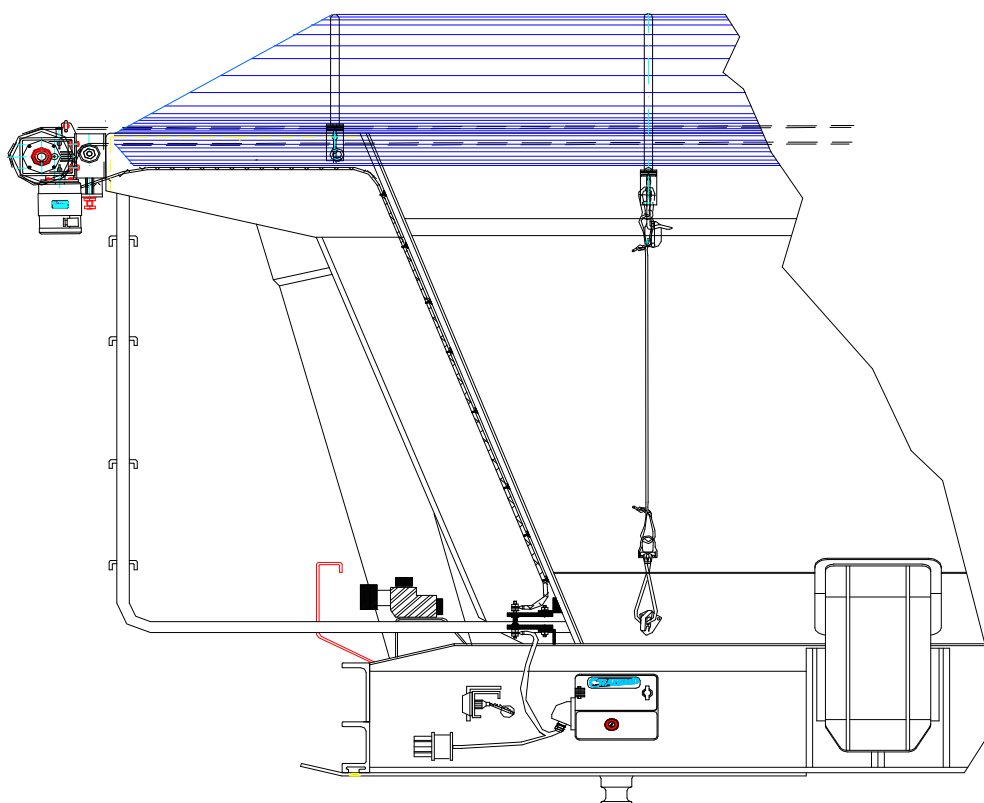


CRAMARO

TS S.r.l.

CABRIOLE' MODEL TARPULIN **ELECTRIC-OPERATED - HYDRAULIC**



USER MANUAL **USE-MAINTENANCE-SAFETY**

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Manual MCA003- EN - ED17-- REV. DATE 15/12/2016

**>>>>> INSTRUCTIONS FOR USE AND MAINTENANCE <<<<<<
(READ BEFORE USE)**

It takes little effort to get the best out of the **CABRIOLE'** model **CRAMARO** tarpaulin, given its user-friendliness and limited number of component parts.

The current system stems from **CRAMARO's** years of experience in the field of tarpaulins for industrial vehicles.

The **CRAMARO** tarpaulin symbolises the ideal synthesis between technology, safety, environmental compatibility, economy of use and productivity.






The system fully complies with the requirements of the norms in force (**DIRECTIVE 2006/42 CE**).

It is now up to you to use your **CRAMARO** tarpaulin safely and maintain it in perfect condition.

This manual contains the most important information for the correct use and periodical maintenance of the **CRAMARO** tarpaulin. Although the latter is reduced to a minimum, it is still vital to ensure long product life in perfect working order.

We advise you to read this manual carefully before using the vehicle fitted with the **CABRIOLE'** model **CRAMARO** tarpaulin.

>>>>> IMPORTANT <<<<<<

-   **THE SYSTEM MUST ONLY BE USED BY PERSONNEL PROPERLY TRAINED TO WORK IT AND AWARE OF THE POTENTIAL DANGERS LINKED TO ITS USE.**
-   **THE MANUAL FORMS AN INTEGRAL PART OF THE TARPAULIN. IT MUST BE KEPT SAFE AND HANDED OVER TO THE NEW OWNER IF THE TARPAULIN OR THE VEHICLE TO WHICH IT IS FIXED IS SOLD.**
-  **THE WARRANTY IMMEDIATELY BECOMES INVALID IF THE TARPAULIN PARTS ARE MODIFIED, EVEN IN PART, OR REPAIRED WITHOUT USING "ORIGINAL CRAMARO SPARES". "CRAMARO TS S.r.l." IS ABSOLVED OF ALL RESPONSIBILITY.**

CRAMARO TS S.r.l. SHALL NOT BE HELD RESPONSIBLE FOR ANY MALFUNCTION OR DAMAGE CAUSED BY FAILURE TO OBSERVE THE MAINTENANCE NORMS LISTED IN THIS MANUAL; NEITHER SHALL IT BE HELD RESPONSIBLE FOR ANY INJURIES CAUSED BY FAILURE TO OBSERVE THE WORK SAFETY STANDARDS IN FORCE.

CRAMARO TS S.r.l. RESERVES THE RIGHT TO CARRY OUT ANY ALTERATIONS HELD NECESSARY AT ANY TIME IN ORDER TO IMPROVE THE RELIABILITY, FUNCTIONING ETC. OF THE PRODUCT.

YOUR AUTHORIZED INSTALLER

CRAMARO

TS s.r.l.

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- For description, installation and use of the control unit please refer to the document MCA017- EN -ED01 – CONTROL UNIT V2 – 24V USER MANUAL

KEY FOR SYMBOLS :



