



# INSTALLATION MANUAL

## Transport platform

**SP**  
SERIES



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# 1. Foreword

## 1.1. Revision table

Revision no.	Description	Date (yyyy-mm-dd)
02	Revision after first installation and test	2017-12-12
03	Update ground base and ladder	2020-09-01

## 1.2. Documents and applied standards

- CSA B354.12-17 - Design, calculations, safety requirements, and test methods for mast climbing transport platforms (MCTPs)
- CSA B354.13/14-17 - Safe use and best practices for mast climbing transport platforms (MCTPs)/ Training for mast climbing transport platforms (MCTPs)
- ANSI/SIA A92.10 – 2008 – American National standard for transport platforms

### Other documentation:

- User's manual (RD-7243-MA-001)
- Parts book (RD-7243-MA-003)
- Safety device reset procedure SD2 (emergency centrifugal brake)

## 1.3. Manual content

The present installation manual conveys all the **important** and necessary information to perform the assembly and dismantling of the machine. This information is necessary for safe and economic work with the machine.

Carefully read the present manual upon reception of the machine, before proceeding to assembly and commissioning. Take time to observe all **notes** and pay attention to the **safety instructions**.

### 1.3.1. What is included in this manual?

In this manual you will find information's, advices and instructions regarding;

- Intended use and application domain
- Inherent and residual risks
- Safety
- Technical data
- Installation requirements
- Operation
- Fault, cause and troubleshoot
- Maintenance
- Customer's service

### 1.3.2. Who must read this manual?

- Installer and operator working on the machine.
- Machine maintenance staff (cleaning/maintenance)

### 1.3.3. Manual exclusions

- This manual **is not** a user's guide. For operation instructions and the option list, please refer to the user's manual (RD-7243-MA-001).

## 2. Safety

### 2.1. Warnings and symbols


This manual is intended for any person called upon to proceed with assembly or dismantling of the platform and its structure. The machine is manufactured and assembled according to current technology and is safe for use. However, because of the nature of its utilization, the machine has components and sections that cannot be protected without preventing its proper functioning. For this reason, good personal safety practices must be followed to protect the staff and equipment. Risks may occur if the equipment is used incorrectly by untrained staff or to perform unintended operations.

#### Training requirements:


- An **operator** must have successfully completed **Level 1 (Safety and user)** training and hold a valid training card, be familiar with the content of the present manual and master operation rules/regulations for the platform;
- An **installer** must have successfully completed **Level 2A or 2B (Installation)** training and hold a valid training card, be familiar with the content of the present manual and master operation rules/regulations for the platform;
- **Before assembly, disassembly, operation or maintenance** of the platform, you must read and perfectly understand instructions found in the present manual, as well as the installation manual. Not conforming to these safety instructions may generate material damages, severe wounds and even death. FRACO and/or its representative can in no case be held responsible. All local norms and regulations applicable concerning safety and prevention of accidents, environmental protection and all other activity related to assembly, disassembly, operation and maintenance of this type of equipment are considered a supplement to the present manual and must imperatively be respected, for example; the use of individual protection equipment (harness, helmet, boots, etc.).
- If the machine is installed in an area accessible to the public, access to the working zone must be restrained with a fence of MINIMUM 8,20 ft (2,5 m) high. The operator of the machine has the responsibility to check the stability and solidity of the fence.
- **Safety is our priority!** For this reason, never remove or modify a part to adapt the platform to a different condition. Contact FRACO or its representative for any assistance.
- **Use only parts from the official list of parts.**  
∞ REFER TO THE PARTS BOOK (RD-7243-MA-003).
- **Keep this manual close to the machine.** This manual is considered an integral part of the platform and is mandatory to communicate the necessary safety information to the operators and installers. A copy of this manual must always be included in the waterproof tool compartment of the platform intended for this purpose.
- **Stickers and warnings.** Make sure to read and understand all the stickers, warnings and instructions posted on the equipment, or to get explanation from a qualified person.

**Remember:**

- For safety reasons, a **minimum of two (2) persons** must be present on each platform at all time during assembly, dismantling, maintenance or operation.
- Local regulation may require that the platform be permanently equipped with a fire extinguisher. Its location on the platform must be clearly indicated to be easily found.
- **In case of FIRE:** Remain calm and warn the persons present on the platform. If available, use the fire extinguisher and follow its instructions. If the fire is out of control, evacuate the platform by the nearest exit access.
- Local regulation may require appropriate protection of the platform in case of an electrical storm.
- **Work on the platform only if wearing tight-fitting clothing, security boots and a helmet** in accordance with local regulation in effect. Do not wear jewelry such as necklaces and rings as it may induce a risk of jamming and pulling.
 


- **IMPORTANT!** Refer to the [SECTION 2 SAFETY, ON PAGE 5](#) for the additional safety instructions regarding the operation of the platform.  
 ∞[SEE SECTION 2 SAFETY, ON PAGE 5.](#)  
 If, after having consulted this manual, you have doubts regarding the assembly, dismantling, maintenance and use of the platform, contact your FRACO representative.
- **Consequences of violation of safety instructions;** violation of safety instructions may put staff, environment and machine in danger. Violation may lead to the cancellation of all indemnities.

**In this manual, the following symbols and annotations are used:**

Symbols	Description
 <b>Danger</b>	<b>Major</b> risks for physical and/or material damages for survival and safety
<b>Warning!</b>	Risks of physical and/or material damages
<b>Important!</b>	Important points to monitor to conform with proper functioning of the machine
<b>Note</b>	Additional of complementary information

*Table 1 - Symbols and annotations*

## 2.2. Residual risks

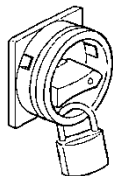
Despite all precautions taken, potential residual risks remain such as:

- Wounds from uncoordinated tasks
- Malfunction of a control system
- Work with an electric system
- Damage to the transport equipment
- Fall of inappropriately secured objects
- Strong winds
- Entrance and exit
- Loud noises
- Dust
- Or any other work-related inherent risk, etc.

## 2.3. Operational and transport safety

During the operation of the machine, be sure to follow the following safety instructions;

- Respect the load capacity of the equipment.
- Use the machine only in the absence of technical defects; use being conscious of the safety measures and risks while observing the user guide.
- Immediately correct defects that may affect safety.
- Immediately stop the machine if there are changes relative to the safety of the machine or its operative behaviour and report the problem to management or its representative.
- Do not modify the machine by adding parts that are not included in the original parts list. This also applies the installation and adjustments of security devices, such as end travel detectors.
- Do not modify, replace or bypass safety devices.
- Immediately replace damaged, illegible or missing signs and notices, as well as safety stickers.
- [∞ SEE THE LIST OF DATA PLATES AND STICKERS IN THE USER GUIDE \(RD-7243-MA-001\).](#)
- If work is interrupted, turn off the machine with the main switch and lock with a padlock.





(Image for reference only)

In situations representing a danger for the operating staff of the machine, turn off the machine by pressing the **EMERGENCY STOP** button.

[∞ SEE SECTION "EMERGENCY STOP BUTTON" IN THE USER'S GUIDE \(RD-7243-MA-001\).](#)



(Image for reference only))

-  Lower and stop the machine when winds exceed > 35 mi/h (> 55 km/h). If winds exceeding **>70 mi/h (> 117 km/h)** are expected, secure the unit to the ground. If in doubt, consult effective local regulation and/or your FRACO representative.
- Always protect the machine from unauthorized use.
- Safely distribute load on the platform. Any material that may slide or fall must be anchored correctly.
-  **Do not** stand or work beneath the platform!
- Do not place objects beneath the platform.

- Evenly position loads on the platform and respect maximum distribution.
- Store materials at a secure distance of at least 20" (50cm) of any moving part of the machine.
- The user must ensure that the area where the machine is installed is clean and uncluttered, as specified in the instructions.
- Any person accompanying the operator must conform to its given instructions. More particularly, the person must not step over the material being transported in the platform.
- Identify damages, sounds and defects externally recognizable. Immediately signal all functioning changes or defect to the management of the company or its authorised representatives and turn off and secure the machine immediately.
- **Important!** Adequately illuminate the platform during night shifts and where light is necessary.

## 2.4. Safety instructions

### 2.4.1. Safety perimeter

- Limit a sufficient safety perimeter and prohibit access around the base, platform and any risk area around the later. This must be done in accordance with effective local safety standards and regulations. No object or debris should be stored within this perimeter.

### 2.4.2. Assembly and dismantling safety

- **Important!** Observe the specified tightening torques for the bolting of risk elements (mast sections and rack segments).
- The machine must be assembled and dismantled in accordance with the installation manual and under the supervision of an authorized person specified by the contractor.
- The user is responsible, during assembly/dismantling, as well as during operation and maintenance, of dictating instructions concerning the machine to any persons present for all to be effectively informed of safety instructions.
- The user must make sure no unauthorized person is present on or in proximity of the machine.
- Assemble the equipment in an exactly vertical and stable position, and anchor it to the building.
- Before beginning work on the place of use, familiarize yourself with the work environment, for example obstacles in the work area, bearing capacity of the ground and necessary protection of the construction site.
- Load and transport only material that has been carefully dismantled, wrapped and solidly anchored.



### 2.4.3. Maintenance safety

- Inspect before putting into service. Recurrent and periodic inspections must be performed according to the instructions in this manual, as well as according to local standards and regulations.
- Workers must be informed regarding type and scope of periodic inspections.
- Results of periodic inspections must be recorded in the appendix of the present user's manual.
- Turn off the machine (turn off main power supply) before maintenance.
- The platform must be secured with the appropriate material (travel blocking mechanism) when work is being undertaken under the machine.
- Authorised maintenance and repair work must be performed only by **authorised and qualified persons**. Pay attention to the risks inherent to work on electric systems. Respect local standards and regulations in effect regarding electrical work.
- Correctly reassemble and verify all dismantled safety devices when maintenance is completed.
- **Important!** Independent conversions and modifications made to the machine compromise safety and are not authorised.
- All spare parts must comply to the technical requirements of the manufacturer. Only use replacement parts of FRACO origin.  
∞ [REFER TO THE PARTS BOOK \(RD-7243-MA-003\)](#).

### 2.4.4. Promoting use of the user's manual

User's/installation manuals contain rules and reference to be considered by a contractor or group of contractors and are contractual instructions delivered as part of management rights. Employees are required to follow these instructions. The contractor must follow the instructions for the prevention of working accidents and must inform the insured of the risks inherent to their work as well as takes measures to avoid these risks

## 3. Installation instructions

The following instructions describe typical installation steps. As each installation differs, certain steps may not be necessary while other additional steps may be required. Always refer to the engineering package specific to the project containing plans and detailed specifications.

### Step 1

- Identify the facade, the wall of the building on which the anchors will be installed.
- Install/prepare the foundation by following directions.
- Install the base on the foundation by following directions:
  - Base with adjustable jacks ([SEE BASE WITH ADJUSTABLE JACKS ON PAGE 13](#))
- Install buffers to the base.
- **Warning!** When installing the base, make sure to respect the wall distance specified in the engineering package.

### Step 2

- Install the ground protection mesh. **Warning!** Make sure to install the ground protection mesh in the right direction (loading landing door on the side opposing the wall), as this may vary from one construction site to another. The mesh must be turned toward the exterior.

### Step 3

- Install two (2) mast sections on the base. Bolt by using the specified tightening torque. [SEE SECTION 7.1 INSTALLATION OF THE FIRST TWO MAST SECTIONS , ON PAGE 19.](#)
- Install the "**BAS/LOW**" floor detector pad.
- Prepare the platform and make sure all its components are solidly secured (cable support, centrifugal brake, motor unit, pinions, rack support tread and protective roof (**optional**), etc.).
- Lift the platform with a crane/truck crane or forklift having the required capacity. **Warning!** Use the intended lifting points.  
∞ [SEE 7.3 LIFTING OF THE PLATFORM, ON PAGE 22.](#)
- Insert the platform on the mast sections installed on the base. Slide the frame on the length of the mast, making sure to align the pinions to the rack during this operation. Adjust the guide rollers, tandems and protections. **Warning!** Pay attention to any superfluous resistance during assembly of the platform, more particularly at the pinions and the rack.
- Verify the alignment of the platform and adjust the guide rollers of the power unit as needed.

### Step 4

- Complete the electrical connections by leaving the junction box and cable guides on the ground for the moment.

### **Step 5**

- Assemble up to six (6) mast sections together on the ground. **Warning!** Make sure that you have the correct mast sections during the entire the assembly process (correct model number, direction of the rack). Also make sure that the mast sections are in good condition; no steel deformation may be present.
- Lift the assembled mast using a crane/truck crane.
- By using a crane/truck crane or an access scaffolding, bolt the mast sections together. **Warning!** If you dispose of a self-erecting device (**available on option**), refer to [SECTION 7.9 INSTALLATION WITH THE SELF-ERECTING DEVICE \(OPTIONAL\), ON PAGE 32](#).
- Progressively install the «**INTERMÉDIAIRE/INTERMEDIATE**» floor detector pads.

### **Step 6**

- By using a crane/truck crane, an access scaffolding, or the platform installation tailgate, install the anchors to the wall.
- Install the mast attachments to the mast and fasten the turnbuckles to the anchors.
- Adjust the turnbuckles to correct the verticality of the mast.

**Warning!** Refer to the engineering package for instructions specific to the type of anchor and levels of installation.



**WARNING! Never install more than 30'-0" (9,15m) of mast sections over the last anchor installed (the highest anchor).**

- When the two first mast tie systems are installed, the adjustable jacks outriggers from the ground base must be removed ([SEE BASE WITH ADJUSTABLE JACKS, ON PAGE 13](#)).

### **Step 7**

- Repeat **steps 5 and 6** until the total height specified in the engineering package is reached.
- Install the "**HAUT/HIGH**" floor detector pad.
- Install the junction box(es)
- Install a cable guide every 20'-0" (6,0m) **maximum**.
- Complete the final electrical installation.

∞ [REFER TO THE ELECTRICAL DIAGRAM SPECIFIC TO THE PROJECT.](#)

∞ [REFER TO SECTION 10 ELECTRICAL CONNECTIONS, ON PAGE 40.](#)

### **Step 8**

- Complete assembly by installing the end mast section (mast section with no rack and painted red).

### **Step 9**

Validate the position of all floor detector pads.

∞ [SEE SECTION 9 LEVEL DETECTOR PADS, FROM PAGE 35](#)

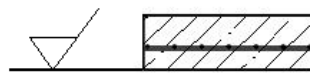
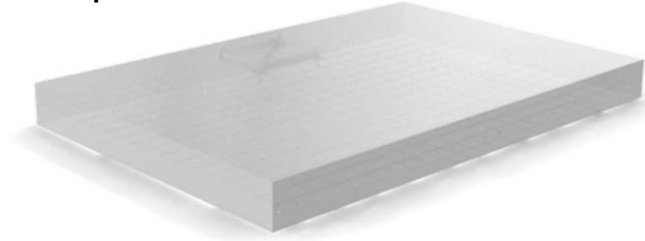
### **Step 10**

Install the landing doors.

Connect the landing doors to the safety line, in accordance with the electrical diagram.

## 4. Foundation

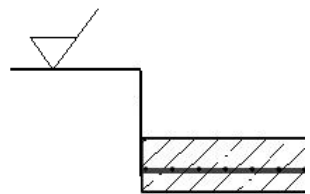
### Steel plate – concrete slab – crushed stone



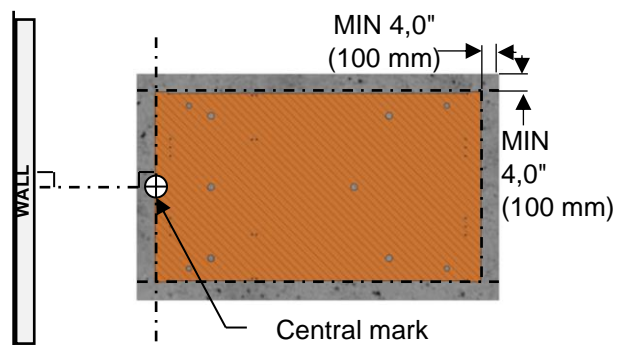
Place the foundation on the ground and install high enough to be above the level of the threshold of the ground mesh. No drain required.



Place the foundation on the ground and install high enough to be level with the threshold of the ground mesh. No drain required.



Place the foundation on the ground and install low enough to be below the level of the threshold of the ground mesh. **A drain is required!**



Install a foundation sufficiently resistant to distribute the load of the mast in the ground. This foundation may be made of a steel plate, a concrete slab, or crushed stone. The following example suggests the use of crushed stone overlaid with a concrete slab.

#### Steps:

1. Level the ground under the base with 0-3/4" crushed stone for a [4,0" (100 mm) à 6" (150 mm)] thickness respecting the dimensions of the base.
2. Depending of the height of installation, it is possible to use another type of foundation (concrete slab, steel plate, supporting structure, etc.) provided it is signed and approved by a sufficiently experienced engineer.
3. Mark the dimension of the ground base on the crushed stone foundation with precision. Respecting a clearing of **MINIMUM 4,0" (100 mm)** around tour. Mark the center in front of the foundation, facing the wall.
4. The dimensions of the foundation are specific to the installation (model, height of installation, platform configuration) and are specified in the engineering package specific to the project.
5. Verify leveling of the stone foundation with a spirit level and verify perpendicularity in relation to the wall.
6. The foundation must be level with the ground. **If not**, the ground must be drained.
7. **If there is a risk of freezing, the foundation must be isolated.**
8. Complete foundation specifications must be detailed in the engineering package specific to the project.
9. The total weight of the SEP and mast sections is transferred to the ground through the base of the machine. ([REFER TO THE USER'S MANUAL RD-7243-MA-001](#)).

