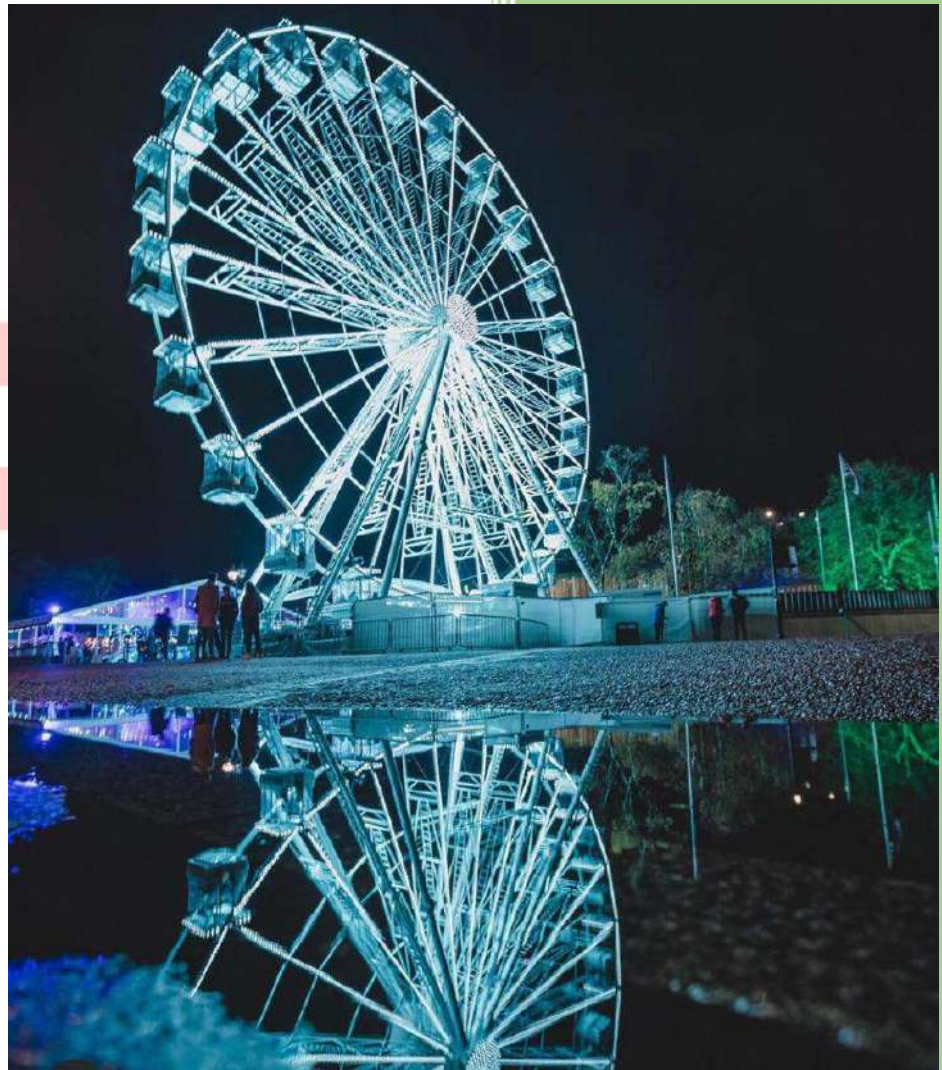


Ferris Wheel 36 Meter - Manual



Contents

1. Company Profile	14
2. General Dimensions of Ferris Wheel Automatic Erection Model.....	15
3. Safety 17	
3.1. Specific Precautions For Safety During The Ride Working	17
3.1.1. During Transport	17
3.1.2. During Set-Up Phase	17
4. Transport And Installation	18
4.1. Set-Up.....	18
4.2. Safety Precautions During Transport and Installation	18
4.3. Start the Installation Process	19
4.3.1. Prepare Installation Equipment	19
4.3.2. Trailer Unloading And Installation Platform	19
4.3.3. Placing Columns On The Bases	20
4.3.4. Preparation Step For Lifting Columns	30
4.3.5. The Final Step Of Lifting The Columns	44
4.3.6. Preparing to Install The Arms	45
4.3.7. Install The Arms	45
4.3.8. Install the Motors (If Not Installed)	47
4.3.9. Install The Gondolas	47
4.3.10. Install the Glass Part of the Gondolas	47
4.4. Connections.....	59
4.5. Ride Commissioning.....	59
4.5.1. Post-Assembly, Pre-Commissionnig Checks.....	59
5. Operating Manual.....	61
6. Inspection 69	
7. Evacuation Plan	71
8. Torque Settings	72
9. Tyre Pressure	73
10. Daily Checklist.....	74
11. Weekly Checklist.....	75

Picture Contents

Picture 1. Ferris Wheel Key Dimensions.....	15
Picture 2. Ferris Wheel Isometric View.....	16
Picture 3. Ferris Wheel Base.....	19
Picture 4. Ferris Wheel During the Installation Phase 1	20
Picture 5. Ferris Wheel During the Installation Phase 1	20
Picture 6. Ferris Wheel Lifting 1	43
Picture 7. Ferris Wheel Lifting 2	44
Picture 8. Ferris Wheel Lifting 3	45
Picture 9. Liftng for the Arms 1	46
Picture 10. Lifting for the Arms 2.....	47
Picture 11. Ferris Wheel Electric Control Panel	61
Picture 12. Ferris Wheel Wheels	71



Table Contents

Table 1. Environmental Requisites	12
Table 2. Noise Data.....	13
Table 3. Checklist	74



This Book Has Been Prepared According to
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Release Date : 23.09.2021

The Book is 72 pages.

Guven Amusement Rides

Stamp- Signature

WARNING!

Before Working on the ride, the personnel must read and understand thoroughly the operation and safety information contained in the manual and its enclosures.

No part of this manual can be reproduced and/or divulged, in any form or with any means, without the prior written consent of the Manufacturer.

The Manufacturer reserves the right to protect its interests in case of unauthorised reproduction or divulgement of the manual or of any of its parts.

No modification or addition to the manual can be made without the express authorization of the Manufacturer.

The Manufacturer prepares and drafts the manual in the English language alone and is only responsible for that contained therein. At the Customer's request, a copy of the manual in a language other than English can be enclosed, specifying that should there be discrepancies and/or contradictions between the two language versions, the English version has priority and the Manufacturer will not be held liable for possible translation errors which may cause direct or indirect damage.

Operating Technical Limits

The ride was designed for:

- *Children;*
- *Teenagers;*
- *Adults.*

Average passenger's weight (Children) 50 kg

Average passenger's weight (Adult) 75 kg

This ride is NOT suitable for a public with the following characteristics:

- *Children height $\leq 47''$ (120 cm) unless accompanied by a responsible companion (if height of the doors of the gondola is about equal to 1,700 mm), except different request from the local authorities.*
- *Children height $\leq 56''$ (142 cm) unless accompanied by a responsible companion (if height of the doors of the gondola is about equal to 1,100 mm), except different request from the local authorities.*
- *People visibly under the influence of alcohol or drugs.*
- *Pregnant women.*
- *People suffering from heart diseases or in a precarious state of health or who have recently undergone surgery.*
- *People with such physical and/or mental disability that they cannot be safely secured.*
- *People whose size does not allow a correct and comfortable use of safety devices.*
- *People that wear personal items that may cause danger*

If in a gondola there are only children under than 14 years old, approx. 63'' (160 cm), it is strongly recommended a presence of at least one responsible adult.

Passengers are forbidden from:

- *Getting on with personal items that can be dangerous;*
- *Eating and/or drinking, smoking, carrying pets, umbrellas, sticks, bulky or sharp items or which can, in any case, become blunt objects and constitute a hazard;*
- *Congregating, leaning out, getting up from the seats, wriggling out of the safety devices;*
- *Wearing clothing that can be a source of danger, or things like scarves, shawls, etc. That can get caught in fixed or moving parts;*
- *Getting on with clothing that they are not wearing*

General Information Regarding Safety

The whole staff shall make any effort to understand the nature of the ride for which they are responsible, including, where necessary, reading and discussing the relevant operating instructions and inspection reports.

The safety of a ride can be achieved by means of:

- *The understanding of one's duties and general responsibilities;*
- *The carrying out of periodical checks;*
- *Safe operation;*
- *Proper overseeing.*

WARNING!

BEFORE CARRYING OUT ANY OPERATION ON THE RIDE, THE OWNER, SUPERVISOR, OPERATORS, COMMON MAINTENANCE STAFF AND SPECIALIZED TECHNICIANS MUST READ THE INSTRUCTIONS GIVEN IN THIS MANUAL (and all relevant enclosures) CAREFULLY AND FOLLOW THEM WHILE CARRYING OUT THE OPERATIONS.

The instructions contain important information as to:

- *The safety of the staff in charge of transport, packing, installation, assembly and dismantling, operation, use and maintenance of the ride;*
- *The safety and efficiency of the ride;*
- *The safety of the public.*

Addressees Of The Instructions And Their Duties

In order to improve the understanding of the manual and avoid any misunderstanding, we will define with precision hereafter the people who are bound to come into contact with the ride equipment under various titles and the duties they are authorised to carry out.

The duties referred to each addressee of the instructions (supervisor, operator, assistant, routine maintenance staff) can be carried out by a smaller number of people, provided that they have professional expertise concerning the operations to be carried out.

WARNING!

Remember that all those who are appointed to work on the ride will have to be endowed with the necessary authorisations and permits, including administrative ones (if needed).

Supervisor/Controller

The SUPERVISOR is the person who takes upon himself to carry out, on his own responsibility, the direction, supervision and control of the following operations:

- *Transport;*
- *Assembly and dismantling;*
- *Starting and operation with or without passengers;*
- *Maintenance;*
- *Periodical checks and inspections;*
- *Repairs and service operations on the ride (only the scheduled ones and those allowed according to this manual).*

The SUPERVISOR is responsible for the management of the ride and he will have to be endowed with the necessary administrative authorisations allowing him to carry out his duties.

He has to observe and to enforce all the instructions and directions contained in this manual.

The SUPERVISOR can also be identified as OPERATOR when he carries out some of the operations listed in the following definition.

WARNING!

Assigning duties and tasks to operators, assistants and maintenance staff exclusively pertains to the SUPERVISOR.

The Controller of the Ride has the Following Duties

- ***Get hold of all the necessary permits required by national laws;***
- ***Equip the ride with fire protection devices in accordance with the regulations in force in the country where the ride is installed and used;***
- ***Organize the inspections according to the frequency stipulated by national laws;***
- ***Manage the Log Book;***
- ***Make sure that only the equipment with a valid permit and that which has passed the inspections can work;***
- ***Read the whole Manual and all the documents supplied before operating the ride;***
- ***Ask for explanations from the Manufacturer if in doubt or difficulty in understanding;***
- ***Select people to work as an Operator or Assistant on the basis of specific skills in terms of conscientiousness, maturity and authority;***
- ***Enforce the operators, passengers and spectators to comply with all the warnings indicated on the plates affixed on the ride; have them always kept legible and have them replaced with identical ones or requested from the Manufacturer if these are lost or damaged;***
- ***Make sure that all the ride staff can be easily identified by wearing easily recognizable garments (for example: hats, uniforms, armbands, etc.);***
- ***Provide adequate training for the staff in charge of operating the ride so that they can:***
 - ❖ Understand the contents of the Manual and interpret the drawings and diagrams, symbols, pictograms and video messages correctly;
 - ❖ Be thoroughly familiar with the regulations related to hygiene, accident-prevention and technologies in force in the country where the ride is installed and used;
 - ❖ Guarantee safe operation of the ride with respect to the speed and loading limits and other specific safety measures;
 - ❖ Be thoroughly familiar with all the safety systems and escape routes of the ride;
 - ❖ Follow the registration procedures correctly for faults, defects or abnormal behaviour;
 - ❖ Follow the passenger loading and unloading procedures correctly;
 - ❖ Check the passenger waiting areas properly together with the spectator standing areas;
 - ❖ Strictly comply with the procedures that regulate the passenger access restrictions;
 - ❖ Comply with the procedures to manage black-outs correctly together with passenger evacuation situations;
 - ❖ Make sure that the area where the ride is installed is safe;
 - ❖ Comply with the procedures to manage problems that may derive from accidents, defects or malfunctions of the ride, fire, adverse weather conditions and inappropriate passenger behaviour for safety regulations;
 - ❖ Comply with the control and maintenance procedures of the ride.

OPERATOR

The OPERATOR is the person entrusted with the actual carrying out of the following operations related to the ride:

- Transport;
- Assembly and dismantling;
- Starting and operation, with or without passengers;
- Some routine maintenance operations explicitly scheduled in the manual;
- Cleaning.

These tasks must be carried out under the SUPERVISOR's direct control (if they are two different people).

The Operator is obliged to be perfectly aware of the operating and emergency procedures of the ride.

The Operator must act according to these procedures with the aim of guaranteeing maximum safety to spectators, passengers and the people working with him/her and him/herself.

The Operator has the following duties:

- *Make sure that the entire area where the ride is used is kept clean and tidy, free of grease, oil, water, objects or materials which could create obstacles or danger;*
- *Make sure that there is no inflammable material like petrol, gas cylinders, solvents, etc. near the ride;*
- *Make sure that the escape routes are clear;*
- *Verify that the protections, guards and all the safety devices are in perfect working condition on a daily basis;*
- *Make sure that the metal plates and the self-adhesive labels bearing safety instructions, affixed on the ride, have not been removed or damaged and are always perfectly legible;*
- *Inform the Controller when the plates or labels must be replaced. The Controller will forward a request to the Manufacturer;*
- *Use the Personal Protective Equipment when required by the reference regulation;*
- *Set-up suitable fire protection equipment near the ride;*
- *Operate the ride;*
- *Carry out the assigned controls, inspections and maintenance operations.*

ASSISTANT

The Assistant is the person entrusted with some specific tasks when the ride is open to the public.

He has to carry out all instructions given to him by the SUPERVISOR and the OPERATOR.

ROUTINE MAINTENANCE STAFF

The ROUTINE MAINTENANCE STAFF are expert operators (technicians), trained and authorised for routine maintenance, each of them in the field of their own expertise (either mechanical or electrical):

- **Maintenance Mechanics:** expert operators trained and authorised for the maintenance of mechanical parts, pneumatic and hydraulic systems.
- **Maintenance Electricians:** expert operators trained and authorised for the maintenance of electrical and/or electronic parts and systems.

Safe Working Methods

- *Only qualified people, properly trained or experienced, will be allowed to work on the rides.*
- *This requires people having adequate knowledge, experience of the kind of work to be carried out and adequate understanding of the systems they work with, including related dangers; they must also be able to understand if the work can be continued in safe conditions.*
- *These precautions include the use of suitable protection and test equipment and of suitable tools.*
- *The routine maintenance staff are authorised for the installation, use, routine maintenance and cleaning of the ride.*
- ***Duties during the operation:***
 - ✓ Restoring normal conditions after a shutdown due to breakdown or emergency, etc.;
 - ✓ Checking the operation;
 - ✓ Carrying out the typical tasks entrusted to the operator in charge of operation and use.
- ***Expected duties during maintenance:***
 - ✓ Checking the parts subject to wear and tear, which are listed in the routine maintenance section, and arranging for their replacement, if necessary;
 - ✓ Carrying out regulations and adjustments;
 - ✓ Refilling of the exhausted fluids;
 - ✓ Lubrication and cleaning.

These tasks must be carried out under the SUPERVISOR's direct control (if they are two different people).

ENVIRONMENTAL DATA**WARNING**

Failure to comply with the data indicated below may affect the correct operation of the ride.

Environmental requisities for the correct and safe operation of the ride:

ENVIRONMENTAL REQUISITES		
Air Temperature	From 0°C	To 40°C
Relative Humidity	Min. 5%	Max. 95% without Condensate
Max. Altitude Above Sea Level	1,000 m	
Presence of Dust	As in a Normal Environment	
Ground bearing capacity	Refers to CH. 4	
Conditions of the surface supporting the ride	Refers to CH. 4	
Electromagnetic environment	Normal	
Corrosive effect of the air	As per class G1, ISA-S71.0	

Table 1. Environmental Requisites

WARNING

Special scenography/decorations can generate an EXPLOSIVE ATMOSPHERE.

This ride has not been constructed with explosion-proof configuration, but with standard configuration.

Therefore, IT IS FORBIDDEN to install and operate it in places where there may be an excessive concentration of dangerous substances exceeding the limits defined by the laws in force in the country where the ride is installed and used, and where therefore there may be a risk of deflagration.

The user is responsible for employing special air filtering systems in order to prevent any risk of deflagration.

WARNING

The scenography of the ride, including the decorations and the fairings of the gondolas, is made of fibreglass and therefore may catch fire.

These parts must never be exposed to heat sources.

The supervisor is responsible for using suitable fire-prevention systems.

EMISSIONS

NOISE

The ride has been designed and constructed in such a way as to reduce the acoustic pressure levels as much as possible and to keep them within the prescribed limits.

It is important to remember that if the noise level at the operator's ear (LEP) exceeds 80 Db (A) the operators must wear:

- Personal protection means (such as headsets or ear plugs);
- If necessary, sound-proofing screens.

Any anomalous noise may indicate the presence of mechanical problems.

If the problems persist, contact the Manufacturer or its authorized service centre.

NOISE DATA TABLE			
POSITIONS	LEVELS		
	Weighted Equivalent Continuous Acoustic Pressure level	Weighted Instantaneous Acoustic Pressure Value	Level of Acoustic Pressure Produced by the Ride
Work Areas	75 db	80 db	85 db
Passengers	70 db	75 db	80 db
Public	60 db	65 db	70 db

Table 2. Noise Data

The noise level indicated is useful as a point of reference for the Supervisor, since it allows him to evaluate the risk connected with the use of the ride and the consequent need to adopt any measure aimed at reducing the exposure of the operators.

The noise level value refers to the emission of the ride and not to the exposure of the various operators. The latter depends on different factors, such as the duration of the exposure, the use or failure to use personal protection means, the characteristics of the operating environment, the presence of other rides, the mode and conditions of use of the ride, the position of the protection devices, etc.

WARNING

In the assessment of the noise levels, the level of exposure to noise due to hi-fi systems and loudspeakers has not been taken in consideration.

The Supervisor must take care that the sound emissions of the ride don't exceed the max. Level prescribed by the regulations in force in the country where the ride is installed.

1. Company Profile



GUVEN RIDES MANUFACTURER

GENERAL MANAGER: MEHMET BÜYÜKKOÇAK

ADDRESS: Fatih Mahallesi 3105. Cadde No: 15

Kahramankazan – Ankara / TURKEY

E-mail: guvenlunapark@gmail.com

GUVEN AMUSEMENT RIDES FACTORY Which has been active in funfair and entertainment sector since 1979 is serving you, the dear clients, with high quality and economic products. We through our products and quality assurance, are addressing not only to the local markets in Turkey but also to the global ones. We offer a wide range of funfair products consisting of both standard type and special kinds which are being developed by particular demands and designs. Our vehicles, all having mobile versions, are equipped with high standard of technology and safety.

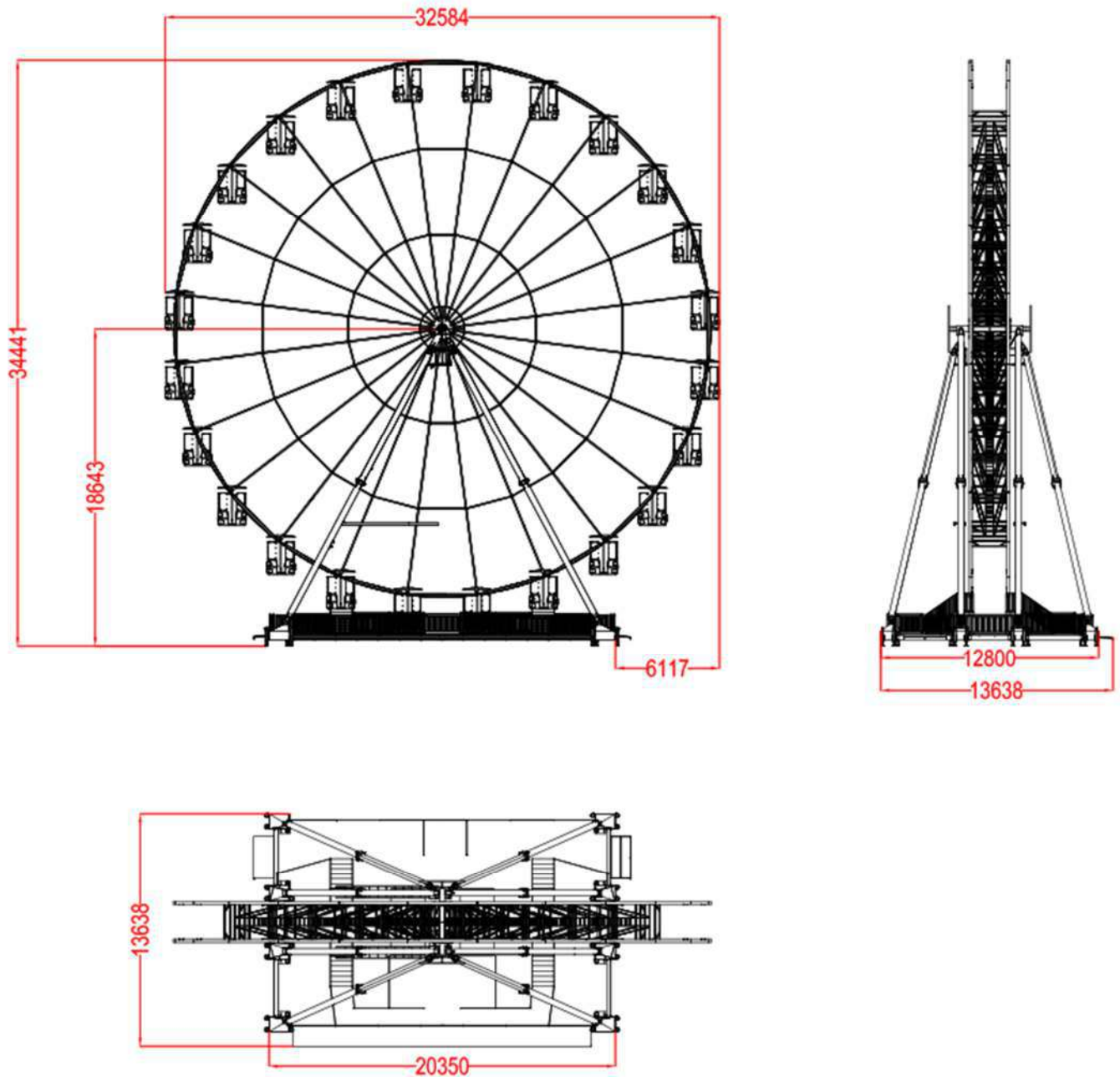
Our products, which we produce on the grounds of our clients demands, are being created in an impressive and interesting way. Therefore we, as a sectoral body, caught a remarkable trend of progress. In this respect, we are serving with high quality of products based on the experience and acknowledgment within the sector of funfair and entertainment as a meritorious brand.

There are a lot of things to do on the safety mechanisms that can be applied to the electric shaft. Sophisticated ride control systems that use AC / DC and PLC drives are less visible to ensure safe ride operations, but vital for ride and safety.

Finally, using the advanced computational tools of the GUVEN analytical department, it provides computations that prove the engineering design.

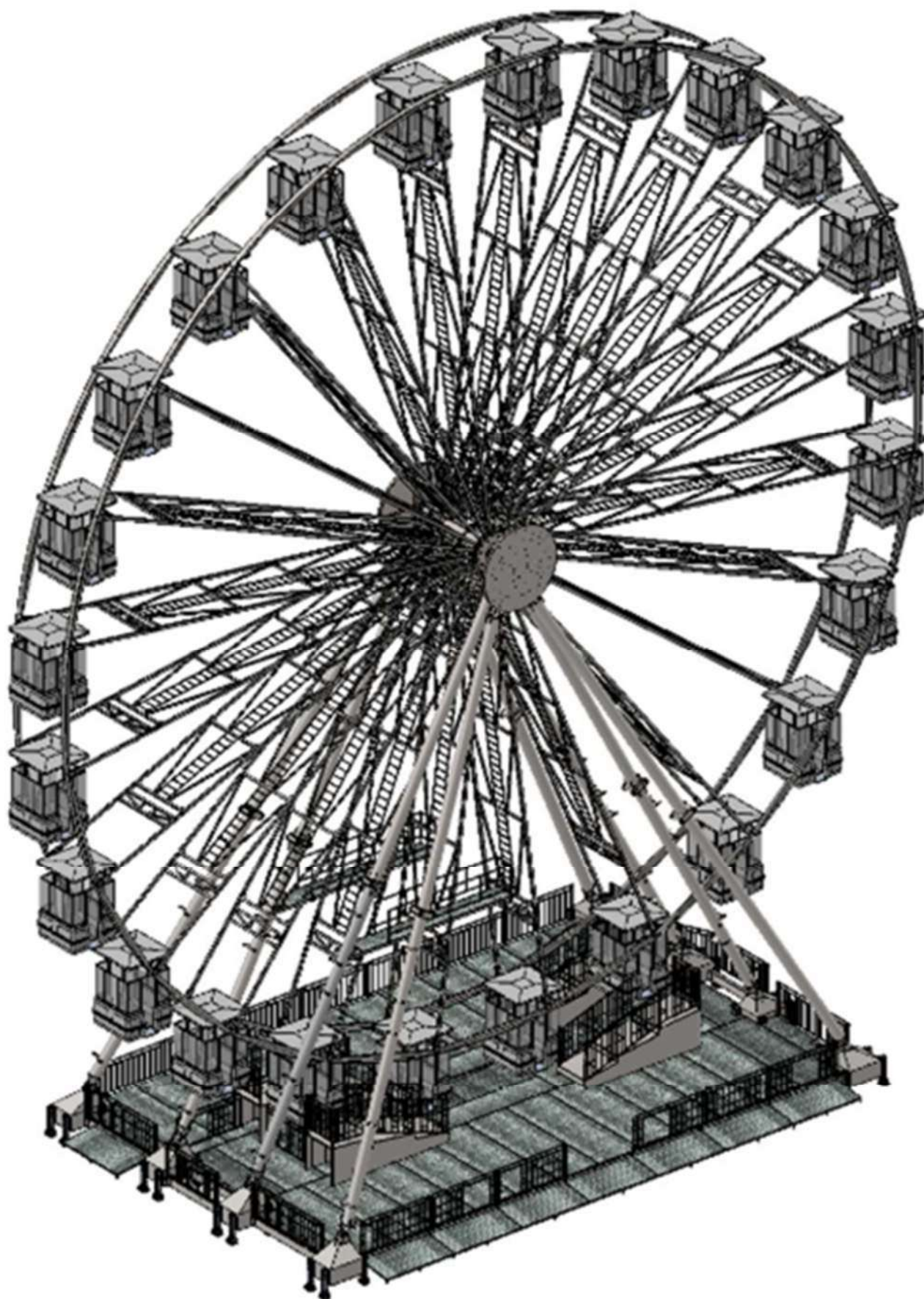
“The goal is to ensure the safety and durability of the GUVEN Riding. “

2. General Dimensions of Ferris Wheel Automatic Erection Model



Picture 1. Ferris Wheel Key Dimensions

Name	: Ferris Wheel Automatic Erection Model
External Dimension	: L 20880 mm x W 13600 mm x H 36000 mm $\pm$ 100 mm (Including Jack)
Weight	: 70.000 Kg $\pm$ 1000 kg
Quantity	: 1 UNIT



Picture 2. Ferris Wheel Isometric View

3. Safety

3.1. Specific Precautions For Safety During The Ride Working

Danger Sources – Risks – Protections

3.1.1. During Transport

During transport there are:

- **Danger Sources**

The ride moves on one or more semitrailers, utilized both for transport of the main structure and of the accessories parts.

- **Risk**

Any risk arising from the vehicle itself and from its guide.

- **Protections**

Maximum caution during every movement.

3.1.2. During Set-Up Phase

During Set-Up phase there are:

- **Danger Source**

- Electric connections.
- Hanging loads.
- Height
- Part in movement
- Wind

- **Risk**

- Fulguration
- Falls from above, objects falls from above
- Impact and crushing Danger

- **Protection**

- Derivation boxes, electric panels and contacts perfectly insulated and manufactured with proper cables upon law. We advise you to use insulated working tools and be care to the signals.
- The non-authorized people must be kept away from the ride, by the means of fences, and are not allowed to stay under hanging loads or under hanging parts: all the authorized people must wear the helmet.
- Safety belts are necessary with double safety.

- **Residual Risks**

- Pay particular attention to the connection parts and to the hinged components.
- We recommend to use working leather gloves and to wear the accident prevention upon European norms 89/686 CEE or in conformity with the local laws.

4. Transport And Installation

4.1. Set-Up

Set Up operations of the ride

The set-up of the ride must be carried out by qualified technicians:

- Controller
- Specialized technicians, trained and authorized for the set up.

Before doing the set-up operation of the ride, you need to wear individual protection devices.

4.2. Safety Precautions During Transport and Installation

During these operations the staff must wear individual devices to the laws in force in the country where the ride is used and installed (for example: hard hats, gloves, protection shoes, overalls, etc.).

