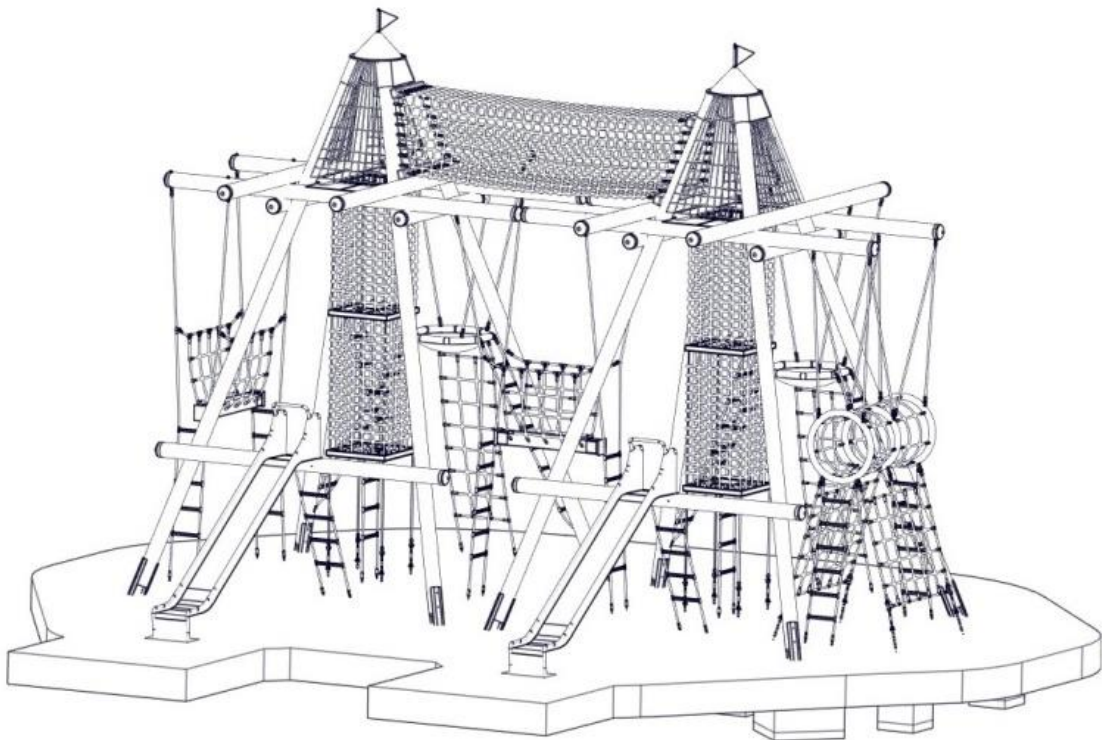


A Assembly Instructions **Birds Nest Tower “Black Forest”** **Art. 4652-23**

Attention! Only use the assembly instructions included in the scope of delivery for the assembly, installation and maintenance of the respective equipment!



Operators: _____

Location: _____

Revision history

Revision 0 – 2015-03-04

The first released version

Assembly instruction JF

Revision 07 Sechskantschraube M16 x 400 mm hinzu FH

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1 Introduction Assembling

1.1 General information

This equipment should be installed, inspected, maintained and operated in accordance with EN1176-7 guidelines.

Before installation work commences, please check that you have all of the equipment and fixation components in the parts list provided (see Tables 3-1 and 3-2).

Please consider that the installation has to be carried out only on even terrain (max.slope up to 3%).

Any spare parts that may be required can be obtained directly from your supplier.

Please do not hesitate to call your supplier if you have any problems during installation or with any other questions.



Attention

Following installation, complete assembly instructions, maintenance instructions and a maintenance record must be sent to the operator who must confirm receipt in writing. See the last page of this document.



Attention

All nuts and bolts are hot-dip galvanised or stainless steel.

One of the characteristics of stainless steel is that uncontrolled cold welding may occur when the nuts are tightened. To prevent this, it is necessary to spray the nuts and bolts with Teflon spray or another similar lubricant.

We hereby confirm that this play equipment has been tested and certified in accordance with the play equipment standard EN 1176.

2 Datasheet Pirate tower, article 4687-20

1. Used Zone: 13.66 m x 12.07 m

Device height: 6.90 m

Fall height: 2.95 m

Fall protection area: 127 m²

2. Required safety surface:

Surface material	Description mm	Minimum thickness of layer mm	Maximum height of fall mm
Topsoil grass			<= 1000 ^d
Chipped bark	20 – 80 grain size	300 400	<= 2000 <= 3000
Wood chippings	5 – 30 grain size	300 400	<= 2000 <= 3000
Sand ^c	0.2 – 2 grain size	300 400	<= 2000 <= 3000
Gravel ^c	2 – 8 grain size	300 400	<= 2000 <= 3000
Other ground materials	As recommended by manufacturer		Critical fall height as checked

^a Appropriate ground material, prepared for use at playgrounds
^b In case of loose fill material, 100mm have to be added onto the minimum layer thickness to compensate the falling away effect (see 4.2.8.5.1).
^c Without silty or clayey proportions. Grain size can be determined by a sieve test according to EN 933-1.
^d See note 1 in 4.2.8.5.2.

3. Name and overall dimension of the largest component:

8 Wood Posts, length 7.00 m, ø 180 mm

4. Name and weight of the heaviest component:

2 Freight Pallets, approx. 2160 kg

5. Intended age group: 6 years and over

Please note that this equipment is set in concrete.

Concrete: C25/30

Required concrete: 7.6 m³

Foundations/area to be excavated:

Top edge of concrete 40 cm below ground level

- 1) **2x** 1750 x 1270 x 500 mm
overall depth: 1000 mm inkl. 100 mm drainage
- 2) **2x** 1140 x 1140 x 500 mm
overall depth: 1000 mm inkl. 100 mm drainage
- 3) **4x** 900 x 900 x 500 mm
overall depth: 1000 mm inkl. 100 mm drainage
- 4) **2x** 1100 x 400 x 500 mm
overall depth: 1000 mm inkl. 100 mm drainage
- 5) **6x** 780 x 400 x 500 mm
overall depth: 1000 mm inkl. 100 mm drainage
- 6) **2x** **Excavation depth:** 600 x 300 x 400 mm
overall depth: 500 mm inkl. 100 mm drainage
- 7) **4x** 500 x 500 x 500 mm
overall depth: 1000 mm inkl. 100 mm drainage
- 8) **2x** 600 x 400 x 500 mm
overall depth: 1000 mm inkl. 100 mm drainage



Sizes of foundations

are designed for soils class "4-5" (natural ground).

Soil class 4: soft to medium plasticity, interleave bound, with minor portion of stone (portion < 30% with bigger diameter of 63 mm grain size)

Soil class 5: ground with soil class 3 and 4 with big portion of stones (portion > 30% with bigger diameter of 63 mm grain size)

In case of sandy and soft soils, the surface measure of foundations have to be enlarged for about 50%!

