

Exclusive Distributor for the United States of America, Canada, Mexico & the Caribbean Islands

# **INSTRUCTIONS ELEVALL EK180**

#### **DESCRIPTION:**

THIS CRANE IS DESIGNED TO LIFT LOADS OF UP TO 397 LBS AT HEIGHTS UP TO 197 FT.

ELEVALL EK180 IS A FOLDING AND EASY TRANSPORT ELEVATOR WHOSE PURPOSE IS TO ELEVATE MATERIALS THAT DO NOT FIT IN AN ELEVATOR/STAIRS OR THAT, DUE TO THEIR DIMENSIONS OR WEIGHT, MAKE IT NOT FEASIBLE TO RAISE THEM OTHERWISE THROUGH THE BUILDING'S FACADE.

ITS USE REQUIRES A MINIMUM KNOWLEDGE AND MUST BE PERFORMED BY A QUALIFIED PERSON.

THE MATERIALS THAT CAN BE ELEVATED AMONG OTHERS ARE:

AWNINGS, GLASS, ALUMINUM, WOOD AND PERGOLAS, METAL TUBES OR OTHER MATERIALS, DOORS, APPLIANCES, KITCHEN BENCHES, PIANO, DEPOSITS, CONSTRUCTION TRUCKS, FURNITURE, IRON BEAMS, ETC...

GLASS AND OTHER SUSCEPTIBLE MATERIALS MUST BE LIFTED WITH THEIR APPROVED LIFTING ACCESSORY SUCH AS CLAMPS OR WITHIN A CABIN MADE FOR THAT PURPOSE, FOR EXAMPLE A CAGE, HIGH RESISTANCE MATERIAL LOADER, ETC...

THE LIFT CONSISTS OF SAFETY DEVICES SUCH AS CABLE GUARDS, CONTACT STOP CONNECTOR (LIMIT SWITCH), ANTI-VIBRATION FEET, EMERGENCY STOP AND SENSITIVE CONTROL.

THE MAXIMUM LOAD IS 397 LBS INCLUDING THE CABIN.

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#### INTRODUCTION

Before initial operation all users should carefully read these operating instructions. The instructions are intended to inform the user about the machine / crane, so that he can get the most out of it.

The operating instructions contain important information on how to operate the machine/crane safely, correctly and economically. Acting in accordance with these instructions will help prevent hazards, reduce repair costs, reduce downtime and increase the reliability and service life of the crane. Persons who are to carry out any of the following work with the crane must read and act in accordance with the operating instructions:

- operation, including setup, troubleshooting during operation, and cleaning
- maintenance, inspections and repairs
- transportation
- In addition to the operating instructions and the law on accident prevention in force in the country and area where the crane is to be used, the general regulations on safety and professional activities must be followed.

Note: This document must be part of the Risk Analysis and the Procedures Manual in general, which are required for each elevator.

#### ASSEMBLY OPERATIONS AND INSTRUCTIONS

#### **Initial assembly**

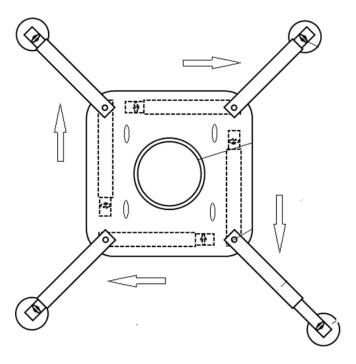
For a correct and safe assembly of the Elevall system, please read the following instructions carefully:

Inspection before initial assembly and operation:

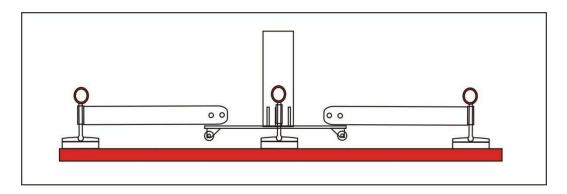
Before initial operation, each lift must be inspected by competent personnel. The inspection is visual and functional and will determine that the crane is safe and has not been damaged during improper transportation or storage.

