

GIRAF INSTALLATION MANUAL

Pre-Installation Notice (Important);

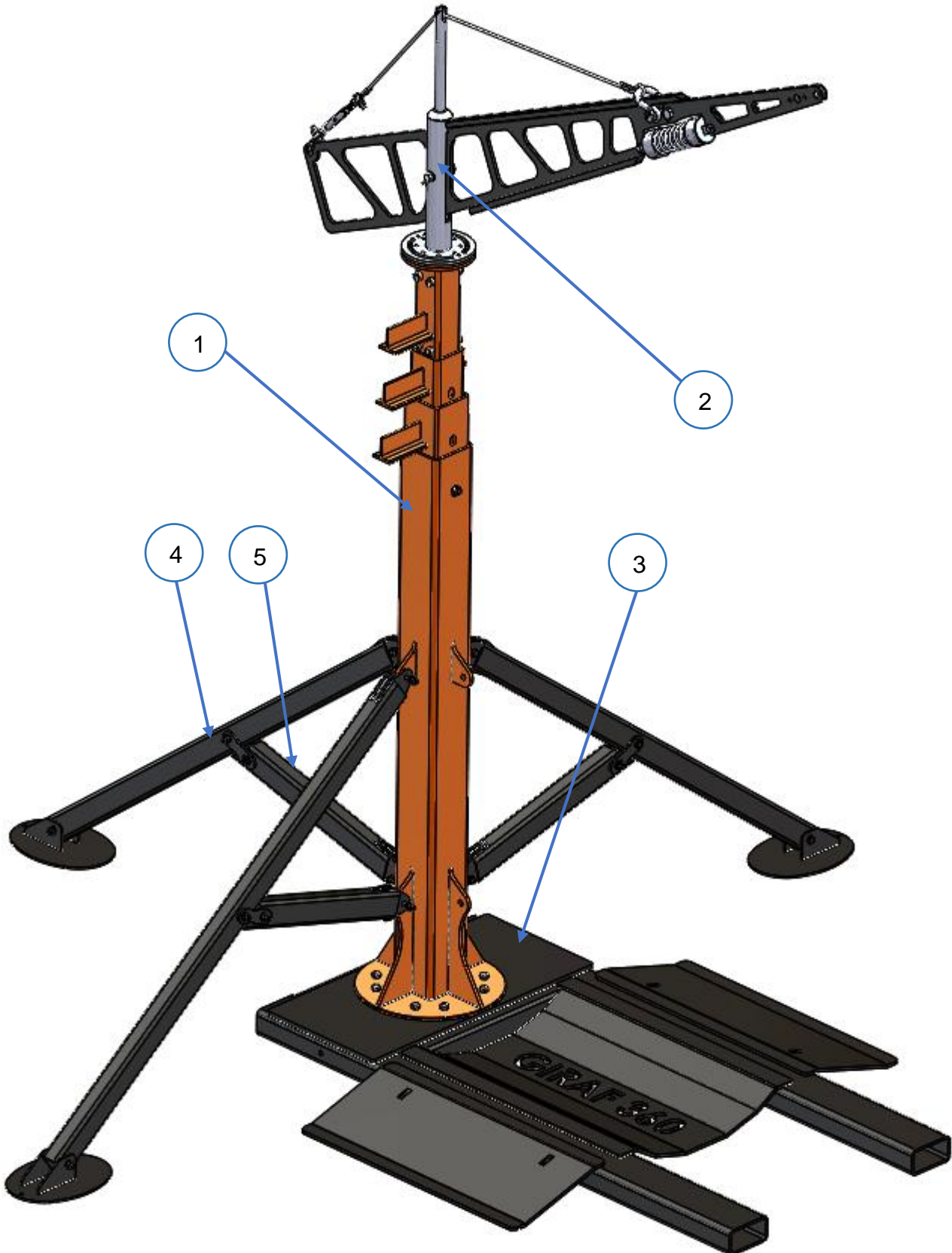
1. **Make sure that there is a forklift extending to 3 meter distance and 2 installation employees as the minimum before opening the crate and starting the installation works of the product !**

2. **Make sure that the installation personnel shall use the applicable personal protective equipment (e.g. safety helmet, glove, work shoes etc.) before starting installation works!**

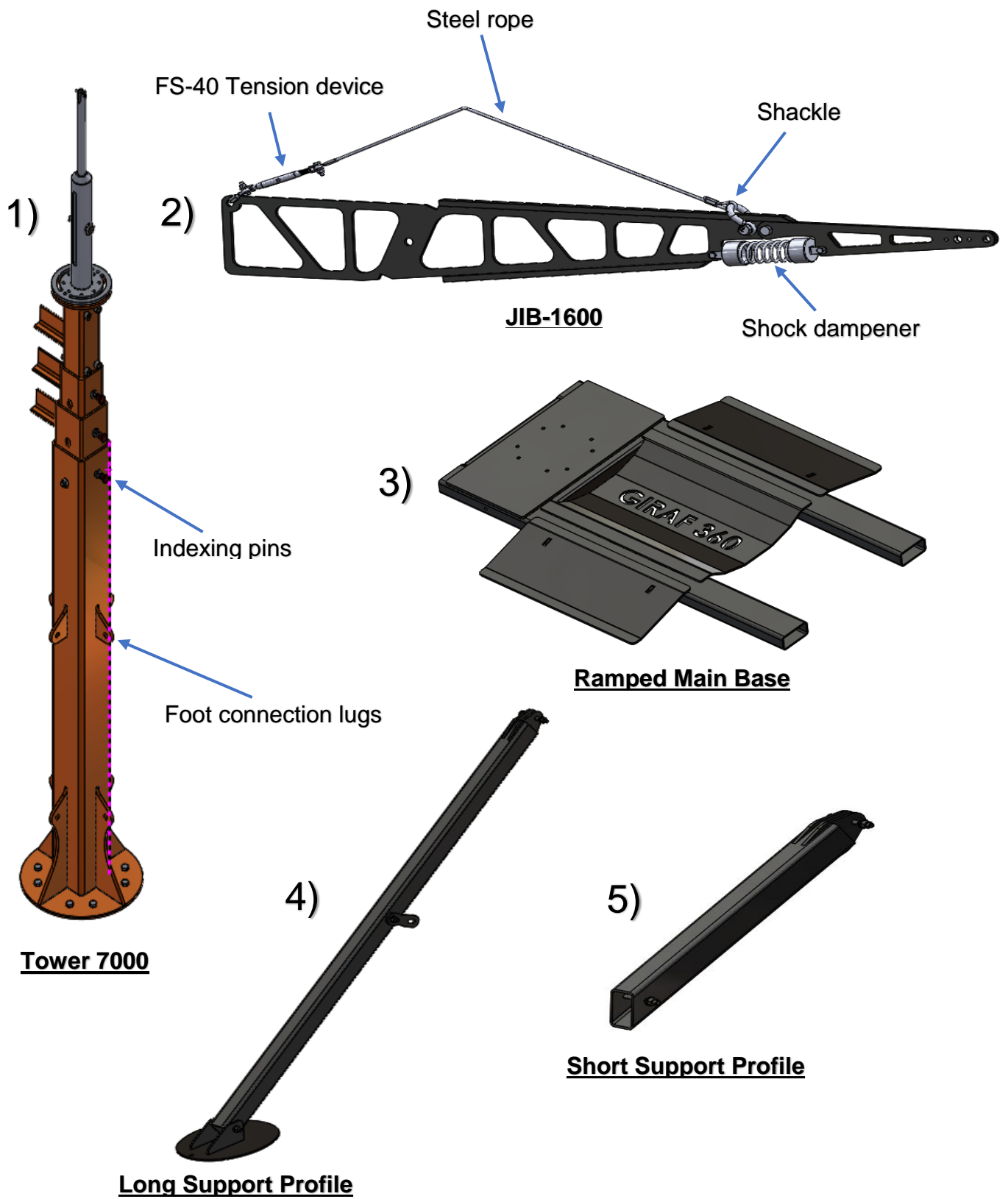
3. **Make sure that you have all installation equipment and tools to be used during installation before starting the installation of Giraf! (e.g. Toolset, Allen wrench set, percussive nutrunner with charger etc.)**