(Top edge of concrete 40 cm below play level)

6. Assembly time, once foundations complete: approx. 8 hours.
Required assistance: 3-5 people.
7. Any spare parts which may be required can be obtained directly from your supplier
8. **We hereby confirm that this item of play equipment has been tested and certified in accordance with the play equipment standard EN 1176.**


3 Delivery contents (parts list with part numbers)

3.1 In words

Table 3-1: Delivery contents, in words

Pos.	Quantity	Element / Description	Size	O.K.	Missing
1	2	Head plate	0,93x0,93x0,34 cm		
1a	2	cover plate			
2	8	Wood beam	Ø 18 cm, 7,00 m		
3	8	Wood beam	Ø 18 cm, 5,00 m		
4	4	Wood beam	Ø 18 cm, 2,00 m		
5	2	Wood beam for Pos.14	Ø 18 cm, 4,00 m		
6	2	Tunnel crossbeam short	120 x 100 x 700 mm		
6a	2	Tunnel crossbeam long	120 x 100 x 1300 mm		
7	4	Aluminium chequer plate (A and B)	680 x 1850 mm		
8.1	4	Angle plate (pre-assembled on Pos. 07 / A and B)	1350 x 100 mm		
8.2	4	Angle plate (A and B)	650 x 100 mm		
9	2	Climbing Chimney	4800 mm length		
10	2	Birds nest with ladder and ropes and climbing net			
12	1	Ring tunnel			
13	2	Barg rope bridge			
14	2	Slide	Assembly height 1750 mm		
15	2	Ladder for slide			
16	6	Steel caging	1500 x 1240 mm		
17	1	Horizontal net tunnel			
100	8	Counter eyebolt + acorn nut	M12 x 35 mm + M12		
101	40	Countersunk	M10 x 27 mm		
102	8	Washers	Ø 12 mm		
103	100	Clamps for Pos. 16	15/19 mm		
104	200	ASSY 3.0 screws for Pos.16	5,0 x 50/32 mm		
106	28	Nyloc nuts	M12		
107	28	Washers	Ø 13 mm		
107a	28	Black nut caps	M12		







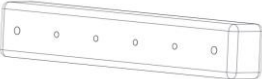
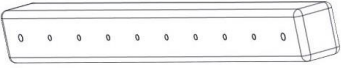
Pos.	Quantity	Element / Description	Size	O.K.	Missing
108	84	Wood screws for Pos.117 and 118	5 x 30 mm		
110	16	Carriage bolt galvanized	M12 x 230 mm		
111	60	Washer	Ø 13 mm		
112	60	Nyloc nuts	M12		
113	60	Nut caps	for M12		
114	8	Oval-head screw V2A (to connect the slide)	M12 x 80 mm		
115	4	Threaded sleeve (to connect the slide)	M12 x 70 mm		
117	28	Post cap	Ø180mm		
		Wood structure connection parts			
119	32	Wood screws (to connect Pos. 01)	M10 x 60 mm		
120	32	Washer	Ø 11 mm		
121	28	Hexagon bolt (Pos. 2/3/4)	M16 x 380 mm		
121b	8	Hexagon bolt	M16 x 320 mm		
122	36	Nyloc nut (Pos. 2/3/4)	M16		
123	64	Washer (Pos. 2/3/4)	Ø17mm		
124	36	Black nut cap	M16		
125	2	Crest cover	Ø 600mm		
126	2	Flag + 3x nut + 1x washer + 1x nyloc nut + 2x nut cap + threaded bolt	M16 x 630 mm M16		
128	32	Stainless steel chain adapter	M12		
128a	32	Fix anchor	M12		
129	2	Ringnut + tooth washer + hexagon bolt galvanized / for raising wooden structure	M16 x 30 mm		
130	36	Ground pegs + bow shackle	300 mm length + M6		
132	3	loctite			
133	8	Post shoes (carriage bolts, washers, end covers 16x)	1250 mm long		
134	4	Anker chain with bow shackle	500 mm length + M8		
135	8	countersunk screw	5 x 50 mm		
200	20	Wooden planks for structure installation	40mm x 60mm x 5000mm		

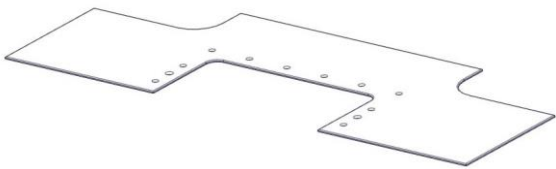
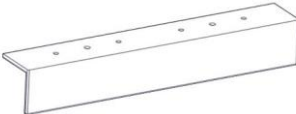
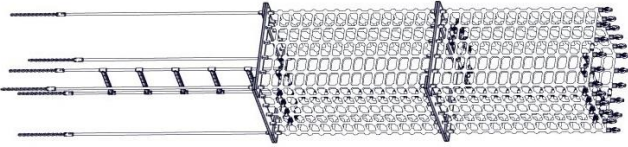


	Abbreviations for diagrams
AB	Setting time for concrete C25/30 Observe prescribed setting periods
BdPg!	The fastening of the individual net elements is the same
D	Concrete C25/30 concrete requirement: 9.4 m ³
DT	Detail
F	Fall protection
G	Drainage layer
a.Einb.	Install anker chain in concrete
KELA	Adjust chain length
O.K	Upper edge of playing level
PS	Safety area
VO	Preassembled
	<p>Sizes of foundations are designed for soils class“4-5” (natural ground).</p> <p>Soil class 4: soft to medium plasticity, interleave bound, with minor portion of stone (portion < 30% with bigger diameter of 63 mm grain size)</p> <p>Soil class 5 : ground with soil class 3 and 4 with big portion of stones (portion > 30% with bigger diameter of 63 mm grain size)</p> <p>In case of sandy and soft soils, the surface measure of foundations have to be enlarged for about 50%!</p>


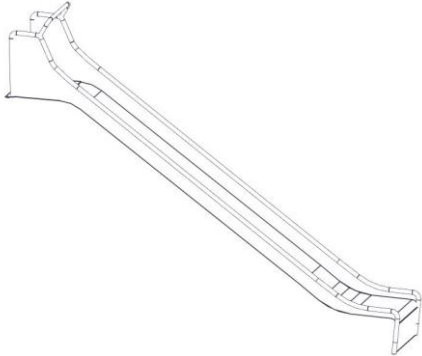

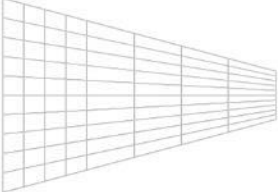
See drawings for details of shortcuts

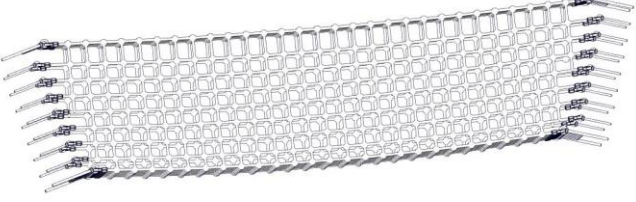



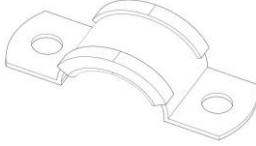

In symbols



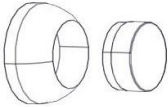



Table 3-2: Delivery contents, in symbols






Pos.	Quantity	Symbol
1	2	 0,93x0,80x0,34 m
1a	2	 cover plate
2	8	 Ø 18cm, 7,00m lg.
3	8	 Ø 18cm, 5,00m lg.
4	4	 Ø 18cm, 2,00m lg.
5	2	 Ø 18cm, 4,00m lg.
6	2	 120 x 100 x 700 mm
6a	2	 120 x 100 x 1300 mm