READ THE MANUAL AND FOLLOW THE INSTRUCTIONS



GENERAL HAZARD WARNING



STRICTLY PROHIBITED



VITAL PRECAUTIONS



DANGER OF CRUSHING



DO NOT TREAD ON THE TARPAULIN

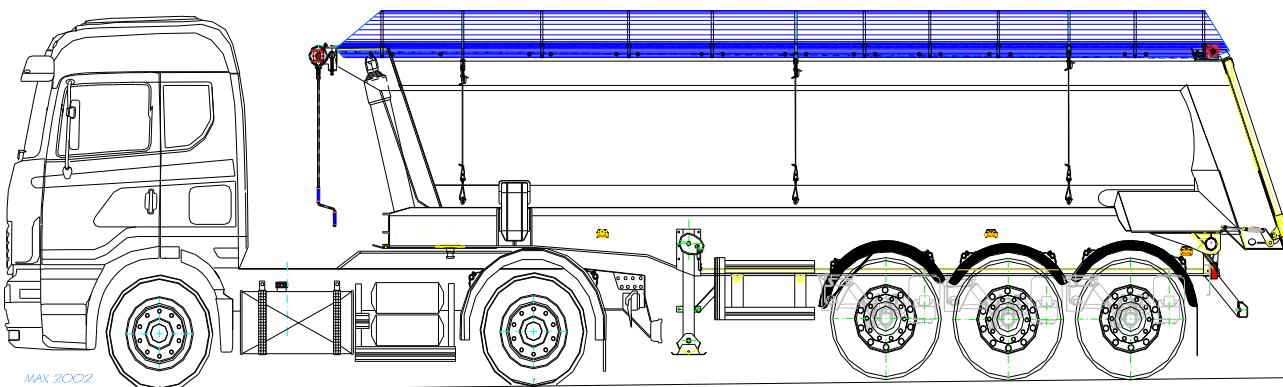


TROUBLE-SHOOTING GUIDE TO PROBLEMS



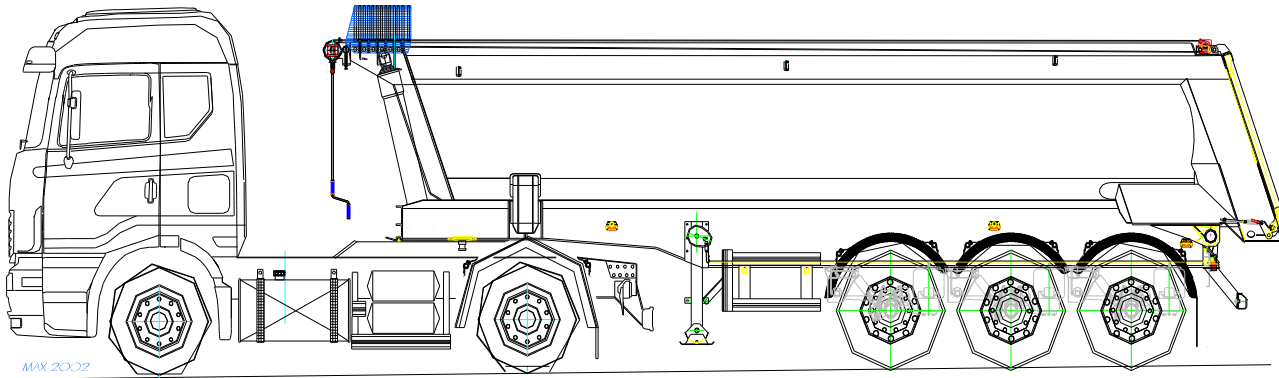
DO NOT USE IN STRONG WINDS

DIAGRAM OF THE FULLY EXTENDED TARPAULIN: CLOSED (BODY COVERED) FIG 1



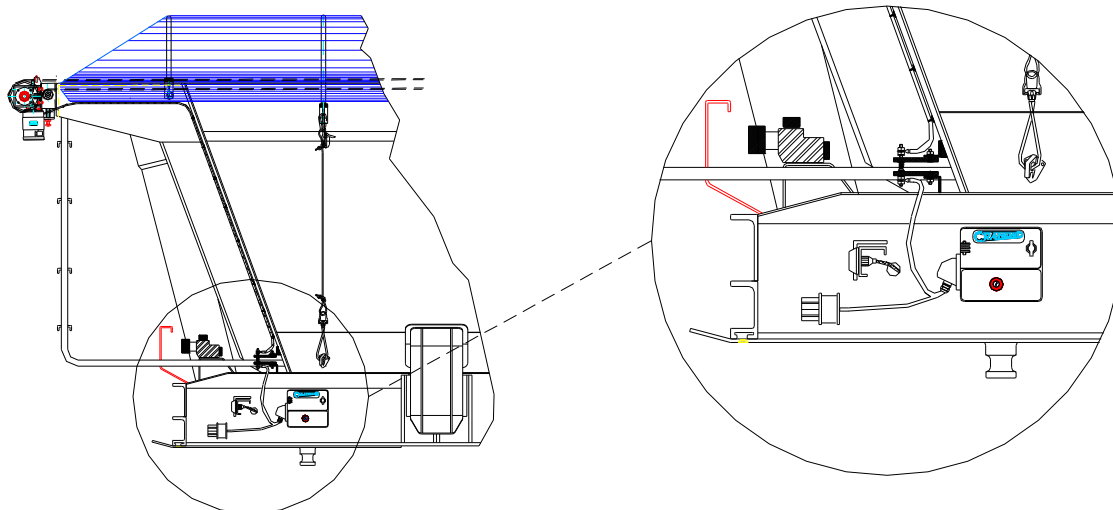
MAX 2002

DIAGRAM OF THE FULLY RETRACTED TARPAULIN : OPEN (BODY UNCOVERED) FIG 2







ELECTRIC OPERATION CONTROLLED BY JUNCTION BOX FIG 3

FIG 3



METHOD OF USE

  **Important:** the operations listed below must be carried out by one operator only, working solely on the ground and respecting the safety norms for self-propelled structures.
Starting with the tarpaulin fully compressed (**OPEN**) the following operations must be carried out for proper use:

  Check that the tarpaulin movement is not impeded (load sticking out from the body, etc.).

   **ENSURE THAT NO PEOPLE ARE WORKING NEAR THE TARPAULIN.**

- For description, installation and use of the control unit please refer to the document MCA017- EN -ED01 – CONTROL UNIT V2 – 24V USER MANUAL

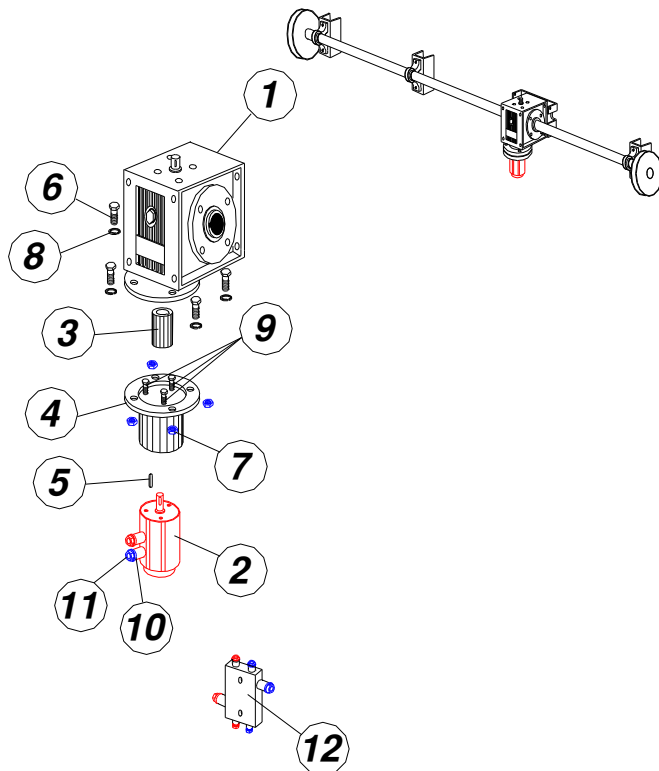
HYDRAULIC VERSION

The hydraulic handling assembly versions are the same as the electrical version - PRE-ASSEMBLED or STANDARD - also in this case, the front unit includes the transmission gear motor, pre-assembled.

FIG

14_A

- 1) Reducer
- 2) Hydraulic motor
- 3) Fitting shaft
- 4) Connection flange
- 5) Connection flap
- 6) M6X30 Screw
- 7) Aut. Nut M6
- 8) Elastic washer $\varnothing 6$
- 9) Roundhead screw M6
- 10) 3/8 Nipples
- 11) Copper washer
- 12) Impact resistant valve

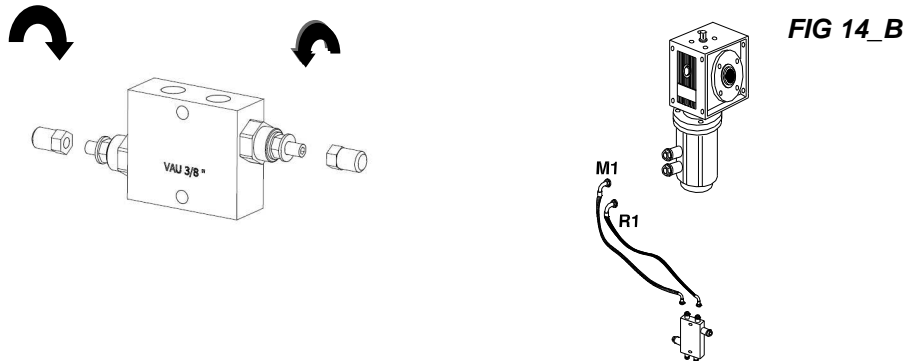


The application procedure of the pre-mounted or standard unit on the crate is the same as the electrical one, except for the control unit connection parts

As can be seen from the previous diagram, the kit is supplied with a pressure valve; this must be connected to the motor as closely as possible

