

CRAMARO

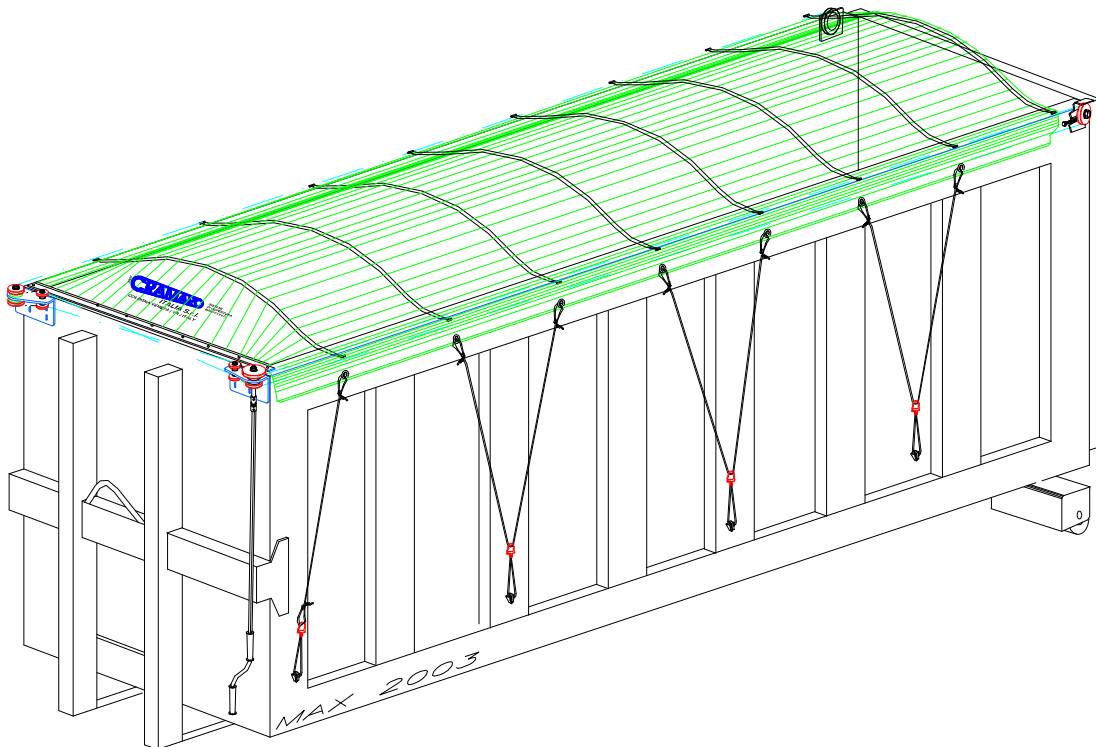
TS S.r.l.

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“TARPAULIN FOR SKIP LOAD CONTAINER “

- SCARR-LAB EVO 6 ANT -



**TECHNICAL SPECIFICATIONS
ASSEMBLY AND MAINTENANCE INSTRUCTIONS**

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Manuale n° MSC002-IT-ED04 – data 15/06/18

TARPAULIN SYSTEM FOR SKIP LOAD CONTAINERS USED FOR TEMPORARY STORAGE OF ANY KIND OF WASTE.

SCARR-LAB is a tarpaulin system which combines the best features from similar tarpaulin systems available on the market, which have been subjected to in-depth testing for years.




SCARR-LAB can be described using a few basic but important adjectives:

1. **SIMPLE** like the well-known “ CABRIOLE’ “ system, the tarpaulin is supported entirely by bows which run directly along the sides of the body
2. **FUNCTIONAL** operated exclusively manually, highly user-friendly, without complex mechanical components requiring onerous maintenance
3. **ECONOMIC** reduced structure and simplified movement which requires no maintenance
4. **LIGHT** structure reduced to minimum weight with only essential components
5. **VERSATILE** can easily be used for almost all bodies on the market because of the lack of front transmission shaft, which could interfere with various components on different bodies

IN OTHER WORDS, **SCARR-LAB** CAN QUITE SIMPLY BE DEFINED AS

ESSENTIAL ----- You cannot take out anything, **WHATEVER YOU COULD TAKE OFF** has already been done

>>>> IMPORTANT <<<<<

1.   THE SYSTEM MUST BE USED EXCLUSIVELY BY PERSONNEL FAMILIAR WITH ITS FUNCTIONING AND AWARE OF THE POTENTIAL DANGERS CONNECTED TO ITS USE.
2.  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

PRESENTATION OF TARPAULIN SYSTEM

The **SCARR-LAB EVO 6** tarpaulin system basically consists of:

1. like the well-known CABRIOLE' system, a series of SHAPED BOWS made of tubular steel with elastic TIES at their ends. A STRANDED STEEL CABLE runs inside these acting as TRACTION element and playing a GUIDING role for the tarpaulin at the same time.
2. As mentioned in point 1, the tarpaulin is supplied with a **Ø 6 mm STRANDED STEEL CABLE** in a **SINGLE PIECE**.
3. Two front shaped and bended plates, one with a **double Ø 100 mm PULLEY** and the other with a **Ø 120 mm PULLEY** placed over a Ø 100 mm PULLEY work together and contemporarily as TRACTION, DEVIATION AND CROSSING of the bow driving cable. They can easily be bolted or soldered onto the upper FRONT ANGLE of the BODY.
4. Viewing from the rear, on one side of the body a plate type **REVERSE TENSIONER** (with push-on screw) with **Ø 100 PULLEY** , whilst on the other side a fixed standard **Ø 100 PULLEY** is fitted.
5. **A P.V.C. tarpaulin (or NEOPRENE only on request) INCLUDING ACCESSORIES** for assembly and anchorage to the BODY (**side CABLES and ELASTICS**) (**COBRA** etc)

NECESSARY CONDITIONS

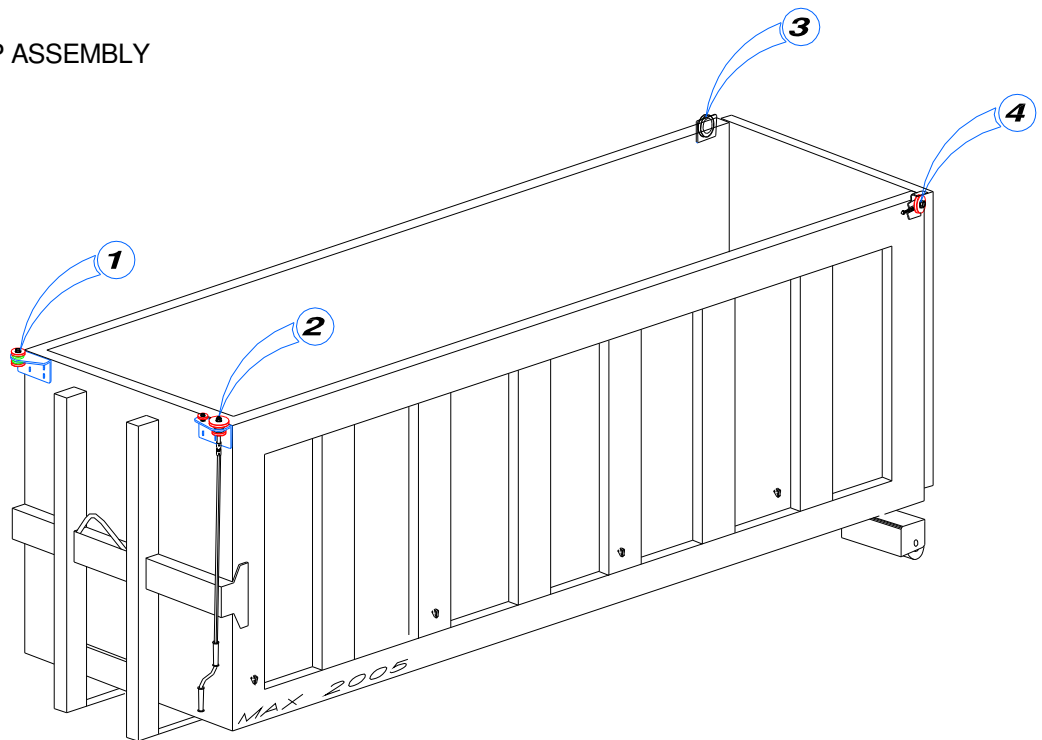
1. The maximum TARPAULIN **WIDTH** is THE SAME as for conventional CABRIOLE' tarpaulins (MAX 2550 mm).
2. The maximum **LENGTH** is established to cover bodies NO LONGER than 6.5 – 7 m (beyond this length the tarpaulin retracting and opening process may be SLOW and therefore inconvenient).
3. **SHAPE** and frame of FRONT EDGE of the body or SIDE EDGES which can be opened, thus impeding the running of the bows.
4. Exclusively **MANUAL OPERATION**.