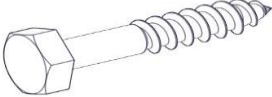





Pos.	Quantity	Symbol
7	4	 <p data-bbox="861 571 1085 604">680 x 1850 mm</p>
8	4	 <p data-bbox="869 772 1077 806">650 x 100 mm</p>
9	2	
10	2	 <p data-bbox="766 1478 1189 1512">Honeycomb nest, Ø1000 mm</p>
12	1	 <p data-bbox="798 1926 1157 1960">Ring diameter Ø800 mm</p>



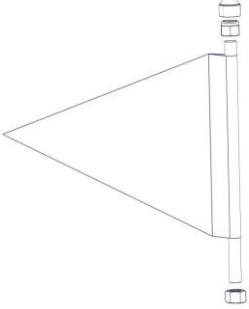
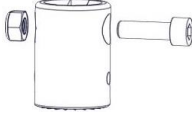
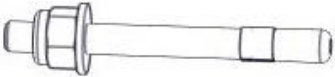
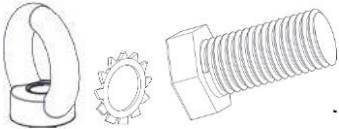
Pos.	Quantity	Symbol
13	2	 <p>Rope length approx. 1500 mm</p>
14	2	 <p>Slide length approx. 3800 mm</p>
15	2	 <p>Ladder length 1800 mm</p>
16	6	 <p>1500 x 1240 mm</p>



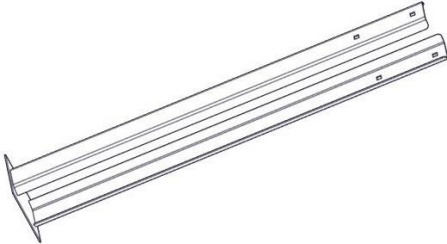
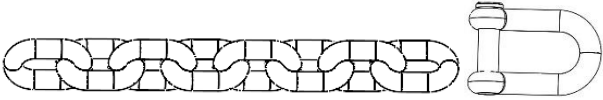

Pos.	Quantity	Symbol
17	1	 <p data-bbox="798 604 1157 638">Approx. 4800 mm length</p>
100	8	 <p data-bbox="742 784 1212 817">M12 x 35 mm + M12, for Pos. 09</p>
101	40	 <p data-bbox="790 1030 1157 1064">M10 x 27 mm, for Pos. 09</p>
102	8	 <p data-bbox="821 1265 1133 1299">Ø 12 mm, for Pos. 09</p>
103	100	 <p data-bbox="813 1568 1141 1601">15/19 mm, for Pos. 16</p>
104	200	 <p data-bbox="774 1724 1181 1758">5,0 x 50/32 mm. for Pos. 16</p>

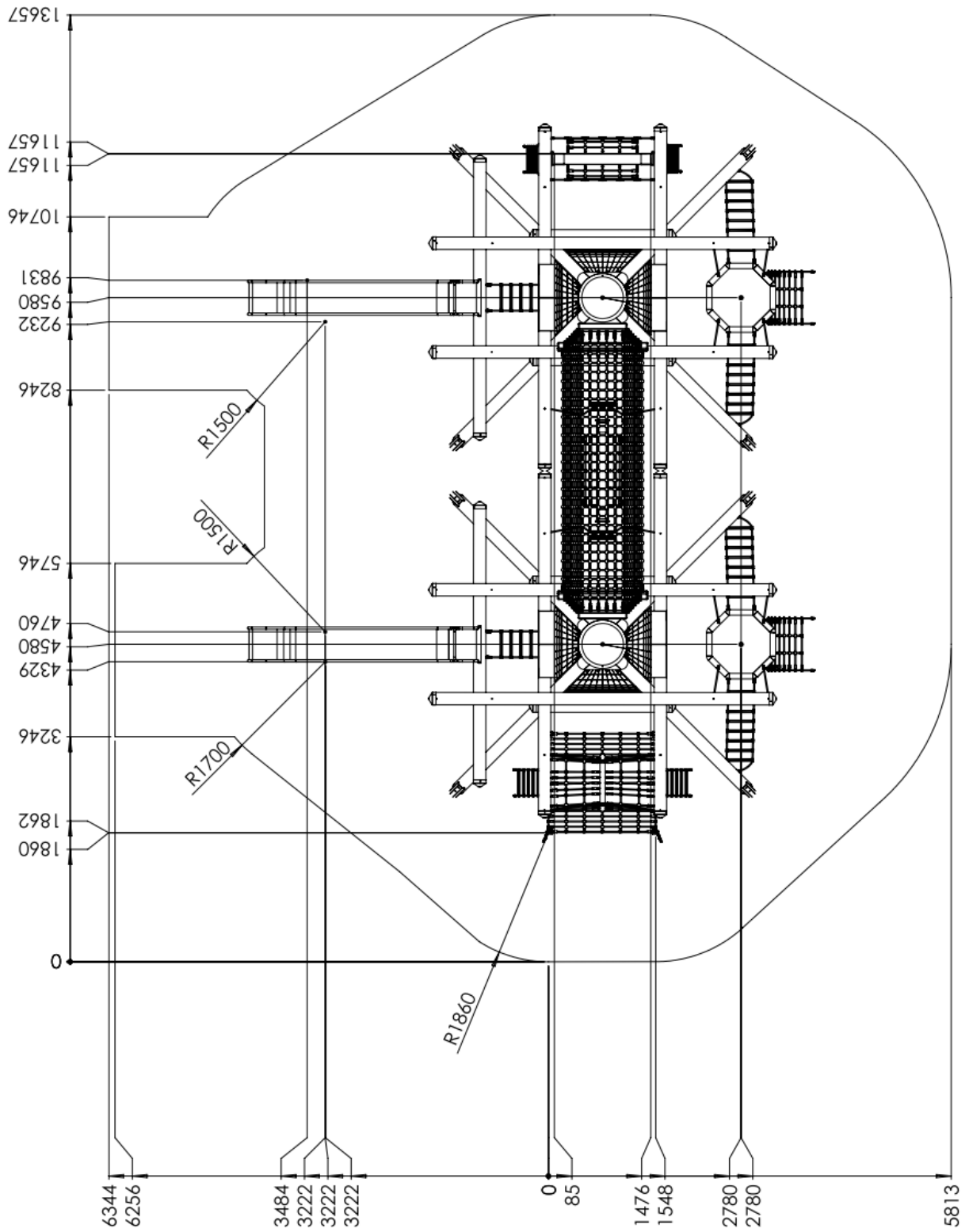
Pos.	Quantity	Symbol
106	28	 M12
107	28	 Ø 13 mm
107a	28	 M12
108	84	 5 x 30 mm
110	20	 M12 x 230 mm
111	96	 Ø 13 mm

Pos.	Quantity	Symbol
112	96	 M12
113	96	 Ø 12 mm, VO Pos. 06
114	8	 M12 x 80 mm
115	4	 M12 x 70 mm
117	28	 Ø 180 mm
Wood structure connection parts		