The staff must also observe the following rules:

- Move away from the loads the loads before they are lifted and lowered;
- Never stand under suspended loads;
- Keep unauthorized people away.

If it is necessary to drive the load during the lifting, use proper tools in order to keep at a safety distance from the lifted the part or component.

If the operator has a poor visibility due to the overall dimensions of the load to be lifted, the presence of an attendant will be needed.

Refer to the specific laws in force to draw information about the signs and equipment to be used by the attendant on the ground while moving equipment.

Neglecting these precautions may cause damages to people and things.

Transport too must be carried out by qualified trained and authorized staff.

The ride or its parts must be fixed on transport vehicles by means of bands or other suitable means to prevent any overturning.

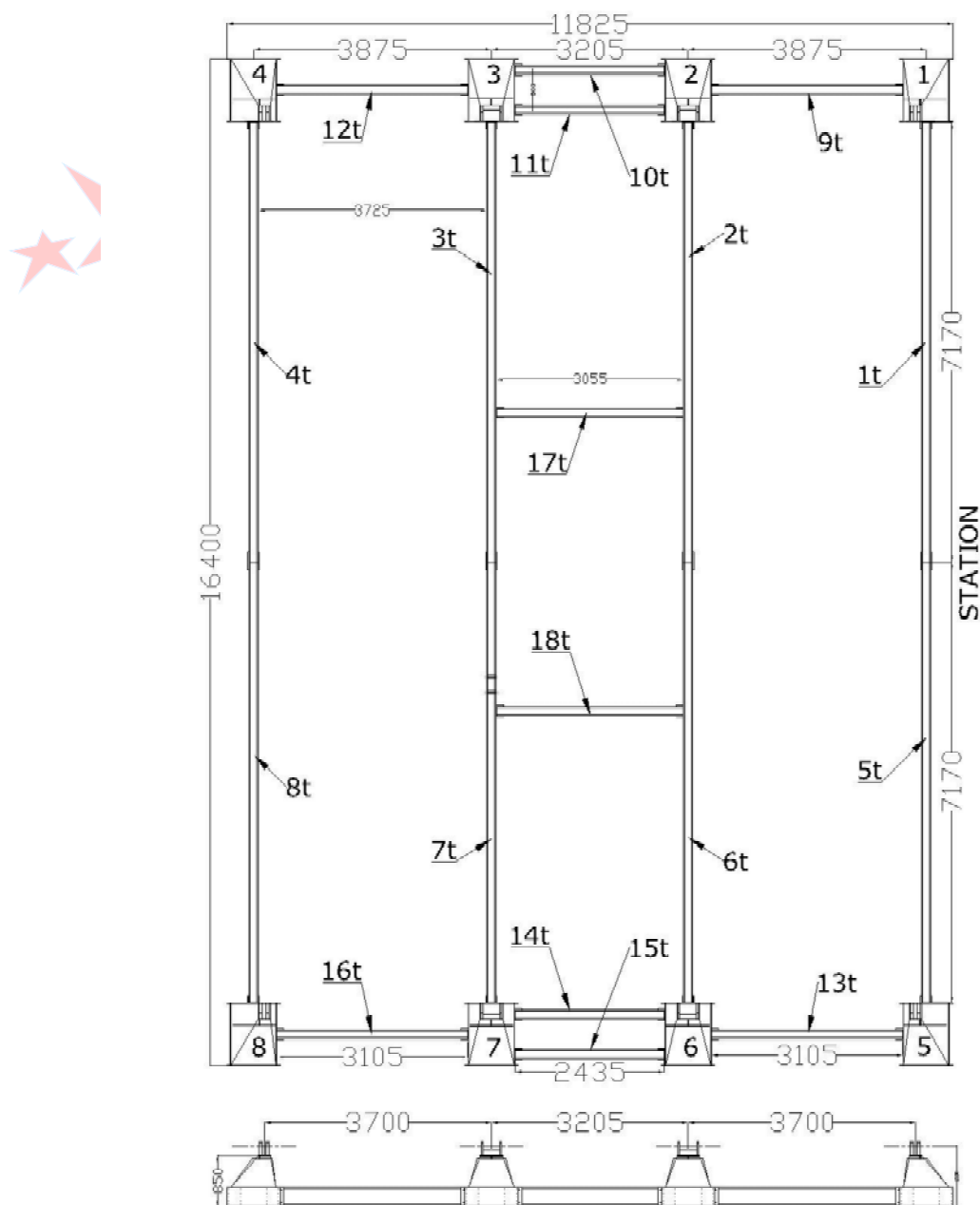
4.3. Start the Installation Process

4.3.1. Prepare Installation Equipment

A truck Crane with a Capacity of 10 tons and a suitable arm for removing objects from trailers and placing them in a suitable place.

4.3.2. Trailer Unloading And Installation Platform

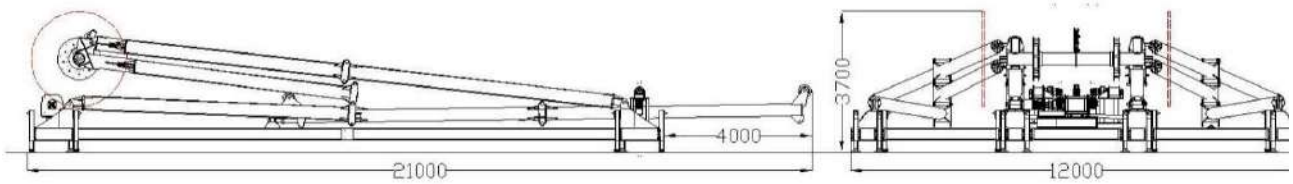
Place the load in the desired location; then place the vases according to the map and install the chassis members by pins.



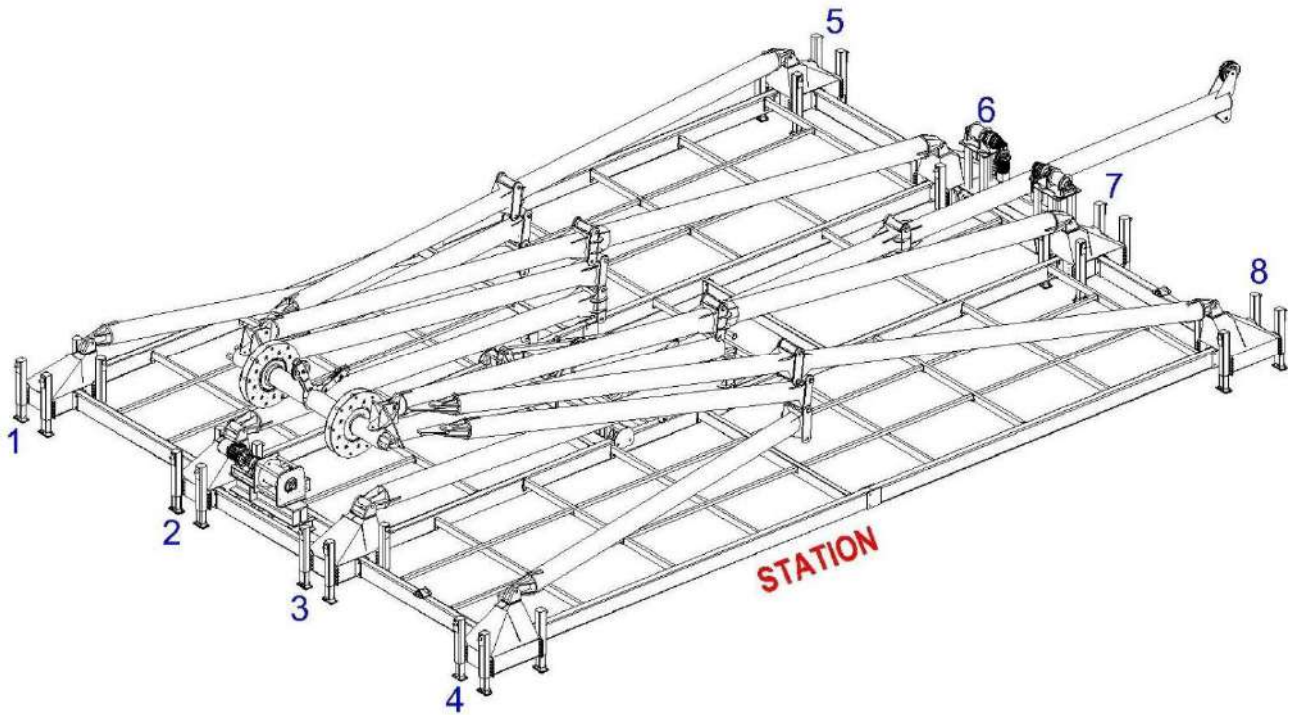
Picture 3. Ferris Wheel Base

4.3.3. Placing Columns On The Bases

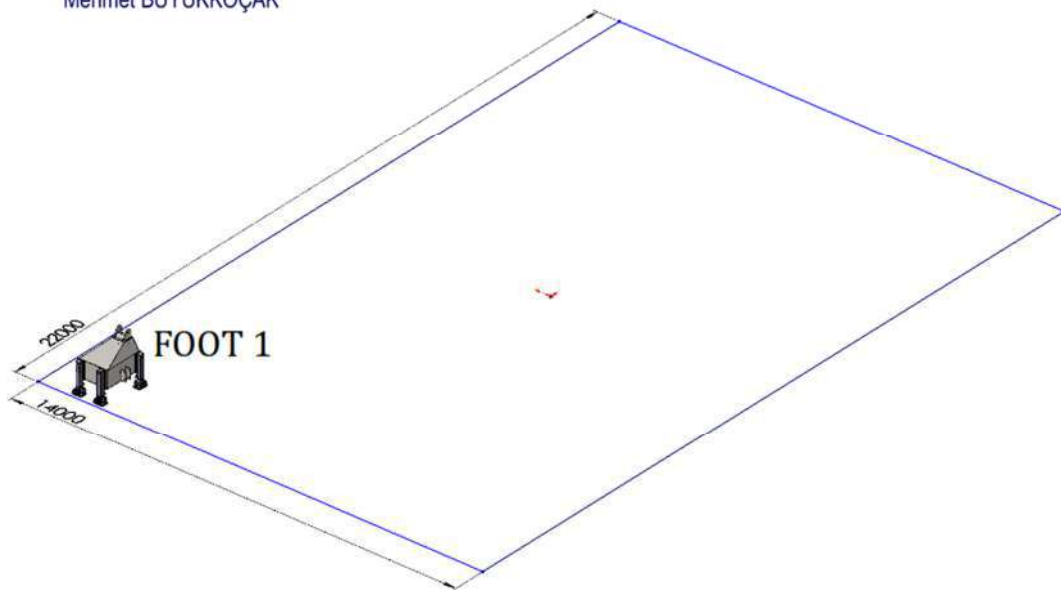
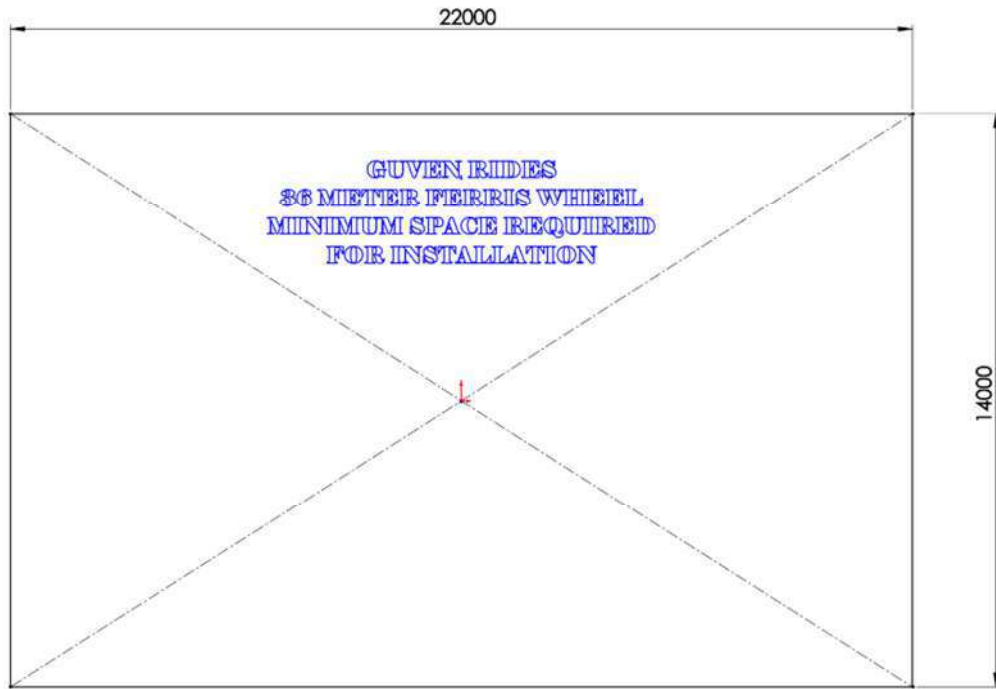
Placing columns on the bases by connecting the pin according to the existing number.

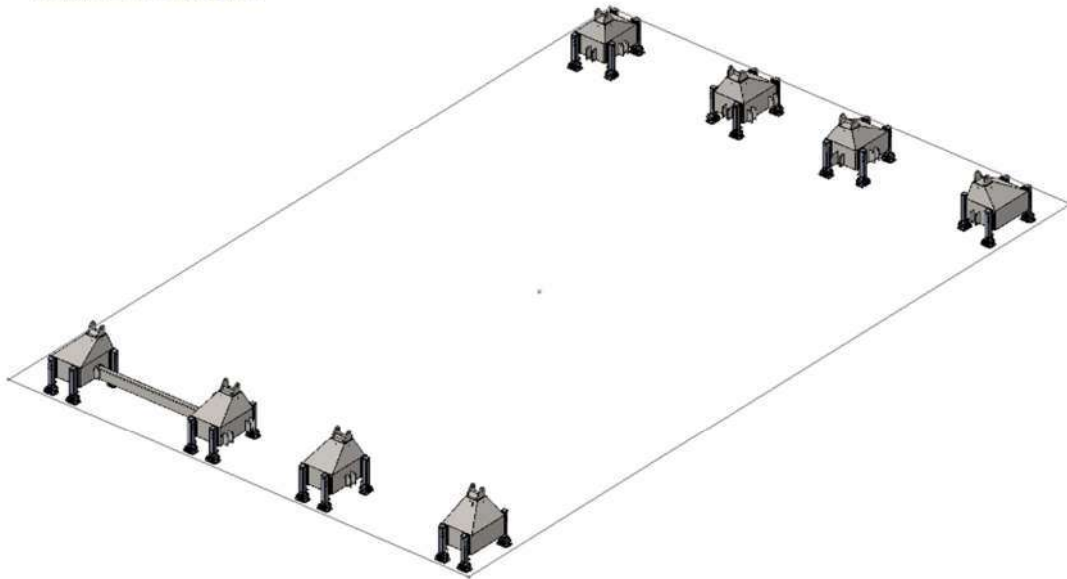
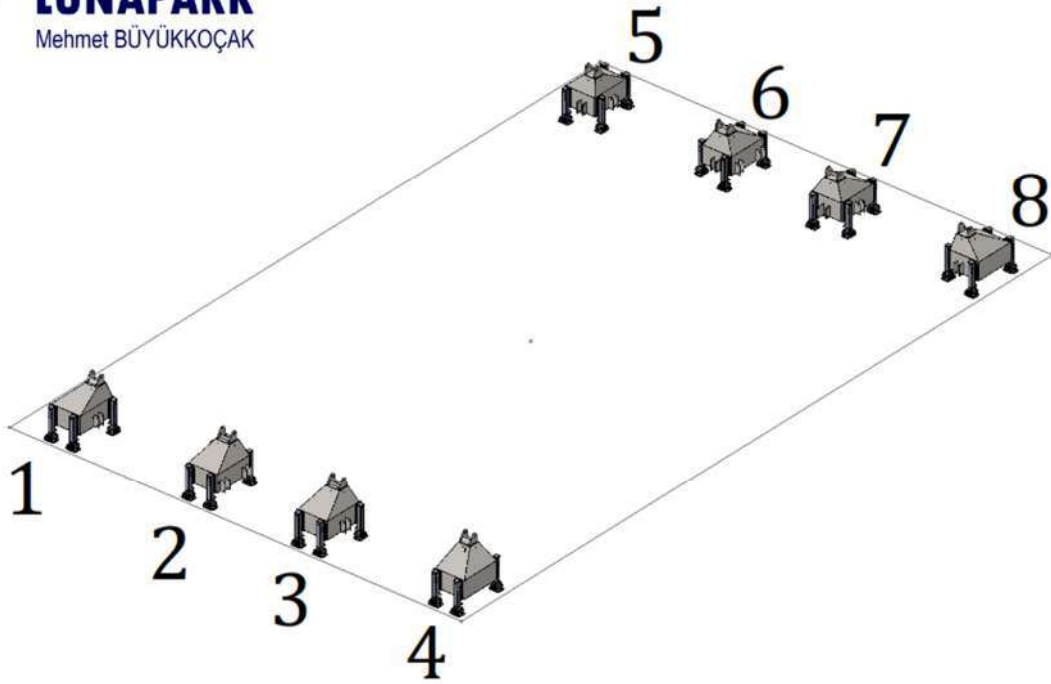


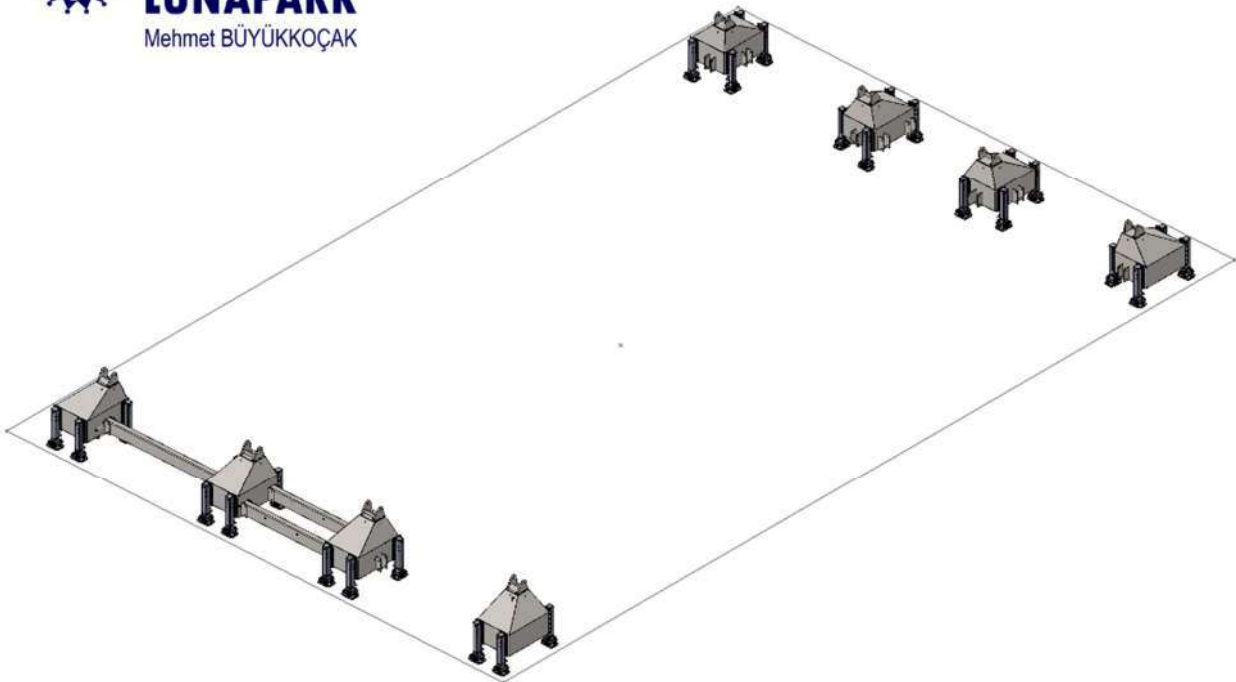
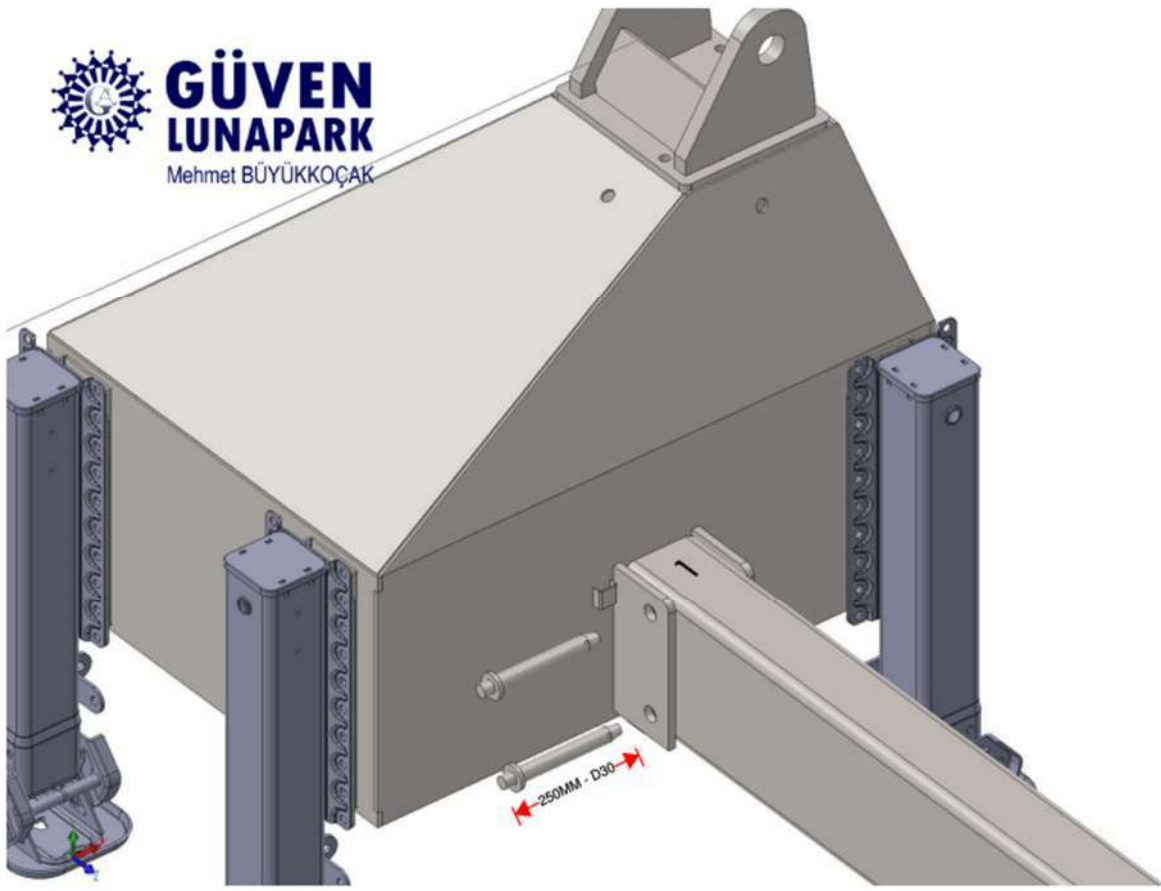
Picture 4. Ferris Wheel During the Installation Phase 1

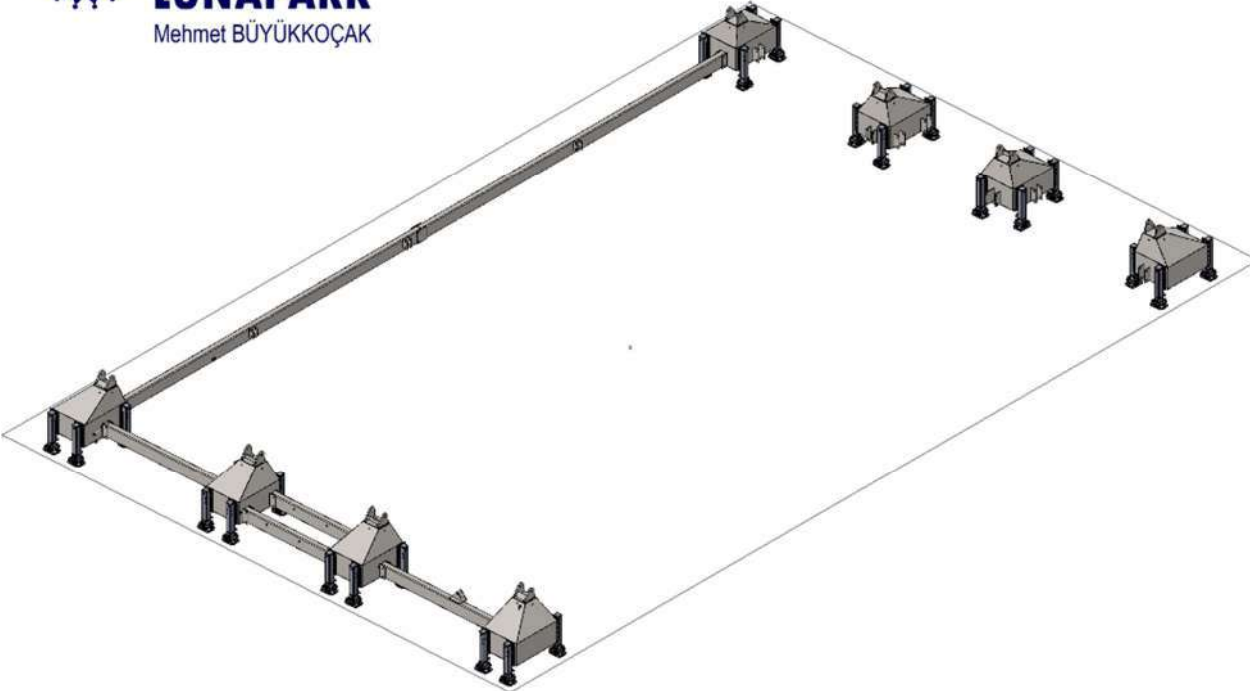
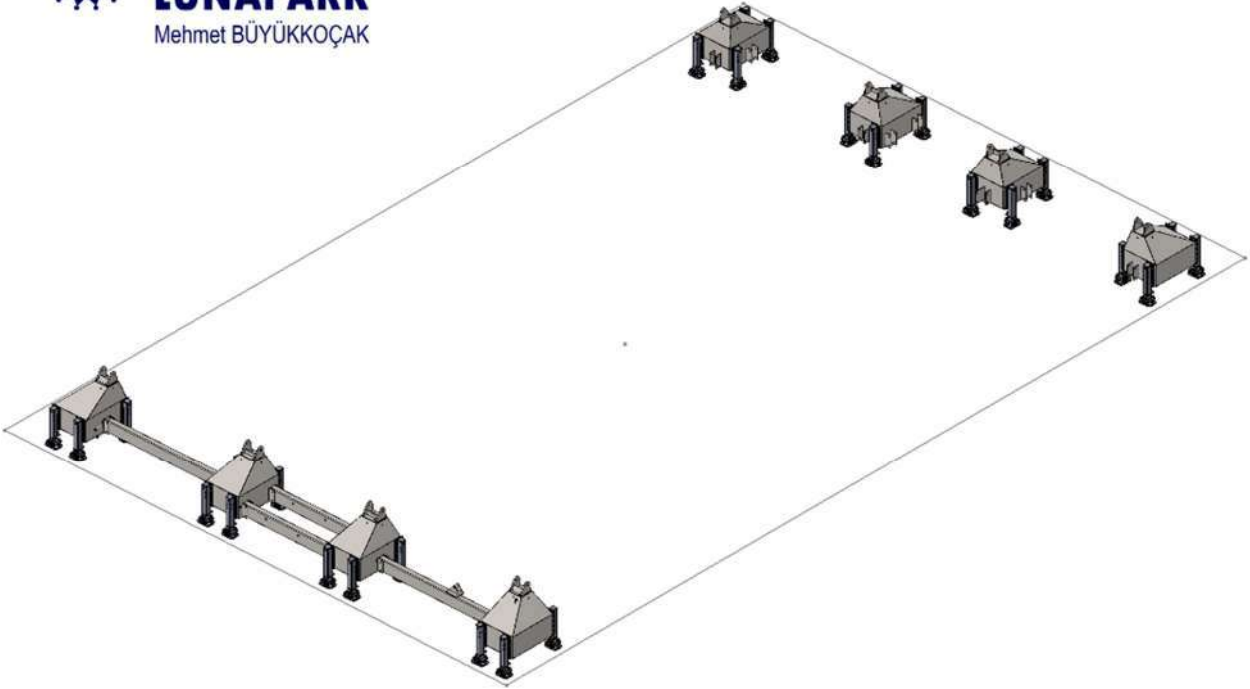