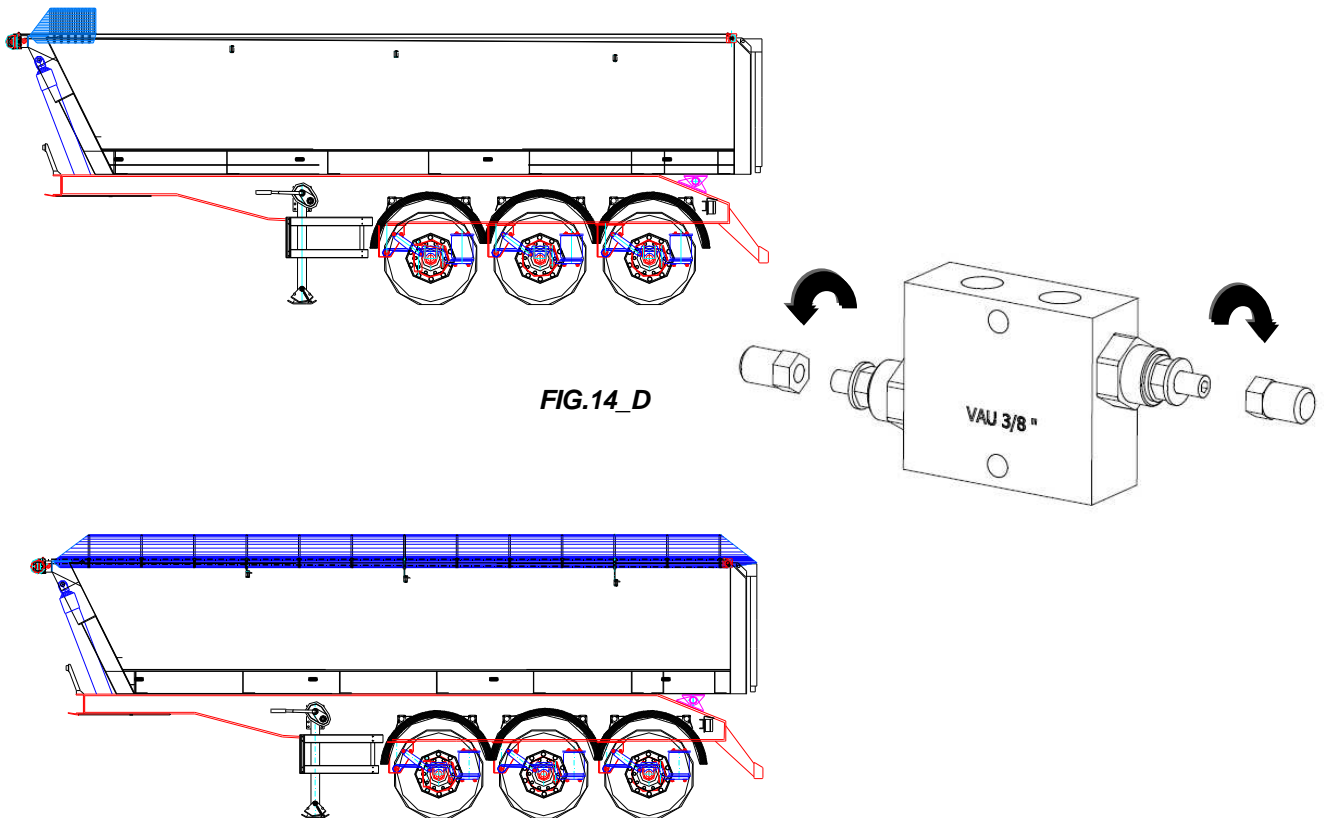
ADJUSTMENT STEP:

- Before sending the oil to the motor, make sure the pressure valve is set to minimum. To do this, use the designated spanner to turn the screw anticlockwise (see figure). Perform this step on both directions of flow.

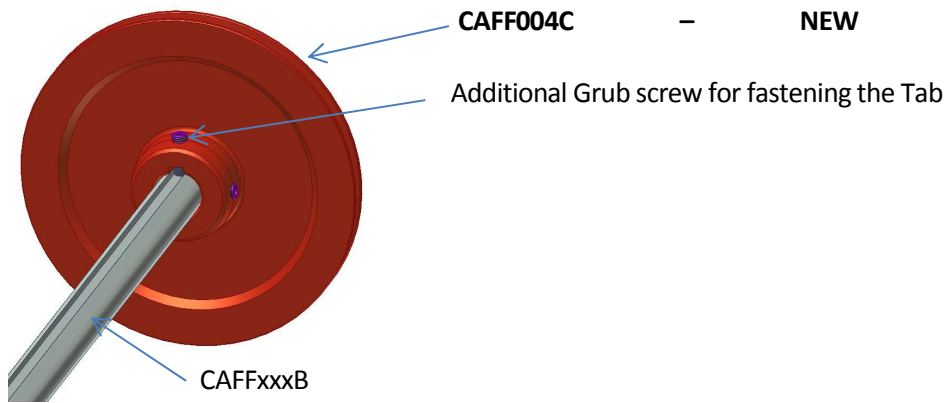


- With the cover positioned as shown in figure 14_C, increase the pressure of the delivery circuit through the valve. Turn the screw clockwise until the motor has enough force to bring the cover to the rear part and discharge the valve (Fig.14_D). Place the return circuit screw in the same position as the delivery circuit; the motor must have the necessary force to completely uncover the crate and discharge the valve.

FIG 14_C

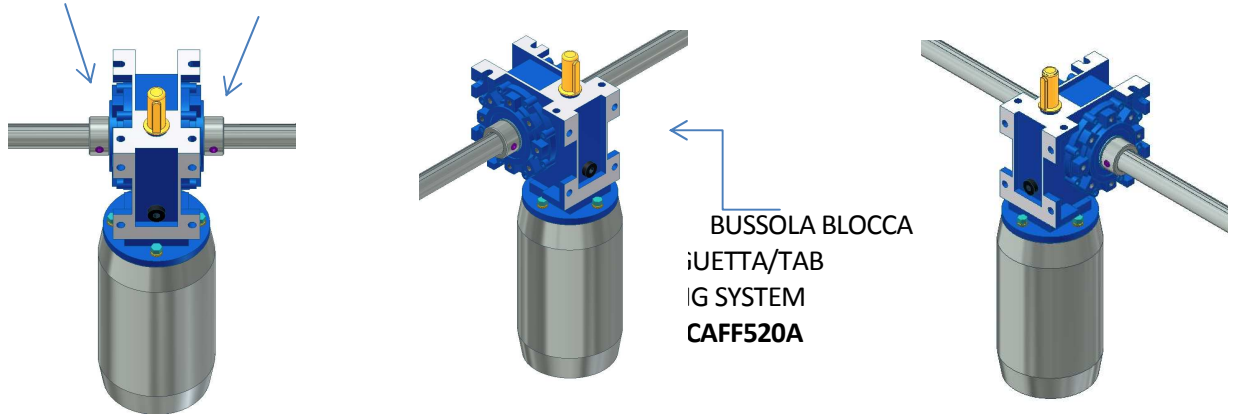


- PULLEY ϕ 180 FIXING



ELECTRIC -
GEAR BOX FIXING

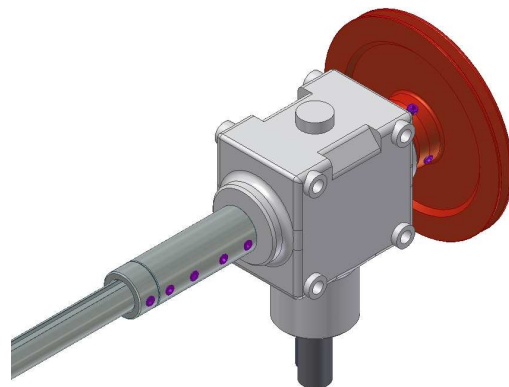
TAB LOCKING SYSTEM – **CAFF520A** -



MANUAL -

- RIGID COUPLING

TAB LOCKING SYSTEM
CAFF520A



Once the valve is installed and adjusted, check that everything is functioning correctly by opening and closing the cover at least a couple of times

