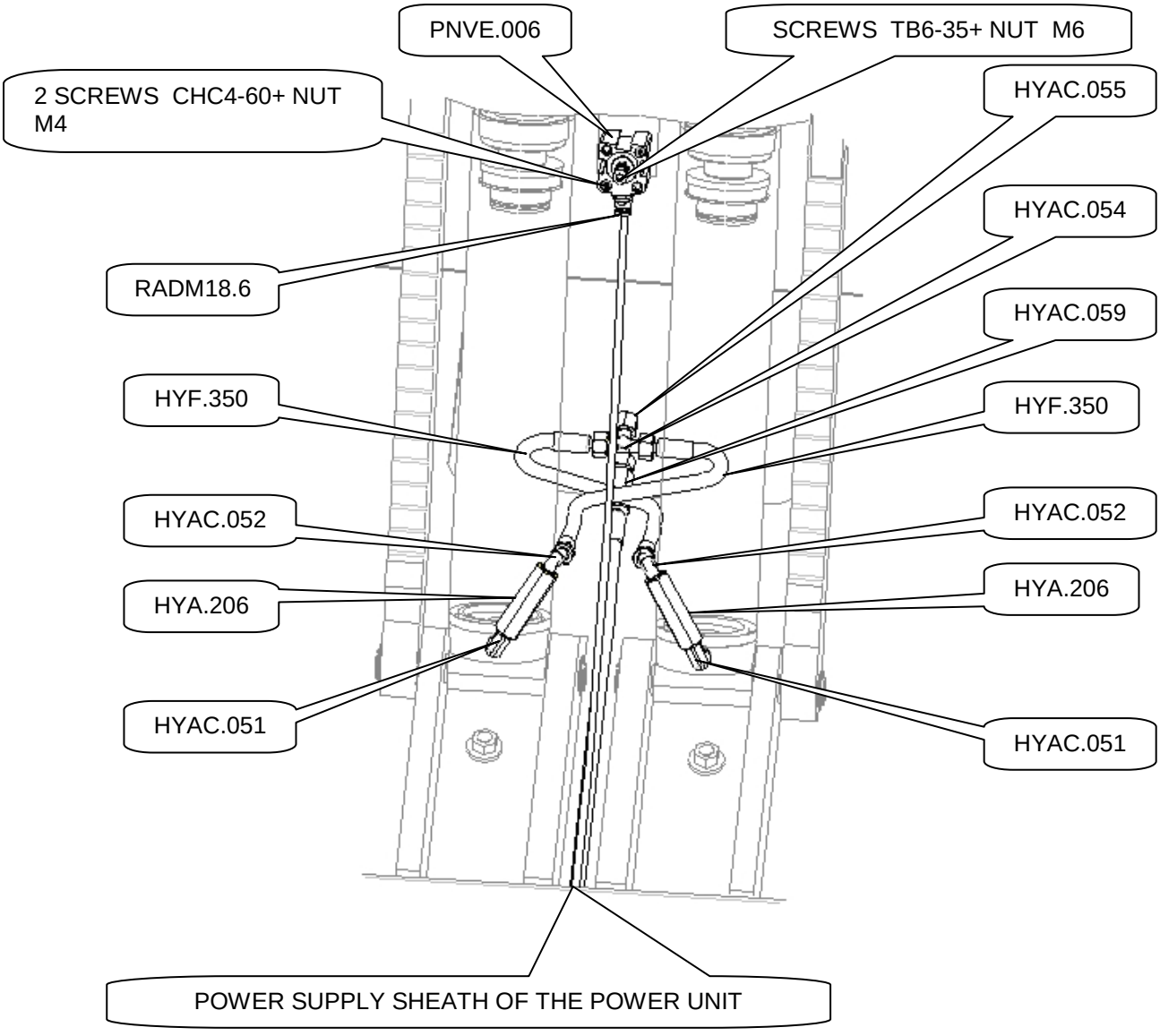
BEFORE ANY TECHNICAL INTERVENTION, IT IS IMPERATIVE TO PLACE THE BENCH IN HORIZONTAL POSITION AND TO LOCK IT ON ITS MECHANICAL SAFETY SYSTEM.