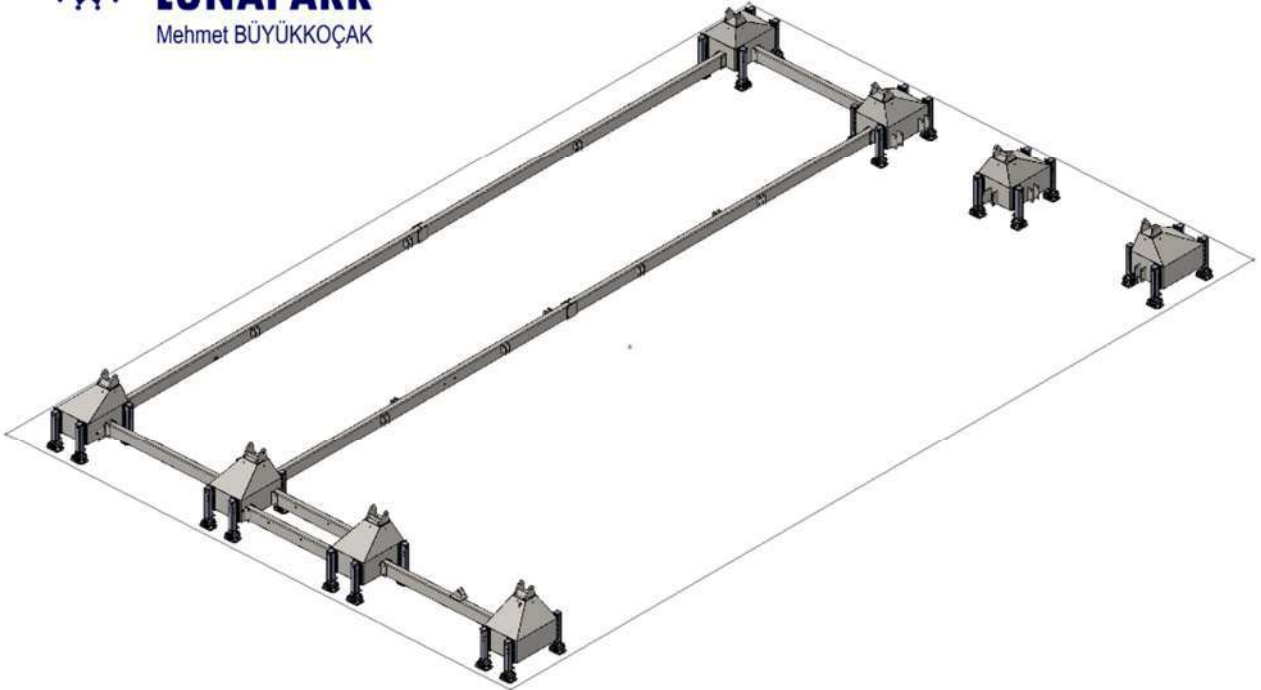
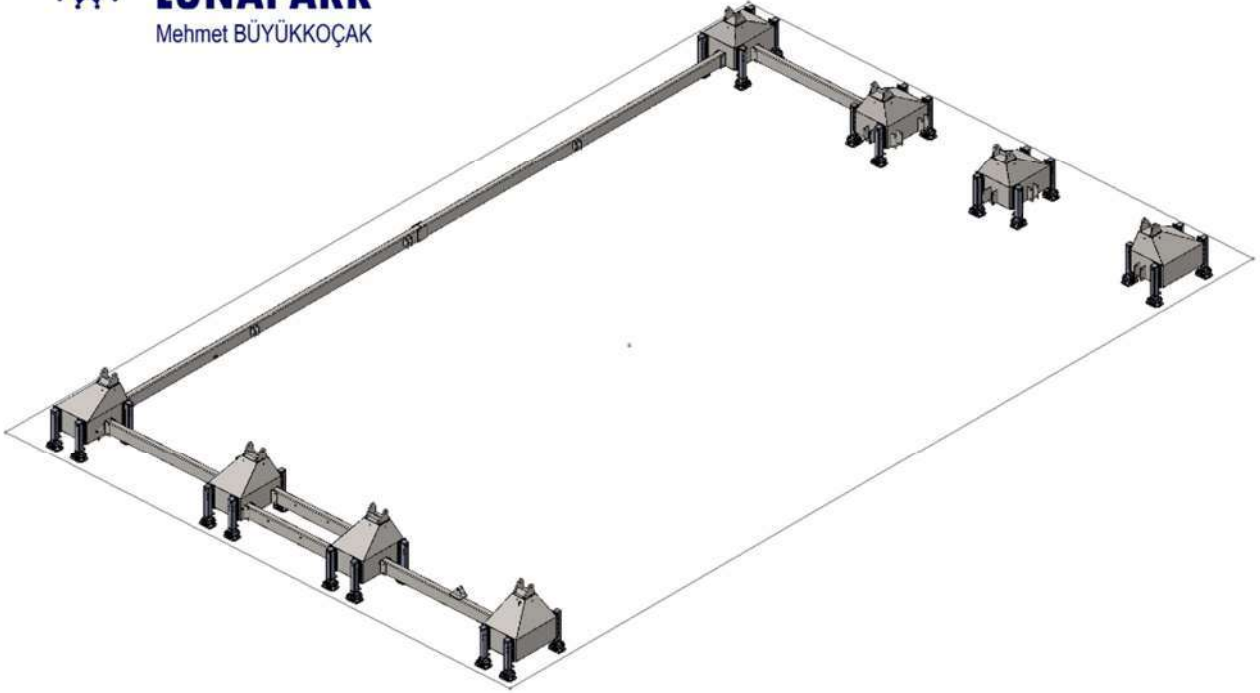
Picture 5. Ferris Wheel During the Installation Phase 1













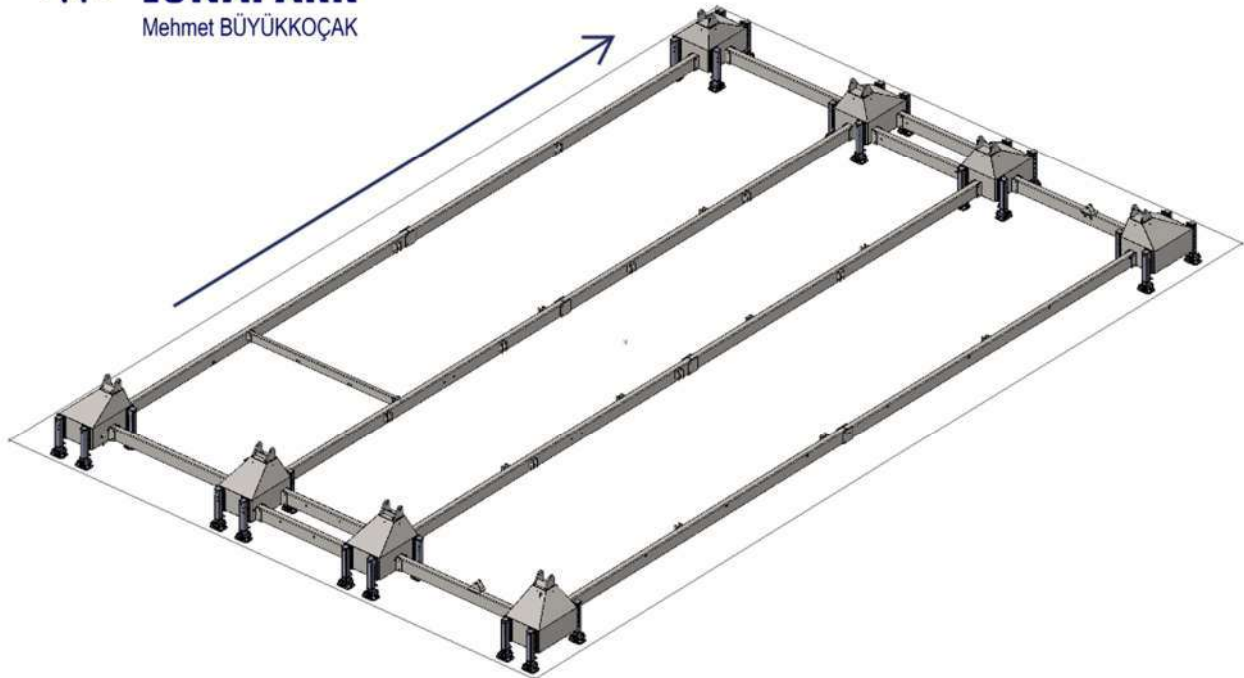
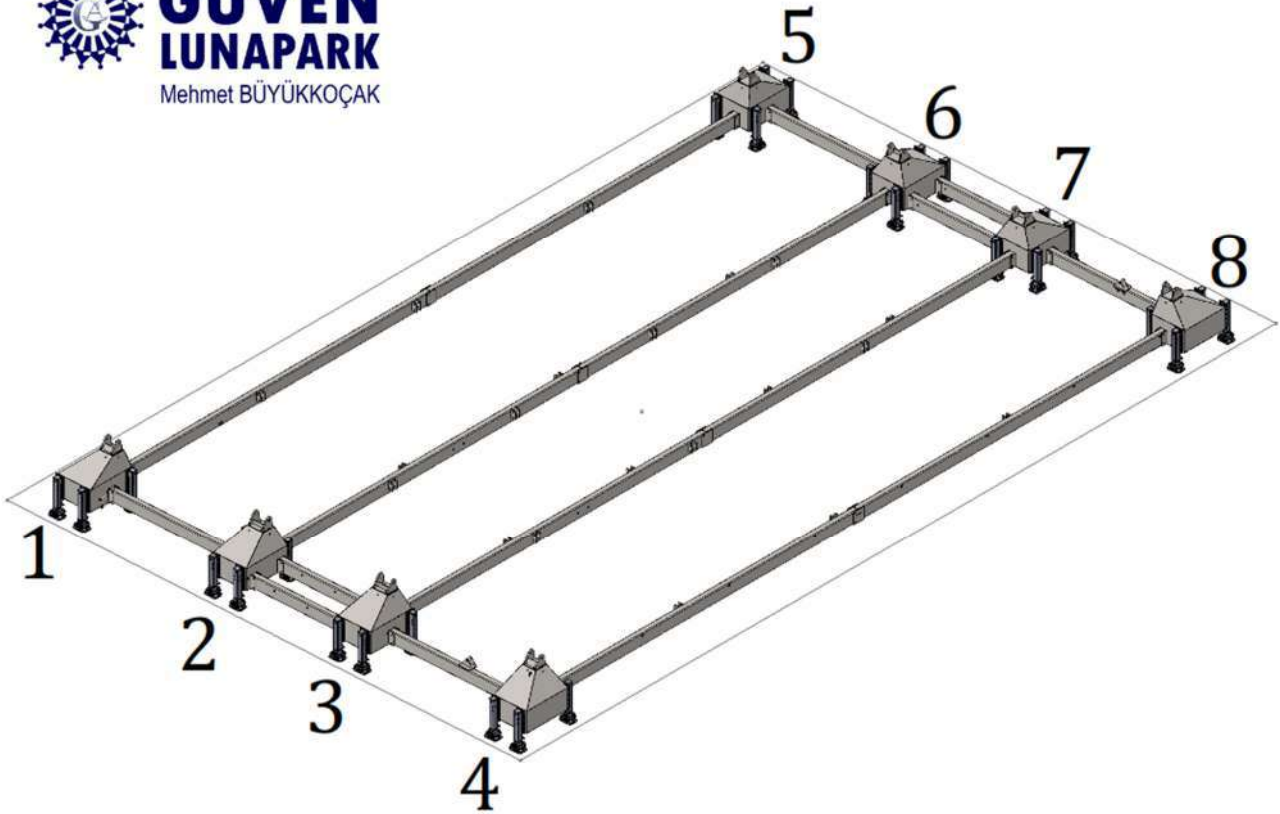
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LUNAPARK**
Mehmet BÜYÜKKOÇAK

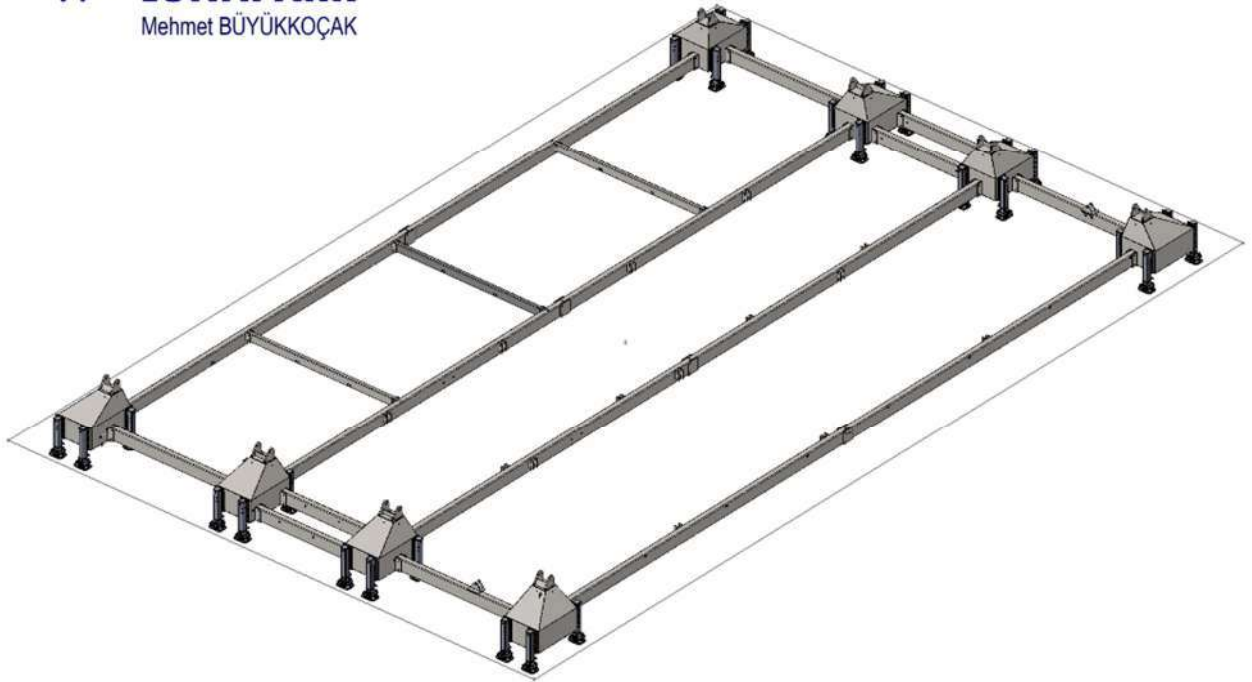
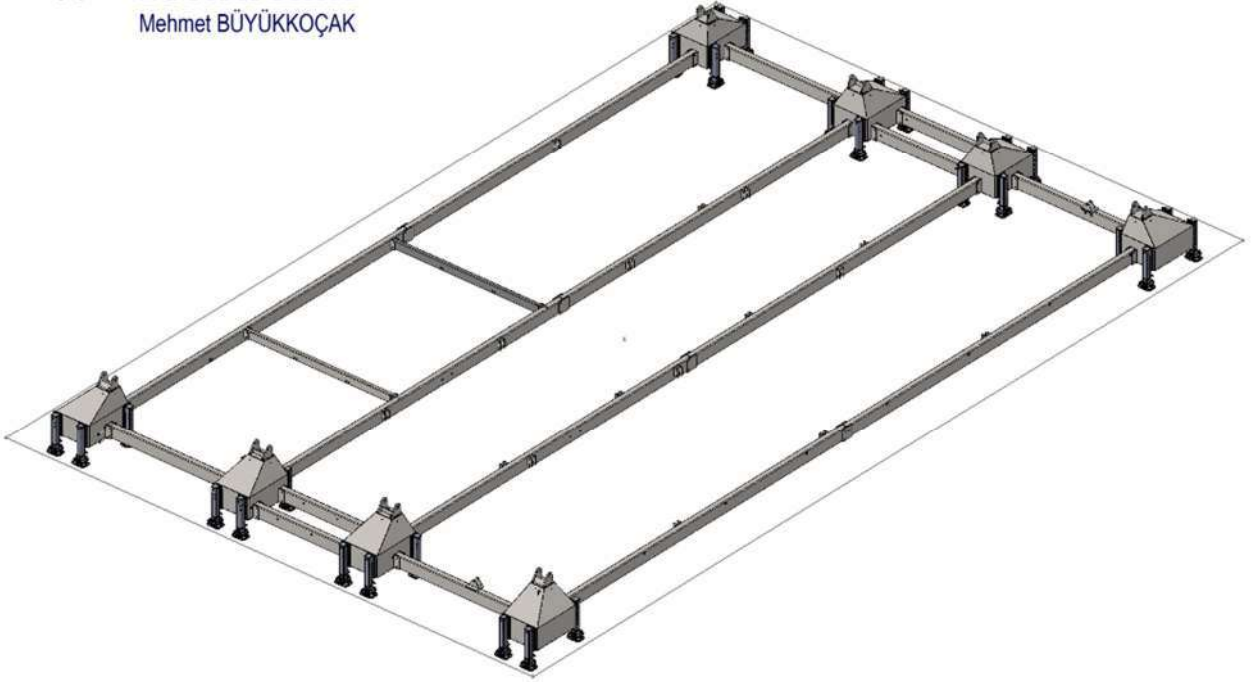


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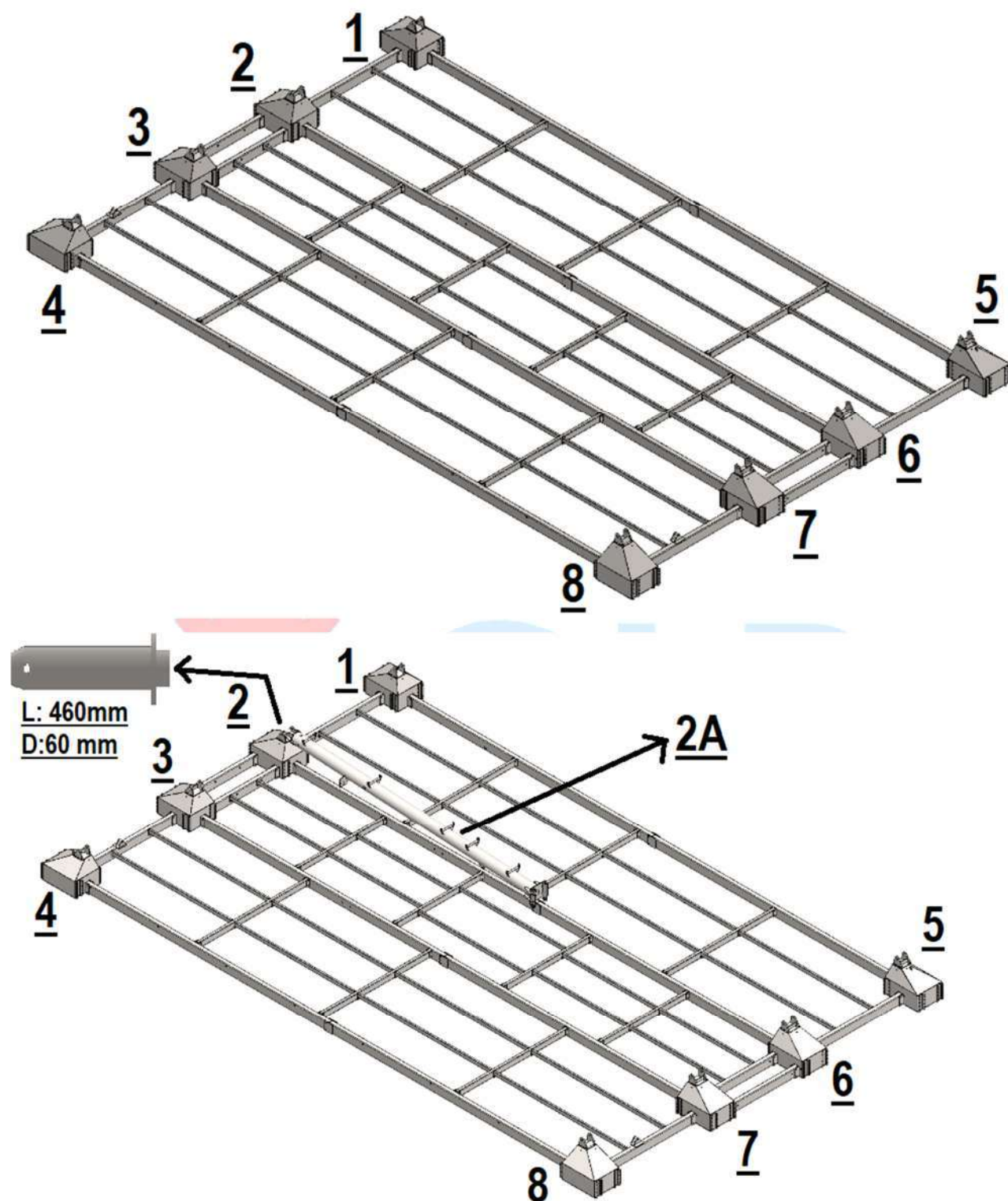


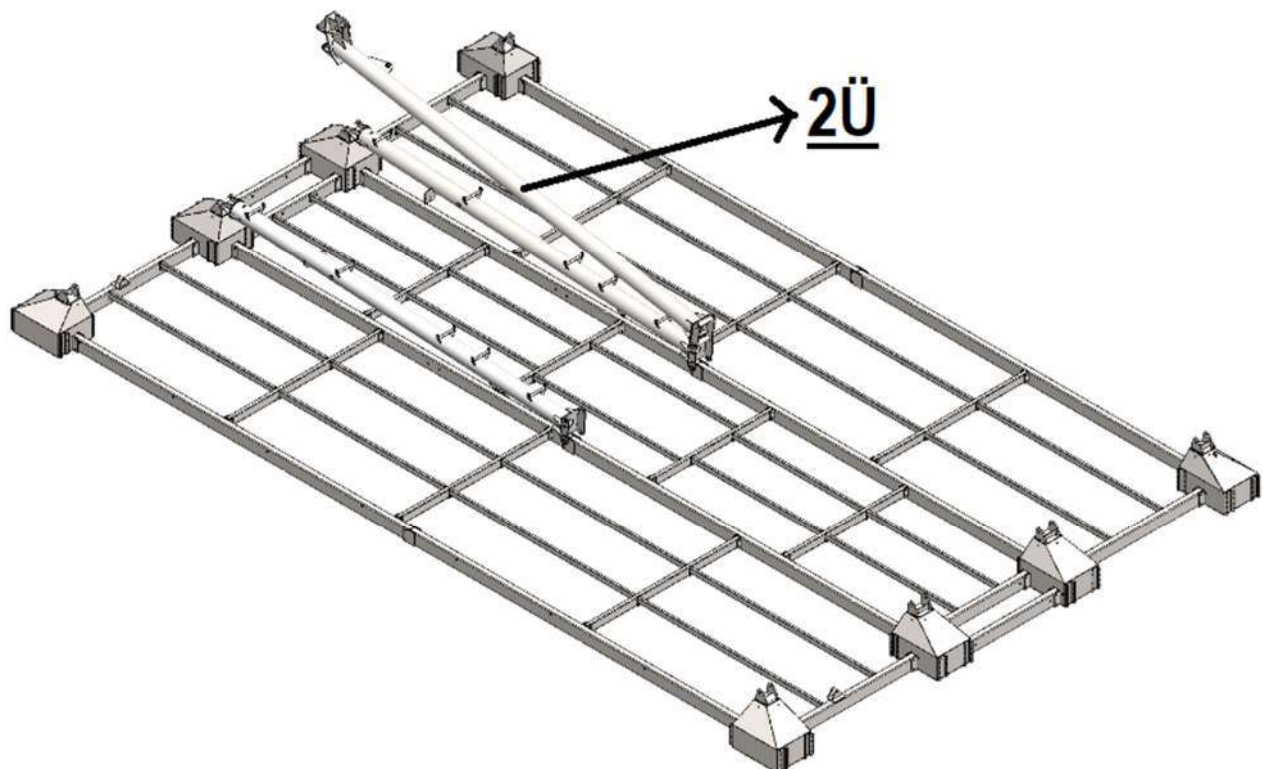
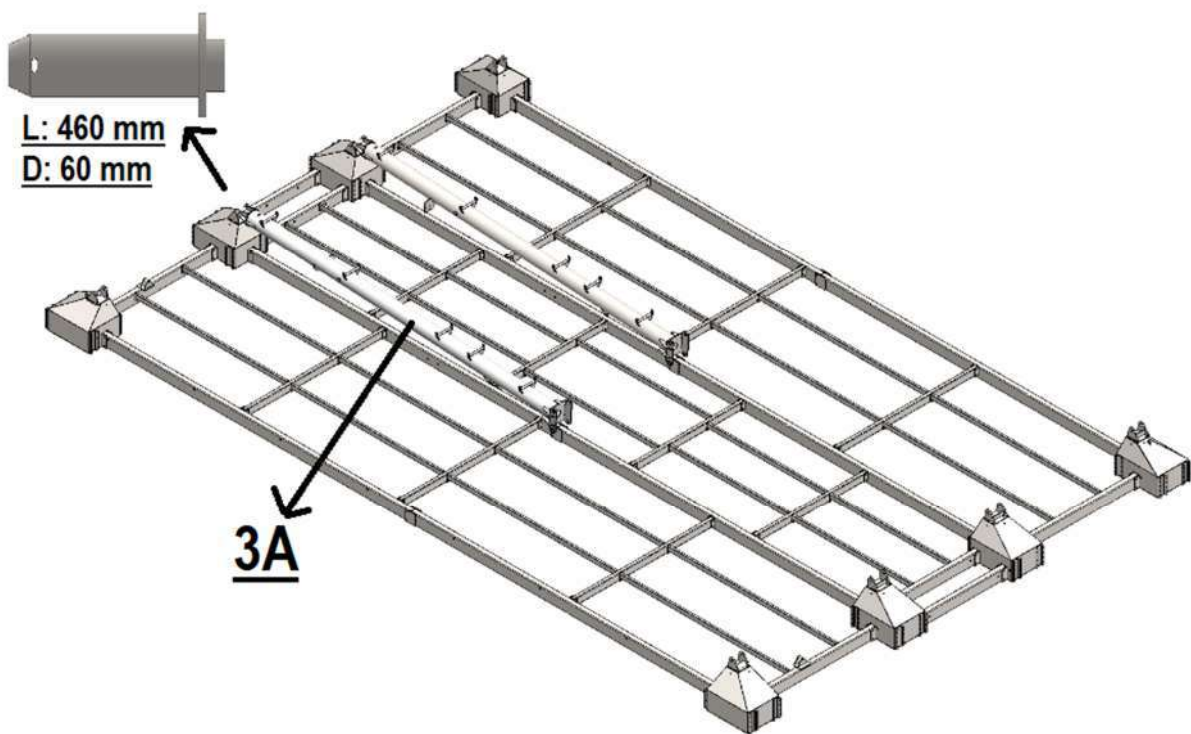