ASSEMBLY OPERATION

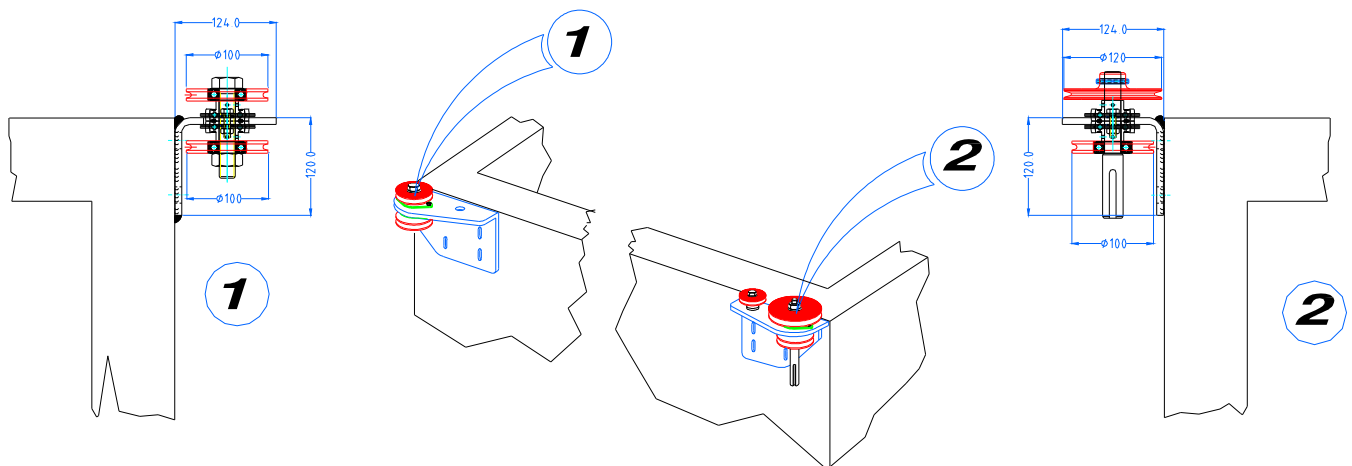
The tarpaulin system can be assembled very quickly and requires no special preparation, simply consisting of the following few steps:

1. **Positioning and fixing** the **STIRRUPS** with **Ø 100 DOUBLE PULLEYS** for **FRONT DEVIATION** and **CROSSING** (PIECES 1 and 2)
2. **Positioning and fixing** the **PLATES** with **Ø 100 PULLEY** and of the **REAR TENSIONING PLATE** (PIECES 3 and 4)
3. Positioning and fixing of **TENSION HANDLE** to the shaft of the front **Ø 120** pulley.

FIG 1) FIXED GROUP ASSEMBLY



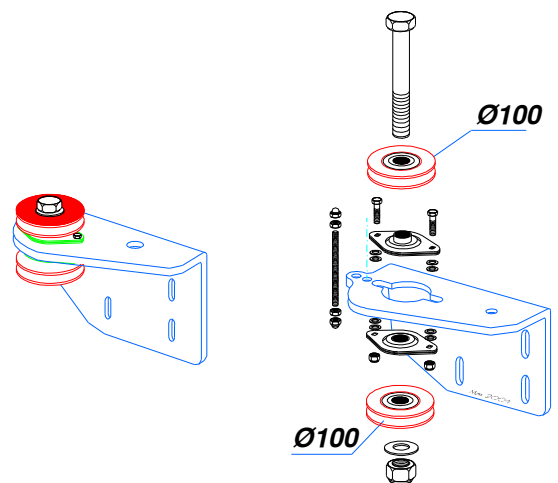
ASSEMBLY OF FRONT FIXED GROUPS



RIGHT GROUP (DX)

The **RIGHT GROUP (DX)** is comprised of :

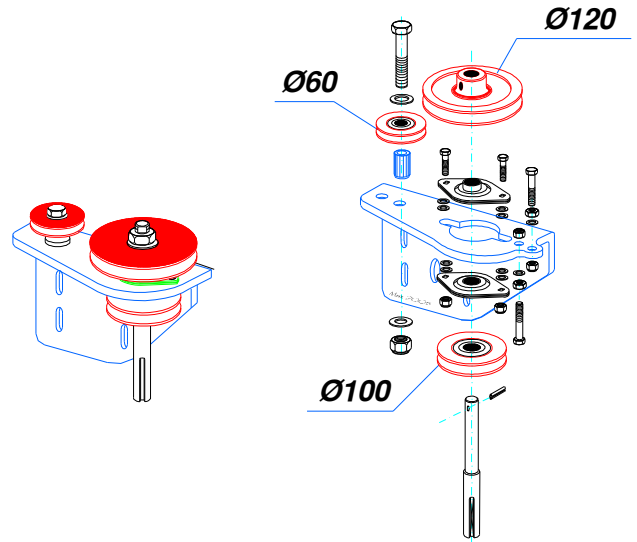
- 1) **L-shaped plate** with eyelets to allow fastening with screws and nuts , (NOT SUPPLIED)
- 2) **2 Ø 100 mm PULLEYS** (STD CABRIOLE')
- 3) **2 bearing balls** with support of pressed steel to be placed on and fixed to the plate
- 4) **1 screw type TE M 20** to assemble the elements.
- 5) **1 screw type TE M 8** to hold the cable in place