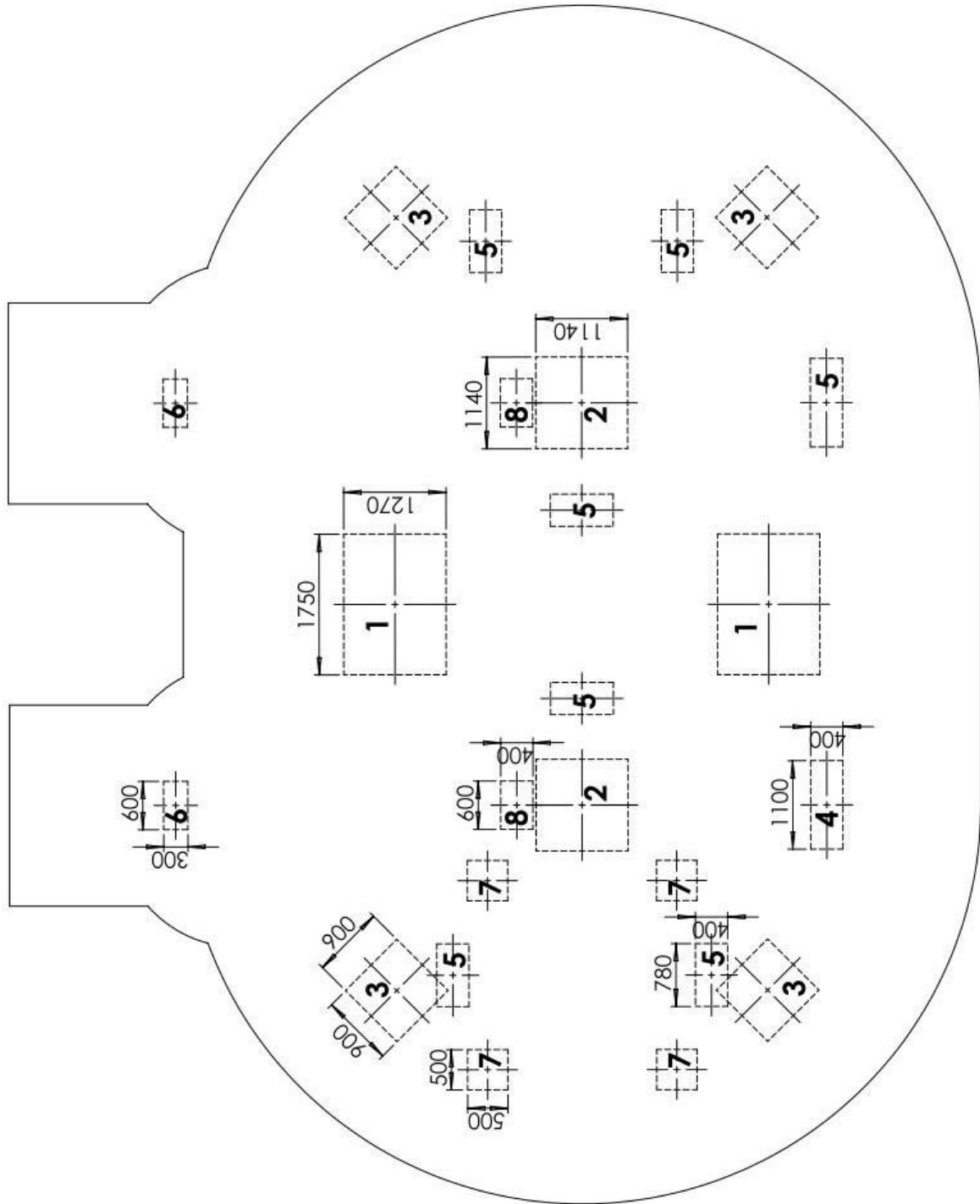
Pos.	Quantity	Symbol
119	32	 10 x 60 mm, for Pos. 01
120	32	 Ø 10 mm, for Pos. 01
121	28	 M16 x 380mm, for Pos. 2/3/4
121b	4	 M16 x 320 mm
122	36	 M16, for Pos. 2/3/4
123	64	 Ø 17 mm, for Pos. 2/3/4

Pos.	Quantity	Symbol
124	36	 <p>Ø 16 mm, for Pos. 2/3/4</p>
125	2	 <p>Ø 600 mm</p>
126	2	 <p>pre-assembled</p>
128	32	 <p>M12</p>
128a	32	 <p>M12</p>
129	2	 <p>M16 x 30 mm, galvanised</p>

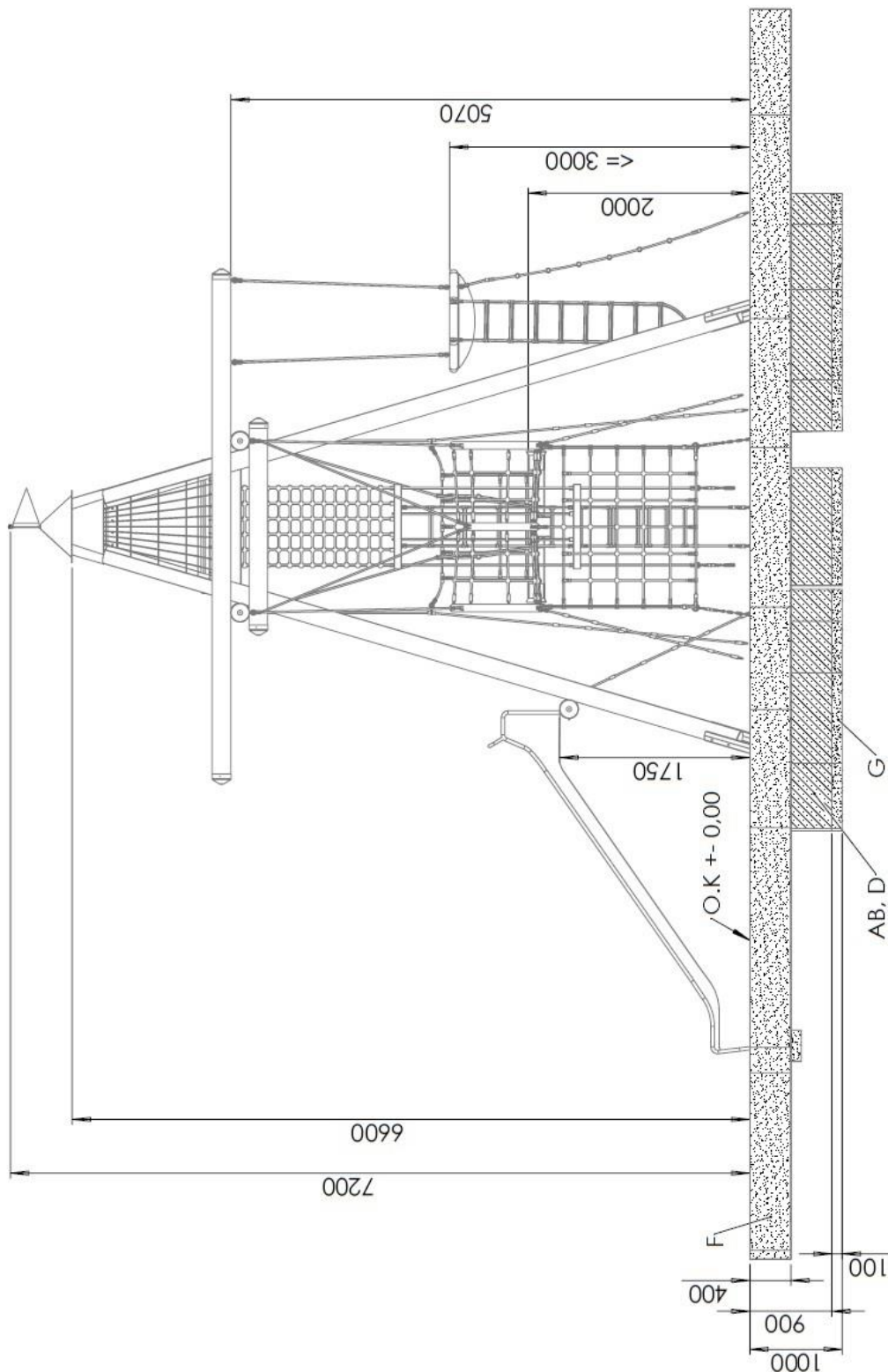
Pos.	Quantity	Symbol
130	4	 <p>300 mm + M6 geschweift</p>
132	3	 <p>Loctite</p>
133	8	 <p>1250 mm</p>
134	4	 <p>500 mm</p>
135	8	 <p>countersunk screw 5 x 50 mm</p>
200	20	<p>Wood planks provided by customer</p>