#### **Mounting:**

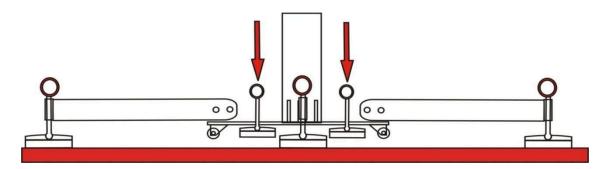
- 1\*Elevall EK180 Mount with Max Output
- 1.1.Approach the crane until it is 15.75 inches from the outside (railing, wall or cornice). Pull out the pin on the stand legs, rotate the legs and put the pin in the correct position on all the legs.



- 1.2. Make sure all pins go through the base plates.
- 1.3. Rotate the rubber feet (silentblock) until the base wheels are raised above ground level.

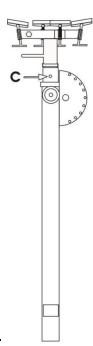


Lower the stabilizers until they touch the ground



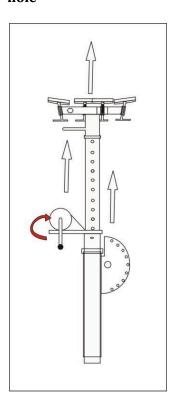
# 1.4. In situations and scenarios with a ceiling:

Remove the pin C from the top of the center mast

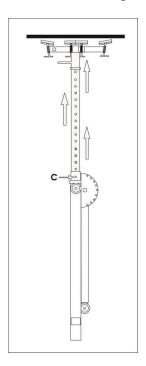


\*NOTE If the ceiling is not made of a resistant material such as plaster, tongue-and-groove wood or other non-resistant material, it should <a href="NOT">NOT be used with the prop mast, use the configuration with counterweights.">NOT be used with the prop mast, use the configuration with counterweights.</a>

# ${f 1.5}$ Rotate the cable winch until the legs are closest to the ceiling matching the pin hole

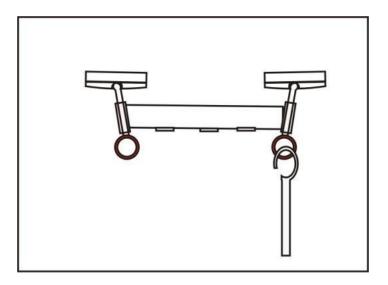


# 1.6 Re-insert the pin

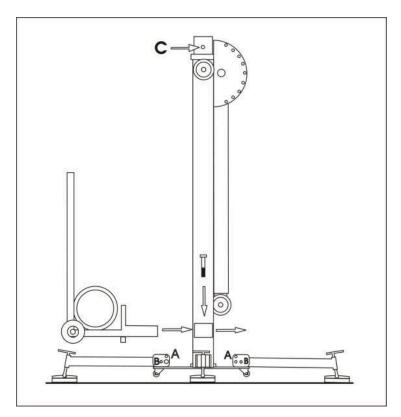


1.7. Press the silentblocks to the maximum with the help of the crank.

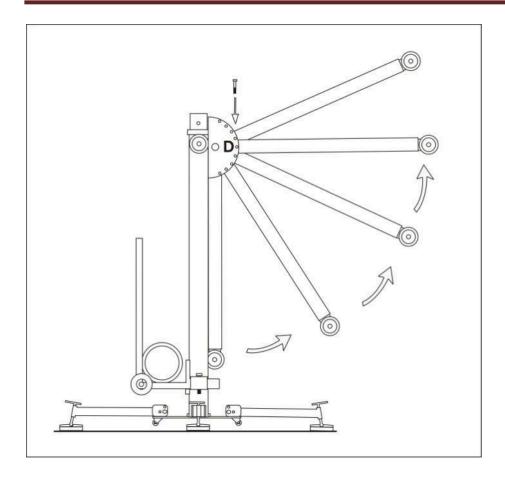
Using the torque wrench and hook wrench, press up to 5.65 Newton or 50 Inch pounds



