CB-MATIC XSF-XSM 15.10

SAFETY INSTRUCTIONS FOR USE AND MAINTENANCE

MACHINE No W000277601 - W000277602



EDITION : EN REVISION : D DATE : 05-2020 Instructions for use

REF: **8695 6040**

Original instructions



Thank for the trust you have expressed by purchasing this equipment, which will give you full satisfaction if you follow its instructions for use and maintenance.

Its design, component specifications and workmanship comply with applicable European directives.

Please refer to the enclosed CE declaration to identify the directives applicable to it.

The manufacturer will not be held responsible where items not recommended by themselves are associated with this product.

For your safety, there follows a non-restrictive list of recommendations or requirements, many of which appear in the employment code.

Finally we would ask you kindly to inform your supplier of any error which you may find in this instruction manual.

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REVISIONS

REVISION B 03/10

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REVISION C 07/10

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REVISION D 05/20

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A - IDENTIFICATION

Please enter the number of your machine in the following box.

Quote this information in all correspondence.





B - SAFETY INSTRUCTIONS

For general safety instructions, please refer to the specific manual supplied with the equipment.



AIRBORNE NOISE

Please refer to the specific manual supplied with the equipment.

SPECIFIC SAFETY INSTRUCTIONS

FIXED SHAFT BOOM.



It is essential to anchor the unit to the ground for complete operator safety.

MOTORIZED CARRIAGE BOOM.

Before use, check that the antitilt clamps are properly reassembled.

Make sure that the mechanical stops are mounted at the end of the rails.



Do not stand on or place any load on the "full-stop" (bumpers). Do not hinder their movement.

OPERATING CONDITIONS

Nothing must be placed on tracks.

Before using the machine, check that all the protection elements are installed.

Do not remain under the arm of the boom.

The position of the operator is in front of the control console. The machine is designed to operate with only one operator

Make sure that during the displacements no part of the boom that is not protected by "full-stop" comes into contact with an obstacle.

Any work (maintenance, troubleshooting) at heights on the

boom must be done with an appropriate personnel lifting device.



8695 6040 / D B - SAFETY INSTRUCTIONS

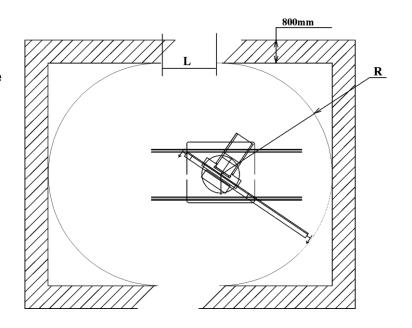
Check that no part of the machine can near an obstacle placed at less than 500mm according to safety standard NF EN 349

REQUIREMENT: the operator must have a working space of at least 800 mm in width according to safety standard NF EN 547-1-3.

We recommend marking out the floor as shown opposite.

Note: Dimension R (max. dimension with arm full out) is to be measured. Dimension L is determined according to the number of tracks.

(Layout for unequipped boom. See specific drawing supplied for equipped booms)



SAFETY MECHANICAL DEVICE

A mechanical device called « security screw » allows to control the wear of the nut of the trapezoidal screw. When the wear is important, a pin brocks and bloack the security screw.



Do not exceed the admissible load at the end of the arm(see dimension table)

Before use for welding, lock shaft rotation with the fastening screws (max. Clamping torque : 50 mN)



C - DESCRIPTION

These multi-process column nadn boom is intended for positioning and displacing a welding or cutting automatic heads in order to serve a positioner, a rotator, a welding lathe etc...

2 C&B models:

1°) CB-MATIC 15x10 XSF C&B fixe with turning shaft REF. W000277601

2°) CB-MATIC 15X10 XSM C&B mobile with turning shaft REF. W000277602

Railway

Ref: W000315250 Length. **6m Ref**: W000315251 Length. **3m**

OPTIONS:

- Option motorized arm lifting Ref: W000277604

Addition a motoreducer instead of the trapezoidal screw.

- Option motorized arm deplacement Ref : W000277603

Motor A77 – speed 12,3 to 307 cm/mn

- Option tachy Ref: W000157060

To be mounted on the carriage motorization for a speed 23 to 570cm/mn

NOTA:

The lift and arm motorized options are assembled exclusively in the factory.



