

MAGNETI MARELLI

Universal Pneumatic Device For Shock Absorber Assembly (Incl. 007935060310 Blocking Vice)

User's Manual

007935060300



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01 DESCRIPTION

The machine for assembling and disassembling shock absorbers, model 321033025, is made up of a painted metal tubular frame. On this structure is mounted a pneumatic piston fixed at the frame, its extension and compression allows the compression and the release of the spring held by control brackets.

02 USAGE

The machine 321033025 is a device for assembling and dissassembling the shock absorbers of the cars. Every different use is considered improper and illogical. The manufacturer does not assume responsibility for possible damage caused by non-compliance with instructions.

03 TECHNICAL DATA

Air pressure	Min 6 bar, Max 10 bar
Power	735 Kg (6 atm) 1.226 Kg (10 atm)
Cylinder stroke	420 mm
Dimensions	139 x 45 x 47 cm (mounted)
Machine weight without clamps	40,3 Kg
Art. 321002000 (Small clamp)	Ø 78÷130 mm (Weight 3,6 Kg)
Art. 321003000 (Big clamp)	Ø 125÷205 mm (Weight 4,2 Kg)
Art. 321001000 (Vice)	Weight 3,7 Kg





04 INSTRUCTIONS AND WARNINGS

The usage of this machine model required a particular attention. Compressed springs can be potential dangers due to force collected because of compression.

This machine must be used always with its specific frontal protection mounted correctly on the frame.

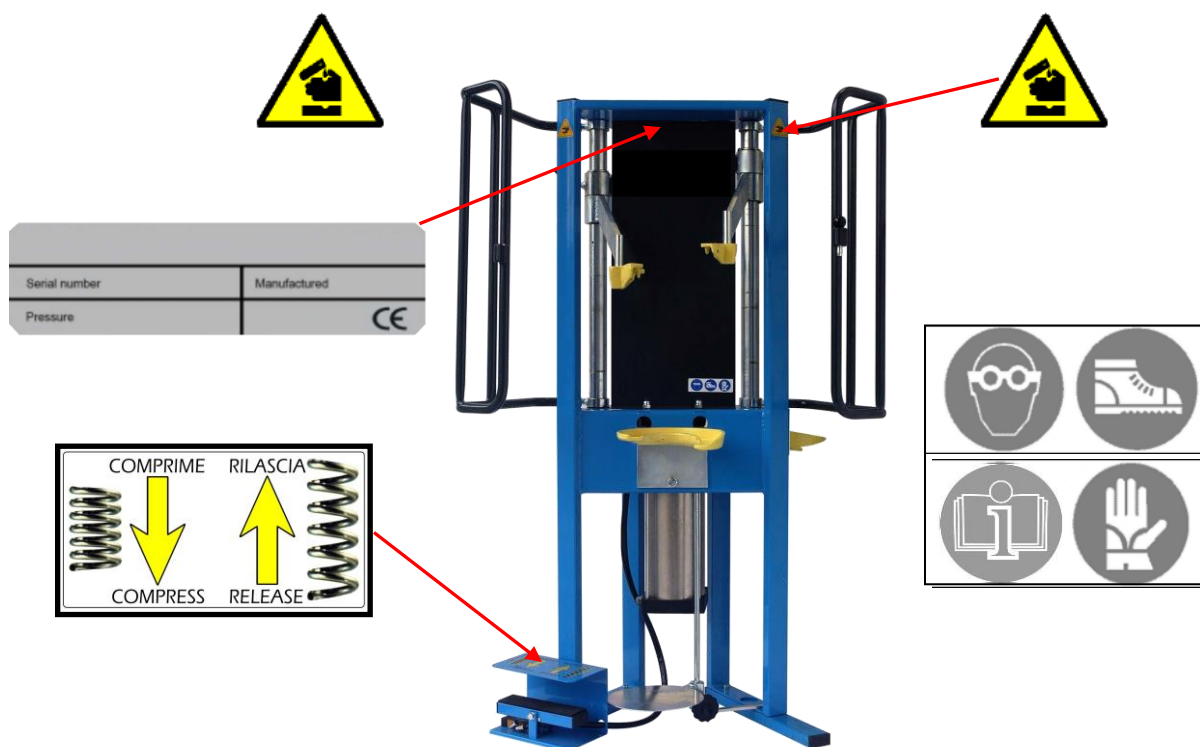
04.02.1 Individual protection measures

Here under listed the individual protection measures necessary to work with our product.