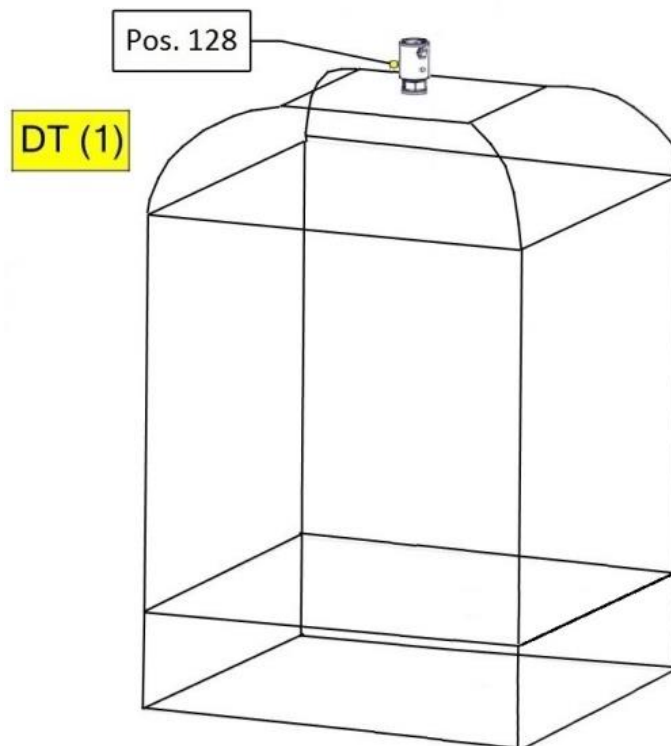
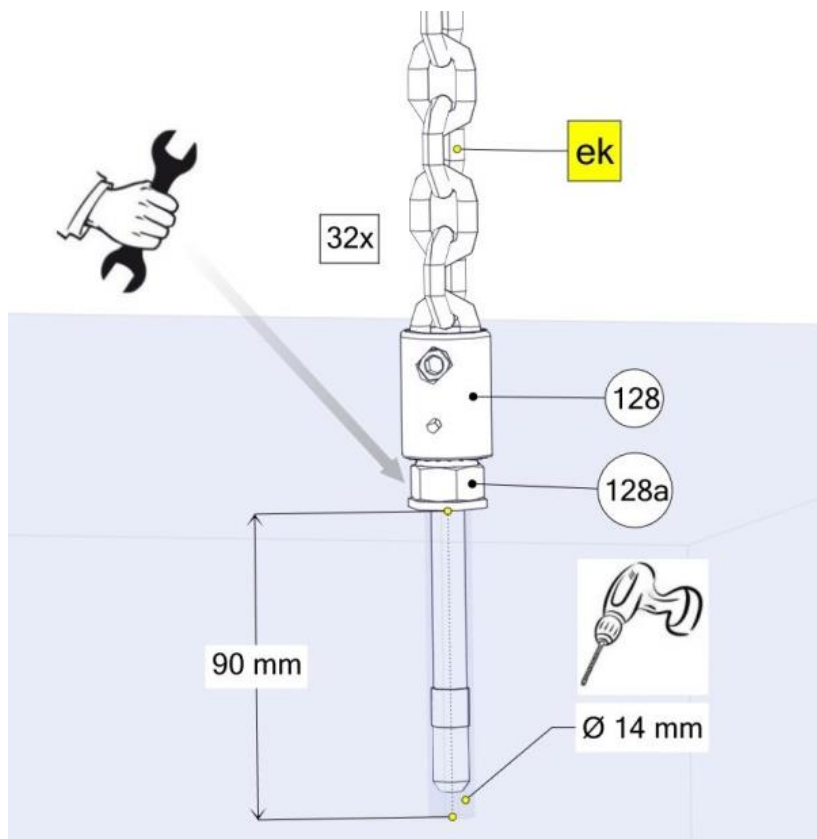