8695 6040 / D C - DESCRIPTION

1 - VERTICAL SHAFT

The shaft consists of a machined steel profite with on its lower part a base plate supporting a ball-bearing ring Rep. (9).

The unit is either mounted on a fixed base (models XSF) or on a motorized carriage (models XSM).

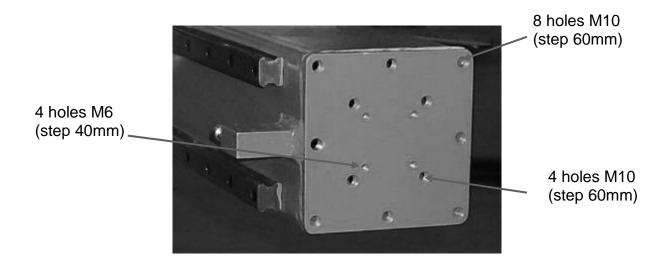
On the shaft, there is mounting 2 ball rail bearing Rep.(1) to insure the movement of the slide. On the top part of the shaft, there are 2 holes for the slings.

The vertical movement of the arm is done by a trapezoidal screw Rep.(2) actionned by a crank Rep.(3). This screw is protected by a cover and one double lip-joints.

At the base of the shaft there are two angle cleats designed to take the generator support arms (max. load 500 kg).

2 - HORIZONTAL ARM

This arm consists of a CTP1 steel beam, length 1.5M, section 140 x 140 mm Rep.(7).



The section is sufficient to ensure leadthrough for electrical cables and pipes feeding the welding head from the inside.

The end of the arm includes drilled holesas follows

60x60 - 4 M10 holes

40x40 - 4 M6 holes

60x60 - 8 M10 holes.



C - DESCRIPTION 8695 6040 / D

3 - GUIDE BLOCK

The slide (4) is used to guide the shaft and the arm beams in relation to each other using ball bearing guide rollers (B1).; (4 ball bearings for the shaft, 4 ball bearings for the arm).

Arm travel is effected manually by means of a reducer (5) (wheel and screw) with a circular hand wheel (6).

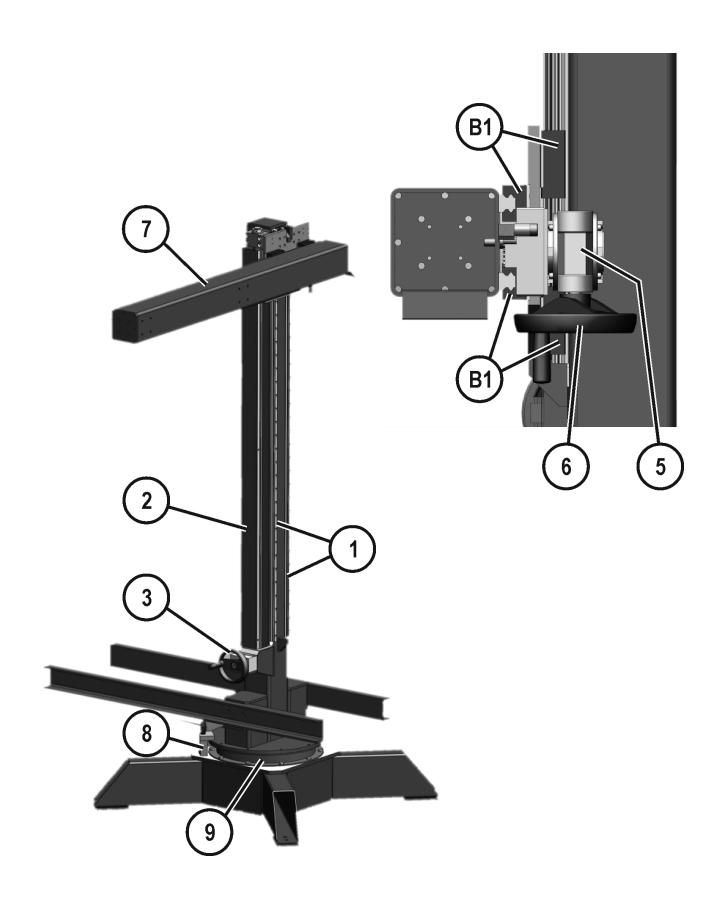
4 - FIXED BOOM SHAFT BASE:

This base receives the shaft ring and consists of mechanically welded crossed tubes.

The locking handle (8) is used to lock the shaft in position.