Accident prevention gloves	
Anti prevention shoes	
Protection glasses	
Instructions Manual	

04.02.2 Danger pictograms

The machine is equipped with pictograms that show remaining risks and individual protection measures to be used during working operations.



The pictograms are integral part of the product. In case of loss, deterioration or illegibility, require the pictograms to the constructor in order to substitute them immediately. Replace the pictograms always in the same place where they were removed following the above design.

05 CARRIAGE - HANDLING

The machine weights Kg. 46. It is necessary to use a trolley for handling and carriage.

Fix the package at the trolley through straps in order to balance it.

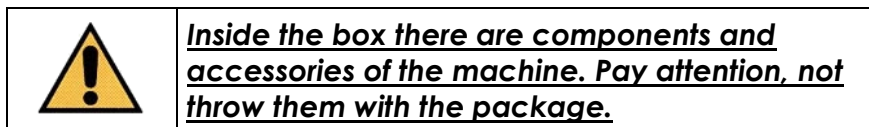
Handle with care in order to avoid to upset and to make the package of 380x220x1600 mm falling, causing danger both for the person responsible of the handling and for the staff near the spot.

06 UNPACKING

The machine is packed in a cardboard box of 380x220x1600 mm and closed by metal clips.

On the package there are arrows indicating how to handle the box.
Lay down the package in order to unpack the machine.

Remove the metal clips carefully on the top of the box and unpack the machine slipping it out of the package.



It is recommended not to leave packaging parts to the range of children. Throw the package in appropriate spots.

07 PLACING AND INSTALLATION

The machine can be placed in every place, where it can be connected to the compressed air system.

Do not use the machine in case of lightning lower than 600 lux.

The machine can be moved easily because it is not fixed at the floor.

08 ASSEMBLING

LOOK AT THE PAGE N° 26 FOR ASSEMBLY SPECIFICS

09 CONNECTIONS

Connect the machine to the air compressed system.

Control that the air pressure is between 5 and 6 bar. If the pressure supplied is higher, reduce it with proper device (for example with a pressure reducer).

10 CONTROLS

Control that the output of compressed air is between 5 and 8 bar. Control that the connection parts and/or the pneumatic devices have any leak of air (in case of leak, contact the authorized dealer).

Control the functioning of the valve.

11 FUNCTIONING AND USAGE

NEVER LUBRICATE the sliding parts (columns) with GREASES or OILS.

Every 200 working cycles and however each 60 days remove the dirty and the dust to the sliding parts with a dry rag.

After having finished to assemble the machine and connect it to the air compressed system, the machine can work.

The machine is supplied with the shaft high. Press the foot control lever to lower it and to positioning the machine ready to work.

Install the right bracket in order to disassembling the shock absorber that has to be dismantled (see page 25, position F).

11.1 Disassembling

It is advisable to unlock the nuts of shock absorbers' caps before using the machine in order to easy working operations.

Some automotive manufacturers prescribe to unlock the blocking nuts of the caps before dismantling the shock absorbers from the car.

Positioning the shock absorbers on the lower bracket in the first coil (fig. 1), rotate the shock absorber and lock it in the bracket in the maximum slipping point (fig. 2).

Put the small arms near the spring and insert the upper vices in the first coil available (see fig. 3).

After having found the right position of the spring on the bracket and after having adjusted the upper vices, **block the adjustable arms** (fig.4) locking the screws behind the case with the key supplied.