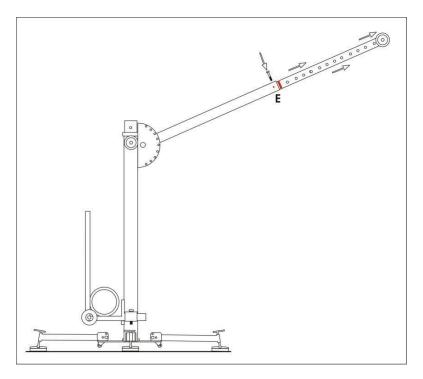
 $1.8. Insert \ the \ motor \ into \ position \ until \ the \ structure \ butts \ against \ the \ mast \ and \ put \ the \ pins \ from \ top \ to \ bottom$ 



1.9. Raise the folding arm to the desired position and put the pin  ${\bf D}$  in its corresponding hole

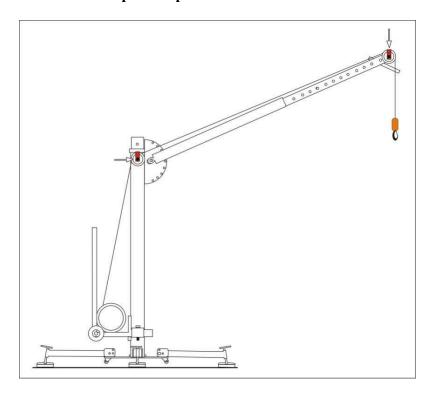


1.10.Extend the telescopic arm to the desired position without extracting it more than the colored safety line and insert the pin E in its corresponding hole.

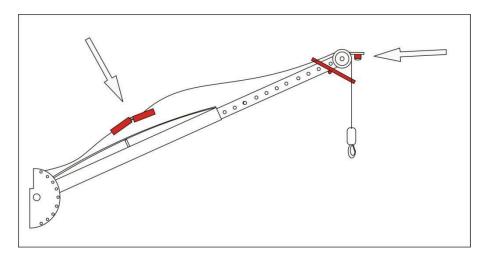


1.11. Connect the motor to the 220 V OR 110V network. Activate the winch, <u>ALWAYS KEEP THE CABLE TENSIONED SO THAT IT DOES NOT ROLL INCORRECTLY</u> and pass the cable through the two guide pulleys, remove the safety bracket to be able to put

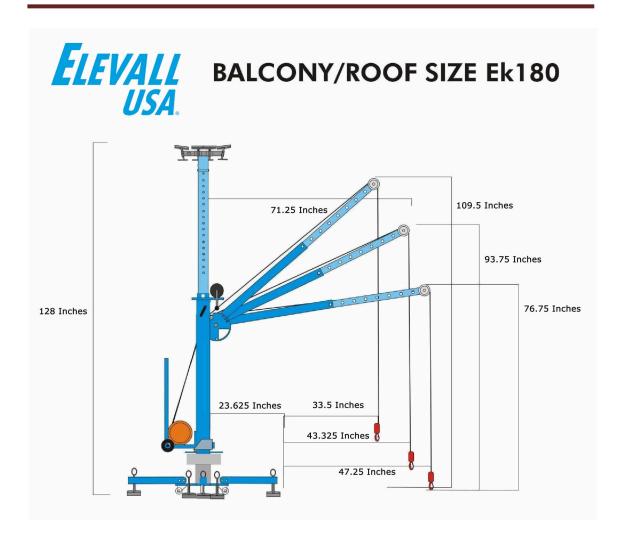
the cable inside and replace the screw and the bracket in place making sure that the cable cannot slip out of position.



