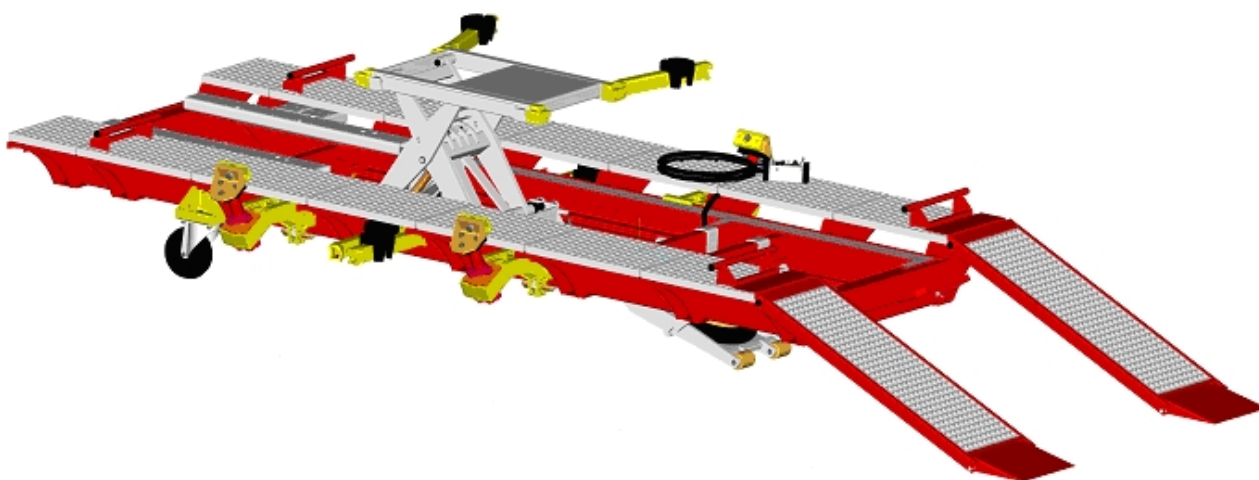


GRIFFON VB **2800** **EVOLUTION**



TECHNICAL MANUAL **ref. GR05F.ML**

Up dating :	03
Date :	03/2010



CELETTE S. A.
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Foreword :

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

Introduction :

We duly thank you for granting us your confidence

We are convinced that your lifting bench **GRIFFON 2.8T EVOLUTION VB** will meet your needs, more especially thanks to its mobility:

- **2800 KG** load which can be shifted thanks to the 4 removable wheels and to the mobile lifting unit.

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

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

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

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

THIS EQUIPMENT IS COMPOSED OF :

- a COMPLETE BASE **9178.311/312** including a base and an inner lifting unit .
- a MOBILE LIFTING UNIT **9178.01**
- a REMOTE CONTROL SYSTEM **9178.02**
- a SET OF WHEELS **9121.513**
- a COMPLETE RUNWAY DECKING PLATE SYSTEM including a runway decking plate **GR97.0128** and an extension **GR97.513**.
- a SET OF ANCHORING CLAMPS **9123.023**.
- STANDARD or SPECIFIC OPTIONS AND ACCESSORIES.

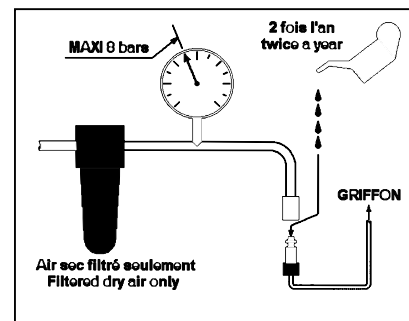
Technical datas :

- Pneumatic unlocking of the safety units :**

- Compressed air supply, cleaned and oiled 6/8 bars.



COMPRESSED AIR HAS TO BE FILTERED



- Locking of the safety units :**

- Automatic by absence of air

- Weight of the equipment :**

9177.31	9178.01 9178.02	9178.02.03	9123.023 9121.513	GR97.0128 GR97.513	TOTAL
677 kg	87+15 kg	285 kg	190+200 kg	250+28 kg	1732 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)**

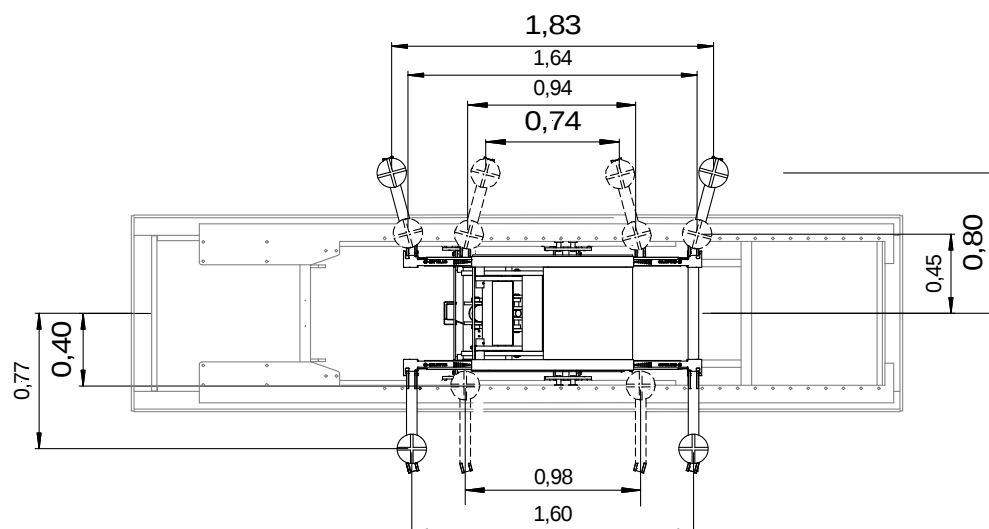
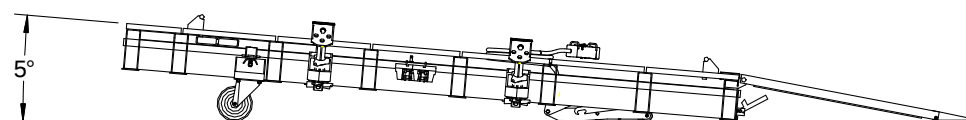
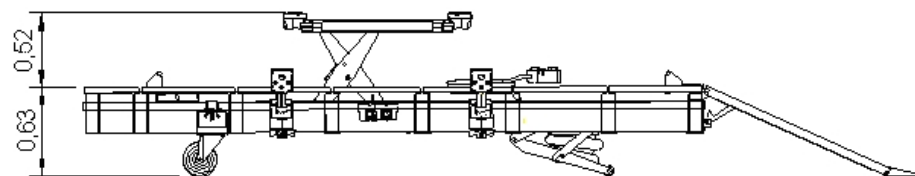
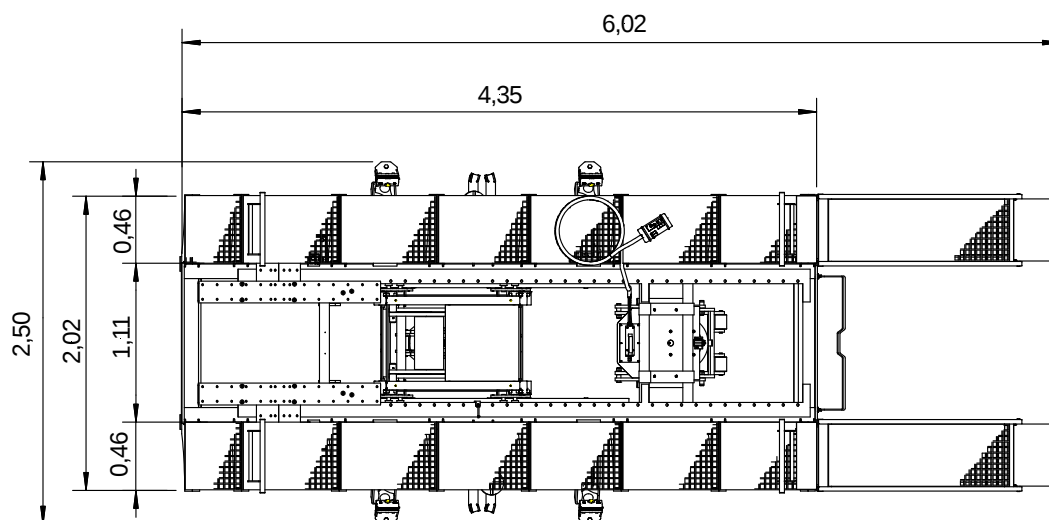
- Lifting time :**

Mobile lifting unit :	unloaded :	15"
	with a 2000 daN load :	16"
Inner lifting unit :	unloaded :	43"
	with a 2000 daN load :	1'27"

- Lowering time :**

Mobile lifting unit :	unloaded :	8"
	with a 2000 daN load :	14"
Inner lifting unit :	unloaded :	26"
	with a 2000 daN load :	18"

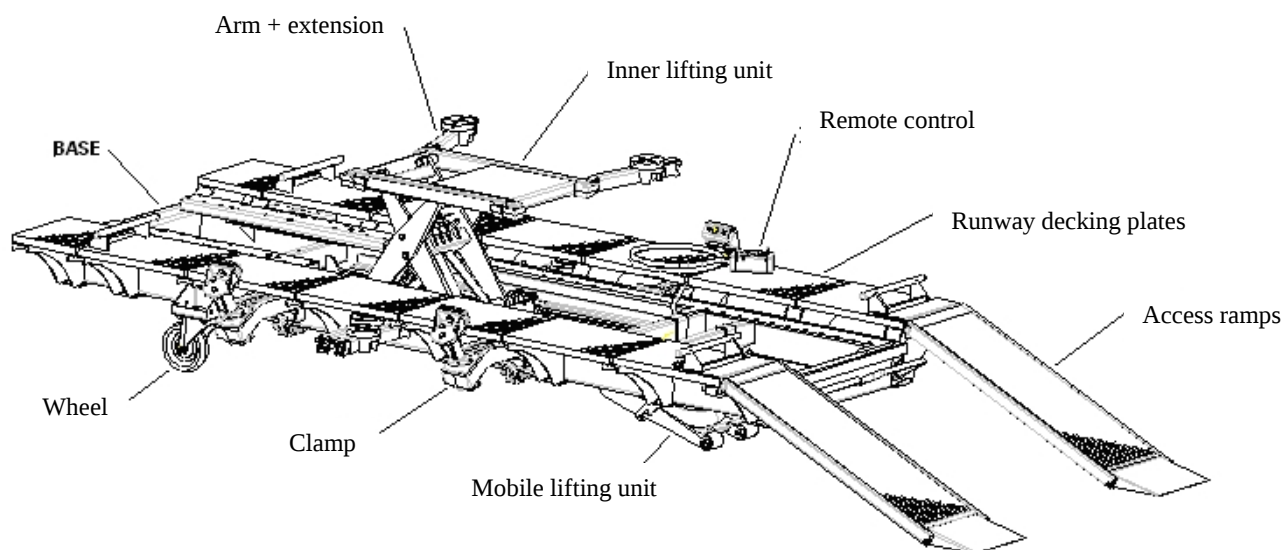
Dimensions :



Selection of the location and conditions of installation :

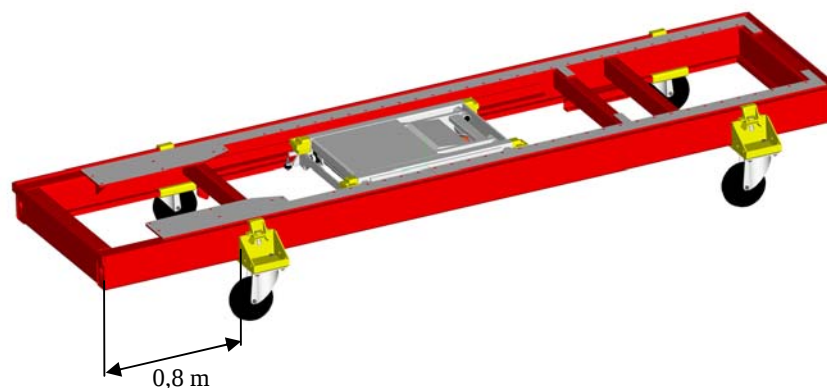
- The **perfectly flat** ground should be able to withstand a total load of 5300 daN and a minimal compressive strength of 450 kg/cm².
- CELETTE SA recommends a minimal thickness of **100 mm** for the pavement.
- Following equipment is to be foreseen nearby the device : a compressed air supply – cleaned and oiled - 6 to 8 bars.