# 5. Bases

## 5.1. Base with adjustable jacks

- Install the base by respecting the distances specified in the engineering package.
- **Warning!** Install the installation outriggers. Remove these outriggers once the first two (2) mast anchors are installed.
- **Warning!** Do not forget to later remove the outriggers as they are useful only during assembly and will interfere with the functioning of the buffers during normal operation. Must be removed once the first two (2) mast anchors are installed.
- Assemble the buffers to the base by using the supplied bolting kits.

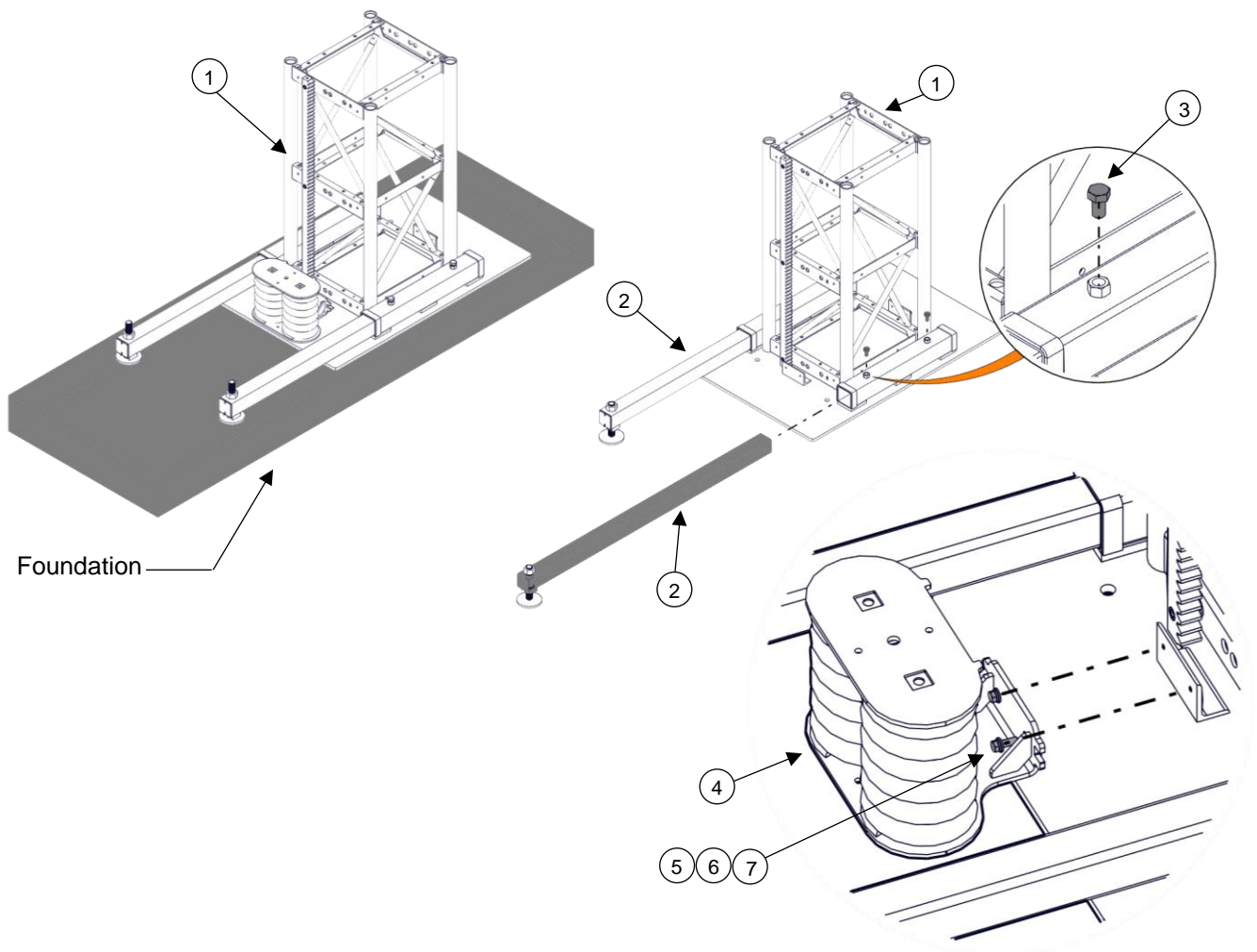


Figure 1 – Base with jacks and buffer assembly

No.	Qty	Item	Description
1	1	RD-7243-BA-118	Welded base for mast section 26" x 26"
2	2	RD-7243-BA-114	Base outrigger
3	4	BOZ-8694	Bolt 7/8"-9unc x 1-1/2" gr8 zinc
4	1	RD-7243-BA-107	SEP Spring buffer assembly
5	2	BOZ-8556	Bolt 1/2"-13unc x 1-1/2" gr8 zinc
6	2	LOZ-5030	Lock nut 1/2" zinc
7	2	WAZ-7031	Washer 1/2" SAE zinc

## 6. Ground protection mesh

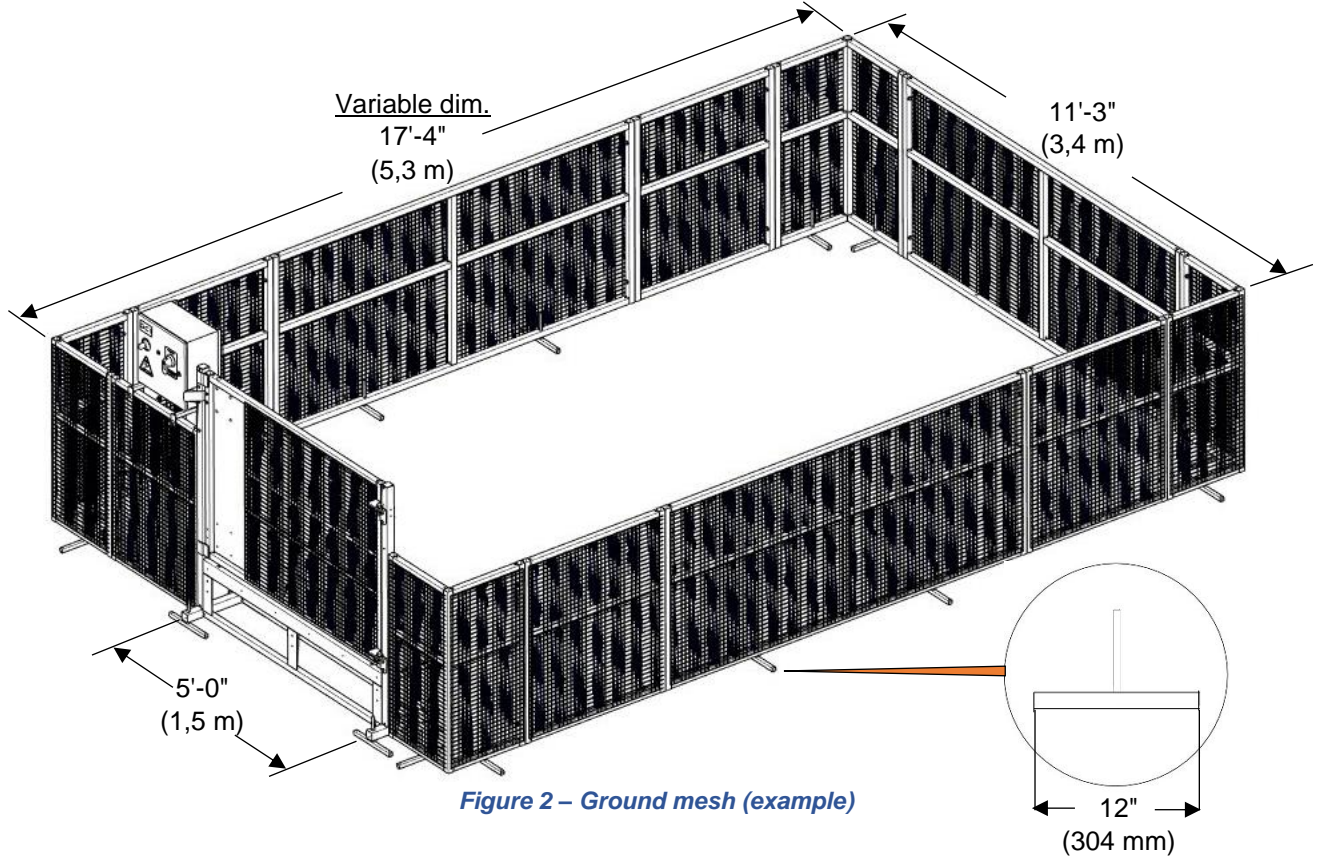
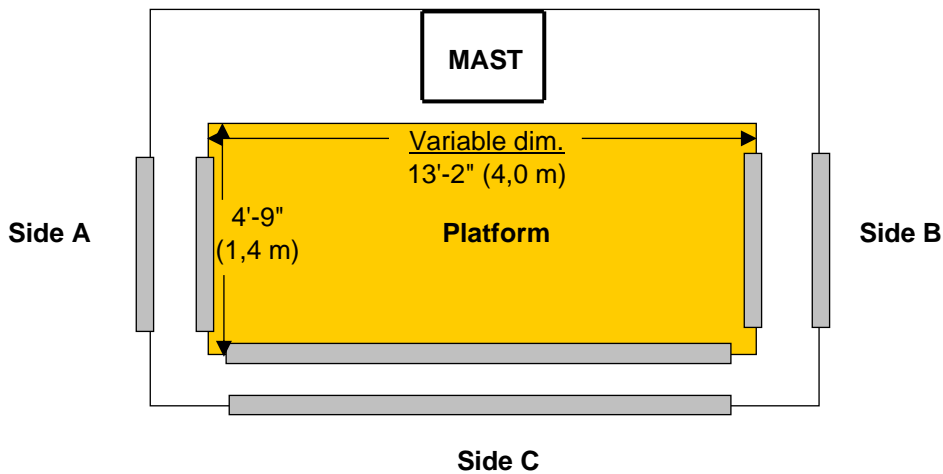


Figure 2 – Ground mesh (example)

### Ground protection mesh



#### Standard application

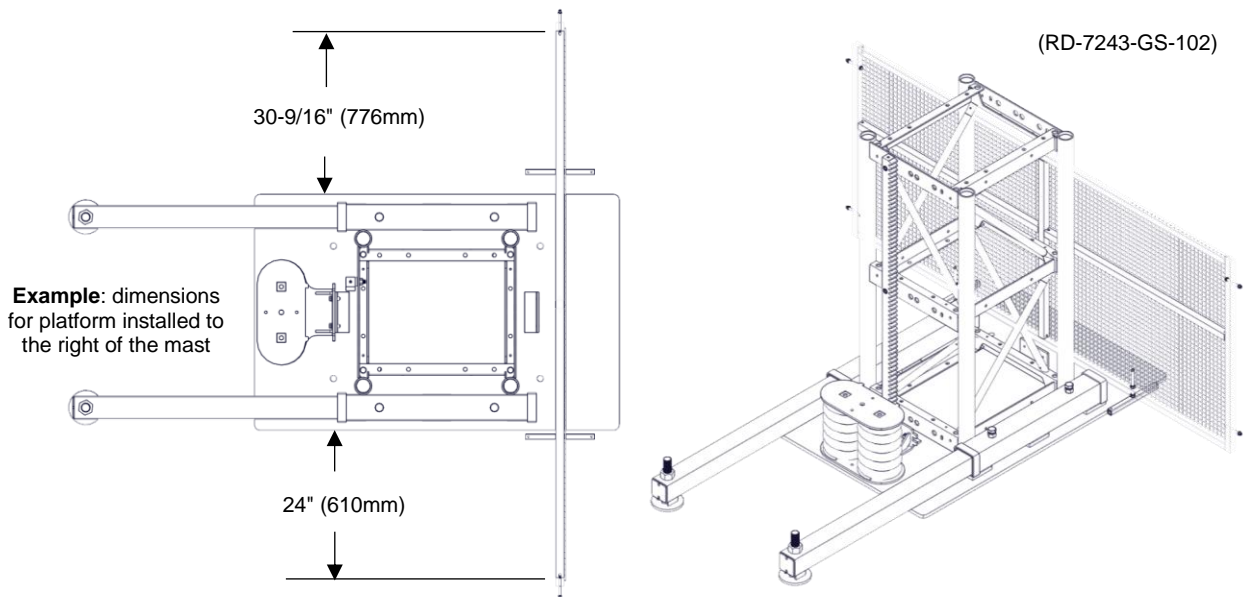
- Side « A » is the platform ground access.
- Side « B » is the level transfert point.  
**Note:** Sides « A » and « B » may be inverted as needed during assembly.
- Side « C » (optional) is linked to Side « A » or « B » during assembly.

## 6.1. Ground protection mesh assembly, single mast

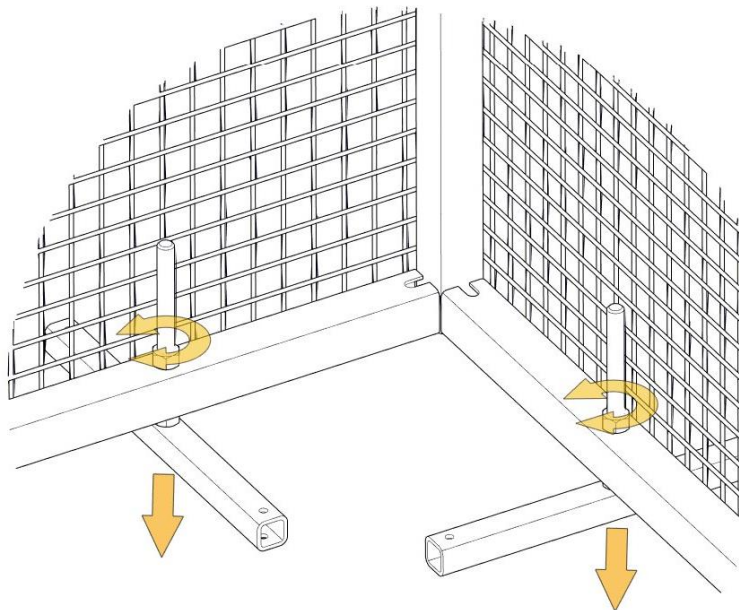
This example displays a single mast machine, **assembled to the right side of the mast**. Note that the direction of the assembly must be inverted for a machine **assembled to the left of the mast**.

### Step 1 – Left panel

Install the left panel of the mesh (RD-7243-GS-102), with the mesh turned outwards. Place the mesh panel against the ground base and refer to the dimensions below.



Adjust the height of the feet of the base.



*Figure 3 – Ground protection mesh and adjustment*

## Step 2 – Assembly of the panels and the door

**Warning!** Every mesh must be turned toward the exterior.

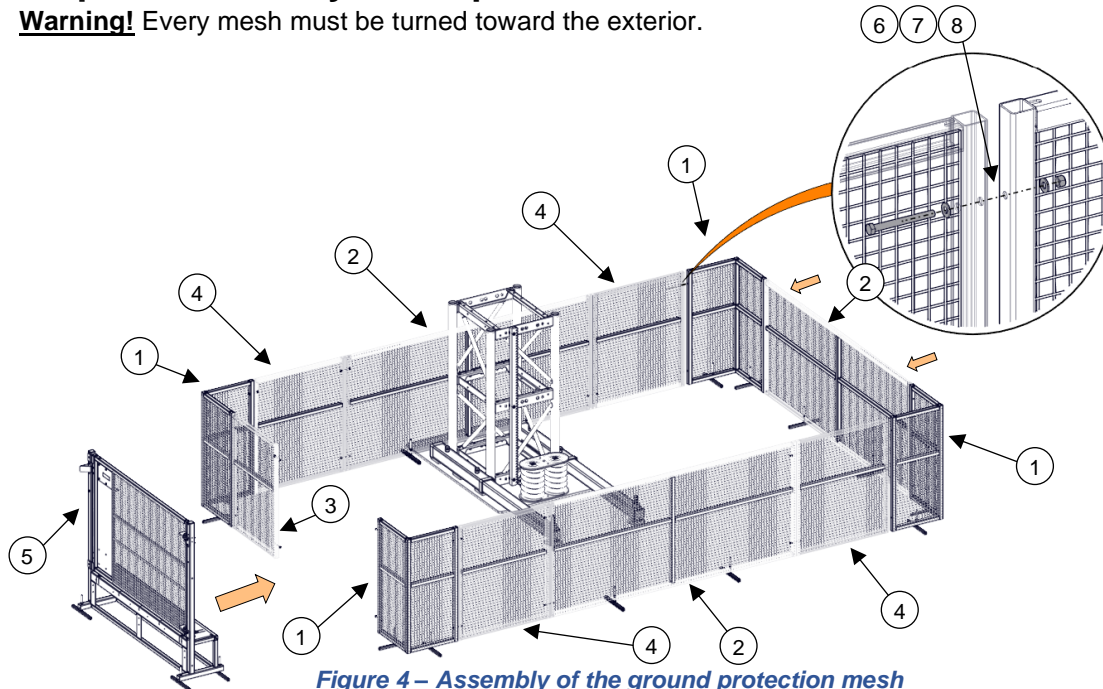


Figure 4 – Assembly of the ground protection mesh

No.	Qty	Item	Description
1	4	RD-7243-GS-101	SEP Ground protection mesh corner
2	3	RD-7243-GS-102	Ground protection mesh 3'-7" x 7'-10"
3	1	RD-7243-GS-107	Ground protection mesh 3'-7" x 2'-6"
4	4	RD-7243-GS-108	Ground protection mesh 3'-7" x 3'-1"
5	1	RD-7243-GS-111	SEP Ground mesh door right
6	52	BOZ-7141	Bolt 3/8"-16unc x 3-3/4" gr5 zinc
7	52	NYL-2020	Nylon lock nut 3/8"-16unc gr5 zinc
8	104	WAZ-7021	Washer 3/8" SAE zinc

## Step 3 – Install the ground power supply box (GC1)

Simply position and tighten the power box (GC1) to the edge of the ground protection mesh, beside the door.