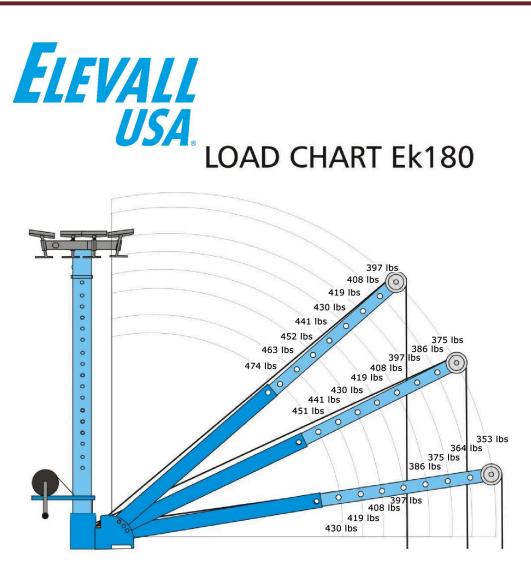
1.12. Connect the limit switch device ,connecting the terminals so that when the hook is raised, the motor is deactivated and the crane is not damaged. (this is a safety measure and care should be taken to stop the engine before reaching this point).



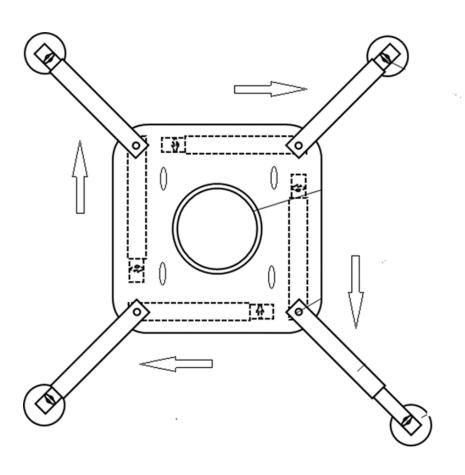
1.13. Keep in mind the maximum measurements specified and respect them.





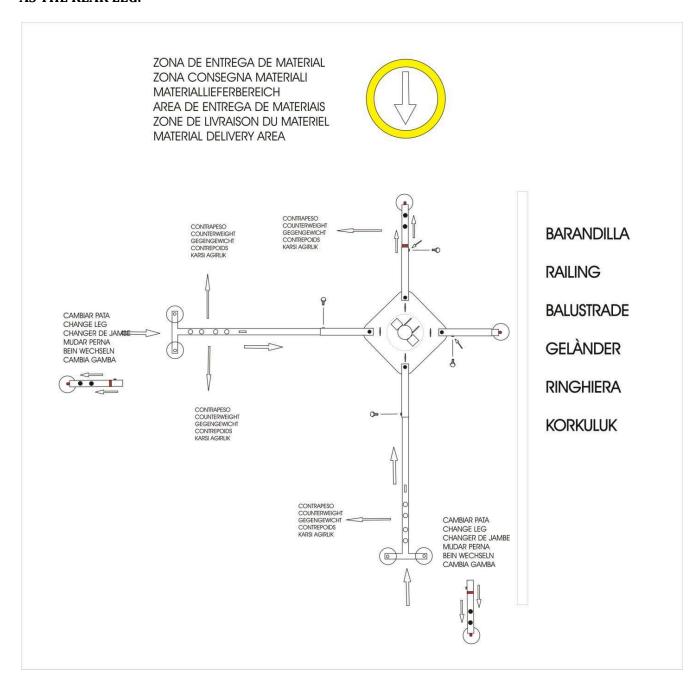


- 2\*Elevall EK180 mount with counterweights
- 2.1\*Extend the legs as in point 1 of the Elevall EK180 mount with maximum output