Description of the bench :

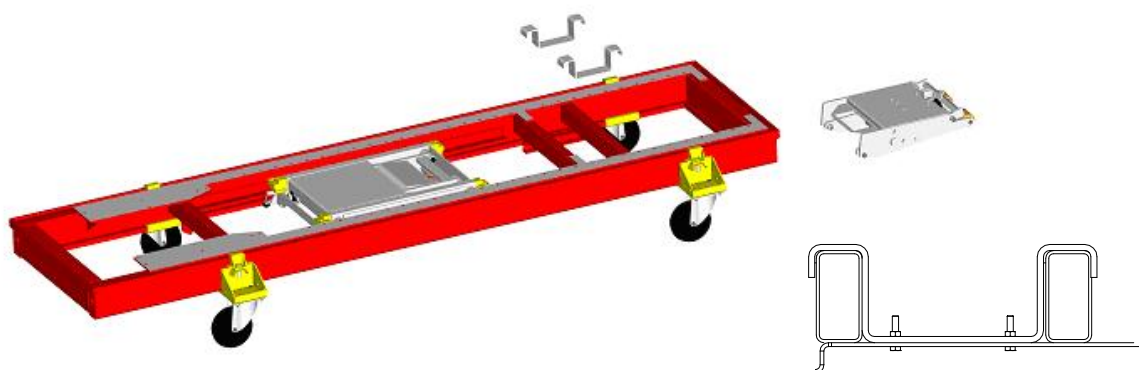


Starting of the bench in the workshop :

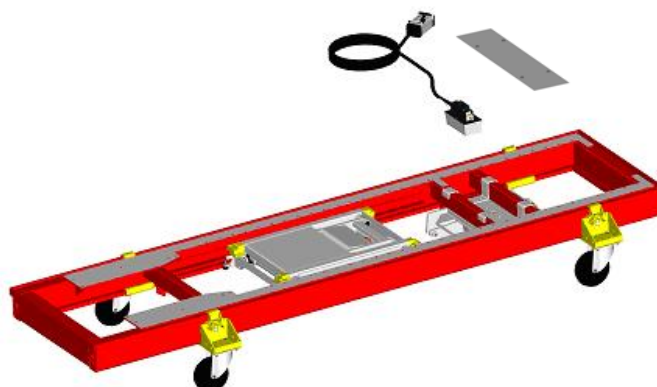
1. Install the wheels on the bench (Front wheels with brake placed 0.8 m away from the end of the bench).



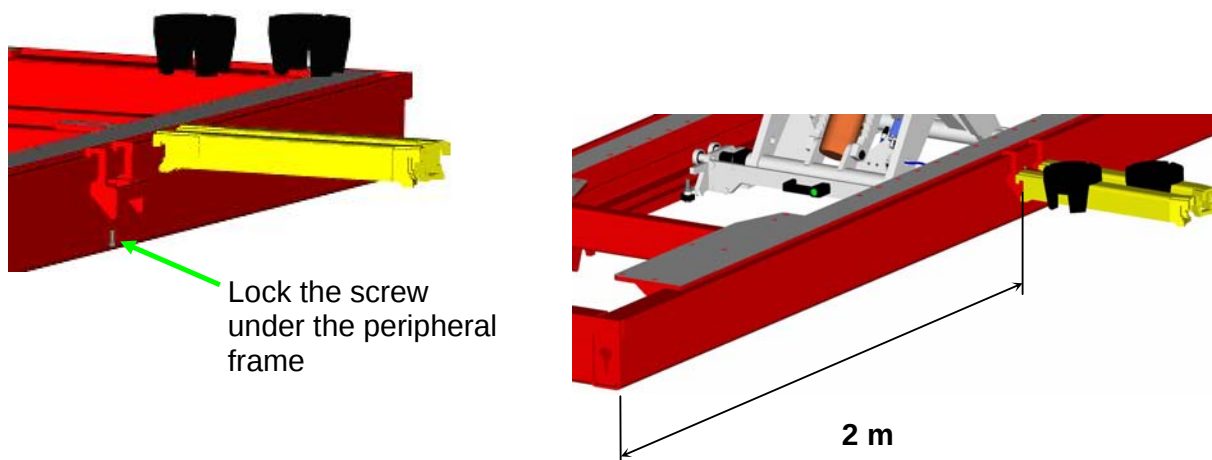
2. Place the mobile lifting unit on the bench crossmembers with the 2 bearings and the 4 bolts HM8x40.



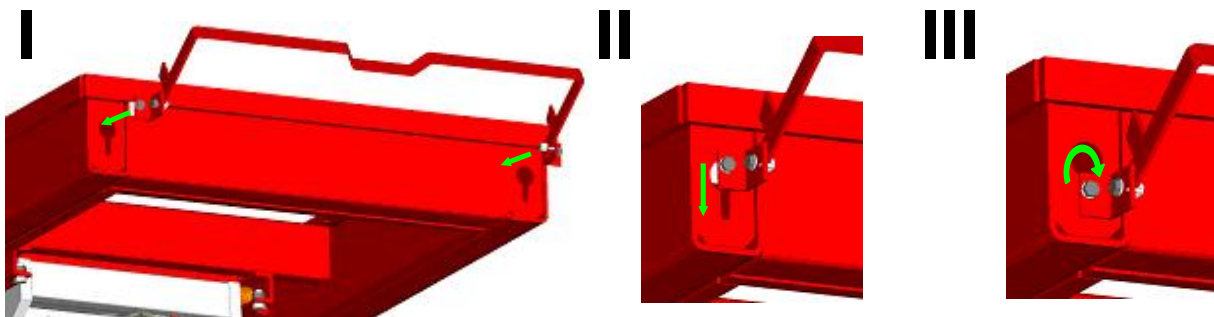
3. Connect the pump + remote control system (refer to the diagram on page 28) and fix the upper panel with the 4 nuts M8.



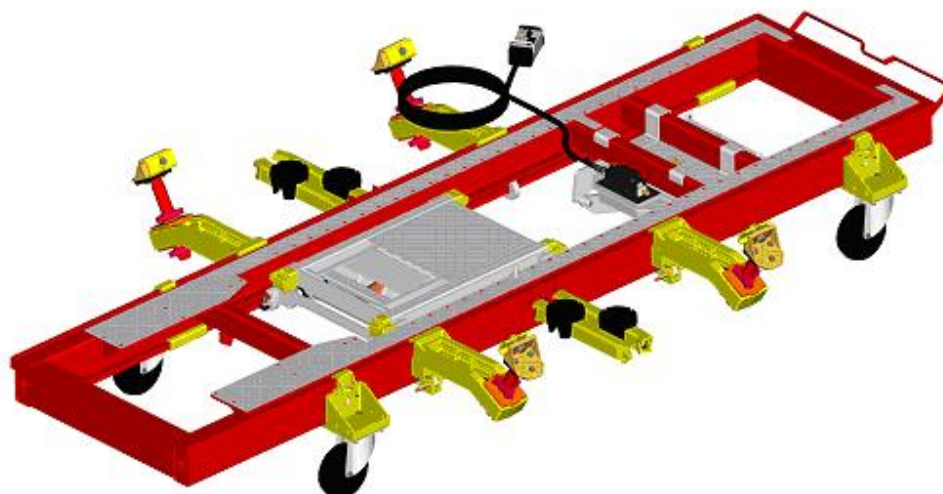
4. Fix the arm supports of the inner lifting unit on the base :



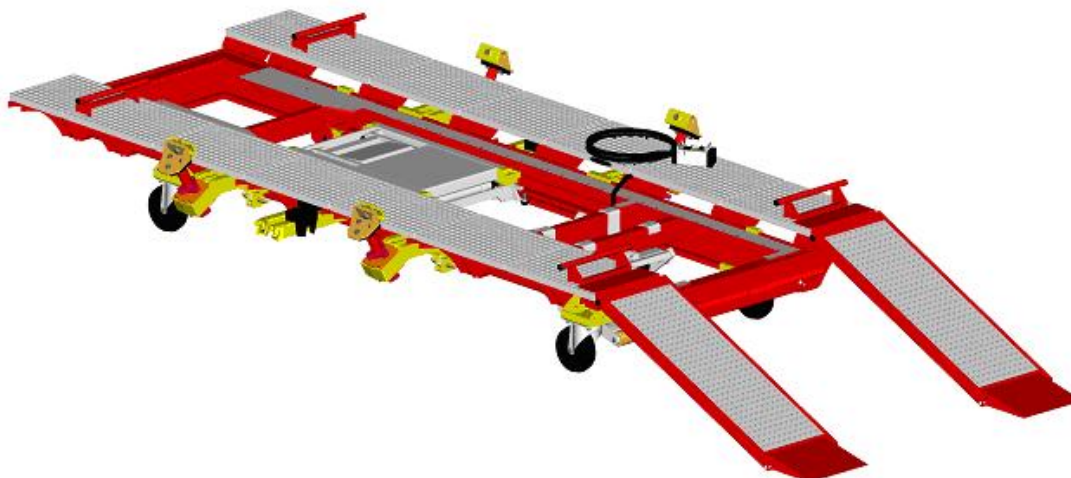
3. On the rear part of the base, fix the foot protecting bar :



4. Install the set of clamps on the base ; the arms of the anchoring clamps being fixed on the peripheral frame, insert the clamps in the outer bended part of the arms.



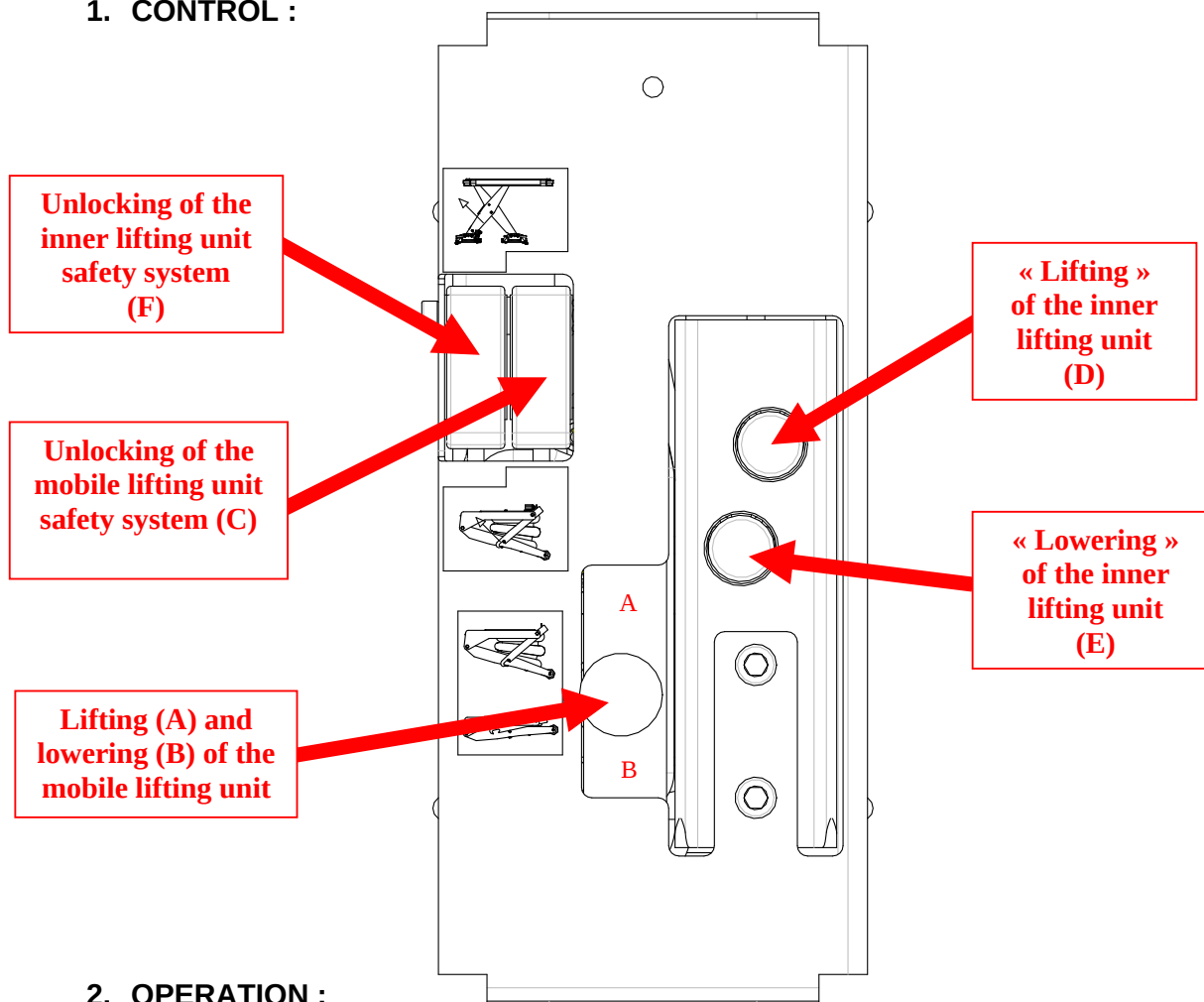
5. Mount the runway decking plate system , its extension, and the access ramps on the base. Refer to pages 35 and 36 to place the elements in correct position :



The equipment being installed as described above, the BENCH GRIFFON 2,8 T EVOLUTION VB can now be equipped with all checking, measuring and repair systems, and with corresponding CELETTE accessories.

Control and operation :

1. CONTROL :



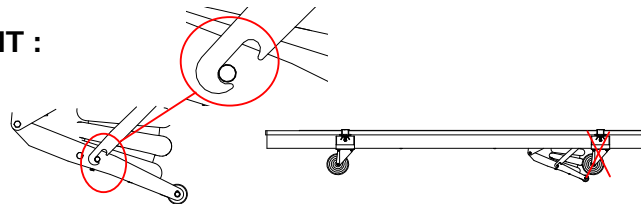
2. OPERATION :



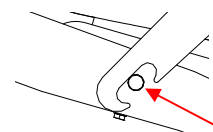
To lift or lower the mobile lifting unit, the inner lifting unit has to be folded and locked with the anchor post. The 2 front wheels have to be blocked

• LOWERING OF THE MOBILE LIFTING UNIT :

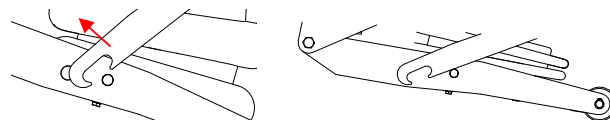
I Activate drive **(A)** to lift the unit until the top and remove the 2 rear wheels



II Activate drive **(B)** to lower the unit and unlock the safety system

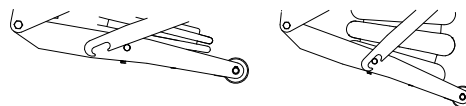


III Activate the **unlocking system of the safety unit (C)** and the lowering control **(B)**.