Fig. 1

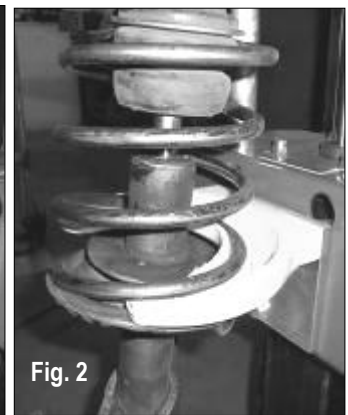


Fig. 2

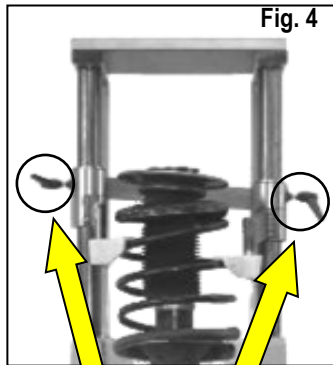


Fig. 4



Fig. 3

Compress the spring using the foot control lever only to release the pressure that the spring it-self exert on the cap.

Do not compress the spring completely (see fig.5).

Remove the blocking cap form the shock absorber unscrewing the nut. Discharge the compression of the spring and replace the old shaft with the new one.



11.2 Assembling

For assembling make the contrary operations of the disassembling.

Put the new spring in the same position where the old one was. Press the foot control lever in order to make the spring stuck to the blocking cap.

Block the cap to the shaft of the shock absorber screwing the proper nut.

Now the shock absorber is mounted, use the foot control lever to release completely the spring, then move the arms on the outside and remove the shock absorber now reassembled thanks to the machine.

12 OPERATION ANOMALIES, CAUSES, SOLUTIONS

<i>Operation anomalies</i>	<i>Causes</i>	<i>Solutions</i>
The machine does not work	Control the connection to the compressed air system	Connect the machine to the local pneumatic system through the quick connection equipped
The two arms do not run properly along the columns	Dust and dirty on the columns	Clean the columns and the sliding parts with a dry rag, <u>NEVER LUBRICATE WITH GREASES OR OILS</u>
The piston's shaft after moving forward does not keep the position and goes back	There is an air lack in the cylinder	Contact customer service to repair the cylinder

13 DEMOLITION

In case if demolition of the machine following the under mentioned instructions:

Disconnect the pneumatic feeding hose.

Cut the connection hose in rilsan of the cylinder.

Unscrew and remove the valve.

Put the machine now useless in a place suitable for the material of which it is composed.

14 MACHINE IDLED FOR A LONG PERIOD

Following the under mentioned instructions when the machine is idled for a long period:

Disconnect the pneumatic feeding hose.

Discharge the air inside the cylinder.

Put the oil for pneumatic cylinder inside the connecting nozzle.

15 ORDINARY MAINTENANCE

Periodically (every 3 months, or when it is necessary), clean the sliding columns form dust, earth etc. with a little bit of lithium-base grease.

NEVER LUBRICATE the sliding parts (columns) with GREASES, OILS, DETERGENS or SVITOL.

16 EXTRAORDINARY MAINTENANCE

Extraordinary maintenance operations are to be carried out by qualified personnel; it is advisable to refer to authorized dealers for repairing operations and original spare parts.

17 ACCESSORIES SUPPLIED

17.1 Vice



17.2 Disassembling using - Vice

It is advisable to unlock the nuts of shock absorbers' cap before using the machine in order to easy working operations.

Some automotive manufacturers prescribes to unlock the clamp nuts of the caps before dismounting the shock absorbers from the car.

Block the strut of the shock absorber inside the vice in order to center it on the machine (see fig. 6).

Put the small arms near the spring and insert the upper vices in the first coil available.

After having found the right position of the spring on the vice and after having adjusted the upper vices, **block the adjustable arms** (fig.4) locking the screws behind the case with the key supplied.

Compress the spring using the foot control lever only to release the pressure that the spring it-self exert on the cap.

Remove the blocking cup form the shock absorber unscrewing the nut. Discharge the compression of the spring and replace the old shaft with the new one.