8695 6040 / D C - DESCRIPTION



C - DESCRIPTION 8695 6040 / D

5 - MOTORIZED CARRIAGE

The carriage is of mechanically welded construction and ensures complete protection of all the mechanical components of the geared motor drive, which are thereby also protected against shocks.

Length: 1500mm Width: 1200mm

The carriage moves along machined rails (C4) using 4 145mm diameter rollers (C1) (rails anchored to the ground).

It is guided by rollers resting against the machined side faces of one of the rails. Two guide rollers are eccentrically mounted in order to eliminate any play.

Anti-tilt clamps (C3) ensure boom/rail safety.



The carriage may be equipped with a front and rear full stop (C2).

The carriage is powered by a clutchless geared motor assembly comprising :

- a 42V DC permanent magnet motor (M4)
- a 3-stage reducer:

1st stage Rep.(M1):

Belt

2nd stage Rep.(M2):

Wheel and screw

3rd stage Rep.(M3):

pinion chain / transmission to a motor axle (mounted on bearings).

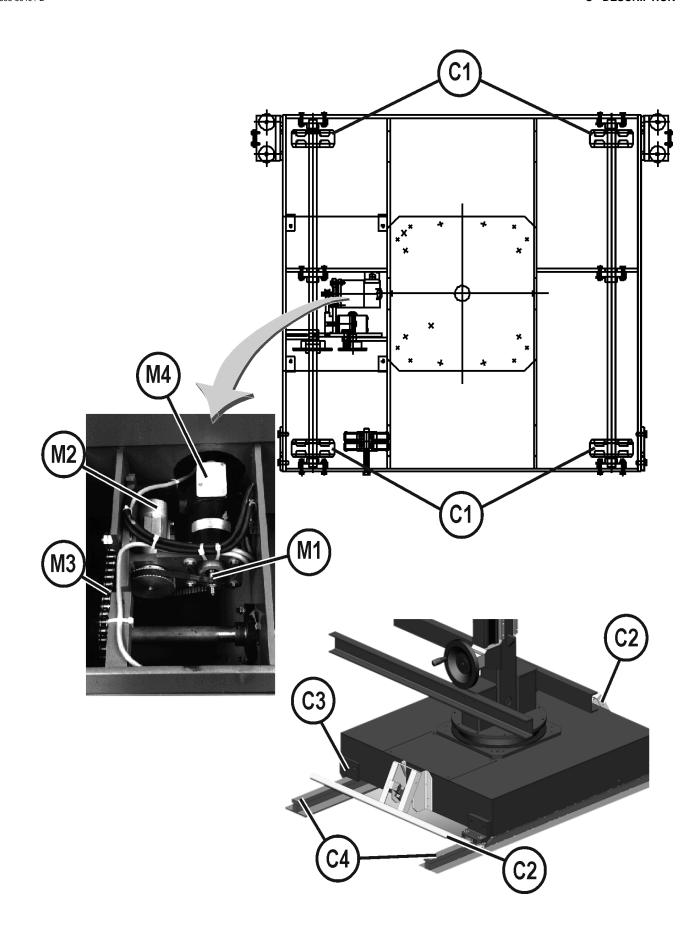
The movement speed is setting from 57 to 570 cm/mn

Motor power 170 W.

The shaft is fixed to the centre of the carriage. Two welding earth points max. 2x300A ensure welding current return via the rails.



8695 6040 / D C - DESCRIPTION





C - DESCRIPTION 8695 6040 / D

6 - COMMON FEATURES

Vertical Arm Travel :	1500 mm
Horizontal Arm Travel :	1000 mm
Manual Arm Rotation :	345°
Load at end of arm :	200 kg
Slide:	Rail ball bearing
CB-MATIC generator support :	
max. generator weight	500 kg

MOTORIZED BOOMS :		
Track base :	1000 mm	
CARRIAGE		
Length :(with full stop)	1500 mm	
Width:	1200 mm	
Height:	205 mm	
Ground clearance : (rail not sunk)	75 mm	
Vitesse de déplacement :	57 à 570 cm/min	
Power supply :	- 24V AC 100VA - 42V AC 400VA Supplied by all generators	