Foundations sizes

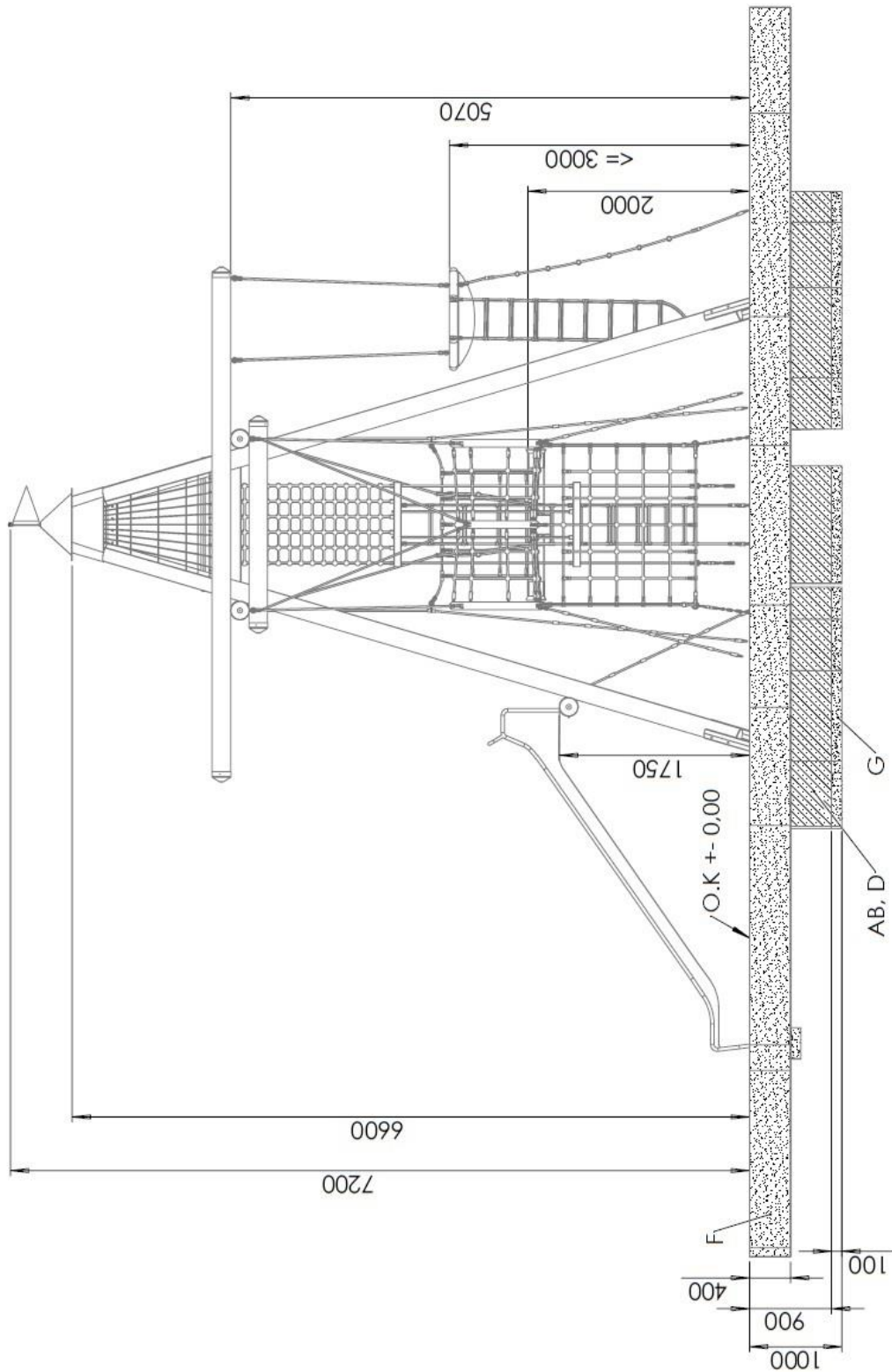


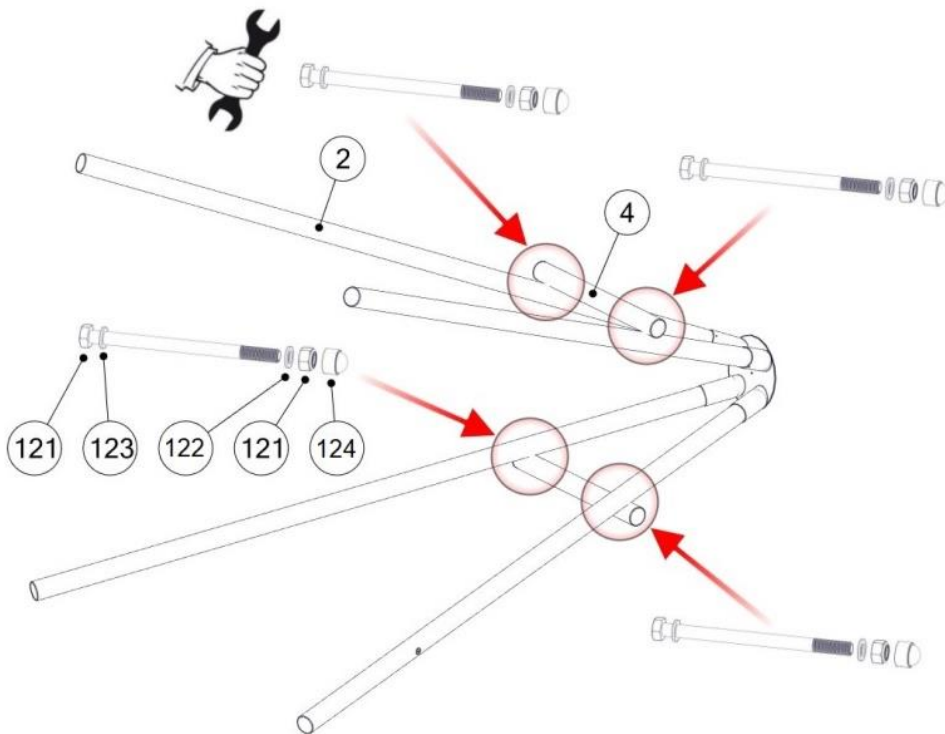
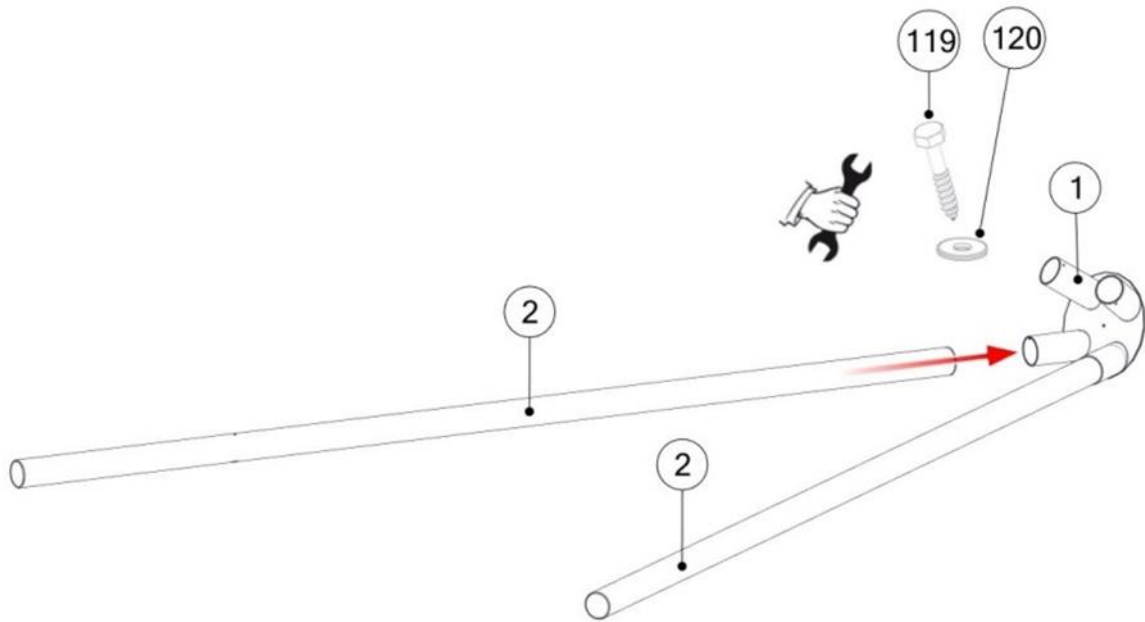
Foundation depth