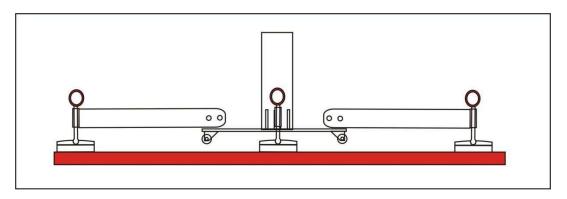


#### 2.2\* Once all legs are extended, remove ONLY 2 OF THE 4 LEGS

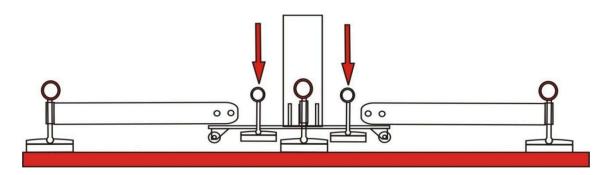
REPLACE THE LONG LEGS OF THE COUNTERWEIGHT ACCESSORY WITH LEGS.NOTE THE DISCHARGE AREA, WHICH IS THE OPPOSITE OF THE REPLACED LEG, AS WELL AS THE REAR LEG.



2.3\* Rotate the rubber feet (silentblock) until the base wheels are raised above ground level



Lower the stabilizers until they touch the ground

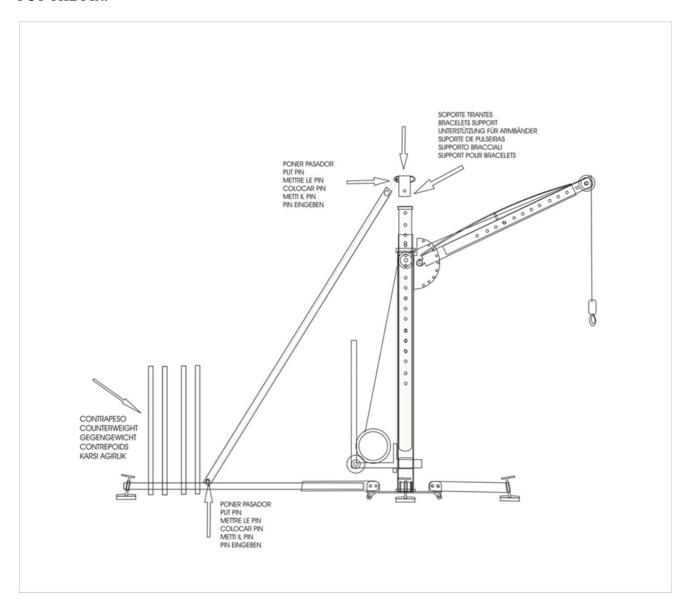


- 2.4\* Place the counterweights on the extensions of the legs, keeping in mind that the weight of the materials to be lifted must be multiplied by 3.
- 2.5\* Counterweights must be coupled in such a way that they do not lose stability during hoisting.
- 2.6\* Counterweights with holes can be used and inserted together with the steel tubes into the hole in the extension legs to give them greater stability.

ONCE THE 2 LEGS ARE INSTALLED, LEVEL THE CRANE.

REPLACE THE TRANSPORT BRACKET WITH THE TIE DOWN BRACKET.

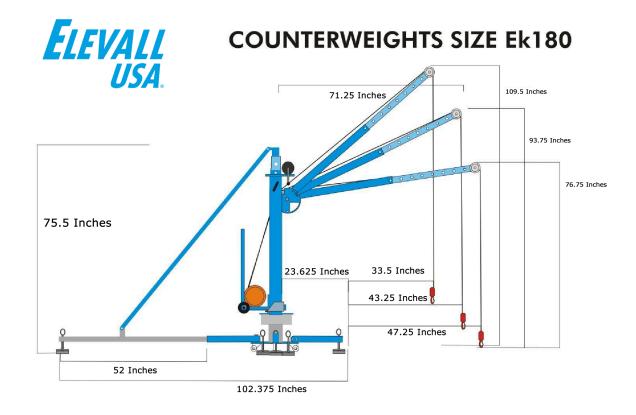
PUT THE PIN.



ONCE THE BRACKET OF THE TIE RODS HAS BEEN CHANGED, INSTALL THE TWO TYRANTS BY PLACING THE SCREWS WITH NUTS IN THE CORRESPONDING HOLES. THE WEIGHT THAT SHOULD BE USED IS THREE TIMES THE WEIGHT WE LIFT.