<u>N.B. :</u>

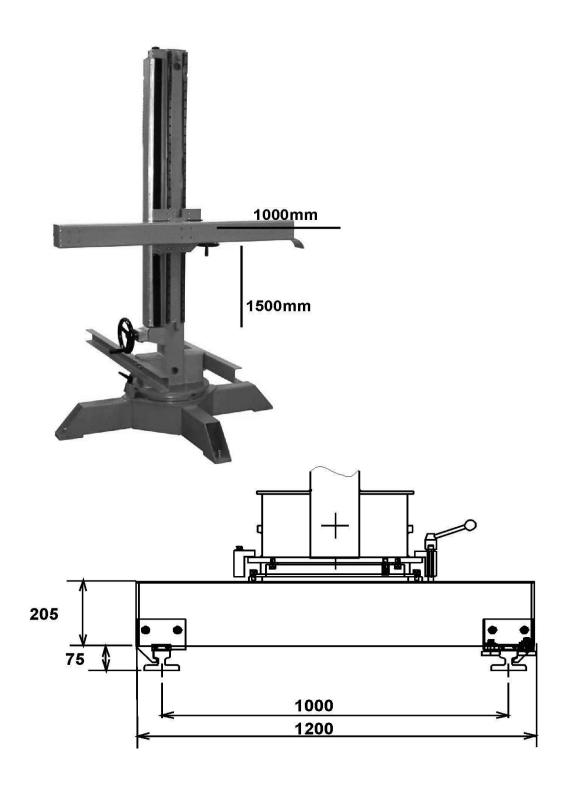
The speed range can be increased from 57 - 570 cm/min.to 23 - 570 cm/min. by adding a tachogenerator ref. W000157060 to the A77 motor.

Motorized booms move on machined rails:

- 1 three-sided rail for carriage guidance
- 1 one-sided rail for carriage support



8695 6040 / D C - DESCRIPTION



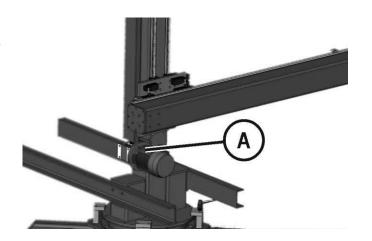


C - DESCRIPTION 8695 6040 / D

7 - OPTION

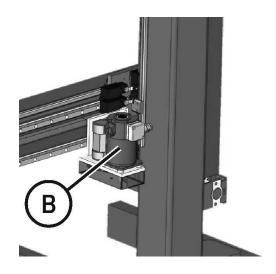
MOTORIZED ARM LIFTING (W000277604)

- This option consists to replace a crank by a beveled gera and a motoreducer of 0,55 Kw (A).
- On the shaft, it's installed a rail with cams and 2 limit switches on the slide.
- ⇒ Maxi lifting speed = 1,2 m/mn



MOTORIZED ARM MOVEMENT (W000277603)

- This option consists to replace a crank with a motor (B) and a belt
- On the arm, it's installed a rail with cams and 2 limit switches on the slide.
- ⇒ Speed movement = 12,3 to 307 cm/mn