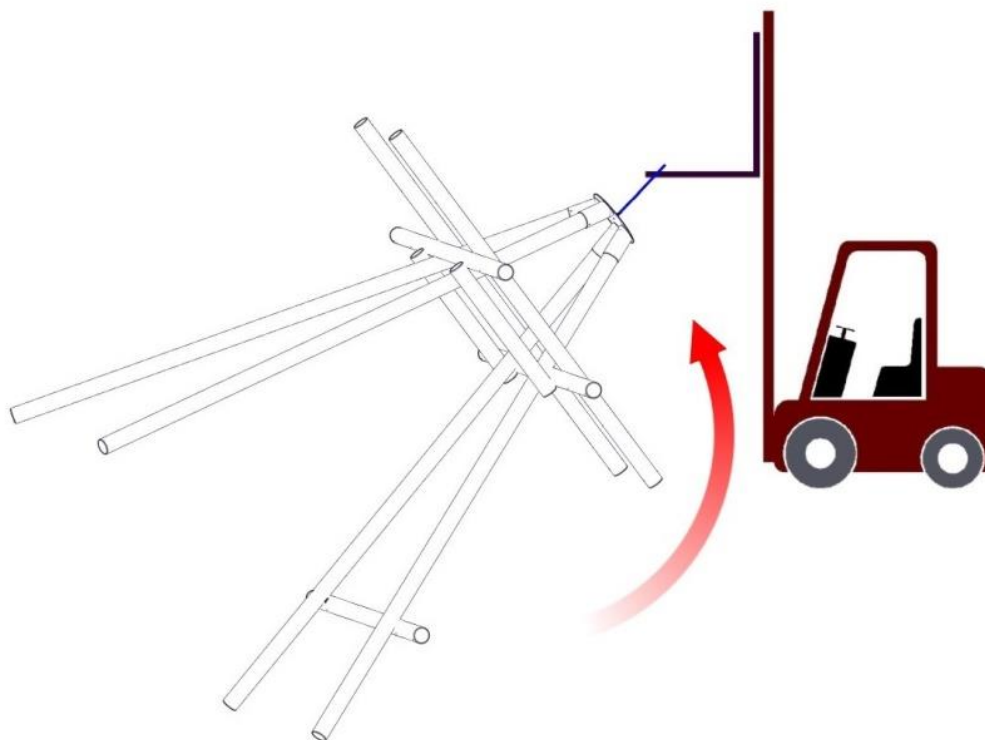
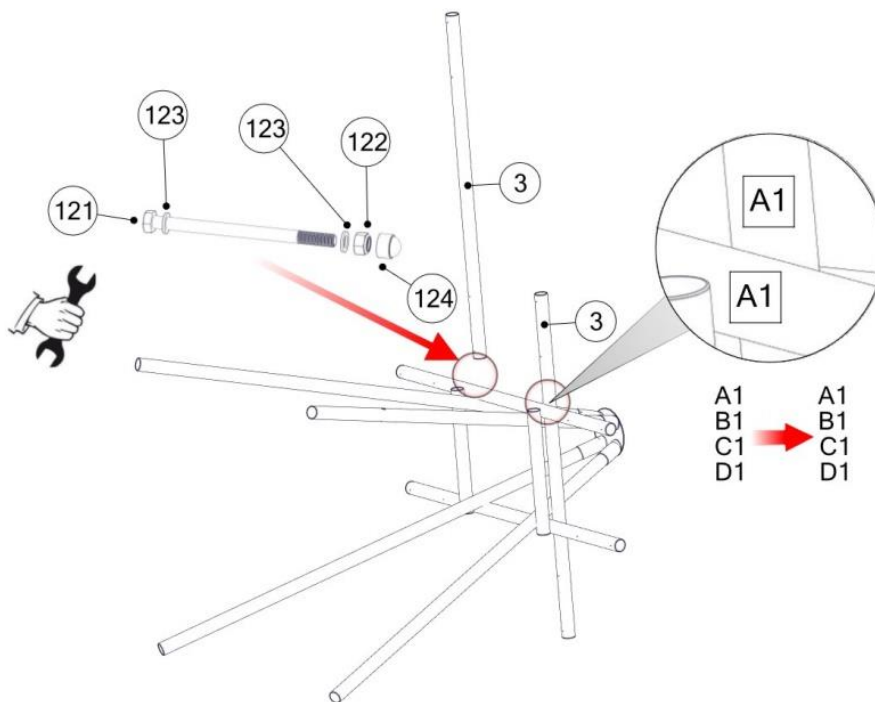


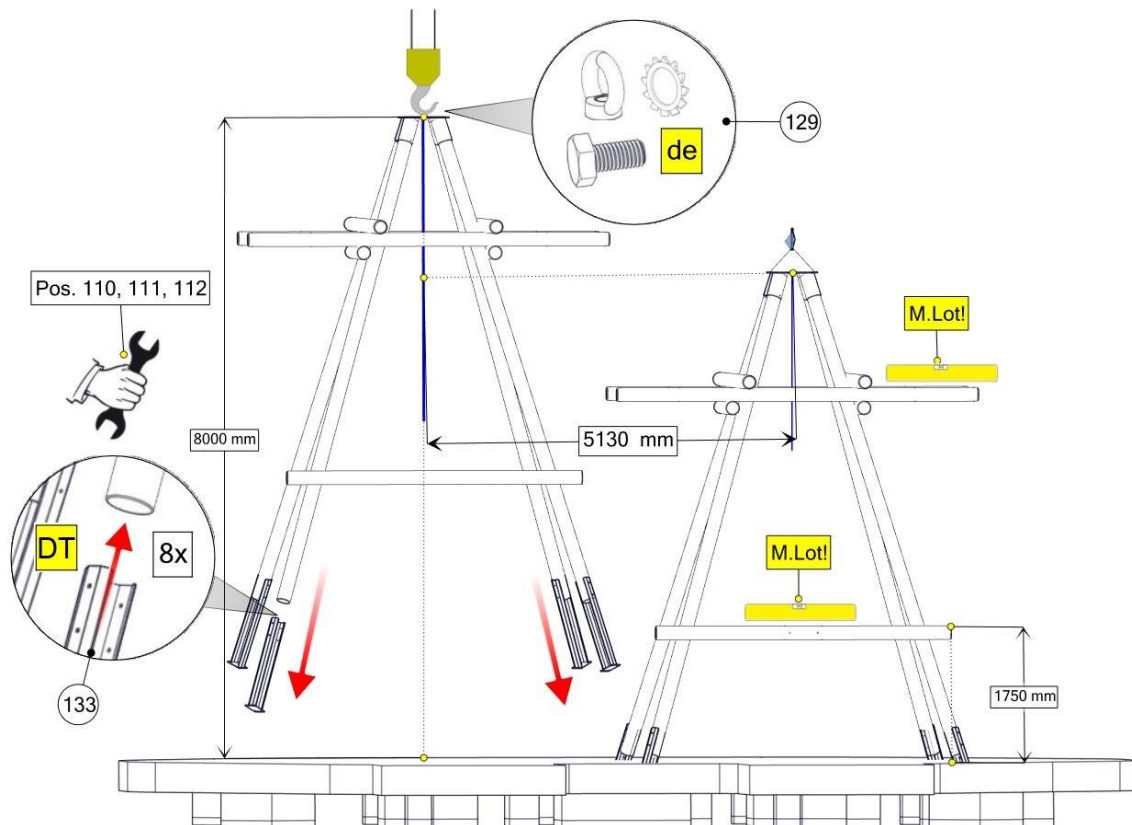
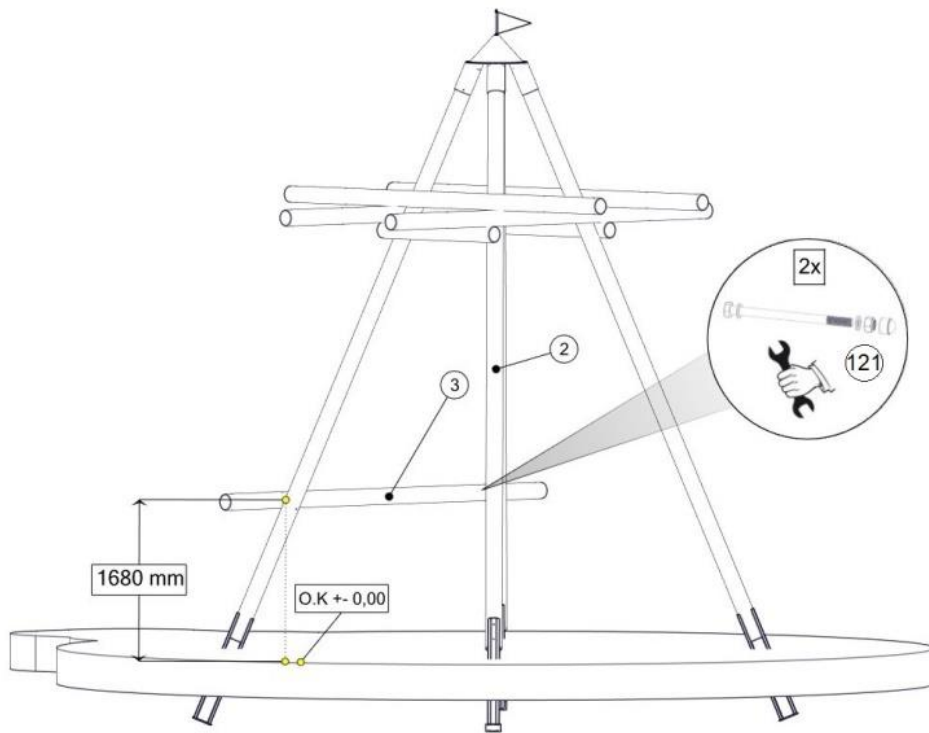