LEFT GROUP (SX)

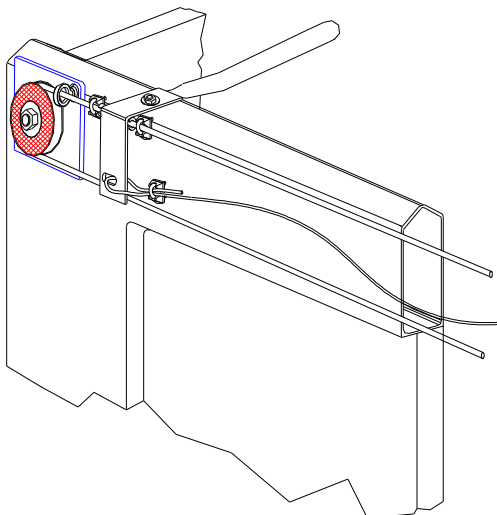
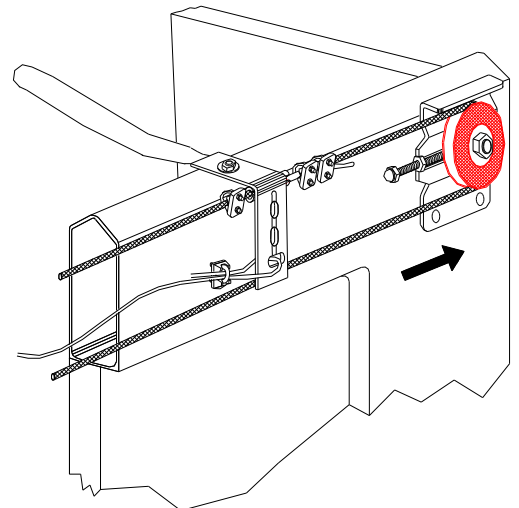
The LEFT GROUP (SX) is comprised of :

- 1) L-shaped plate with eyelets to allow fastening with nuts and screws , (NOT SUPPLIED)
- 2) 1 Ø 100 mm PULLEY (STD CABRIOLE')
- 3) 1 Ø 120 PULLEY (for CABLE TRACTION)
- 4) 2 bearing balls with pressed steel support to be placed on and fixed to the plate.
- 5) 1 Ø20-Ø25 hub to assemble the elements and connect to the operating handle
- 6) 2 TE M 8 screws to hold the cable in place



On the backside the following elements are present:

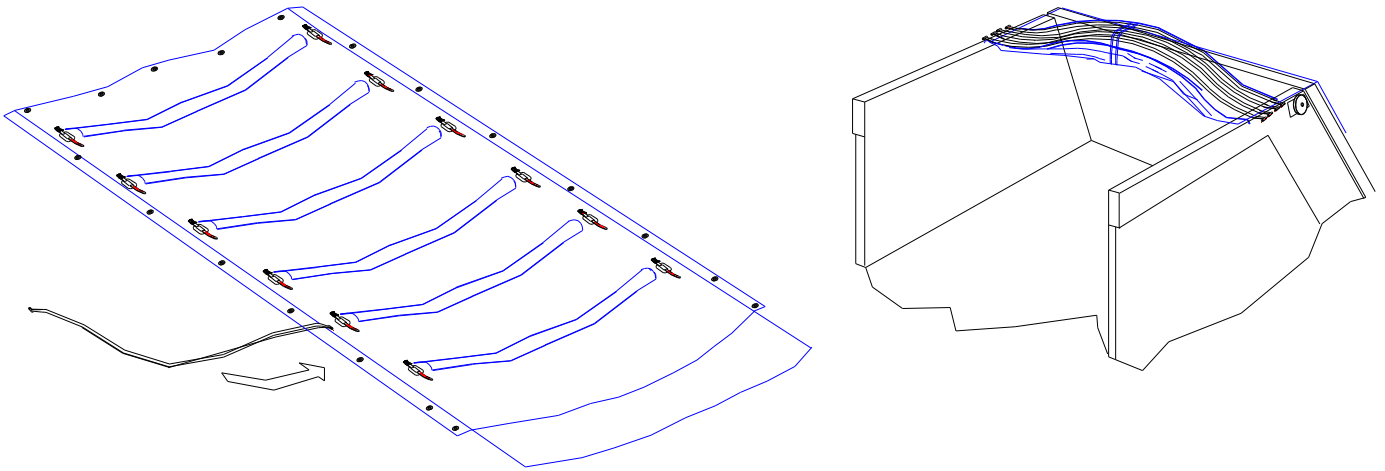
on the **RIGHT (DX)** side, with the **Ø 120 pulley**, a **Ø 100 pulley** is to be fitted on the special **TENSIONER WITH PUSH-ON SCREW** and through 3 clamps the **SINGLE CABLE** gets **connected** and the last bow gets fastened to the cable.