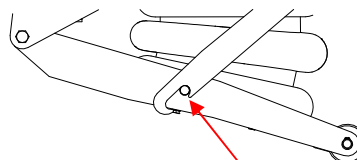


- **LIFTING OF THE MOBILE LIFTING UNIT IN HORIZONTAL POSITION :**

I Activate drive **(A)** to lift the unit until the safety unit is in operation.

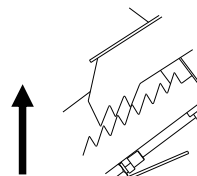


II Activate drive **(B)** to lower the safety system on the supports

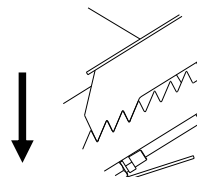


- **LIFTING OF THE INNER LIFTING UNIT :**

I Activate drive **(D)** while pressing the key until desired height

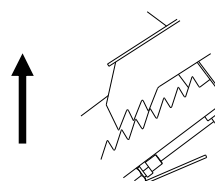


II Activate drive **(E)** to lower the safety unit on its safety racks.

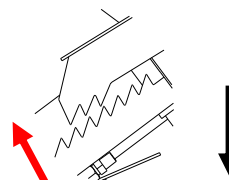


- **LOWERING OF THE INNER LIFTING UNIT :**

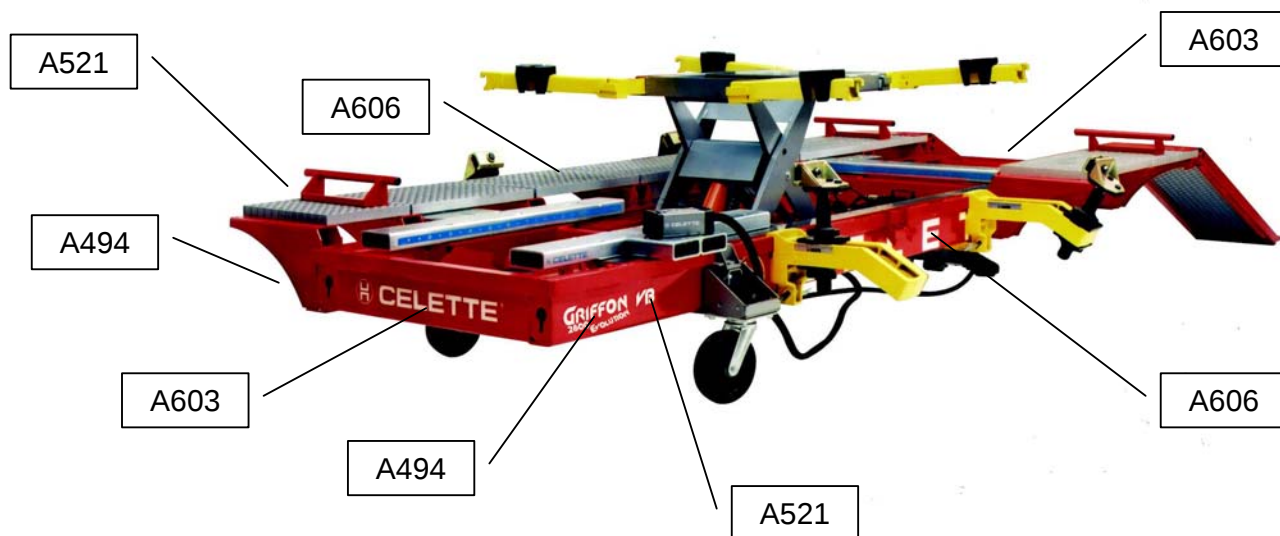
I Activate drive **(C)** to unlock the safety system



II Activate drive **(F)** to unlock the safety system and on drive **(D)** until selected height



Stickers :



Sticker	Qty
A603	2
A606	2
A419	2
A494	3
A521	3



Should sticker **A419** be damaged, it is imperative to replace it upon request to CELETTE S.A.

Should the other stickers be damaged, it is possible to replace them in the same way.

A419



Identification plate :

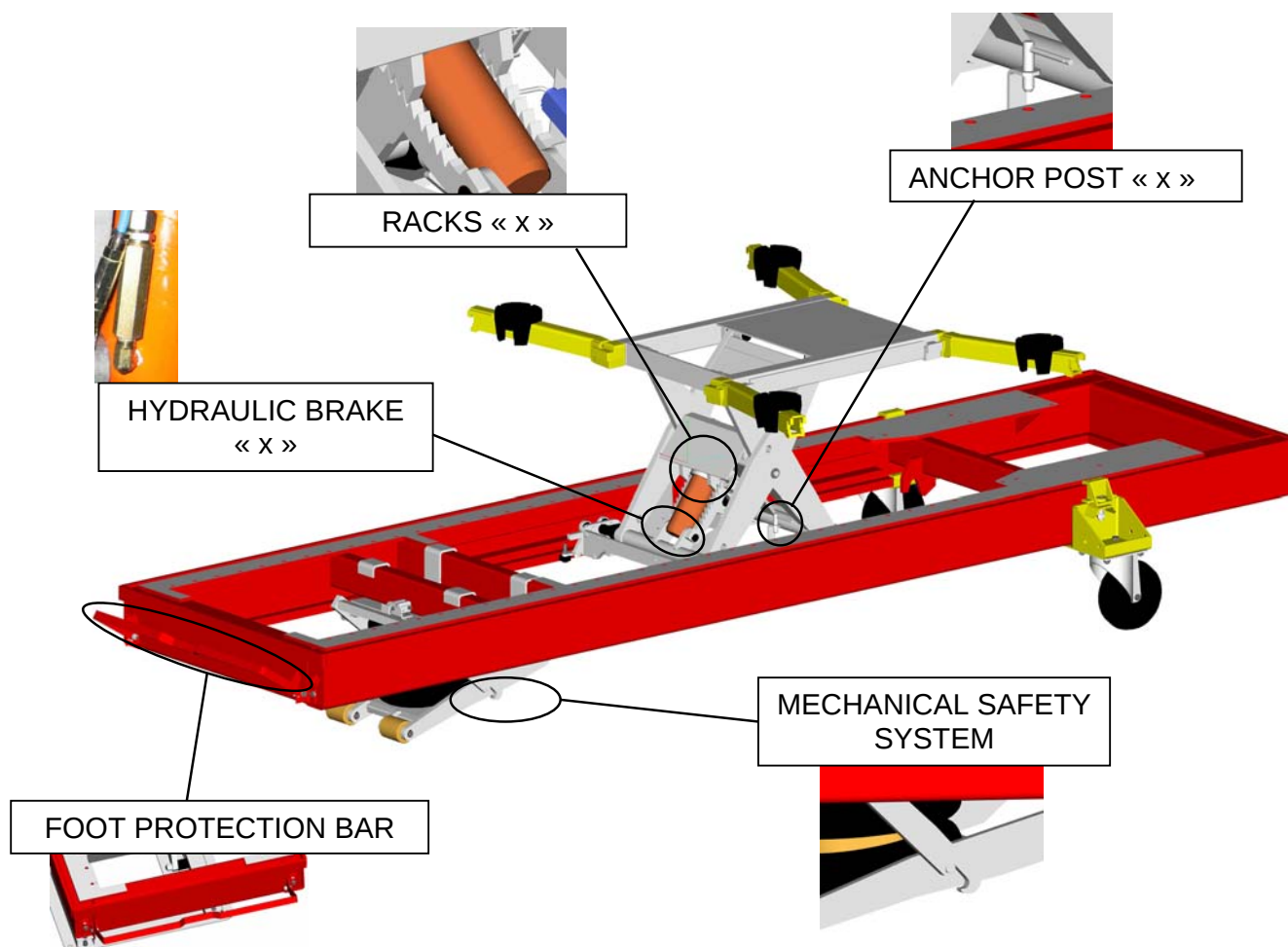
The identification plate is located on the front crossmember :



NB : Should this plate be damaged, it is imperative to replace it upon request to CELETTE S.A.

 CELETTE CAR LIFE SOLUTIONS CELETTE SA - 13 Route de Bochevière - 38200 Vienne - France			MADE IN FRANCE 
TYPE: GR05	N°	Year:	
MAXIMAL LOAD 2800 daN		TARE 1732 daN	
MAX AIR PRESSURE 8 Bar		HYDRAULIC PRESSURE 280 Bar	

Safety systems :



RACK : Mechanical safety system blocking the lowering operation by means of steel notches in caSe of hydraulic troubles.

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

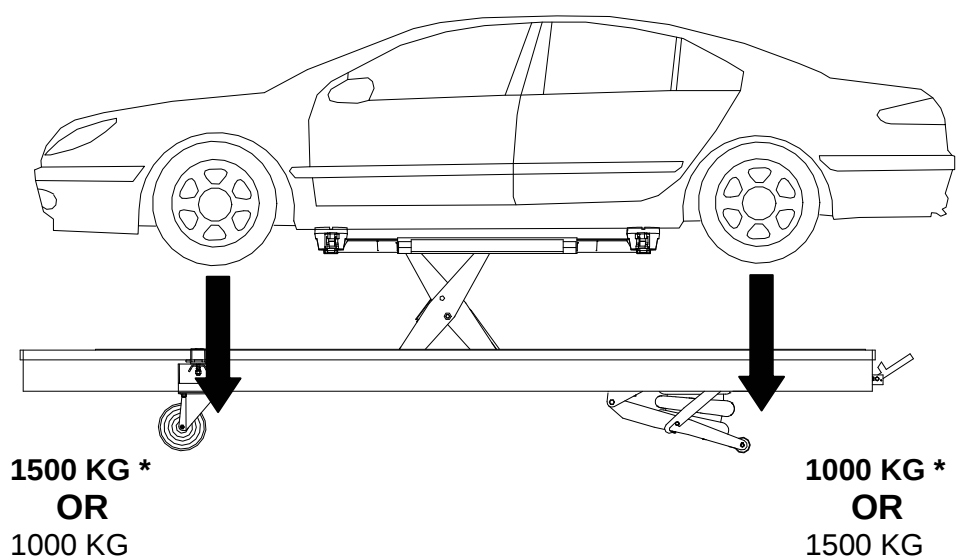
FOOT PROTECTION BAR : Safety bar to prevent the feet from going under the base during the tilting operation.

MECHANICAL SAFETY SYSTEM : System designed to lock the bench in horizontal position and acting as anti-bursting system for the pneumatic lifting jack.

ANCHOR POST : Blocks the translation between the inner lifting unit and the mobile lifting unit during the tilting of the bench.

Balance of weights :

MAXIMAL LOAD CAPACITY : **2800 KG** divided in 2/3, 1/3 between each axle



Utilization :

1. Installation of a running vehicle on the base :

I Slowly and smoothly lift up the vehicle :



II Place the bench in horizontal position on the safety element :

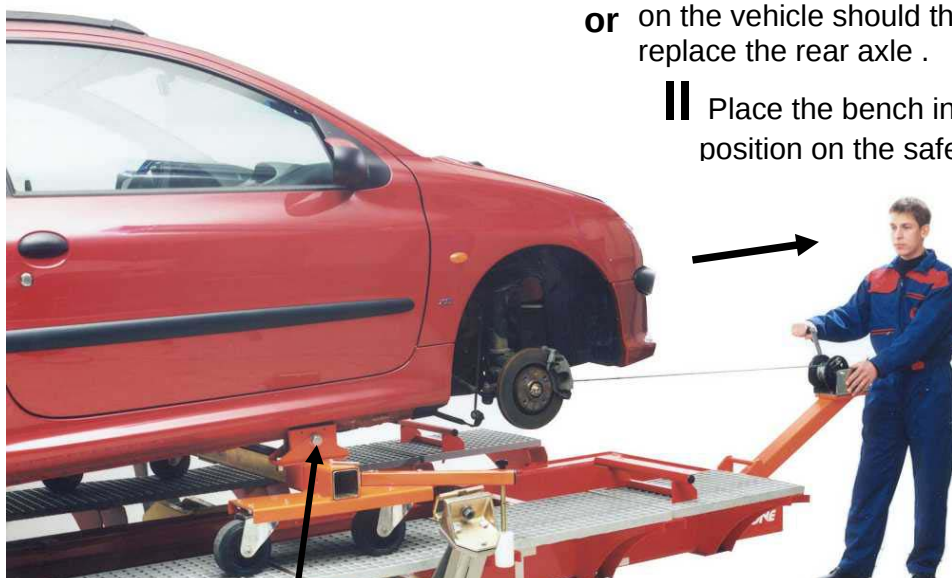
1BIS. Installation of a vehicle with one non rolling axle on the base :

- 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 in case it replaces the front axle