Fig. 6

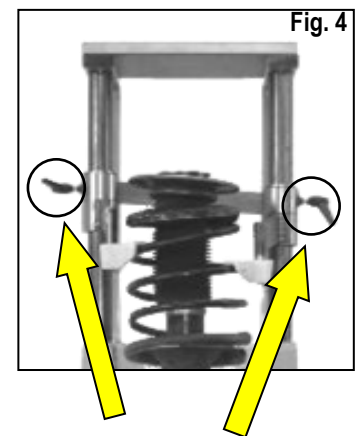


Fig. 4

17.3 Assembling using - Vice

For assembling make the contrary operations of the disassembling. Put the new spring in the same position where the old one was. Press the foot control lever in order to make the spring stuck to the blocking cap.

Block the cap to the shaft of the shock absorber screwing the proper nut.

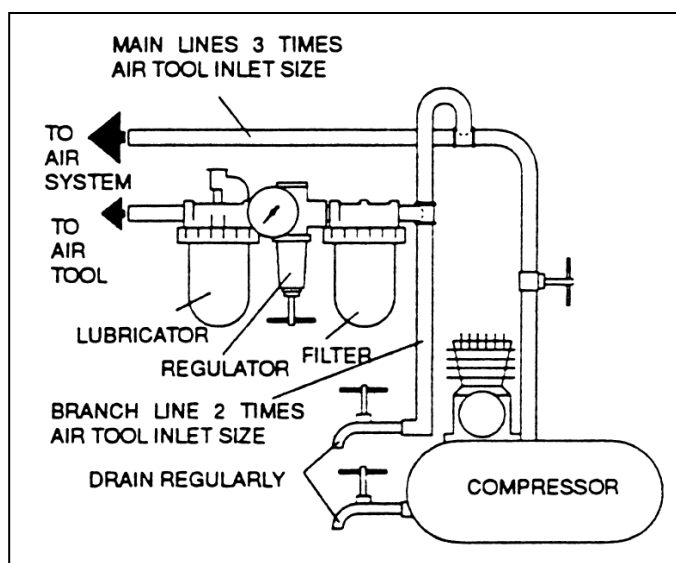
Now the shock absorber is mounted, use the foot control lever to release completely the spring, then move the arms on the outside and remove the shock absorber now reassembled thanks to the machine.

LUBRIFICATION OF THE DEVICE

Always use of an air line lubricator with these tools.

We recommend the following Filter-Lubricator-Regulator Unit: **Magneti Marelli**.

