

# MANUAL DE INSTRUÇÕES

## ESCADA - EUROPA





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## Section 1 : GENERAL WARNING

The present instruction manual must be read carefully before using the device and its requirements must be complied with to ensure safe operation and efficiency of the equipment.

This manual must be kept at the disposal of all operators. Additional copies can be supplied on request.

The manager of the operating company is responsible for applying user regulations currently in force.

Instructions displayed on plates or pictograms fixed to the device must be carefully read and kept legible.

Ensure that all persons, to whom the device is entrusted, are in a position to meet the safety requirements involved in its utilization.

Safeguard the equipment from any unsupervised interventions, when it is not in use.

Never use a device that does not appear to be in good condition.

Do not use the device if the wind speed exceeds 35 km/h.

Do not use the device in an explosive atmosphere.

The load on the machine should never exceed the maximum allowed.

Never use the device to perform an operation, for which it is not intended.

The manufacturer accepts no responsibility for consequences resulting from any modification made to the device.

Read the personal safety-related regulations applicable to the device and apply them scrupulously.

***It is essential to mark out the site area according to regulations to avoid any risk in the event of materials falling and persons passing.***

## Section 2 : INSTRUCTIONS - PRESENTATION

This manual concerns all versions of the device.

The device always comes in the form of a compact unit. All accessories are separately delivered.

This device allows materials to be conveyed at height.

It is essential to use accessories suited to each material to ensure safe working.

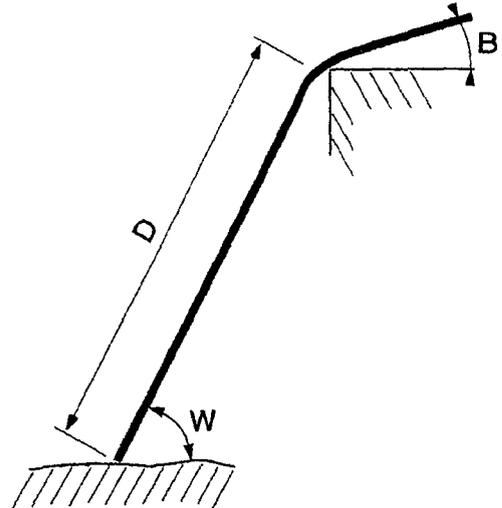
The acoustic level of the device is less than 70 dB.

## Section 3 : DESCRIPTION

Maximum operating load = 150 kg

Structure length 2 - 20 m, with 1 - 2 m ladder sections and articulated joint.

Working angle :  $w = 30^\circ - 90^\circ$   
 $B = 25^\circ \text{ min.}$



### NUMBER OF SUPPORTS

D : RUNWAY LENGTH

W : ANGLE BETWEEN GROUND AND LADDER	W/D	2 m	4 m	6 m	8 m	10 m	12 m	14 m	16 m	18 m
	30°	0	1	2	2	2	2	DANGER ZONE - CONSULT		
45°	0	0	1	2	2	2				
60°	0	0	0	1	2	2	2	DANGER ZONE - CONSULT		
75°	0	0	0	0	1	2	2			
90°	ANCHORING EVERY 4 M									

- Hoist unit : 220 V single phase
- Electrical plug : 16 A. - protection : IP 44
- Power : 0.75 kW
- Speed :  $\approx 22 \text{ m/min}$  depending on device length.
- Remote control : up/down + 24 V emergency stop - protection : IP 65.
- Safety : top + bottom electrical limit switch.  
top limit switch by red outlet  
bottom limit switch incorporated in hoist unit.

**CONNECT DEVICE TO A 16 A POWER OUTLET PROTECTED BY A HEAD-OF-LINE 30 mA DIFFERENTIAL CIRCUIT-BREAKER.**

Traction cable : 5 mm dia. steel core, minimal breaking load = 1360 kg

Use a 3 x 2.5 mm<sup>2</sup> section electrical cable with a max. length of 25 m.

In a vertical position, consider weight of accessories and use suitable accessories.

A 5.5 kVA generator is suitable for supplying the device.

N.B. It is normal for the motor to be hot during normal use.

**VERY IMPORTANT :**

The hoist will only provide its full power if the motor is supplied using the appropriate cable section.

**Section 4 : HANDLING - TRANSPORT - STORAGE**

Handling remains manual because of the low weight of the components.

The hoist unit can be handled using the displacement wheels on the base section.

Storage in a dry location is preferred, especially for the hoist unit.

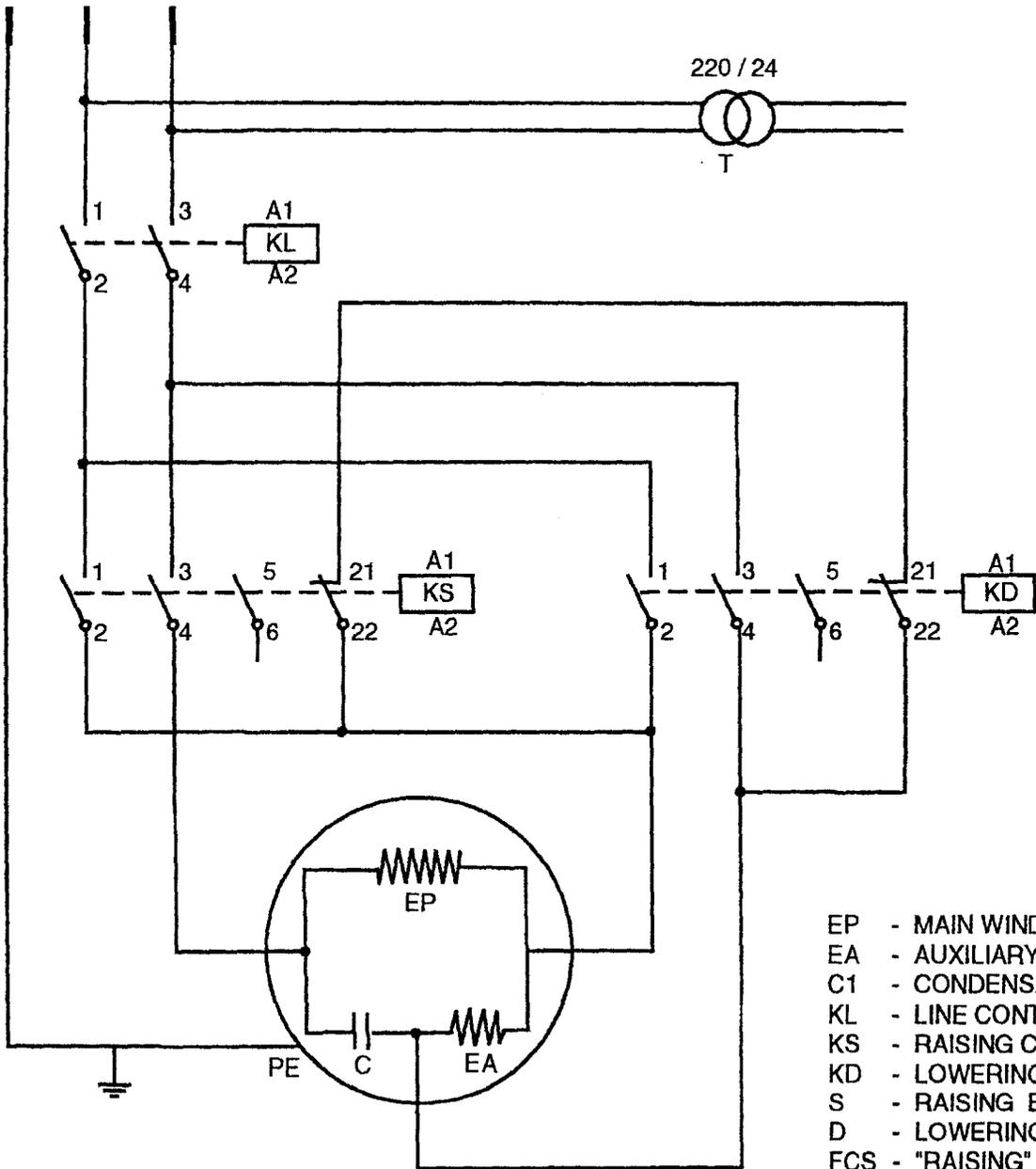
## Section 5 : PACKS - SPARE PARTS AND CODIFICATION

CODE (1 item)	DESIGNATION	kg (1 item)
<b>BASIC UNIT and AVAILABLE PACKS</b>		
<b>5020011</b>	<b>Basic 10 m unit including :</b>	
5020907	1 x 2.00 m base section	14,5
5022907	3 x 2.00 m ladder sections	12
5022908	1 x 1.00 m ladder sections	6
5022904	1 x top section	5,3
32076	1 x carriage	11
5020909	1 x hoist unit with limit switch, axes + pins	50
5022909	1 x 0-60° articulated joint	15
32707	1 x universal platform	15
32708	2 x sides panels	5,5
34292	1 x manual	
<b>5011903</b>	<b>ROOFING PACK:</b>	
32863	1 tile cage	6
33951	Two inclination positioning devices	1,5
<b>5022917</b>	<b>COMFORT PACK + 4M comprising:</b>	
5022907	Two 2.00 m ladder sections	12
<b>5020904</b>	<b>"BUILDER" PACK including :</b>	
32091	1 x 60 liter concrete skip with mechanical top tipping device	28
33613	1 x adjustable top support	10
<b>5022921</b>	<b>"ANCHORING AND PROPPING" PACK including :</b>	
33615	1 x 6.00 m double prop	53
33589	4 x fixing system to 49 mm diam. tube	0,3
33906	1 x RCM 2100 scaffolding jack	4,8
81440	2 x RCM 230	1
34266	2 x telescopic feet for façade propping	1
<b>5022916</b>	<b>"SELF-ERECTION" PACK including :</b>	
33593	2 x offset displacement wheels	1,5
5022930	1 x removable crossbar for self erection (incl.wheels)	7
5022931	3 x self-erection cable guides	5

CODE (1 item)	DESIGNATION
<b>SPARE PARTS LIST</b>	
5022907	2.00 m ladder section
5022908	1.00 m ladder section
5020907	base section
5022904	top section
32076	carriage
33951	telescopic support for horizontal setting (from 0 to 90°)
32708	side panel
5022909	articulated joint (adjustable from 0 to 60° )
32091	concrete skip, complete
32707	universal platform
33613	adjustable top support
5022906	lower stroke stop for carriage
5022911	articulated joint support
33615	6.00 m double prop
32796	panel carrier
33593	offset displacement wheels, for self-lifting
83296	displacement wheels, for self-lifting
5022930	removable crossbar for self erection (incl.wheels)
5022931	self-erection cable guides
33589	fixing system to 49 mm diam. tube
34251	pack of 10 axes + pins
34266	telescopic feet for façade propping



220 V / 50 Hz

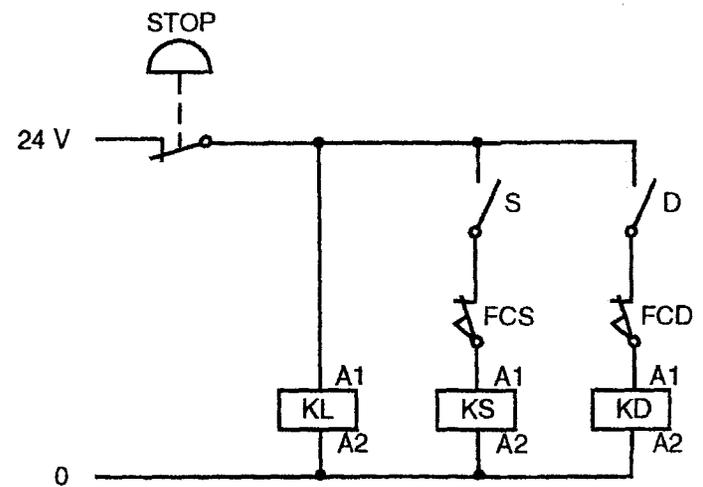


ELECTRICAL WIRING DIAGRAM

- EP - MAIN WINDING
- EA - AUXILIARY WINDING
- C1 - CONDENSATEUR 60 mf./450V
- KL - LINE CONTACTOR
- KS - RAISING CONTACTOR
- KD - LOWERING CONTACTOR
- S - RAISING BUTTON
- D - LOWERING BUTTON
- FCS - "RAISING" LIMIT SWITCH
- FCD - "LOWERING" LIMIT SWITCH
- STOP- STOP BUTTON
- T - TRANSFORMER

# HOIST 150 Kg NEVADA

Section 6 : ELECTRICAL LAYOUT



ELECTRICAL CIRCUIT DIAGRAM

## Section 7 : STRUCTURE MANUAL ERECTION (basic version)

Erection must be performed according to statutory safety regulations (helmet, gloves, etc.).