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

II Place the bench in horizontal position on the safety unit



The fixing of the trolley on the vehicle must be efficient

2. The inner lifting unit :

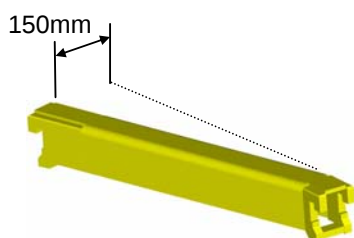
- LAYOUT :

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

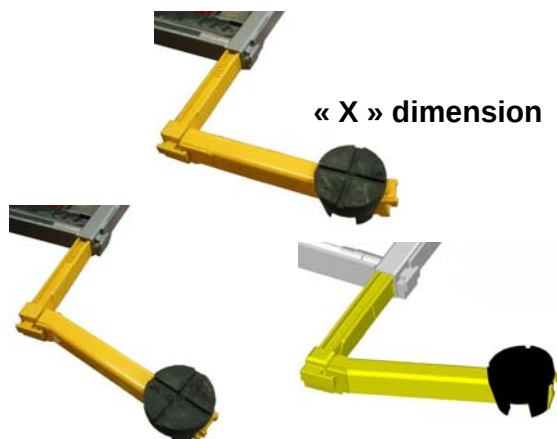
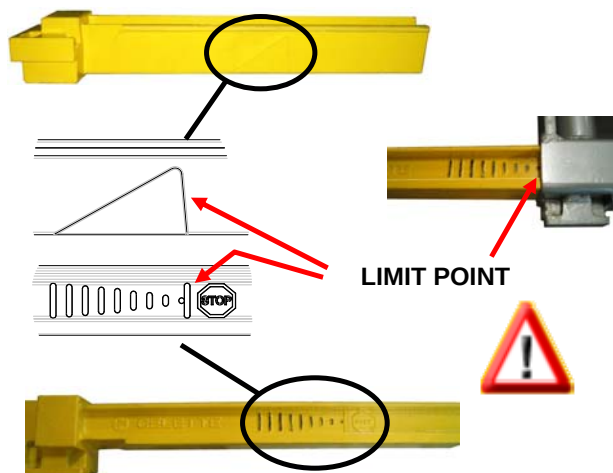


The arms are stored under the runway decking plates , 2 on each side .

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



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



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 By means of the remote control unit, separate the lifting unit from the base, and place it between the vehicle underframe and the bench. In case of a low vehicle, take off the runway decking plates

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



III Remove the central duckboard to have access to the arms.

IV Hook the arms in the best suitable position



V Place the plastic 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, as well as future shiftings.



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 lifting unit in safety position

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

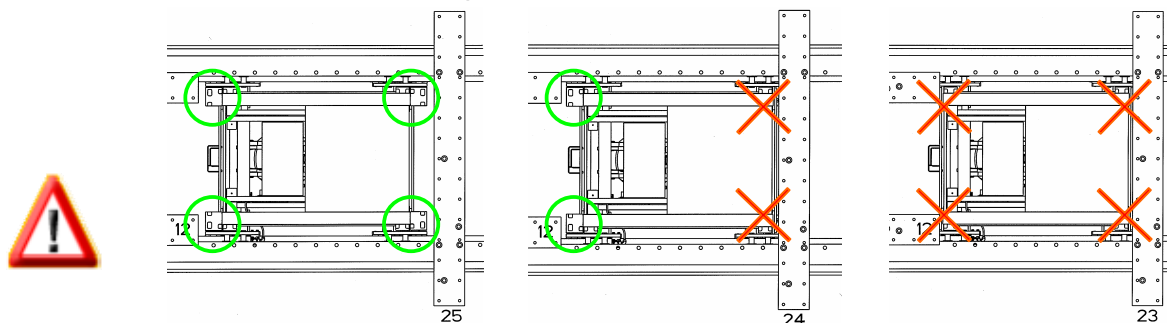
- The « MZ System»
- The measuring device « METRO 2000 »
- The electronic measuring device « NAJA »

Options :

The operations described herunder (page 21 to 25) are the same as those to be effected for Griffon 2800 evolution (same diagrams).

1. The « MZ System» :

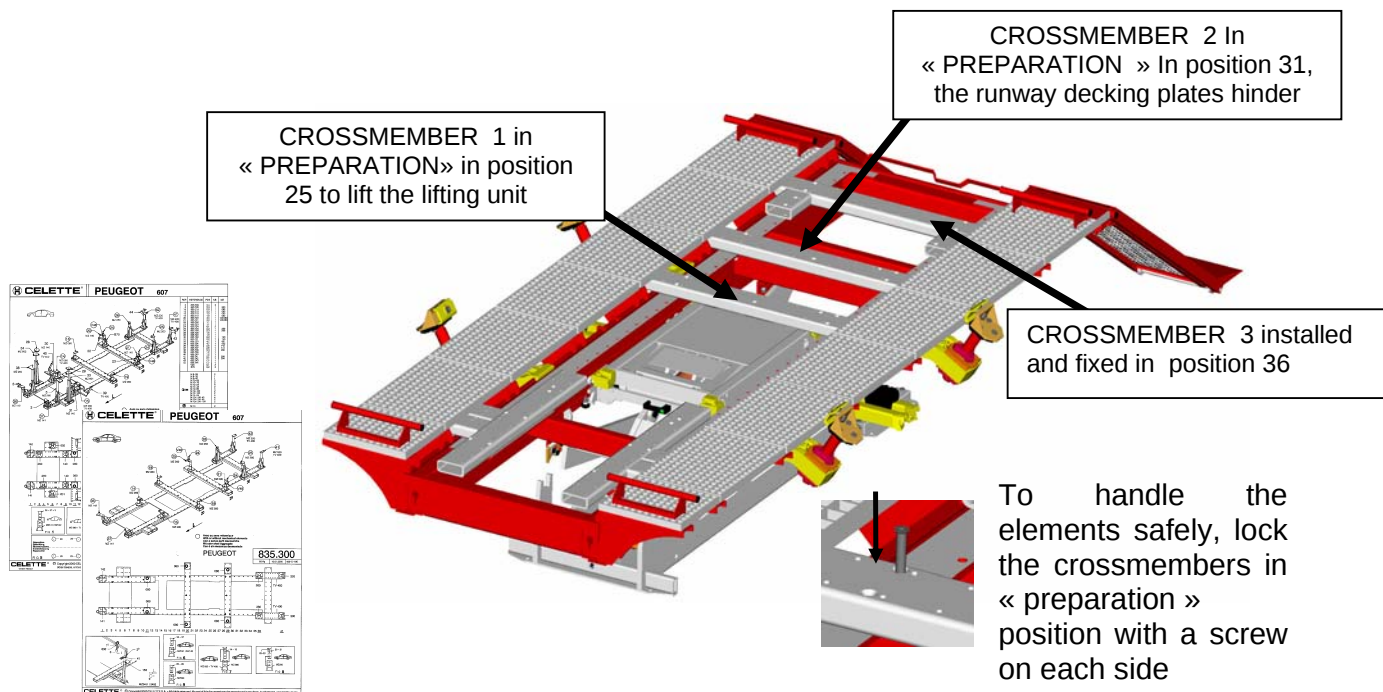
- Adjust the bench according to the « MZ » data sheets, while effecting a first installation of the crossmembers (it is easier to install them before placing the vehicle on the bench) :



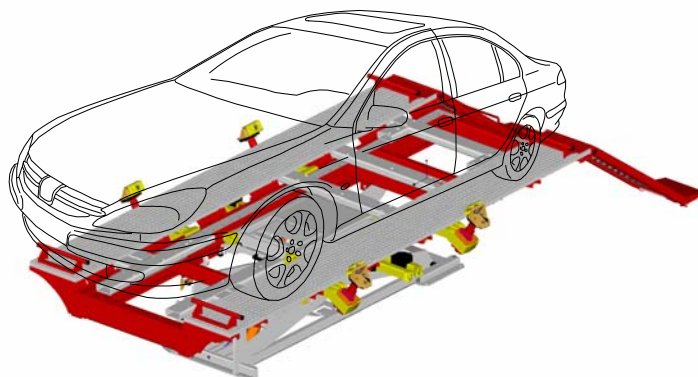
NB : position 25 is the last crossmember position enabling a lifting of the inner lifting unit in its basic display.

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 the « MZ » elements.

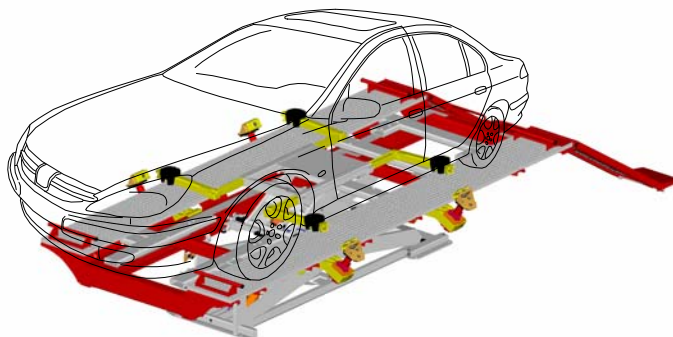
- To take an example, 3 crossmembers are necessary :



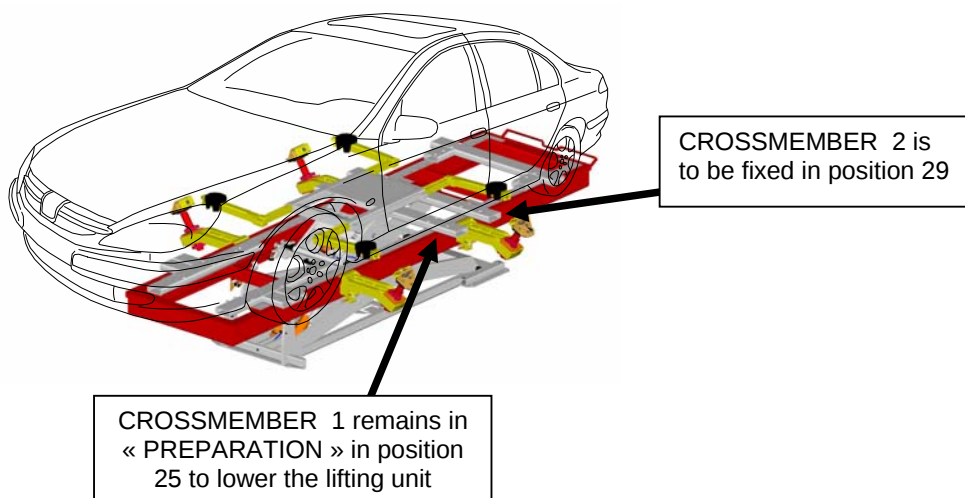
- Lift the vehicle on the bench as shown on page 17 :



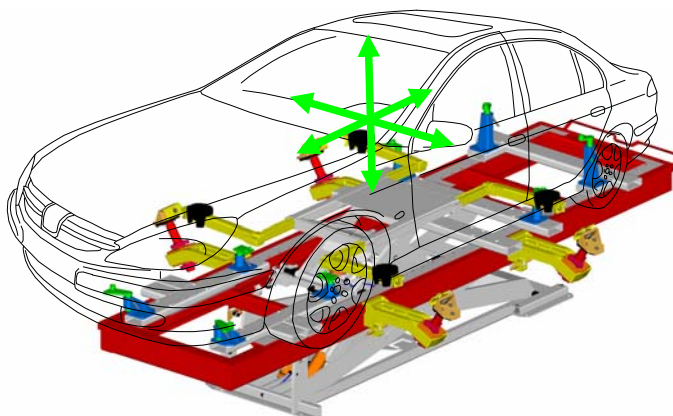
- Lift the vehicle with the inner lifting unit as explained on page 19 :



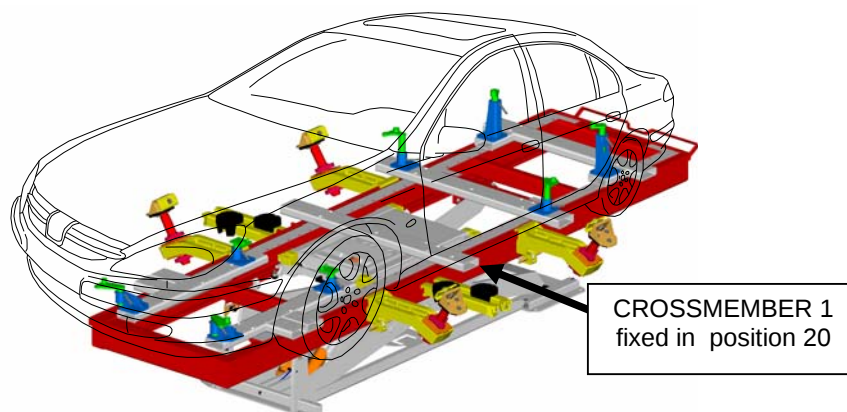
- When not effected, remove the elements of the runway decking plate which may hinder the fixing of the crossmembers in their final locations (except crossmember in position 13 to 24 included).