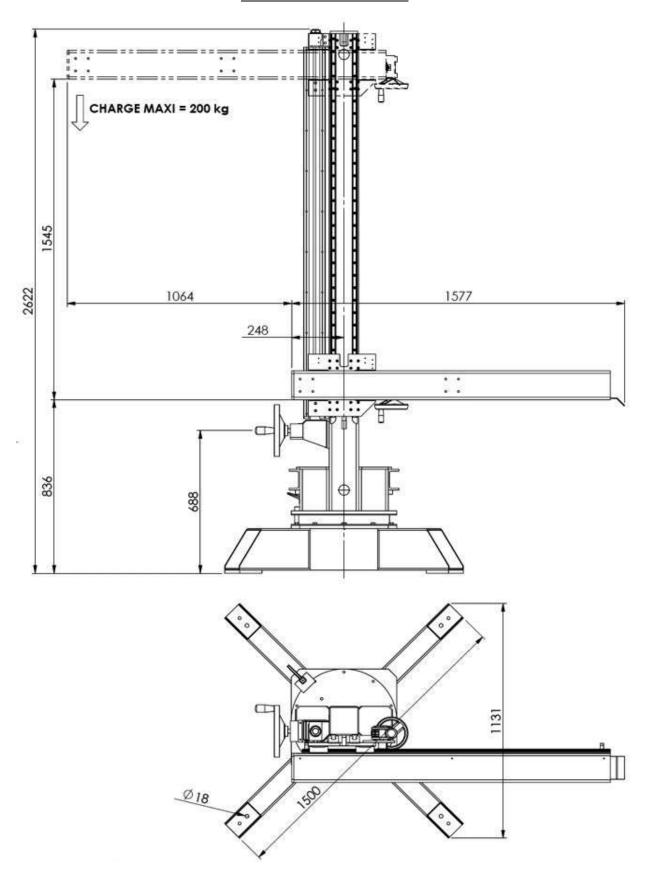




8695 6040 / D C - DESCRIPTION

8 - OVERALL DIMENSIONS

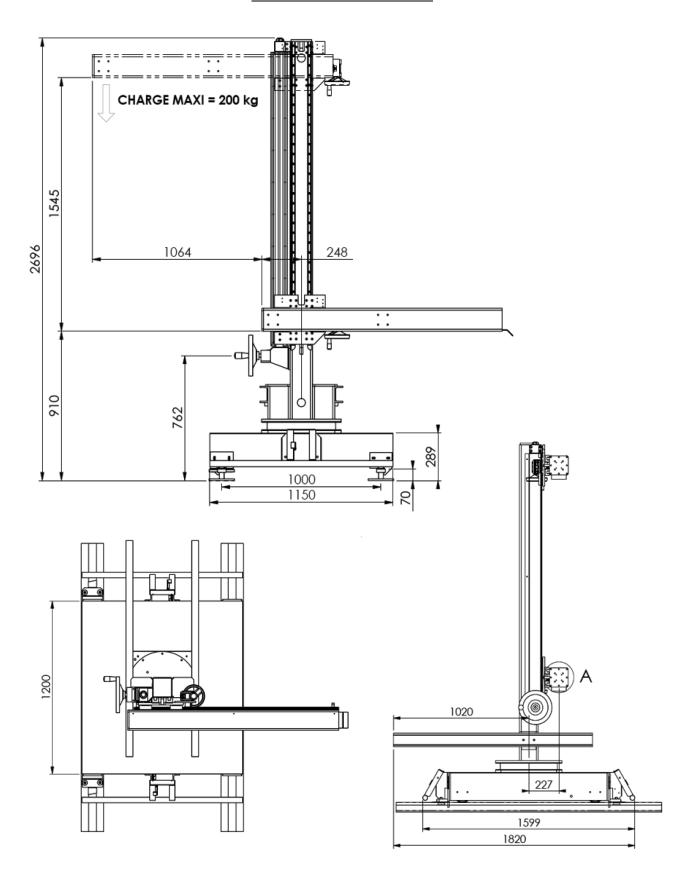
CB-MATIC XSF 15X10





C - DESCRIPTION

CB-MATIC XSM 15 X 10





D-MONTAGE INSTALLATION

1 - FIXING

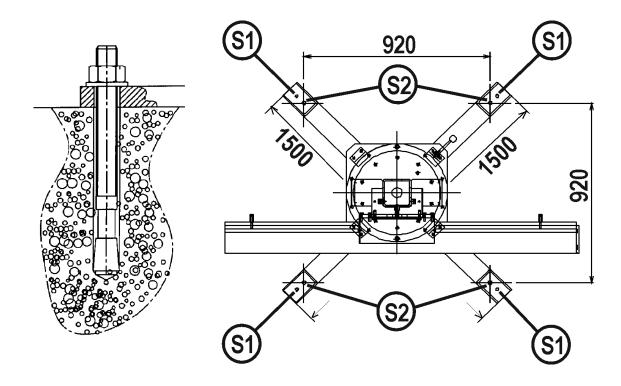
BOOM XSF

BASE

Position the boom, then mark out and drill in accordance with the bolt diameter required [(S2): 4 fixing holes].

Adjust the level of the base with screw jacks (S.1) (magnetic level recommended).

Fasten the nuts on the anchor bolts to complete ground anchoring.