**Supports, on which the device will bear, must resist a 250 kg minimum load, especially when the carriage passes over these supports.**

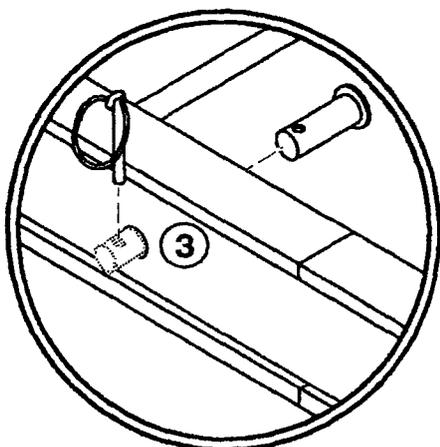
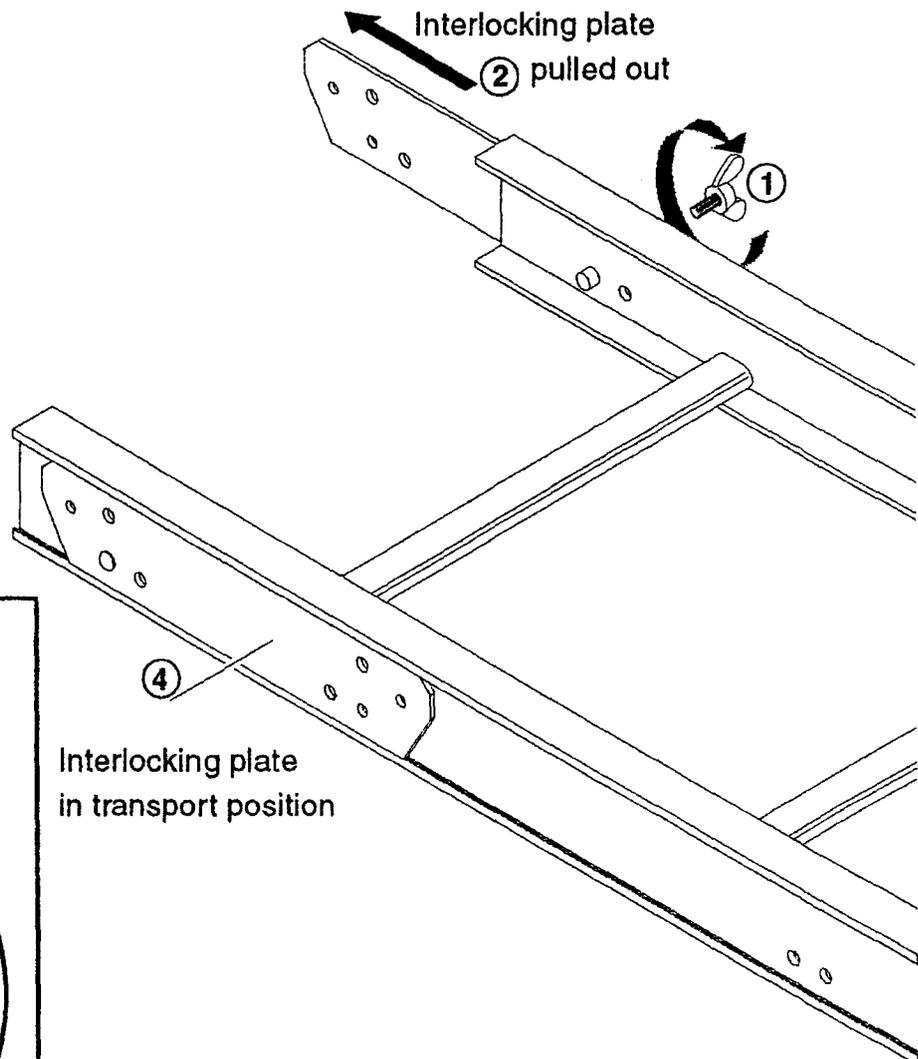
Support on the ground, windows or roofs must be correctly leveled.

These supports must be immobilized to increase safety.

### NOTE

To assemble the ladder sections to the structure, simply remove butterfly bolts ①, pull out the interlocking plates ②, replace the butterfly bolts and interlock the ladder sections using the axes + pins system ③.

**In transport position, push in the interlocking plates ④ to protect them from possible impacts during handling.**



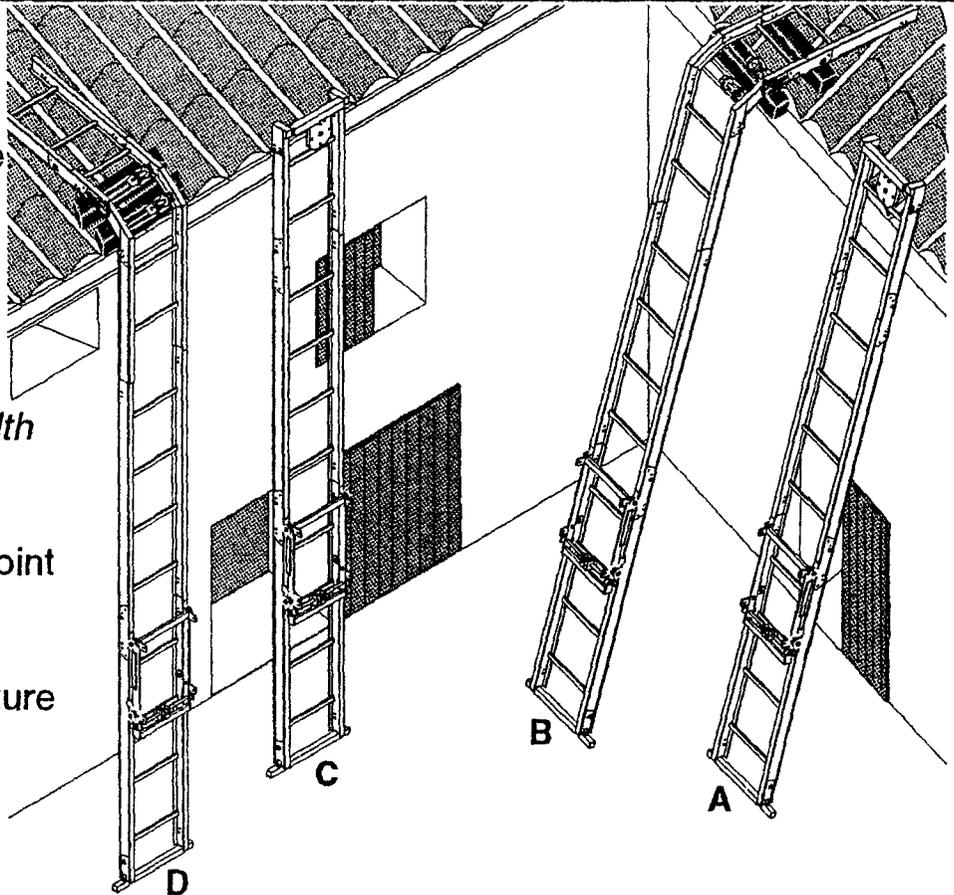
**Always insert pins on the outside of the structure.**

# 1 SITE SURVEY

- Define position of structure

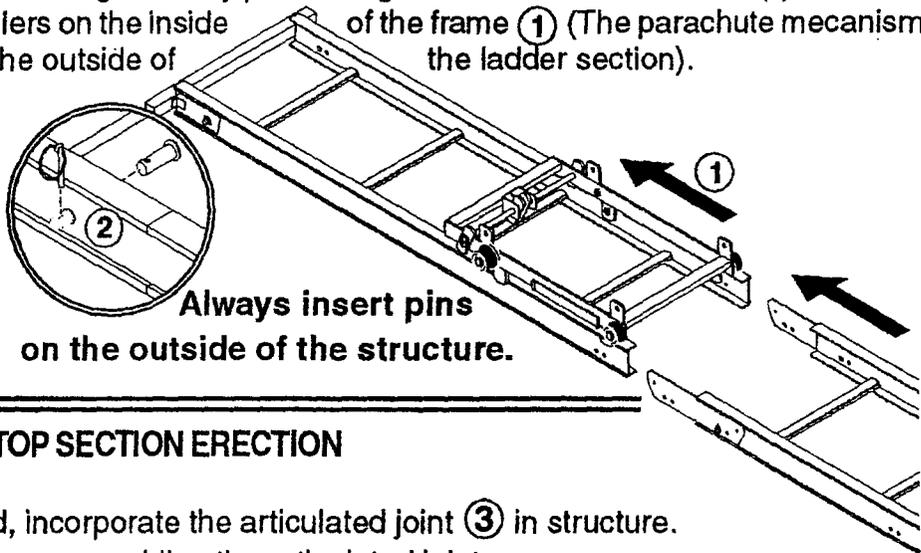
A inclined erection  
 B inclined erection with articulated joint  
 C vertical erection  
 D vertical erection with articulated joint

- Determine articulated joint usage.
- Measure length of structure required.



# 2 ASSEMBLY OF STRUCTURE AND ITS COMPONENTS

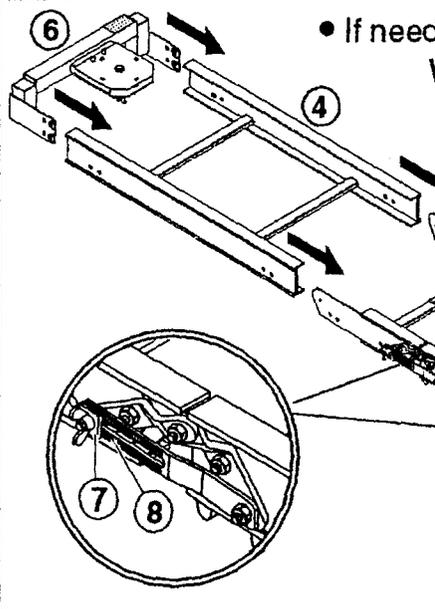
- Slide the carriage onto the starting frame by positioning the exterior rollers on the upper side of the frame and the interior rollers on the inside of the frame (1) (The parachute mechanism is therefore in contact with the outside of the ladder section).
- On the ground, connect the base section to the ladder section you need by fitting them into each other using the interlocking plate system (male end enters female end), butterfly bolting (see NOTE on p 9/32), then quick pinning with clip pins (2).



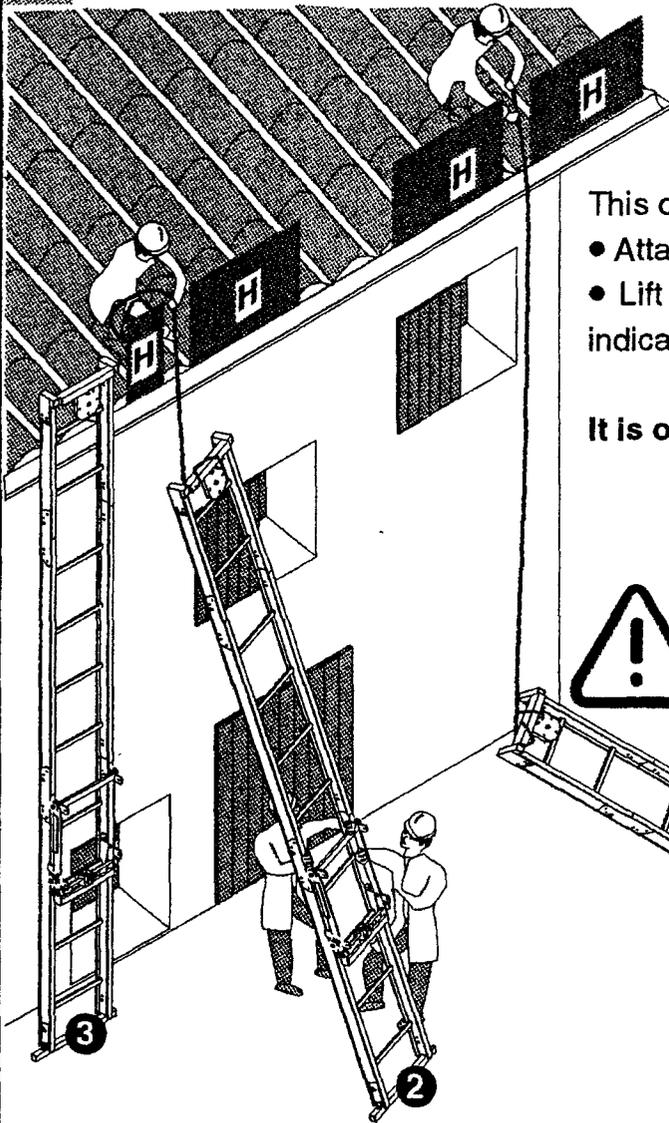
Always insert pins on the outside of the structure.

# 3 ARTICULATED JOINT AND TOP SECTION ERECTION

- If needed, incorporate the articulated joint (3) in structure.
- When assembling the articulated joint :
  - you must insert a minimum 1 meter ladder section (4) above the articulated joint; and 5 m minimum before.
- gravity carriage return requires the ladder section above the articulated joint to have a minimum 25° slope - Otherwise, there is a risk that the safety parachute will engage.
- tighten and clamp the articulated joint in this position using the 4 butterfly bolts (5) correctly aligning corrugations (7) - (8) on the two sections.
- Insert and pin top section (6)



## 4 LIFTING THE STRUCTURE



This operation must be performed by several persons.

- Attach a rope to the top section.
- Lift and install the structure by following the method indicated by diagrams ① - ② and ③.

It is obligatory to use roof-edge protection (H).