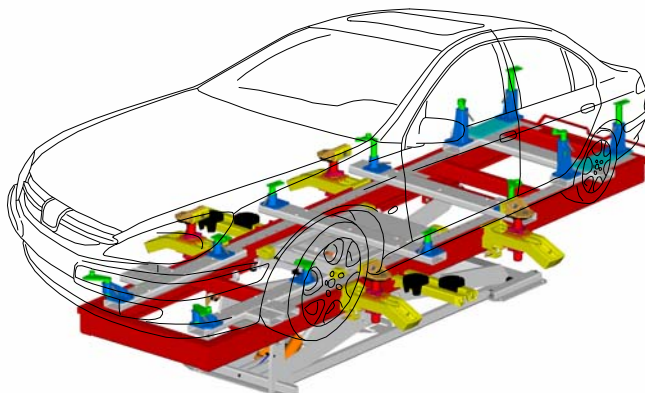
- Install the necessary and sufficient MZ towers to place the vehicle on the bench. Adjust its position on the jigs while shifting the lifting unit :



- The vehicle being in position on the jigs, lower the inner lifting unit. The arms have to be removed and the extensions folded. Fix the crossmemers from position 13 to 24 included :



- The installation of the towers and jigs being completed, lock the vehicle through the sill panels by means of the anchoring clamps.

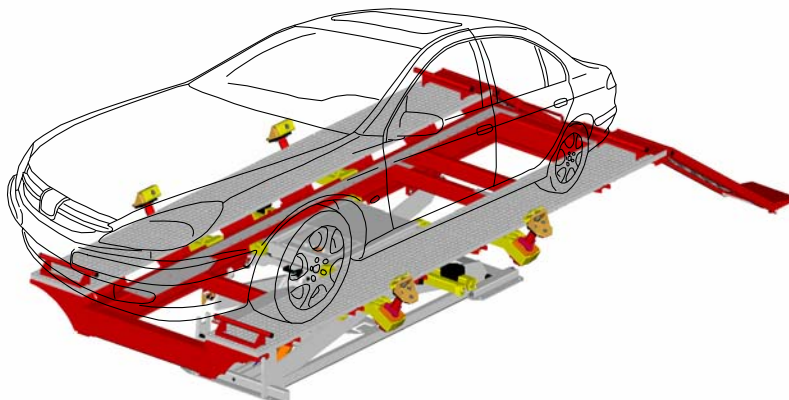


The vehicle is ready to be repaired

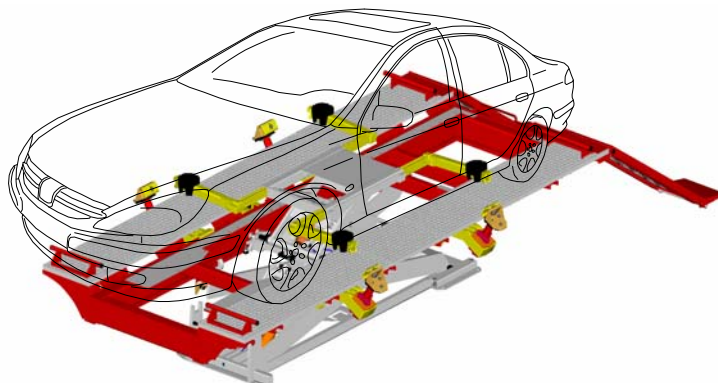
- The repair being effected, release the vehicle while proceeding in the reverse way.

2. The measuring device « METRO 2000 » :

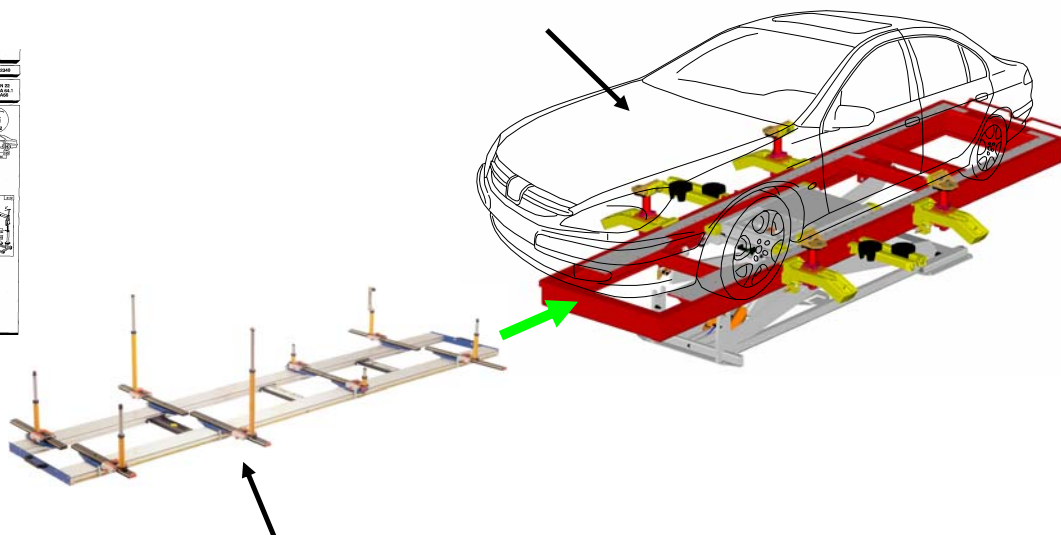
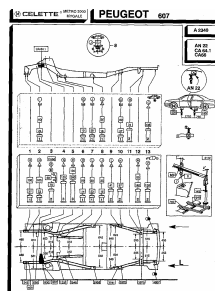
- Install the vehicle on the bench as explained on page 17 :



- Lift up the vehicle with the inner lifting unit, as shown on page 19 :



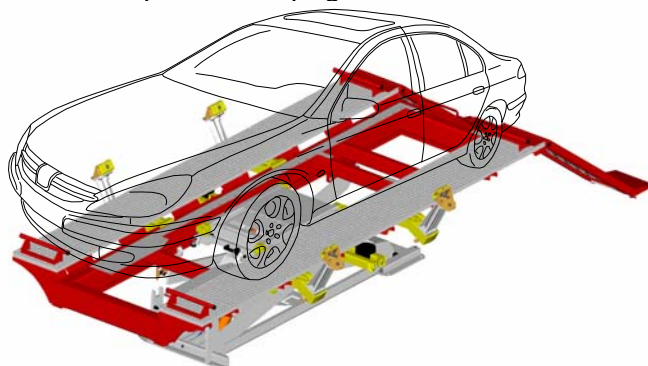
- Remove the runway decking plates, adjust the clamp height according to the indications stated in the « METRO » data sheet corresponding to the vehicle
Lock the vehicle on the clamps and lower the inner lifting unit :



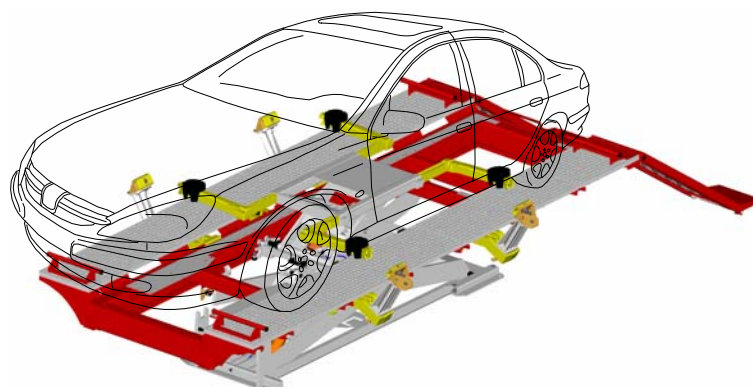
- Insert the METRO 2000 frame between the base and the vehicle, and fix it. Mount the sliders according to the indications of the data sheet. Repair.
- The repair being effected, proceed in the reverse way to release the vehicle.

3. The electronic measuring device « NAJA » :

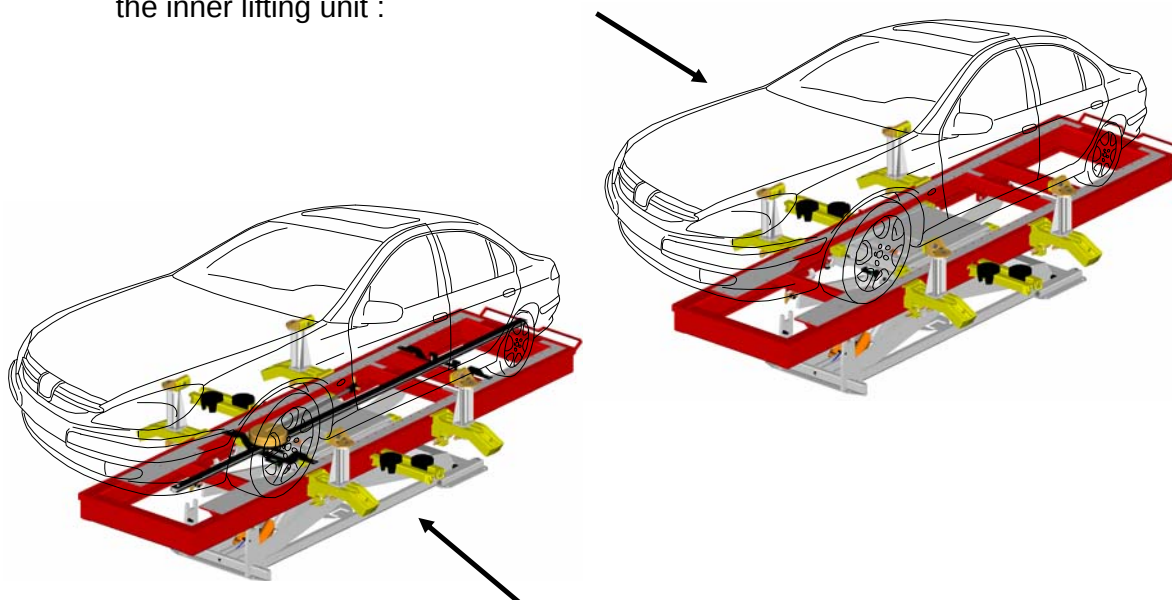
- Replace the adjustable clamps with the static ones. Then mount the vehicle on the bench, as explained on page 17 :



- Lift up the vehicle with the inner lifting unit as shown on page 19 :



- Remove 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 mount the Naja . Install the measuring top, repair .
- The repair being effected, proceed in the reverse way to release the vehicle.

4. Other options :

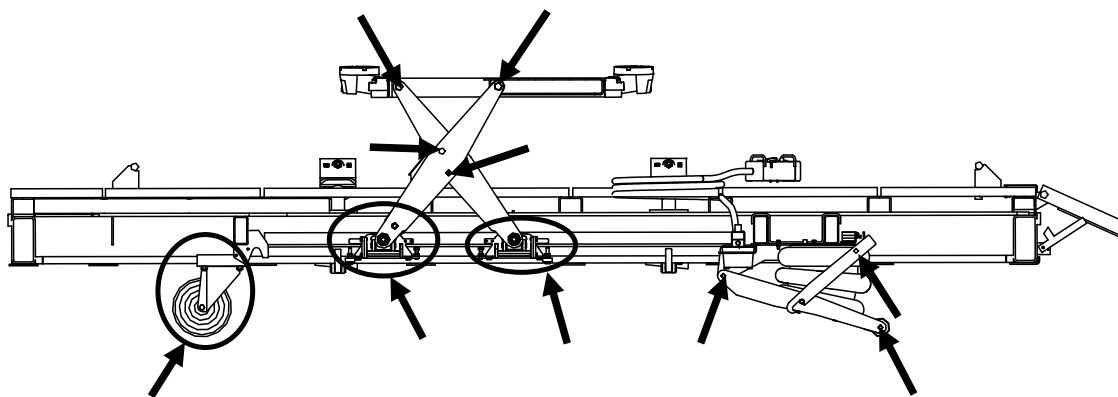
To make your job easier, a large range of options and accessories can be adapted on this equipment.
Contact your local agent to get the complete list and availability.

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 hydropneumatic pump tank. To effect this operation, the inner lifting unit has to be completely lowered.
- The condition of hydraulic and pneumatic hoses (Possible leakages or scratchings).
- The waterproofness and look of the jacks.
- All connections of the bench and of possible options and accessories (hydraulic, pneumatic, electric).

- The look of the safety system notches of the inner lifting unit
- The condition of the ball bearings.
- The condition of the safety stickers.
- The lubrication of mobile or orientable points :



- The condition of runway decking plates.
- 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 MAINTENANCE OPERATION, IT IS IMPERATIVE TO PLACE THE BENCH IN HORIZONTAL POSITION AND TO LOCK IT ON ITS MECHANICAL SAFETY SYSTEM.