FOLLOW LIFT INSTRUCTIONS WITH THE ORIGINAL EQUIPMENT INSTRUCTIONS.

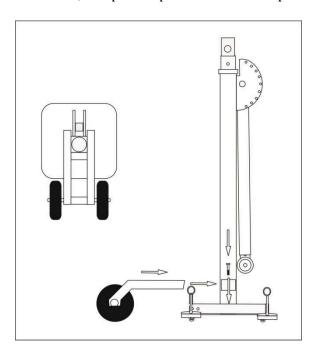
2.7\*Follow steps 3 to 13 of point 1 without taking into account 1.4,1.5,1.6.,1.7



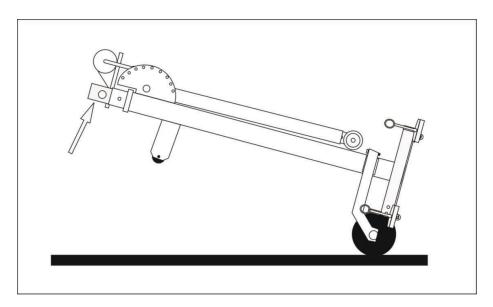
# **Transportation:**

Standard rules for assembly and transportation:

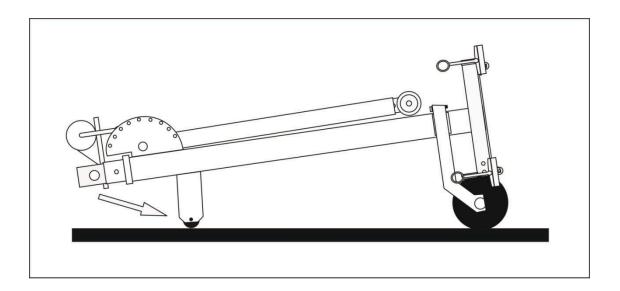
4.1 Insert the transport wheels in their corresponding anchorage, which is the same as the motor one, and put the pins in their corresponding holes.



4.2 Use the top handle for transfer by tilting the lift until it is easy and light to move from one place to another.



Use the kick wheel on the vehicles to move it around with ease



### **PROPER FUNCTIONING**

#### **Maximum capacity:**

The Elevall EK180 lift assembly has been designed to raise and lower loads up to the listed capacity. The capacity indicated on the lift is the Working Load Limit of 397 lbs that should not be exceeded.

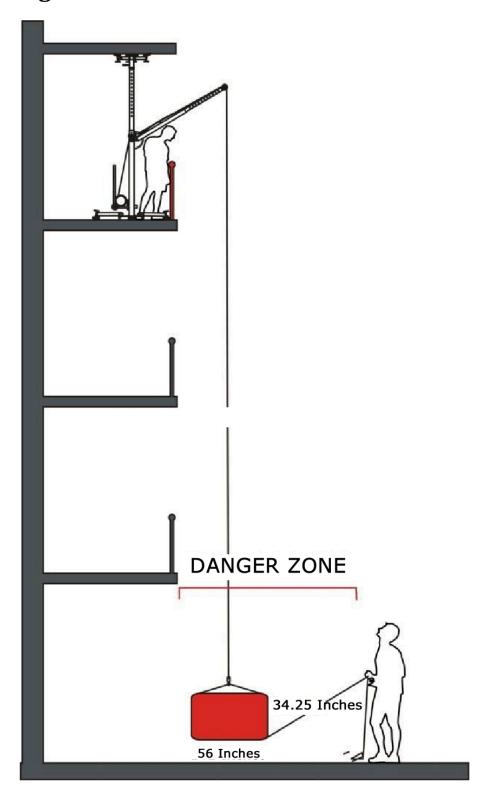
Each lift must be programmed correctly and the operator must know the weight of the load to be lifted.