DIAGRAM OF SIDE FITTINGS WITH FAST HOOKS FOR FABRIC TYPE A

FIG 4

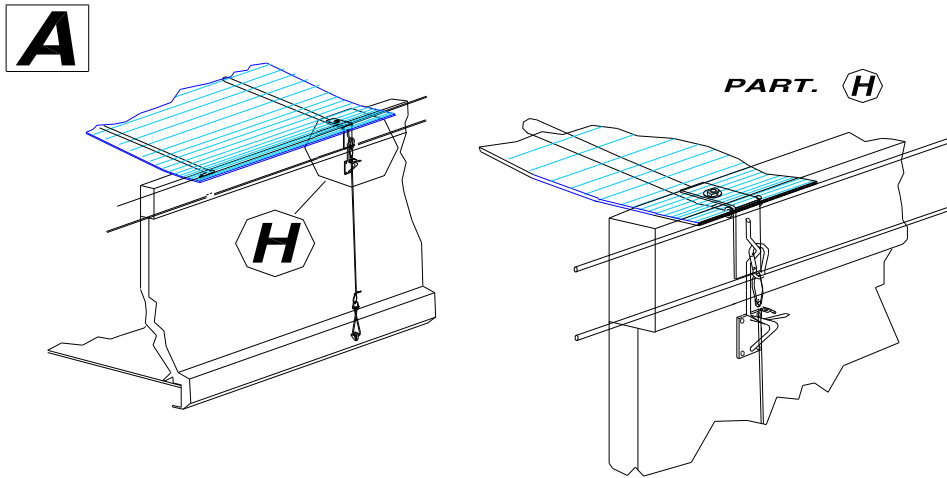
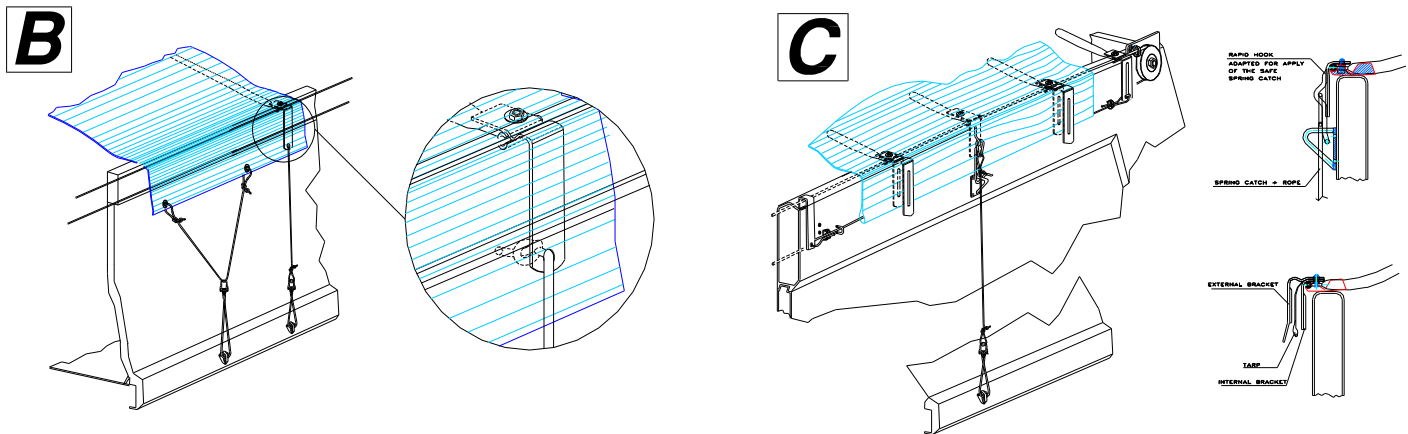


DIAGRAM OF SIDE FITTINGS WITH FAST HOOKS FOR FABRIC TYPES B and C

FIG 5/6

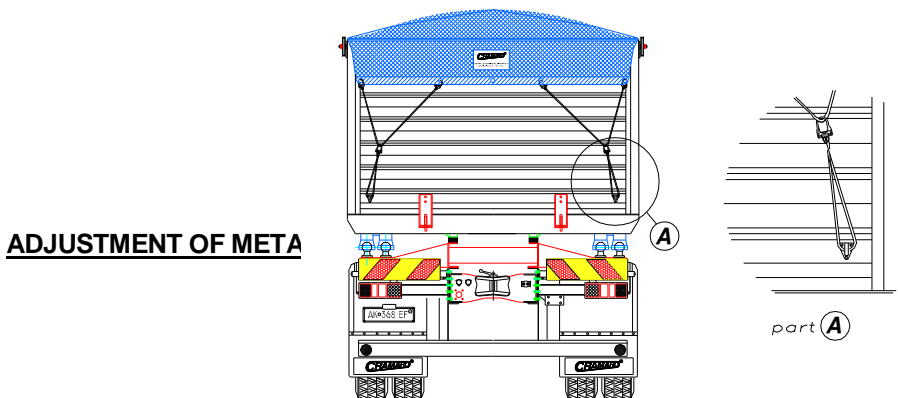


There is a PVC-covered metal cable in type "C". It is put in the side flaps of the PVC tarp and it allows the safe anchoring of the tarp at the sides. It replaces the old flexible cables.



- After covering the body, pull out the rear part of the tarpaulin (on the rear unloading door) and attach the rear flexible cables to the corresponding (cobra) hooks on the body as in (fig. 7.)

ANCHORING THE REAR FLEXIBLE CABLES FOR FABRIC TYPES A-B-C

FIG 7

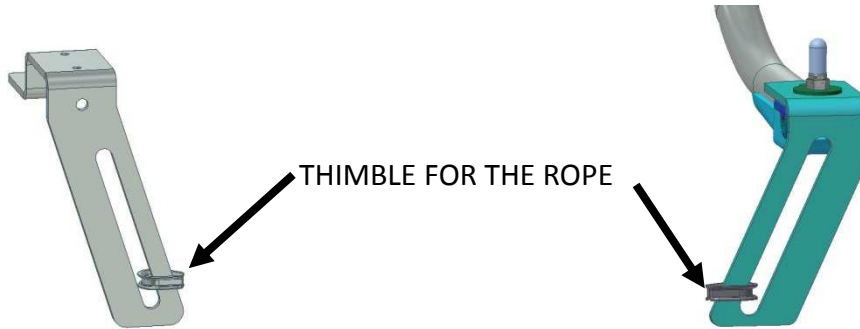


ADJUSTMENT OF META

  You can adjust the tension of the tarpaulin metal tension cables using the corresponding screws.
N.B. the tension must be the same on both sides of the tarpaulin, enough to prevent the cables slipping on the front pulleys.

FITTING THE DIAGONAL BRACKET FOR THE PLASTIC ROPE $\phi 3$ ON TARPAULIN SYSTEMS TYPE " C "

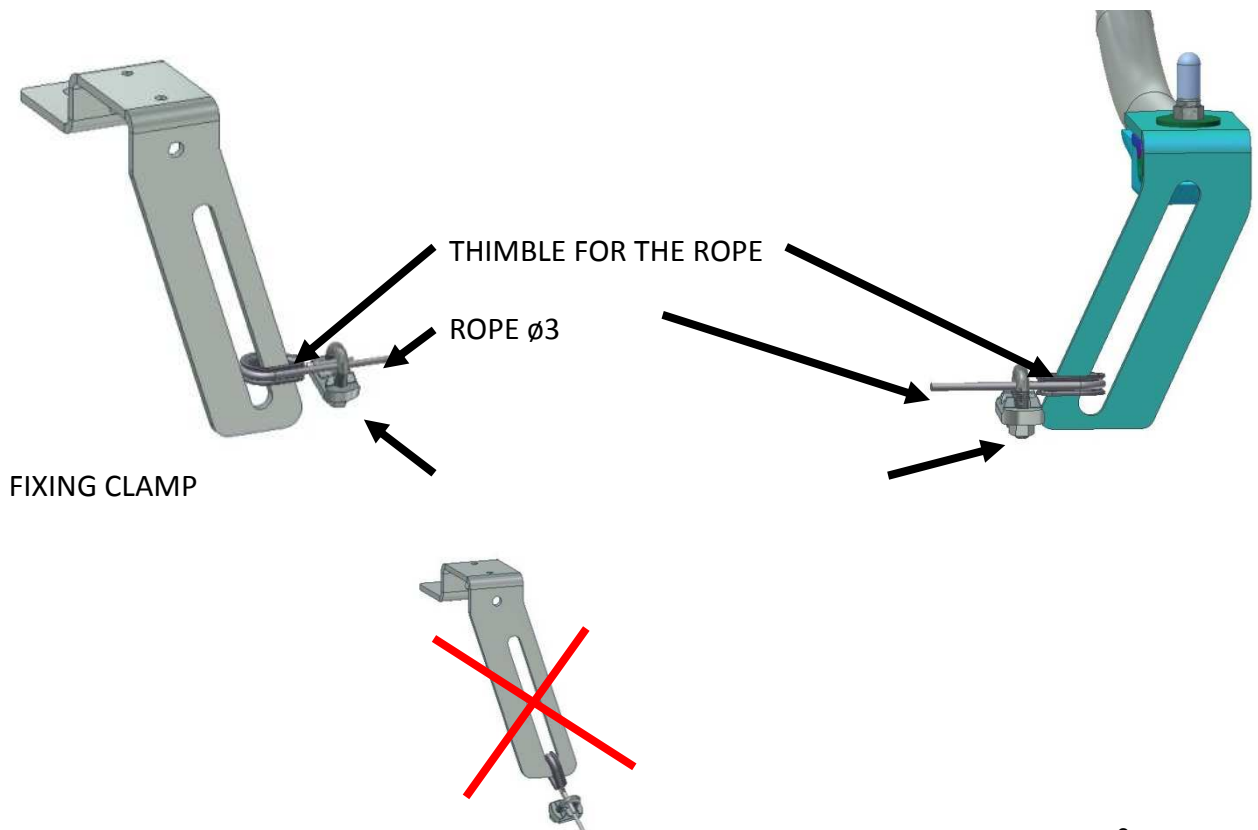
- Insert the thimble in the suitable eyelet on the side bracket