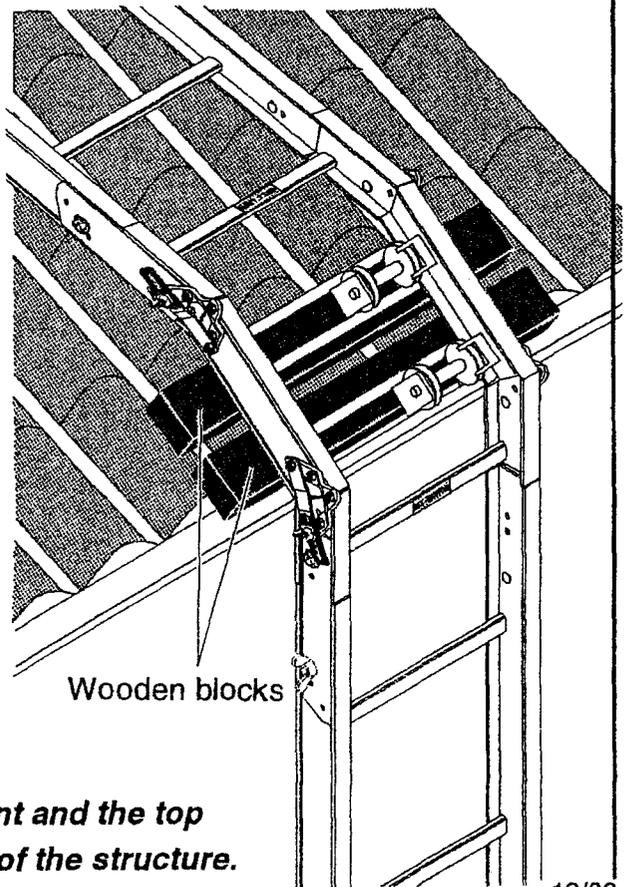
**Anchor the structure at its highest point.**

### Structure with articulated joint

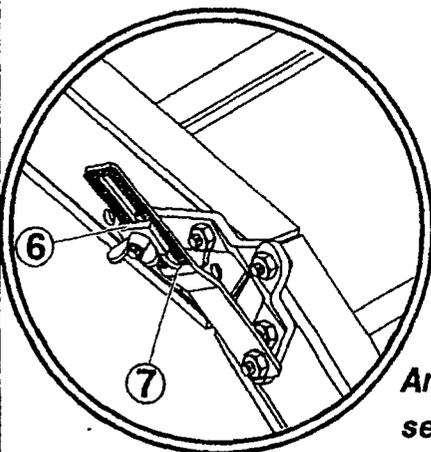
If you are using an articulated joint, position, adjust and block it at the desired angle.

Insert precise blocking beneath the articulated joint to prevent any bending (or use the articulated joint support).

Tighten and block the articulated joint in this position using the 4 butterfly bolts, correctly aligning the two corrugated fixings ⑥ - ⑦.



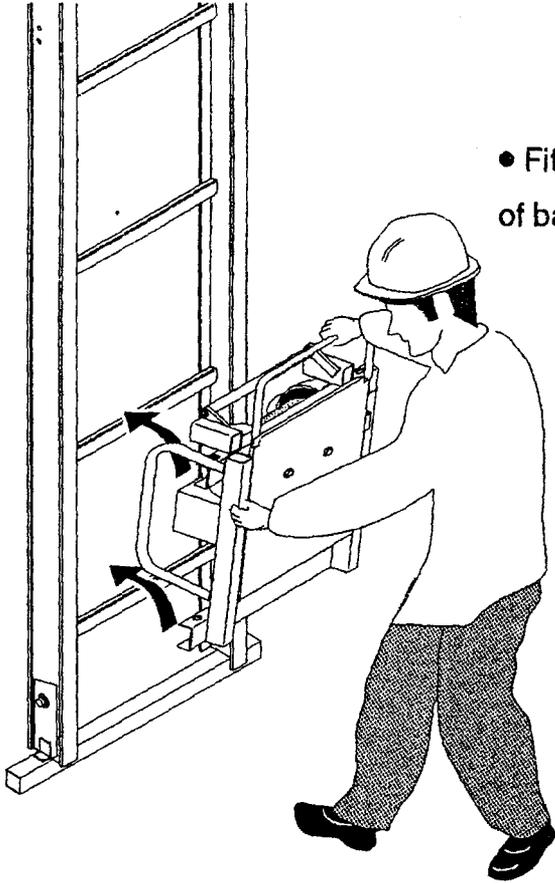
Wooden blocks



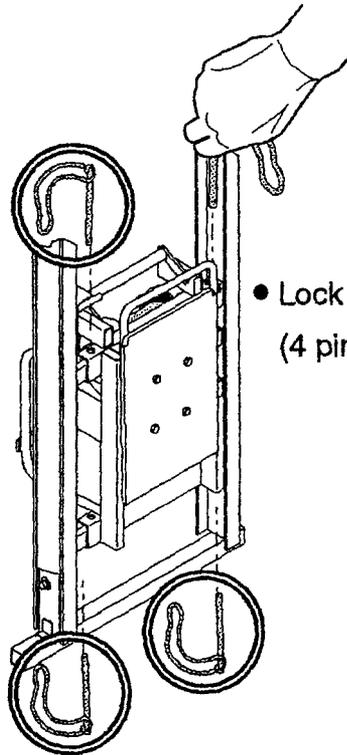
**Anchor the articulated joint and the top section. Anchor the base of the structure.**

5

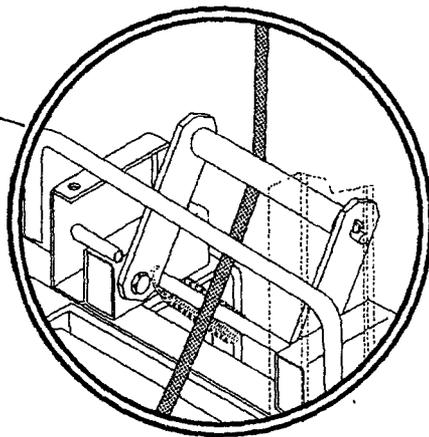
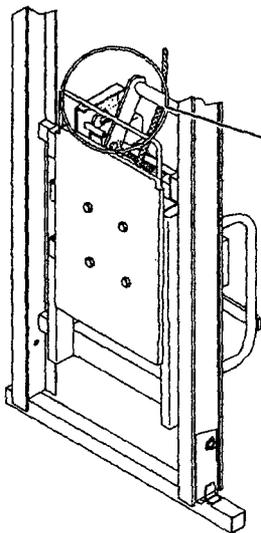
## HOIST UNIT INSTALLATION



- Fit hoist U- shaped transoms onto 2 bottom rungs of base section.



- Lock hoist (4 pins)



Ensure correct cable unwinding.

## HOIST UNIT POWER SUPPLY

- Plug into the appropriate power source.
- Connect the limit switches .
- Connect the push-button control.

## LOWER STROKE STOP FOR CARRIAGE (optional)

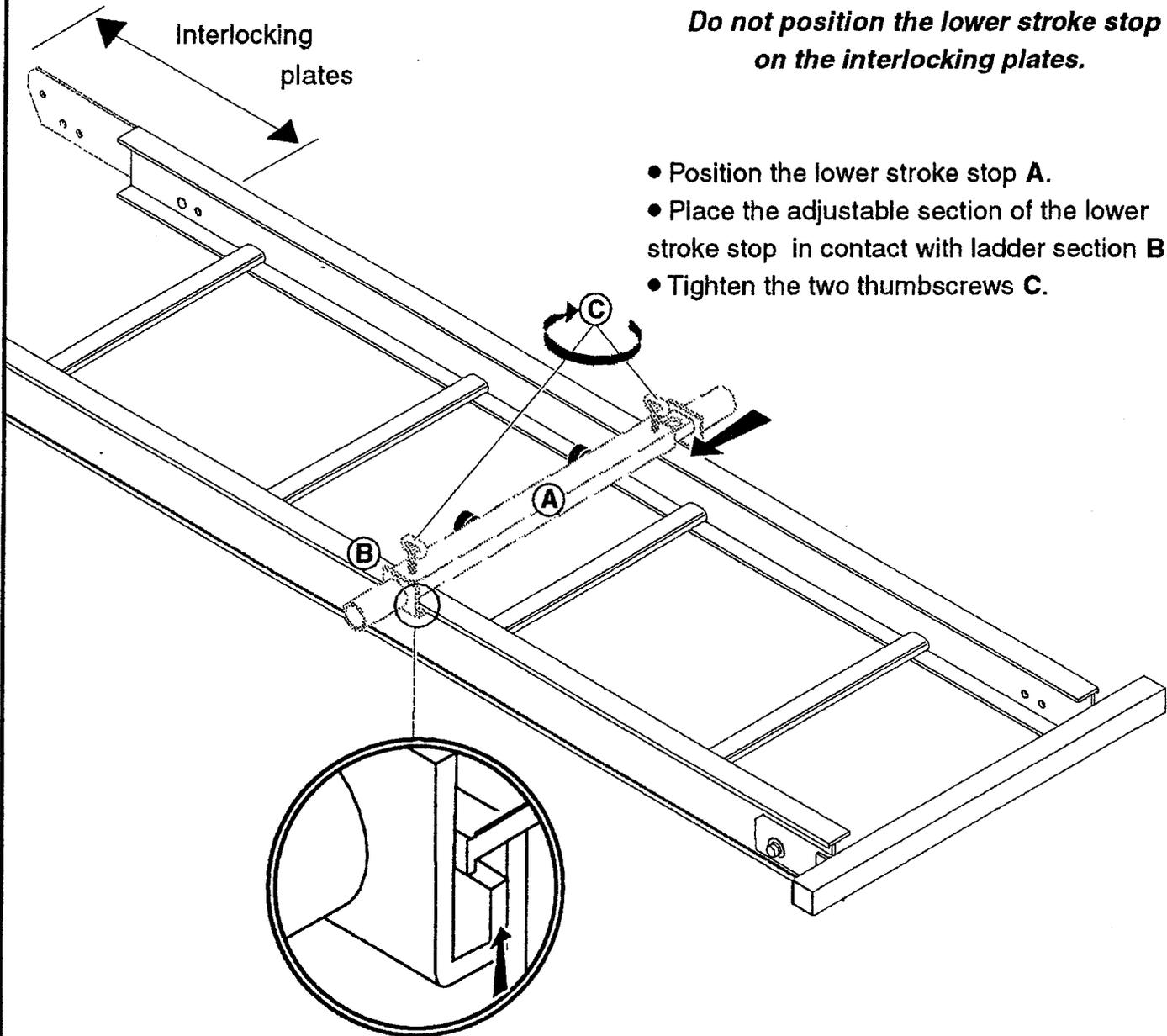
Lower stroke stop for carriage (optional) can be installed, if needed, at any height on the structure.

*It is unnecessary at ground level.*



**Do not position the lower stroke stop on the interlocking plates.**

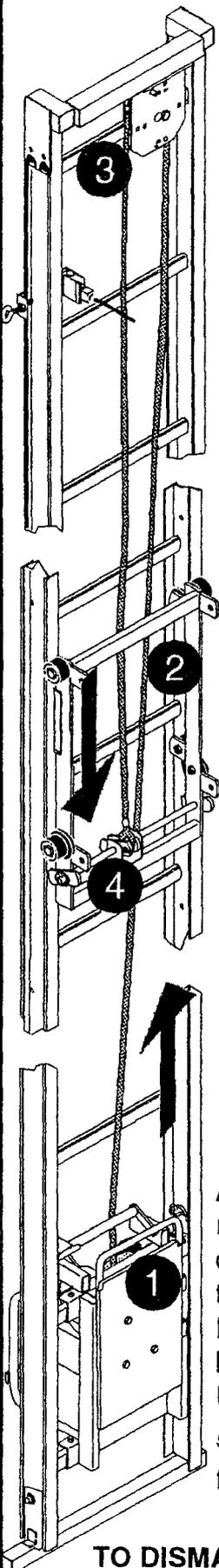
- Position the lower stroke stop **A**.
- Place the adjustable section of the lower stroke stop in contact with ladder section **B**.
- Tighten the two thumbscrews **C**.



**Locate the upstand deep inside the slot**

## Section 8 : PUTTING INTO OPERATION

### 1 CABLE INSTALLATION



Unwind the cable from hoist unit ① **BY PULLING** it and pressing simultaneously the "down" pushbutton on the remote control.

Thread the upward strand underneath the carriage ②.

Unscrew wing nut (A) and swivel aside the "removable pulley support" cover plate.

Pass the cable around pulley (B).

Position the removable pulley support on both studs (C) and re-screw tightly the wing nut.

Lower the cable and thread it underneath the carriage before fixing it to the safety parachute control ④.

Stretch the cable and check whether :

- a) the cable is effectively passing in the pulley groove,
- b) the cams of the safety parachute are raised

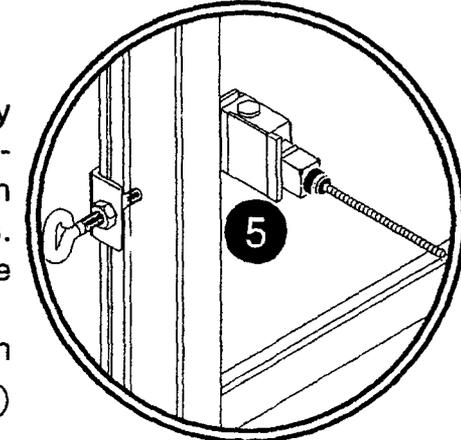
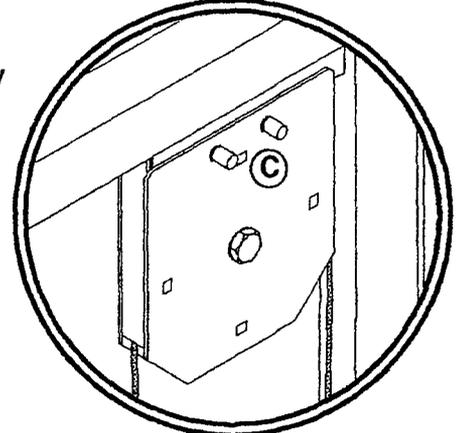
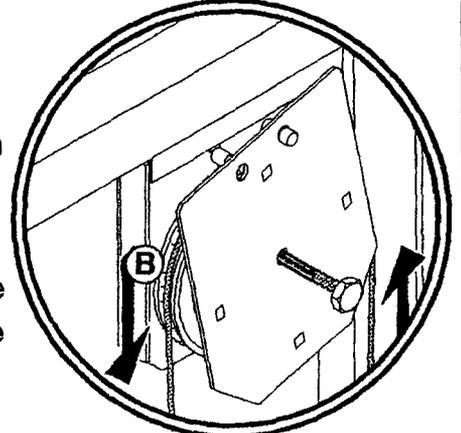
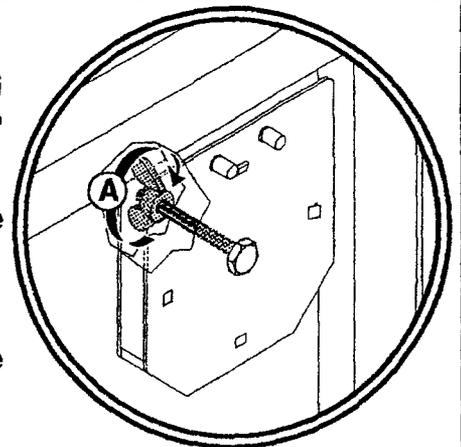
● Fit the upper limit switch as required ⑤

● Do not place your hands inside the hoist unit drum nor on the roller runway.