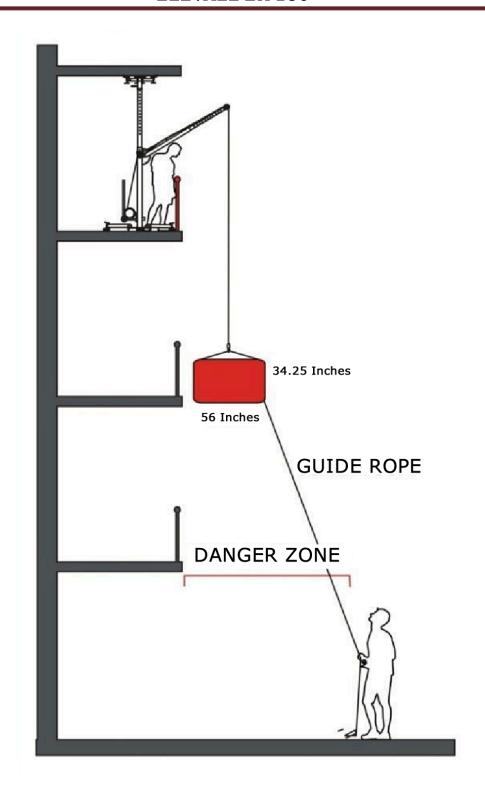
The maximum height to which the materials can be raised is 164 /197 ft.

#### Note:

- 1. We recommend using a load sensing mechanism on all lifts.
- 2. The Elevall EK180 crane is approved for goods lifting applications. NO PEOPLE These specialized units will be labeled to make this aspect clear and will have a maximum WLL (Maximum Weight Allowed) of 397 lbs.

# **Danger Zones:**





#### **NOTES FOR CORRECT USE**

- \* Check the facade of the building and check that there are no objects such as antennas, awnings or other types of obstacles that prevent the load from being lifted safely.
- \* Visualize and determine the danger zone with clearance.
- \* Perform the assembly according to the instructions.
- \* Make sure the lift is set to the correct operating radius for the job.
- \* Start lifting only when the chain/rope forms a vertical line between the load and the lifting shackle used.
- \* Prevent the load from turning.
- \* Use the guide rope to spread out and prevent loads from turning around and snagging on ledges or obstacles from outside the danger zone.
- \* Delimit the danger zone with fences, cones or safety tape.
- \* Start lifting the load only if it has been attached correctly and there are no personnel in the danger zone.
- \* After lifting, do not leave the load unattended.
- \* Use the load inspection screen if you are unable to view the load directly.
- \* Respect the defined danger zone.

#### **FORESEEABLE MISUSE**

- \* Do not use the crane in wind speeds greater than 12.5 miles/hr.
- \* Do not use the crane during an electrical storm or if it is raining moderately.
- \* Do not mount the lift on non-approved stands and bases.
- \* Do not use the lift if it does not rotate freely in the bearing or if the lower flange is dirty preventing it from rotating.
- \* Do not drop lift or stack objects on top. Always place it correctly on the ground so as not to damage the tubes.
- \* Do not lift or carry loads when personnel are in the danger zone.
- \* Do not allow personnel to pass under a suspended load.
- \* Do not handle the cable when the crane is in operation

- \* Do not rotate the hoist when the crane is in operation
- \* Do not use it in moderate rain or with wet hands.

# **Load Coupling:**

The operator must ensure that the crane with the maximum capacity of the Working Load Limit coupled in such a way that neither he nor other persons are put in any danger by the crane, the chain(s) or the load itself.

The weight of the load must be correctly leveled so that the hook is in the center of gravity. There are approved lifting accessories to level the load.

Always use approved lifting accessories.

Slings and straps must be properly attached to the load and leave as little space as possible between the load and the lifting hook.

#### **Temperature range:**

The Elevall EK180 crane assembly can be operated in ambient temperatures between -4°F and +122°F. Consult the manufacturer in case of extreme working conditions.

#### **Inspections before initial operation:**

Before initial operation, each lift must be inspected by competent personnel. The inspection is visual and functional and will determine that the lift is safe and has not been damaged during improper shipping or storage.

In order to ensure correct operation, not only the operating instructions, but also the inspection and maintenance conditions must be followed. If any defect is detected, please stop using the lift immediately.