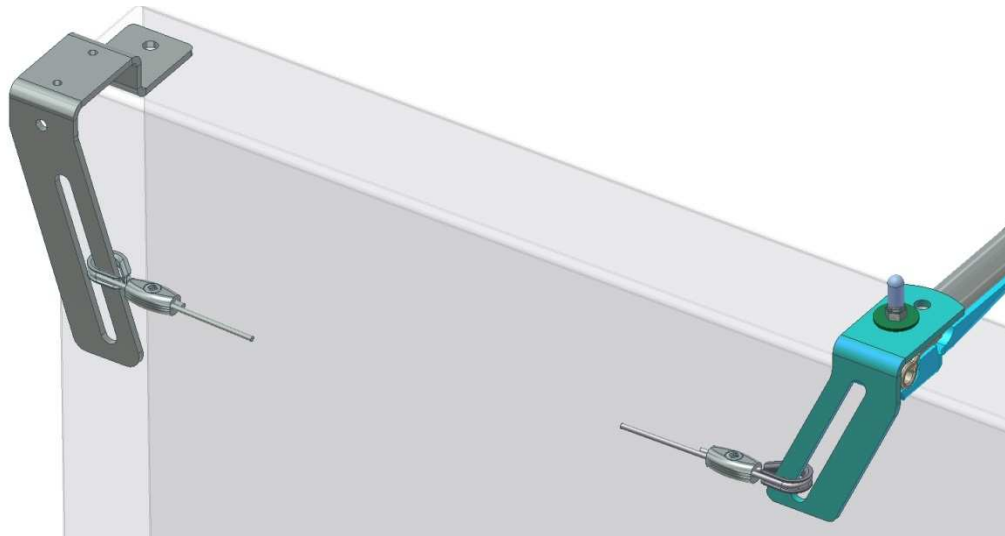
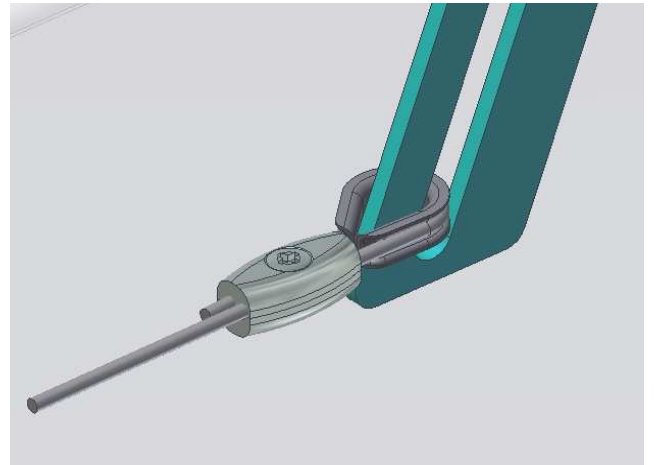
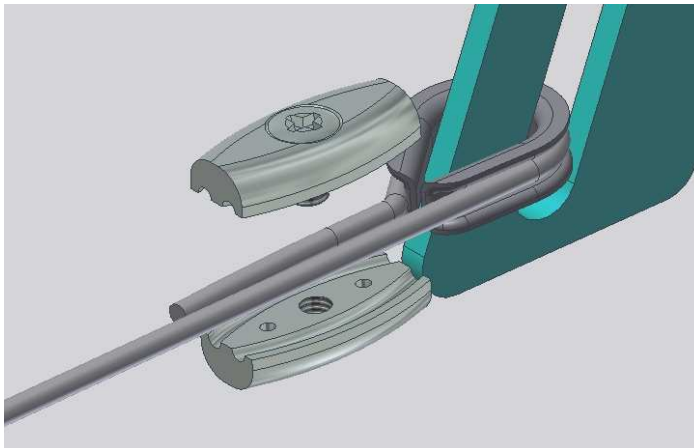
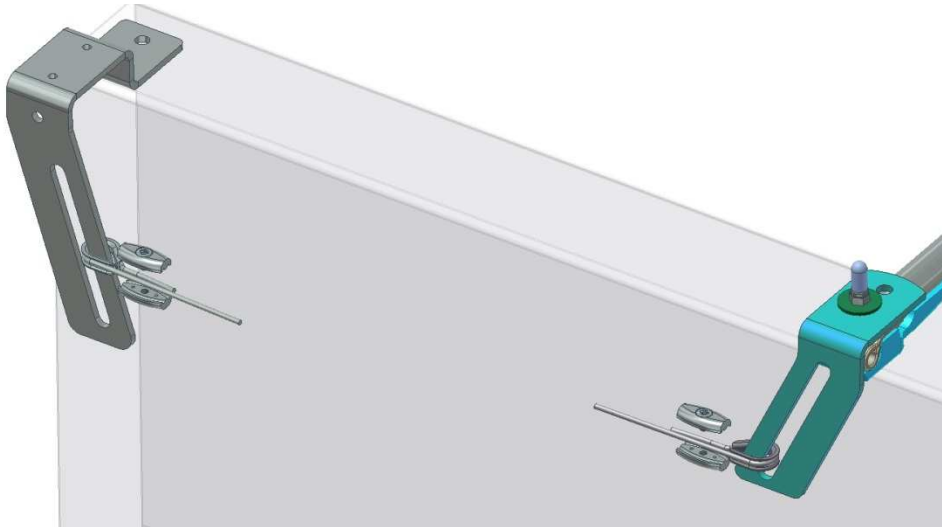


FRONT BRACKET
BOW

REAR BRACKET ON THE LAST

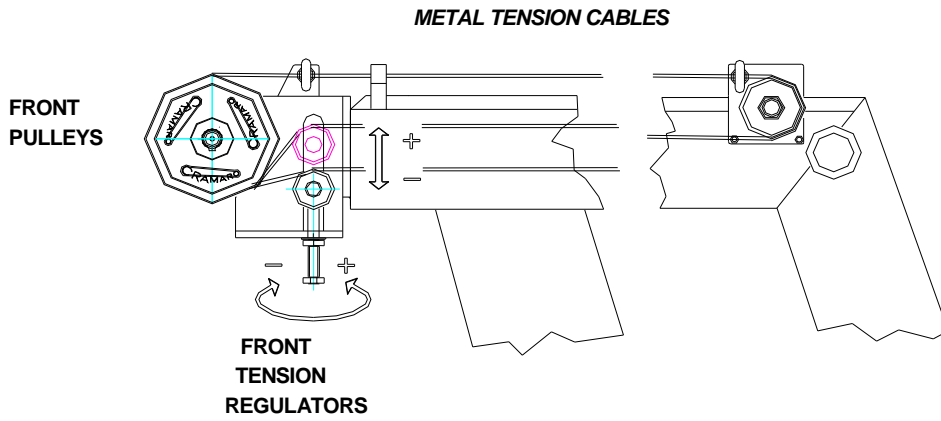
- After having completely extended the tarpaulin, secure the rope, inserting it inside the thimble, using the provided clamp (see drawing).
The rope must be tensioned a little bit less than the tarp. Please make sure that the thimble does not rotate under the bracket.