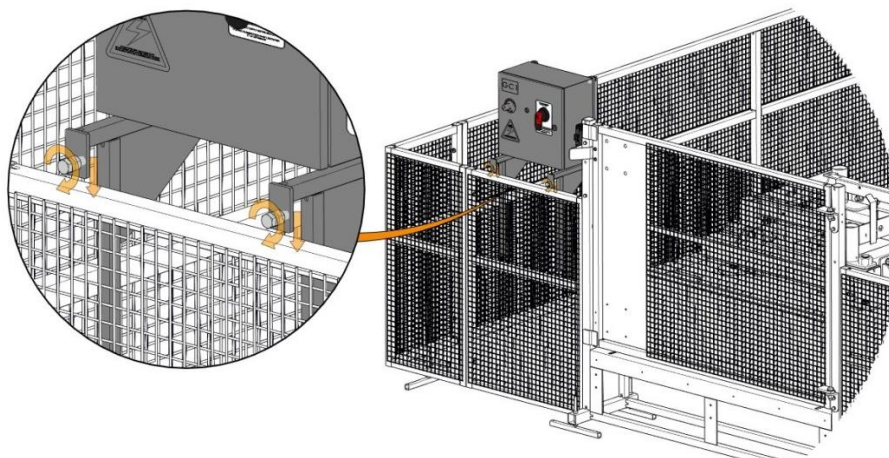


Figure 5 – Installation of the ground power supply box (GC1)



### Step 4 – Install the power cable barrel

Install the barrel to the left of the base and bolt it to the base.

**Warning!** Verify the verticality of the barrel with a level. If the barrel is not straight, there is possibility of conflict with the platform when it descends.

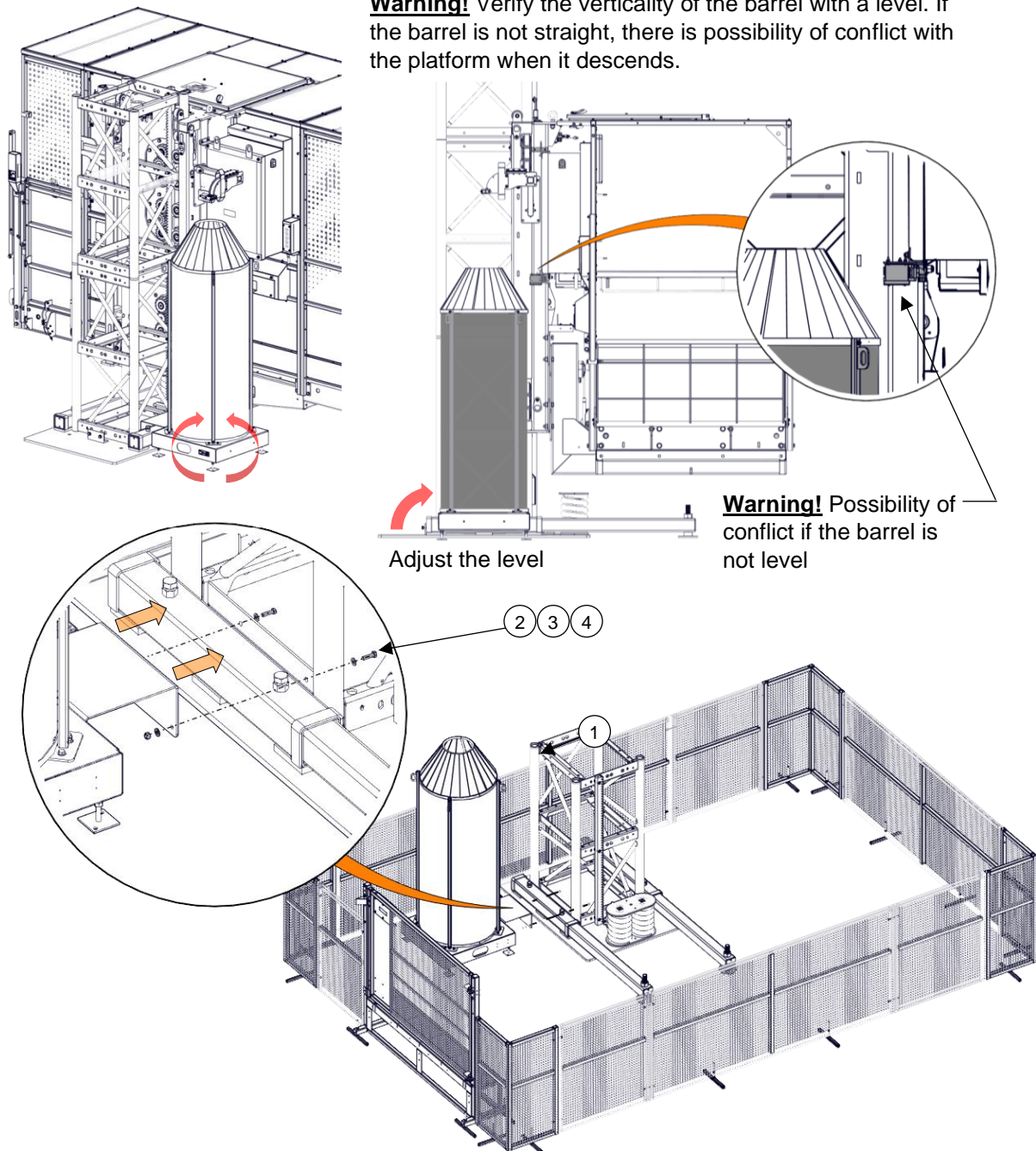
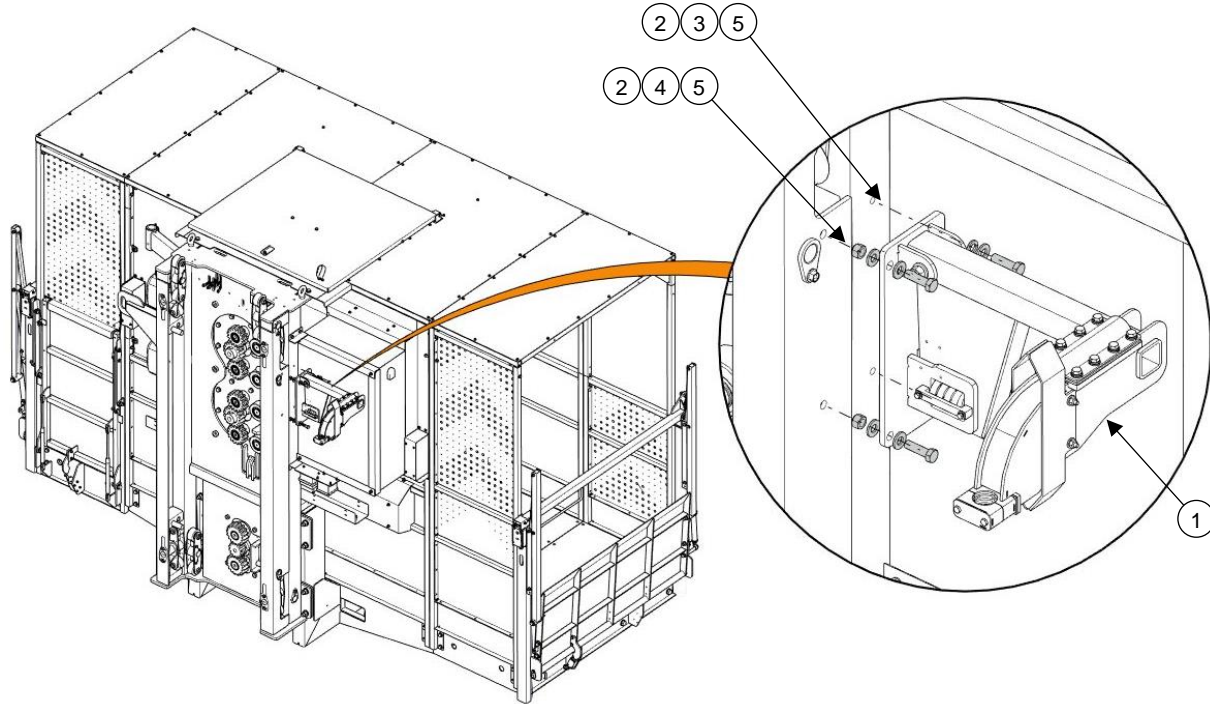


Figure 6 - Installation of the cable barrel

No.	Qty	Item	Description
1	1	RD-7243-ME-100	Electric cable barrel SEP
2	2	BOZ-7115	Bolt 3/8"-16unc x 1-1/4" gr5 zinc
3	2	NYL-2020	Nylon lock nut 3/8"-16unc gr5 zinc
4	4	WAZ-7021	Washer 3/8" SAE zinc

## 7. Assembly

Complete the assembly of the platform, including options (protection roof, cable support, etc.). For more detail on the options and their installation, refer to the User's manual (RD-7243-MA-001).

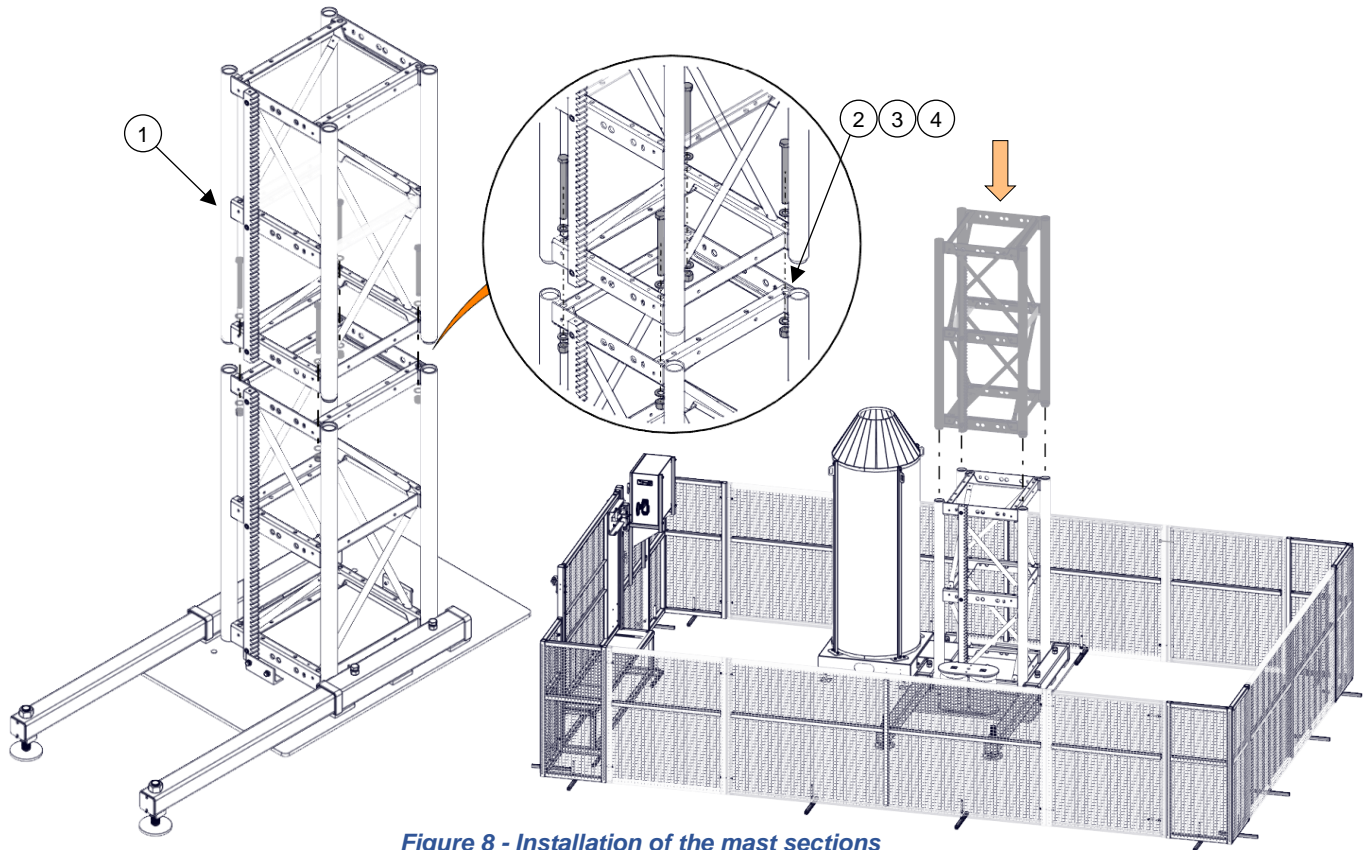


**Figure 7 - Installation of the platform cable support**

No.	Qty	Item	Description
1	1	RD-7243-ME-114	SEP cable support cable 30mm - 40mm diameter
2	4	BOZ-7157	Bolt 1/2"-13unc x 1-3/4" gr5 zinc
3	2	LOZ-5030	Lock washer 1/2" zinc
4	2	NYL-2030	Nylon lock nut 1/2"-13unc gr5 zinc
5	4	WAZ-7031	Washer 1/2" SAE zinc

## 7.1. Installation of the first two mast sections

- Install the two (2) mast sections on the base.
- Bolt each mast section by using the four (4) specified bolt kits.  
**Warning!** Apply a tightening torque of **258 lb.ft (350 Nm)** to the bolts for the assembly of each subsequent mast section.  
**Warning!** Install the first mast section to the base with the bolts heads screwed from above and the nuts from underneath.  
**Warning!** Install the mast sections together with the bolts heads screwed from underneath and the nuts from above.
- Make sure that the rack segments are well aligned and installed on the correct side. The tightening torque of the bolts must be approximately **240 lb.ft (320 Nm)**.



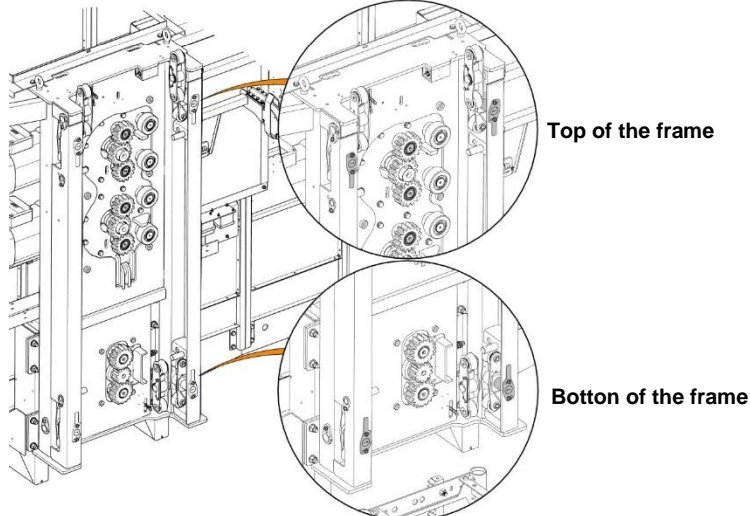
**Figure 8 - Installation of the mast sections**

No.	Qty	Item	Description
1	N/A	13090104	Mast section 26" x 26" x 5'-0", 1 rack (work platform)
2	4	BOZ-8512	Bolt M24 x 3 x 260mm Class 8.8 zinc
3	4	NYL-8500	Nylon lock nut M24 x 3 Class 8.8 zinc
4	8	WAZ-8504	Washer M24 Class 8.8 zinc

**Note:** Use the specified class 8.8 hardware at minimum. Use of class 10.9 hardware is allowed as needed.

## 7.2. Preparation of the platform

Follow the preparation of the frame steps. Refer to the top and bottom parts of the frame.



### Step 1 – Prepare the top of the frame

- Dismantle the left and right locking pins for the top (1) and remove the guide rollers (2).
- Pivot the lateral guide rollers (3). Remove the bolts (4), turn the assembly of rollers and reinstall the bolts into place. **Warning!** The arrows on the rollers (5) must be turned towards the exterior of the frame.
- Remove the lateral locking pins (6).