#### ELECTROMAGNETIC BRAKE ADJUSTMENT

After being used several times, the brake may require readjustment if the trolley tends to re-descent, when stopped. Use the spanner supplied with the hoist (attached to the geared motor) to do this. Remove the white cap located at the centre of the left-hand side of the geared motor.

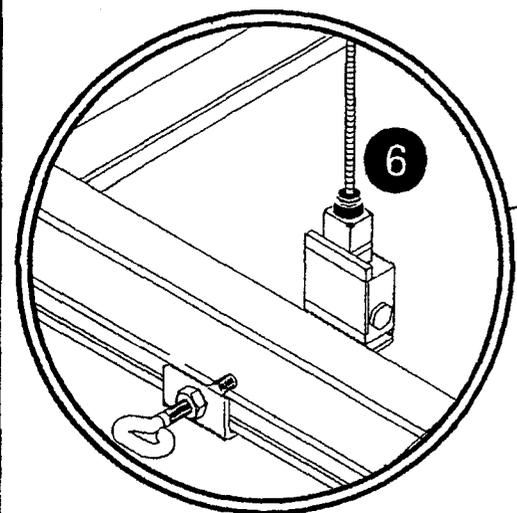
Using the spanner, adjust gradually in the direction shown by the arrows ( ⊕ for a "harder" brake, ⊖ for a "softer" brake).



**TO DISMANTLE THE ELEVATOR, FOLLOW THE ASSEMBLY PROCEDURES IN REVERSE ORDER.**

**KEEP CABLE TAUT AND ENSURE IT IS PROPERLY WOUND OVER FULL WIDTH OF DRUM.**

## 2 CONNECTING THE CABLE TO THE MOBILE CARRIAGE (Structure with the Articulated Joint)



Unwind the cable from hoist unit ① **BY PULLING** it and pressing simultaneously the "down" pushbutton on the remote control.

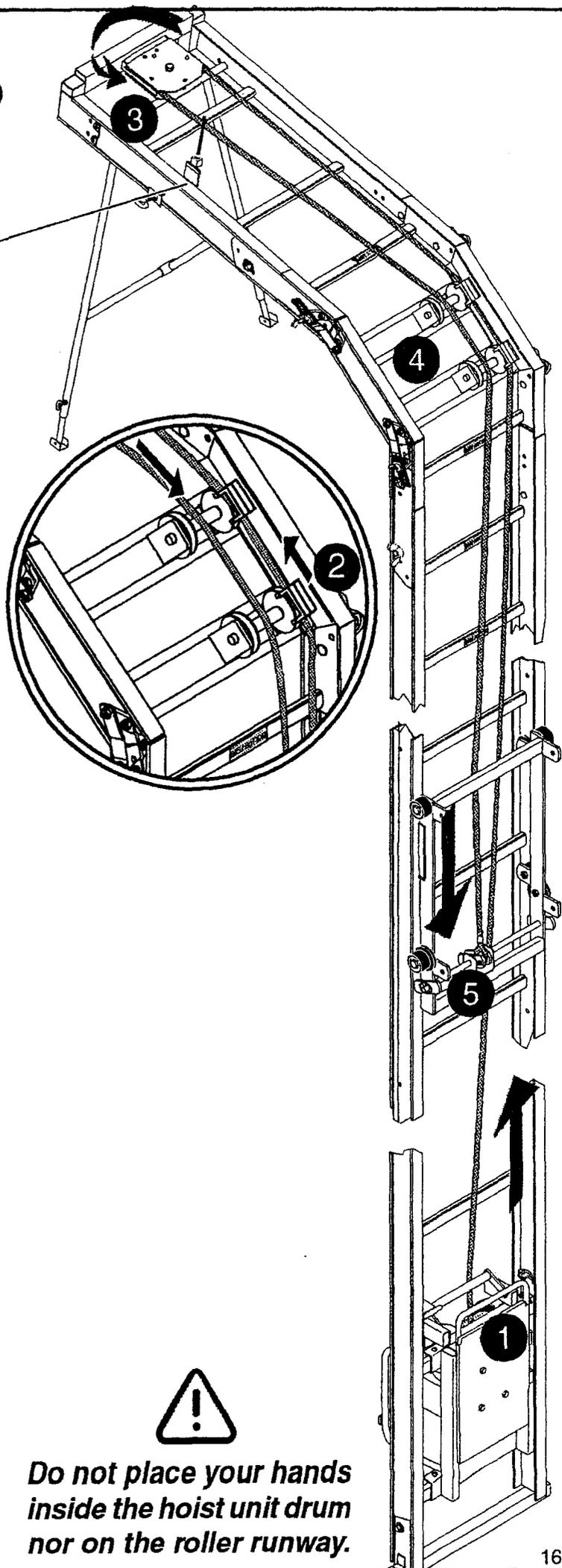
Thread the upward strand underneath the carriage, then underneath the first roller cable guard beneath the 2<sup>nd</sup> ②.

Remove the pulley mounting ③, thread the cable and retighten the mounting (see page 15/32).

Thread the cable over the two rollers ④ (downward strand), then lower it until its end can be pinned to the carriage fixed point ⑤, taking care to thread it beforehand through the parachute system loop.

Fit the appropriate carriage accessory.

Fit the upper limit switch as required ⑥.



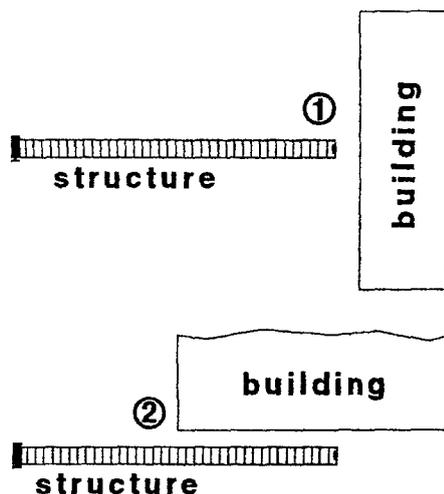
**Do not place your hands inside the hoist unit drum nor on the roller runway.**



## Section 9 : STRUCTURE ERECTION BY 'SELF-LIFTING' - 'SELF-ERECTION' PACK

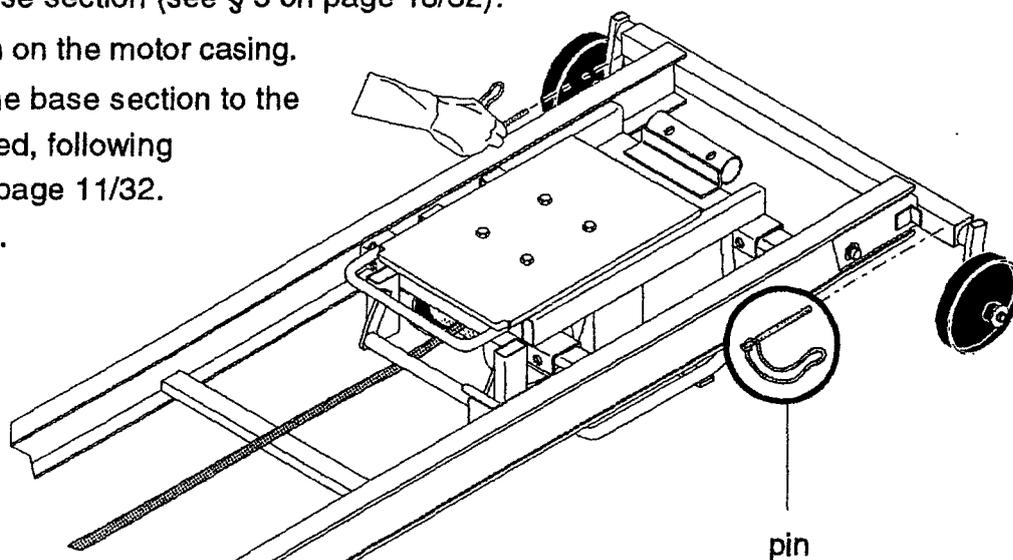
### 1 SITE SURVEY (see § 1 on page 11/32)

- Define position of structure.
- Measure length of structure required.
- Find a fixed solid point to anchor the structure.  
This point must be very near to the required height (articulated joint resting point, windowsill, etc.).
- Depending on structure size and workplace environment, the structure can be assembled on the ground either :
  - perpendicular to the building façade ①,
  - or parallel to the building façade ②.



### 2 ASSEMBLY OF THE STRUCTURE AND ITS COMPONENTS

- Fix the hoist unit to the base section (see § 5 on page 13/32).
- Carefully lay the unit down on the motor casing.
- On the ground, connect the base section to the other ladder sections required, following instructions given in § 2 on page 11/32.
- Fit and pin the wheels ④.



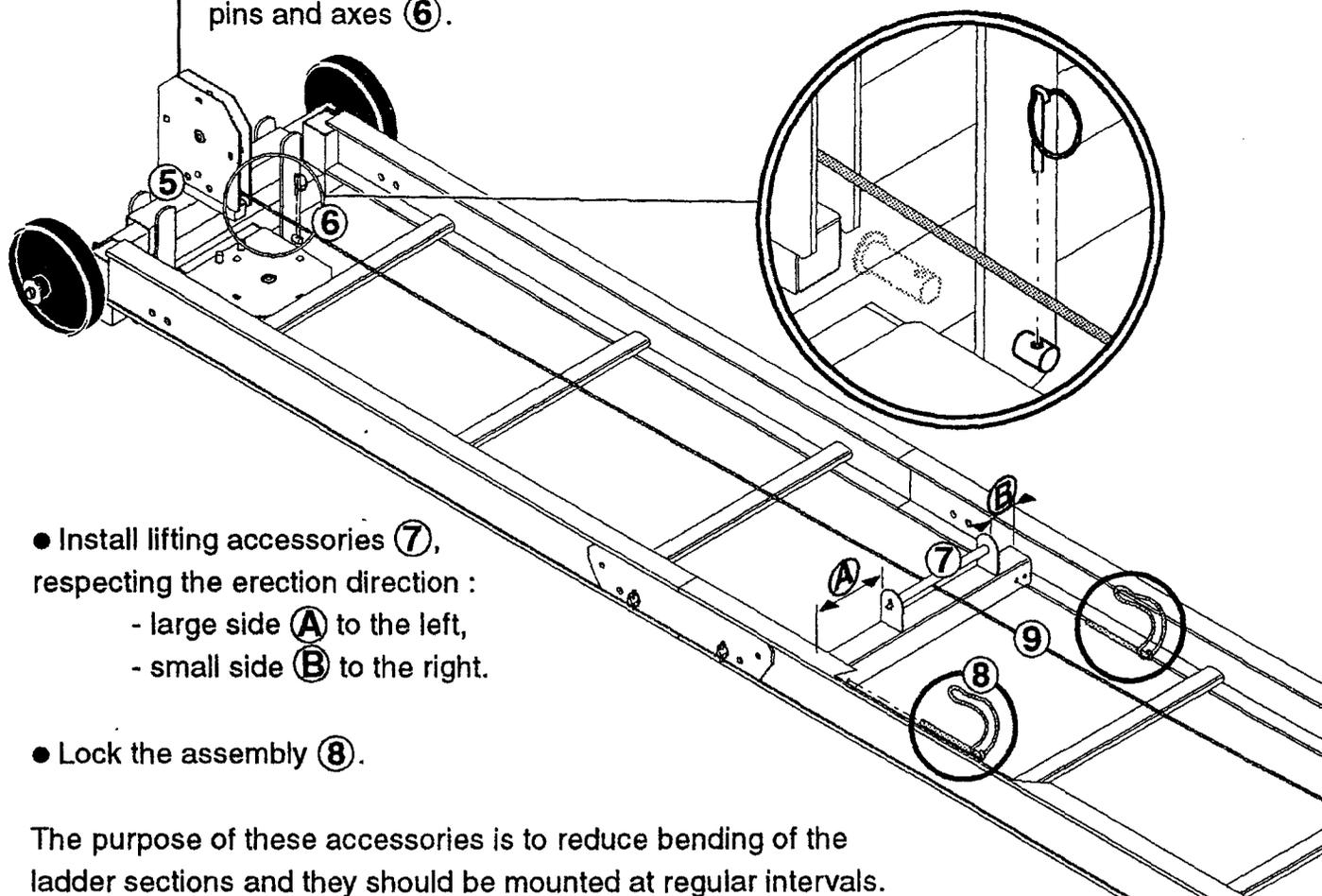
**Never use the articulated joint  
for self-lifting purposes.**

***slightly lift the structure on the top section side, if you do not want the unit to  
rest on the motor casing.***



After positioning the structure, remove the self-lifting wheels.  
**NEVER USE THE DEVICE WITH THE SELF-LIFTING WHEELS MOUNTED.**

- Locate the "self-hoisting" crosspiece ⑤ on the top section and lock together using pins and axes ⑥.