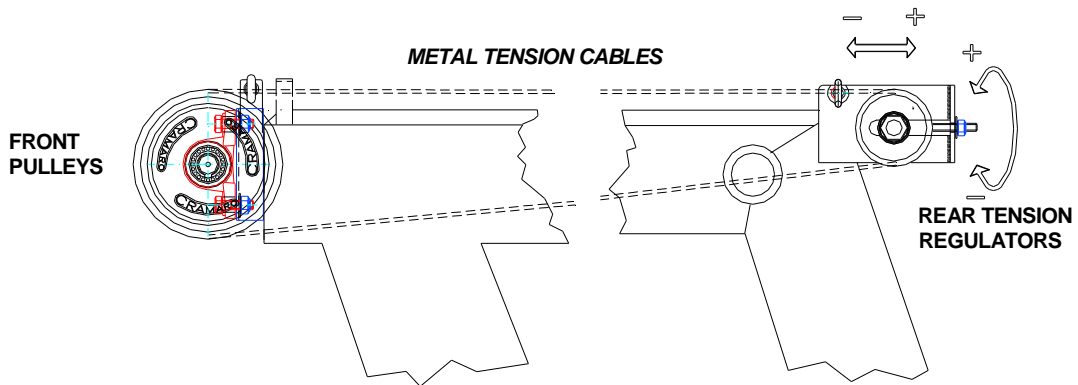
FRONT TENSIONERS DETAIL

FIG 8

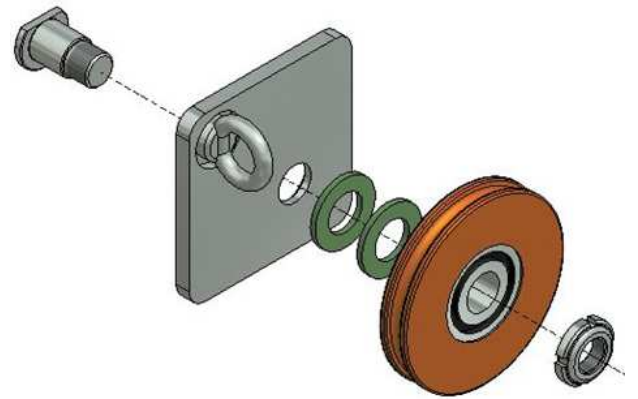
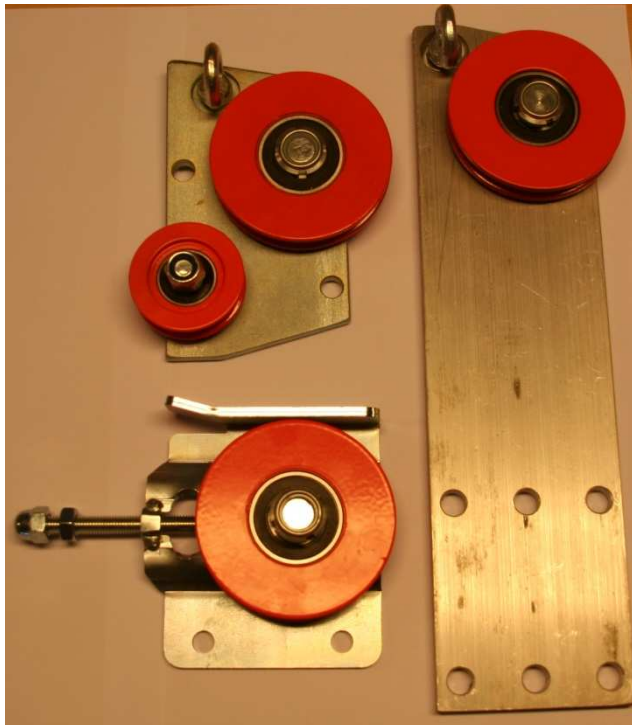
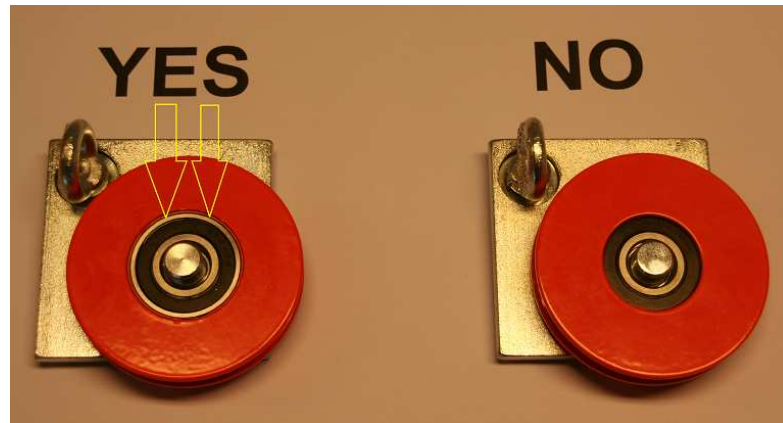


REAR TENSIONERS DETAIL

FIG 9



INSTALLATION INSTRUCTIONS FOR Ø 100MM PULLEY



When assembling the rear support plate with the pulley, check that the position of the pulley is as shown on the above drawing/photo and that the threaded ring is correctly tightened.

ADDITIONAL NOTES FOR TYPE B and C FABRIC



Keep the tarpaulin fabric completely compressed before using it for the first time, leaving it pressed for a few hours if necessary, until it corresponds to the shape shown in fig. 10

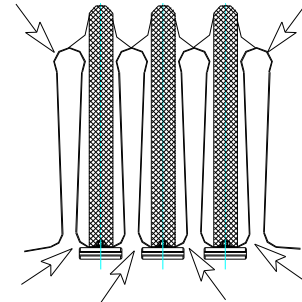
PRESHAPING HDPE TARPAULIN LIFTING PLATE

Whilst tightening the tarpaulin, ensure that the outer part (running downwards along the edges) does not get entangled in the bows.



N.B. : If this happens, pull out the pieces of fabric trapped under the bows by hand using moderate force so that they are on the side of the body

FIG 10



REPLACING “HDPE TARPAULIN LIFTING PLATE”

The HDPE plate in the side pockets of the tarpaulin fabric models the fabric as shown in fig 10. Although the plate material is hard-wearing and long-lasting, its exact life span depends on the working conditions to which it is subjected.

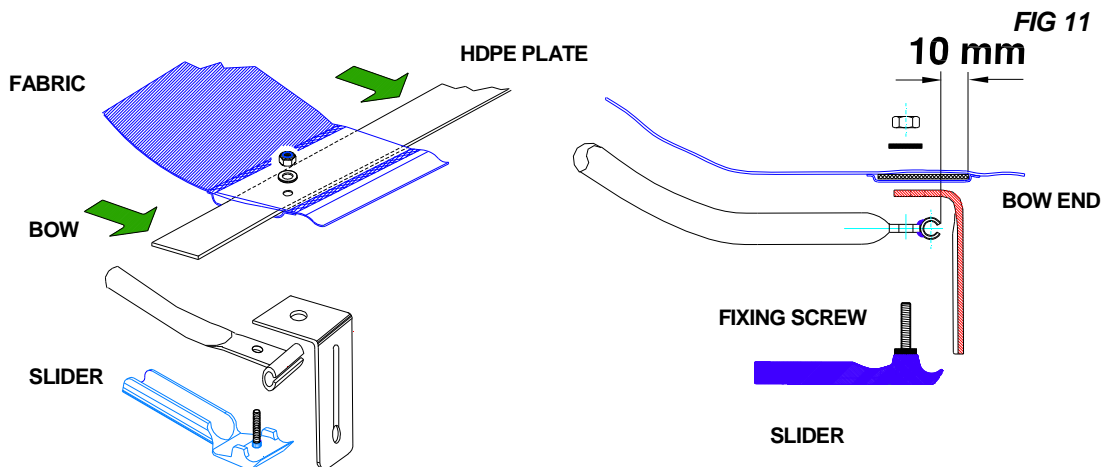


FIG 11

If it breaks, it can easily be replaced after freeing it from the screws which fix it to the end of each bow. **N.B. After replacement, PRESHAPE THE HDPE TARPAULIN LIFTING PLATE following the procedure on page 7 - fig. 10**