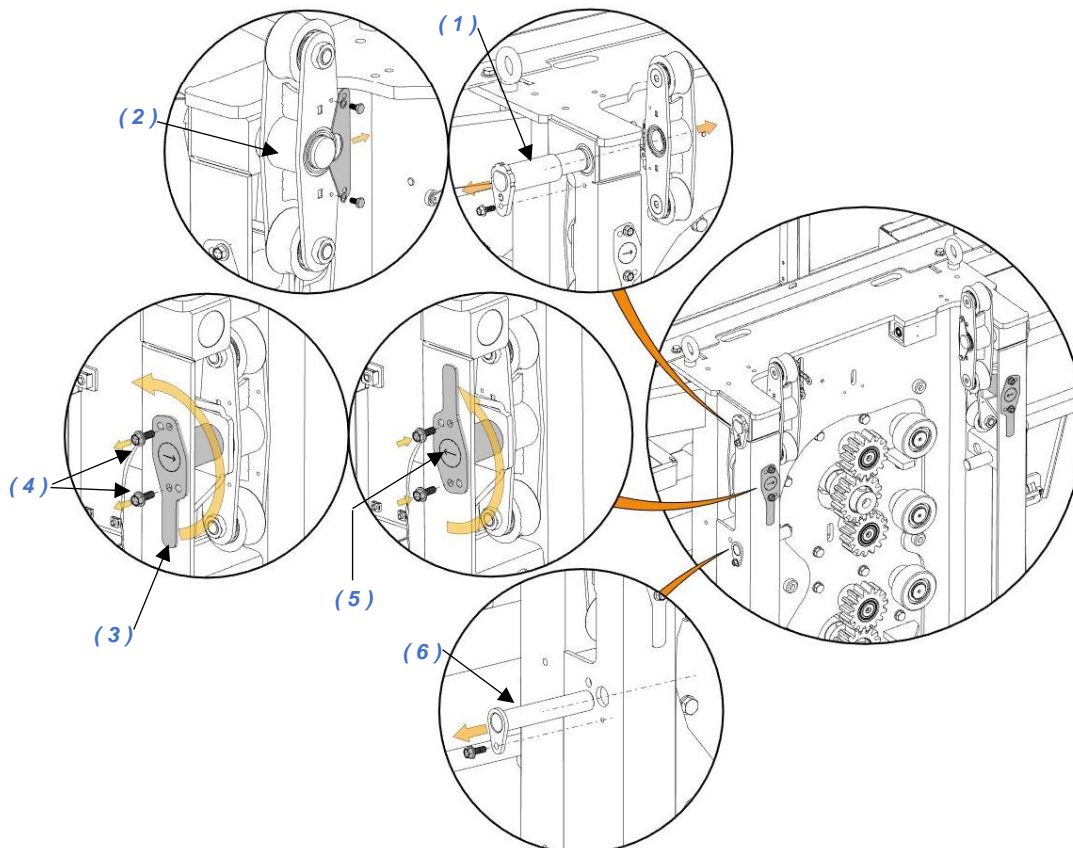
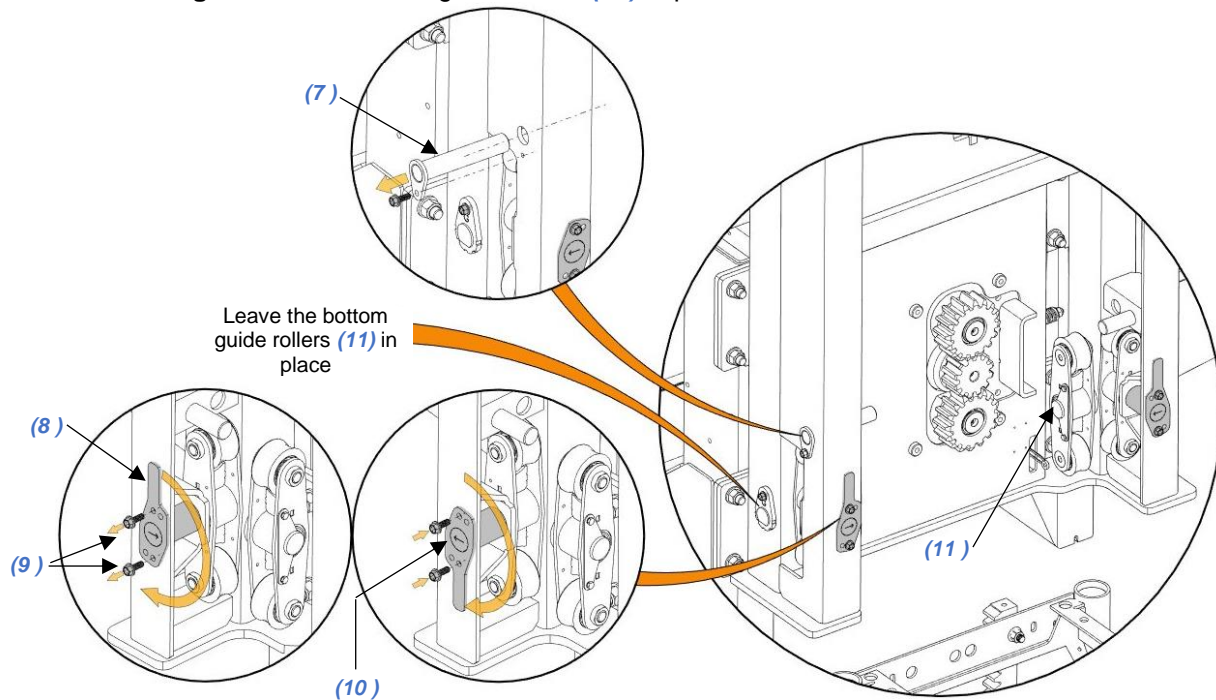


Figure 9 - Preparation of the top of the frame

## Step 2 – Prepare the bottom of the frame

- Remove the lateral locking pins (7).
- Pivot the lateral guide rollers (8). Remove the bolts (9), turn the assembly of rollers and reinstall the bolts into place. **Warning!** The arrows of the rollers (10) must be turned towards the exterior of the frame.
- **Warning!** Leave the bottom guide rollers (11) in place.



**Figure 10 – Preparation of the bottom of the frame**

## 7.3. Lifting of the platform

Lift the platform using the forklift lifting points (SEE USER'S GUIDE RD-7243-MA-001) or the lifting chain supports intended for that purpose.

With the lifting chains;

- If present, open the roof access trap (2) to allow passage of the lifting chains.
- Two (2) hoist rings (3) are required on the top of the motor unit. Use the 39-1/4" (996 mm) chains.
- Two (2) hoist rings (4) are required on the platform floor. Use the 118-3/4" (3 m) chains. Place these two (2) rings in the toolbox when the installation is complete.
- Lift the platform with the help of the provided chains or equivalent chains. Conform to the image below.

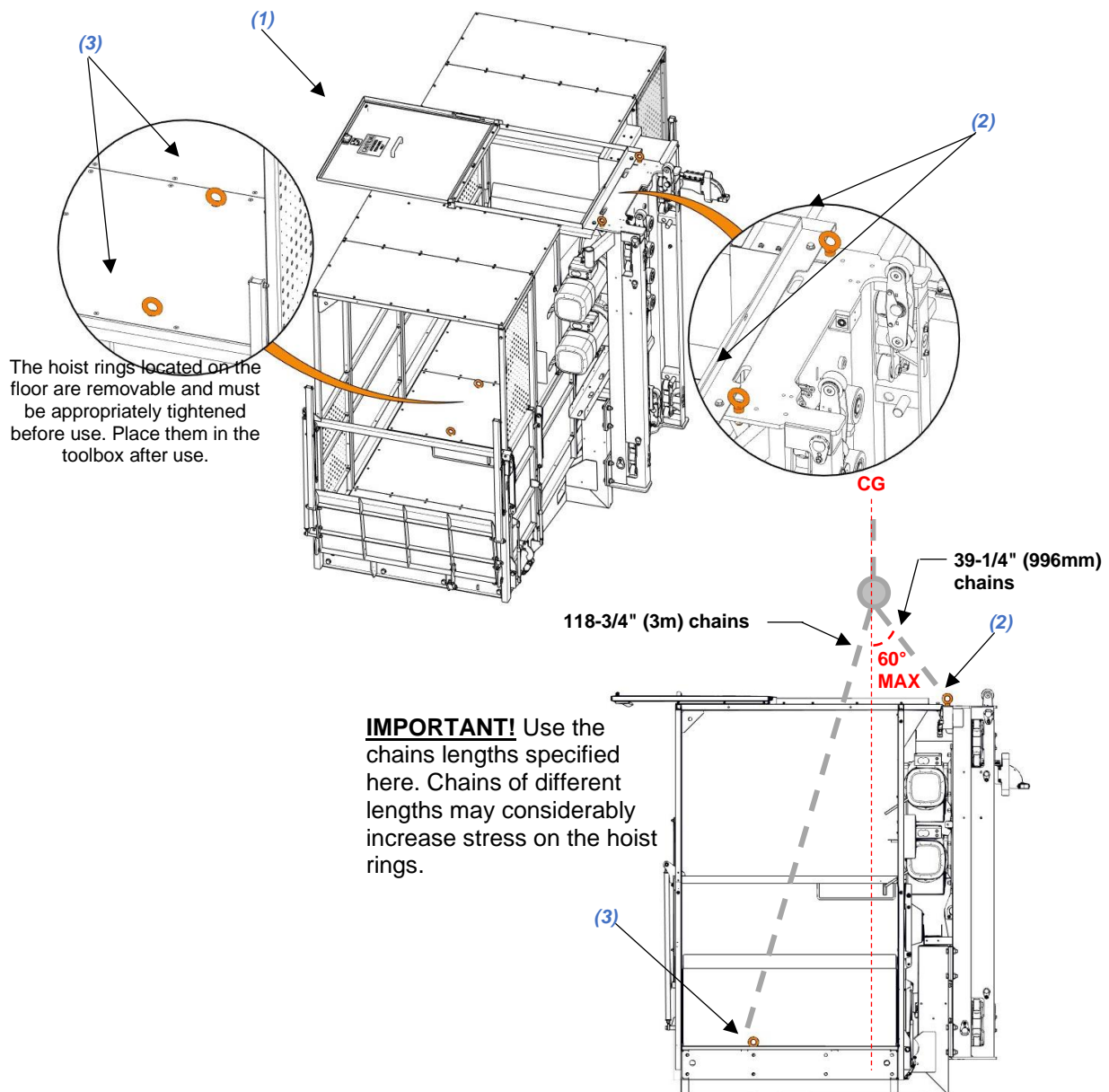
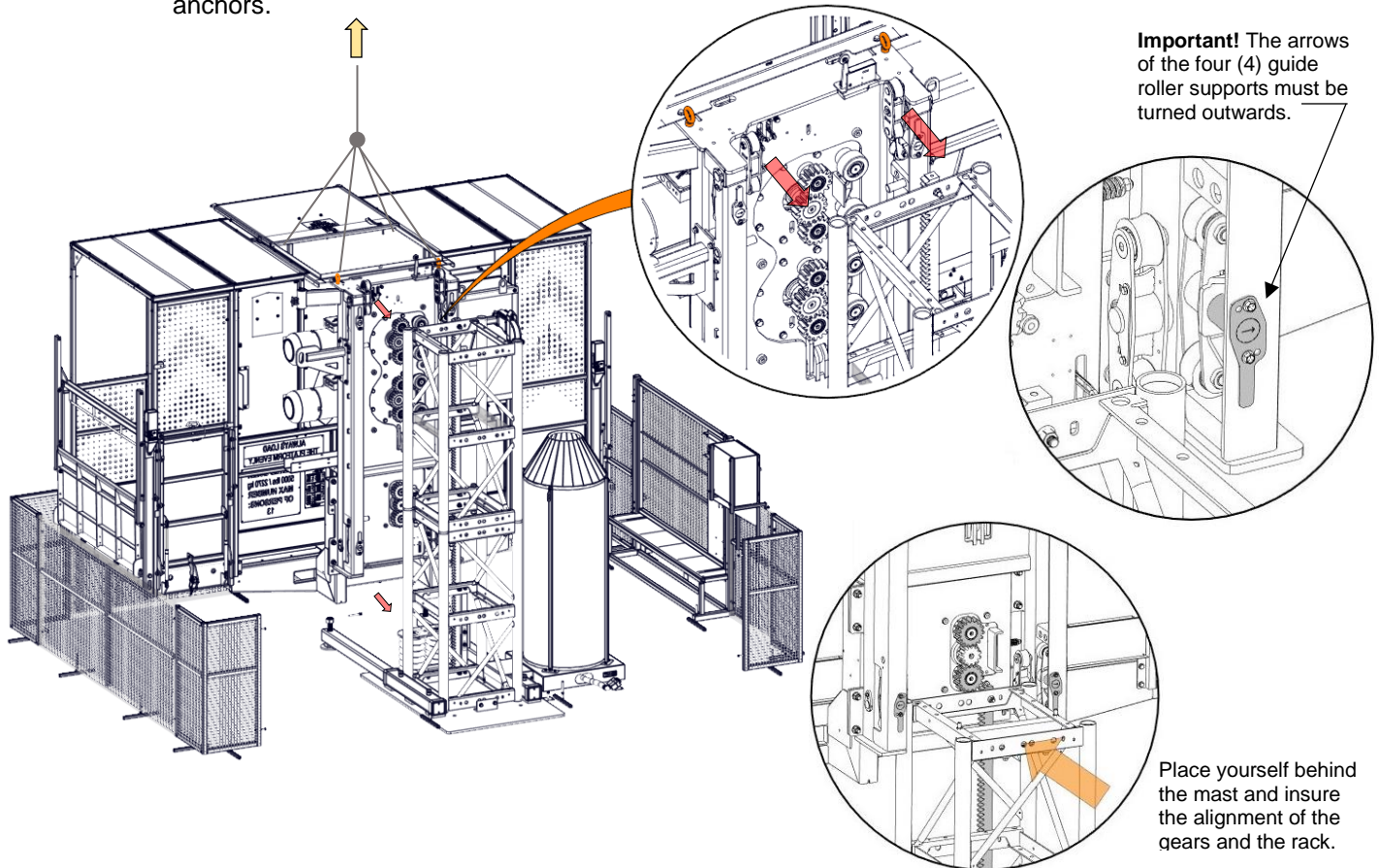


Figure 11 - Chain detail for lifting with crane

## 7.4. Installation of the platform (continued)

- Lift the platform and position it with the frame beside the mast. Gently slide the frame by the side and align the gears and the segments of the rack. **Warning!** At all times during the installation of the platform, pay attention to any resistance, particularly at the pinions and rack. Cease installation and isolate the source of the conflict before proceeding. The pinions must mesh and turn easily.
- It is recommended to position yourself behind the mast to visualise correctly the inside of the frame during installation.

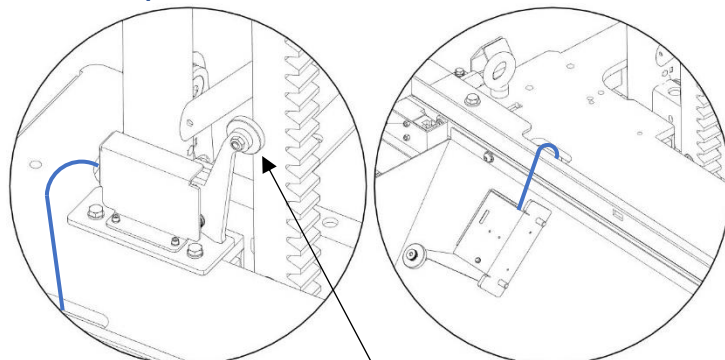
**Warning!** Keep the platform supported at all time until the installation of the first two mast anchors.



**Figure 13 – Installation of the platform on the first mast sections**

**Warning!** Make sure to remove the final end travel detector. It is not necessary to disconnect the detector.

**Important!** Do not forget to reinstall the detector once the installation of the frame is completed.



**Warning!** Conflict during installation of the frame.

Remove detector temporarily

## 7.5. Close the top and bottom of the frame

- **Always** install the four (4) safety locking pins (1) first, starting with the top of the frame.
- Next, install the top guide rollers (2). Make sur to install the axes of the left rollers (3) on the left and do the same for the right rollers. There is a left "L" symbol and a right "R" symbol at the ends of the axes.
- Put back the four (4) axes of the lateral guide rollers (4) in the right direction. The arrows must point towards the interior of frame.

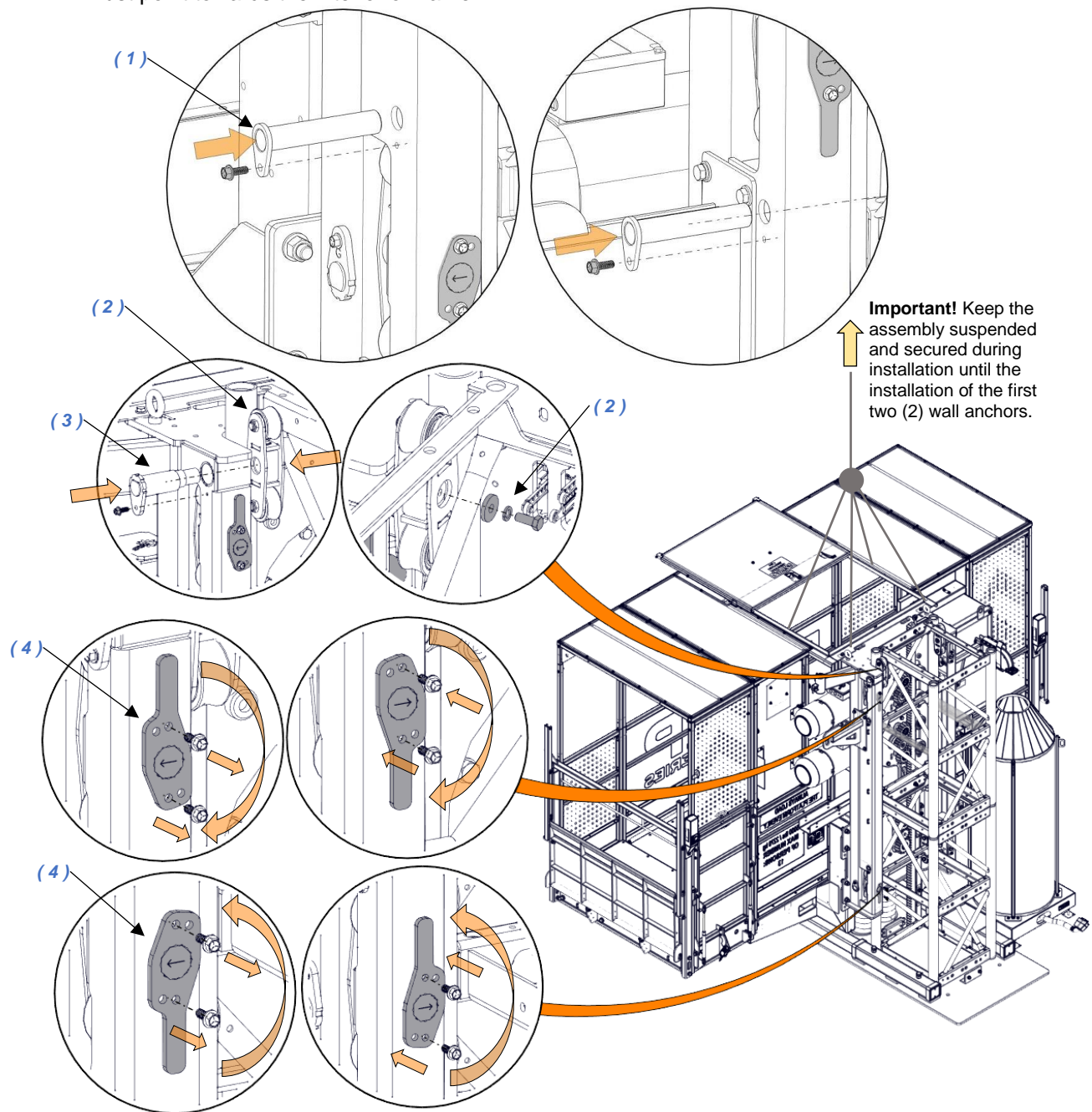


Figure 14 – Closing of the frame



## 7.6. Slings of the mast sections

If you do not dispose of a self-erecting device (**optional**), it is permitted to preassemble at ground level a **MAXIMUM** of 8 mast sections 40'-0" (12,20 m).