- Install lifting accessories ⑦, respecting the erection direction :
  - large side ① to the left,
  - small side ② to the right.

- Lock the assembly ⑧.

The purpose of these accessories is to reduce bending of the ladder sections and they should be mounted at regular intervals.

**NOTE : if you do not use the self hoist accessory ⑦ for self-hoisting, there is a high risk of damaging the ladder section (i.e. permanent deformation).**

*Recommendations for the self-hoist accessory:*

*For an overall length of 13 m, 2 accessories (minimum)*

*For an overall length of 17 m, 3 accessories (minimum)*

*For an overall length of 21 m, 4 accessories (minimum)*

- Unwind the cable ⑨ and thread it underneath lifting accessory rollers ⑦.
- Dismantle the pulley ⑤ on the self-hoisting crosspiece, following pulley disassembly/reassembly instructions given in §1 on page 15/32.
- Pass the cable around the pulley and unwind it to secure it to the anchor point defined during the site survey.

**Ensure an anchor point resistance of at least 300 kg.**

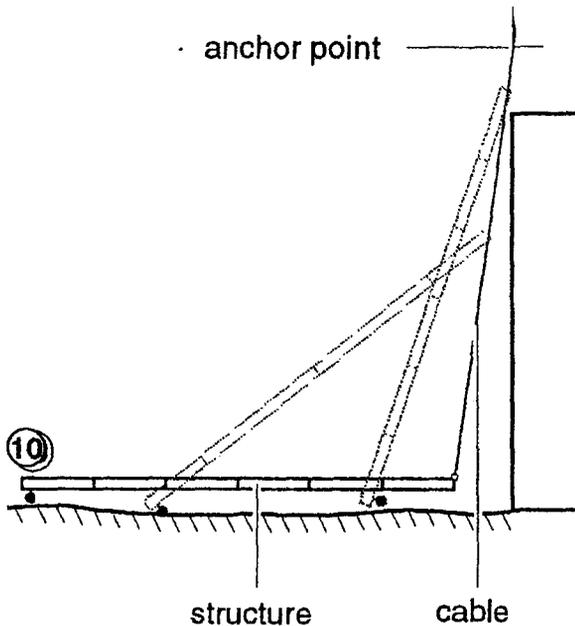


**The self-hoist system can be used with an assembled structure length of up to 20 metres (maximum).**

- Erect the structure in its working configuration by winding the cable onto its drum ⑩.

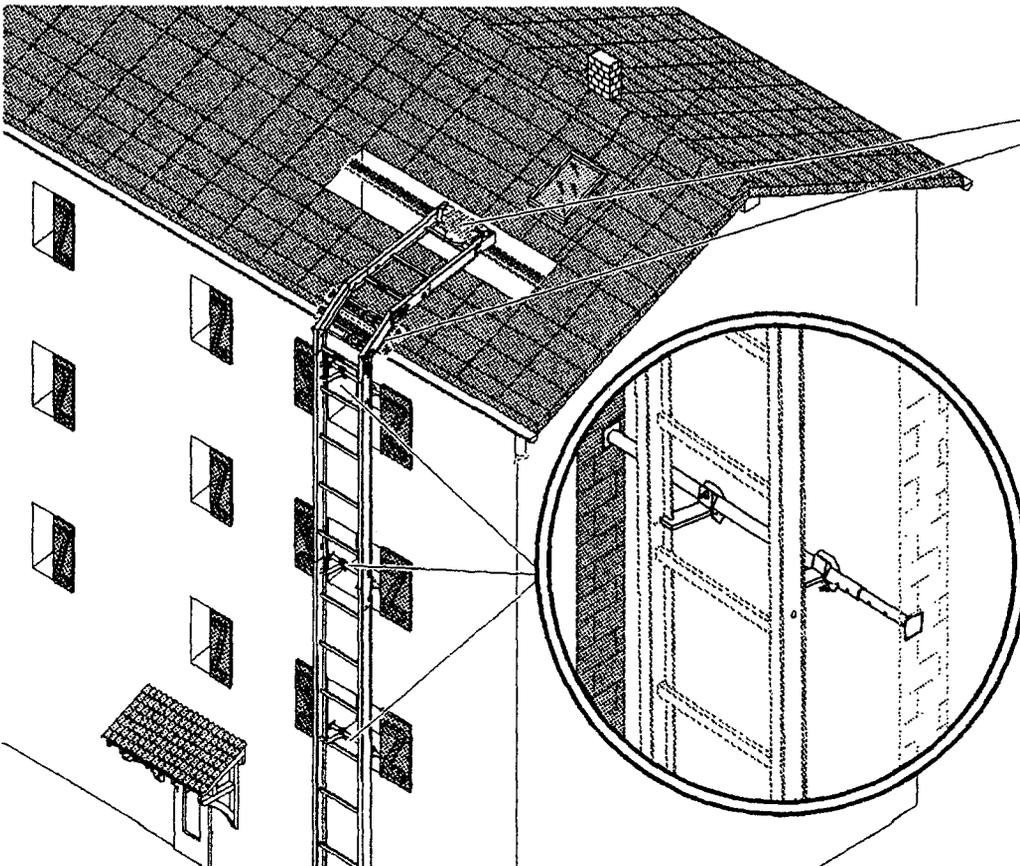
### ATTENTION

During the lifting operation, be careful to avoid electricity cables.



- After lifting to the desired position, unlock and **remove the wheels** so that the structure base rests firmly on the ground.
- Slacken the cable to be able to adjust and secure the articulated joint.
- Anchor the articulated joint and the top section.
- Anchor or block the base of the structure.
- Dismantle the self-hoist accessories.
- Detach the cable from the anchor point.
- Install the top section in its "working" position (see § 1 on page 15/32).
- Attach the cable to the carriage.
- Ensure that the cable passes freely (see § 1 on page 15/32).
- Position the top limit switch (see § 1 on page 15/32).
- Install accessory.

### ANCHORING



Anchor the structure both at the top section and at the articulated joint.

**Assembly on a façade:**  
Anchor the structure, to the window every 4 m with the jacks, type 10955 - 10960 or 10965. To install on a scaffold, anchor the structure with the help of the tube ties, ref. 33589 tube diam. 49.

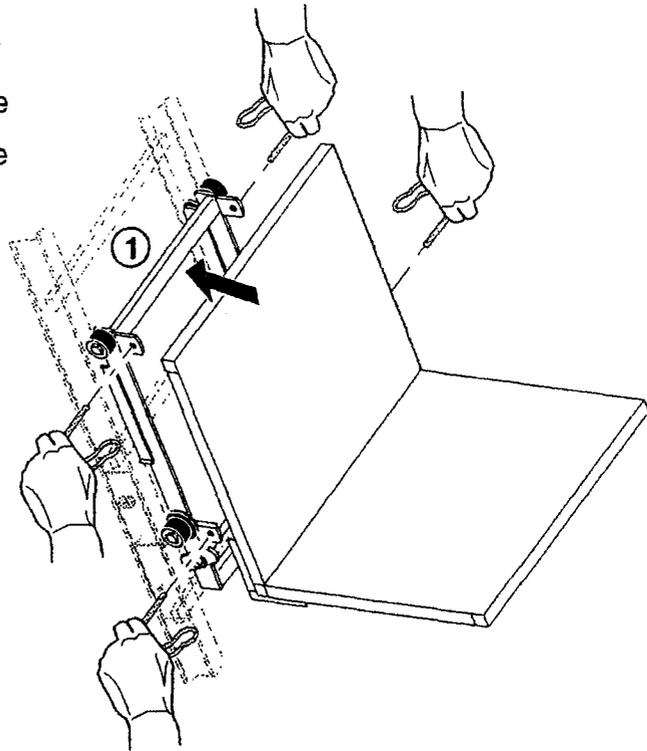
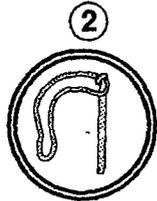
**Inclined assembly :**  
1 top anchoring system with 1 or several propping systems are required for inclined assembly.

TO DISMANTLE, FOLLOW THE ASSEMBLY PROCEDURES IN REVERSE ORDER.

## Section 10 : PLATFORM INSTALLATION

### FITTING THE UNIVERSAL PLATFORM 32707

- Fit the platform to the carriage by aligning the platform with the locating holes ① on the carriage.
- Secure with the appropriate clips. ②.



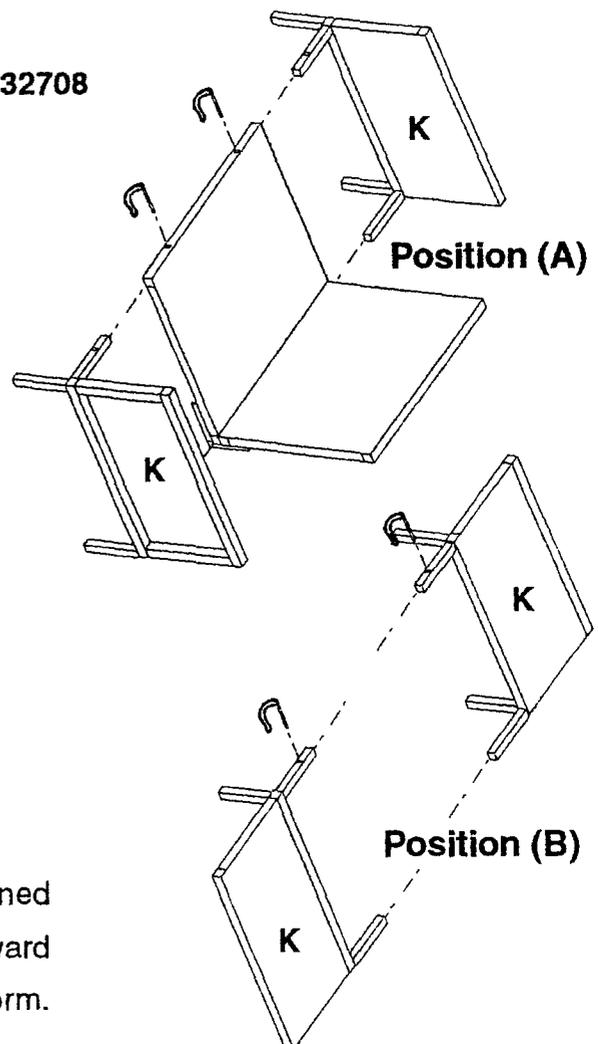
### PLATFORM + DOUBLE FUNCTION SIDE PANELS 32708

**Position (A) :** Bricks, tools, general materials...

- Insert the panels **K** into the locating holes on the platform.
- Secure with the Locking Pins

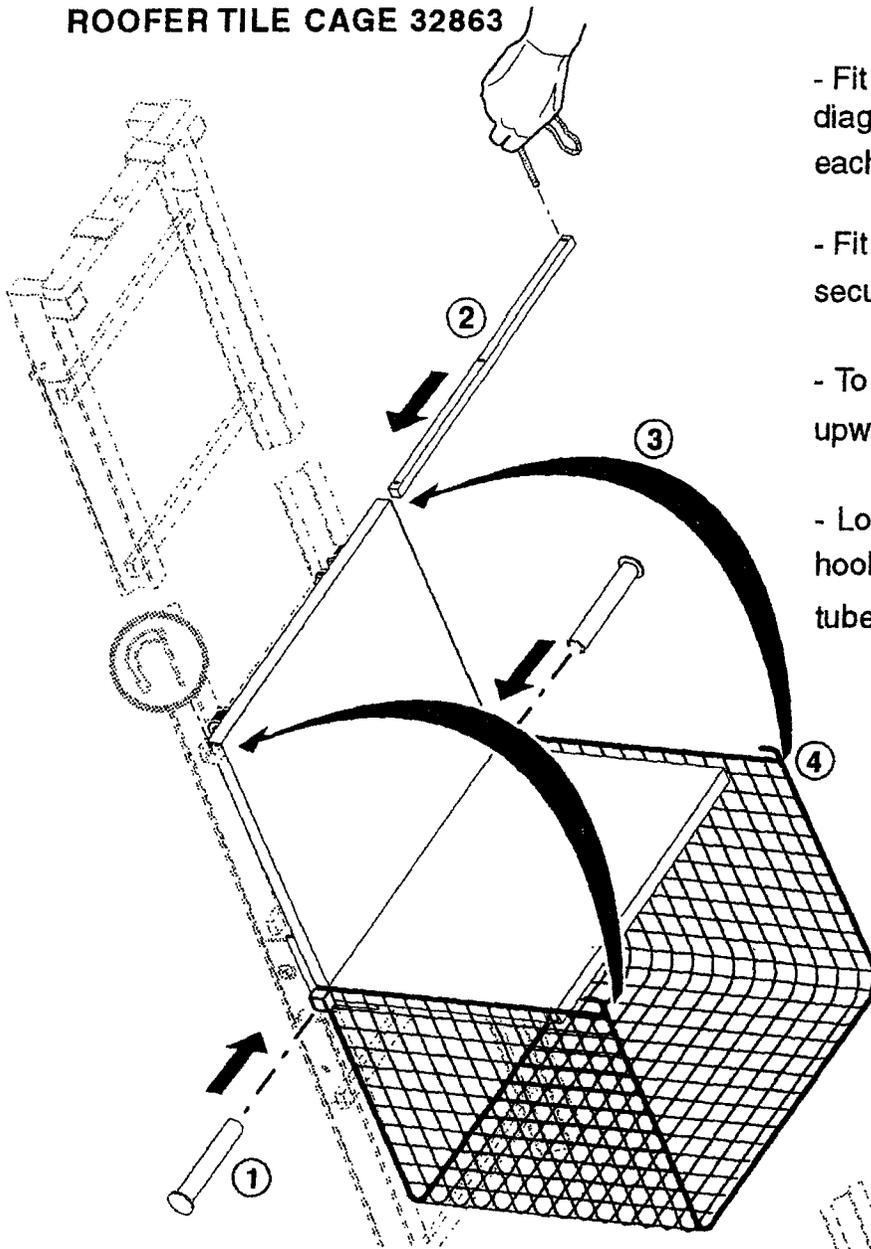
**Position (B) :** Planks, rolls of material, lengths of ....