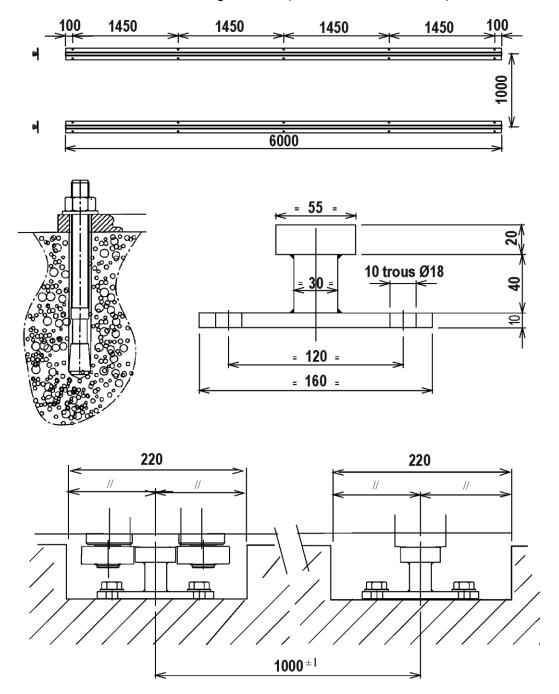
D - MONTAGE INSTALLATION 8695 6040 / D

BOOM XSM

TRACK

Mark out and drill the holes for the anchor bolts in accordance with the layout drawing.

Fix the rails level in the vertical plane using pliers (R1), maximum tolerance 0,2 mm. Ensure the rails are straight in the horizontal plane, 0.5 mm maximum from the guide rail (Track base : 1000mm).

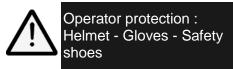




8695 6040 / D D - MONTAGE INSTALLATION

2 - HANDLING

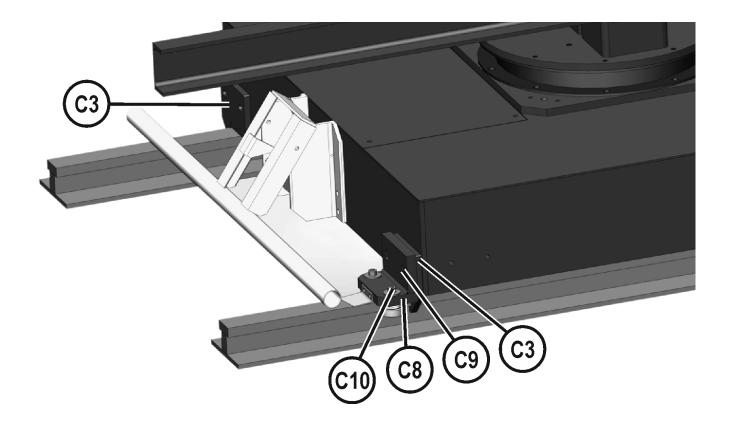


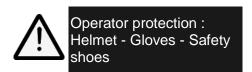




D - MONTAGE INSTALLATION 8695 6040 / D

3 - MOTORIZED CARRIAGE









After positioning and fixing the tracks, place the carriage onto the rails.adjusting it so that the guide rollers lock on to the (3-sided) machined rail of the track.

Remove the 2 guide roller supports Rep (C8) by unscrewing the screws Rep (C9).

Remove antitilt clamps Rep (C3) and replace them in a downward position.

Reassemble the 2 guide roller supports Rep (8).

Before locking the screws Rep.(C9):

- the clamp horizontally leaving about 1mm between rail and clamp
- the roller support vertically so that the roller is half way up the machined part of the rail.

Carry out the same operations for the antitilt clamp Rep (C8) on opposite side.

Check guide roller adjustment by sliding a 0.5 mm shim between one of the bearings of each guide roller and the machined side face of the rail.

If an adjustment is required, unlock the screws Rep (C10) on the guide rollers' exterior side and adjust by turning the eccentric shaft.

Lock the screws Rep (C10).

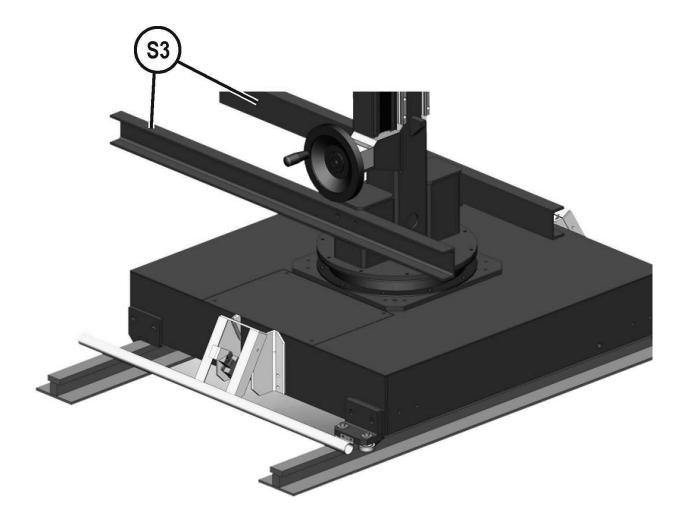
Check that the earth connections are in the right position (brushes good and flat against the machined side of the rail).