For correct and safe slinging of the mast sections, follow the recommendations below:

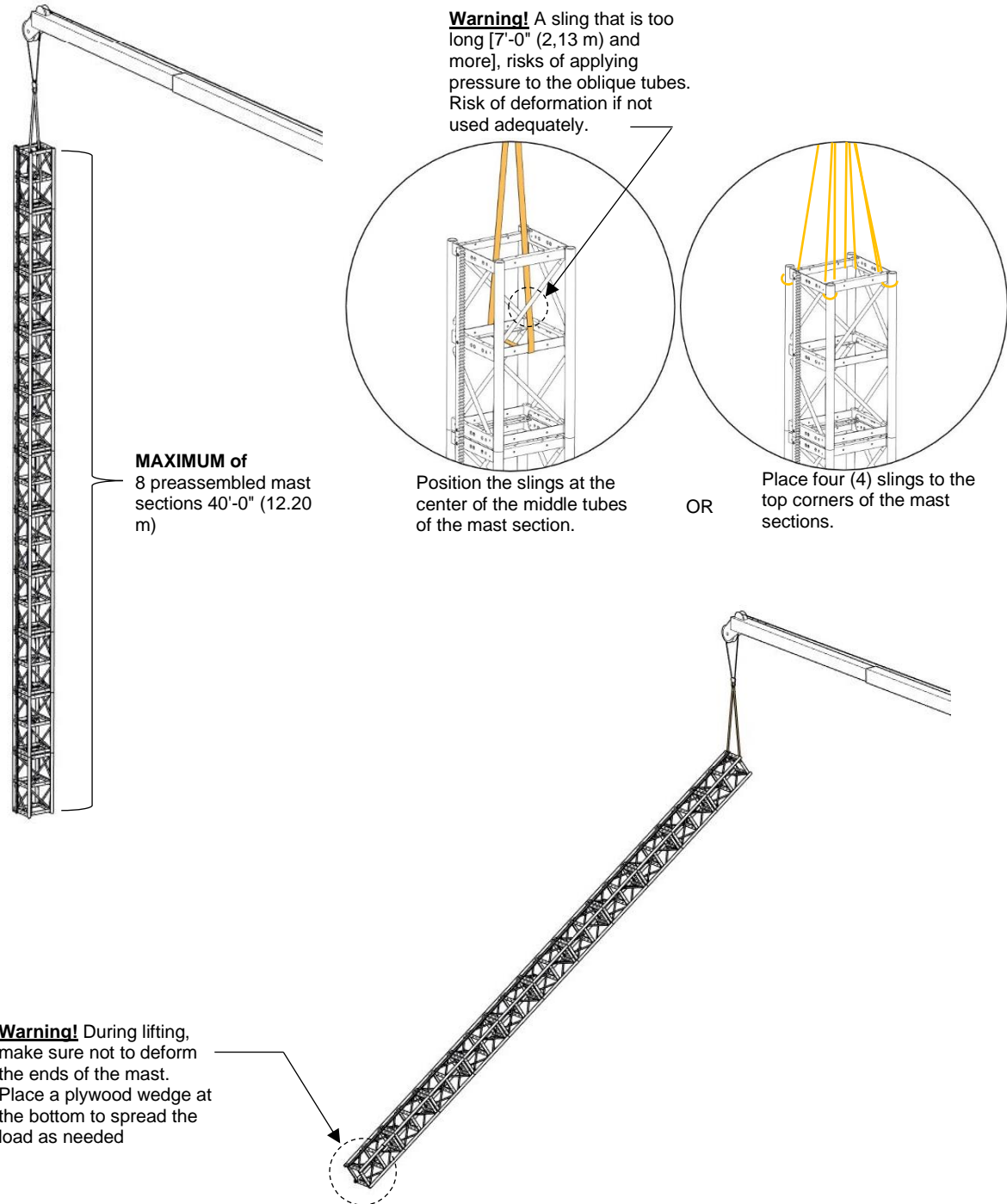


Figure 15 – Slings of the mast sections

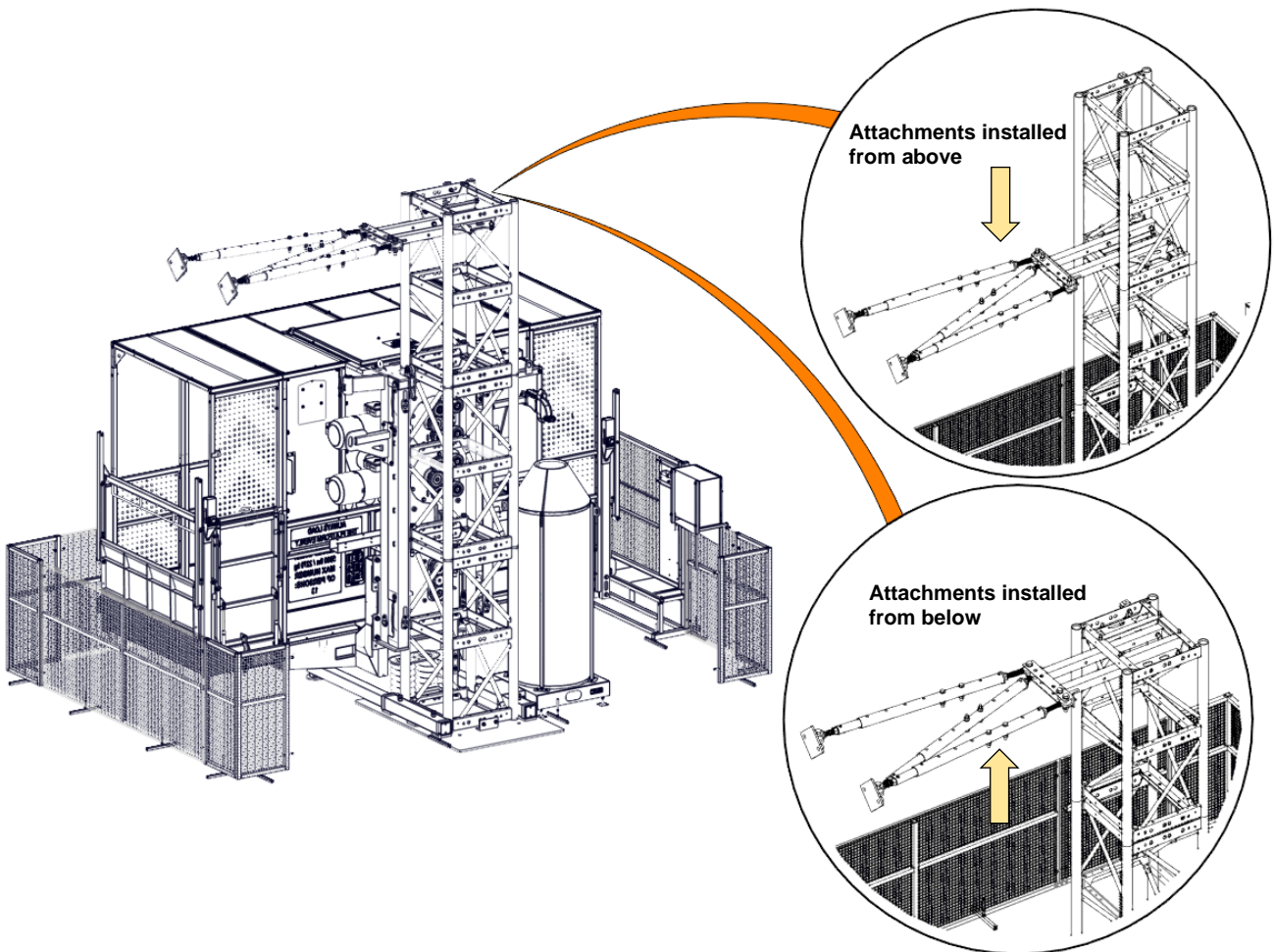
## 7.7. Installation of mast attachments and anchors

- Install mast sections by completing assembly of mast attachments and anchors progressively. For the bolting of the mast sections, conform to the instructions of [SECTION 7.1 INSTALLATION OF THE FIRST TWO MAST SECTIONS , ON PAGE 19.](#)
- Install the first anchor at **MAX 20'-0"** (6,0m) from the ground.
- The typical distance between the following anchors is 30'-0" (9,0m) [**MIN 20'-0"** (6,0m) - **MAX 40'-0"** (12,0m)]. **Important!** Follow the assembly specifications described in the user guide.  
 ∞ [SEE USER'S MANUAL RD-7243-MA-001, SECTION 4 TECHNICAL DATA.](#)

### MAST ATTACHMENTS AND ANCHORS

For any information on detailed parts, on **FRACO** part numbers and engineering data specific to different mast anchor devices, refer to the most recent "[MAST ANCHOR SPECIFICATIONS](#)" documents available and the engineering package specific to the project. Contact your **FRACO** representative for a copy of these documents.

Attachments may be installed from above or from below to satisfy at best the **MAXIMUM** inclination of **15°**.

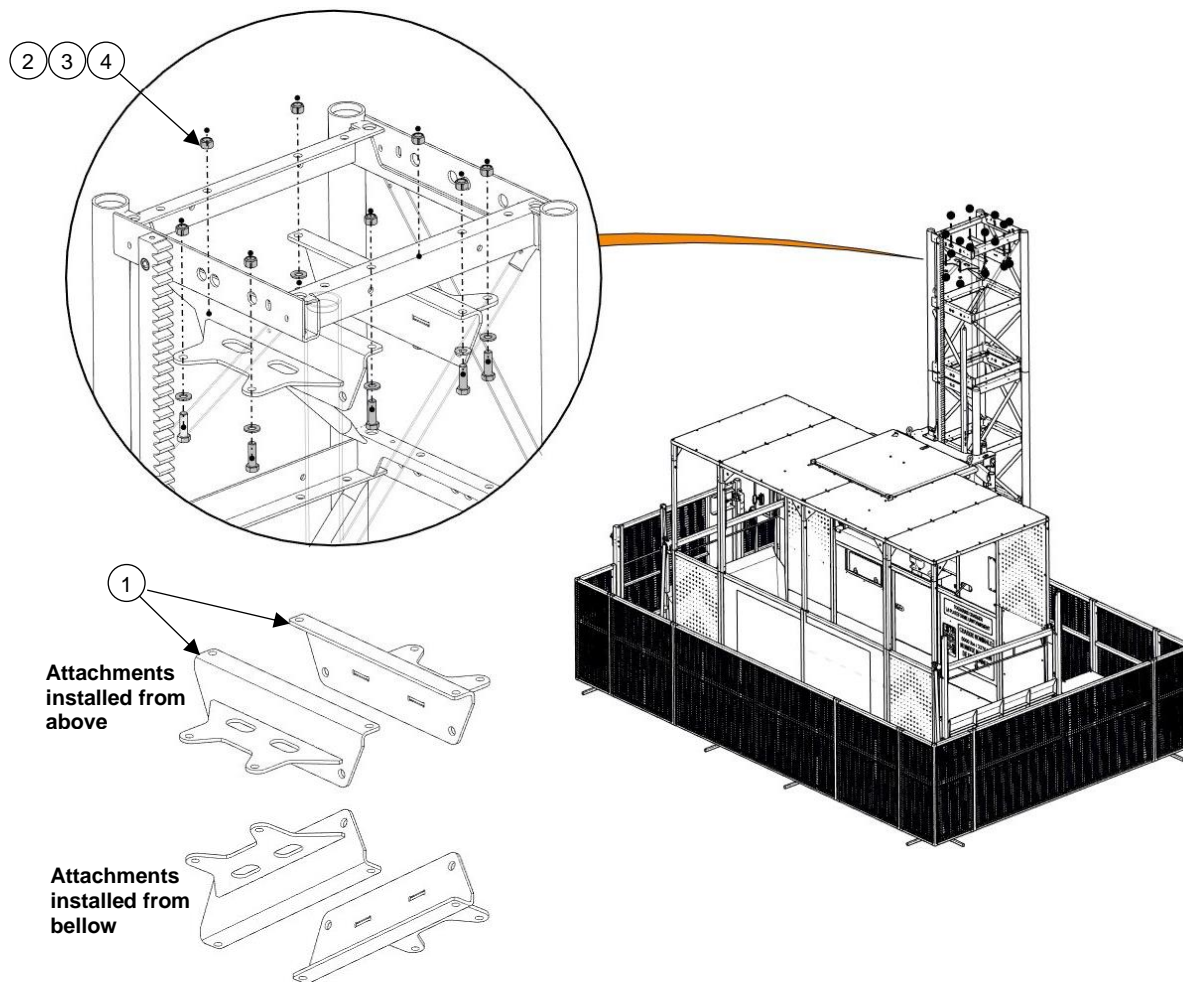


*Figure 16 - Installation of mast attachments*

## Installation of mast ties

### Step 1

Use the roof access trap to access installation bolts.



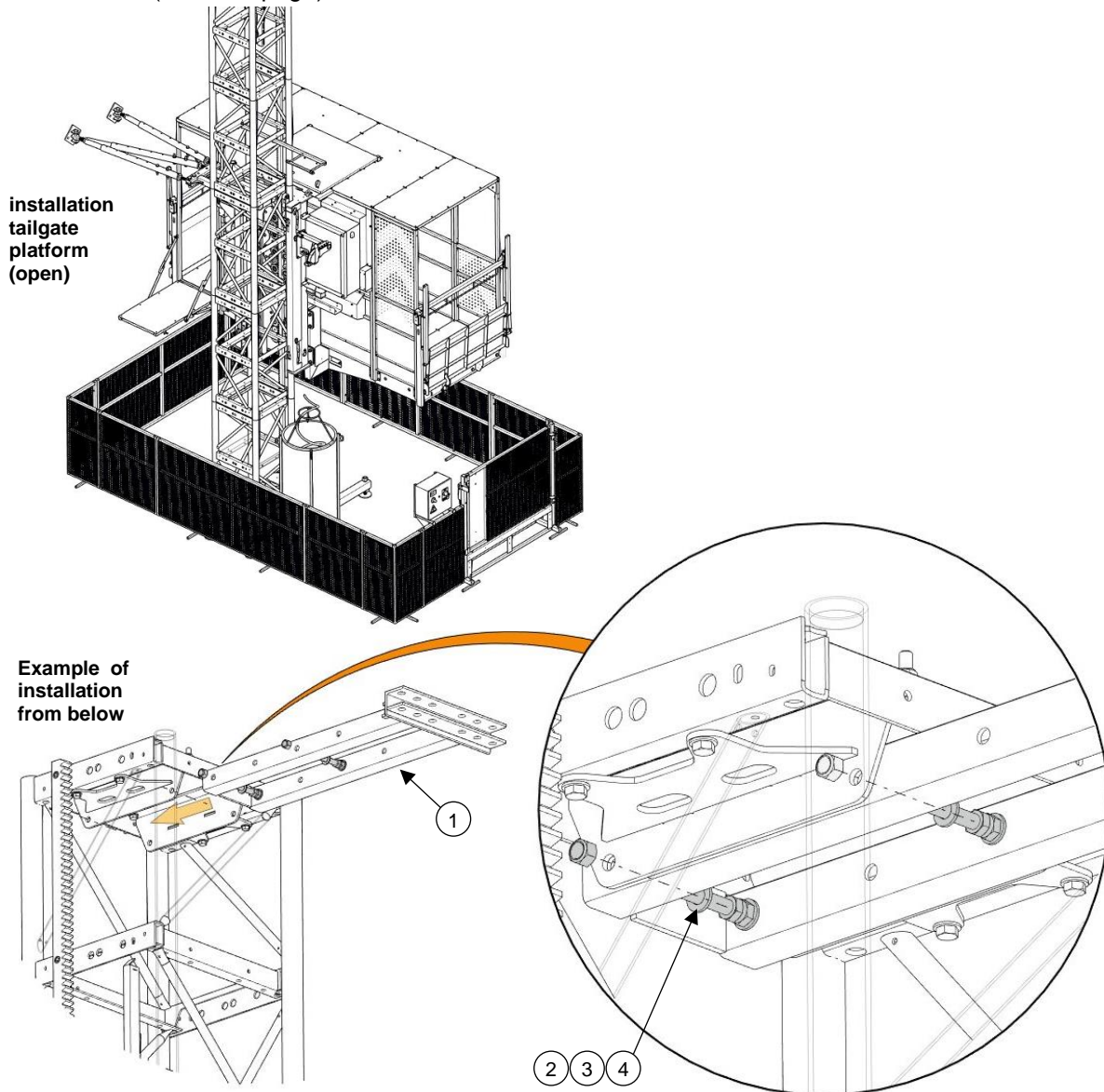
**Figure 17 - Installation of mast attachment fixtures**

No.	Qty	Item	Description
1	2	21010037	Wall tie fixation
2	8	BOZ-8569	Bolt 5/8"-11unc x 2" gr8 zinc
3	8	NYL-8512	Nylon lock nut 5/8"-11unc gr8 zinc
4	8	WAZ-7041	Washer 5/8" SAE zinc

## Installation of mast ties

### Step 2

Use the installation tailgate platform to access the area under the wall attachment structure. The installation tailgate platform should be used during the installation of the mast ties and turnbuckles (see next page).