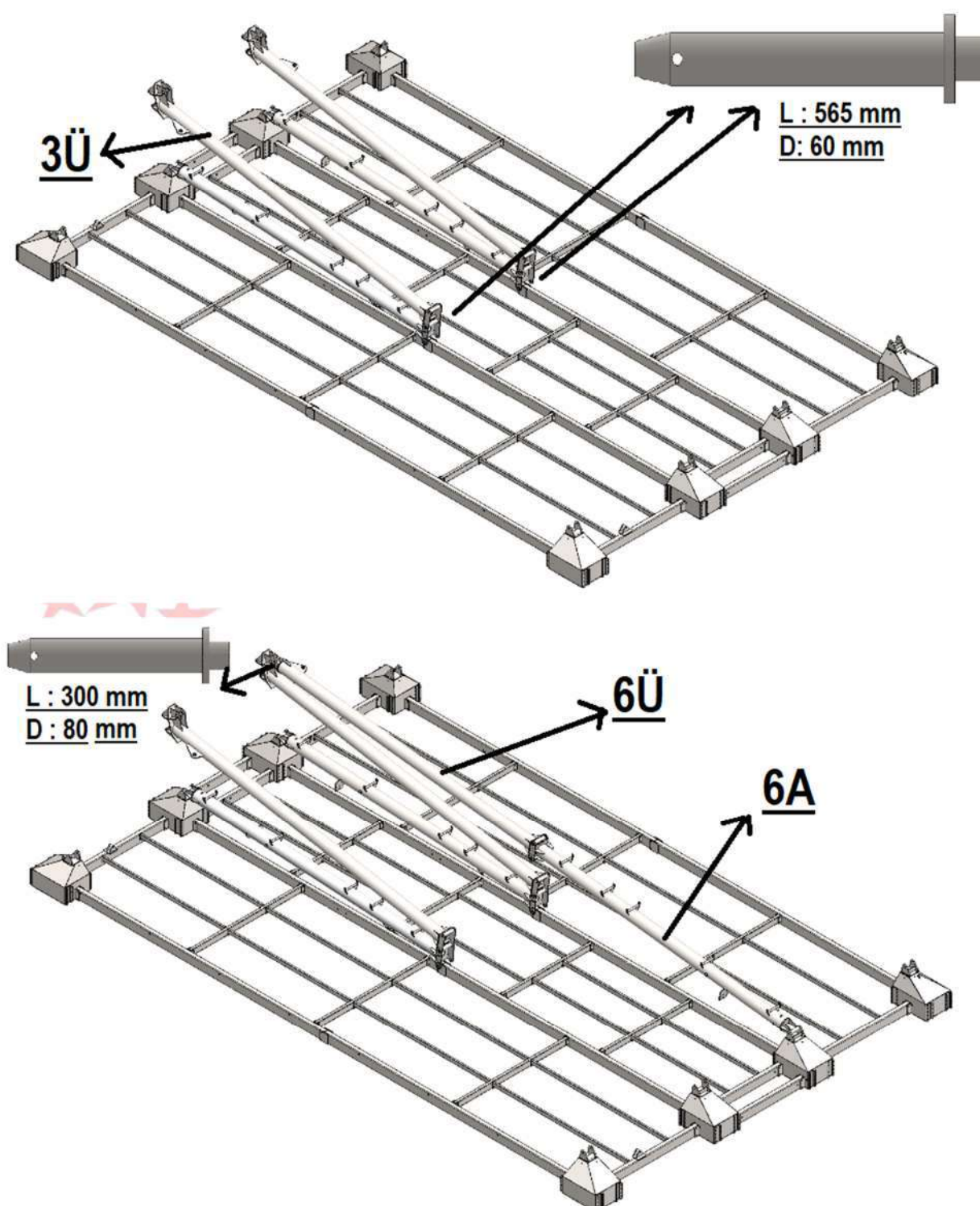


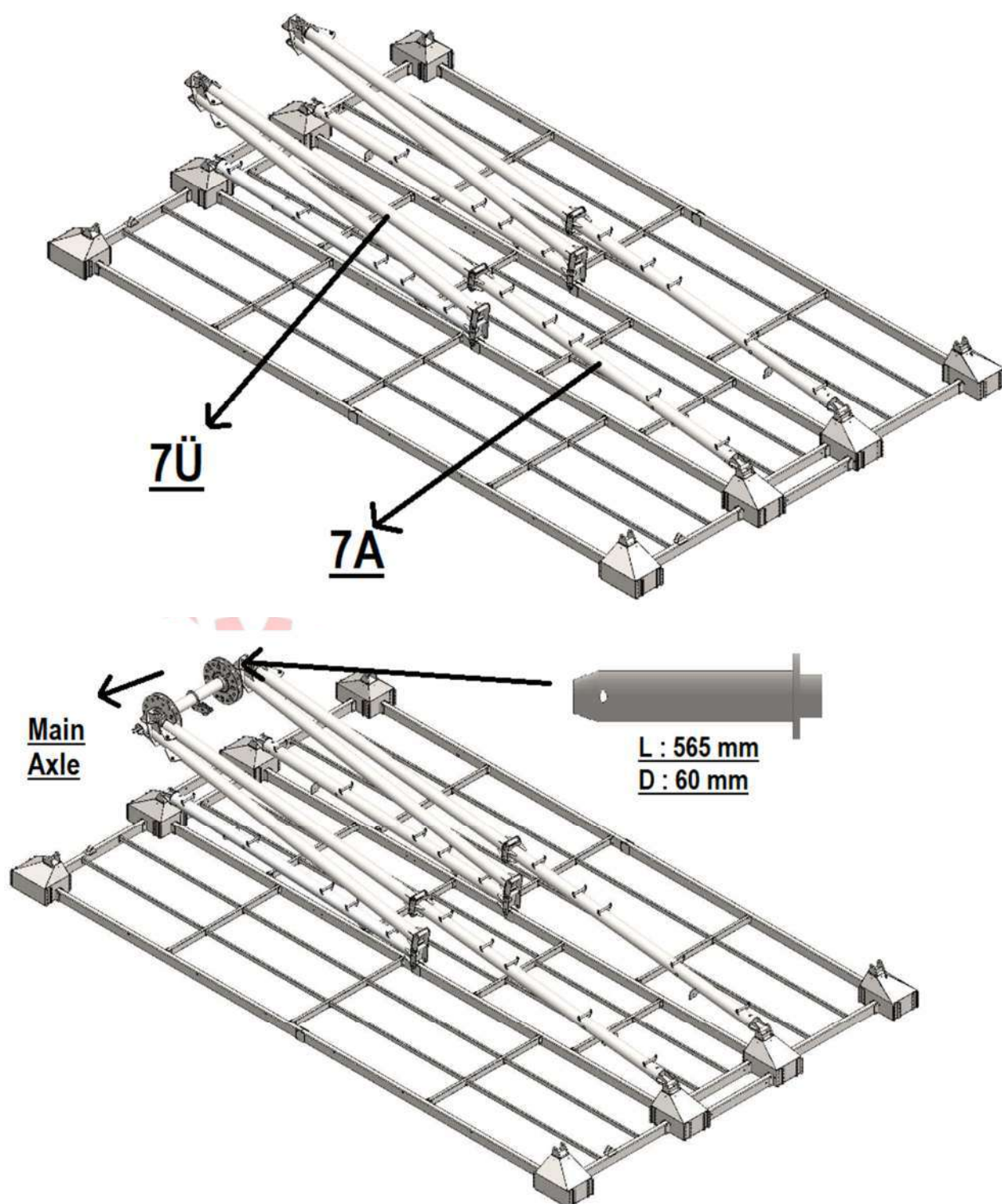
- In this step, you must have a power connection for the winches.

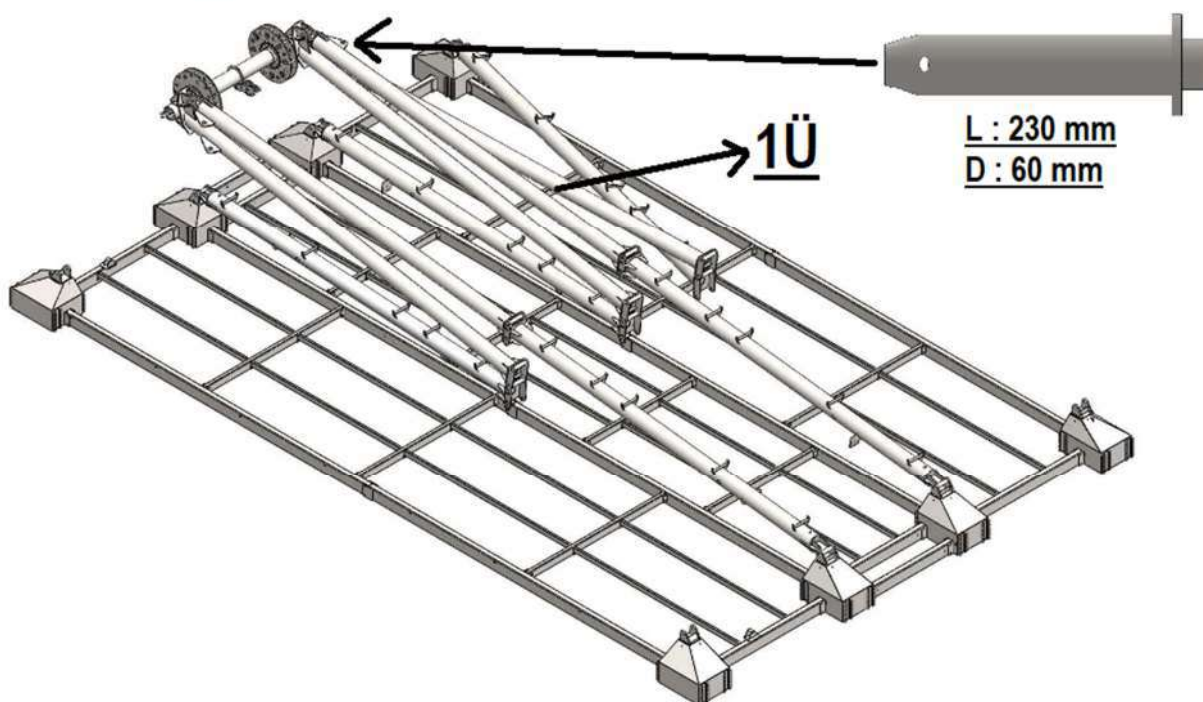
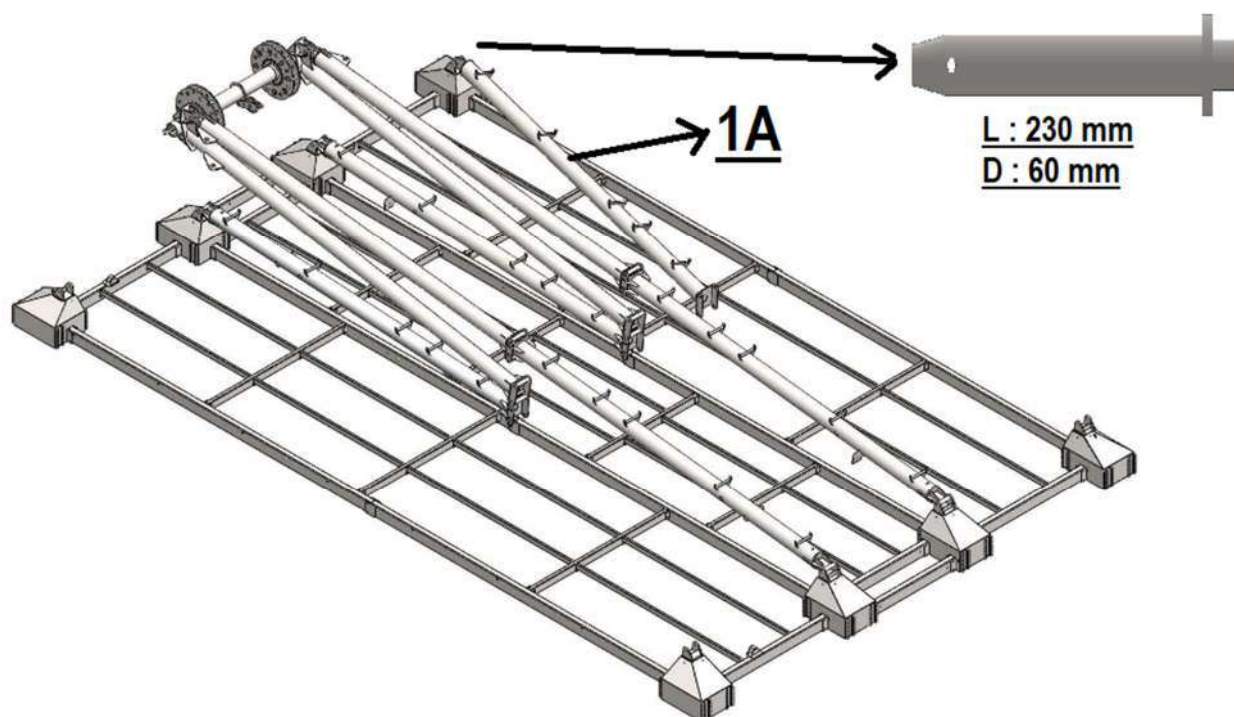
4.3.4. Preparation Step For Lifting Columns

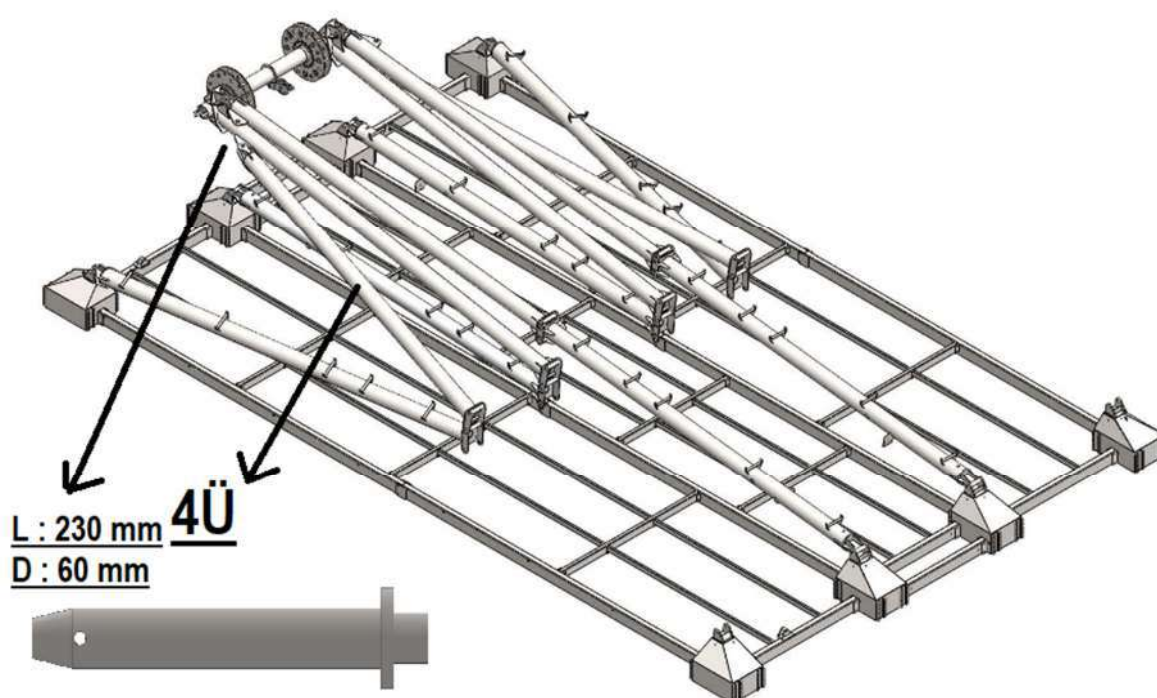
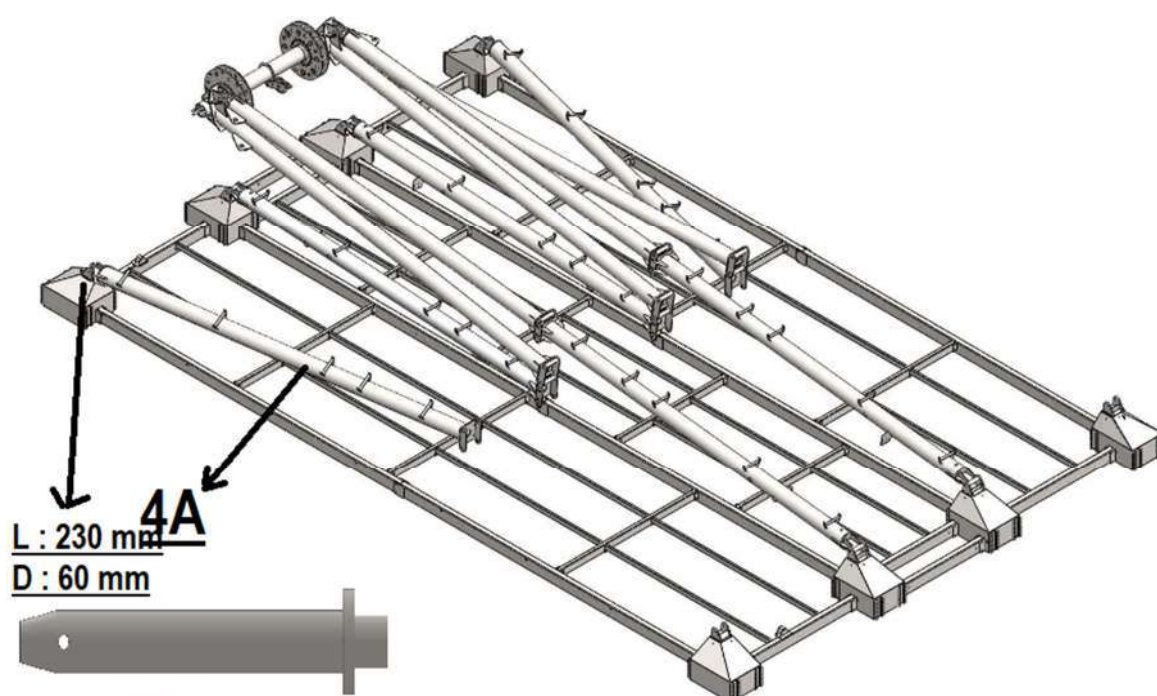


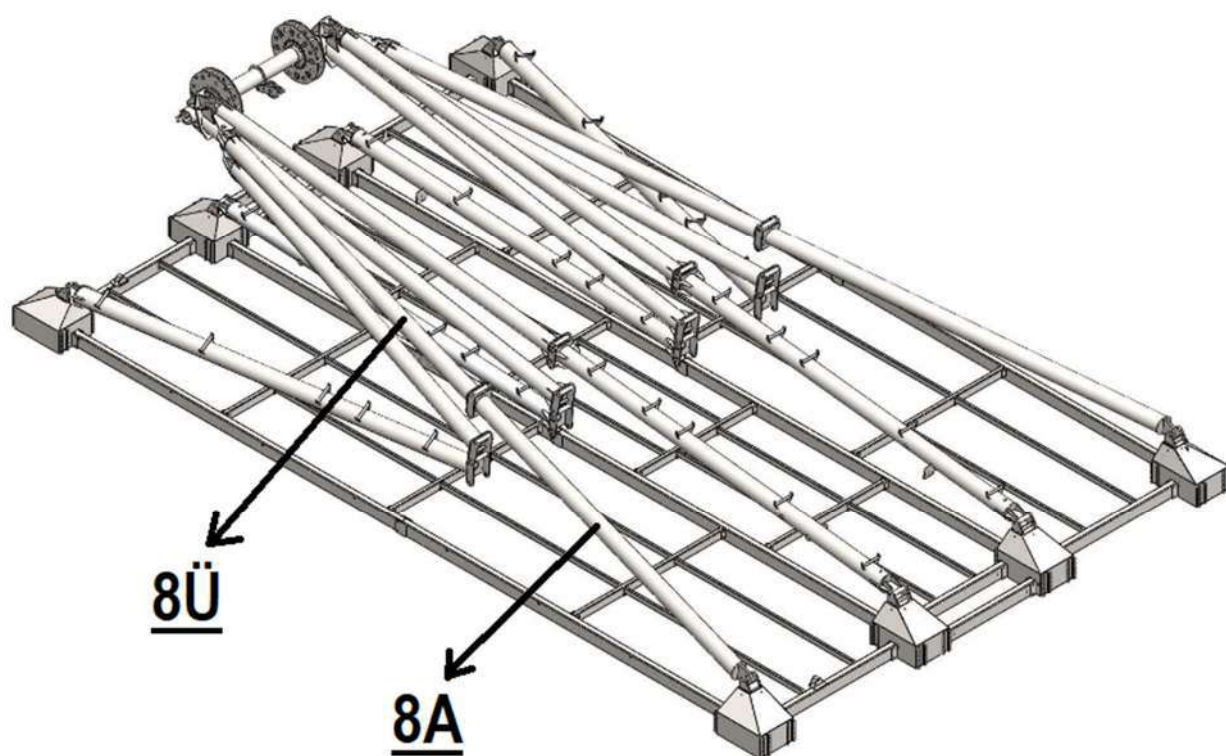
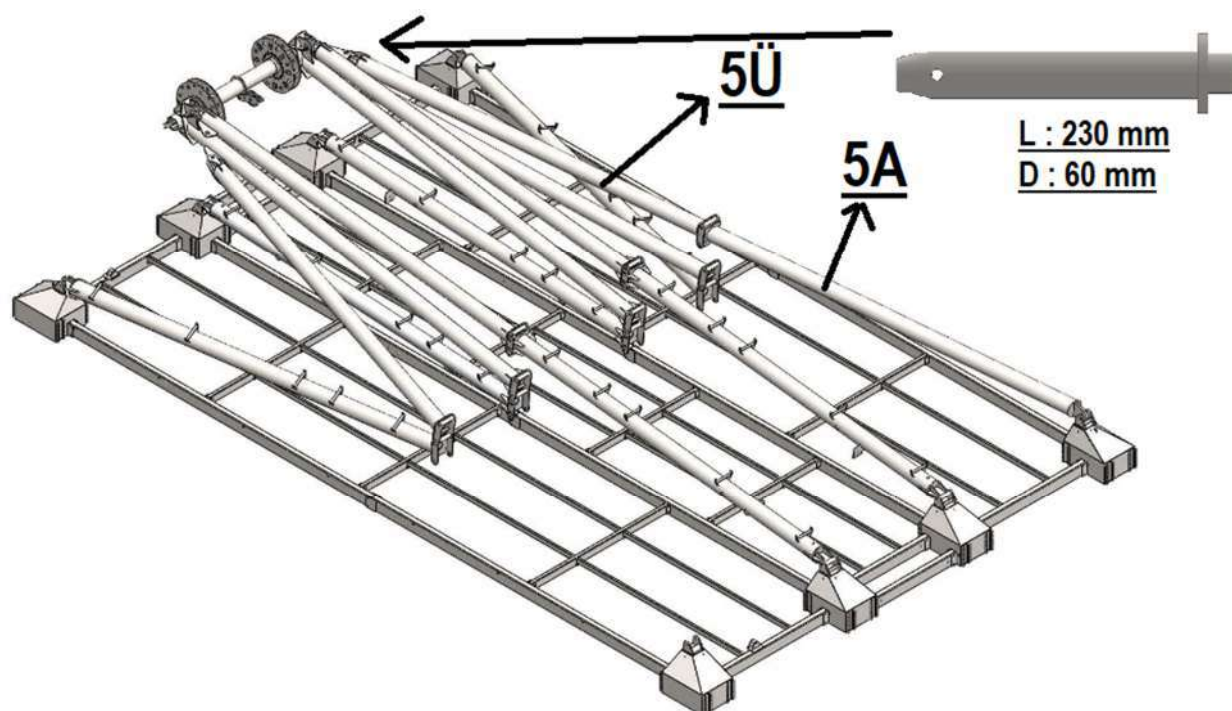