- Reverse and invert the panels **K** Insert them into the locating holes on the platform.
- Secure with the Locking Pins



NB. If the side panels are reversed, but maintained in the B position, the tubes that project forward may be used to secure materials on the platform.

## ROOFER TILE CAGE 32863



- Fit the tile cage as shown in the diagram and insert the clevis (A) on each side (1).

- Fit the tube indicated by (B) and secure with the clips. (2).

- To close (after loading), pivot the cage upwards and secure at points (3).

- Lock the cage closed by inserting the hooks (4) into the holes located on the tube (2)..

## FITTING THE OPTIONAL TELESCOPIC SUPPORTS 33951

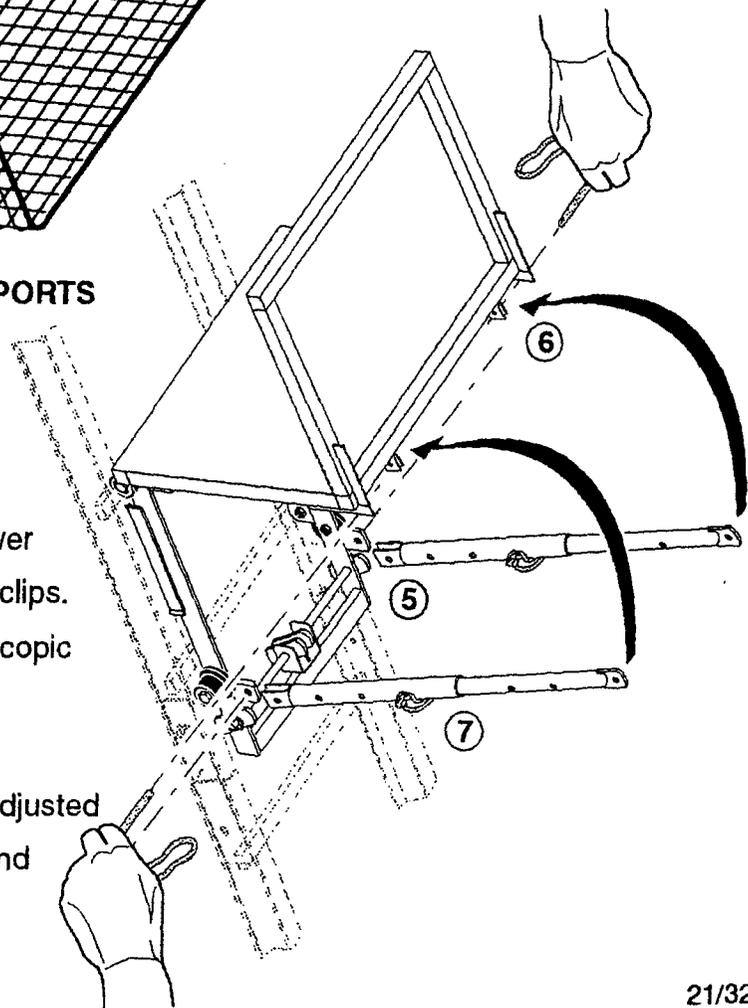
- Fit the platform to the carriage by aligning the platform with the locating holes (6) on the carriage and secure with the appropriate clips.

- Next, fit the two telescopic supports to the lower section of the carriage (5) and secure with the clips.

- Lift up the platform and fit the end of the telescopic supports into the corresponding retainers.

Secure with the clips.

- The pitch of the platform may now be easily adjusted by simply repositioning the clip (7) to correspond with the angle desired.



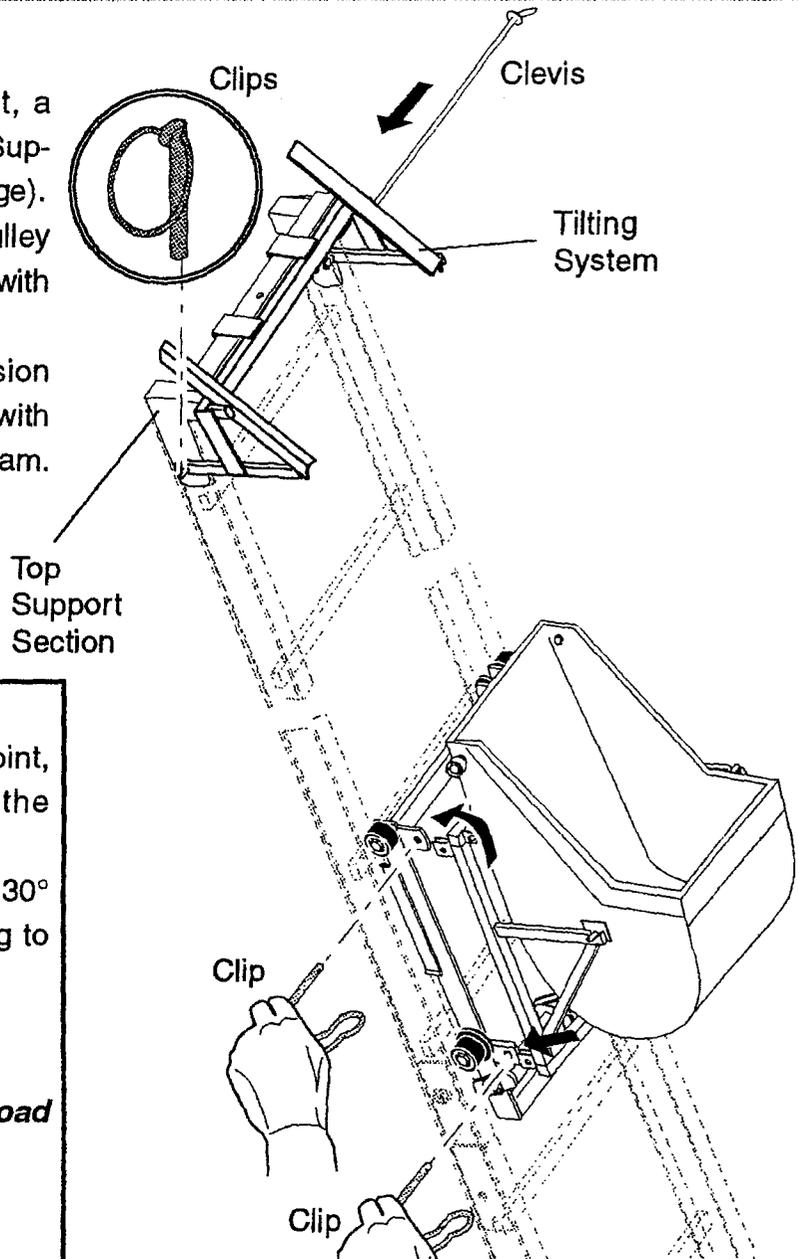
## Section 14 : "BUILDER" PACK

### BUILDER SELF-TIPPING SKIP 32091

Requires the use of the Articulated Joint, a 1 m ladder section, and the Adjustable Top Support (unless simply run up to a window ledge).

- Assemble the Tilt System onto the Top Pulley Section using the long clevis and secure it with the appropriate clips.

- Slide the Skip Support / Skip Suspension accessory onto the carriage, and secure it with the clips. Fit the Skip as shown on the diagram.



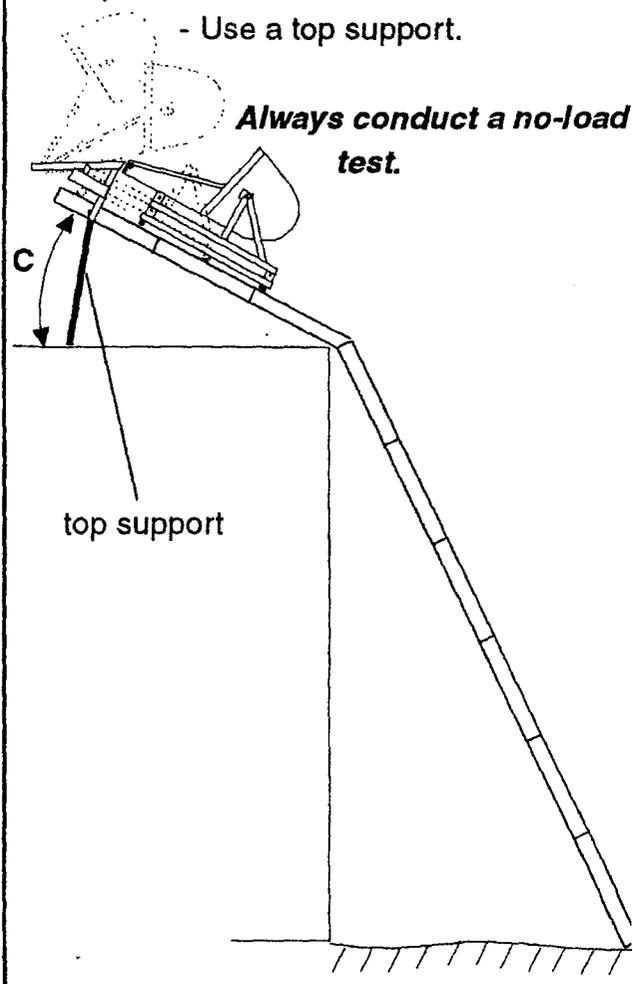
#### To ensure correct tilting

- The skip operates with the articulated joint, 1 m ladder section (minimum) and the articulated joint support. .

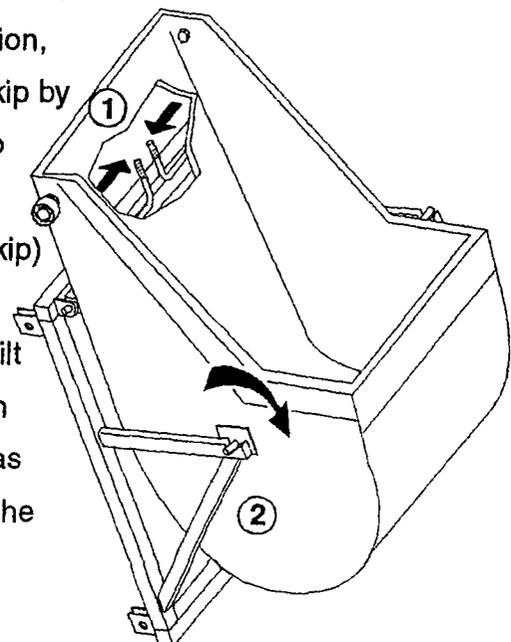
- The ladder section angle C must be 25°- 30° to allow a sufficient angle when tipping to the top.

- Use a top support.

**Always conduct a no-load test.**

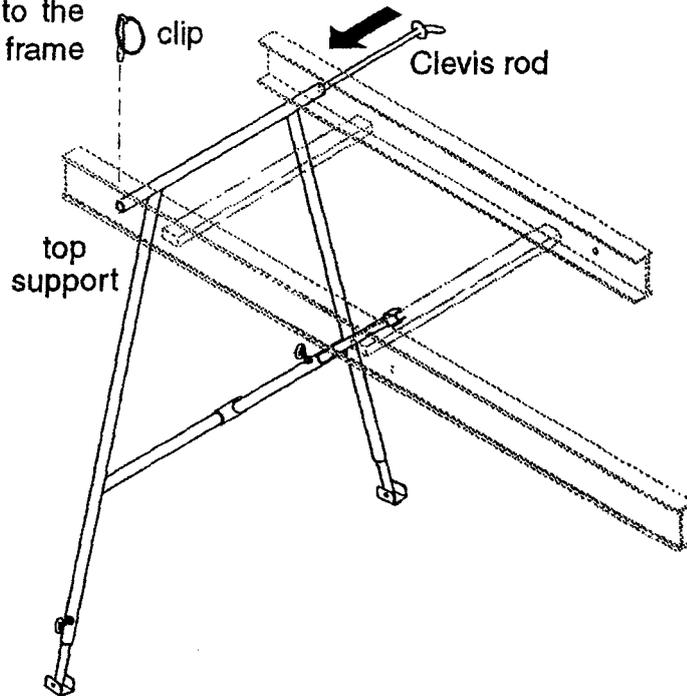


To tilt the Skip in the lowered position, release the Skip by pulling the two handles ①. (behind the Skip) together. The Skip will tilt or tip easily on its axis ② as illustrated on the diagram.