SCHEMAS

SCHEMES

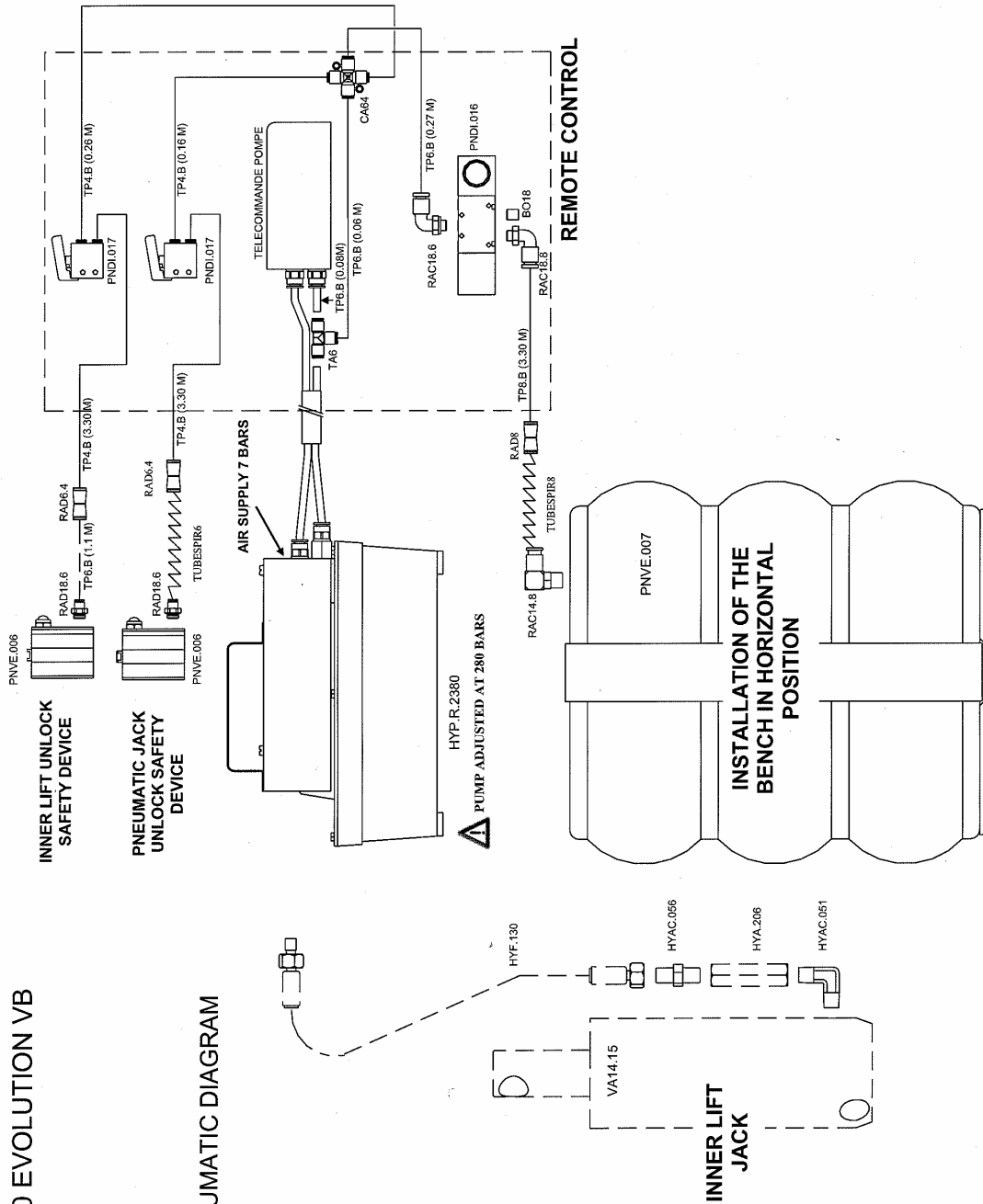
ZEICHNUNGEN

DIBUJOS

DIAGRAMME

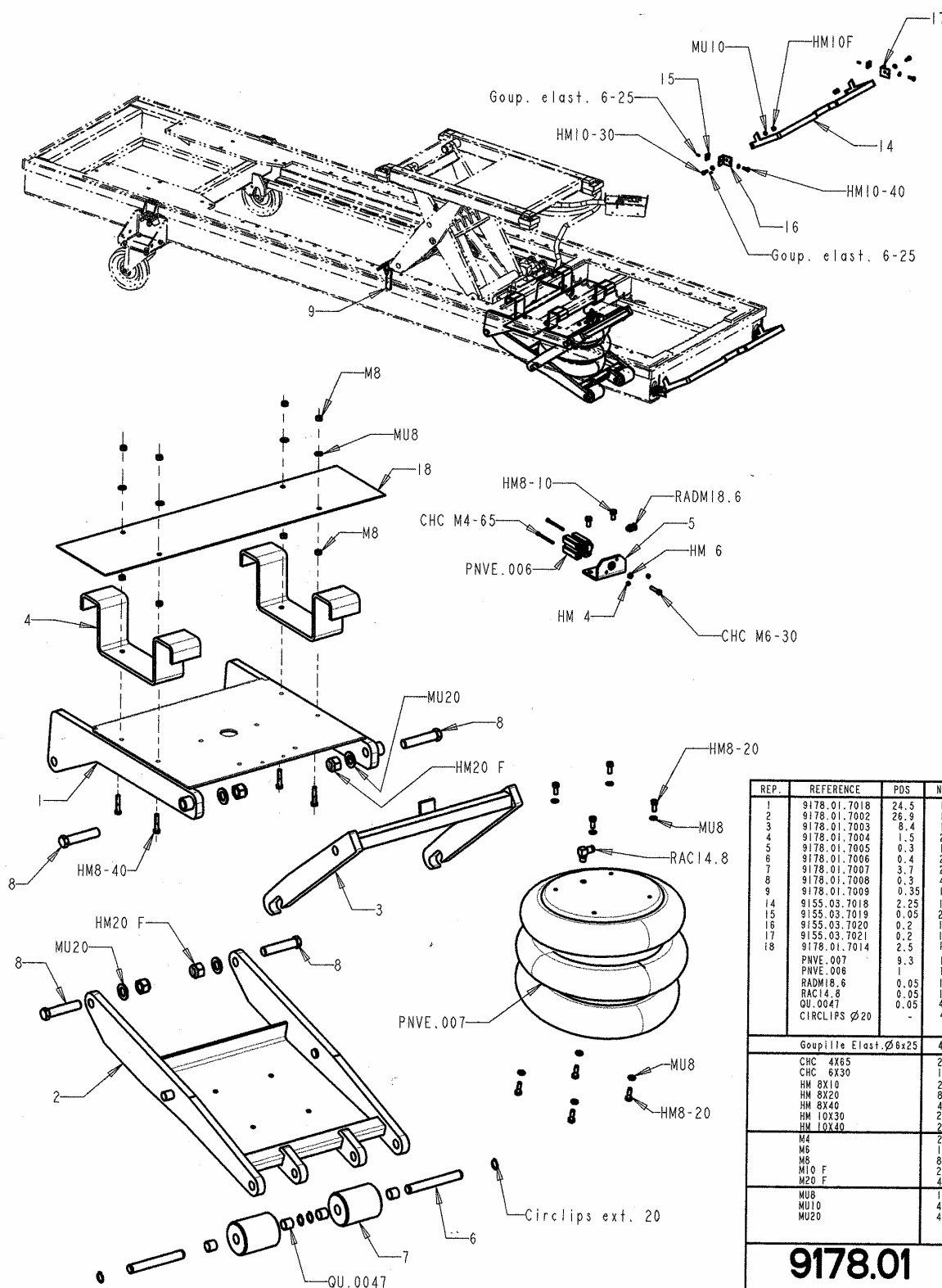
GRIFFON 2800 EVOLUTION VB

HYDROPNEUMATIC DIAGRAM



CELETTE

ELEVATEUR MOBILE



REP.	REFERENCE	PDS	NB
1	9178.01.7018	24.5	1
2	9178.01.7002	26.9	1
3	9178.01.7003	8.4	1
4	9178.01.7004	1.5	2
5	9178.01.7005	0.3	1
6	9178.01.7006	0.4	2
7	9178.01.7007	3.7	2
8	9178.01.7008	0.3	4
9	9178.01.7009	0.35	1
14	9155.03.7018	2.25	1
15	9155.03.7019	0.05	2
16	9155.03.7020	0.2	1
17	9155.03.7021	0.2	1
18	9178.01.7014	2.5	1
	PNVE.007	9.3	1
	PNVE.006	1	1
	RADMI8.6	0.05	1
	RAC14.8	0.05	1
	QU.0047	0.05	4
	CIRCLIPS Ø20	-	4

Goupille Elast. Ø6x25	4
CHC 4X65	2
CHC 6X30	1
HM 8X10	2
HM 8X20	8
HM 8X40	4
HM 10X30	2
HM 10X40	2
M4	2
M6	1
M8	8
M10 F	2
M20 F	4
M8	12
MU10	4
MU20	4

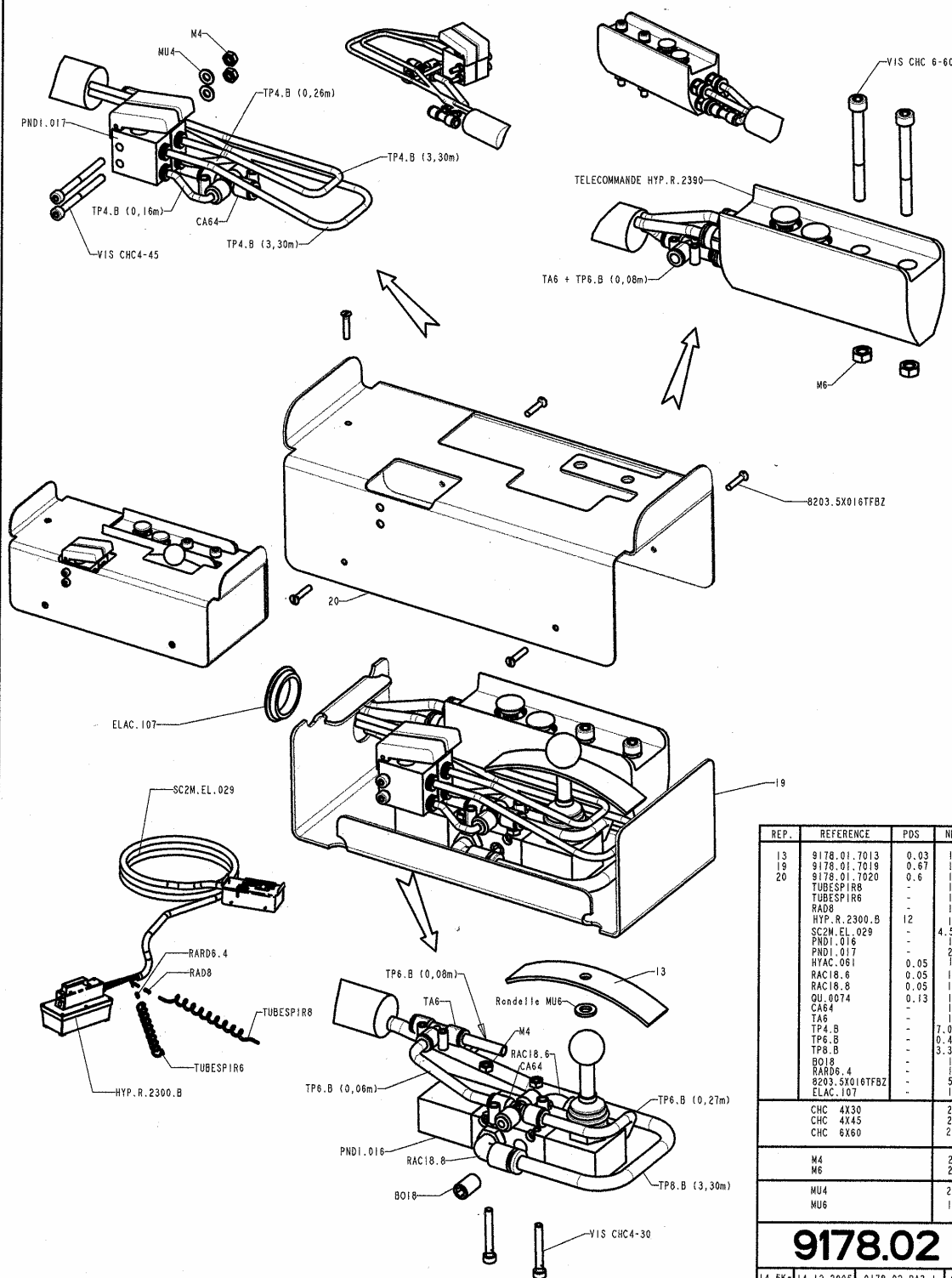
9178.01

90Kg	14.12.2005	9178.01-RA3-1	02
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CELETTE
VENIS-FRANCE