On the **LEFT (SX)** side with the **Ø 100 pulley**, a standard plate with fixed **Ø 100 mm pulley** is fitted and the last bow gets fastened to the **Ø 6** cable by means of two clamps.

4. Assembly of the TARPAULIN with BOWS (as for CABRIOLE' tarpaulin)

ASSEMBLY OF TARPAULIN AND POSITIONING OF PACK FOR PASSAGE OF TENSION CABLE



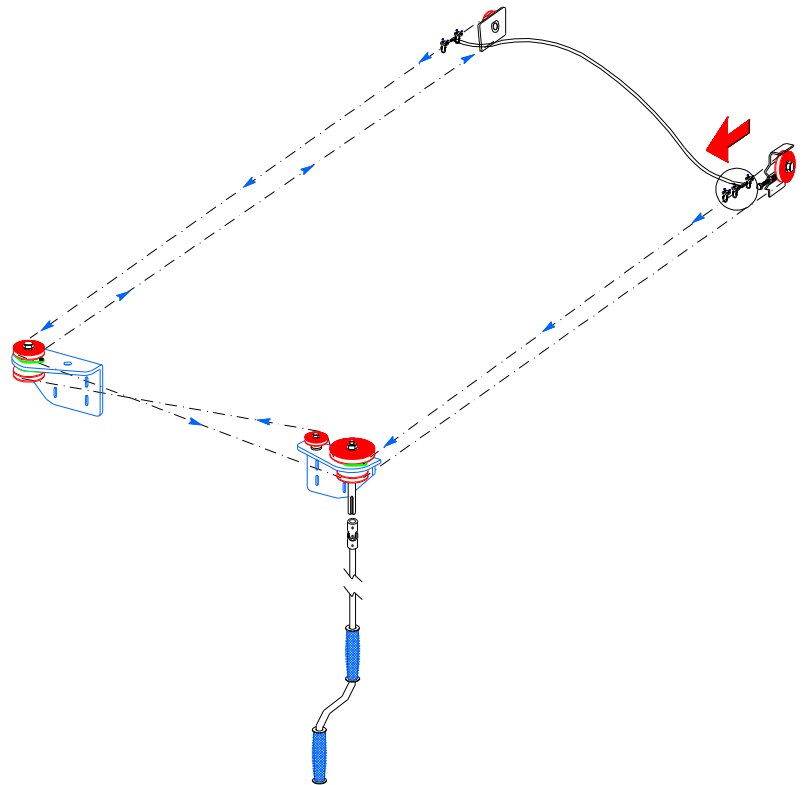
5. Insert CABLE into the ties on the bows and pass IN SEQUENCE on the diverter and TENSION pulleys.

TENSION CABLE ROUTE

N.B. THE BOW SHOWN IN THE DIAGRAM IS THE LAST ONE WHERE THE TENSION CABLE IS FIXED both on the side where the cable gets JOINT and on the the other side where the cable is FIXED by means of two clamps

N.B. THE OTHER BOWS WHICH MAKE UP THE TARPAULIN SYSTEM STRUCTURE ARE NOT SHOWN TO MAKE IT EASIER TO UNDERSTAND THE ROUTE OF THE CABLE THROUGH THE DIFFERENT PULLEYS.

On the front side the cable CROSSES so that the TWO UPPER BRANCHES of the cable move the same direction.