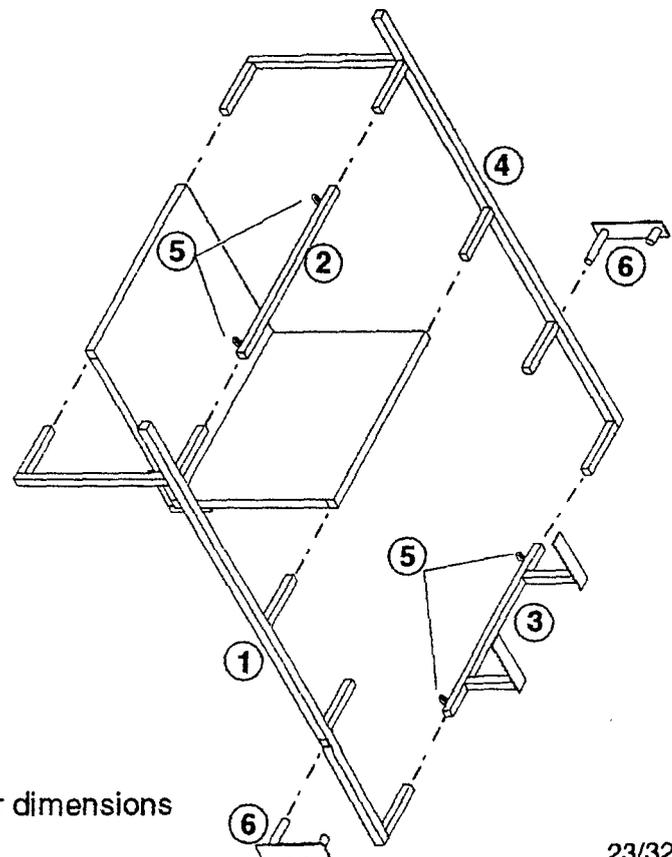
## TOP SUPPORT

- Assemble using the locating holes in the Top Pulley Section.
- Pass the long clevis through the locating holes and secure with the clip.
- Install the telescopic arm by adjusting it to the appropriate length and fitting it to the ladder frame as shown in the diagram.



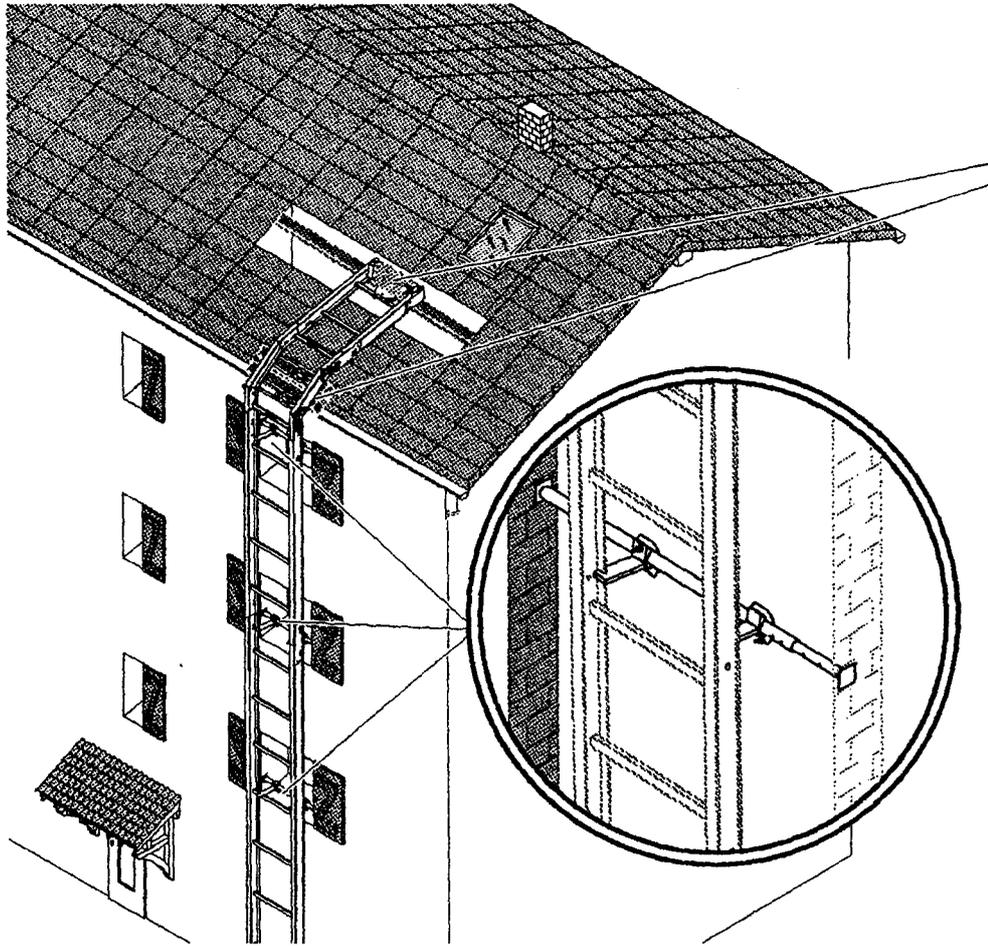
## PLASTERBOARD AND PANEL PLATFORM

- Slide the lefthand component ① into the locating holes in the carriage platform.
- Fit the components ② and ③.
- Slide the righthand component ④ into the locating holes in the carriage platform and components ② and ③.
- Tighten the 4 eye-bolts ⑤ to rigidify the assembled components.
- Insert components ⑥ to keep the plasterboard or other kinds of panel in place during lifting.



**Note :** All panels must be correctly centred, and their dimensions should not exceed 1.40 m x 3.00 m.

## Section 13 : "ANCHORING AND PROPPING" PACK



Anchor the structure both at the top section and at the articulated joint.

### Assembly on a façade :

Anchor the structure, to the window every 4 m with the jacks, type 33906 - 33907 or 33908.

To install on a scaffold, anchor the structure with the help of the tube ties, ref. 33589 tube diam. 49.

### Inclined assembly :

1 top anchoring system with 1 or several propping systems are required for inclined assembly.

**TO DISMANTLE, FOLLOW THE ASSEMBLY PROCEDURES IN REVERSE ORDER.**

### 1/ FACTORS INFLUENCING PROPPING

- Ladder inclination
- Ladder length from ground to first natural support.

### 2/ READING THE PICTOGRAM (chart)

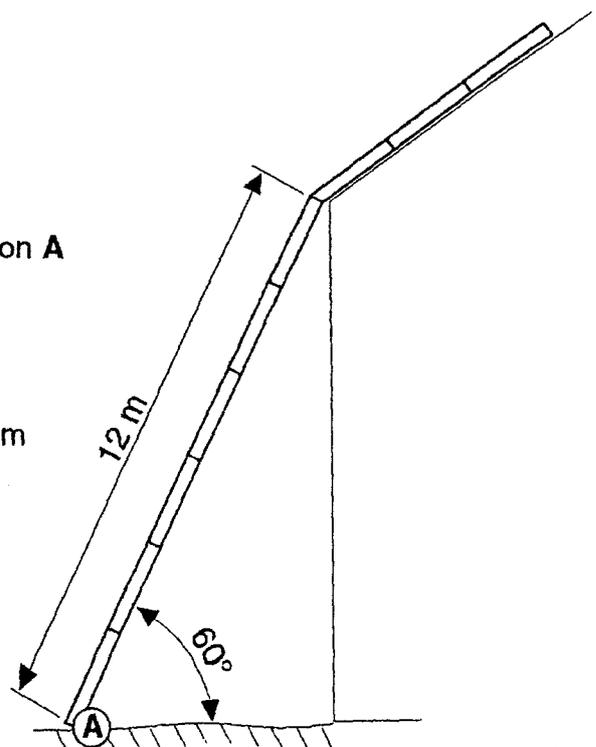
- The pictogram is located at the bottom of the base section A

Example :

- Structure : 19 m of ladder
- Effective length to be propped : 12 m
- Angle at ground level : 60°

*Reading of example :*

*The point of intersection of the 12 m line and of the 60° angle corresponds to using 2 intermediate props.*





## NUMBER OF SUPPORTS

W/D	D : RUNWAY LENGTH LENGTH TO BE PROPPED									
	2 m	4 m	6 m	8 m	10 m	12 m	14 m	16 m	18 m	
30°	0	1	2	2	2	2	DANGER ZONE - CONSULT			
45°	0	0	1	2	2	2				
60°	0	0	0	1	2	2				2
75°	0	0	0	0	1	2				2
90°	ANCHORING EVERY 4 M									

### 3/ PROPS

There are two types:

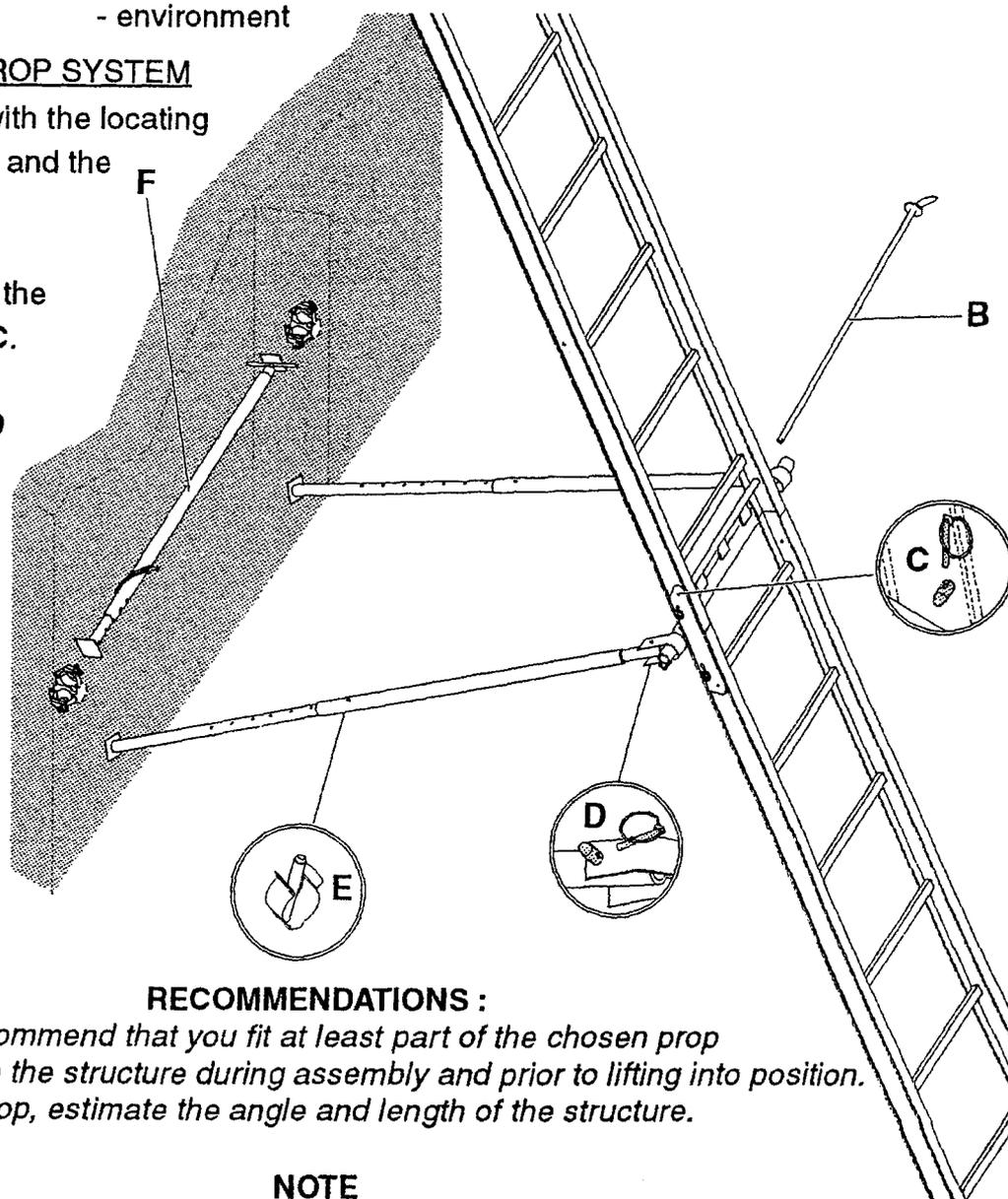
- double prop
- façade prop

Choose the prop required depending on :

- propping height
- spatial requirement
- environment

### FITTING THE FAÇADE PROP SYSTEM

- Align the prop transom with the locating holes in the ladder section and the interlocking plates at the appropriate length.
- Secure the transom with the long clevis **B** and the clip **C**.
- Insert prop units into the U-flanges of the transom **D** and secure with pin.
- Raise the structure.
- Adjust and secure the telescopic legs **E**.
- Use RCM 2100 scaffolding jack **F** and the RCM 230 collars to anchor to a window opening.
- Complete the propping length (add prop units) and adjust the prop legs.