4. **As the height of Giraf will exceed 7 meters after installation and the component JIB-1600 shall rotate 360°, make sure it would installed at the right place!**

5. **Make sure that the installation ground is smooth and even!**



Contents of the Crate;



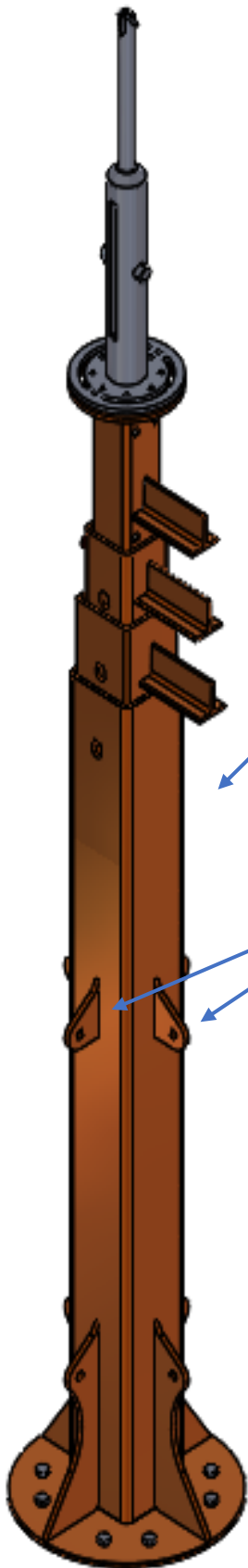
Starting the Installation;



1. The nails on the top cover of the wooden crate are removed and then the top cover is taken out.
2. After removing the top cover, the side walls of the crate is dragged up and removed.



3. The part “Tower 7000” is taken outside the crate by using a forklift truck. The logs at the side walls may be used in taking the part “Tower 7000” out. Make sure that no person will be present at the area of movement of the forklift during handling works.
4. The arm JIB-1600 is left on a suitable surface horizontally, to be installed by a forklift truck or installation employees.
5. The component “Ramped Main Base” is produced to allow entrance of the forklift blades, so this part may be taken out the crate by inserting the blades of the forklift truck properly.
6. The component “Ramped Main Base” is required to be placed on a smooth surface. The product **MUST NOT BE USED ON ROUGH GROUNDS!**
7. Other parts to be mounted may be taken outside manually.