D - MONTAGE INSTALLATION 8695 6040 / D

4 - GENERATOR SUPPORTS

Fix the generator supports (S3) on to the shaft, fixed with HM12X25 screws and MU12 washers Maximum load: 500 kg.





8695 6040 / D D - MONTAGE INSTALLATION



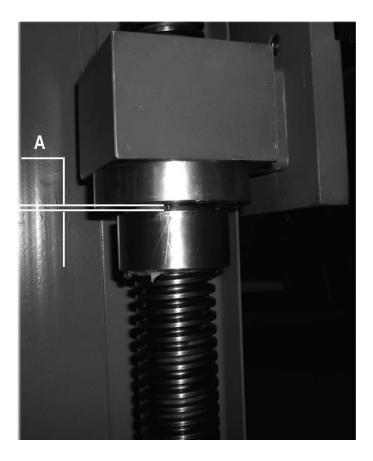
E-MAINTENANCE

1 - SERVICING

- So that the machine continues to provide good service for as long as possible, a certain minimum of care and maintenance is necessary
- The frequency of this maintenance work is given on the basis of the production of one work station per day.
 Maintenance should be more frequent if production is greater.

Your maintenance department may photocopy these pages so that it can follow up maintenance dates and operations (tick as appropriate)

Before all greasing operations, it is possible to use a trichlorethylene-based cleaning agent.





8695 6040 / D **E - MAINTENANCE**

300 hrs or once a month

EQUIPMENT	OPERATIONS	LUBRIFICATIONS
DIRECTIONAL RING	Grease It is important to make the ring rotate after greasing, then to complete greasing after the rotation.	ESSO BEACON EP2

50	N	hi	rs
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300 1113			
EQUIPMENT		OPERATIONS	LUBRIFICATIONS
LINEAR GUIDE		Check the condition of the rails	ESSO BEACON EP2
BALL BEARING		Check the condition of the bearings	ESSO BEACON EP2
TRAPEZOIDAL SCREW	₫	- Check the condition of the screw - Greasing by brush	ESSO BEACON EP2
BEVELED GEAR	₹	- Dismount the cover and check the condition of the beveled gear - Greasing by brush	ESSO BEACON EP2

MENSUEL

EQUIPMENT		OPERATIONS	LUBRIFICATIONS
RACK OF THE ARM		Brush the toothed side, without adding grease.	
MOTOR CARRIAGE & SLIDE BLOCK BELT	₹	Check they are tightened	

MONTHLY

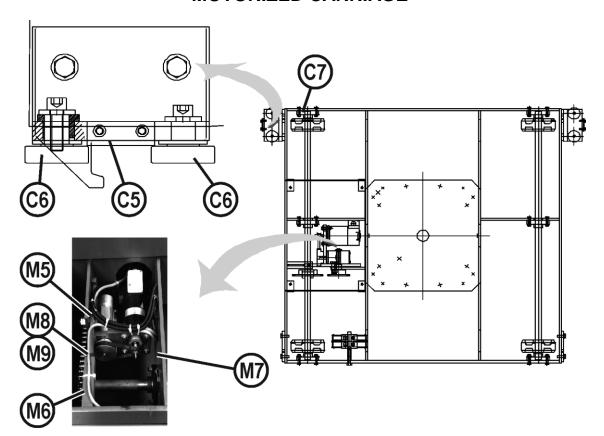
EQUIPMENT	OPERATIONS	LUBRIFICATIONS
SECURITY VERTICAL SYSTEME	Check the safety syteme ; if the dimension A A = $> 0.5 \text{ mm} \rightarrow \text{OK}$ $\leq 0.5 \text{ mm} \rightarrow \text{Screw/mut}$ and/or safety mut to be changed	