#### **Inspections before starting work:**

The inspection procedure requires having sent the user a valid inspection and a test certificate verified by the user.

Before use, always inspect elevator tubes and all load bearing components for visual defects. In addition to this, perform a mast free rotation analysis. This inspection requirement only affects the lift.

#### LIFTING AND UNLOADING MANEUVER:

Once all installation, safety and site inspection protocols have been applied, hook up and level the load with the appropriate lifting accessory.

Keep the RAISE button of the sensitive control pressed, observe the load at all times, if it is not possible directly use the load inspection screen.

### An operator must prevent the load from turning by means of a guide rope.

If during the lifting process the load gets caught, immediately release the RAISE button or press the RED EMERGENCY STOP button.

Once you reach the desired height, try to prevent the limit switch from activating by RELEASE THE RAISE BUTTON.

At this time, use the support of the motor cart as a handlebar to rotate the load, introducing the materials into the building.

Once inside, make sure that there are no people or objects in the unloading area that could interrupt the descent.

Keep the DOWN button on the sensitive control pressed until the load is secure.

Unhook the load, raise the hook to a position where there is no danger of impact, and rotate the lift using the motor mount.

Keep the DOWN button pressed until the loading zone.

#### **INSPECTIONS/MAINTENANCE:**

#### Regular inspections:

To ensure that the elevator's operating condition remains safe, regular inspections by competent personnel must be carried out. The inspections are annual, unless adverse work situations occur or the characteristics of use force them to be carried out in shorter periods. Boom components are inspected for failure, wear, corrosion or other irregularities. To check for worn parts it may be the case that the boom has to be disassembled. Repairs must be carried out by an approved specialist workshop, using original spare parts.

Inspections are programmed by the user.

#### **MAINTENANCE:**

Grease with lithium grease the part where there are rollers, in the two pulleys and in the upper and lower bearings of the outer mast, if necessary clean the parts with pressurized oil beforehand.

\*The wire rope must always be checked when collecting it for the folding of the machine at the end of the work in order to detect possible signs of deterioration (deformations, broken threads, etc.) The cable must be changed when detected any of the following types of wear or deformation: • Breakage of more than twelve threads in a length of 9.5 inches. • Internal or external corrosion. • Burns. • Reduction of the diameter by 10% with respect to the nominal diameter of the cable.

#### SIGN SHEET AND USE OF MANDATORY PPE.

#### **ENVIRONMENT SIGNAGE:**

IT SHALL INCLUDE THE OPERATION AREA AND THE ACCESSES TO THE WORK CENTER. THE REGULATION ESTABLISHES THE FOLLOWING SIGNS IN THIS RESPECT

\*WARNING SIGN OF SUSPENDED LOADS TO BE PLACED AT THE ACCESSES TO THE MANEUVER AREAS OF THE LIFTING EQUIPMENT.



SUSPENDED LOAD DANGER

THE USE OF THE FOLLOWING PERSONAL PROTECTIVE EQUIPMENT IS MANDATORY TO USE. MAKE SURE THAT THE EQUIPMENT HAS CERTIFICATION MARKING AND THE MANUFACTURER'S INFORMATION BOOKLET



#### **DISCLAIMER**

All brackets, legs and other accessories have been designed, engineered and tested for safe use with Elevall equipment and are a key part of the integrity of the total system.

- All supports have a maximum resistance of 661 lbs.
- All brackets and tubes supplied are made of steel

In case of using non-standard third party mounts and bases, the product is void.

**DISTRIBUTOR: ELEVALL USA** 

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PHONE: +1-561-888-3626 PRODUCT: MINI-LIFT CRANE MODEL: ELEVALL EK180

# INSPECTION AND MAINTENANCE RECORD

SERIAL NUMBER:	:
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**MODEL NUMBER:** 

DATE OF PURCHASE: DATE OF FIRST USE:

DATE	OPERATOR	OBSERVATIONS	MAINTENANCE	