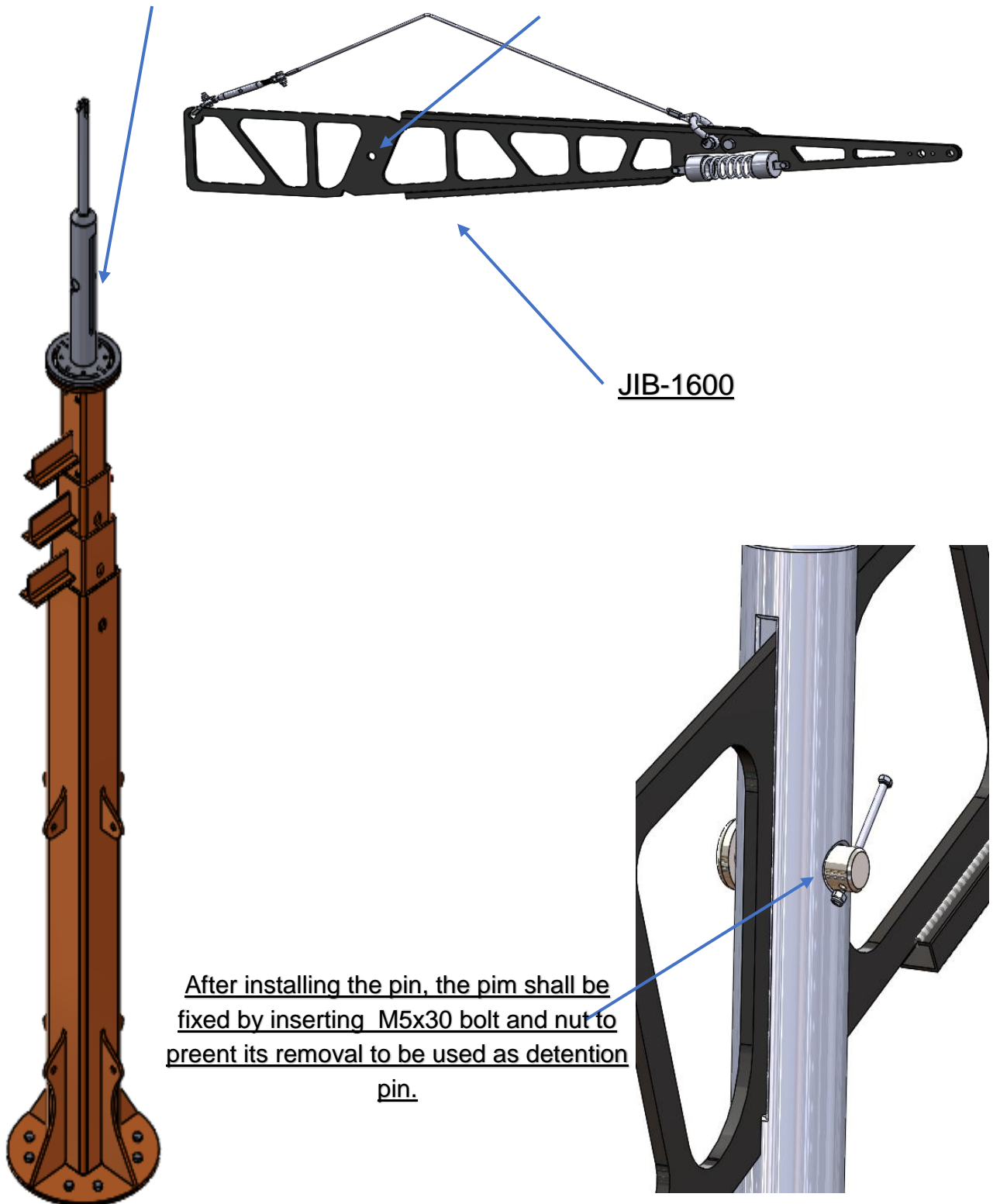


Tower 7000

These lugs may be used for
taking the part out from the
crate.

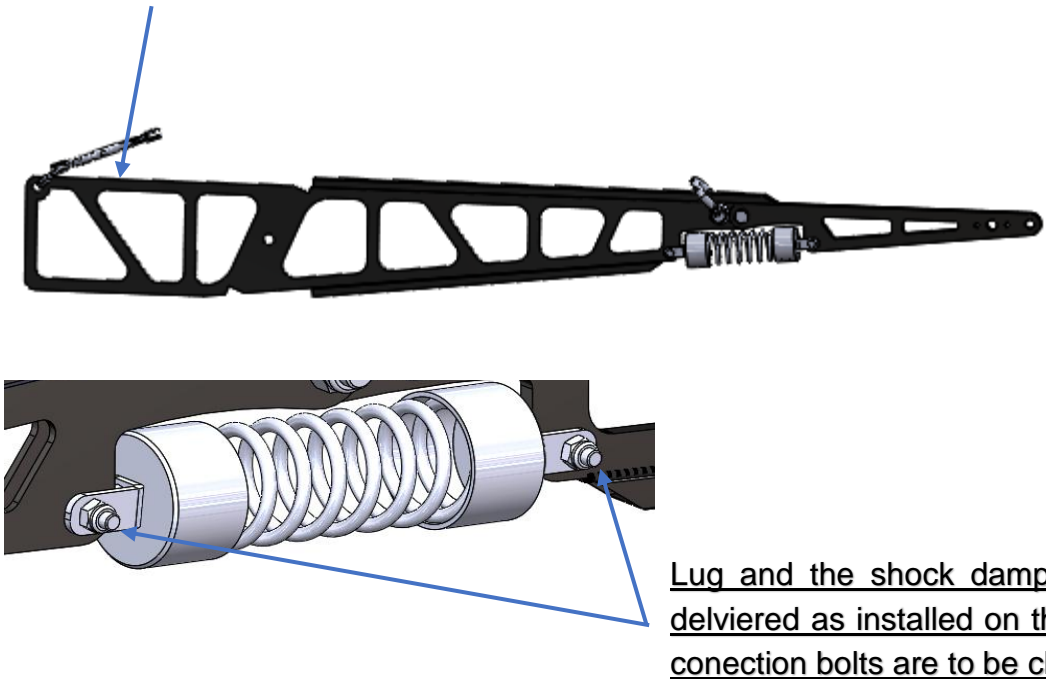
Installation:

1. FS-40 Tension device and Steel rope on JIB-1600 are taken out. The shaft at the end of the Tower 700 located in horizontal position is inserted in the channel, and its pin is installed.

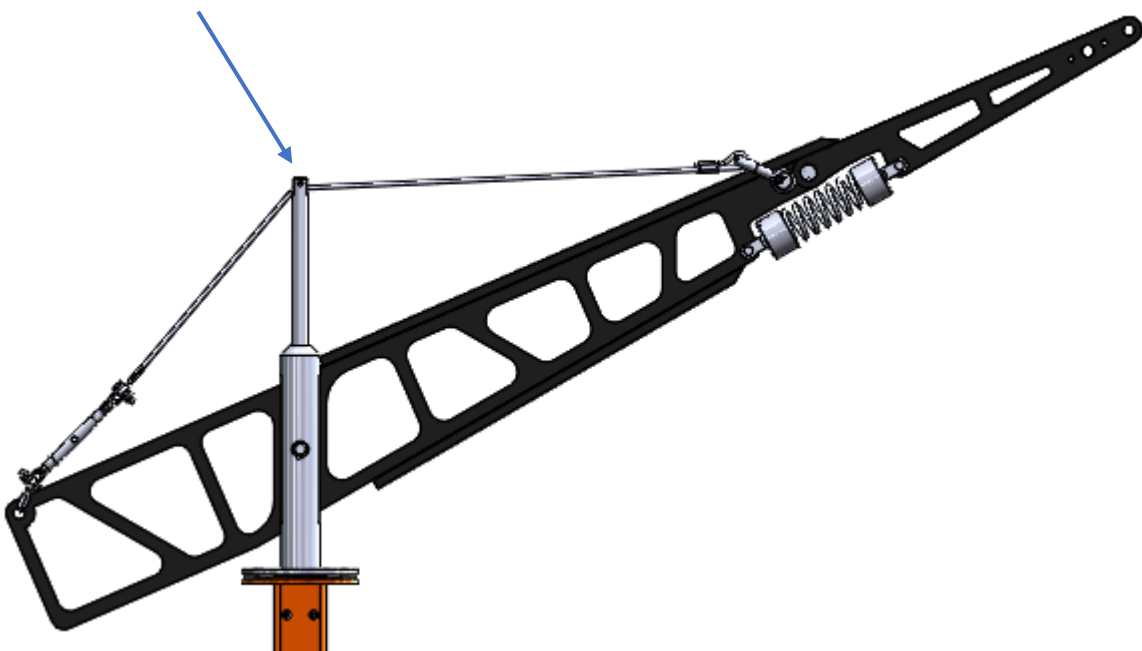


After installing the pin, the pin shall be fixed by inserting M5x30 bolt and nut to prevent its removal to be used as detention pin.