SCARR-LAB TENSION CABLE OVERALL LENGTH

= LENGTH OF THE BODY X 4 + 3 m t (for handle) + 6 m t (for front crossing)



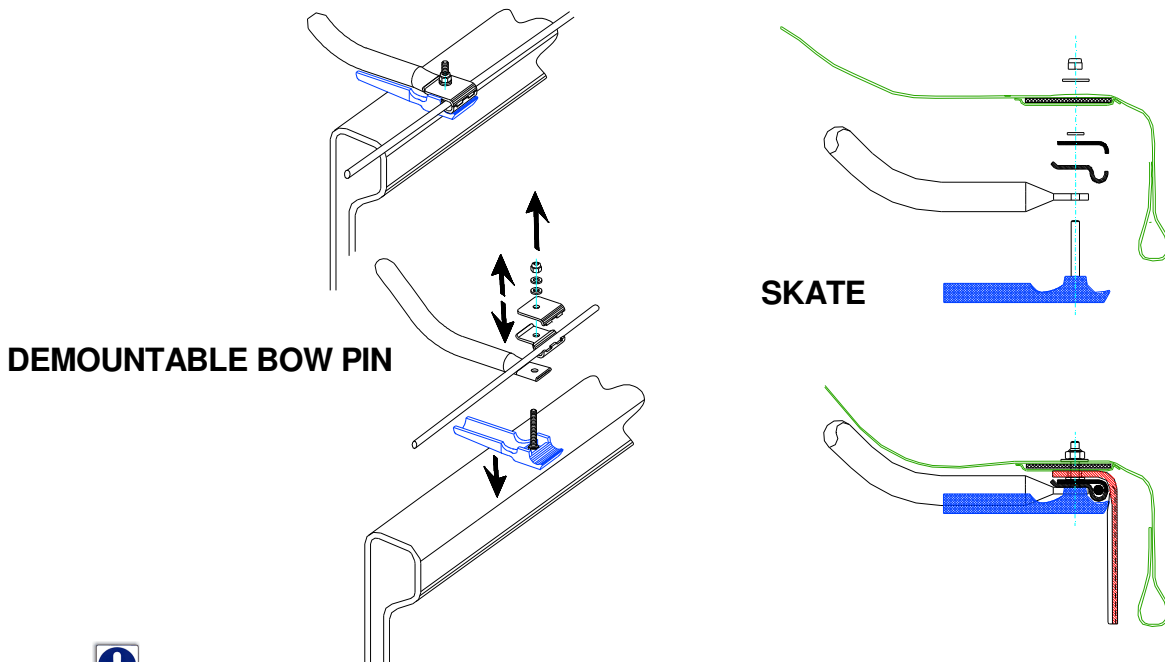
6. Stretching and fixing of tarpaulin on BODY using the special ALU PLATE (20 mm, thickness 3 mm) on FRONT UPPER PART of BODY (FIG 7).
7.  The bows should stick out equally to the right and left of the pockets. Check the exact measurements for each bow.
8.  **On one side** make a hole in the tarpaulin corresponding to the reinforced part in TEFLON and to the existing hole at the end of the bows. **Ensure that the polyethylene plate is in the position shown BELOW.**

DIAGRAM FOR ATTACHING POLYETHYLENE PLATE / TARPAULIN SLIDER







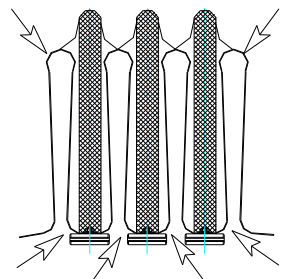
9.  From this side, fasten the bows and tarpaulin sliders to the tarpaulin with countersunk screws, **keeping the screw heads below the bow** and fastening them with nuts.
N.B. THIS PROCEDURE MUST BE CARRIED OUT FIRST ON ONE SIDE AND ONLY THEN ON THE OTHER. IT MUST NEVER BE CARRIED OUT ON BOTH SIDES SIMULTANEOUSLY.
10.  With each bow still centrally positioned in its pocket on the tarpaulin, pull the tarpaulin tight by hand and puncture the other side of the tarpaulin, keeping the polyethylene plate in the position shown ABOVE.
11.  Fasten the bows **on this side** to the tarpaulin with countersunk screws, **keeping the screw heads below the bow** and fastening them with nuts.
12.  Follow the enclosed diagram to attach the side tarpaulin sliders at the same time as the bows and as the **polyethylene plate**