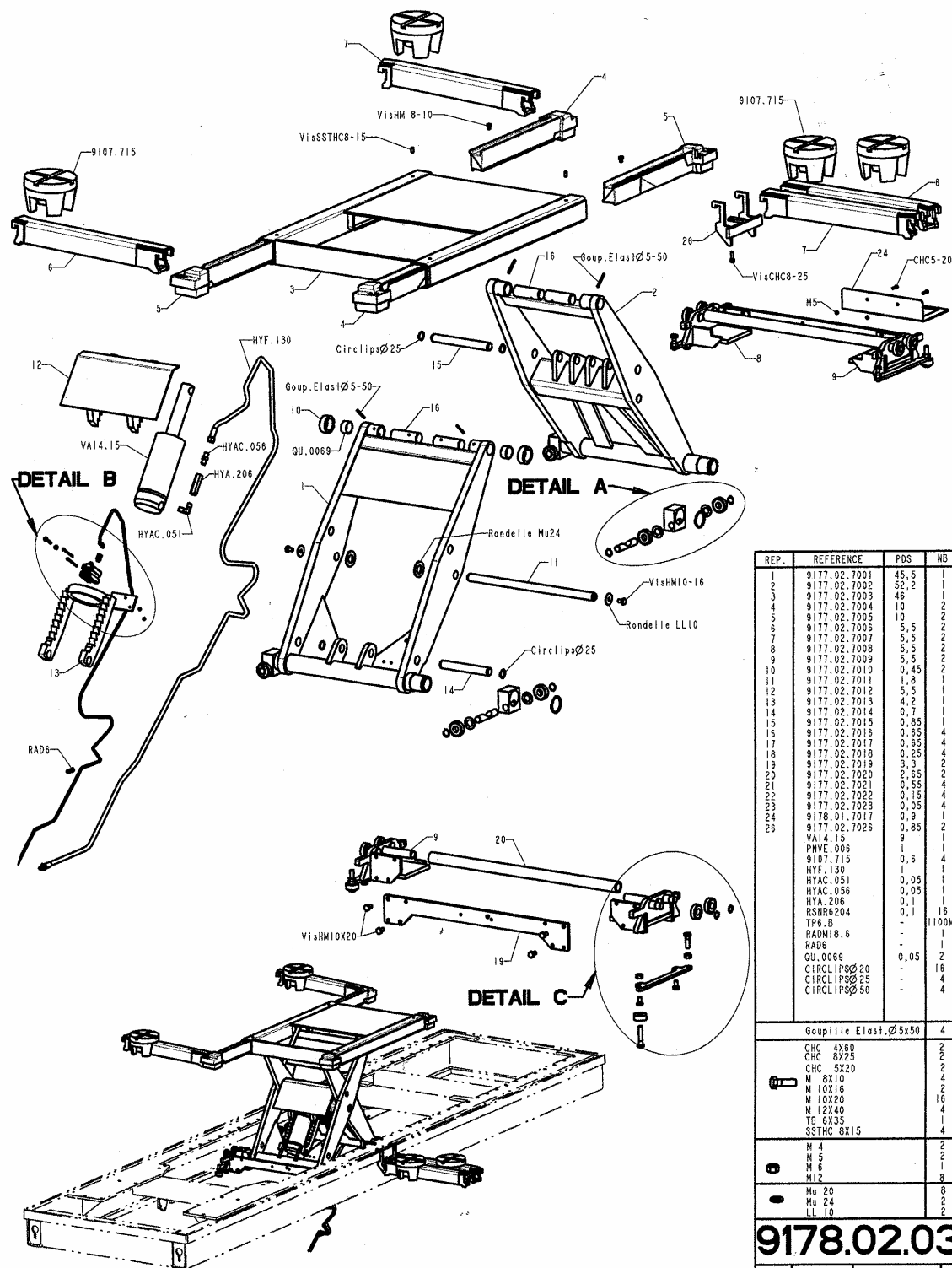
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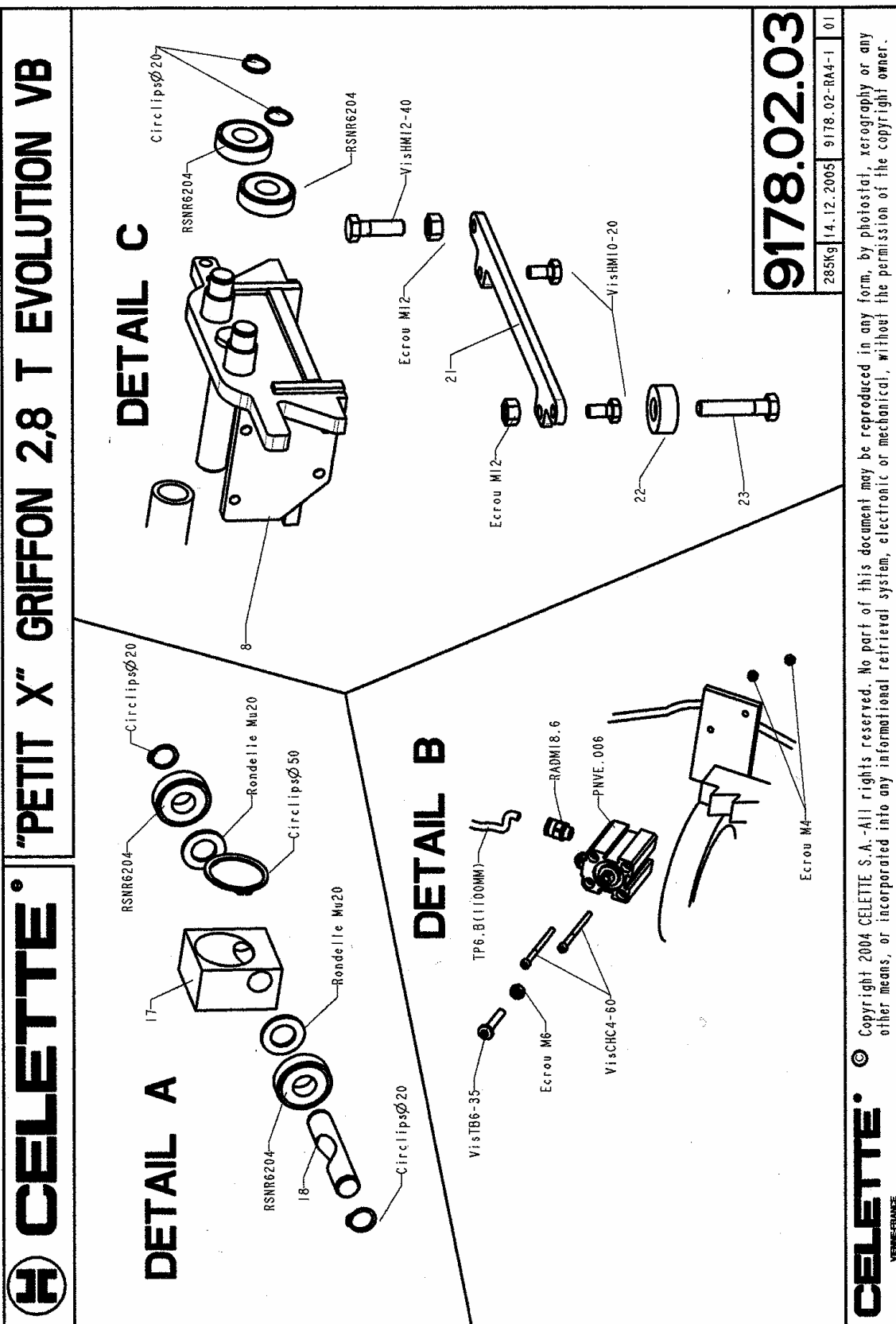
CELETTE® TELECOMMANDE GRIFFON 2800 EVOLUTION VB



REP.	REFERENCE	PDS	NB
13	9178.01.7013	0.03	1
19	9178.01.7019	0.67	1
20	9178.01.7020	0.6	1
	TUBESPIR8	-	1
	TUBESPIR6	-	1
	RAD8	-	1
	HYP.R.2300.B	12	1
	SC2M.EL.029	-	4.5M
	PND1.016	-	1
	PND1.017	-	2
	HYAC.091	0.05	1
	RAC18.6	0.05	1
	RAC18.8	0.05	1
	OU.0074	0.13	1
	CA64	-	1
	TA6	-	1
	TP4.B	-	7.03M
	TP6.B	-	0.41M
	TP8.B	-	3.30M
	BO18	-	1
	RAD8.4	-	1
	8203.5X016TFBZ	-	5
	ELAC.107	-	1
	CHC 4X30	-	2
	CHC 4X45	-	2
	CHC 6X60	-	2
	M4	-	2
	M6	-	2
	MU4	-	2
	MU6	-	1
9178.02			
14.5Kg	14.12.2005	9178.02-RA3-1	02

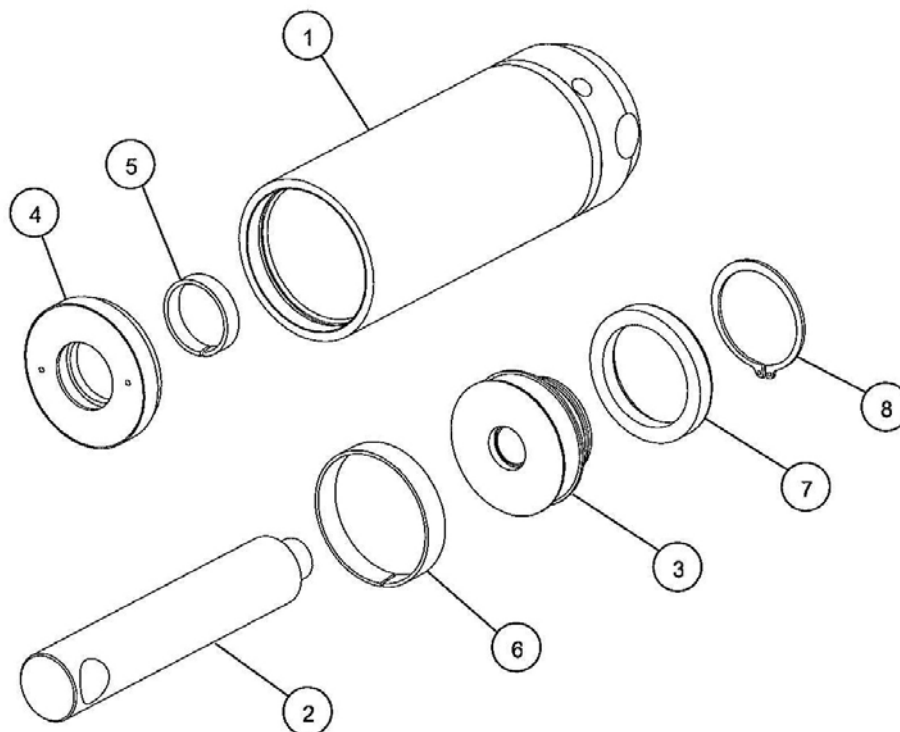
CELETTE "PETIT X" GRIFFON 2,8 T EVOLUTION VB





CELETTE

VA14.15



Repère / Part N° / Teil. Nr / Parte N° / Señal	Référence / Reference / Referenz. Nr / Riferimento / Referencia	Quantité / Quantity / Quantität / Quantità / Cantidad
1	VA14.15.7001	1
2	VA14.15.7002	1
3	VA14.32.7004	1
4	VA14.15.7003	1
* 5	JOINT 36	1
* 6	JOINT 62	1
* 7	JOINT 63	1
* 8	7860E	1


VA14.15
METHODE DE REPARATION

-Fuite entre tige et corps : dévisser la bague 3 avec l'outil REP.013. Sortir l'ensemble, procéder à l'échange des joints. Remonter l'ensemble dans le corps avec l'outil REP.016, revisser la bague 4.

* Pièce d'usure appartenant à la pochette : RN.638.

Outil de réparation : REP.013, REP.016.

REPAIR METHOD

-Leakage between rod and cylinder : unscrew ring 4 with tool REP.013. Remove the unit, change the gaskets. Replace the unit into the cylinder with tool REP.016, screw ring 4 again.

* Replacement part included into repair kit : RN.638.

Repair tool : REP.013, REP.016.

REPARATURSVERFAHREN

-Leck zwischen Stange und Zylinder : den ring 4 mit dem Gerät REP.013 abschrauben. Das Ganze abmontieren, die Dichtungen ersetzen. Das Ganze in dem Zylinder mit dem Gerät REP.016 wieder einsetzen. Den Ring 4 wieder schrauben.

* Ersatzteil im Reparatursatz RN.638 inbegriffen.

Reparaturwerkzeug REP.013, REP.016

METODO DI RIPARAZIONE

-Perdita tra asta e cilindro : svitare l'anello 4 con l'ustensile REP.013. Smontare l'insieme, sostituirlo i giunto. Ricollocare l'insieme nel cilindro con l'ustensile REP.016, riavvitare l'anello 4.

* Parte di ricambio acclusa nella serie RN.638

Ustensile di riparazione : REP.013, REP.016

METODO DE REPARACION

-Salida entre vástago y cilindro : desatornillar el casquillo 4 con el útil REP.013. Retirar el conjunto. Proceder al cambio de las juntas. Colocar el conjunto dentro el cuerpon con el útil REP.016, atornillar el casquillo 4.

* Pieza de desgaste perteneciente al bolsillito : RN.638

Util de reparación : REP.013, REP.016

Attention : Pour préserver les joints et le bon fonctionnement du vérin, utiliser uniquement de l'huile hydraulique suivant spécifications CELETTE.

Bidon de 1 litre : HYA.150

Bidon de 5 litres : HYA.151

Caution : To preserve the gaskets, and the correct running of the ram, use hydraulic oil only, according to CELETTE specifications.

Can of 1 liter : HYA.150

Can of 5 liters : HYA.151

Achtung : Zum Schutz der Dichtungen und zum korrekten Betrieb des Zylinders wird nur Hydrauliköl je nach CELETTE-Vorschrift verwendet.

1 Liter Kanister : HYA.150

5 Liter Kanister : HYA.151

Attenzione : A fine di preservare i giunti, come pure il funzionamento corretto del martinetto, utilizzare unicamente olio idraulico secondo le prescrizioni CELETTE.

Serbatoio di 1 litro : HYA.150

Serbatoio di 5 litri : HYA.151

Cuidado : Afin de preservar las juntas y un bueno funcionamiento del ariete, utilizar unicamente aceite hidráulica según las especificaciones CELETTE.