Connection POWER UNIT / BENCH

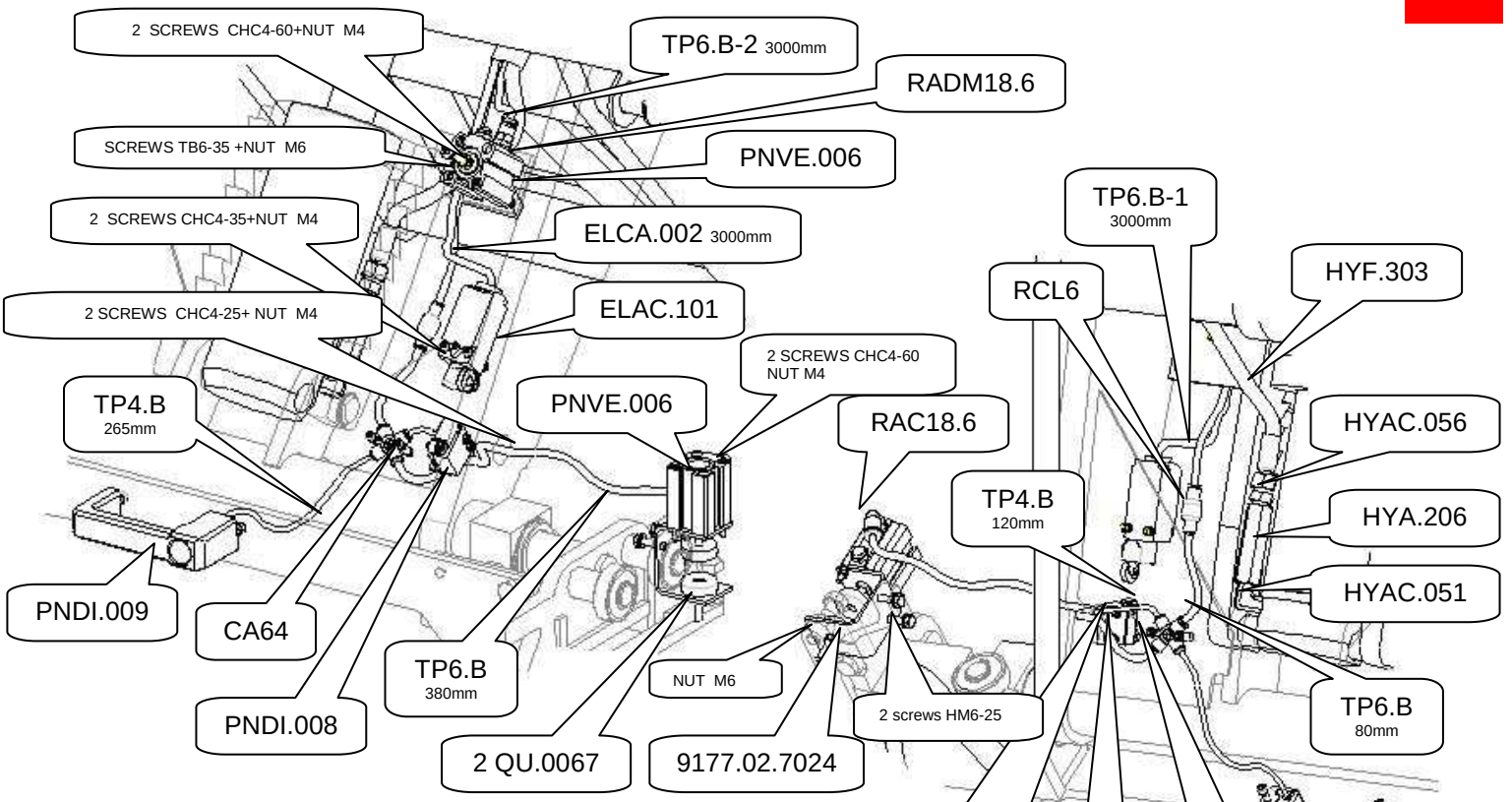
- POWER UNIT SHEATH :