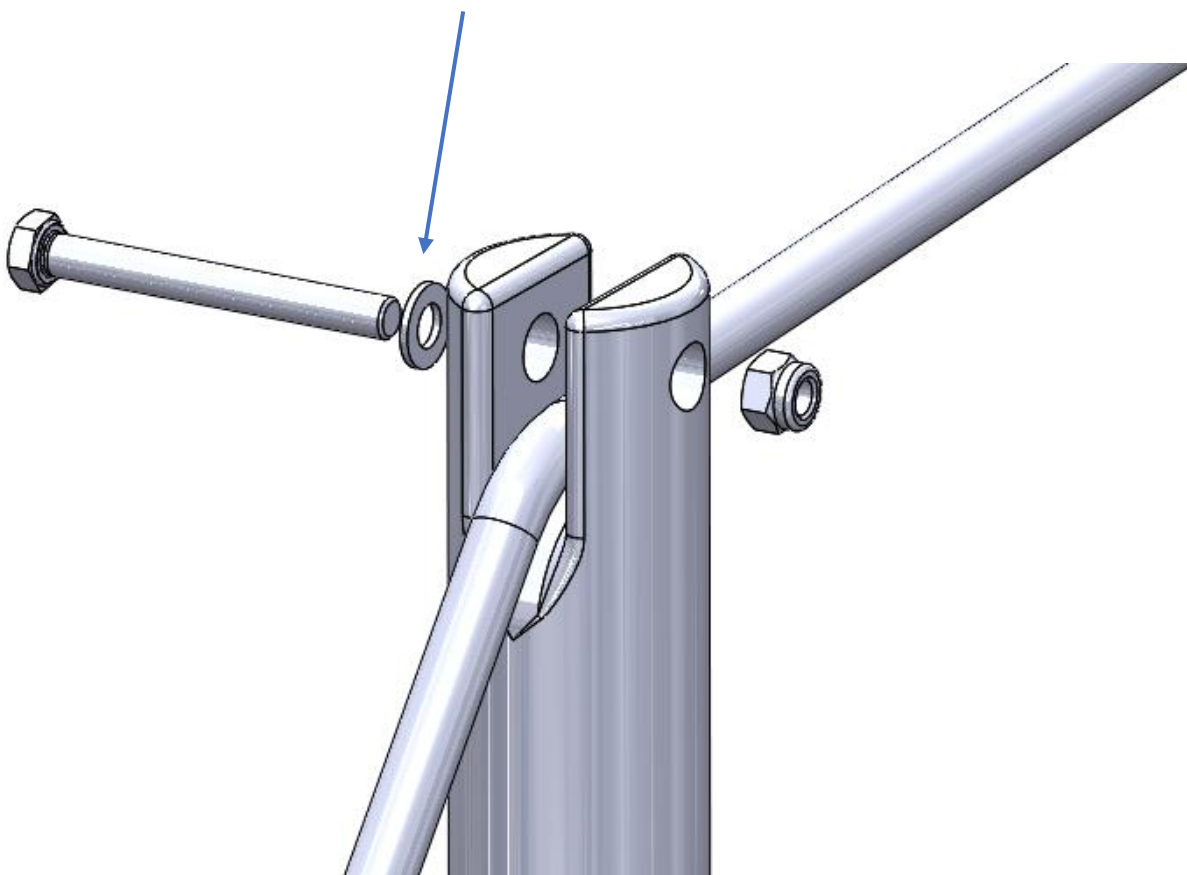
2. Before installing FS-40 tension device on Tower7000, it should be removed first if already installed on it. The tension device is to be at the upmost released position and connected as indicated in the below figure.



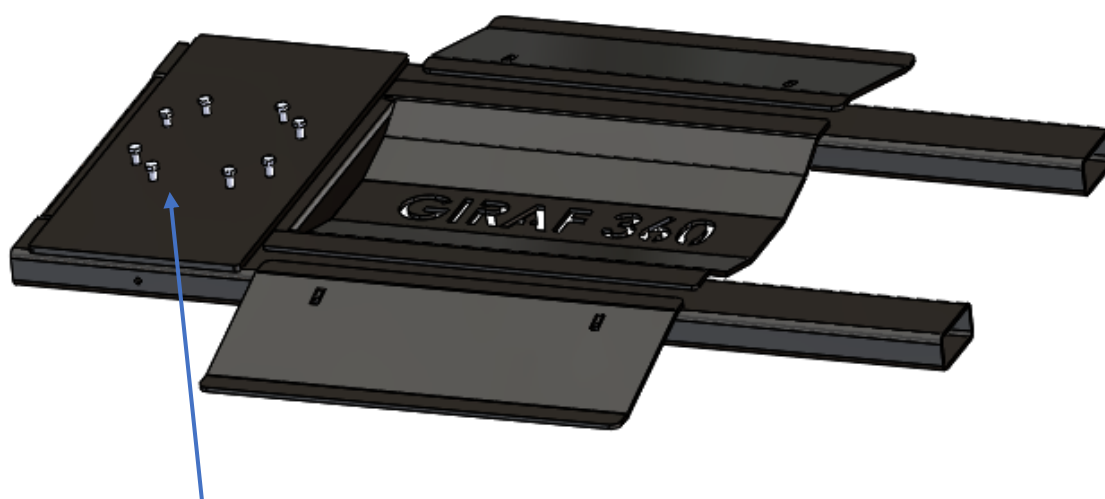
3. One end of the steel rope will be connected to FS-40 tension device as the other end will be connected to the lug/ shackle. After completing the connection, it is tensioned manually to raise the arm maximum.