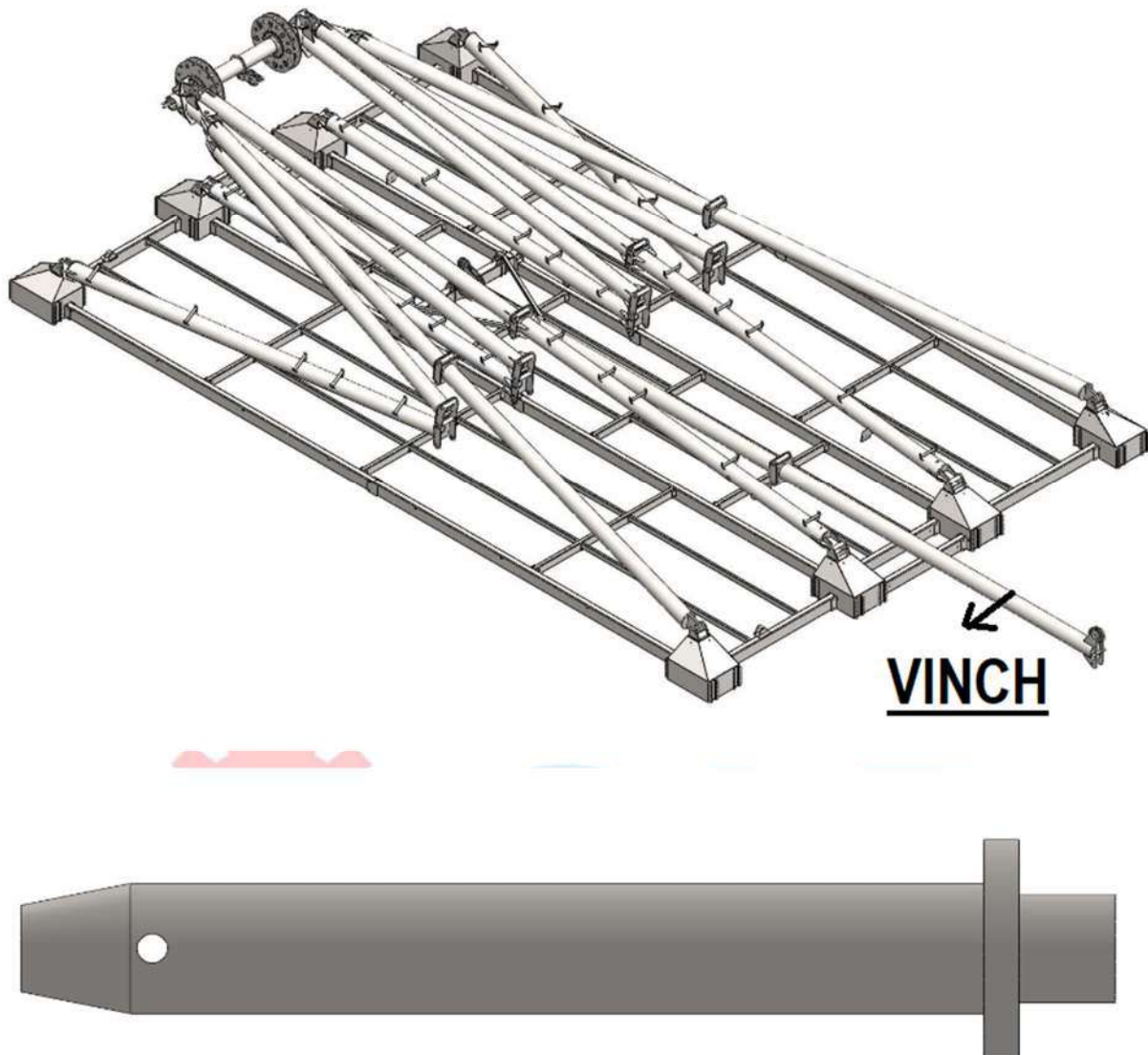






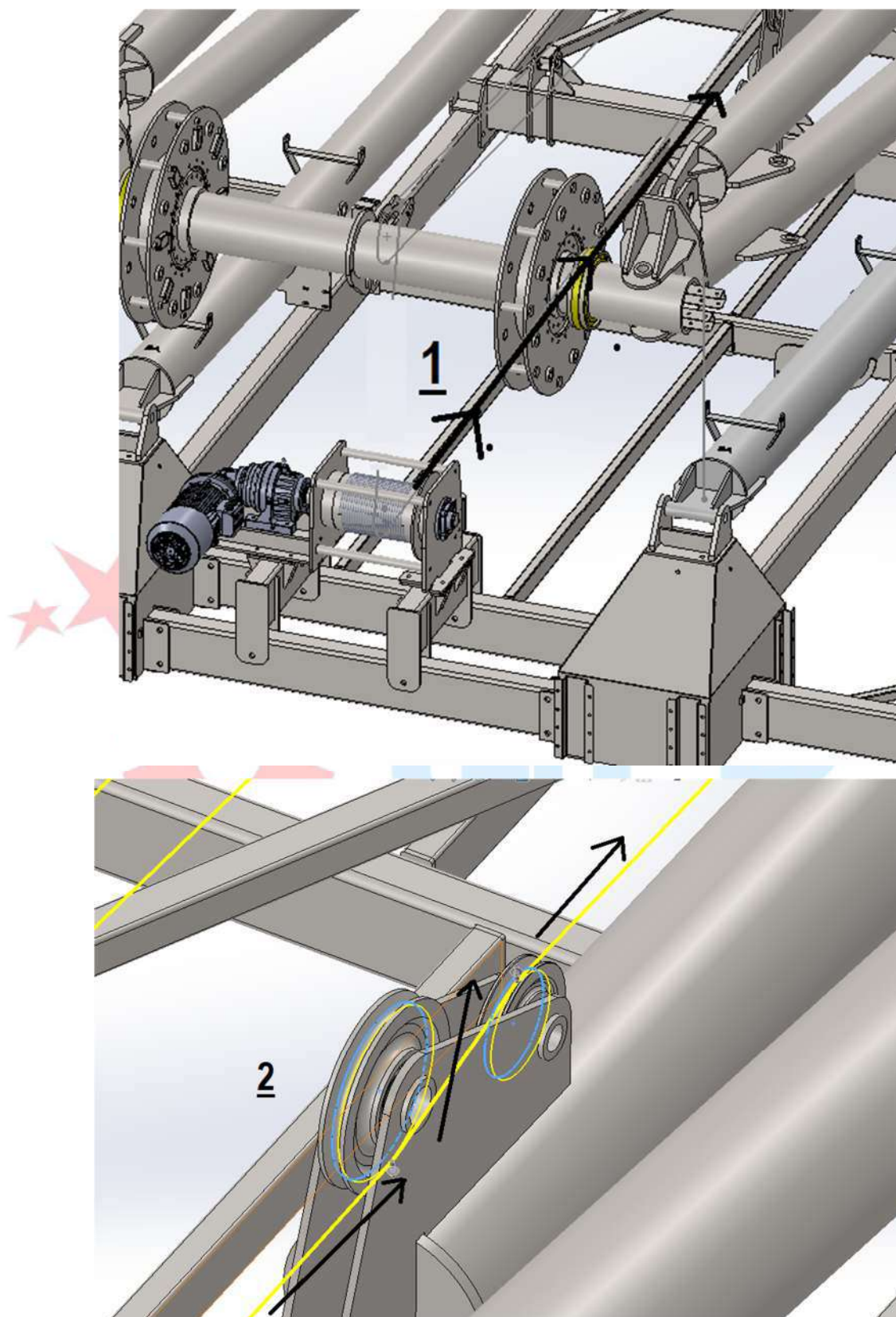


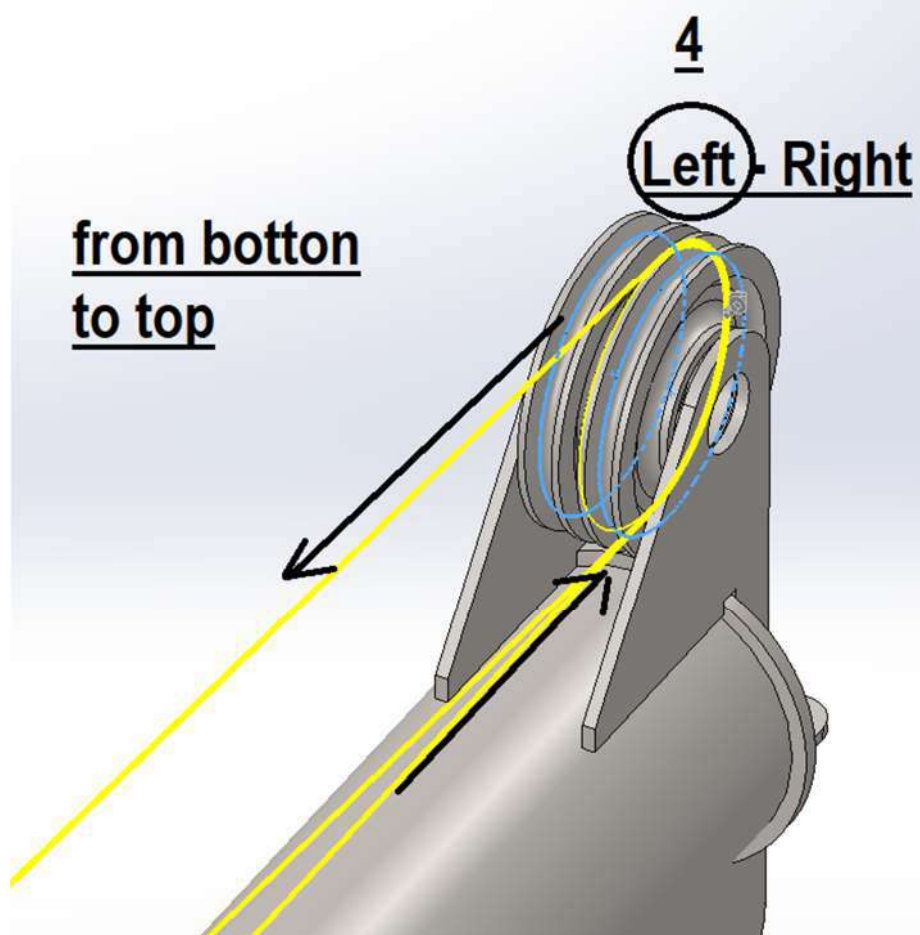
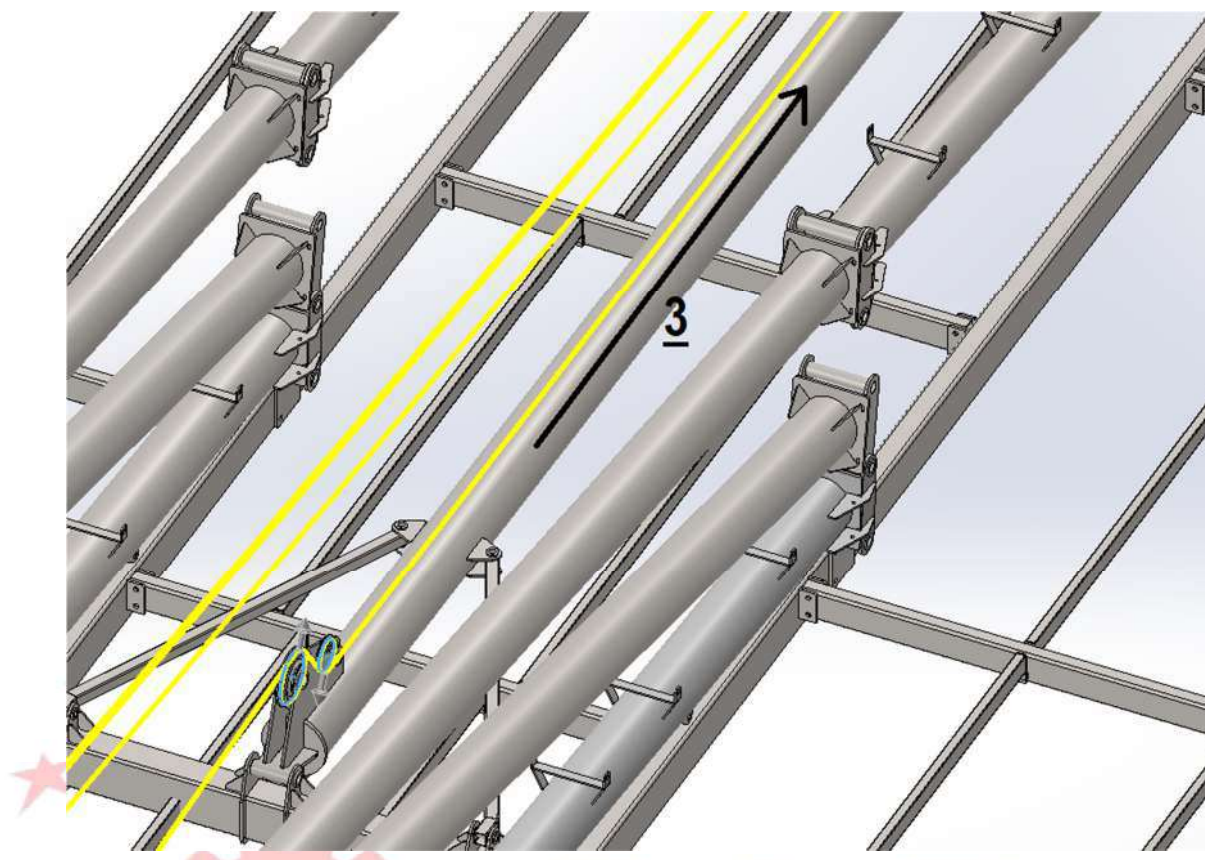


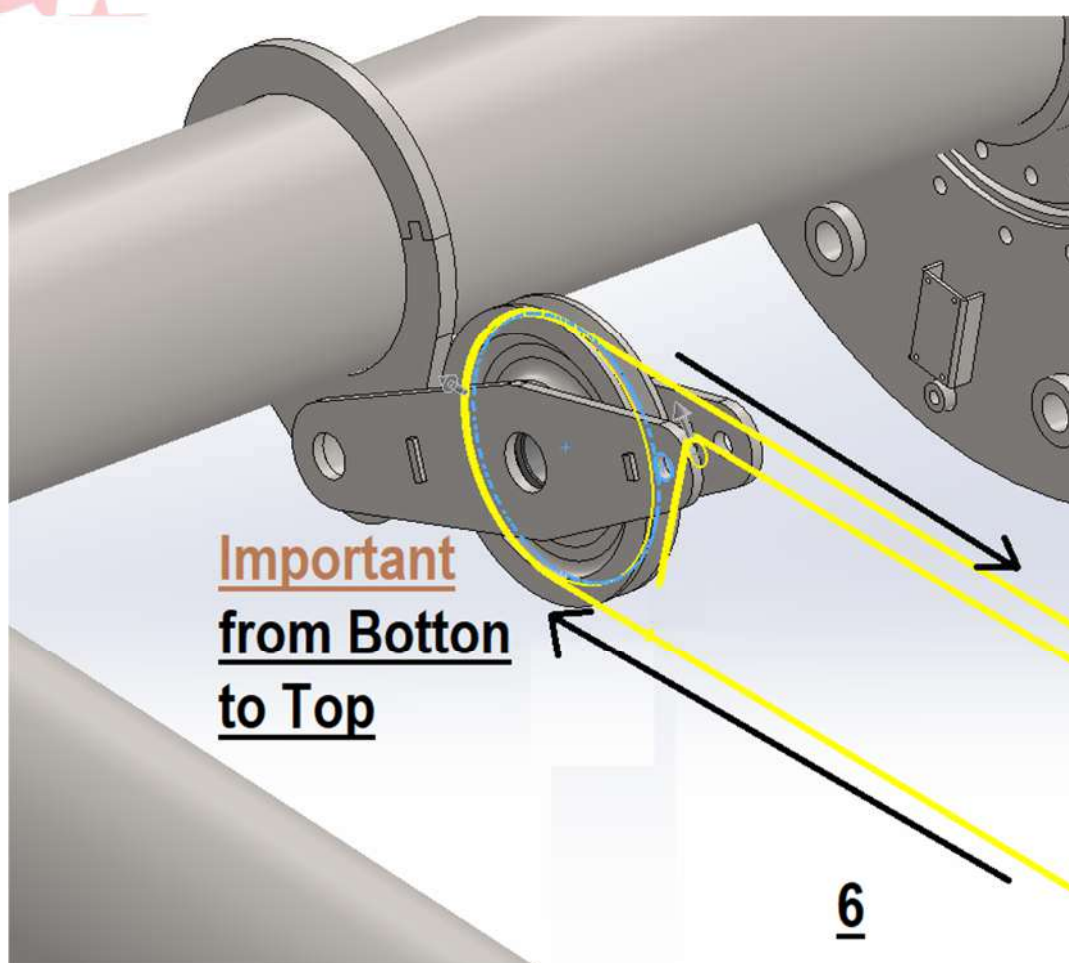
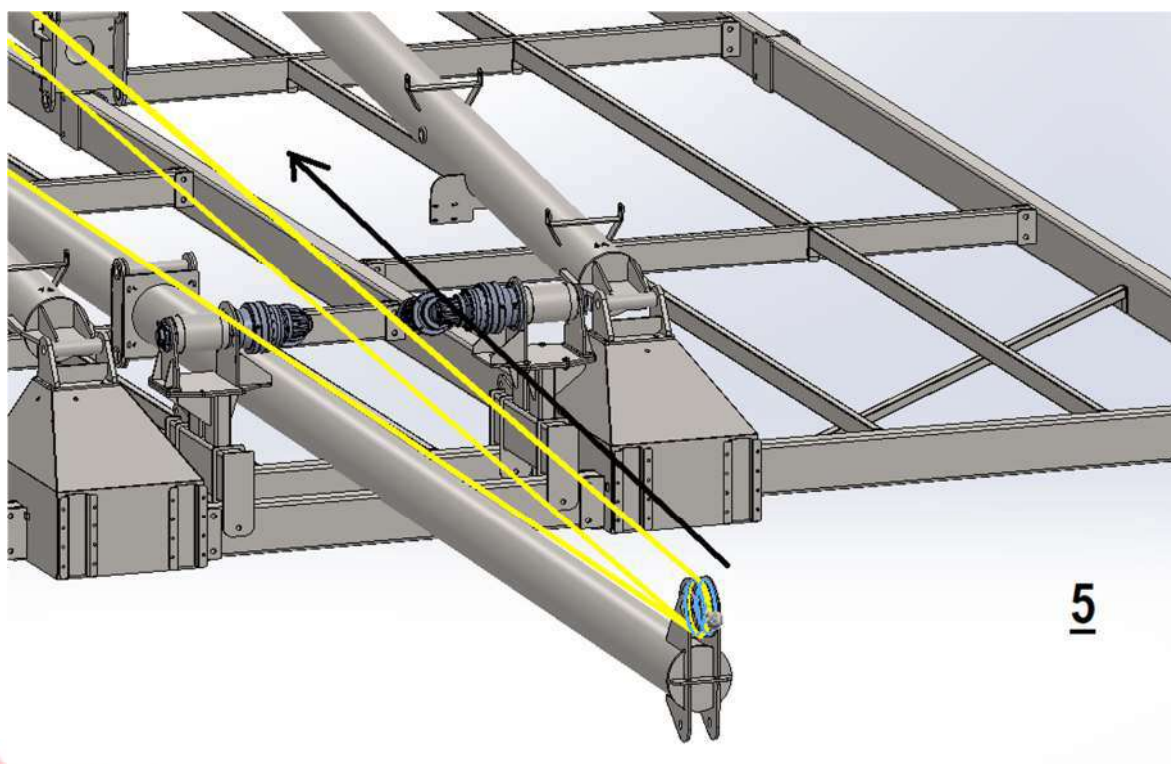


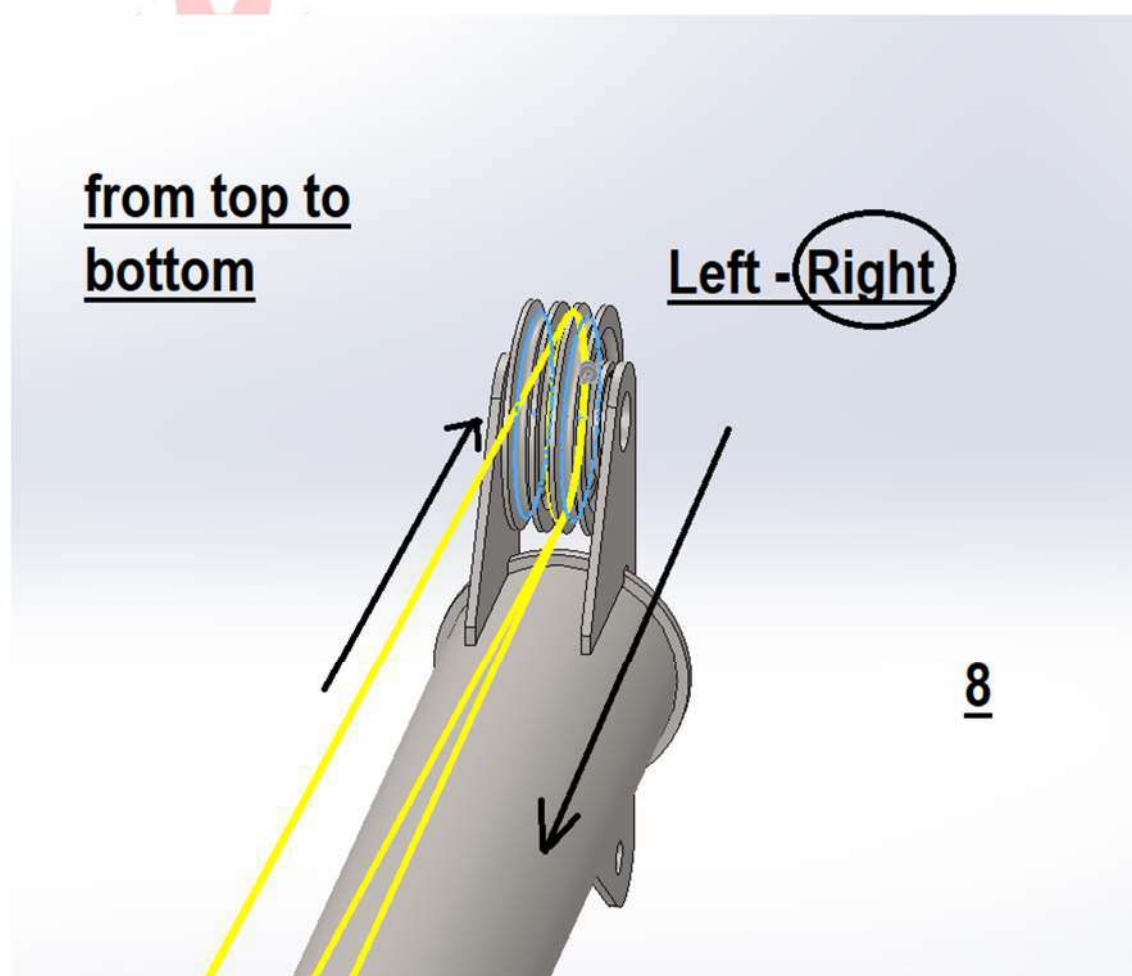
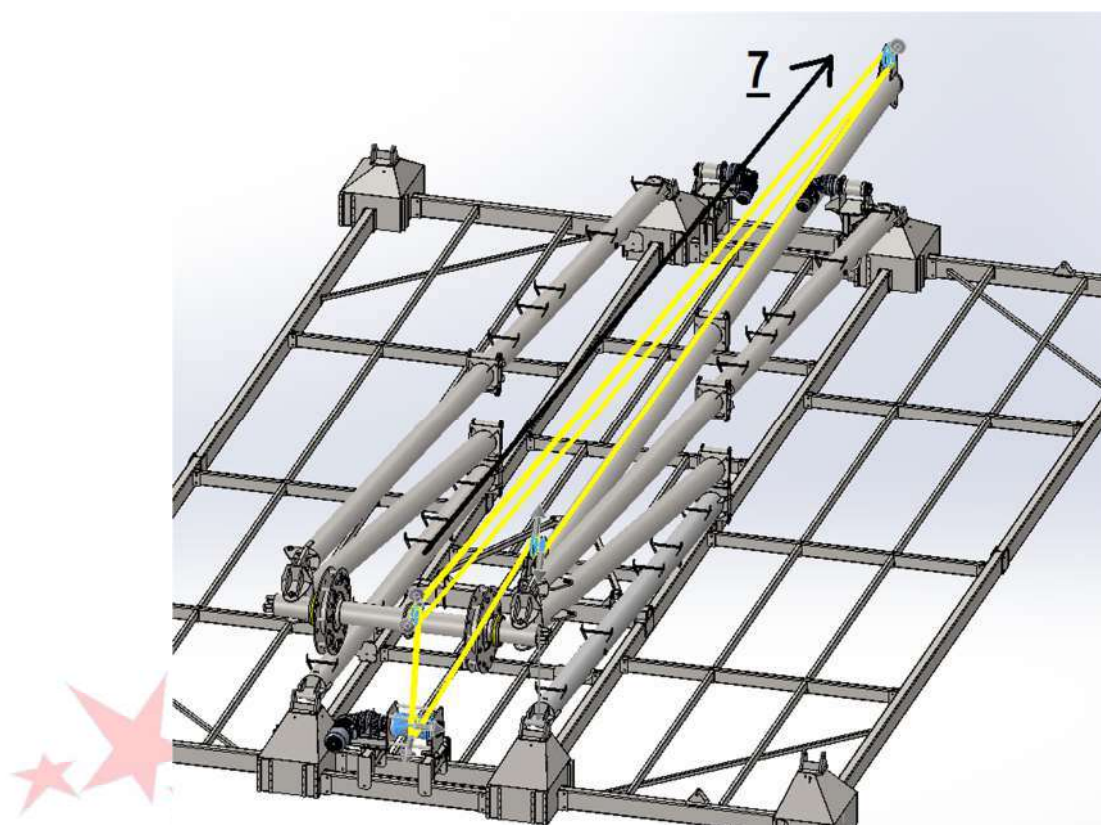
This step involves the following steps:

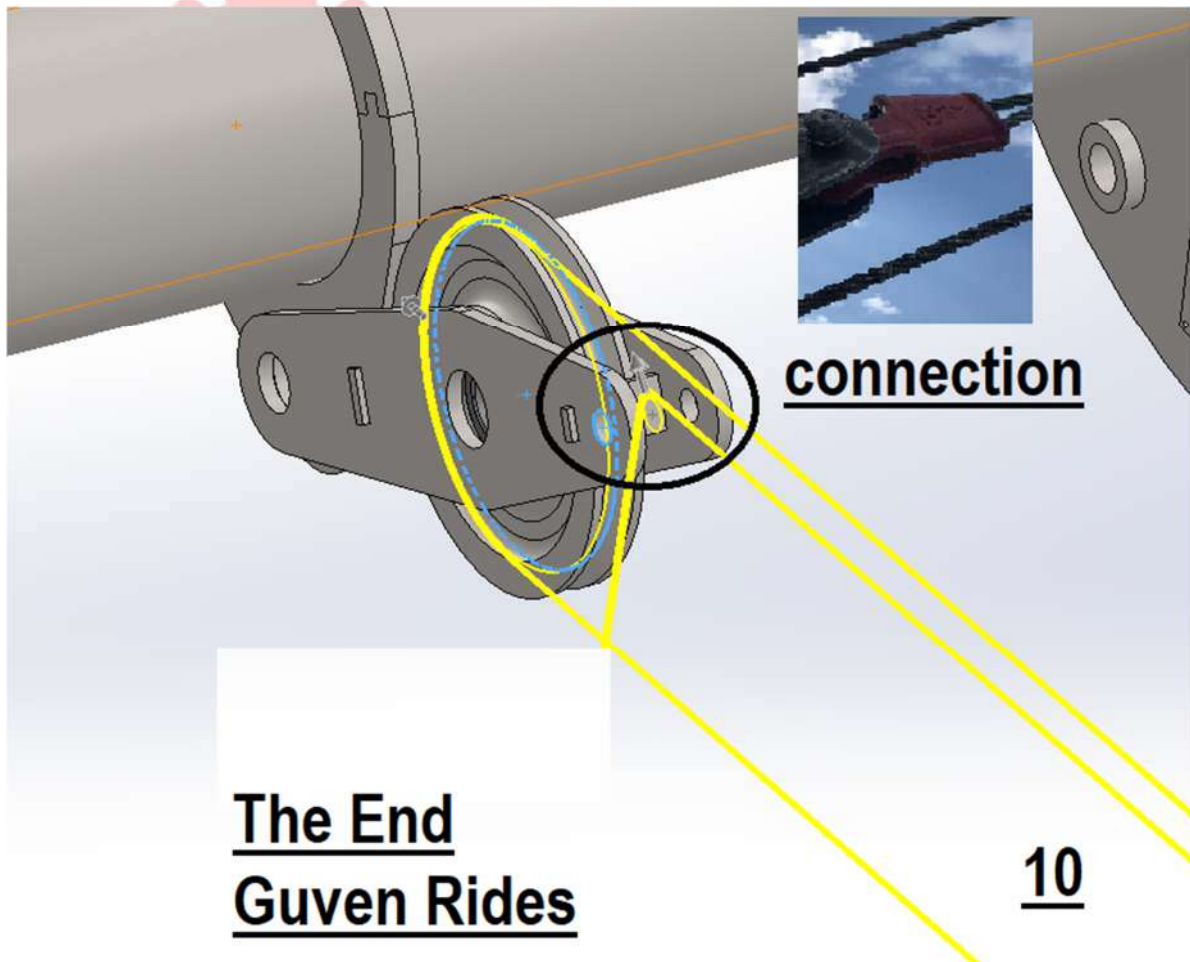
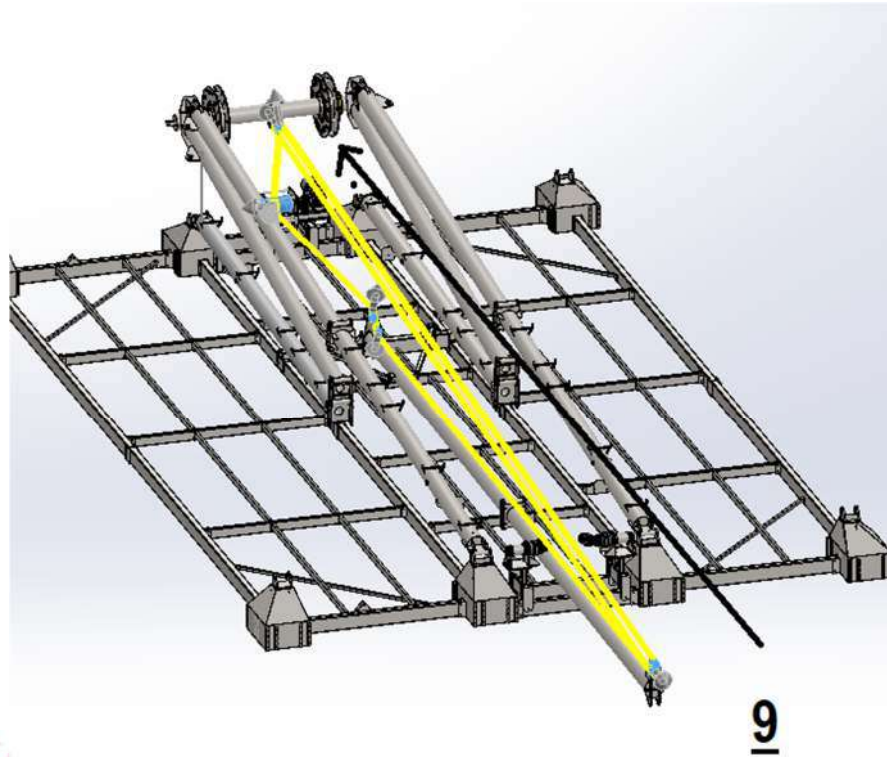
- Wire rope placement at desired Locations (Between sheaves and winch)
- Control all connections, pins, auxiliary bases and
- Exit the installation personnel from inside of the platform and ready to start lifting the columns.

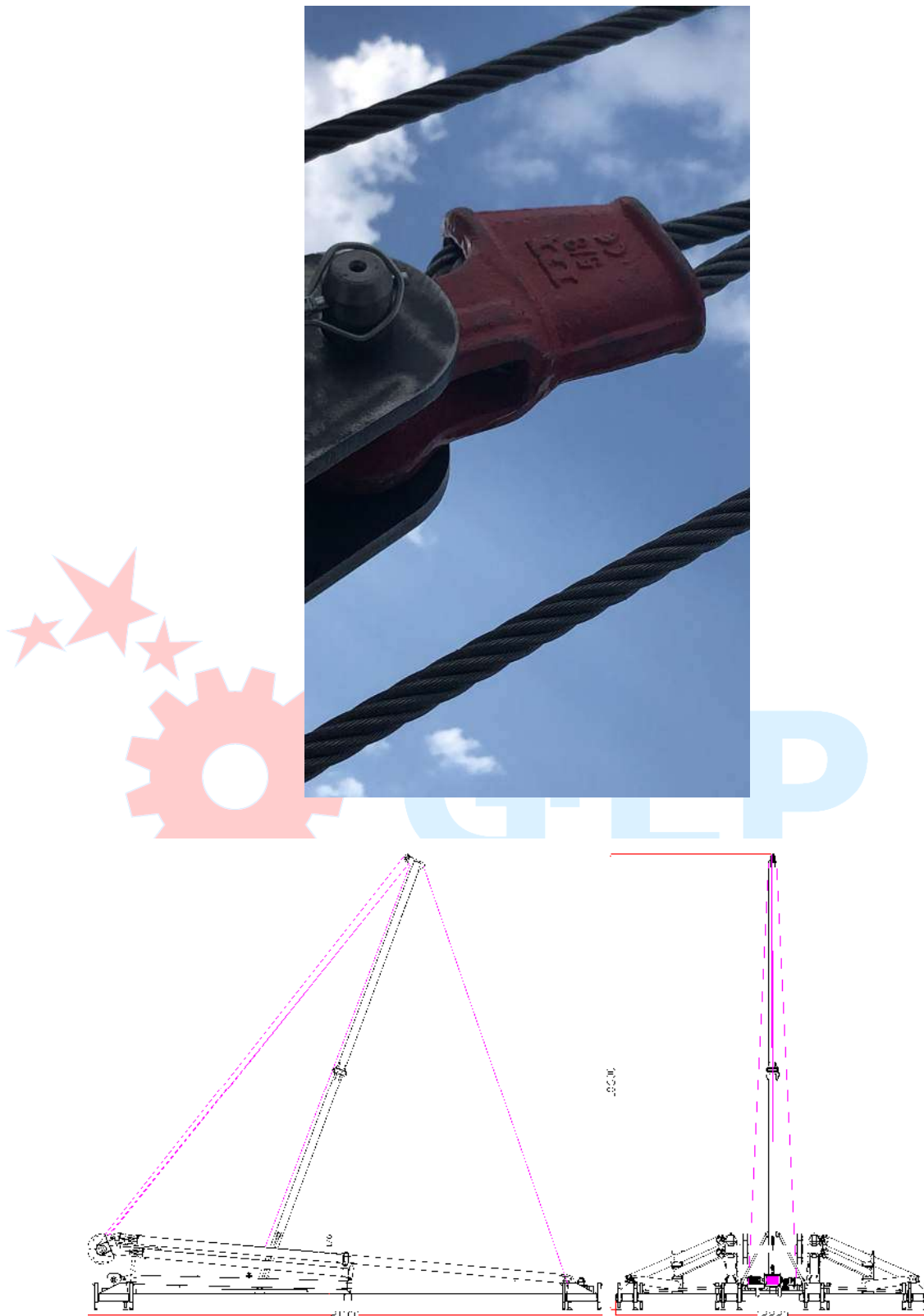






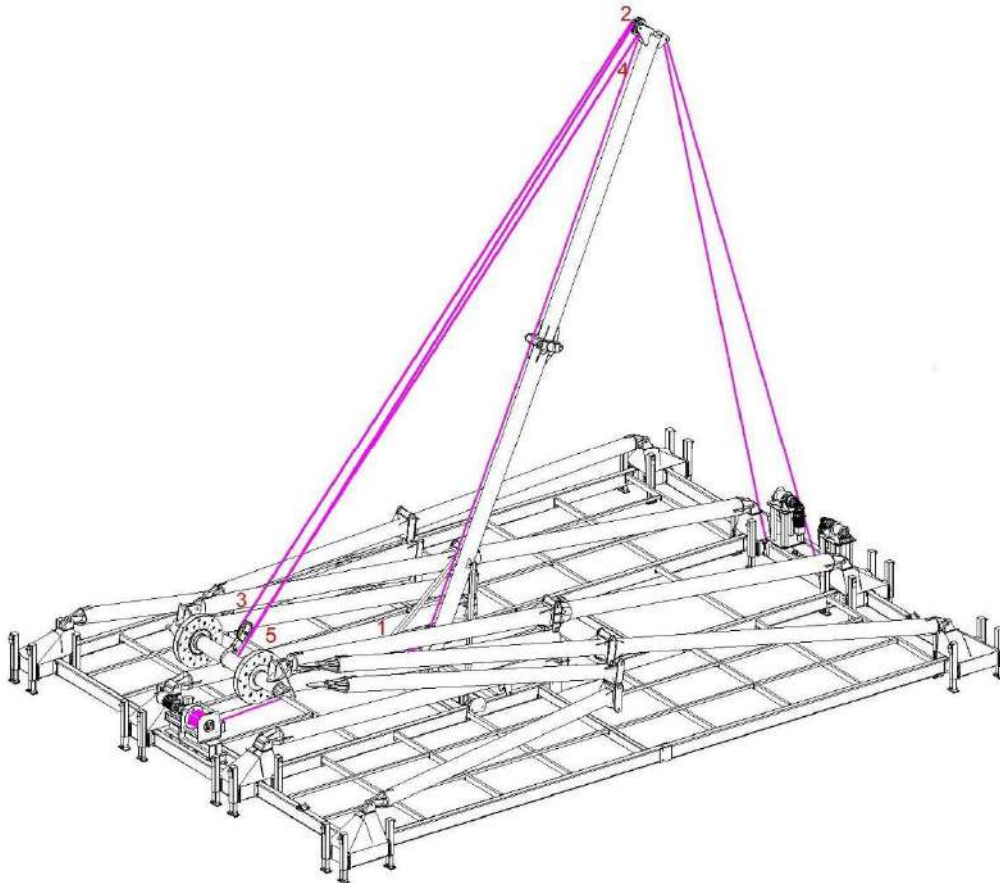






Picture 6. Ferris Wheel Lifting 1

- In the first lifting step, the winch column will rise and it will stand up to the range of Wires connected to the platform.