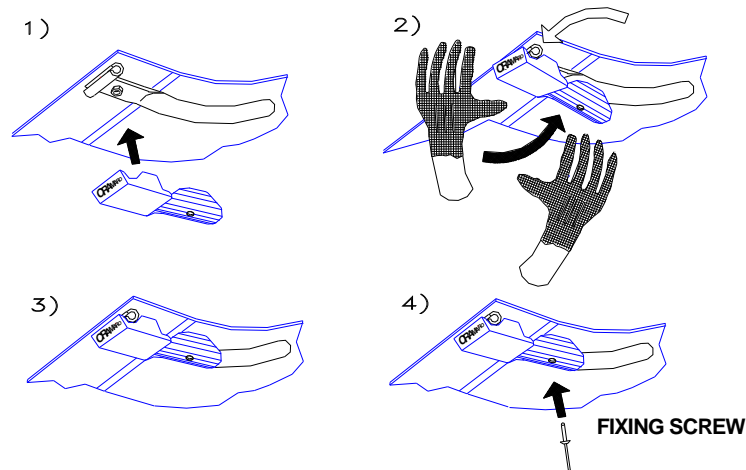
REPLACEMENT OF BOW SLIDERS

The bow sliders at the end of each bow can easily be replaced even when the tarpaulin is attached (**it is not necessary to remove the fabric from the body**).























Fig. 12 shows the order to use to mount the bow sliders on the bow ends.

REPLACING THE SLIDERS

FIG 12

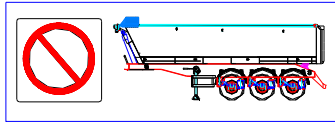


STRICTLY PROHIBITED

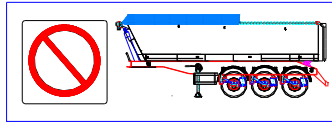
-    **It is strictly prohibited** to work the tarpaulin whilst carrying out maintenance work.
-   **It is strictly forbidden** to drive, if the system is not fixed to the body with the elements suggested from CRAMARO.
-  **It is strictly prohibited** to use the tarpaulin to level the load.
-   **It is strictly prohibited** to unload goods without fully uncovering the body.
-   **It is strictly prohibited** to wash the electric parts (control panel, geared motor, electrical contacts) with directly sprayed water (fig. 3-13-14-15-16-17-18)
-  **It is strictly prohibited** to grease or lubricate the traction pulleys and metal tension cables on the tarpaulin (fig. 8-9).
-   **It is strictly prohibited** to leave the key in the control panel when the tarpaulin is not being used (fig. 3-13-14)
-   **It is strictly prohibited** to leave the emergency button released when the tarpaulin is not being used (the “on” LED must be switched off – fig. 16-17)
-    **It is strictly prohibited** to climb or tread on the tarpaulin.
-   **It is strictly prohibited** to travel with strong winds.
-   **It is strictly forbidden** to open the panel control. Every alteration causes an immediate loss of the warranty.

VITAL PRECAUTIONS

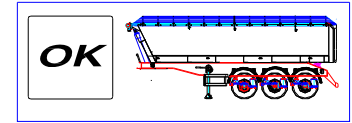
- **!** *While driving It is mandatory to have the tarpaulin completely extended*



NO



NO



YES

! **!** **Periodically check** the tension of the metal tension cables on the tarpaulin (making sure they are not too tight) to prevent them sliding on the front pulleys. Also check their superficial state of wear for any wire damage and replace if necessary. (fig. 8-9).

! **!** **Periodically check** there is no serious damage to the upper part of the body (where the tarpaulin runs) as this could impede its regular movement and prematurely wear the fabric, the HDPE tarpaulin lifting plate and the bow sliders (fig. 11-12).

! **!** **Periodically check** the automatic side hooks for the tarpaulin are intact.

! **!** **Periodically check** the state of wear of the fabric especially at stress points such as front anchorage and side attachments at the bows (fig. 11).

! **Periodically check** the bow sliders at the end of the bows, which enable the tarpaulin to move more easily, and check their state of wear (fig. 11-12).

! **Periodically check** the HDPE tarpaulin lifting plate in the side of the fabric is intact; if it breaks, the fabric is damaged, complicating the tarpaulin tightening process – replace! (fig. 10-11).

Periodically check the electric contacts between frame and body are working correctly and keep them clean (fig. 13).

Periodically check the electric connection cables are not damaged.

! **Periodically wash** the tarpaulin fabric to remove any dirt, which can cause damage if left.

! **If the system is working in hard climatic conditions**, it is necessary, before use, to clean up from ice and snow the roof to avoid problems in the functionality of the system.

! Check please periodically the **TIGHTENING OF THE CLAMPS** of the steel cable



TROUBLE-SHOOTING GUIDE TO PROBLEMS

PROBLEM	CAUSE	SOLUTION
Moving the selector the tarpaulin system doesn't work and the ON light remains switched off	Emergency button pressed.	Release the emergency button using the key.
Moving the selector the tarpaulin system doesn't work and the ON light remains switched off	Disconnected Fuse 80 Amp. (burnt).	Verify and replace the possible disconnected (burnt) fuse that is located on control panel.
Moving the selector the tarpaulin system doesn't work and the ON light remains switched off	Interrupted power supply.	Check the complete electric installation and verify that there aren't interruptions or disconnected cables.
The movement selector works in the opposite direction to that shown on the cover diagram.	Motor has reverse connection.	Change over the motor cables.
Moving the selector the tarpaulin system doesn't work and the ON light remains switched on.	Either electrical contacts plates not in right position, or disconnected motor.	Verify the correct position of the electrical contacts plates that are located between the truck chassis and the body and the connection to the motor.
The tarpaulin stops before fully opening or closing.	High mechanical friction or objects impeding regular operation.	Check the running of tarpaulin and remove any obstacles (load sticking out, damaged upper body).
<i>Tarpaulin movement is sluggish.</i>	Mechanical fault.	Check the rear bearings or pulleys are not blocked (otherwise seek help from the nearest service centre). (REPLACE REAR BEARINGS AND/OR PULLEYS)
<i>Tarpaulin movement is sluggish.</i>	Distorted tarpaulin bows.	Check the bows are not "bent" and re-shape them if necessary, aligning them all to the same width (otherwise seek help from the nearest service centre). (REPLACE DAMAGED BOWS)
Tarpaulin movement is sluggish.	Metal tension cables too tense.	Loosen the tension using the adjustment screws (fig. 8-9).
Tarpaulin movement is sluggish.	Metal tension cables sliding on the front pulleys.	Check the metal tension cables and pulleys are not greased or lubricated and clean if necessary.

INTEGRATION TO THE ASSEMBLING AND USE INSTRUCTIONS - ALL VERSIONS

**ADHESIVE LABELS
WITH INSTRUCTIONS FOR USE OF TARPULIN SYSTEM CABRIOLE'**

Every tarpaulin system " CABRIOLE' " that is assembled by a service partner or by the final user (and in this case the CABRIOLE is delivered by the company CRAMARO TS S.r.l. as assembling kit) is equipped with ADHESIVE LABELS that resume the most important INSTRUCTIONS FOR USE of the system.