4. The rope shall be fixed with an M5x30 safety bolt and nut to ensure detention of the rope.

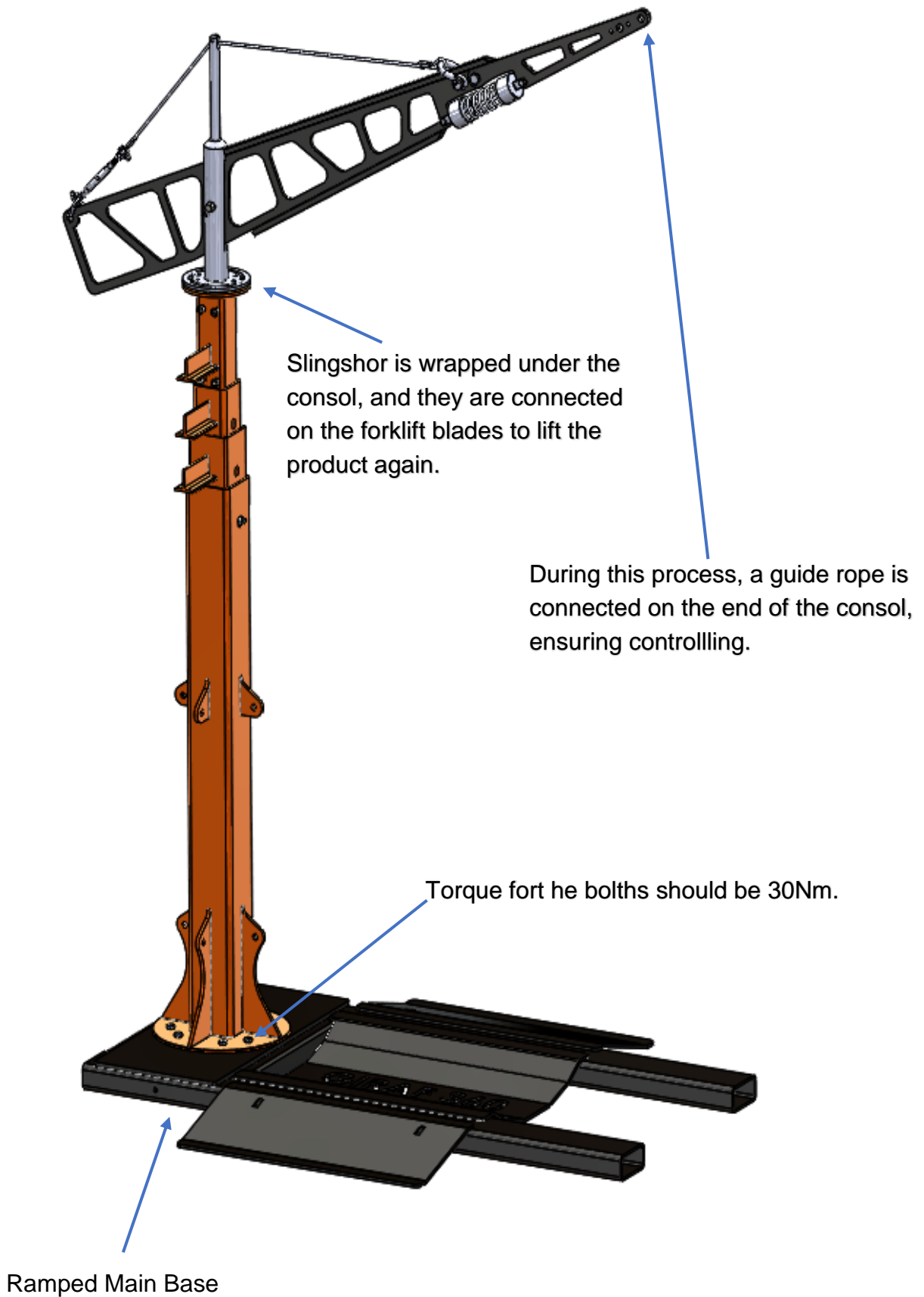


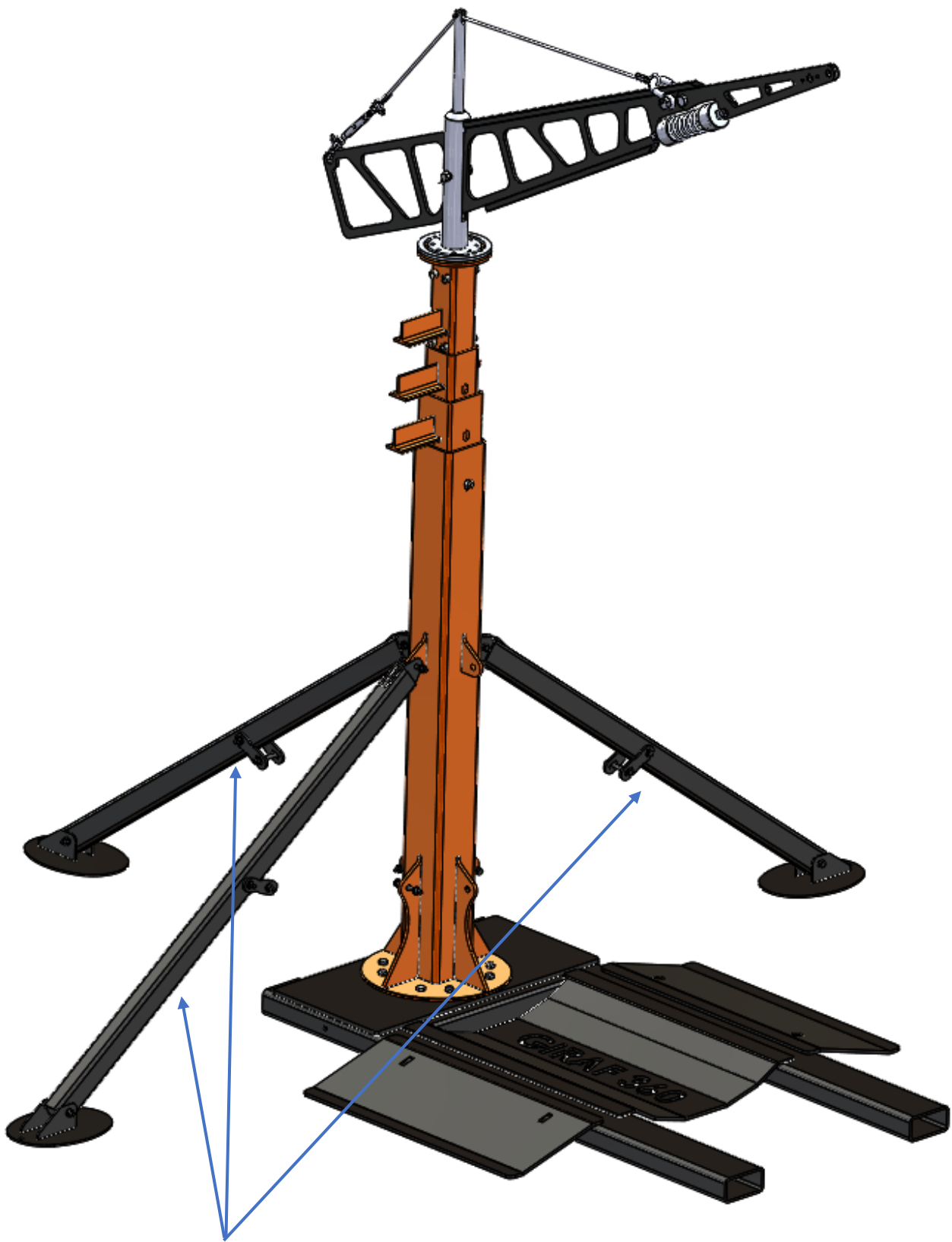
5. At this step of the installation, Ramped Main Base is conducted.