**Figure 18 - Installation of the mast tie structure**

No.	Qty	Item	Description
1	1	21010015	Wall tie structure 21" x 3'-6" for 26" x 26" mast
2	4	BOZ-8583	Bolt 3/4"-10unc x 5" gr8 zinc
3	4	NYL-2051	Nylon nut 3/4"-10 unc gr8 zinc
4	4	WAZ-7051	Washer 3/4" SAE zinc

## Installation of mast ties Step 3

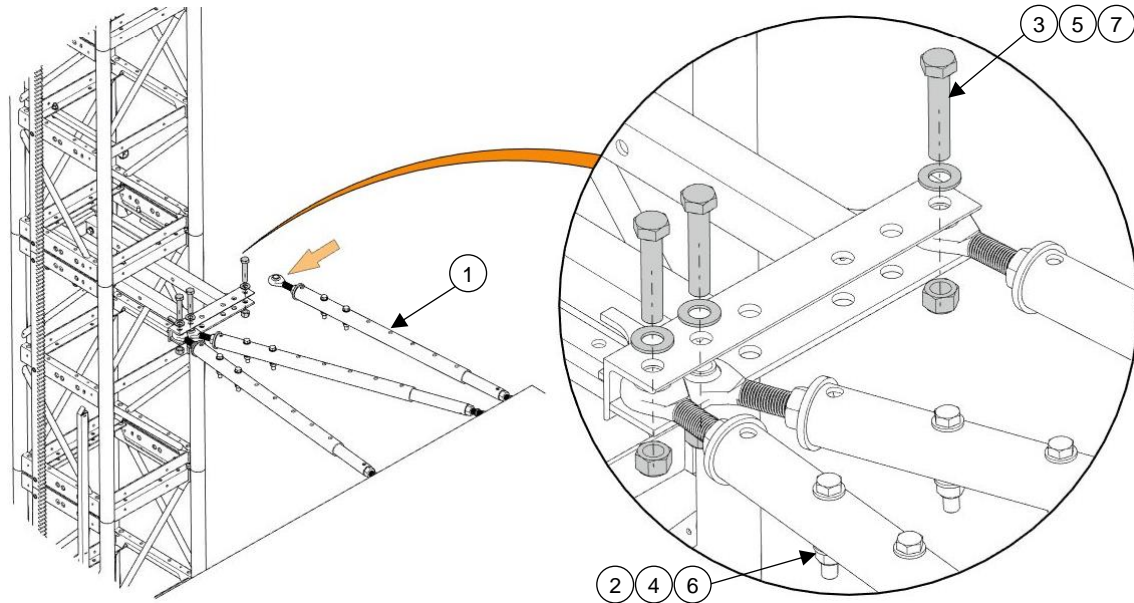


Figure 19 - Installation of mast tie turnbuckles

No.	Qty	Item	Description
1	3	23080014	Turnbuckle 3.000" x 4'-7" to 7'-1" Assembly
2	3	BOZ-7250	Bolt 3/4"-10unc x 5" gr5 zinc
3	6	BOZ-8584	Bolt 1"-8unc x 5" gr8 zinc
4	3	NYL-2050	Nylon lock nut 3/4"-10unc gr5 zinc
5	6	NYL-2061	Nylon lock nut 1"-8unc gr8 zinc
6	3	WAZ-7051	Washer 3/4" SAE zinc
7	12	WAZ-7071	Washer 1" SAE zinc

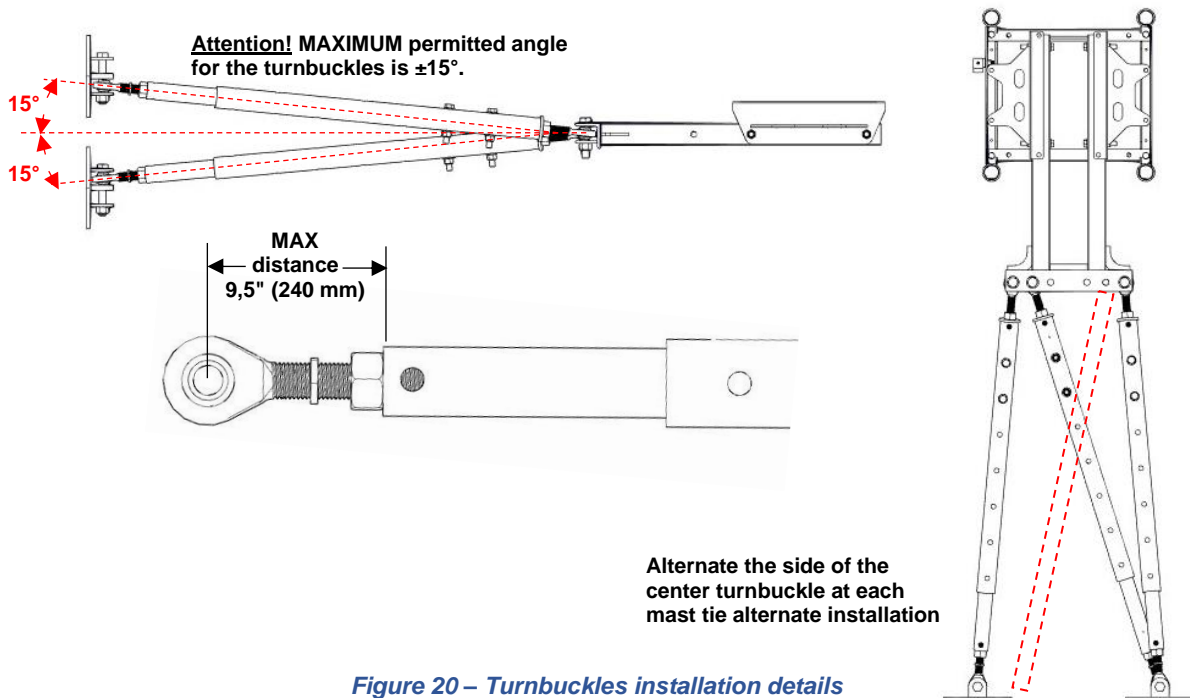
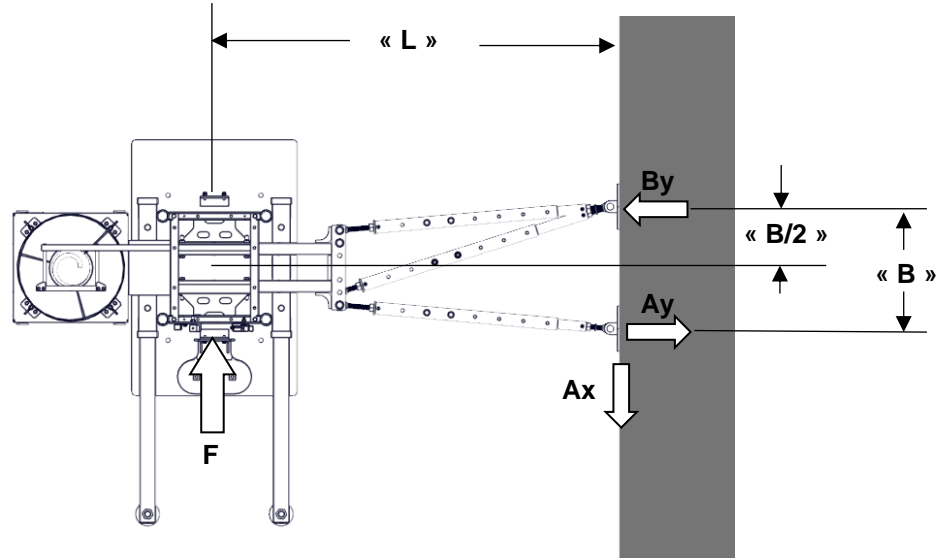


Figure 20 – Turnbuckles installation details



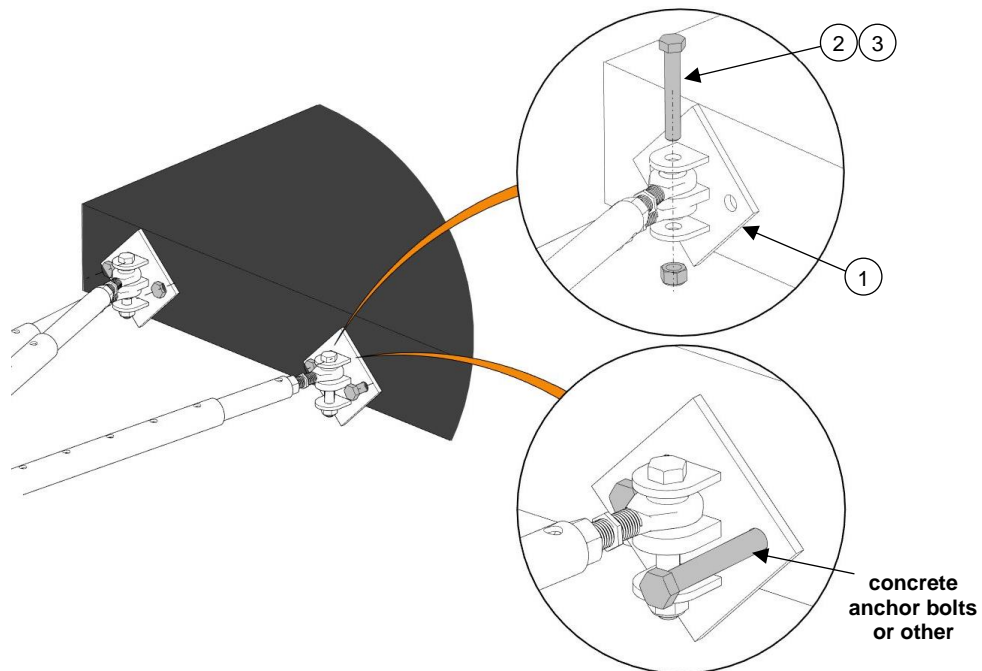
**Figure 21 - Dimensions and forces to the wall**

Distance « L=100" (2,54 m) » and « B=30" (0.76 m) ». For anchor forces to the wall, refer to the user guide.

**Important!** Always refer to the engineering package specific to the project.

### Step 4

Install the concrete anchor bolts or other fixations approved and specified in the engineering package.

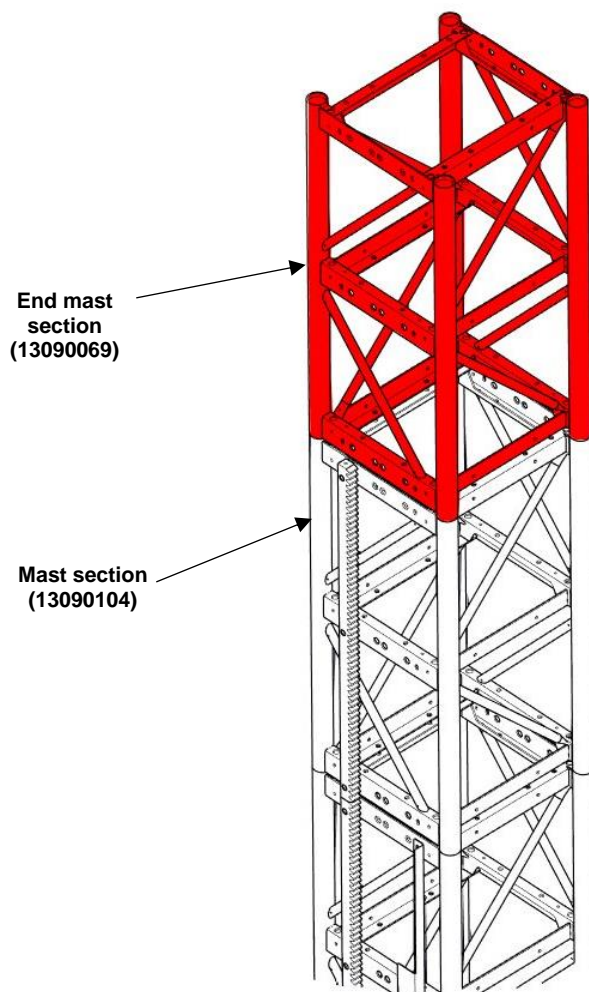


**Figure 22 - Installation of wall anchors**

No.	Qty	Item	Description
1	2	24030010	SEH 2 point concrete anchors 8" x 8"
2	2	BOZ-7304	Bolt 1"-8unc x 6-1/2" gr8 zinc yellow
3	2	NYL-2061	Nylon lock nut 1"-8unc gr8 zinc

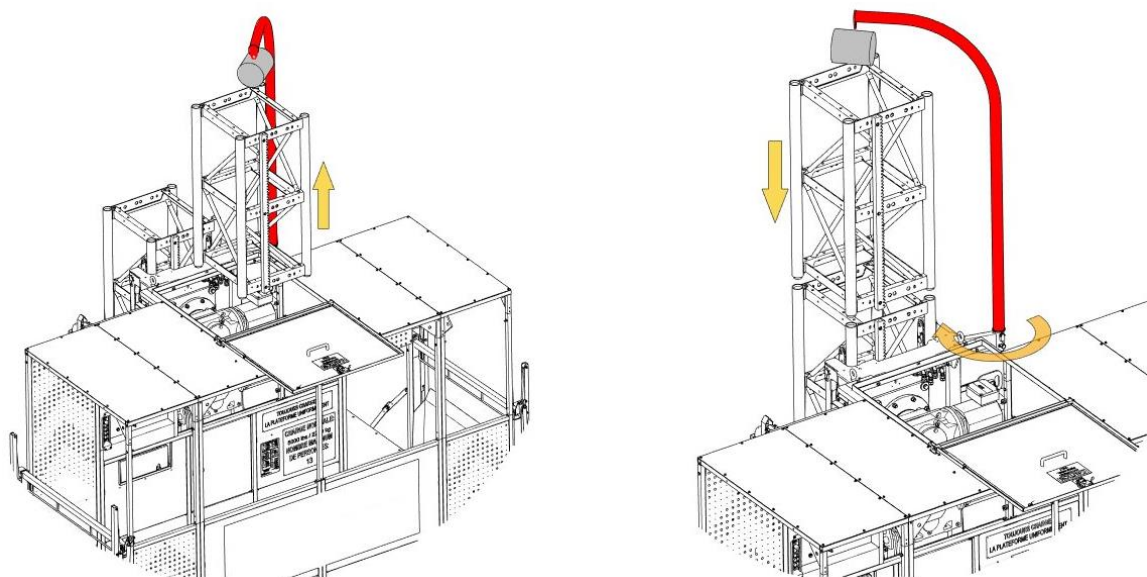
## 7.8. Installation of the end mast section

Complete assembly of the mast by installing the red end mast section (13090069). This section (without a rack) is the final limit of the mast and interacts with the end of rack detectors (inductive and mechanical detectors) to stop the movement of the platform in case the machine exceeds maximum height.









*Figure 25 - Installation of mast section with the self-erecting device*

## 8. Dismantling

**Before proceeding with dismantling, authorised staff should verify the following:**

- Verify that there were no significant changes or modifications compared to the original assembly. Examples of changes that may affect the safety of dismantling operations: freed or missing mast ties, loose bolts, different ground load distribution conditions or alterations of the base, etc.
- Verify the presence of signs of stress or weakness on mast sections, mast ties, platform or base that may affect the safety of dismantling operations.
- Verify that the base provides sufficient stability in all directions to support the structure while dismantling the last two (2) mast anchors.
- Know the maximum quantity of mast ties and additional equipment the platform can transport during the different steps of dismantling, so as not to exceed load capacity. **Important!** Be aware at all time of restrictions regarding different assembly and dismantling configurations.
- **Important!** Pay attention not to overload the platform during dismantling of the structure.

Dismantle following the same instructions as when assembling the platform.

∞ [SEE SECTION 7 ASSEMBLY, ON PAGE 18.](#)

**Important!** During dismantling of the first two (2) mast anchors, the platform must **absolutely** be secured/supported with an independent hoisting device (crane/truck, crane, forklift, etc.).

## 9. Level detector pads

As soon as possible, proceed with the installation of the level detector pads.