E - MAINTENANCE 8695 6040 / D

2 - SPARE PARTS

MOTORIZED CARRIAGE



~	normally in stock
×	not in stock
	on request

Item	Ref.	Stock	Order	Designation
C 5	9120 9747			Scraper Felt
C6				Roller ZL 204 NPDU
C7				Bracket Bearing Ref : FLCTE25
M4	W000164864			MOTOR A77
M5	9120 9748			Shaft Pinion
M6	9120 9746			Roller Shaft Pinion
M7				Belt 140 XL 037
M8				Single Chain Ref: 7N pitch 12,7 (I: 48 links)
M9				Closing Link N3206 for 7N
	9120 8200			Tacho generator/A77 Motor Adaptation (optional)

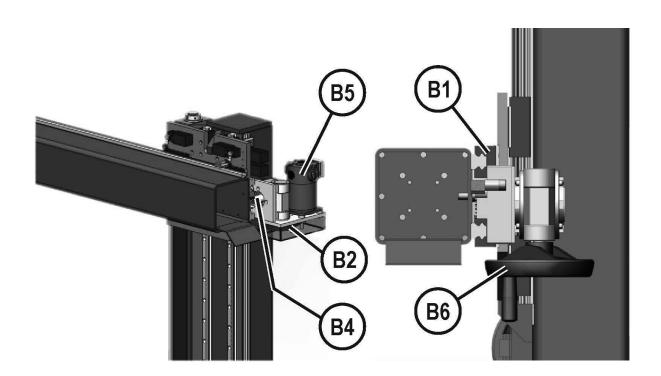
For parts order, give the quantity required and put the number of your machine in the box below.





8695 6040 / D **E - MAINTENANCE**

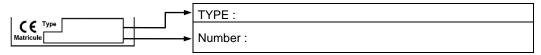
GUIDE BLOCK: SLIDE



/	normally in stock
X	not in stock
	on request

Item	Ref.	Stock	Order	Designation
B1				Ball bearing size 25
B2				Belt 130 XL 037
B4	9120 9738			Shaft Pinion
B5	W000164864			Motor A77
В6				Arm crank

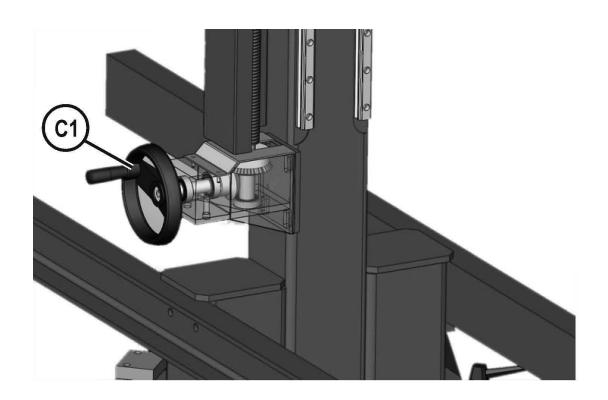
For parts order, give the quantity required and put the number of your machine in the box below.

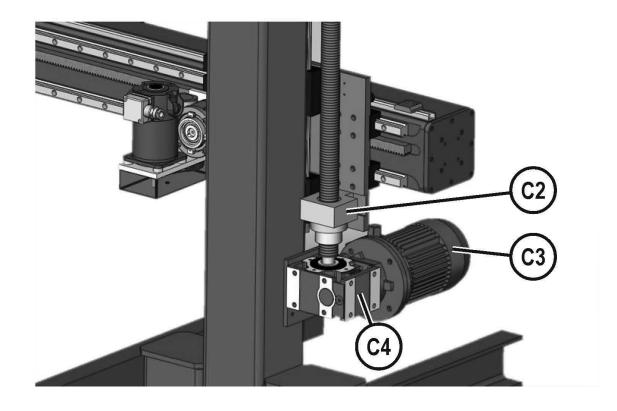




E - MAINTENANCE 8695 6040 / D

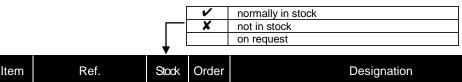
MANUAL OR MOTORIZED ARM LIFTING





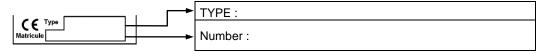


8695 6040 / D **E - MAINTENANCE**



Item	Ref.	Stock	Order	Designation
C1				Lifting crank
C2				Nut of trapezoidal screw
С3				Lifting motor
C4				Lifting reducer

For parts order, give the quantity required and put the number of your machine in the box below.





PERSONAL NOTES

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76121 Le Grand Quevilly cedex www.lincolnelectriceurope.com