6. The bolts on the part are removed manually and placed on some place.

7. Tower 7000 is placed on Ramped Main Base to meet the flange holes by using a forklift truck, and fixed with 8 units of M16x35 bolts. The required torque is 30 Nm therefore.





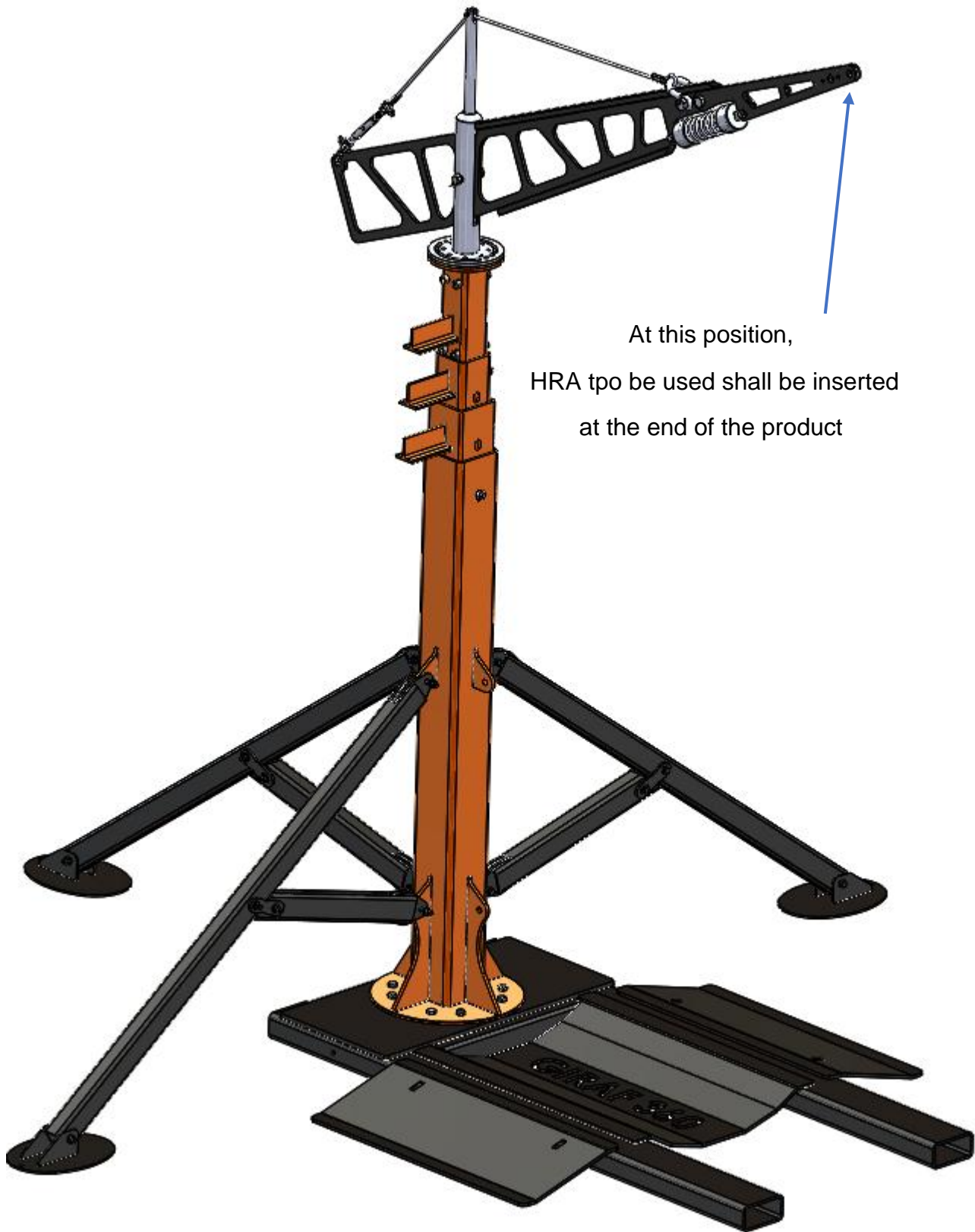
8. One long support profile is connected to each of right, left and back sides of the product.