Picture 7. Ferris Wheel Lifting 2

- In the second lifting step, the movement of the winch Column will stop. After this step, the main axis along with the whole columns will rise.

4.3.5. The Final Step Of Lifting The Columns

This step involves the following steps:

- After the columns are lifted, we are ready to install the second pins of the hinges.
- To install these pins, we use two hand – held jacks. First under columns 2 and 3 then columns 1 and 4
- After inserting the pins, we removed the winch from the Loading mode. Then open the jacks.



Picture 8. Ferris Wheel Lifting 3

- After completion, we install aluminum ladders on four main columns.

4.3.6. Preparing to Install The Arms

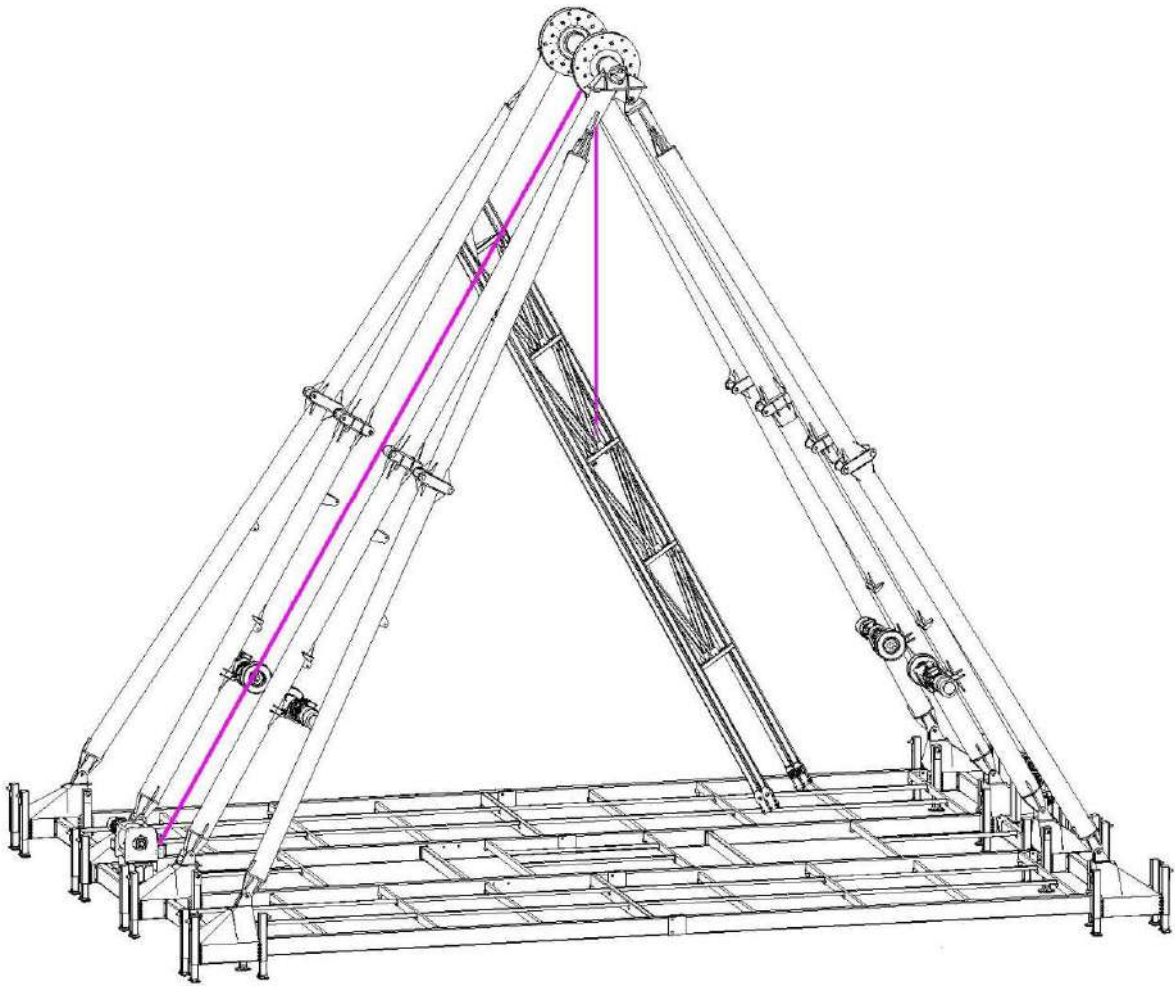
This step involves the following steps

- Open the wire rope from the sheaves.
- Removing the winch column, along with its base.
- Connect the winch rope to the lower sheave of the main axis.
- If possible, you can also install motion drives on your own.
- Place the arms and rails around the platform so that there is no problem installing.
- **WORKMEN POWER: 2 PEOPLE ON THE BASKET + 2 PEOPLE CLOSED TO THE HUB + 4 PEOPLE ON THE GROUND IN CHARGE FOR THE PREPARATION OF THE ARMS.**
- **FORESEEN TIME: 12 HOURS.**

4.3.7. Install The Arms

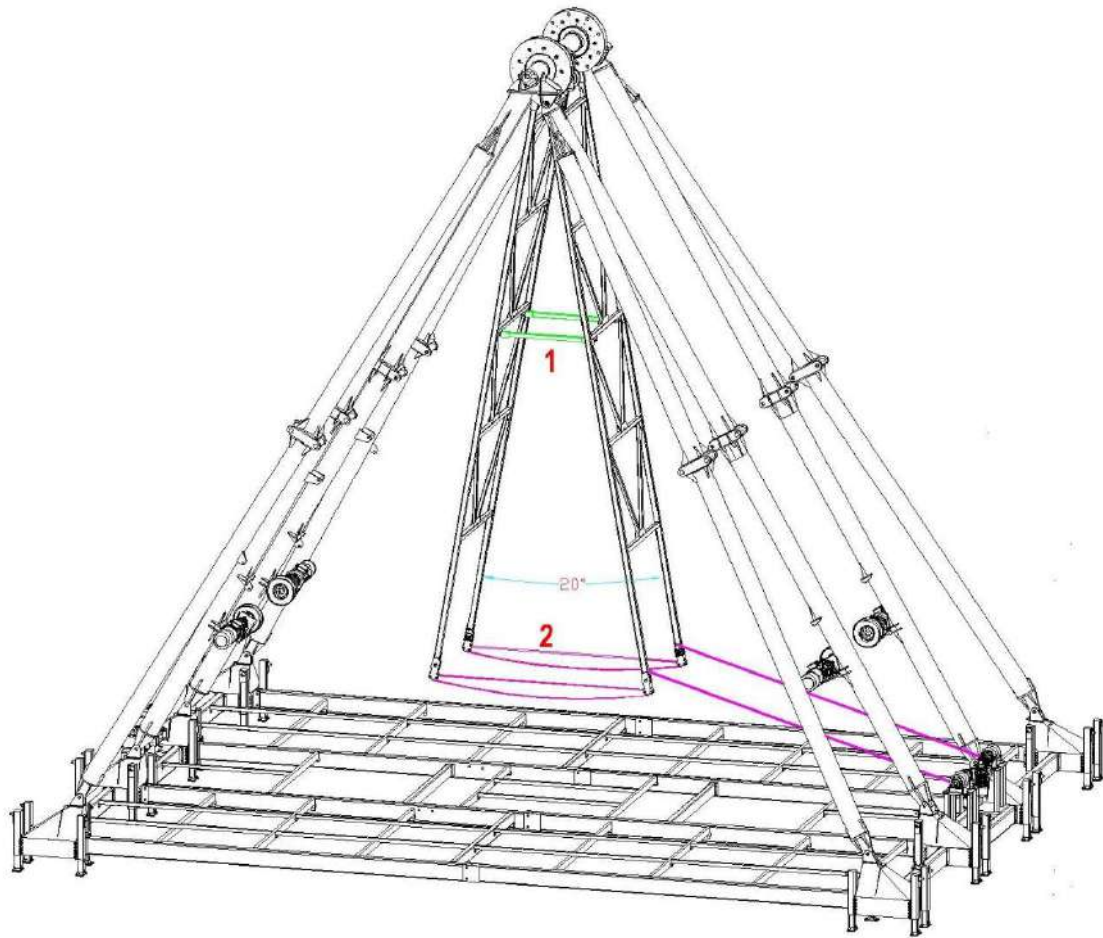
This step involves the following steps

- The arms are placed under the hook of winch with the help of a crane or forklift.
- Close the winch hook from the center of the arm and lift it with guide ropes.



Picture 9. Liftng for the Arms 1

- Connect the small winch hooks to the arms.
- Open the angle of the arms (20 degrees) and install the rails (1).
- Installation of main rails (2).
- Pull the arms by two small winches.
- Install safety wires to hold the arms, then restart the above operation...



Picture 10. Lifting for the Arms 2

- When installing rails, make sure that the pins are in place and lock them.

4.3.8. Install the Motors (If Not Installed)

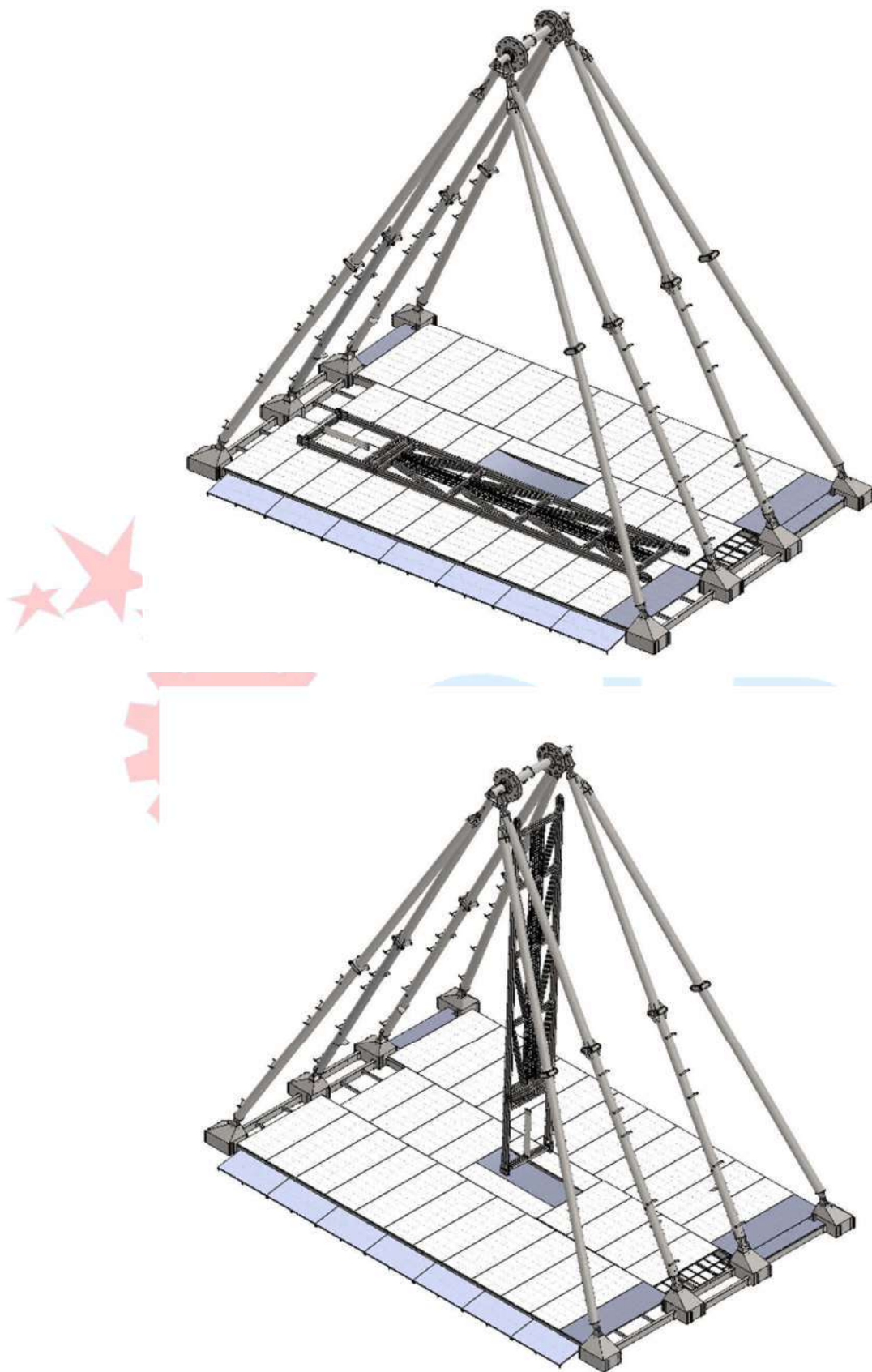
- All four motors must be ready

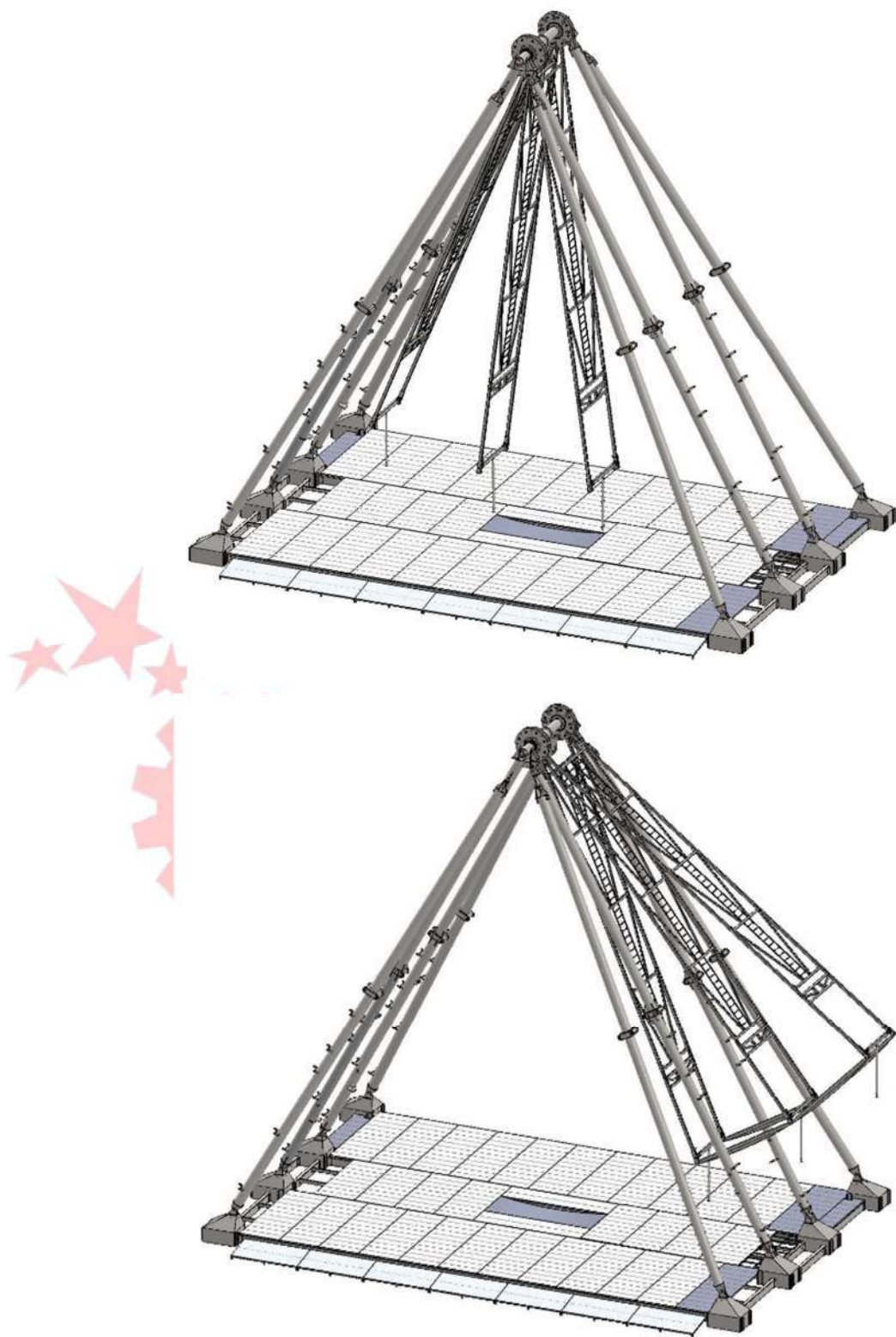
4.3.9. Install The Gondolas

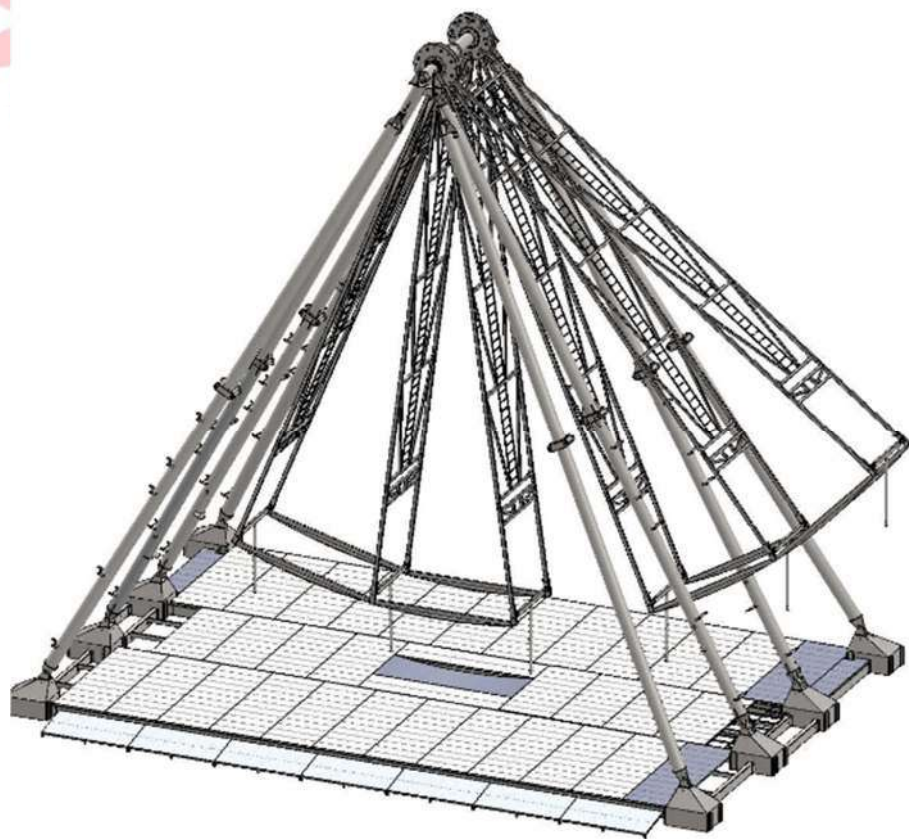
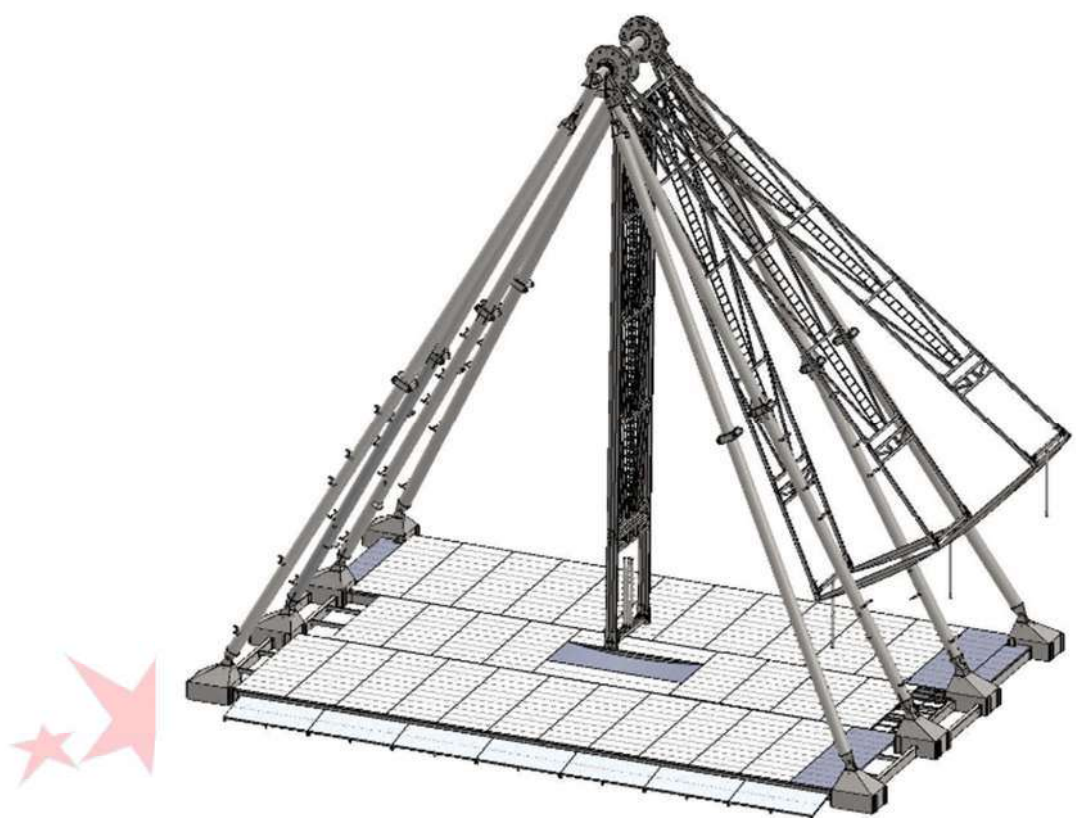
- By the forklift get close the gondolas and put them closed to the arms and in the same phase set up the roofs.
- Weight to be lifted: 120 kg
- Workmen power fork lift + 4 people
- Foreseen time 8 hours.

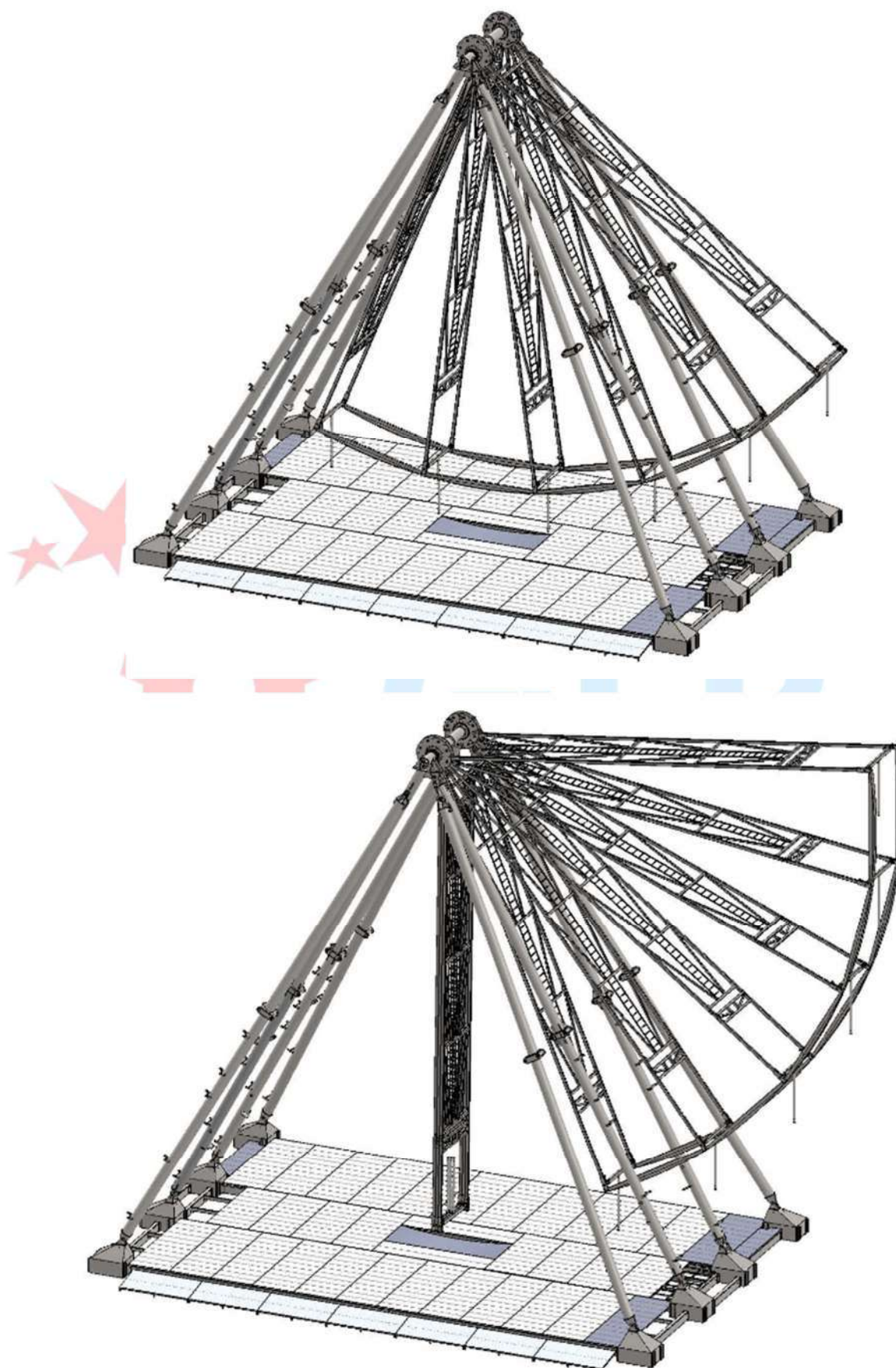
4.3.10. Install the Glass Part of the Gondolas

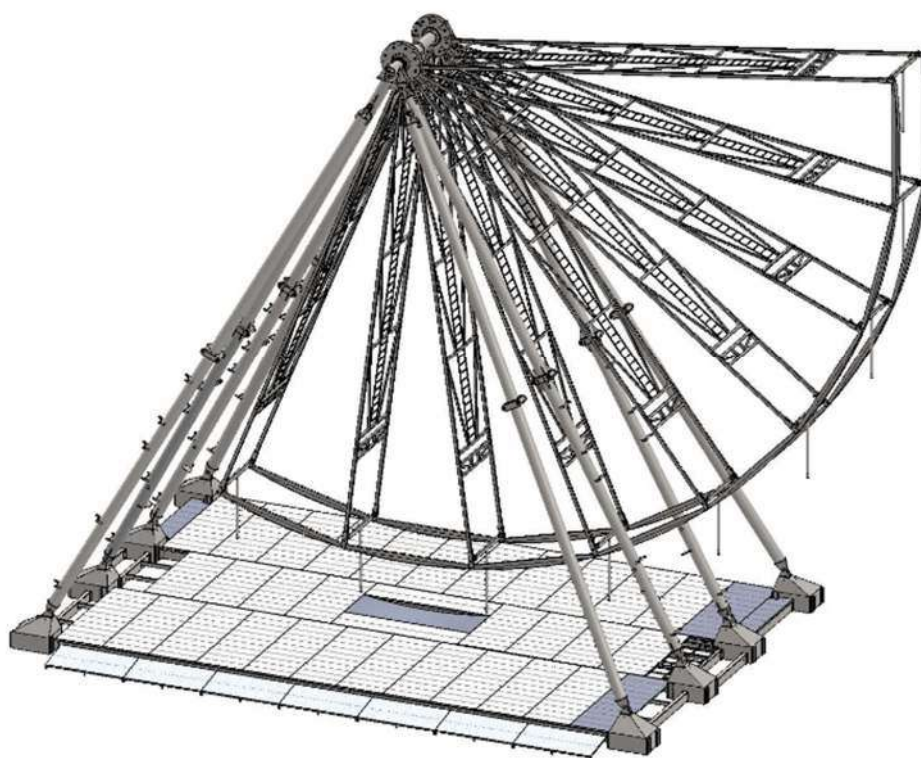
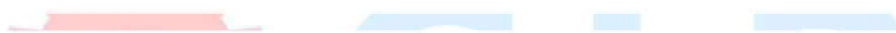
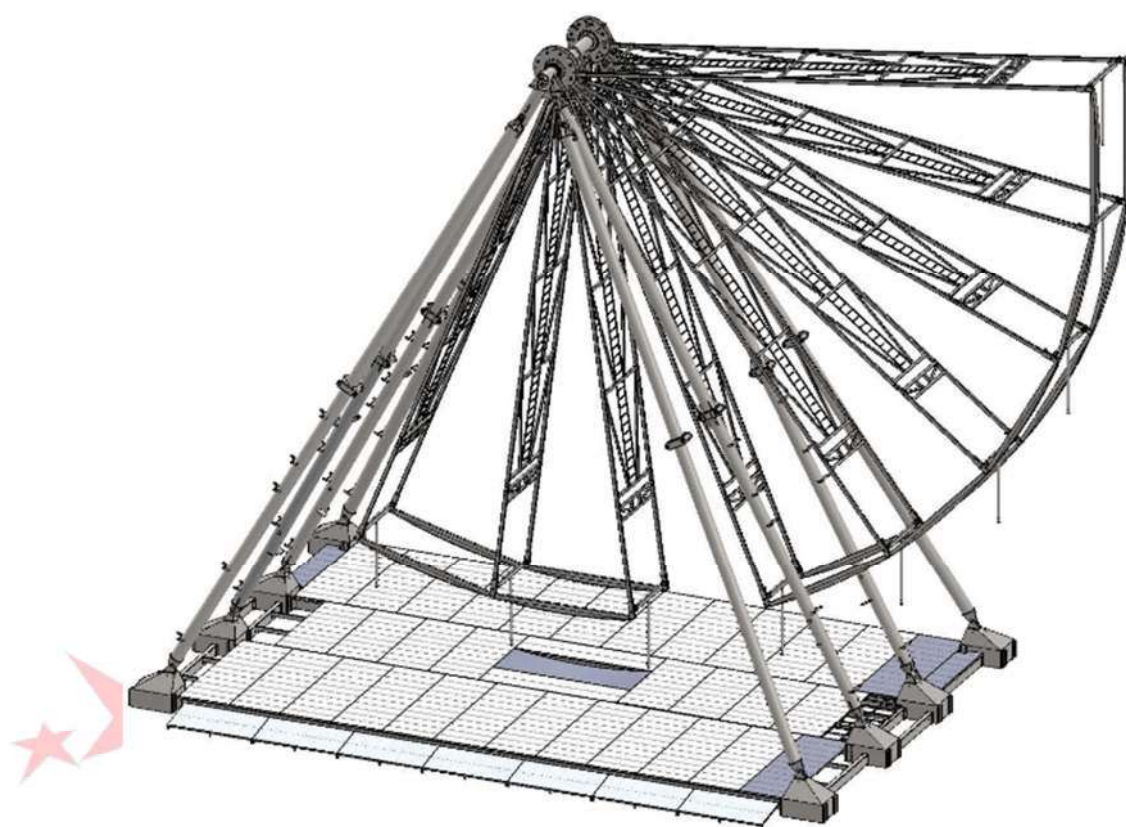
- The glass part is Mounted on the gondola with a few screws.
- Workmen: 2 People
- Foreseen time: 4 Hours.