### 9.1. Buffer detector pads

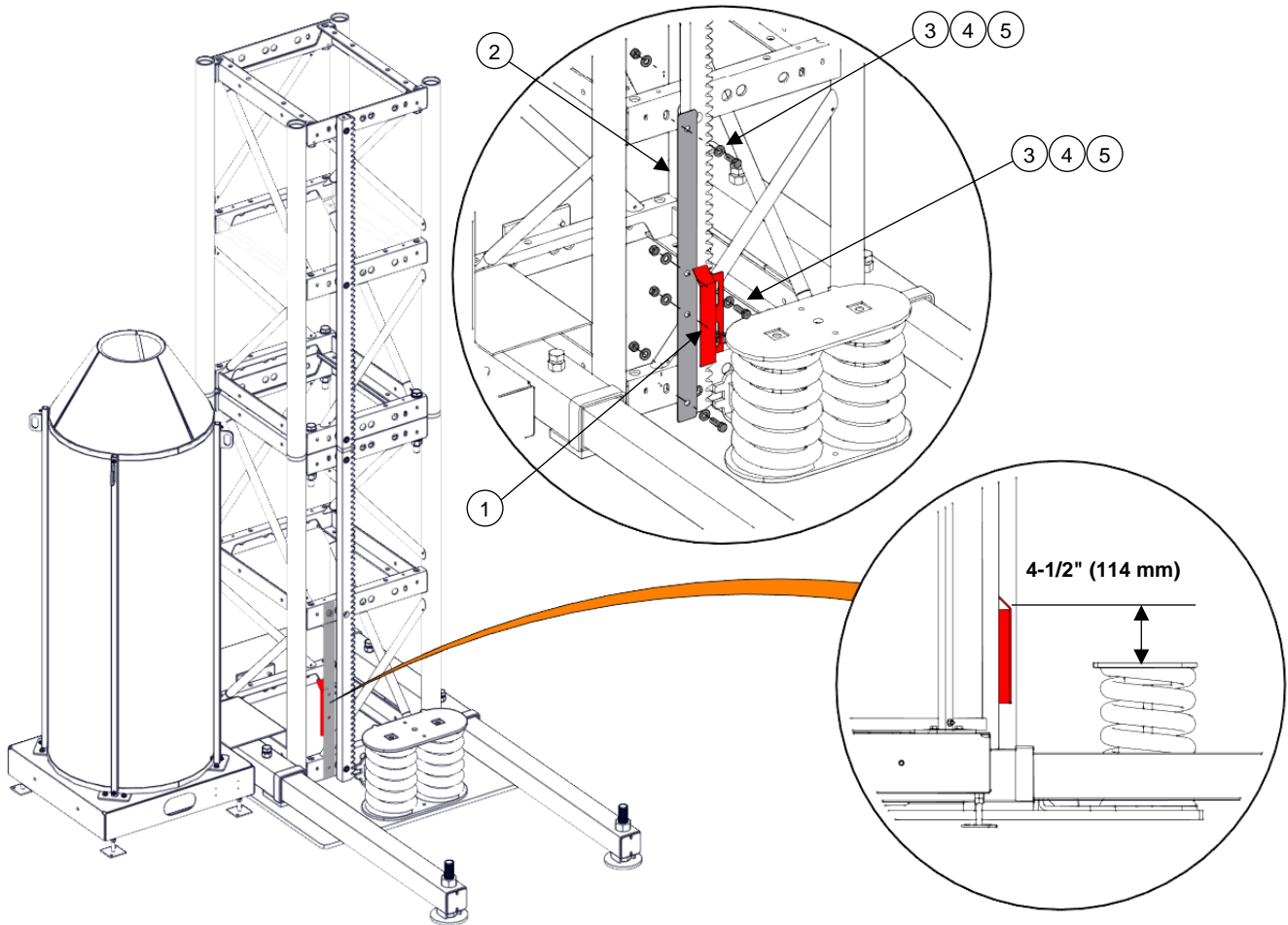


Figure 26 – Buffer detector pads

No.	Qty	Item	Description
1	1	RD-7243-DL-302	SEP buffer detector
2	1	RD-7243-DL-201	SEP buffer detector plate
3	4	BOZ-8556	Bolt 1/2"-13unc x 1-1/2" gr8 zinc
4	4	NYL-2031	Nylon lock nut 1/2"-13unc gr8 zinc
5	8	WAZ-7031	Washer 1/2" SAE zinc

## 9.2. 10'-0" (3,0m) descent detector pad

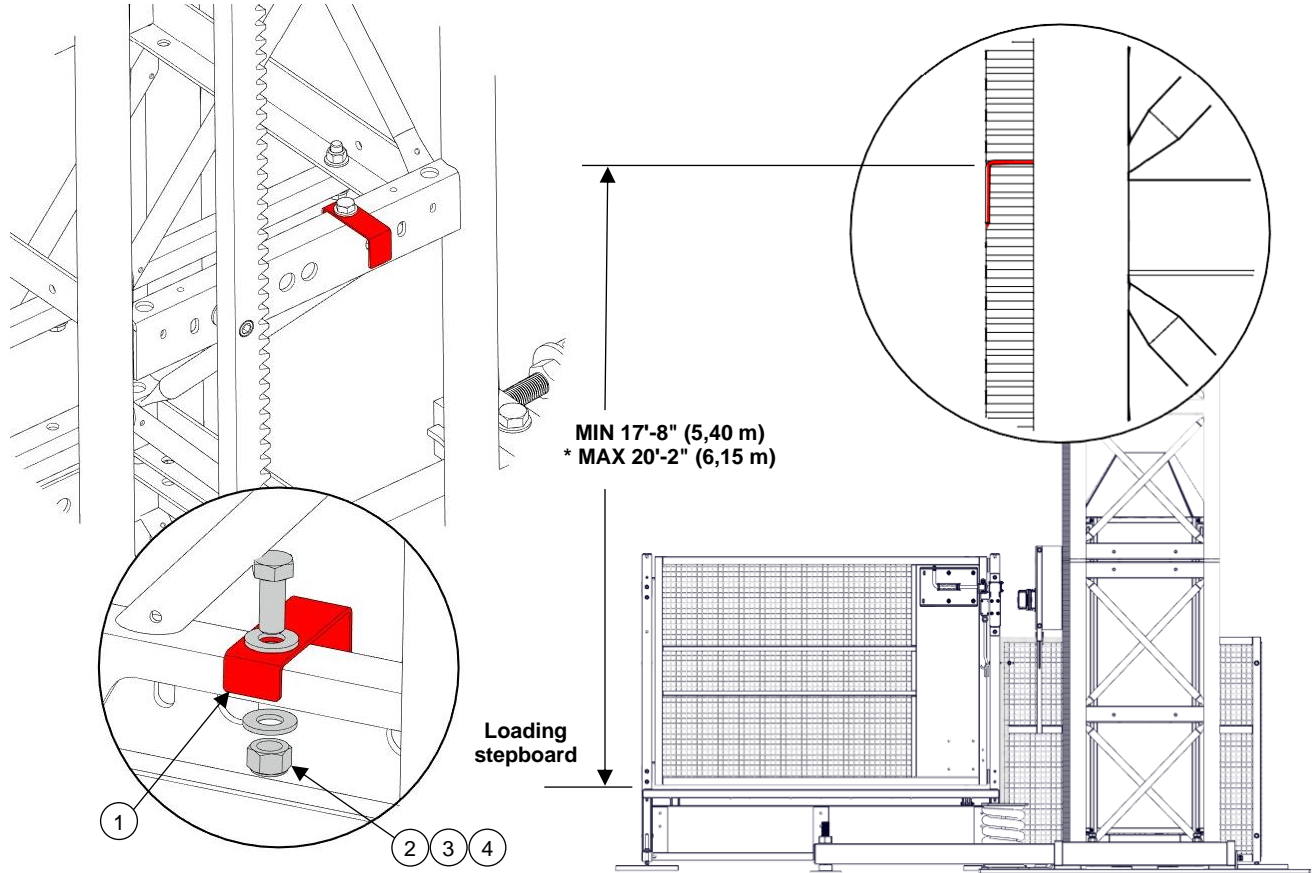


Figure 27 – Installation of the 10'-0" (3,0 m) detector

No.	Qty	Item	Description
1	1	RD-7243-DL-309	Detector sheet metal 10'-0" (3,0 m)
2	1	BOZ-7199	Bolt 5/8"-11unc x 1-1/2" gr5 zinc
3	1	NYL-2040	Nylon lock nut 5/8"-11unc gr5 zinc
4	2	WAZ-7041	Washer 5/8" SAE zinc

\* Respect indicated minimum height and install higher if the boarding ramp is raised. Respect indicated MAXIMUM height.