DIAGRAM FOR ARRANGING AND PRE-SHAPING THE COMPACT TARPAULIN

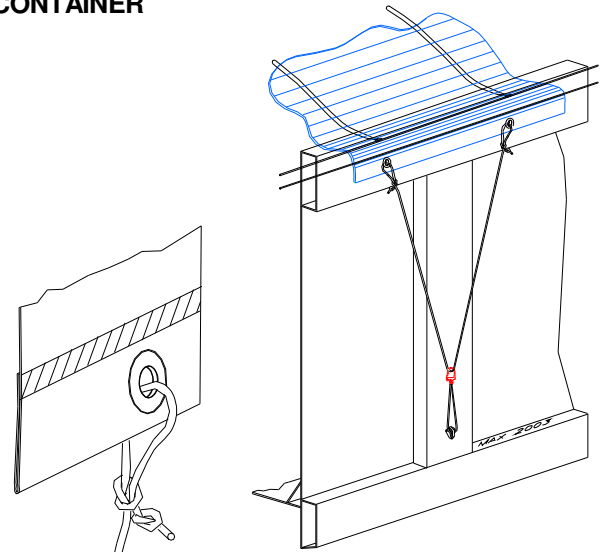
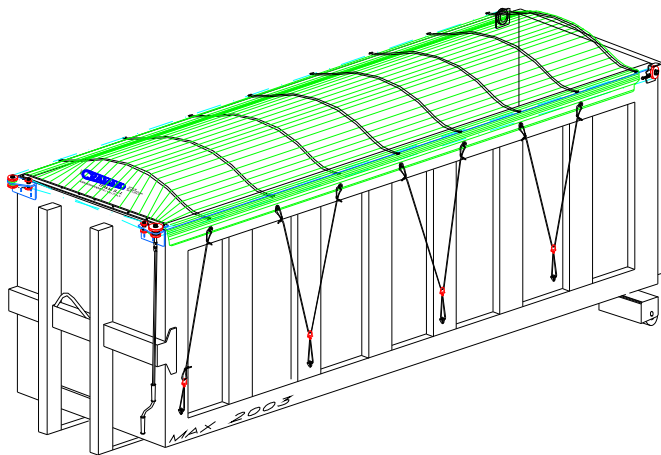
The HDPE plate in the side pockets on the tarpaulin forces the fabric to take shape as shown on the right. .
It is made of extremely hard-wearing and long-lasting material.
It is, however, liable to break after a period depending on the disparate working conditions it is subjected to, and must be replaced.



This is an easy procedure involving undoing the screws which fasten it to the bow ends

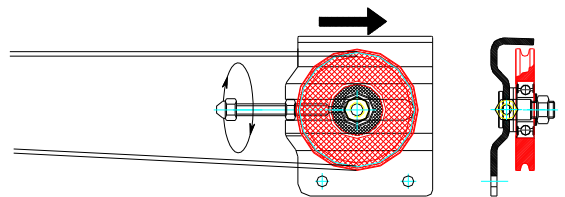
IF NECESSARY SHAPE THE TARPULIN BY HAND AT THE POINTS SHOWN

DIAGRAM OF ASSEMBLED TARPULIN ON STD SKIP LOAD CONTAINER



13. Fixing SIDE and REAR tarpaulin anchorage CABLES

14. Setting tension of the tension cable using the adjustment screw on the rear plate with TENSIONER with PUSH-ON SCREW.

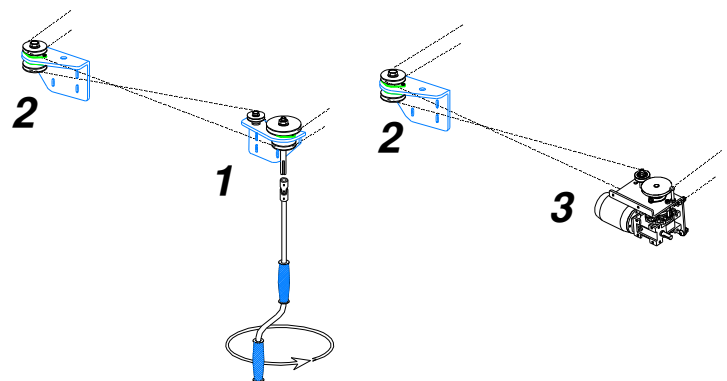


ELECTRIC OPERATED

The **SCARR-LAB** tarpaulin could be realized also in electric version.

The **ELECTRIC** moving it is realized SUBSTANTAILLY IN TWO WAYS:

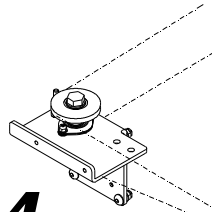
A) In the case of **TRANSFORMATION of the equipment on a container already set up** with MANUAL EQUIPMENT, the ELECTRIC ONE it's realized applying instead the MANUAL ONE, set FRONTLY at the LEFT side in the anterior part of the container, an apposite TENSION GROUP that included both the GEARED MOTOR and the TENSION PULLEYS. The RIGHT lateral TENSION GROUP remains in the same position.