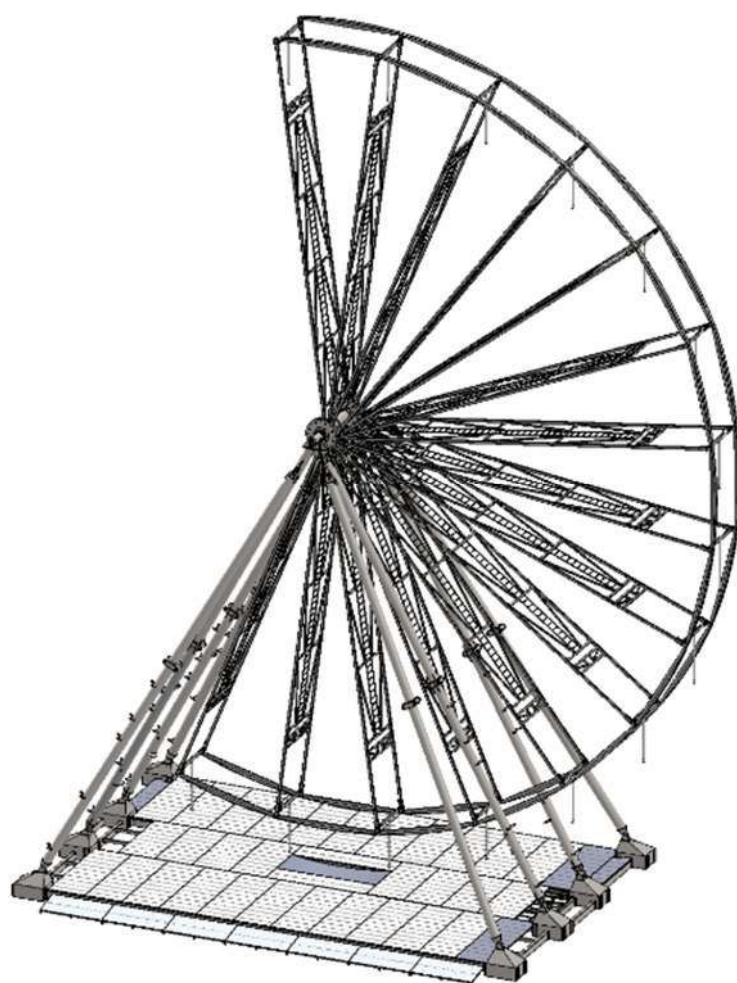
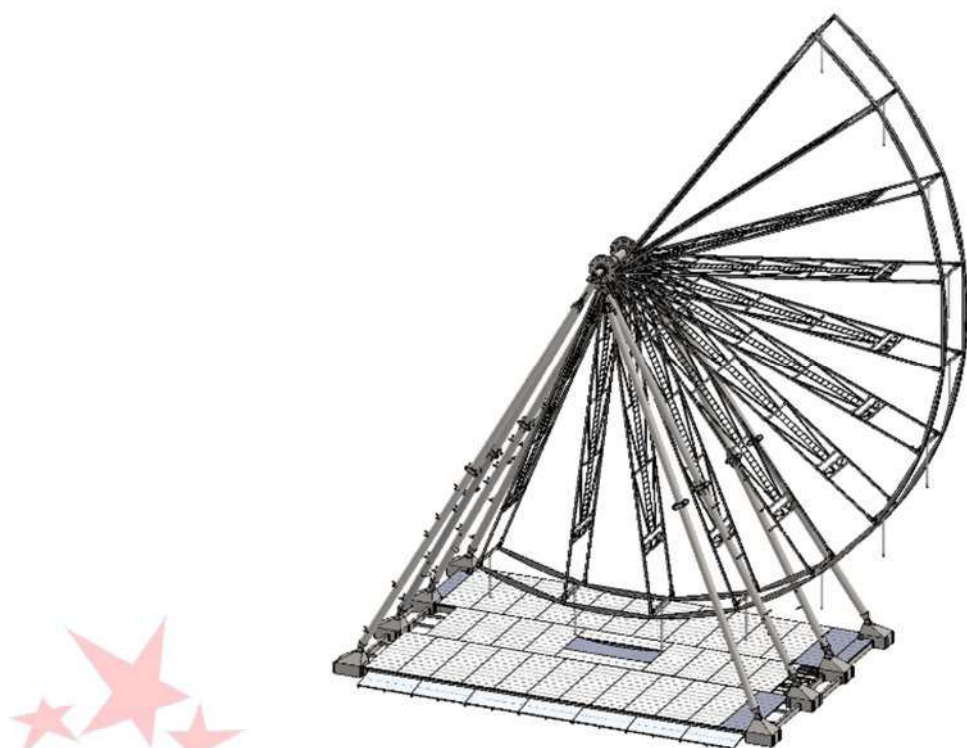


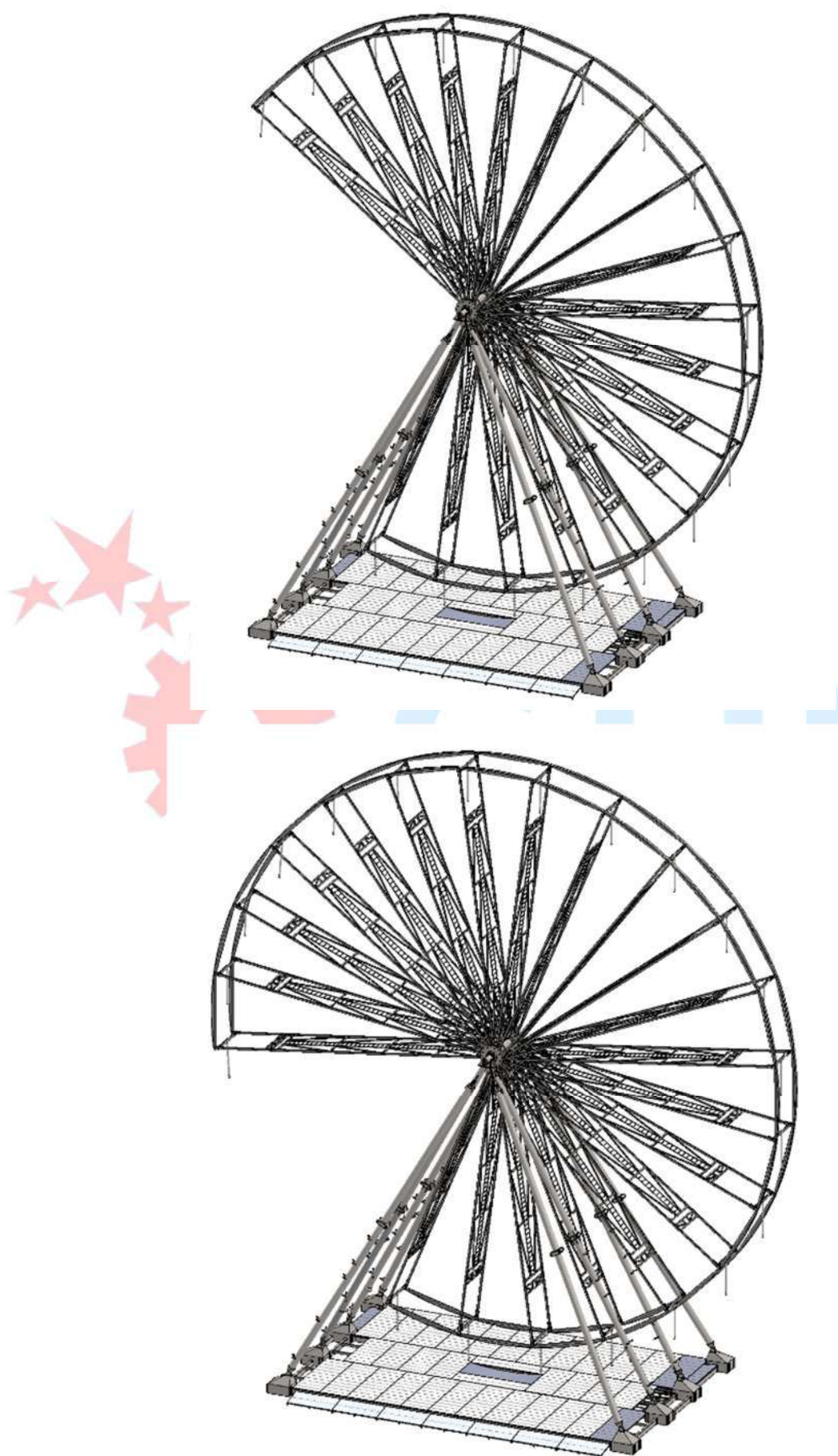


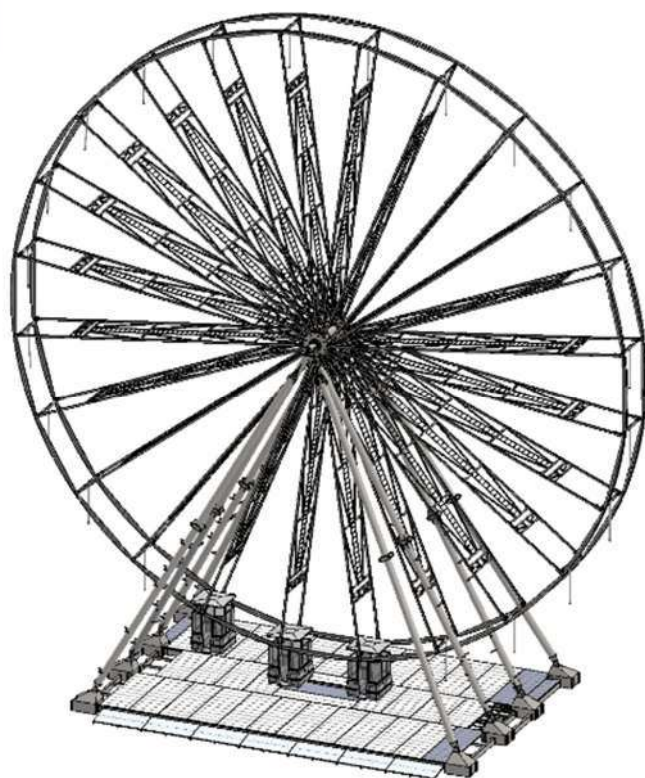
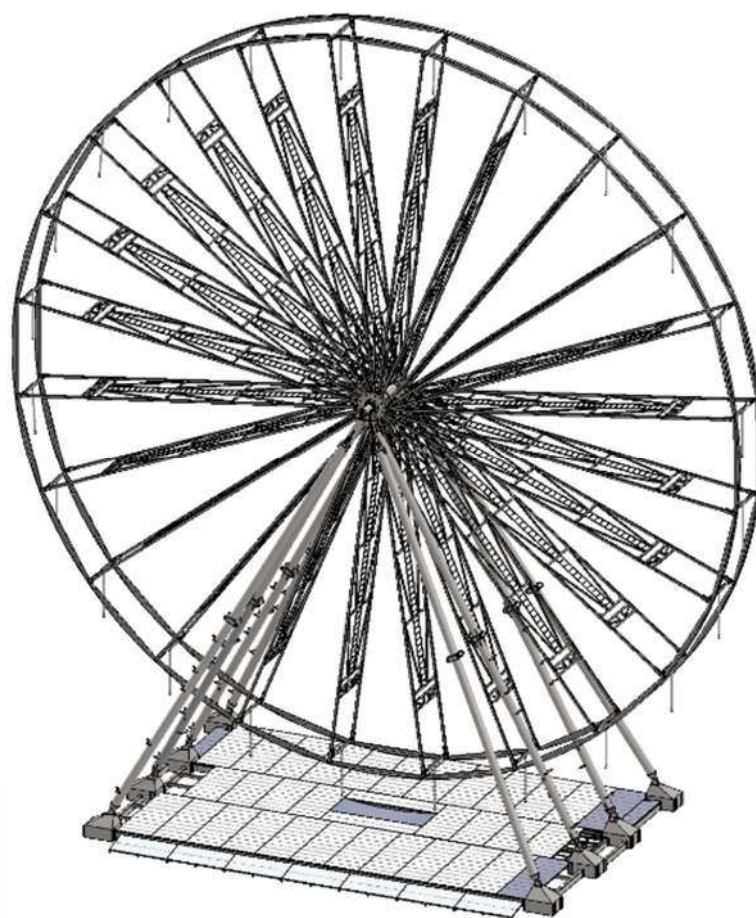


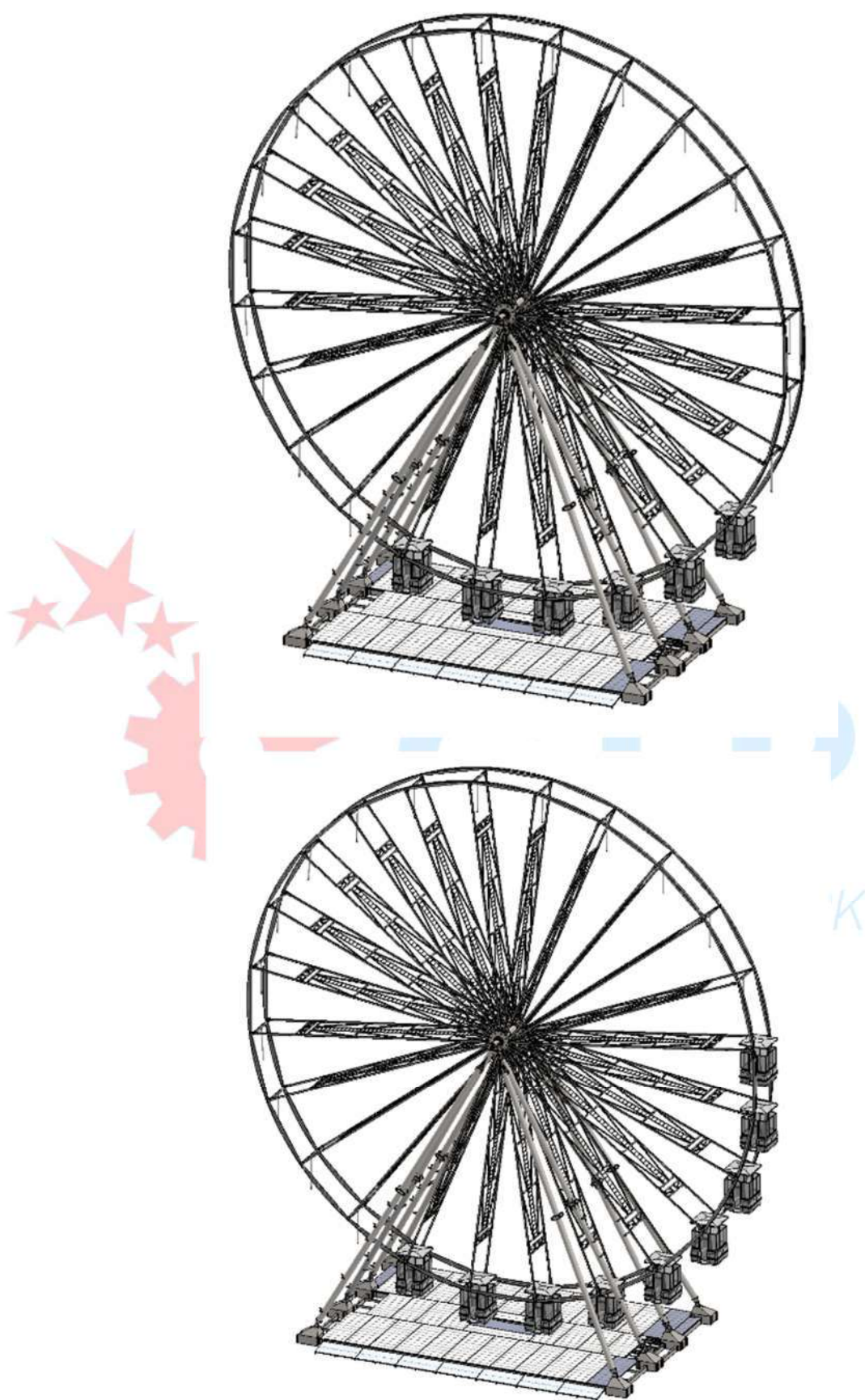


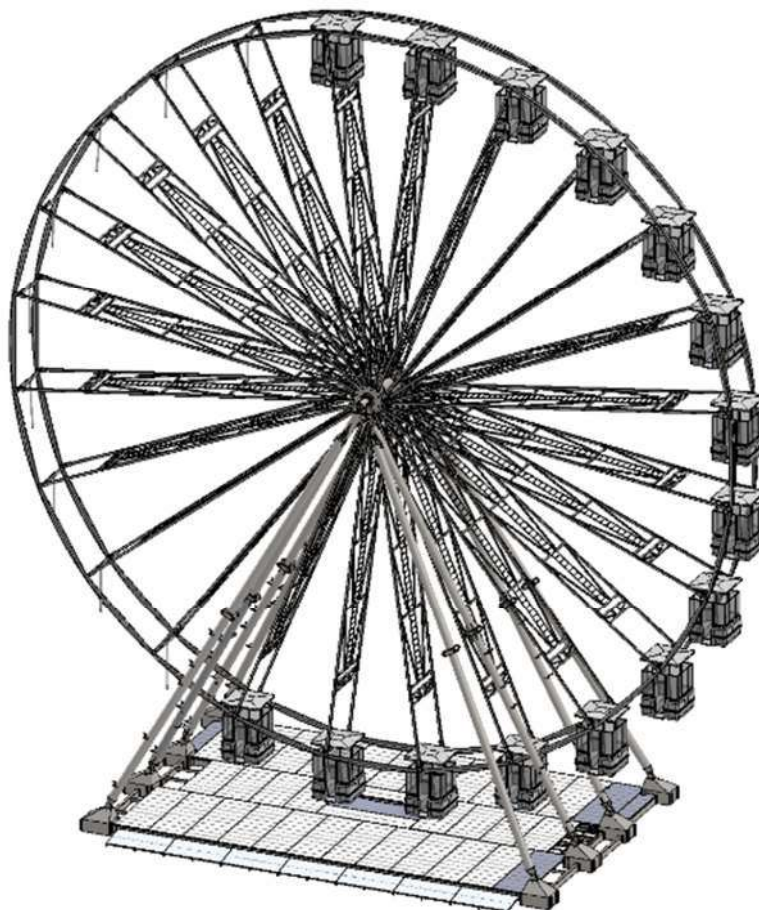
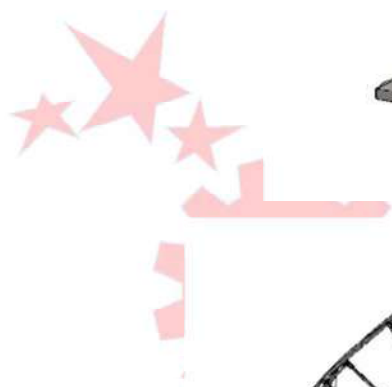
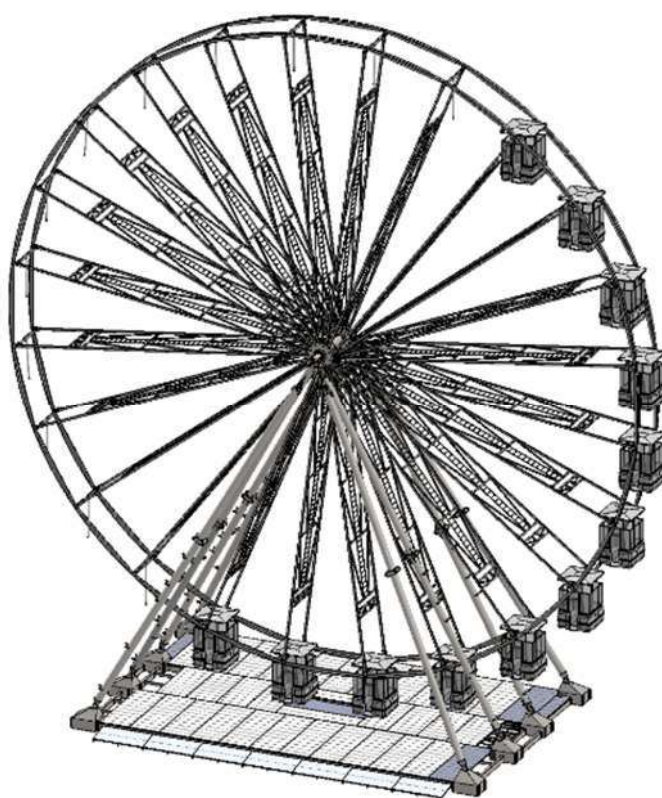


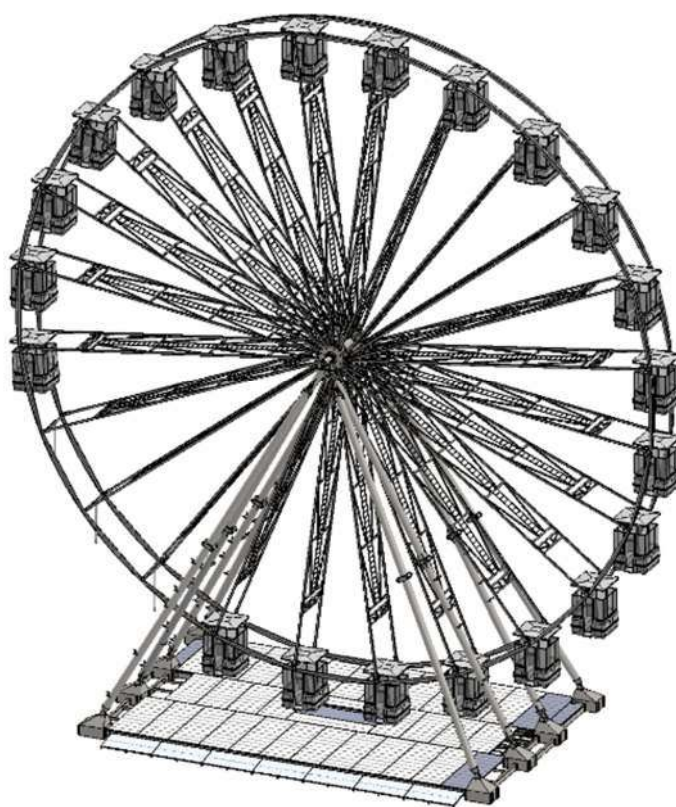
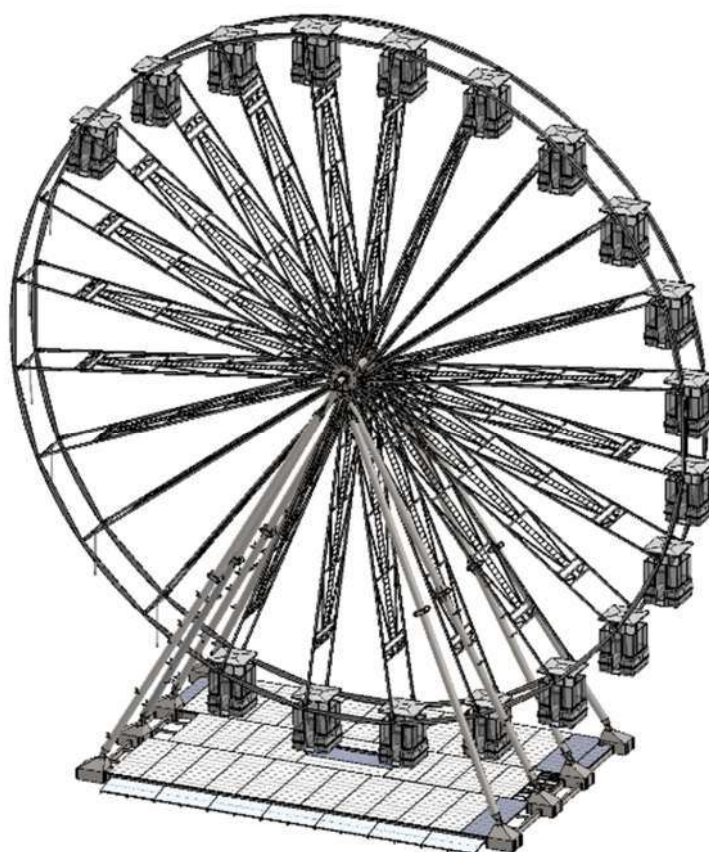


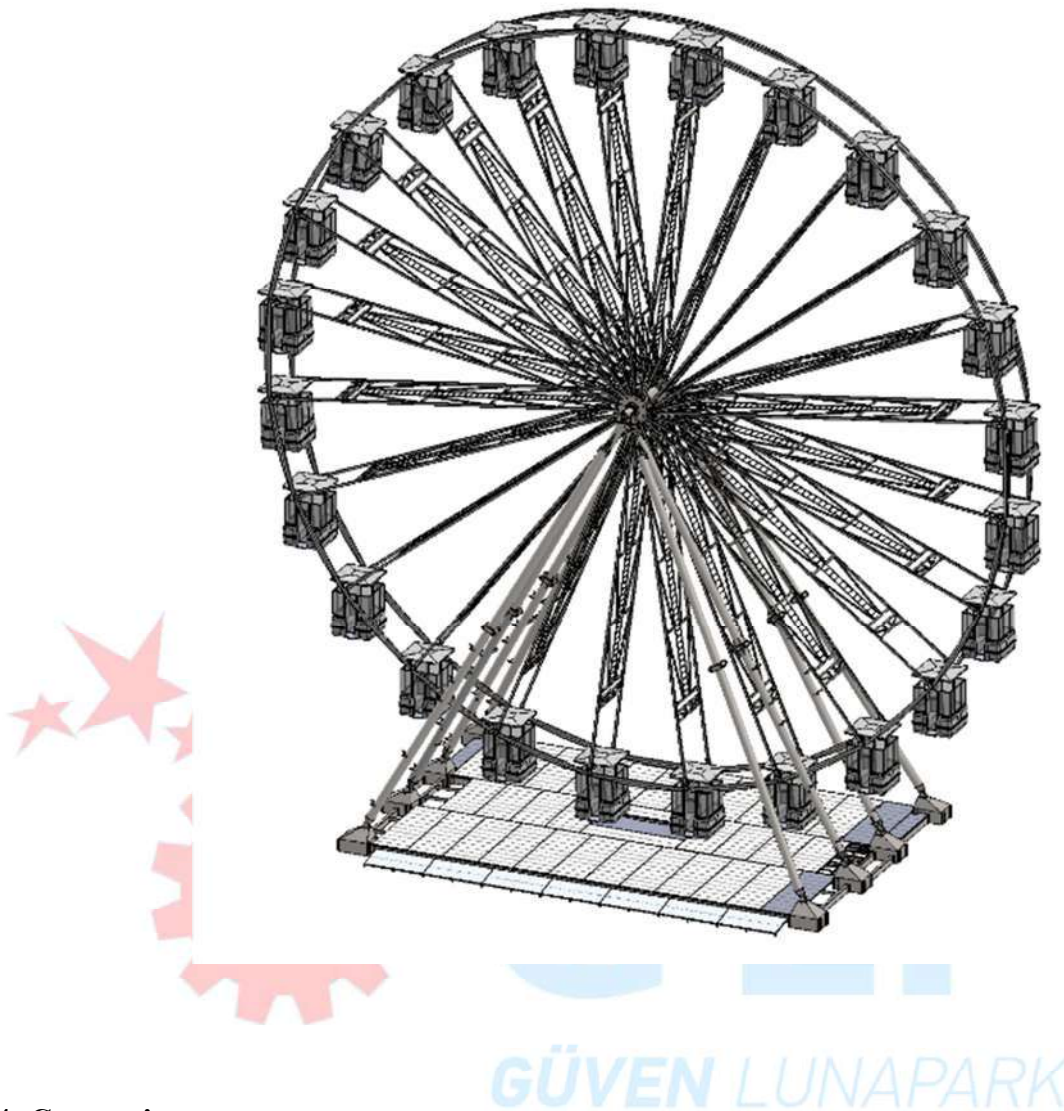












4.4. Connections

The ride must be connected to the following power sources:

- General terminal board within the electric panel situated in the control room; see electrical diagrams enclosed.