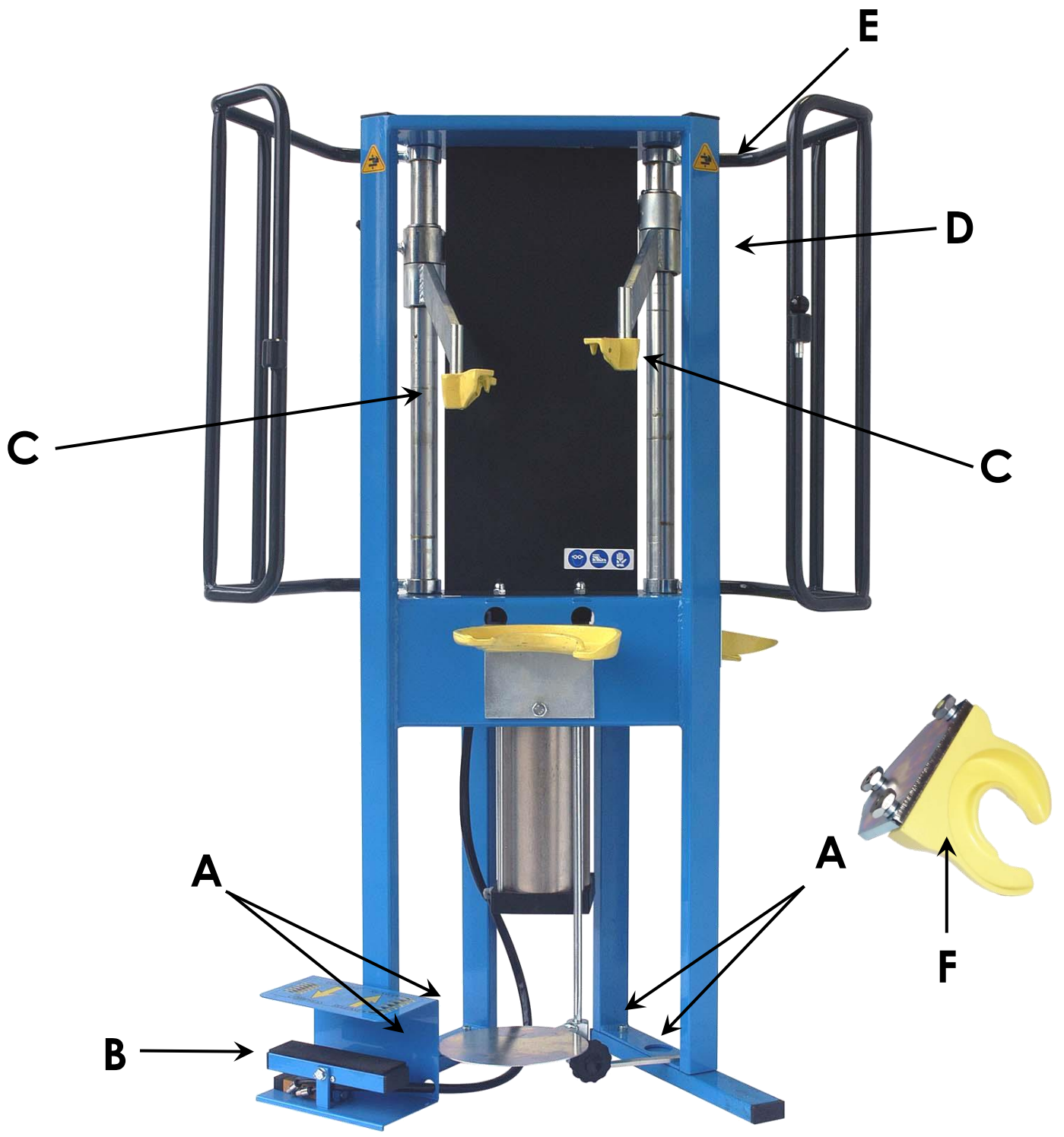
Magneti Marelli for routine external lubrication of the impact mechanism through the Hammer Case Grease Fitting **Magneti Marelli** when disassembling and assembling the impact mechanism.



GUARANTEE

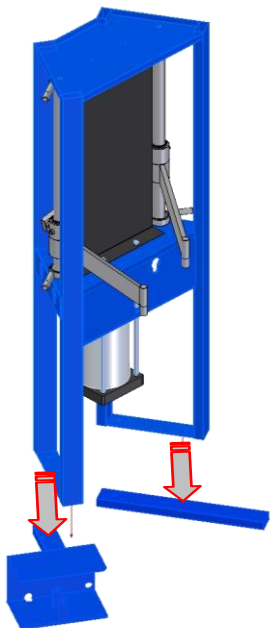
MAGNETI MARELLI air tools are guaranteed for **12 months** from the date of purchase against any defect or manufacturing fault. USAG accessories and wear parts are covered by the legally enforced guarantee. This guarantee does not cover the following cases: normal wear, non compliance of instructions of use and safety guidelines, non-conventional or abusive use of the tool, tool overloading, lack of servicing or maintenance, intrusion of foreign bodies, tools which have been disassembled or modified, or featuring traces of shock, use with poor quality or non compatible accessories. To use the guarantee, provide: the tool with its serial number as well as the legible and unmarked original invoice designating the product and its date of purchase. Detailed conditions of application of the guarantee: call your authorized Distributor.