9. Short Support Profiles are connected between Long Support Profile and Tower 7000 part.

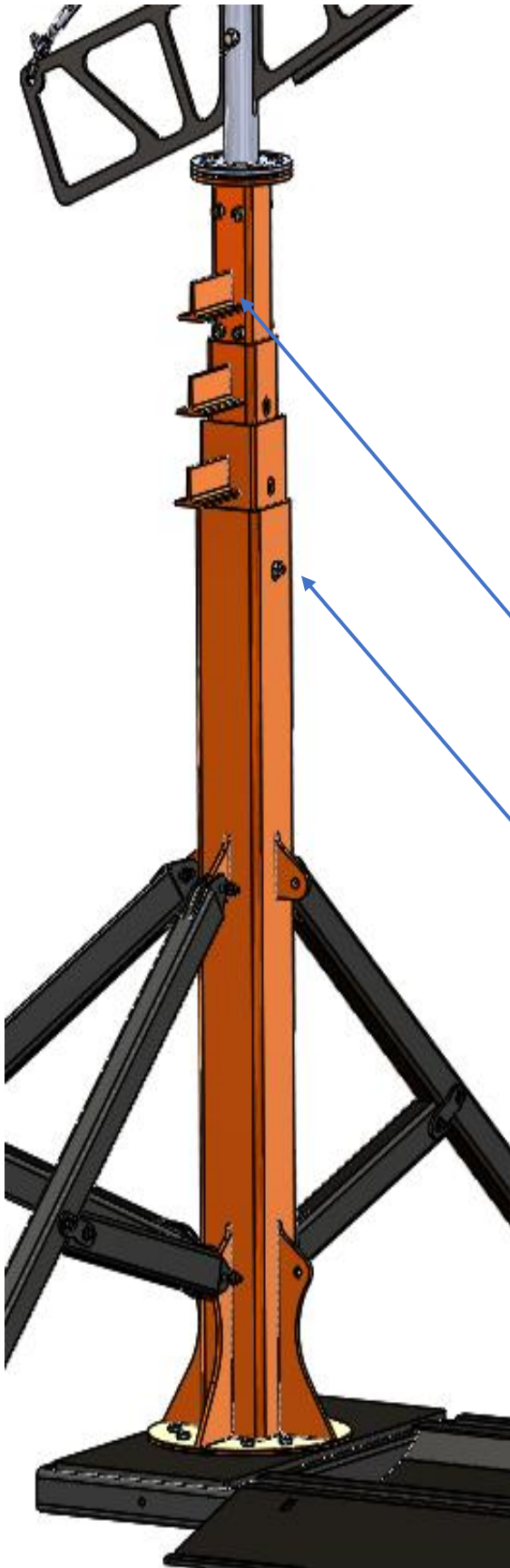


10. Ramps are placed after placing them on the ramp holders.



At this position,
HRA tpo be used shall be inserted
at the end of the product

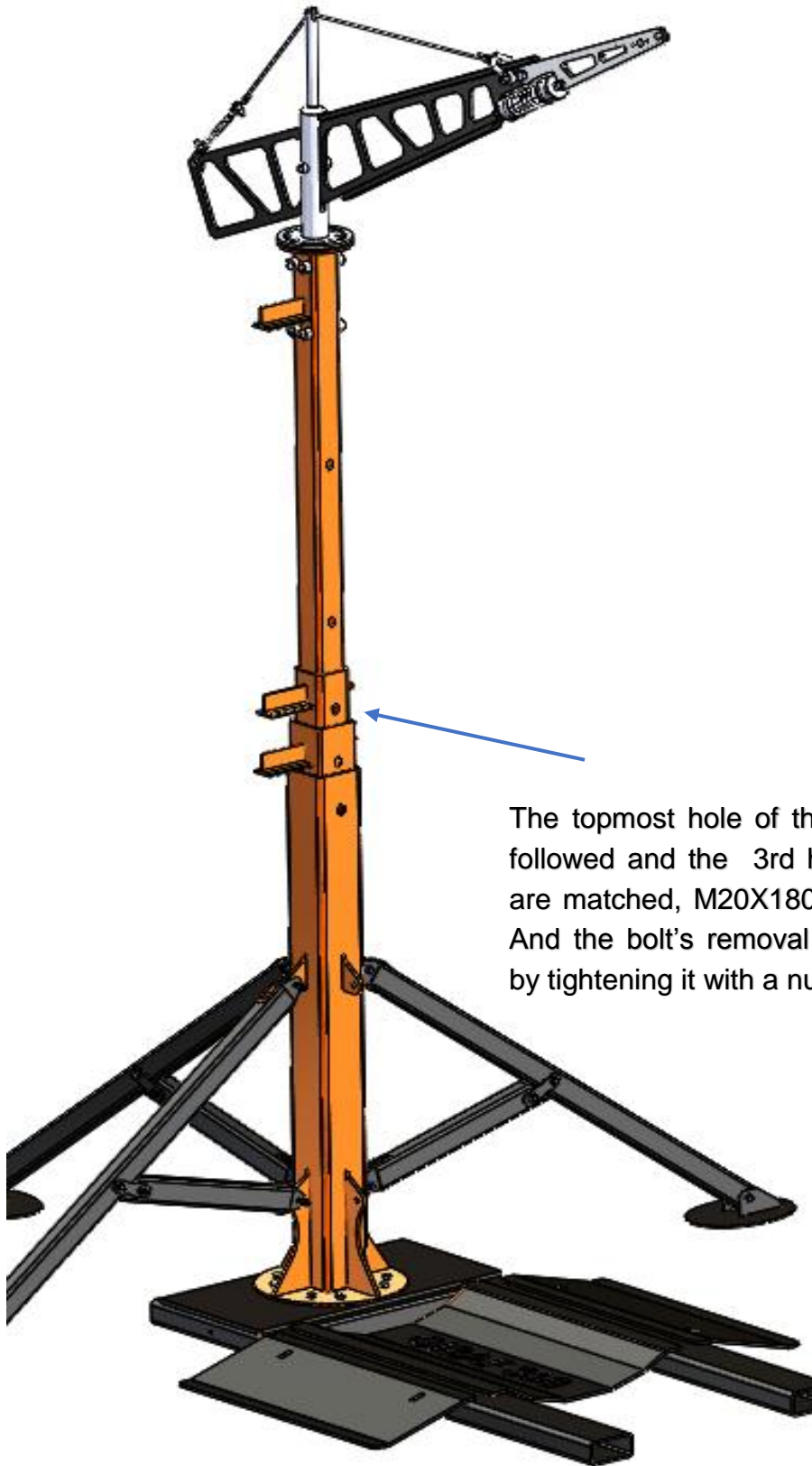
11. The important point to be considered here is that it is required to connect a guide rope of minimum 7 m to HRA carabiner. If the HRA carabiner will be released at the open position of the product, the product is to be lowered again.



The lifting process is conducted by placing the single blade of the forklift under T profile. Lifting process is to be conducted slowly.