### 9.3. DOWN detector pad

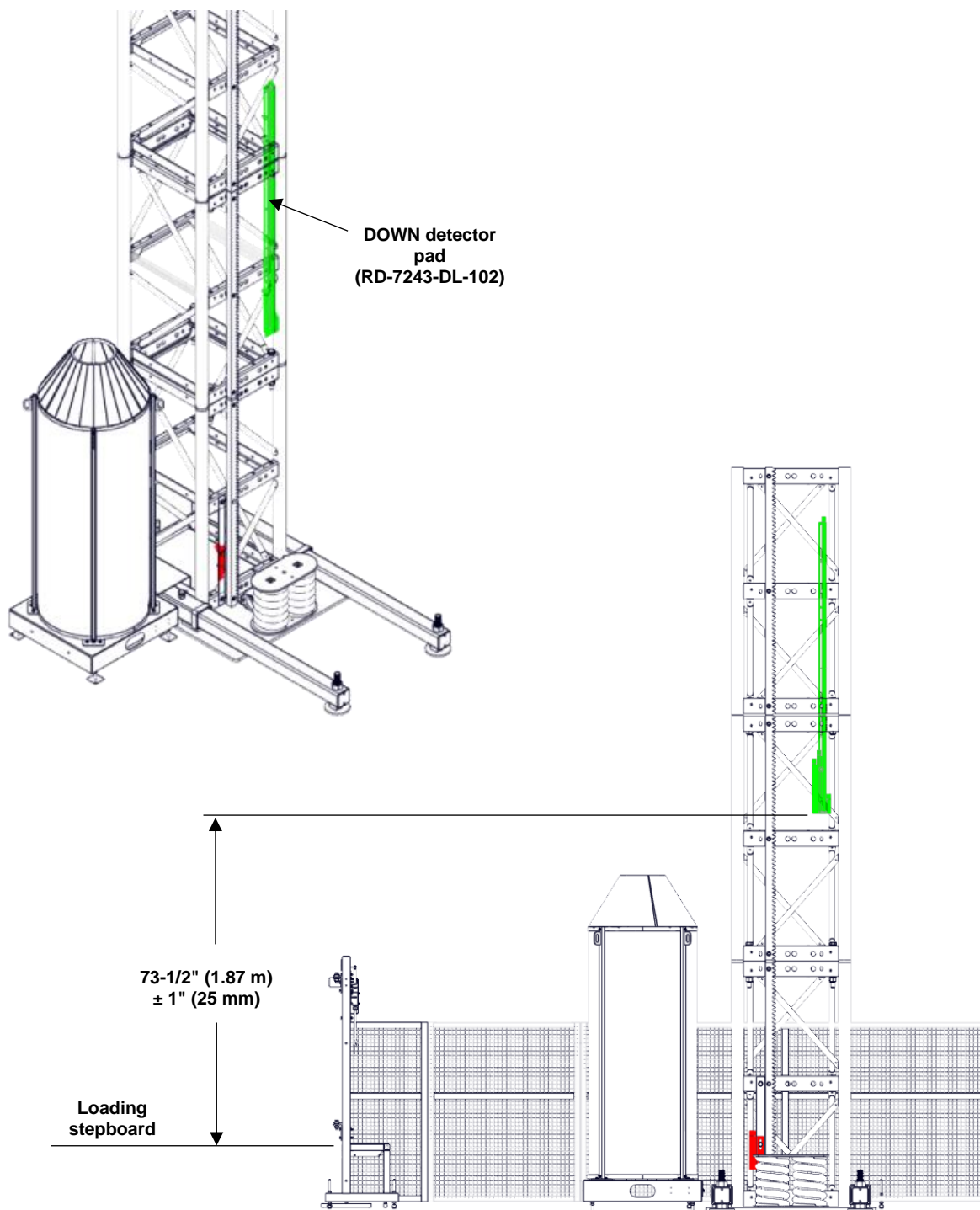


Figure 28 - Installation of the DOWN detector pad

### 9.4. Intermediate and UP detector pads

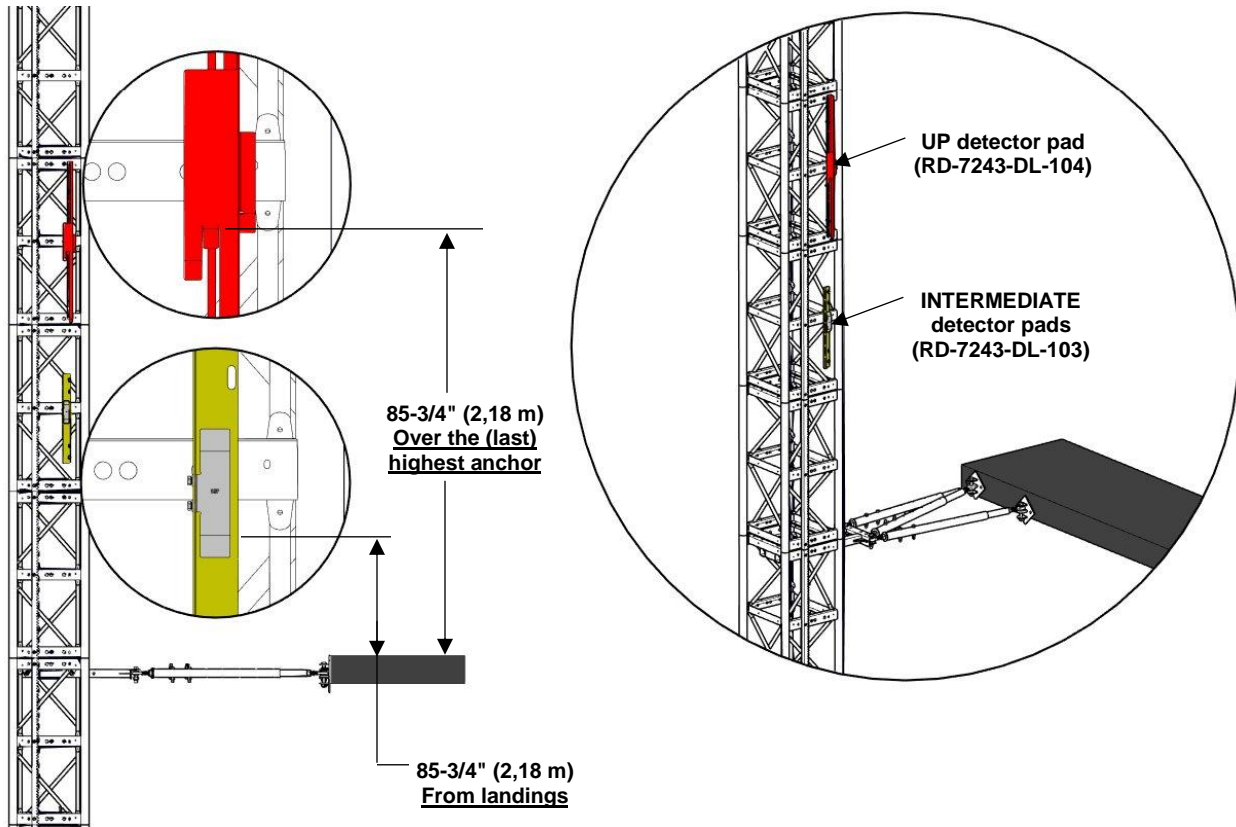


Figure 29 – INTERMEDIATE and UP detector pads

## 9.5. End travel switches

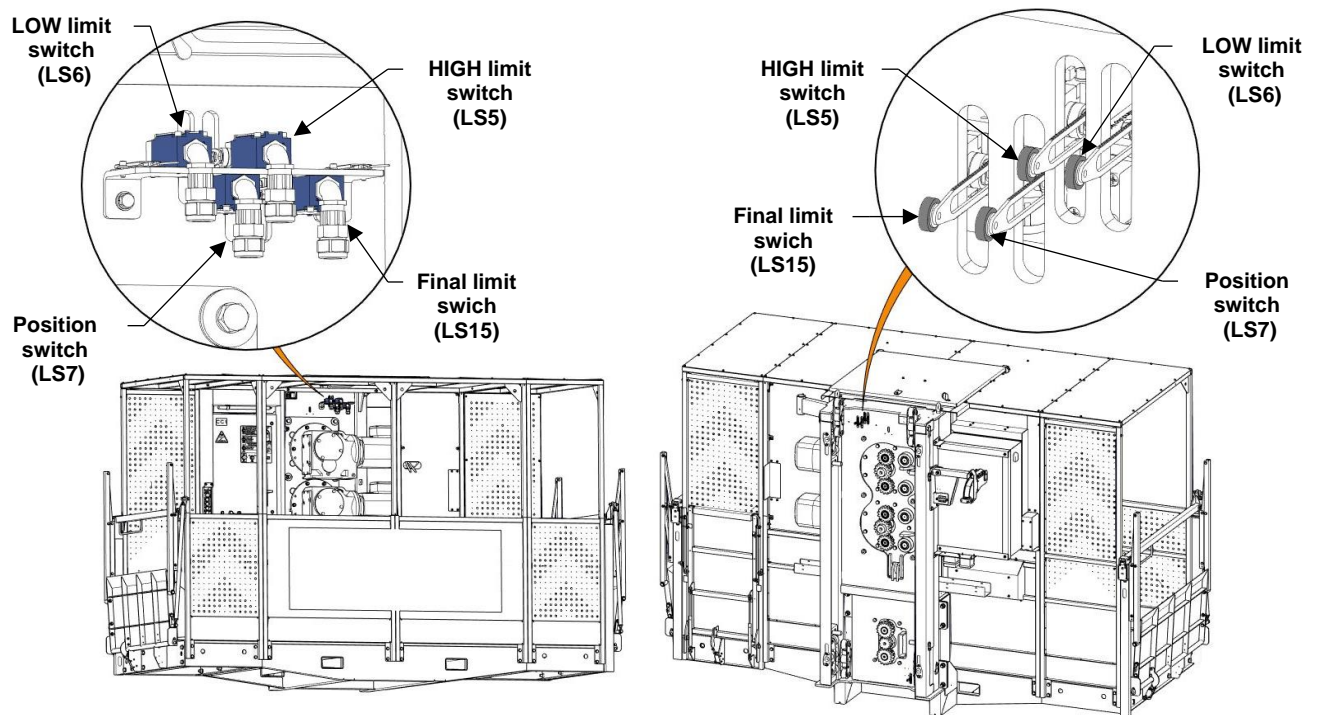


Figure 31 – End travel switches

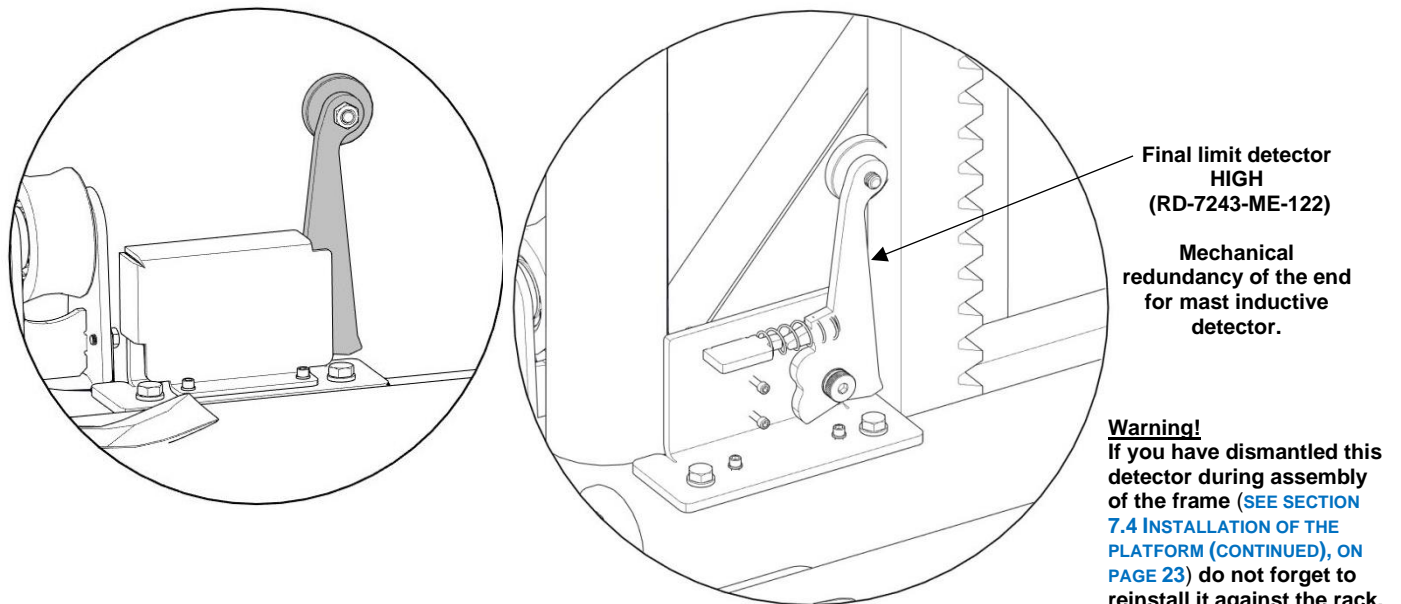


Figure 30 – Final limit detector HIGH

# 10. Electrical connections

The cable is entirely rolled inside the barrel.

The end to connect to the ground power supply box (GC1) comes out of the bottom of the barrel. **(See detail A)**

The end to be passed in the mobile cable support must come out of the top of the barrel. **(See detail B)**

- 1. Connect the main transformer to the ground power supply box (GC1). Make sure that the power input respects parameters specific to the unit (platform).  
 ∞ [SEE ENGINEERING PACKAGE AND ELECTRICAL DIAGRAM SPECIFIC TO THE PROJECT.](#)  
Note: this connection is the responsibility of the contractor
- Connect the ground power supply box (GC1) to the main control panel (CC1) of the platform.
- 2. et 3. Pull out the ends of the cable from the barrel.
- 4. Pass the end of the cable through the cable guides.
- 5. Pass the cable through the mobile cable support. ([SEE DETAIL ON THE NEXT PAGE](#)).
- Connect the power cable to the main control panel (CC1).

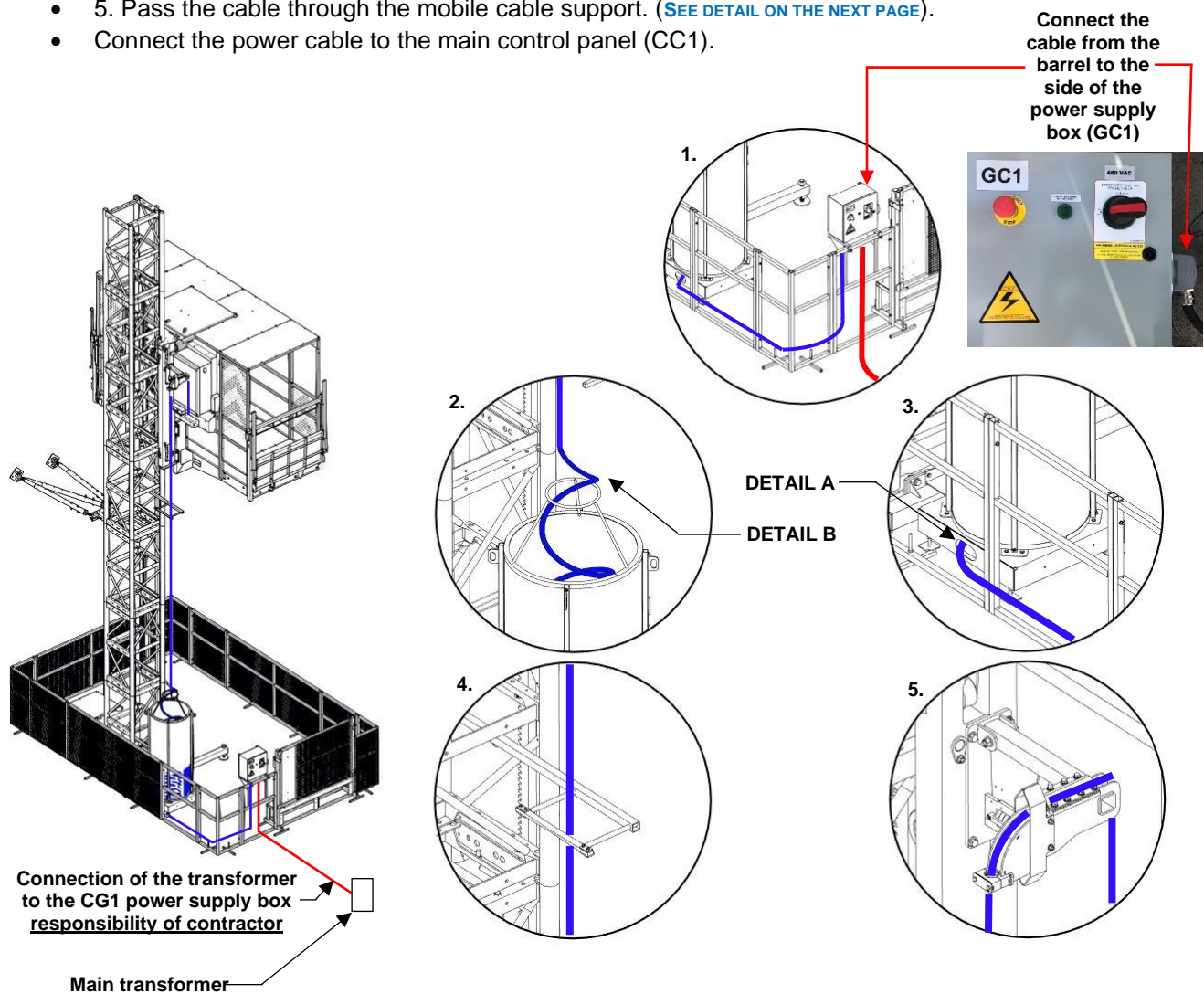
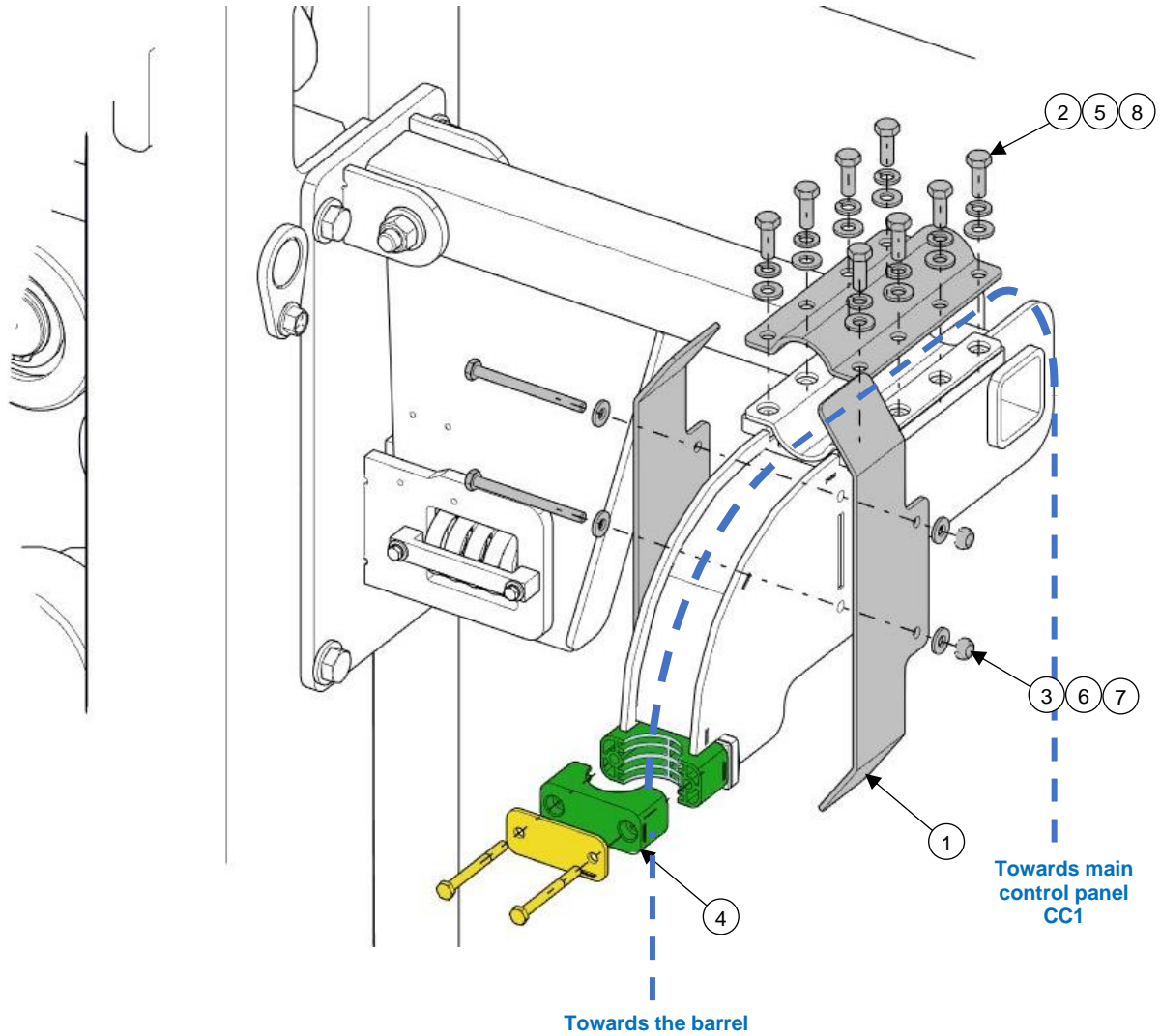


Figure 32 – Electrical connections



## Passing the cable through the mobile cable support

Push the cable through the mobile cable support and connect to the main control panel CC1.  
Tighten the cable in the mobile cable guide.



No.	Qty	Item	Description
1	2	RD-7243-ME-305	Flat bar 0.125" x 1.178" x 3.000" x 11.072"
2	8	BOZ-7050	Bolt 5/16"-18unc x 7/8" gr5 zinc
3	2	BOZ-8634	Bolt 1/4"-20unc x 3" gr5 zinc
4	1	FSQ-0067	Assembled cable support 1-1/2"
5	8	LOZ-5015	Lock washer 5/16" zinc
6	2	NYL-2010	Nylon lock nut 1/4"-20unc gr5 zinc
7	4	WAZ-7011	Washer 1/4" SAE zinc
8	8	WAZ-7017	Washer 5/16" SAE zinc

# 11. Cable guides

Install the cable guides at **MAXIMUM** intervals of 20'-0" (6,0m) along the mast. The cable guides must be installed at the center of the mast sections with the open part turned towards the platform.

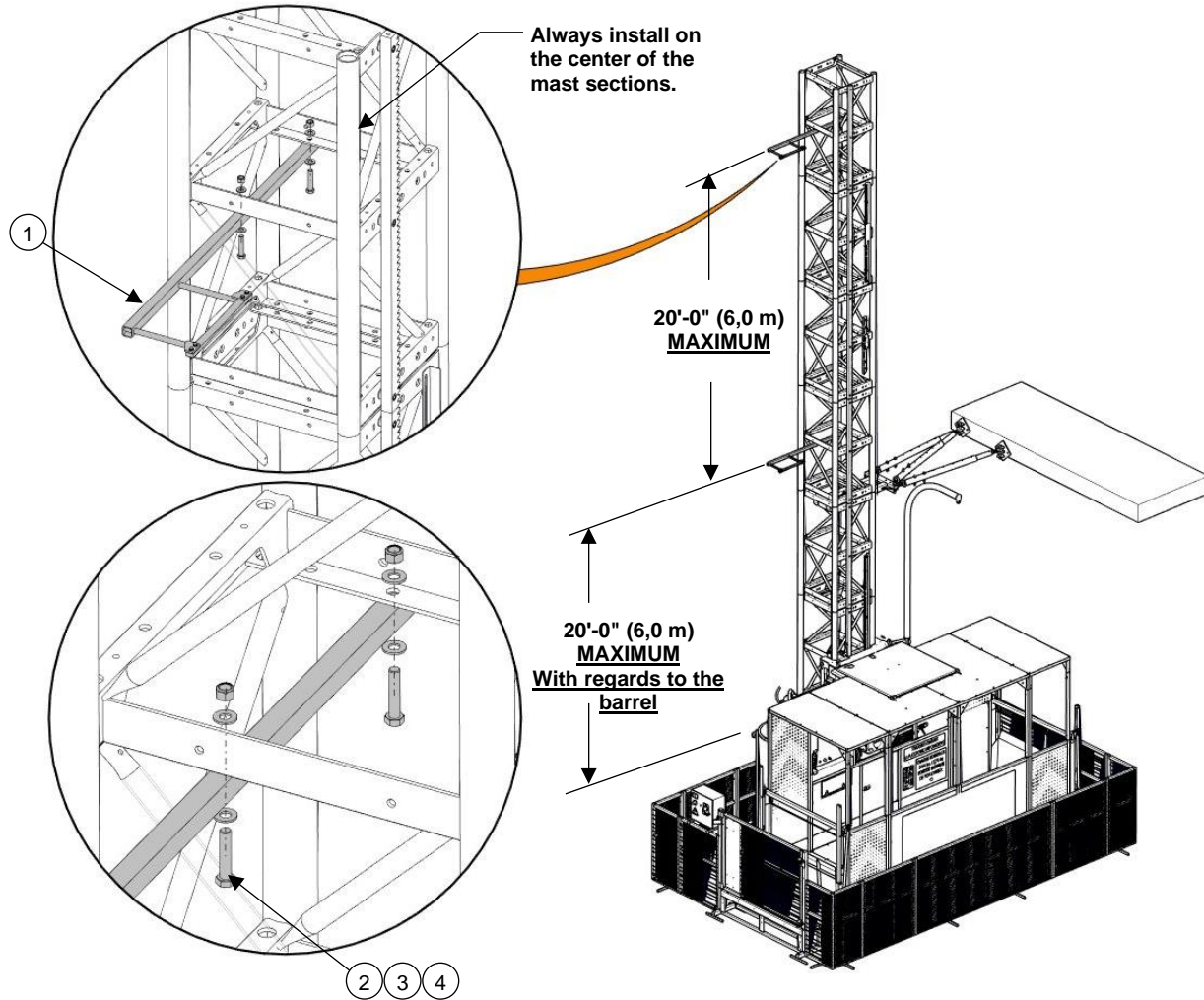


Figure 33 - Installation of the cable guides

No.	Qty	Item	Description
1	1	RD-7243-AT-100	Cable guide
2	2	BOZ-7205	Bolt 5/8"-11unc x 3" gr5 zinc
3	2	NYL-2040	Nylon lock nut 5/8"-11unc gr5 zinc
4	4	WAZ-7041	Washer 5/8" SAE zinc