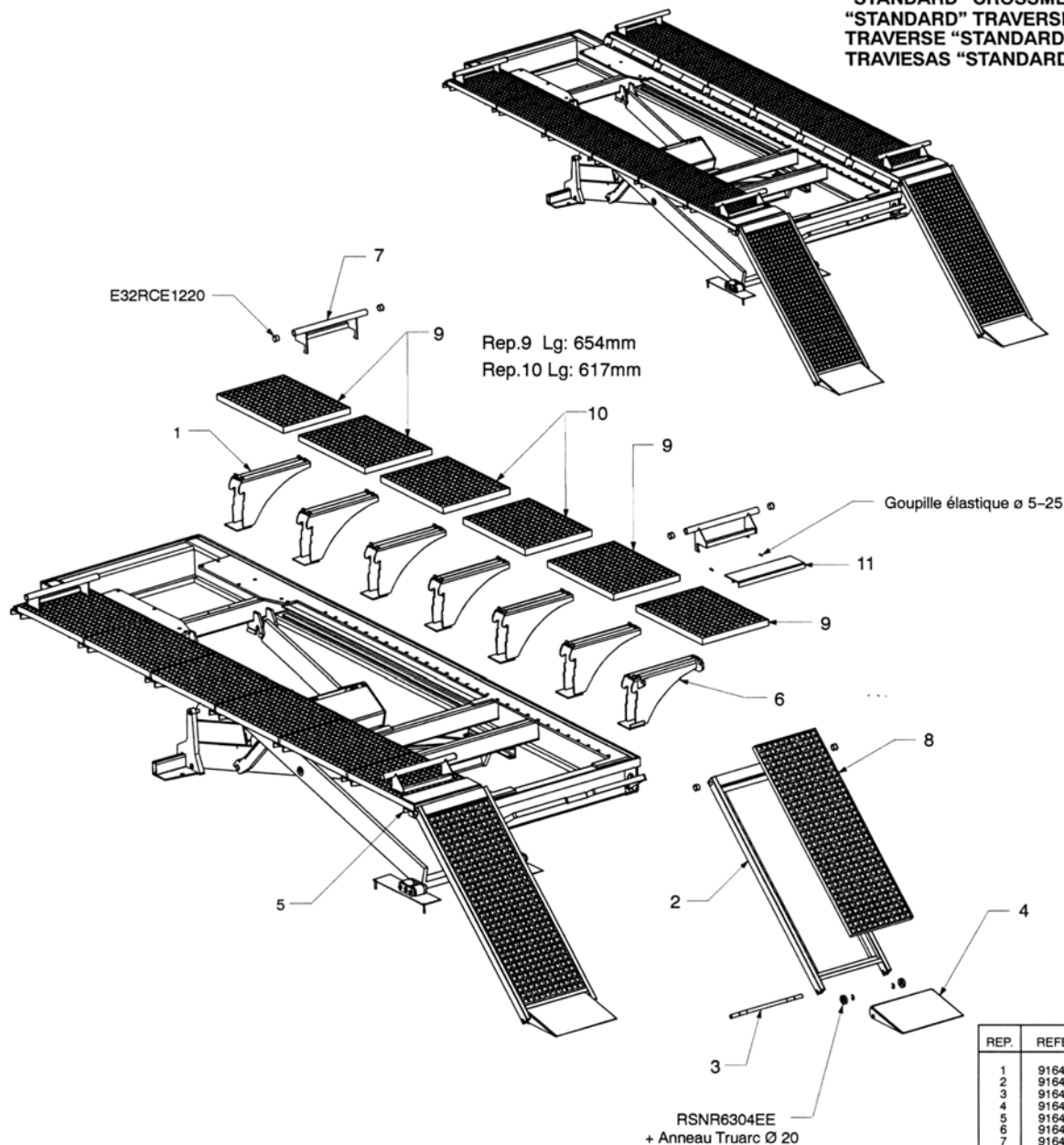
Bidón de un litro : HYA.150

Bidón de cinco litros : HYA.151

CELETTE

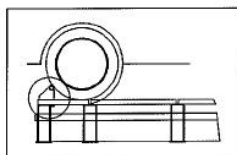
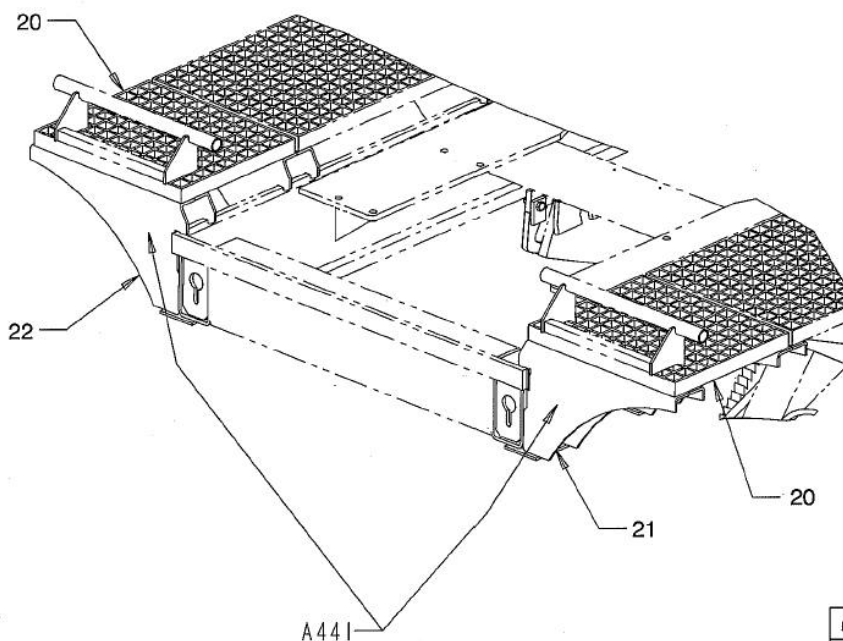
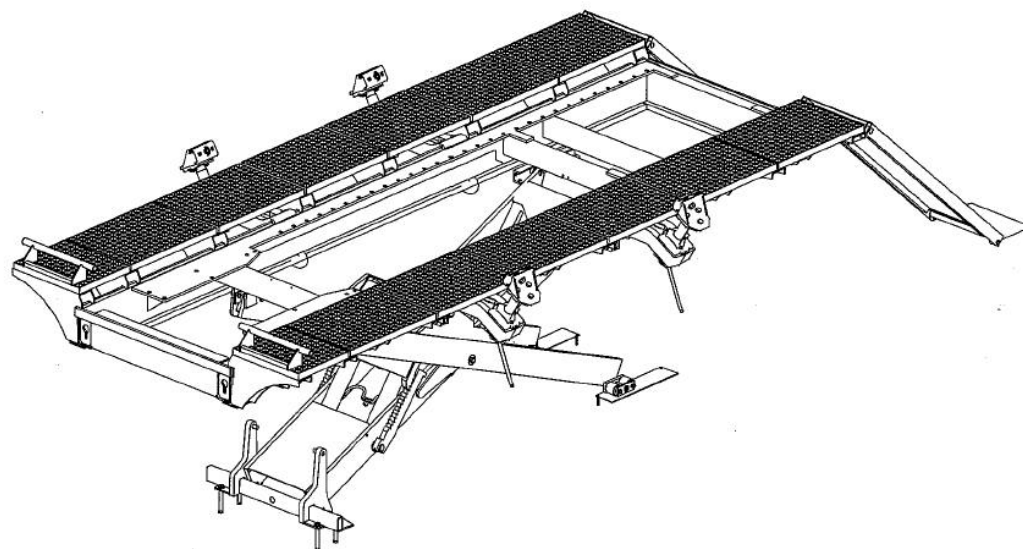
GR97.0128

TRAVERSES STANDARDS
"STANDARD" CROSSMEMBERS
"STANDARD" TRAVERSEN
TRAVERSE "STANDARD"
TRAVIESAS "STANDARD"



REP.	REFERENCE	POS	NB
1	9164.7001	7,3	12
2	9164.7015	20	2
3	9164.7003	1,4	2
4	9164.7004	5,6	2
5	9164.7017	8,0	1
6	9164.7018	8,0	1
7	9164.7014	2,4	4
8	9164.7016	9,2	2
9	9164.7012	5,2	8
10	9164.7013	4,9	4
11	9164.7019	2,0	2
	RSNR6304EE	0,1	4
	Truarc Ø20		4
	E32RCE1220		12
	Goupille ø 5-25		4

250 Kg 19.04.02 GR97.0128-RA3-1 00



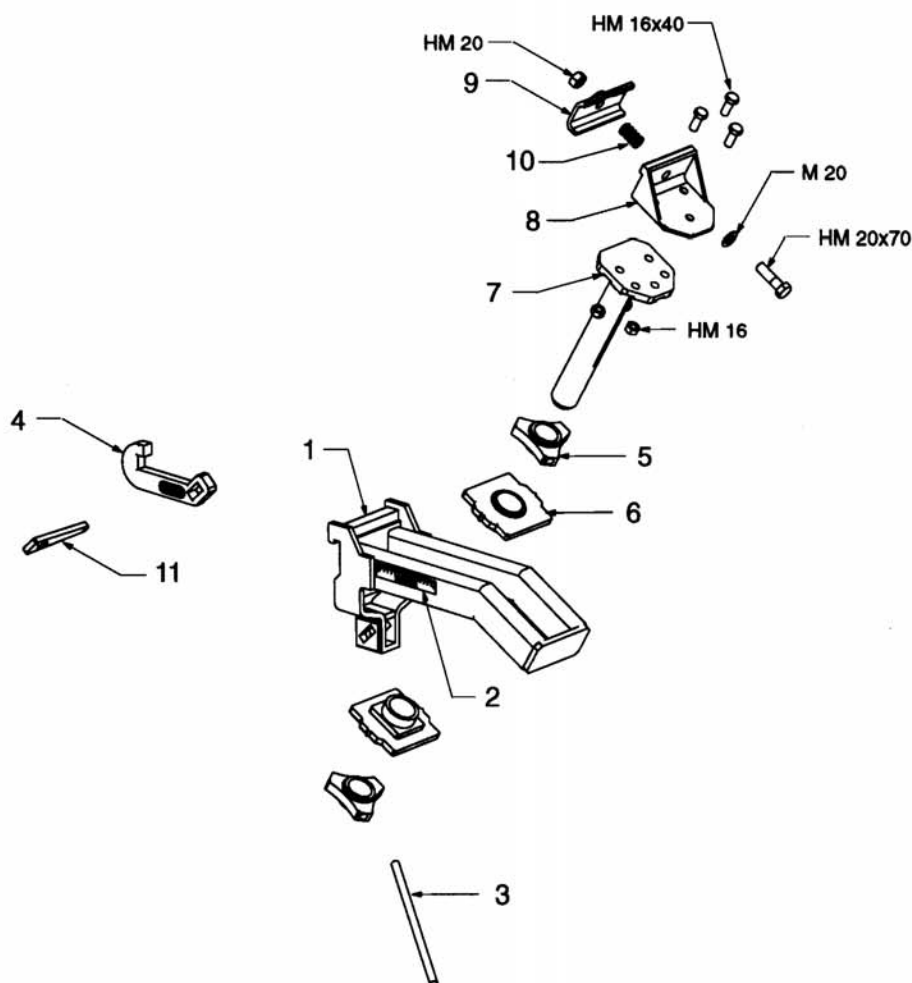
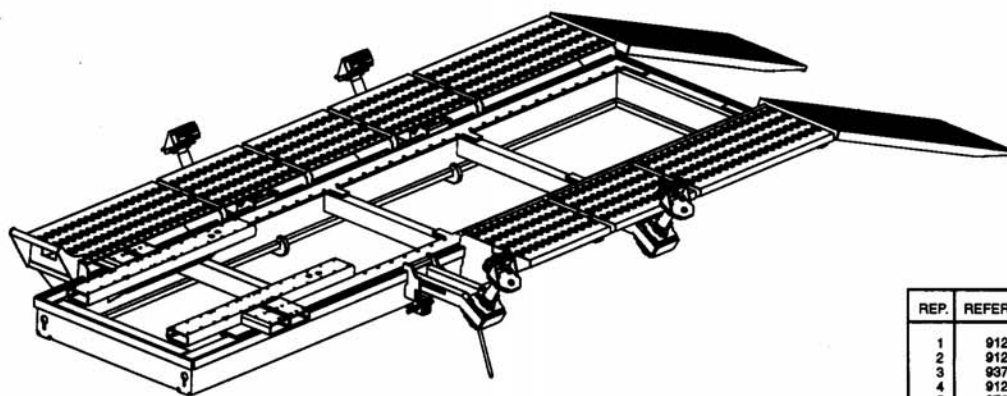
REP.	REFERENCE	POS	NB
20	9164.7020	3,8	2
21	9164.7021	8,7	1
22	9164.7022	8,7	1

GR97.513

25 Kg 22.01.2003 GR97.513-RA3-1 00



PINCES SEVENNE A BRAS CINTRES / SEVENNE CLAMPS WITH "ARCHED" ARMS / SEVENNE KLEMMEN MIT "GEWÖLBTEN" ARMEN / MORSETTO SEVENNE CON BRACCI "A CURVATURA" / PINZAS SEVENNE CON BRAZOS "CIMBRADOS"



REP.	REFERENCE	PDS	NB
1	9123.712	17,5	4
2	9123.702	0,1	4
3	937.707	0,5	2
4	9123.704	2,5	4
5	976.705.1	0,6	8
6	976.702.2	4,0	8
7	976.704.1	8,5	4
8	976.703.1	2,0	4
9	MO1.1	1,2	4
10	937.731	0,2	4
11	ATS976.10	1,0	4

	M 16x40 M 20x70	12 4
	M 16 M 20	12 4
	M 20	4

9123.023

171 Kg 07.03.97 9123.023-1RA3