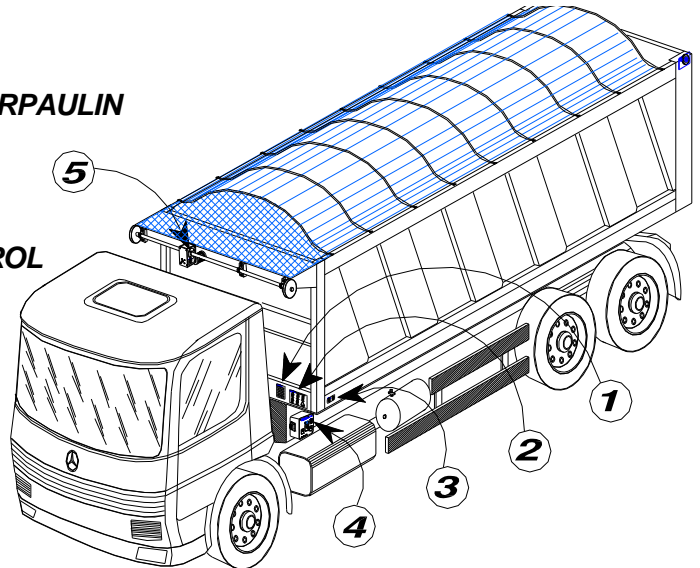
EVERY TARPULIN SYSTEM is delivered with the above-mentioned **ADHESIVE LABELS** that are integral parts of the kit like the **INSTRUCTIONS FOR USE**
So from the moment of the assembling on **"EVERY TARPULIN SYSTEM"**

MUST CLEARLY SHOW

All the adhesive labels with the instructions for use of the tarpaulin system.

POSITION OF THE ADHESIVE LABELS

- 1) **IT IS STRICTLY FORBIDDEN**
- 2) **INSTRUCTIONS FOR USE OF THE TARPULIN SYSTEM** (6 notes)
- 3) **ANCHORAGE OF THE AUTOMATIC SIDE HOOKS** (2 notes)
- 4) **PROTECTION OF THE PANEL CONTROL FROM THE DIRECTLY SPRAYED WATER** (1 note)
- 5) **PROTECTION OF THE MOTOR FROM THE DIRECTLY SPRAYED WATER** (1 note)



IMPORTANT: The **NON – APPLICATION** of the adhesive labels involves automatically **the loss of the WARRANTY** of the company **CRAMARO TS S.r.l.** that will not be responsible for possible damages to persons or things, due to the non – observance of the described instructions for use.

INTEGRATION TO THE ASSEMBLING AND USE INSTRUCTIONS - ALL VERSIONS

ADHESIVES

NON INDIRIZZARE GETTI D'ACQUA
DO NOT DIRECT JETS OF WATER DIRECTLY ON THE TARPAULIN
NE PAS LAVER AU JET D'EAU
KEINE WASSERSTRAHLEN DIREKT AUF DAS SYSTEM RICHTEN
NO DIRIGIR MANGUERAS DE AGUA
NÃO LAVAR COM JATO DE ÁGUA

COL: 400000000
 Adhesive labels for the Cramaro TS S.r.l. system. The labels are made of self-adhesive paper and are intended for use on the tarpaulin. They are not to be used on any other surface.

LEGGERE ATTENTAMENTE LE SEGUENTI ISTRUZIONI PRIMA DELL'UTILIZZO DEL SISTEMA DI COPERTURA.
READ THE FOLLOWING INSTRUCTIONS CAREFULLY PRIOR TO USE THE TARPAULIN.
LIRE CET AVERTISSEMENT AVANT D'UTILISER LE SYSTEME DE BÂCHAGE.
DIE FOLGENDEN BEDIENUNGSANWEISUNGEN BEVOR DIE VERDECKSBETÄTIGUNG DURCHGELESEN
ADVERTENCIA PARA EL USO DEL SISTEMA
ADVERTENCIA PARA USO DO SISTEMA DE COBERTURA.

NON AZIONARE LA COPERTURA DURANTE LE OPERAZIONI DI MANUTENZIONE.
DO NOT RUN THE SYSTEM DURING MAINTENANCE OPERATIONS.
NE PAS ACTIONNER LE SYSTEME PENDANT LES OPERATIONS D'ENTRETIEN.
VERBODEN HET VERDECKSYSTEM NIET WÄRENDE DEEN WARTUNGSWERKEN BETRIEVEN.
NO PONER EN MARCHA LA COBERTURA DURANTE EL MANTENIMIENTO.
NÃO UTILIZE O SISTEMA DE COBERTURA DURANTE MANUTENÇÃO.

NON INTRAPASARE O LUBRIFICARE PULLEGGIE E CAVI.
DO NOT OMPRESS OR LUBRICATE PULLEYS AND CABLES.
NE PAS ENTRAVER OU LUBRIFIER POULEES ET CABLES.
ANTREBSNOLLE UND ANTRIEBSSELLE NICHT PETTEN ODER SCHMERNEN.
NO ENTRAPEAR O LUBRIFICAR POLEAS Y CABLES.
NÃO ENTRAPEAR OU LUBRIFICAR AS POLIAS E OS CABOS.

NON CAMMINARE SULLA COPERTURA E NON UTILIZZARLA PER LIVELLARE IL CARICO.
DO NOT WALK ON THE SYSTEM AND DON'T USE IT TO LEVEL THE LOAD.
NE PAS MARCHER SUR LA BACHE ET NE PAS L'UTILISER POUR NIVELLER LE CHARGEMENT.
NICHT AUF DEM VERDECKSYSTEM LAUFEN UND NICHT PLANEN DEN.
NO CAMINHAR SOBRE A COBERTURA Y NO USAR PARA NIVELAR LA CARGA.
NÃO CAMINHAR SOBRE A COBERTURA, NÃO UTILIZÁ-LA PARA NIVEL DA CARGA.

VERIFICARE SEMPRE CHE I GANCI SIANO CORRETTAMENTE ANCORATI.
ALWAYS CHECK THE HOOKS ARE CORRECTLY ANCHORED.
TOUJOURS CONTROLER QUE LES GANCHES SOIENT BIEN POSITIONNÉS.
DIE KORREKTE POSITIONIERUNG DER VERHÄNGELUNGSHÄKCHEN PRÜFEN.
CONTROLAR SIEMPRE LA POSICIÓN CORRECTA DE LOS GANCHOS.
SEMPRE VERIFIQUE O POSICIONAMENTO CORRETO DOS GANCHOS.

APRIRE COMPLETAMENTE LA COPERTURA PRIMA DELLE OPERAZIONI DI CARICO / SCARICO.
FULLY OPEN THE SYSTEM BEFORE LOADING / UNLOADING OPERATIONS.
OUVRIR COMPLÈTEMENT LE BÂCHAGE AVANT DE CHARGER ET DÉCHARGER.
BEI BE- UND ENTLADUNG MUSS DAS VERDECK VORNE KOMPLETT ZUSAMMENGEZOGEN SEIN.
SIEMPRE ABRIR COMPLETAMENTE LA COBERTURA ANTES DE CARGAR Y DESCARGAR.
SEMPRE ABRIR COMPLETAMENTE A COBERTURANTES DA CARGA E DESCARGA.

ATTENZIONE: NON VIAGGIARE IN CASO DI FORTE PUFFATE DI VENTO.
WARNING: DO NOT DRIVE WITH STRONG WIND.
ATTENTION : EN CAS DE FORT VENT, NE PAS UTILISER.
ACHTUNG: NICHT BEI STARKEM WIND ODER STURM FAHREN.
ATENCIÓN: NO VIAJAR EN CASO DE FUERTES PAFAGAS DE VIENTO.
ATENÇÃO: NÃO VIAJAR EM CASO DE PORTES PAFAGAS DE VENTO.

LEGGERE ATTENTAMENTE IL MANUALE D'USO. PRIMA DELL'UTILIZZO DEL SISTEMA DI COPERTURA LEGGERE ATTENTAMENTE IL MANUALE D'USO.
READ CAREFULLY THE USER MANUAL BEFORE USING THE TARPAULIN.
LIRE ATTENTEMENT LE MANUEL D'UTILISATION DU SYSTEME DE BÂCHAGE.
DIE BEDIENUNGSANLEITUNG VOR DER BETÄTIGUNG DES VERDECKSYSTEMS DURCHLESEN.
LEER EL MANUAL DE OPERACIONES ANTES DE UTILIZAR LA COBERTURA LEA O MANUAL ANTES DE USAR A TAMPÁ.

adesei cabinet de pozitionare sa casare lato controla o manija revolutiomb
ces adesei cabinet sont à placer sur la case de côté de la créteil de de la manija
adesei la "cabinet" se locale on the body either on panel control or on the handle
adesei la "cabinet" de auf dem chassis, auf der seite der elektrosteuerung oder der handgriffe anzubringen ist
adesei do controla "cabinet" para ser colocado no lado do cabo do painel de controle ou da manija



TS s.r.l.