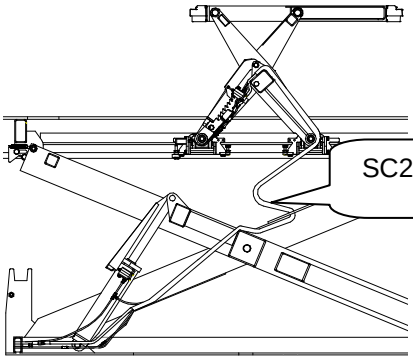


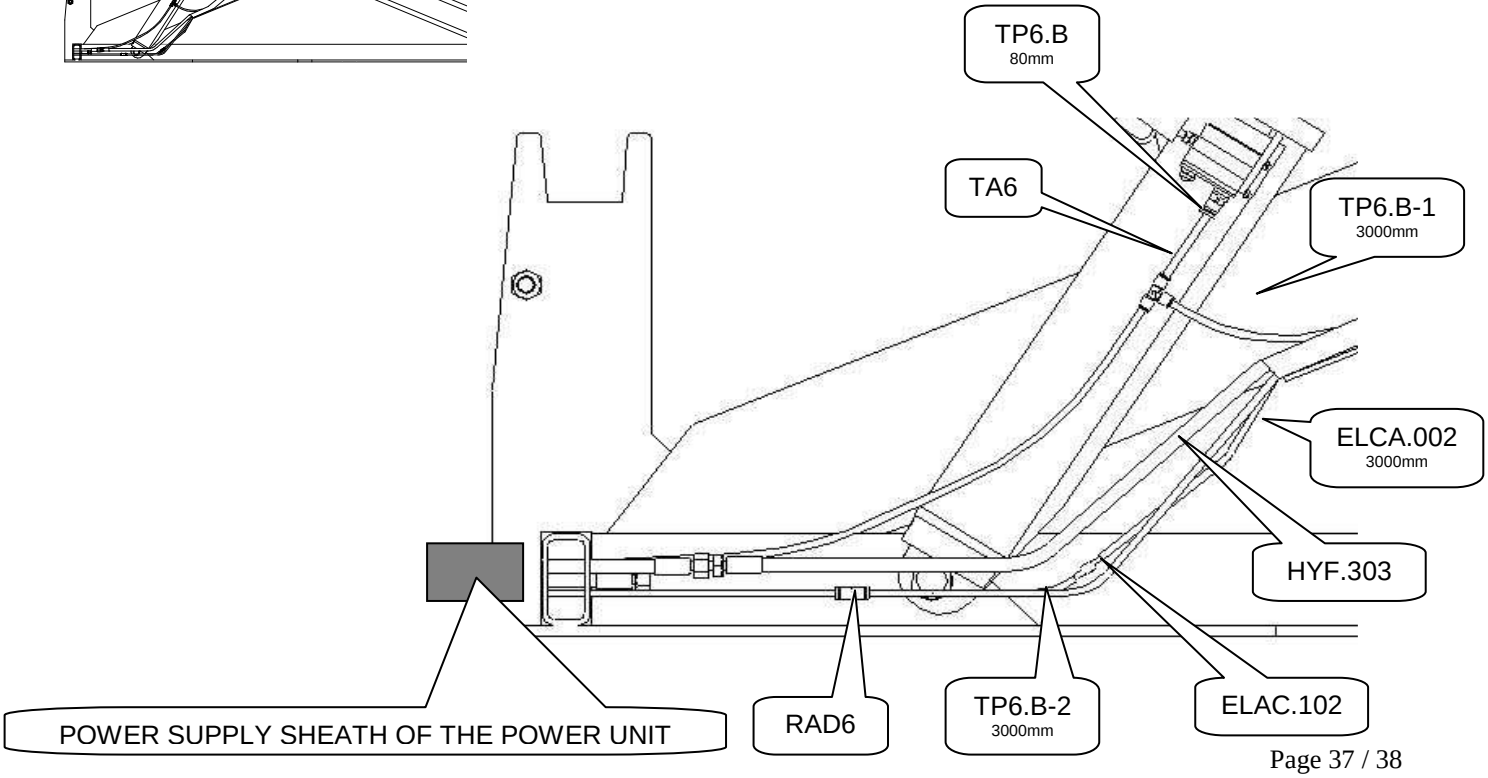
- POWER UNIT / MAIN LIFTING UNIT :



- POWER UNIT / INNER LIFTING UNIT :







Dysfunctions

CAUSE OF THE DYSFUNCTION	CHECKING	SOLUTION
The control light does not light on. No movement possible	• General energy supply • Main switch (IG)	• Connect the energy supply to a receptacle • Place the main switch on ON • Check the general energy supply of the board and of the workshop
The control light lights on No movement possible	• Motor thermal break switch (C1) • Motor contactor coil	• Contact the After Sales Service • Start C1 again.
The control light lights on Only the mobile lifting unit can be activated	• Inner lifting unit in storage position (green LED lights on). • Coil of the hydraulic selection electrovalve. • Correct electric connection.	• Place the inner lifting unit in storage position. (do not hesitate to effect the operation again). • Contact the After Sales Service • Plug the electric connection again.
No lowering possible	• Compressed air supply • Coil of the hydraulic discharge electrovalve	• Connect the unit to a compressed air supply. • Check the workshop pneumatic pressure. • Contact the After Sales Service