- 1) MANUAL OPERATED GROUP (LEFT)
- 2) CABLE TRACK GROUP (MANUAL) (RIGHT)
- 3) ELECTRIC OPERATED GROUP (LEFT)

B) In the case of a **NEW APPLICATION** both groups, the TRACK one and the TENSION cable one are of a DIFFERENT type of the MANUAL operated.

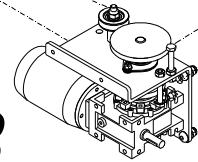
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- 3) **ELECTRIC OPERATED GROUP (LEFT)**
- 4) **TENSION CABLE GROUP (ELECTRIC) (RIGHT)**

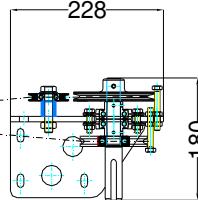
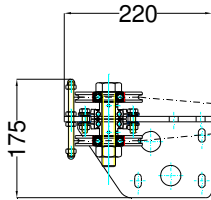
The **ELECTRIC** operated group do has dimension slightly different
 Compared to the **MANUAL** operated group

3

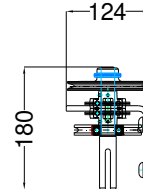


MANUAL OPERATD GROUP

2



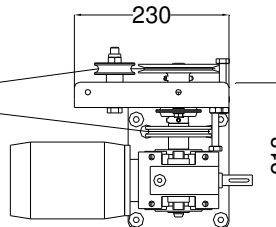
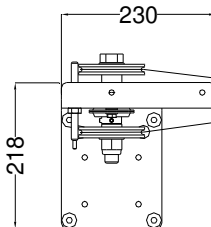
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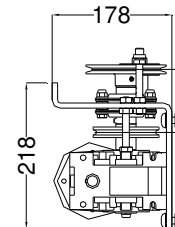
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ELECTRIC OPERATED GROUP

4



3



3

In both cases with the choice of electric operated it's necessary to foresee the set up of **CONTROL PANEL** and **electric CONTACTS**.

MAINTENANCE NOTES

Tarpaulin MAINTENANCE is extremely simple. Only a few steps need to be taken at time intervals which wholly depend on the type of work for which the BODY is used.

1. **VISUAL CHECK** OF THE STATE OF THE TENSION CABLE (which must not be frayed to the extent of impeding the fluid movement of the tarpaulin) and must run freely **WITHOUT SCRAPING** either against the fixed parts of the body or itself at any point.

N.B. THE TENSION CABLE AND PULLEYS MUST NOT BE GREASED OR LUBRICATED FOR ANY REASON (IF THE CABLE SLIPS ON TO THE TENSION PULLEY, THE TARPAULIN CAN NEITHER MOVE FORWARD NOR BACK).

2. **VISUAL CHECK** OF THE STATE OF THE TARPAULIN (which must not have TEARS or abrasions which would affect the WATERPROOF qualities of the tarpaulin).
3. **IN-DEPTH VISUAL CHECK** OF THE STATE OF THE SIDE AND REAR TARPAULIN ANCHORAGE CABLES (they must not be torn or missing from the tarpaulin, as CRAMARO TS has no responsibility in the event of the tarpaulin COMING OFF AND FLYING AWAY either during TRANSIT or when the body is STOPPED).
4. **VISUAL AND FUNCTIONAL CHECK** OF THE STATE OF THE PULLEYS (they must **ROTATE** freely and not have **DENTS** which would endanger the integrity of the cable running above).

CARACTERISTIC STD TARPAULIN

FRONT STIRRUPS made of cold galvanised and pressed LAMINATED FE 360

REAR STIRRUPS made of cold galvanised and pressed LAMINATED FE 360

SUPPORTING BOWS with hot galvanised steel tube Ø 22 mm with 4 AVAILABLE HEIGHTS

(measured in the centre) >> A) **200** mm >>> B) **300** mm >>>> C) **400** mm >>>>> D) **500** mm

STANDARD P.V.C. CANVAS or (upon request) with **ADR** certification with approximate weight of **650 gr/mq**

ONLY AVAILABLE IN VERSION TYPE >>> C <<<

N° 3 AVAILABLE COLOURS



GREY (Ral 7038)



RED (Ral 3002)



GREEN (Ral 6026)

ALL THE CONNECTING AND FIXING BOLTS provided are cold zinc-coated.

OPTIONS

- **TARPAULIN** made from " **NEOPRENE** " FABRIC (HEAT-PROOF)



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- **PROTECTION CASE FOR THE FRONT MECHANICS** (FOR COVERING STEEL CABLE AND FRONT PULLEYS)

CRAMARO TS reserves the right to modify its products in order to improve them at any time and without the obligation to give prior notice.

AUTHORIZED DEALER