4.5. Ride Commissioning

Once the assembly and the connections have been carried out, it is necessary to get the ride ready for “commissioning”.

In these instructions, “commissioning” means a series of checks and operations to carry out:

- After the first assembly

4.5.1. Post-Assembly, Pre-Commissioning Checks

Before operating the ride, it is necessary to check that

- Correct tightening of all pins, screws, holding gondola

- Correct Working of the motors, responsible for the wheel movement
- All parts have been correctly assembled
- Connections to the various power sources have been carried out correctly
- Safety systems are all perfectly Working

And carry out the following

- Any lubrication
- Tests on single controls and on control sequences
- Checks of the safety systems
- Off – load tests
- Regulations and / or adjustments.



5. Operating Manual



Picture 11. Ferris Wheel Electric Control Panel

1. Starting Position



2. Turn button to T1 (Recommended).



- If the machine is desired to be operated with the help of the Generator, the button must be brought to the Generator side (Picture 3).

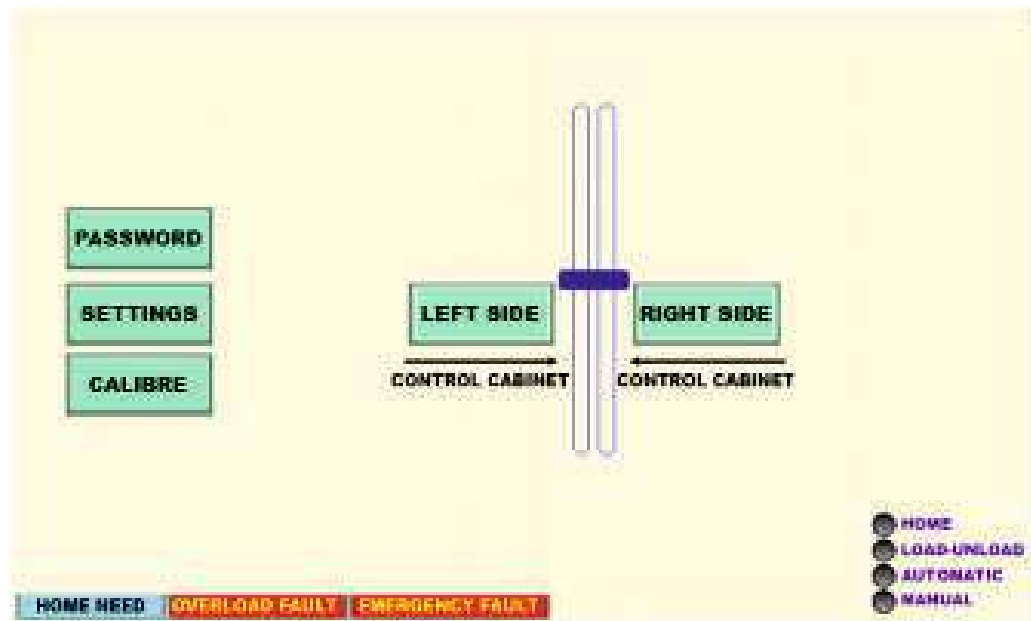


3. After turning the button to T1, the current reaches the control of the device



Ferris Wheel Control Command

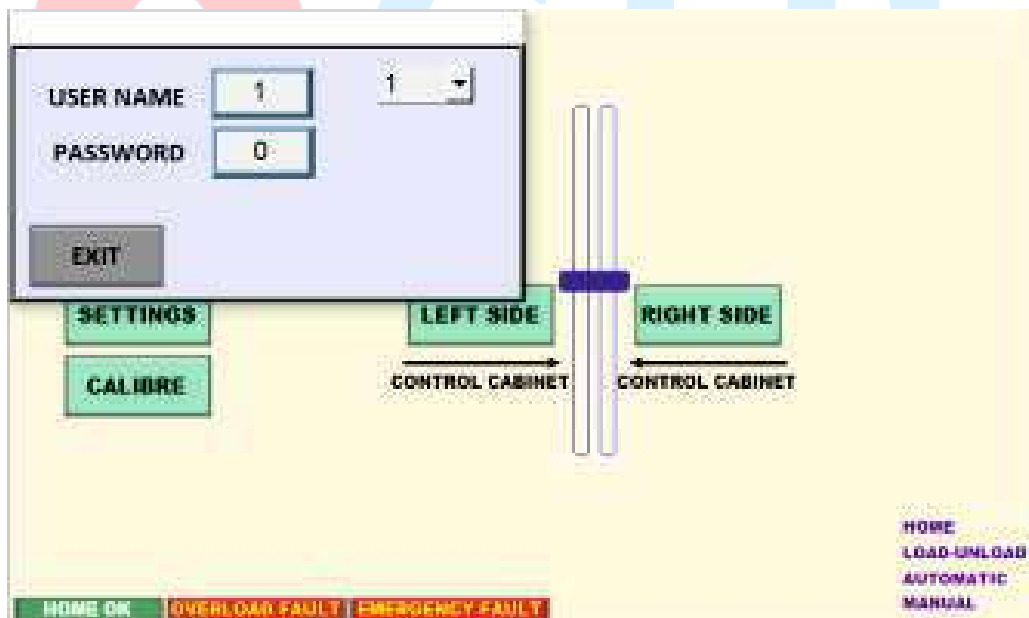
4. Open Main Switch (Network or Generator) which supply source is available
5. Machine is ready to work.
6. The following screen is shown in the display



7. Using these display system settings and choosing the direction of the control panel using for.

USER	PASSWORD
1	0
2	222
3	333

8. The password button is pressed for this operation.



9. Pressing the password button, the user is selected and the password is entered from the window that is opened.
10. Return with exit button.
11. After the password is entered, the settings and caliber buttons will be active.
12. The following screen comes when the settings button is pressed

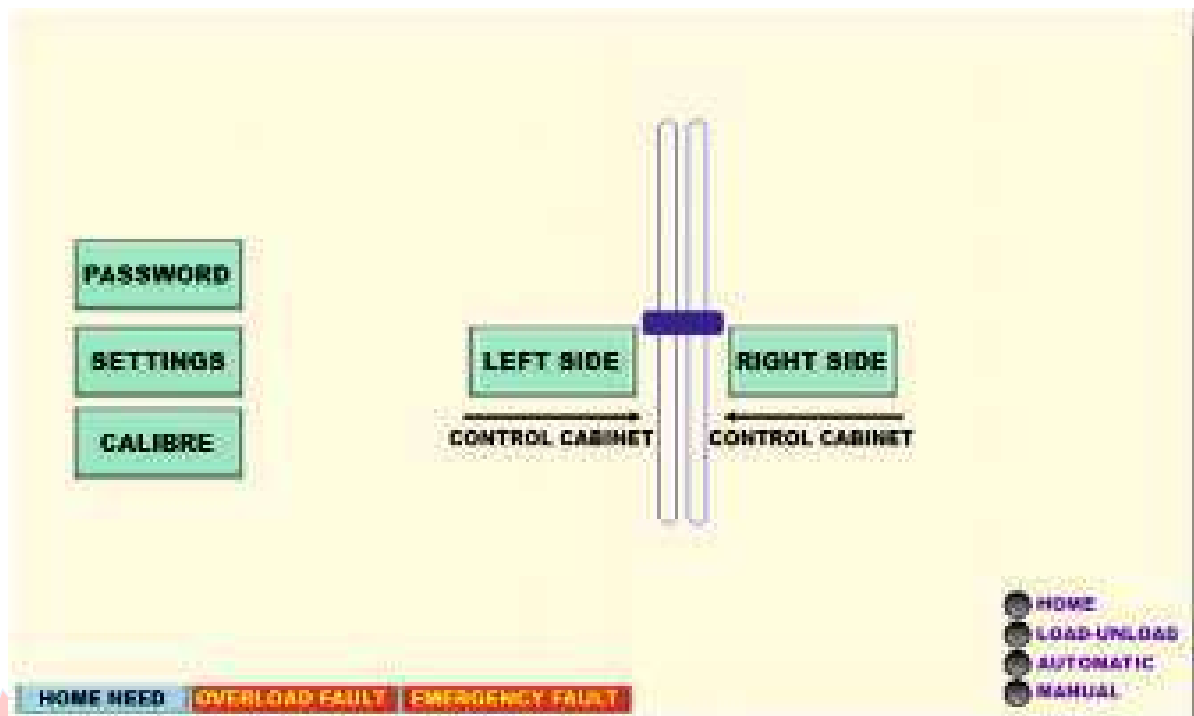


13. On this screen, working speeds are entered (within limits) and factory values are loaded. Once done, this process is kept in memory. It is not necessary to make adjustments every time.
14. Exit the screen with back key.
15. The following screen is displayed when the caliber button is pressed.



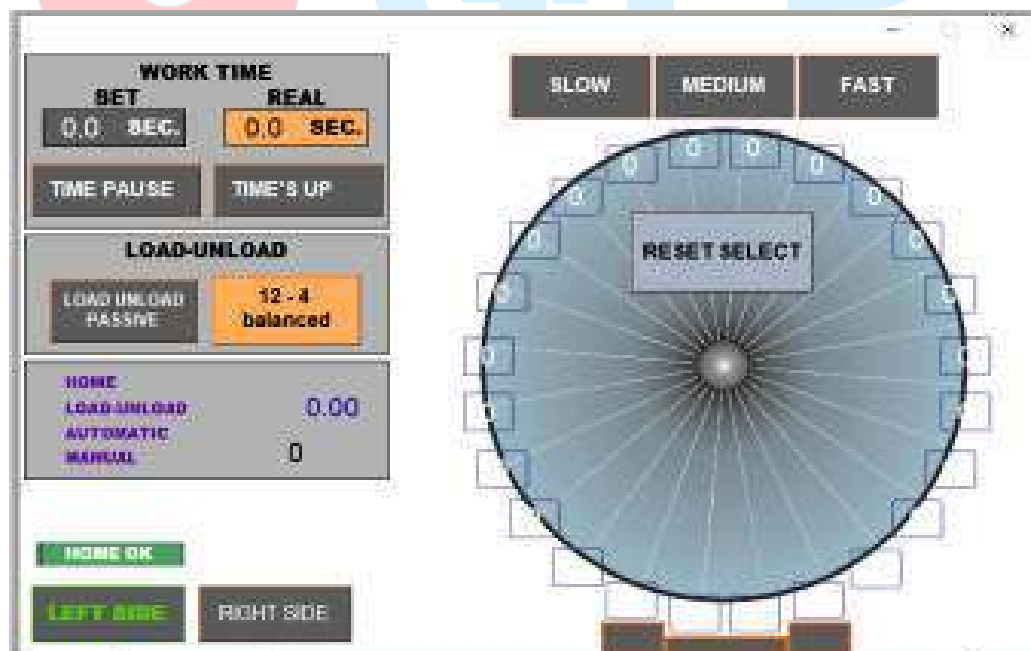
16. This page is used for system calibration. Required when encoder changes.

17. It is shipped as calibrated when leaving the factory.



18. The system is started to be used by selecting the direction where the operator is by using the left side- right side buttons.

19. The run page appears on the screen.



20. On this page, we can see which way we are looking. Left side-right side buttons are green, the direction is active. The direction can also be changed using these buttons.

21. The operating mode is selected from the manual and automatic button on the control panel.

22. In manual mode, no on-screen controls are used.

- 23. The system turns forward with the forward start-button on the control panel.
- 24. It is the manual speed on the reversing speed setting page with the reverse start button.
- 25. The stop button stops the system. The system works with complete operator control.
- 26. If the button is set to automatic mode, display and automatic operation will be active.

27. Work sequence

- 1- It is necessary to make home.
- 2- Balanced clients are recruited (mode load unload and 12-4)
- 3- Automatically rotated as much as the return time
- 4- Unloading process
 - A- Full unloading (load-unload mode and 12-4 balanced)
 - B- Unloading and filling (load-unload mode and 4-4 continue)

- 28. As an extra, the automatic working time can be pause or it can be finished before the time is up. From the time pause and time up buttons. Min 0 seconds, Max 1000 sec is entered. However, the recommended is 120 seconds.

- 29. The stage of the system can be observed on the screen.

1- Home

- 30. For Home (it must be done at the moment of first power and when the machine is switched to manual mode and started.) Home operation is started by pressing the left start button twice quickly. This process is completed when the disabled bucket arrives at Station 2. The stop button is active and the system is stopped by pressing the button before the process is completed. When the home process is completed, the home arrow should appear on the screen.

2- Balanced Filling

- 31. The load-unload button is activated.
- 32. By pressing the button next to this button, it can be moved to 12-4 position.
- 33. After the buckets in the station are filled, new buckets are called by pressing the left start button (twice quickly). At this stage
 - 1- 12 buckets change places
 - 2- 4 buckets change places
 - 3- 12 buckets change places
 - 4- 4 buckets change places
 - 5- 12 buckets change Places

Thus, the system is filled in a balanced way.

When the above process was done 5 times, the system was fully filled.

3- Automatic operation can now be started. For this, the load-unload button is disabled.

The run time is entered ($2 * 60 = 180$ for example 2 minutes in seconds).

The left start button is pressed (twice quickly), the system starts to operate at the selected speed.

Note the speed must be selected before the operation starts. (Using Low – Medium – High Buttons)

At the end of the period, the system automatically stops so that the disabled bucket is at the 2nd station.

4- Unloading Process

A- If there are no new customers, load-unload is activated if the cabinet will be completely emptied.

12 – 4 is Activated.

As the customers at the station land, the customers are downloaded step by step by pressing the left start button.

It happens in the form of 12 – 4 – 12 – 4 – 12.

B- If old customers will be downloaded and new customers are to be recruited, load-unload is switched to active position.

4 – 4 is Activated

In this position, the cabins progress as 4, and this process is applied automatically when all the cabins are finished.

6. Inspection

INSPECTIONS SCHEDULE			
FERRIES WHEEL			
ID	Details	Type of control	Check Frequency
01	Fixing Screws Small Arm – Gondola	Daily Check the correct tightening of the screws and pins	Daily
02	Transmission Wheel of the Drive	Position the arm exactly on the motors axle and check also that the pressure at the wheels is 8 bar	Daily
03	Entrance / Exit door	Daily Check the Closure Component Wear	Daily
04	Ball Bearing MRI E.2060.341 slew ring	Lubrication with grease on the outside soothing and on the sliding balls (the lubrication is advisable with ball bearing with slow rotation). PAY ATTENTION!!!	Weekly
05	Ball Bearing MRI E.2060.341 Center slew ring	Check the correct closure of the screws.	After the first 100 hours Every 800 hours
06	Check the bolts supporting arms	Daily Check that all bolts between the arms and the hub flanges are well tightened and that have the split pins.	Daily
07	Pins and safety split pins check	Check that all pins (supplied by the manufacturer) have the safety split pins.	Daily
08	All the welds	Check visually eventual fissures.	Every 200 Hours
09	Gear Boxes	Check the oil level in the gear boxes. For the check see the levels placed	Every 50 Hours
10	Motor AC	Disassemble the air filter and clean it.	Every 200 Hours

11	Motor Gear Boxes	Check of the correct screws tightening.	After the first 50 Hours Every 200 Hours
12	All the screws	Check of the correct closure of all screws, making the flanges.	After the First 100 Hours
13	Winches	Wire quality control is essential before using winches	Before each use
14	Winches	Checking hooks, fasteners and fittings for winches must be done before using the winch.	Before each use
15	Winches	Controlling the level and quality of gear oil and lubrication of wires	Before each use



G-LP
GÜVEN LUNAPARK

7. Evacuation Plan

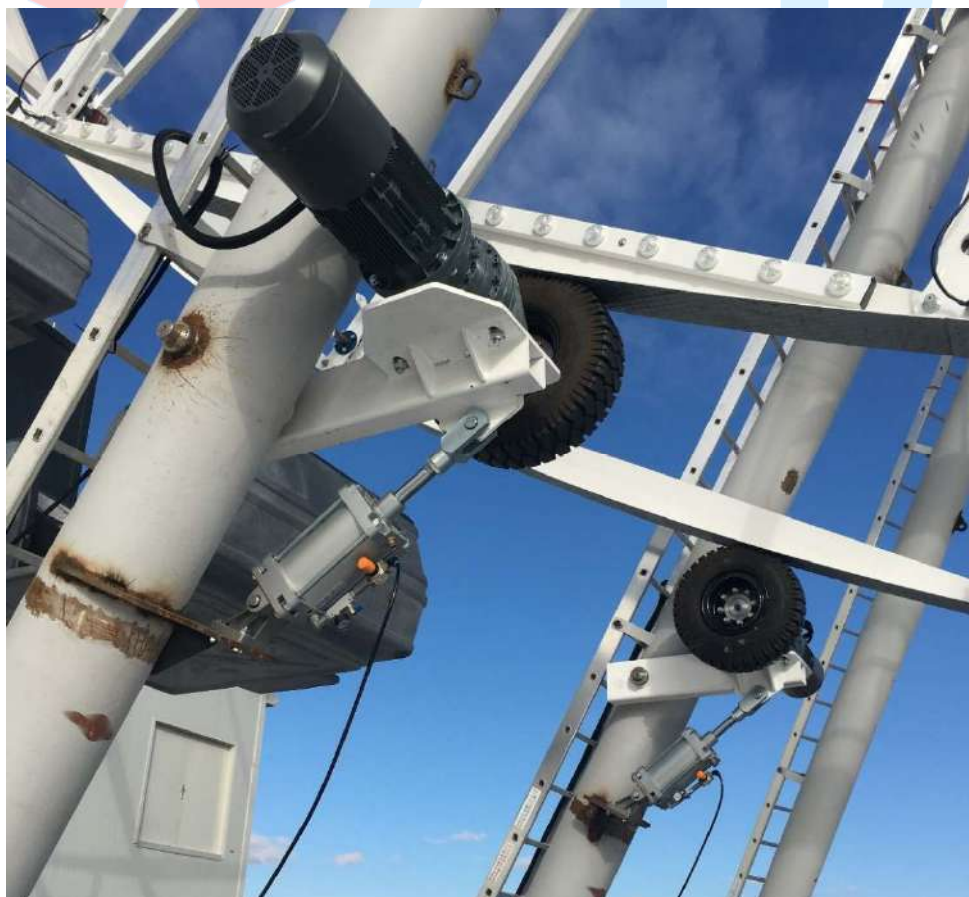
If a power cut is suddenly encountered while the Ferris wheel is operating normally, there are 2 options that can be made to get the passengers off the machine in a healthy and safe manner.

1. The electrical system of the Ferris Wheel is designed to operate simultaneously with both the generator and the city electricity. In any power outage, the generator can be activated and the recovery process can be started.
2. There are 4 turning motors (in pipes 2 – 3 – 6 and 7) that move and stop the Ferris Wheel. The air of the pistons connected to these engines is slowly evacuated and the gondolas filled with the gravity acceleration of the cabinet are expected to arrive at the station. Thus, passengers can safely disembark from the machine.

Warning 1: This operation should not be done by suddenly evacuating the air from the pistons.

Warning 2: It is necessary to evacuate the air little by little from the 4 engines at the same time.

Warning 3: If the air in the pistons connected to the engines is suddenly evacuated, the circle will turn very quickly and there will be no safe discharge process.



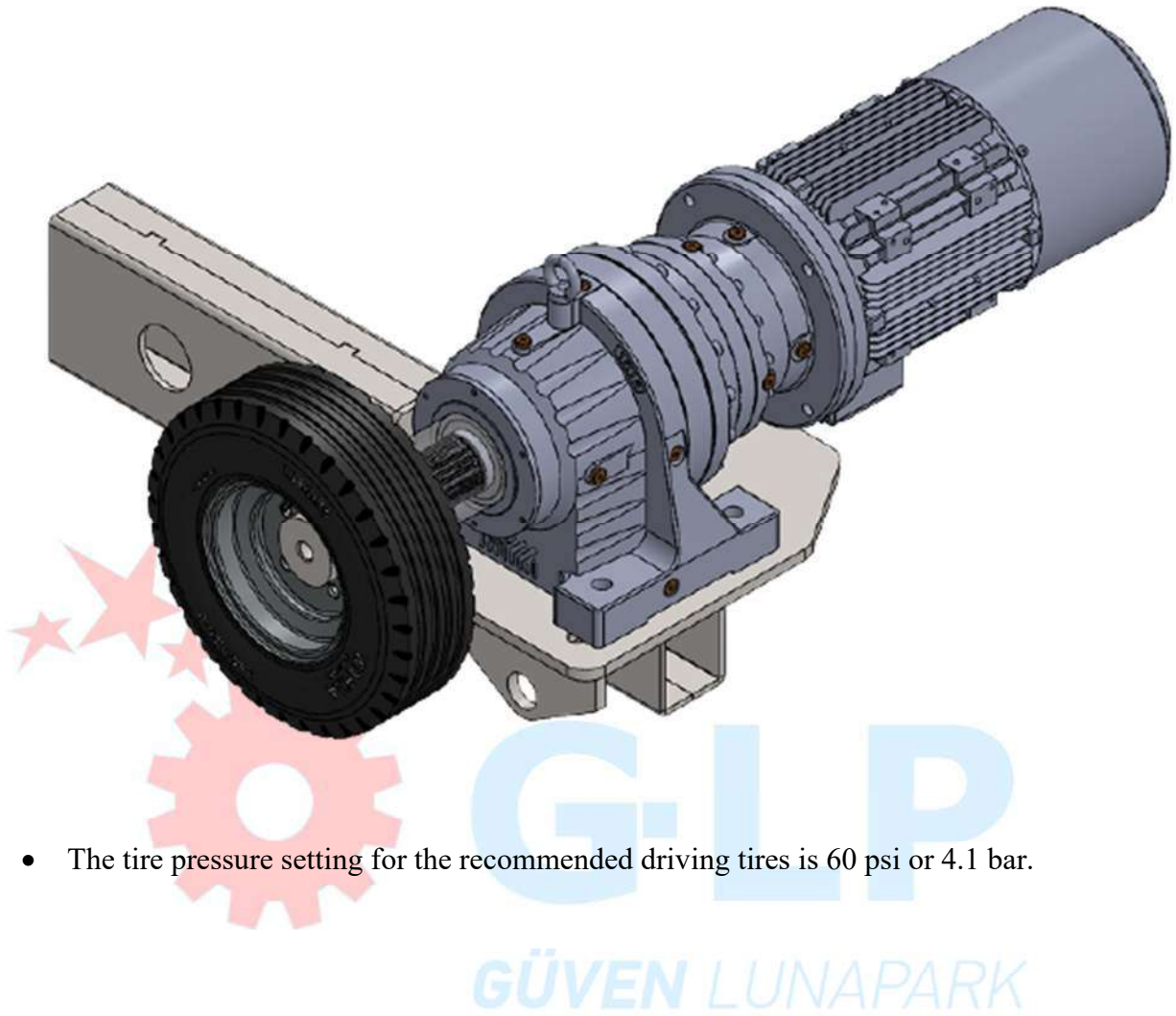
Picture 12. Ferris Wheel Wheels

8. Torque Settings

FREQUENT ASSEMBLY AND DISMANTLING			INFREQUENT ASSEMBLY AND DISMANTLING		
	8.8	10.9		8.8	10.9
	<i>Nm</i>	<i>Nm</i>		<i>Nm</i>	<i>Nm</i>
M 8	22	32	M 8	25	35
M 10	44	62	M 10	48	69
M 12	81	101	M 12	90	113
M 14	129	162	M 14	144	180
M 16	202	253	M 16	225	281
M 18	278	348	M 18	309	387
M 20	395	494	M 20	439	549
M 22	537	672	M 22	597	747
M 24	683	854	M 24	759	949
M 27	999	1249	M 27	1110	1388
M 30	1357	1696	M 30	1508	1885
M 33	1730	2480	M 33	1930	2750
M 36	2390	3420	M 36	2660	3800

- Gondolas : M8, M12
- Main Axle Lights : M14
- Vinch (Small) : M14 (10.9)
- Foot (Jacks Connection) : M16
- Arms Bearings UCFC : M18
- Vinch (Big) : M16, M22
- Main Axle Bearings : M20 (12.)

9. Tyre Pressure



- The tire pressure setting for the recommended driving tires is 60 psi or 4.1 bar.

10. Daily Checklist

This to be completed before the ride is opened to public.

Name of ride:

Ride Number:

When completing below please use following code do not use ticks.

P = Pass **S** = Satisfactory **S/M** = Satisfactory but Monitor

F = Fail (note all failures to be notified to Competent Person)

Time of inspection _____ **Date of Inspection** _____

Item No	Description of Check Required	Comments	Result
1	Check for correct ride levelling and condition of ground supports.		
2	Visually inspect structure and fasteners (Bolts, pins and safety pins (Split pins & "R" clips) for defects, general condition and security.		
3	Check loading platform, perimeter fencing and barriers – condition and security.		
4	Check gondolas, passenger restraints, all associated attachments and fasteners –		
5	Correct operation of ride and operators' controls (Check emergency switch).		
6	Check correct signage/warnings are displayed – legible and prominently positioned.		
7	Jacks, the packing		
8	EMERGENCY STOP		

Table 3. Checklist

Details of any maintenance carried out

Time of Machine opening _____ **Time of machine close** _____ **Operating hours** _____

Name of Chief Operator/Owner _____ I certify that today I have completed the above checks and maintenance and to the best of my knowledge and ability the above machine is free from defects that may render the machine unsafe.

Signed _____ **Date** _____
Owner /Chief Operator

11. Weekly Checklist

This to be completed before the ride is opened to public.

Name of ride:

Ride Number:

When completing below please use following code do not use ticks.

P = Pass **S** = Satisfactory **S/M** = Satisfactory but Monitor

F = Fail (note all failures to be notified to Competent Person)

Time of inspection _____ **Date of Inspection** _____

Item No	Description of Check Required	Comments	Result
1	Visual inspection of welds and stress areas.		
2	Check hydraulic system – condition, leakage and security.		
3	Check gondolas, passenger restraints, all associated attachments and fasteners –		
4	Check all decorative panels + objects, guards, lighting and all associated fasteners – condition and security.		
5	Check electrical system operation and general condition.		
6	Complete maintenance and lubrication as scheduled.		
7	Tyre pressure		
8	Torque Settings for ALL bolts		

Table 4. Weekly Checklist

Details of any maintenance carried out

Time of Machine opening _____ **Time of machine close** _____ **Operating hours** _____

Name of Chief Operator/Owner _____ I certify that today I have completed the above checks and maintenance and to the best of my knowledge and ability the above machine is free from defects that may render the machine unsafe.

Signed _____ **Date** _____