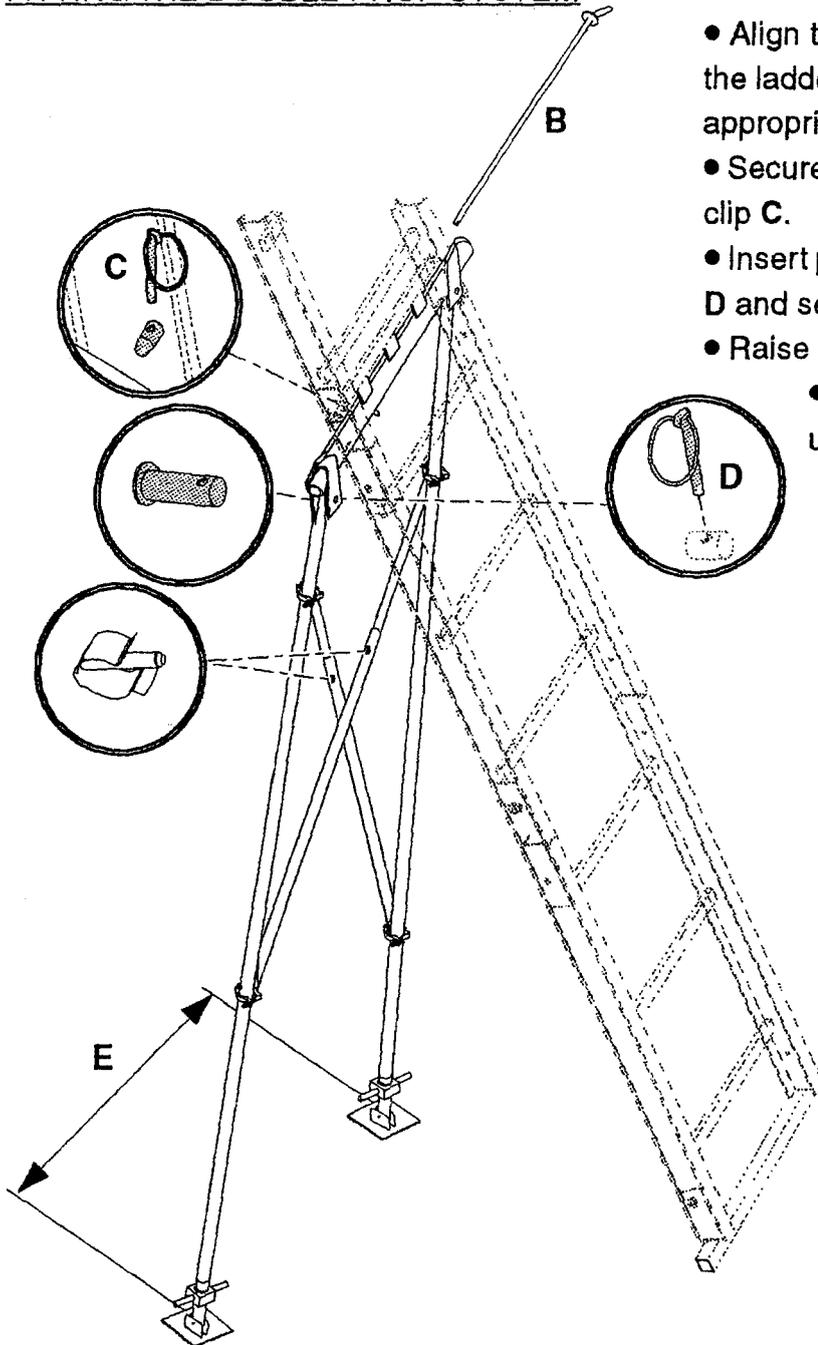
### RECOMMENDATIONS :

For safety reasons, we recommend that you fit at least part of the chosen prop (either double or façade) to the structure during assembly and prior to lifting into position. To judge where to fit the prop, estimate the angle and length of the structure.

### NOTE

with an average angle of 60°, we recommend propping every 5 to 6 metres.

## FITTING THE DOUBLE PROP SYSTEM



- Align the prop transom with the locating holes in the ladder section and the interlocking plates at the appropriate length.
- Secure the transom with the long clevis **B** and the clip **C**.
- Insert prop units into the U-flanges of the transom **D** and secure with pin.
- Raise the structure.
- Complete the propping length (add prop units) and adjust the prop legs to level up.

**For maximum stability, place the prop at an angle and not vertical.**

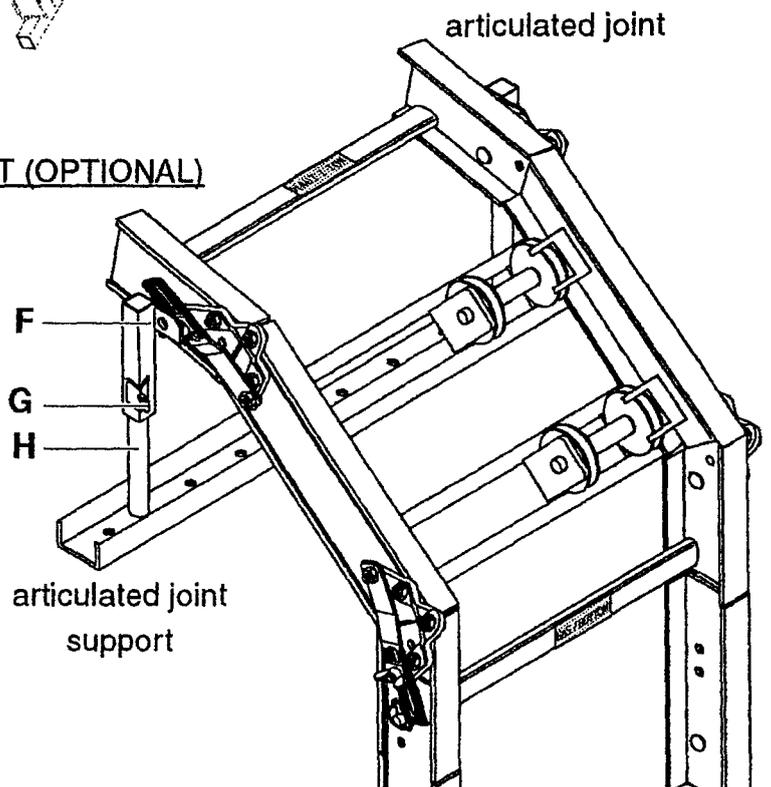
**E**  
**Maximum distance between prop feet : 2.10 m.**  
**Consult us beyond this distance.**

## FITTING THE ARTICULATED JOINT SUPPORT (OPTIONAL)

- Remove the butterfly nuts **F**, but not the corrugated flat bars, from both sides of the articulated joint.
- Fit the articulated joint support, while checking that both corrugated flat bars are properly positioned to prevent the articulated joint to articulate.
- Tighten firmly the bolts **G** on each side.



**The support tube **H** must not extend beyond the top section.**



## Section 14 : CHECKING

Check that the cable passes around the pulley and over the rollers of the articulated joint.

Check the overall stability of the assembled structure and conduct a no-load test.

Visually check the overall assembly before each use, according to your national regulations covering the use of lifting devices.

Inspect erection prior to each utilization.

Check that the power reaching the hoist complies with the recommendations (200 V supply, head-of-line 30 mA differential circuit-breaker).

## Section 15 : OPERATING OF THE MACHINE

When using the machine, it is **STRONGLY ADVISED** to regularly check the parachute system.

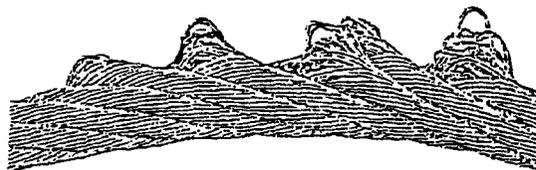
Regularly check the contacts for the top and lower limit switches.

**ENSURE THAT THE CABLE WINDS CORRECTLY ON THE CABLE-DRUM.** When necessary, it is preferable to unwind completely and then rewind the cable onto the drum to avoid twists and bunching...

*To be inspected regularly*



*To be changed immediately*



Should the parachute system untimely function, simply raise the carriage (Button Up) to release the parachute.

If the parachute system frequently jams, you must check that the section above the articulated joint has a minimum inclination of 25°, check that the rollers are in good condition and that the lower limit switch operates properly.

If the case of a possible cable rupture and activation of the parachute mechanism under load, you must unload the accessory in use, change the cable and check for damage to other components. All components must be changed, even those that are only slightly damaged.

Never put any obstacles on the ladder sections.

Never put your hands on the ladder sections during operation of the machine - **THEY CAN BE BADLY CUT.**

Never pass your hand inside the motorised base or between the cable and the hoist unit.

## Section 16 - INCORRECT FUNCTIONING OF THE MACHINE

The carriage does not return, or the parachute mechanism is activated. Check :

- . the minimum inclination of 25° of the section above the articulated joint.
- . the functioning and condition of the rollers on the articulated joint.
- . the condition of the ladder sections.
- . that the lower limit switch is working properly.

The carriage does not lift the load or the hoist does not work. Check :

- . the electric power level reaching the hoist should be above 220 V.
- . the electric cable section.
- . that the lower limit switch is working properly.
- . the push-button control and its cable.
- . the fuse in the electrical box (or the circuit-breaker).
- . electrical power if a generator set is used.

The machine is not working at full capacity. Check :

- . the real weight of the load.
- . the electric cable section.
- . the release of the brake as soon as the up or down button is pressed.

Abnormal heating of the motor unit or frequent tripping of the circuit-breaker or the fuse. Check :

- . that the hoist is not being overloaded.
- . same solutions as previously mentioned.

If you have checked all the above points and the hoist still does not function correctly, please contact the After Sales Service of our local agent.

## Section 17 : IMPROPER USE

- Incorrect use of the limit switches
- Overloading of the platform
- Carrying personnel on the platform
- Improper use of the push-button control ( abusive starting / stopping of the machine )
- Inversion of operating direction before the carriage has completely stopped
- Transporting materials above personnel
- The absence of standard rests or props necessary to correctly stabilise the machine
- The absence of adequate anchoring or ties when lifting unstable loads
- Prohibited use in explosive environment
- The blocking of a functioning part of the machine, including the Up / Down buttons...

## Section 18 : GUARANTEE AND REGULAR INSPECTIONS

### **GUARANTEE.**

This material is guaranteed against manufacturing defects for a period of 6 months from the date of invoice to the end-user by COMABI or by our local distributor.

Our guarantee is subject to the purchaser meeting its contractual obligations, especially in relation to payment.

Our guarantee is limited to the simple exchange of components accepted as being faulty by our workshops, or authorised service agent, and formally excludes all other indemnities, no matter their origin.

This guarantee applies exclusively to products used in compliance with the assembly and operating procedures, and recommendations and advice contained in the operating manual.

**IMPORTANT** : keep your record of purchase (invoice or delivery note) in a safe place because it will be required to apply for guarantee.

### **REGULAR INSPECTIONS.**

Carry out regular inspections of the following :

- the rollers on the carriage
- the lifting cable (**never grease nor oil the cable**)
- the rollers found on the articulated joint and the pulley of the top section.

The recording of a Maintenance and Servicing logbook is obligatory.

Remember that only the use of original spare parts ensures the proper functioning of the machine and allows to apply for guarantee.

## Section 19 : OBLIGATORY CHECKS FOR THE USER

The user must fulfill his obligations concerning the safety of personnel.

The user must ensure that inspections are being carried out in compliance with the national regulations.

The user must maintain an up-to-date safety logbook.

When storing, shut off all power to the machine and protect the sensitive components from bad weather (rain, frost, etc.).

In the case of changing site, changing position of the machine or its equipment, you must follow the dismantling procedure, disconnect the machine from the power source, and respect the environment.

Carry out a visual inspection of the condition of all parts, especially welded joints, at every assembly and dismantling operation.

If a machine presents signs of ageing liable to cause an accident, it is obligatory for the user to eliminate the components concerned, that is to say : ensure the impossibility of using the component, and if necessary the dismantling of the machine.

The destruction of any component part ( or of the machine) must be approved and carried out by a competent person.

## Section 20 : MARKING

- All the component parts of the NEVADA are subject to strict controls at our factory premises, thereby guaranteeing the quality of manufacture.

- The most important components carry the CE marking, attesting to the control procedures. Example

:

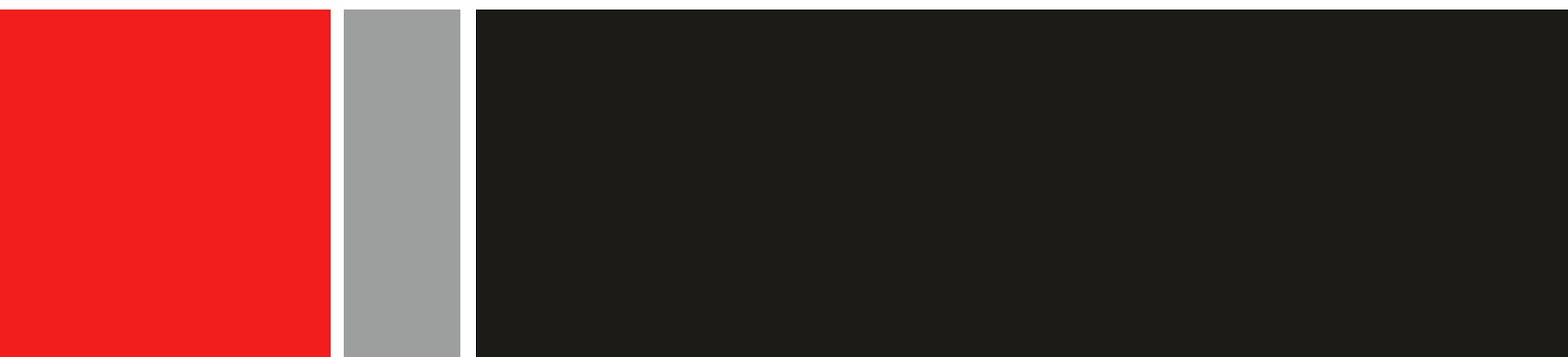


year of  
manufacture

week of  
manufacture



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