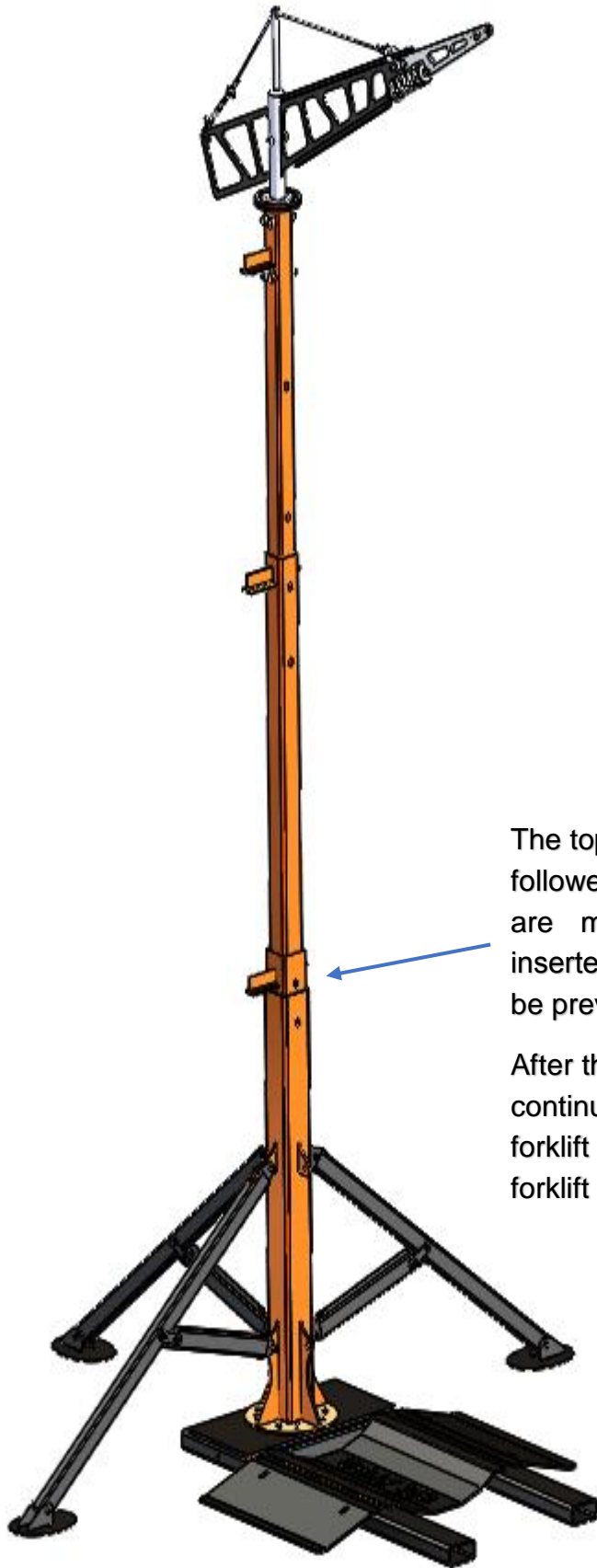
The fixing bolt is removed at the center before lifting the product.

12. 1st level lifting and matched holes are indicated below.



The topmost hole of the 3rd profile is to be followed and the 3rd hole of the 4th profile are matched, M20X180 bolt will be inserted. And the bolt's removal should be prevented by tightening it with a nut.

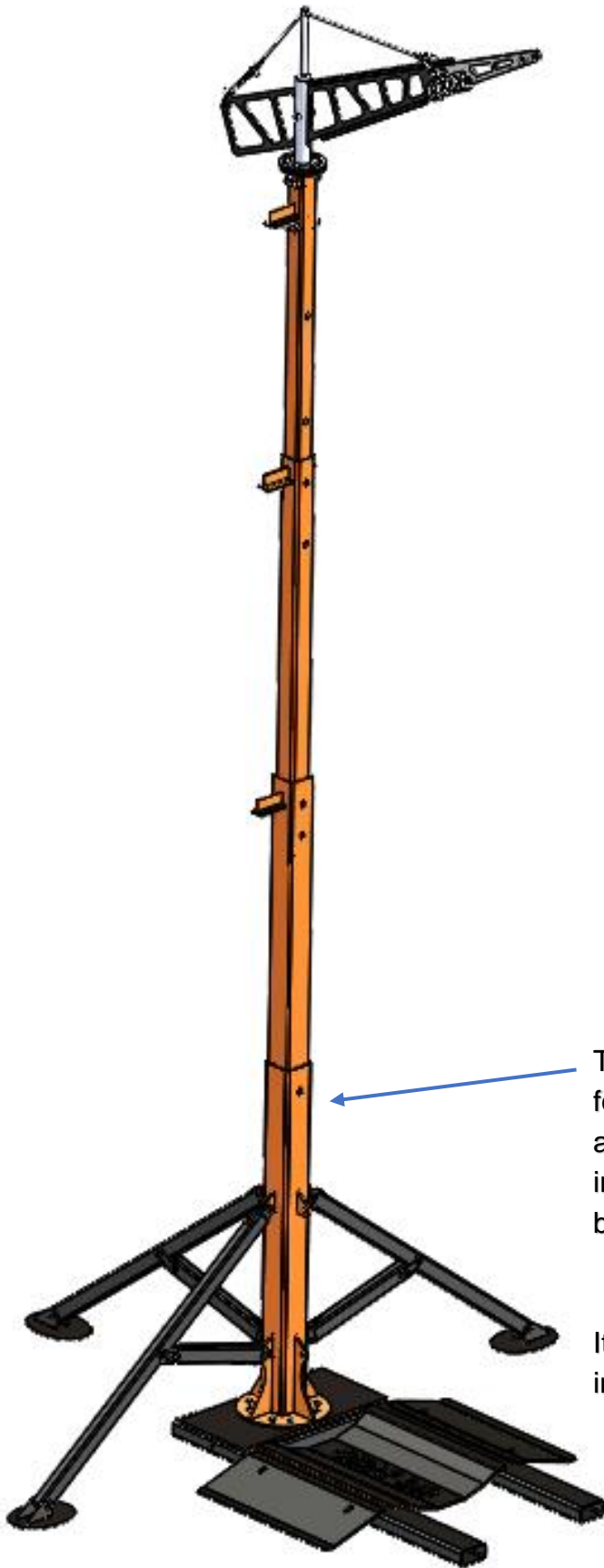
13.2nd Level Lifting and Matched Holes are to be as follows.



The topmost hole of the 2nd profile is to be followed and the hole of the 3rd profile are matched, M20X180 bolt will be inserted. And the bolt's removal should be prevented by tightening it with a nut.

After this point, the lifting process shall be continued by inserting the blade of the forklift in the T profile, if the height of the forklift will not be sufficient.

14.3rd Level Lifting and Matched Holes are to be as follows.



The topmost hole of the 1st profile is to be followed and the hole of the 2nd profile are matched, M20X180 bolt will be inserted. And the bolt's removal should be prevented by tightening it with a nut.

It is sufficient to use SINGLE PIN during installation.