PROSPECT

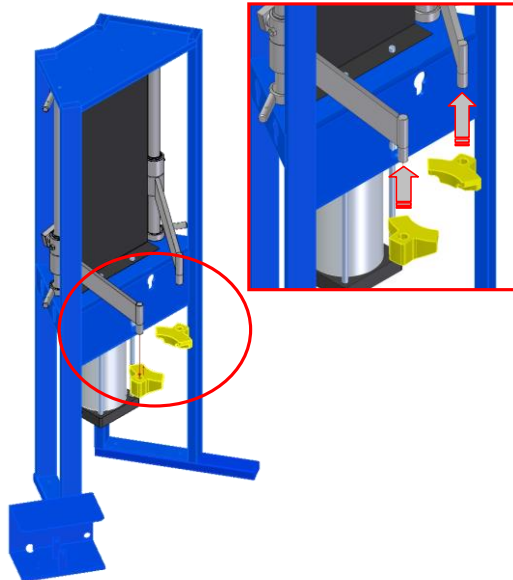


ASSEMBLY SPECIFICATIONS

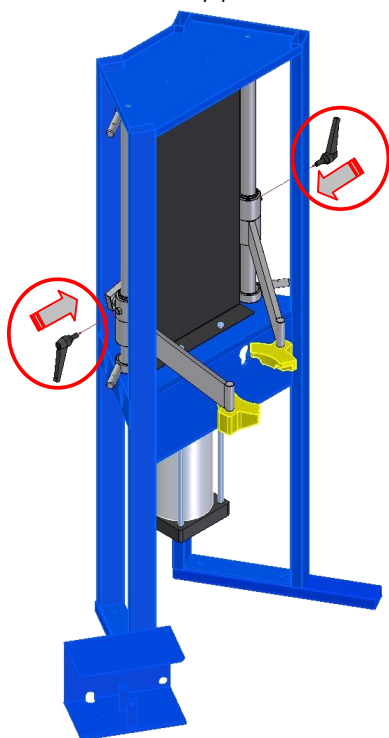
- 1** Assemble left and right stands (ref. A - B) using the provided screws and hexagonal wrench 6 mm.



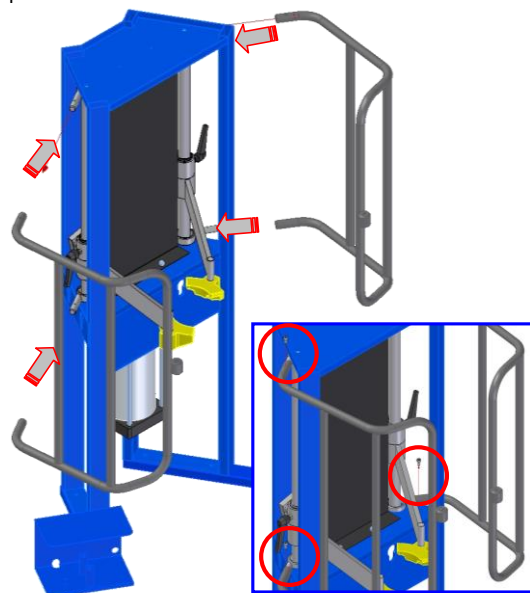
- 2** Assemble the yellow clamps (ref. C) on their seat on the upper stands using the provided screws and hexagonal wrench 6 mm.



- 3** Screw the handles M8 (ref. D) to the bushes of the upper stands.



- 4** Assemble the protection cage (ref. E) inserting the pipes in the holding brackets, then fix them with the 4 provided screws.



ACCESSORIES :

INCLUDED



321 002 000

Small clamp
(78÷130 mm).

321 003 000

Big clamp
(125÷205 mm).



321 000 024

Lever M8x20.

321 038 005

Front protection.



321 001 000

Vice.

321 017 000

Universal upper
brackets.



OPTIONALS (NOT INCLUDED)



321 030 000

Upper brackets suitable
for ASIATIC cars.

321 035 000

Bracket for models :
PORSCHE CAYENNE
VW TOUAREG



320 014 000

Upper bracket for
MERCEDES models.
Medium clamp
(105÷182 mm).

321 028 000

Adjustable support for
upholding the sturt of
shock absorbers



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