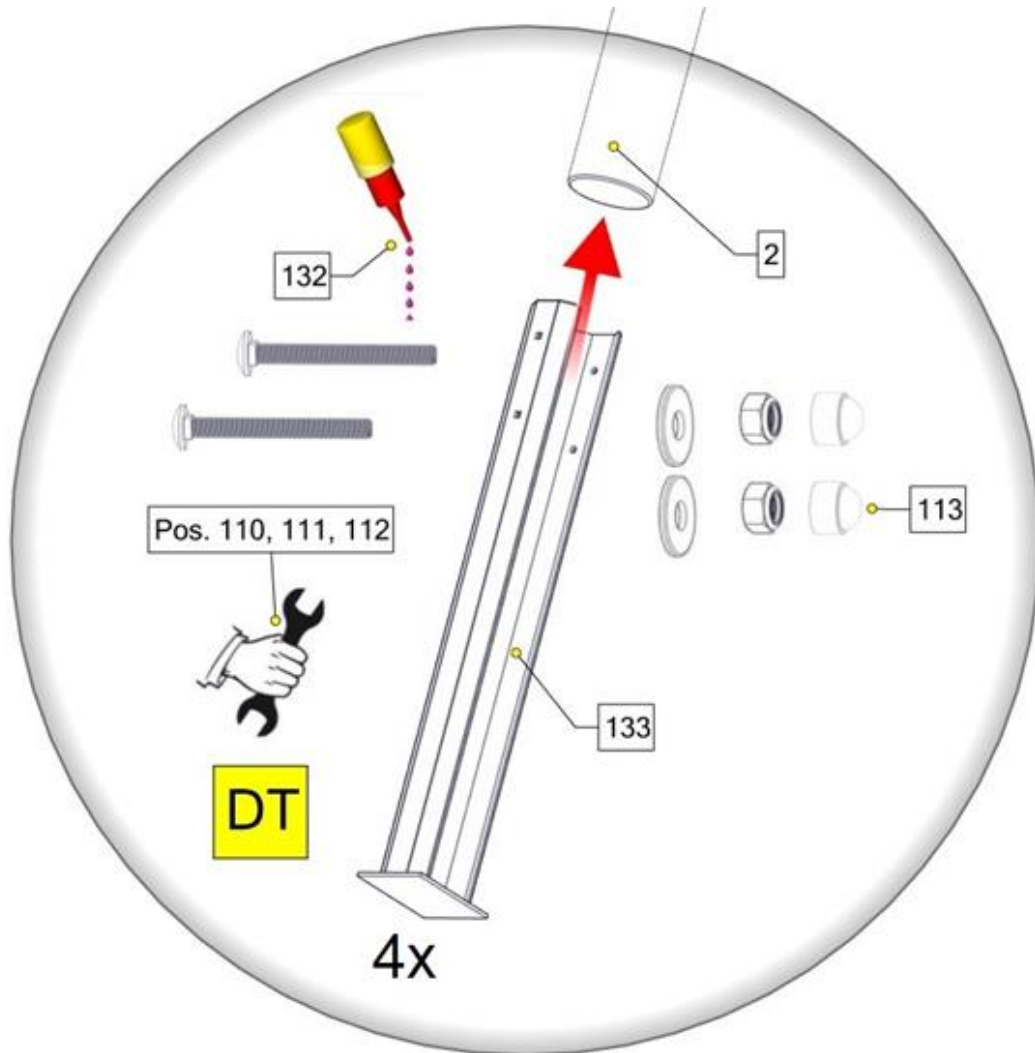
Device height

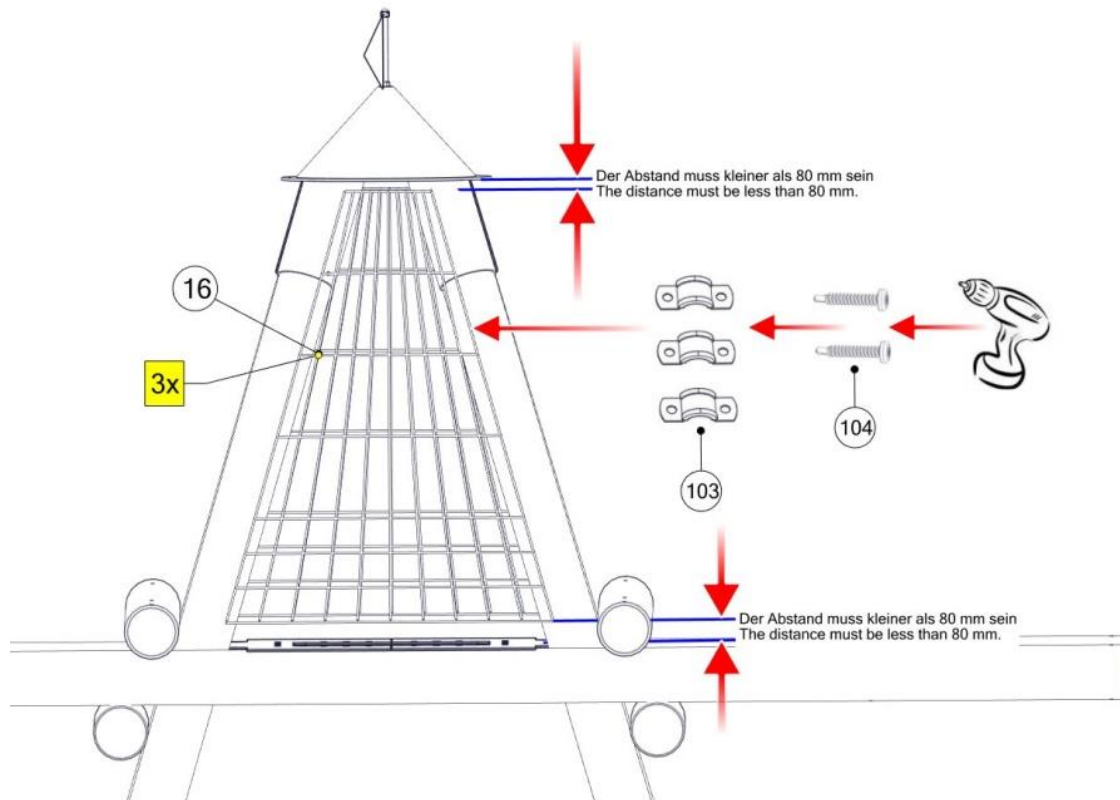
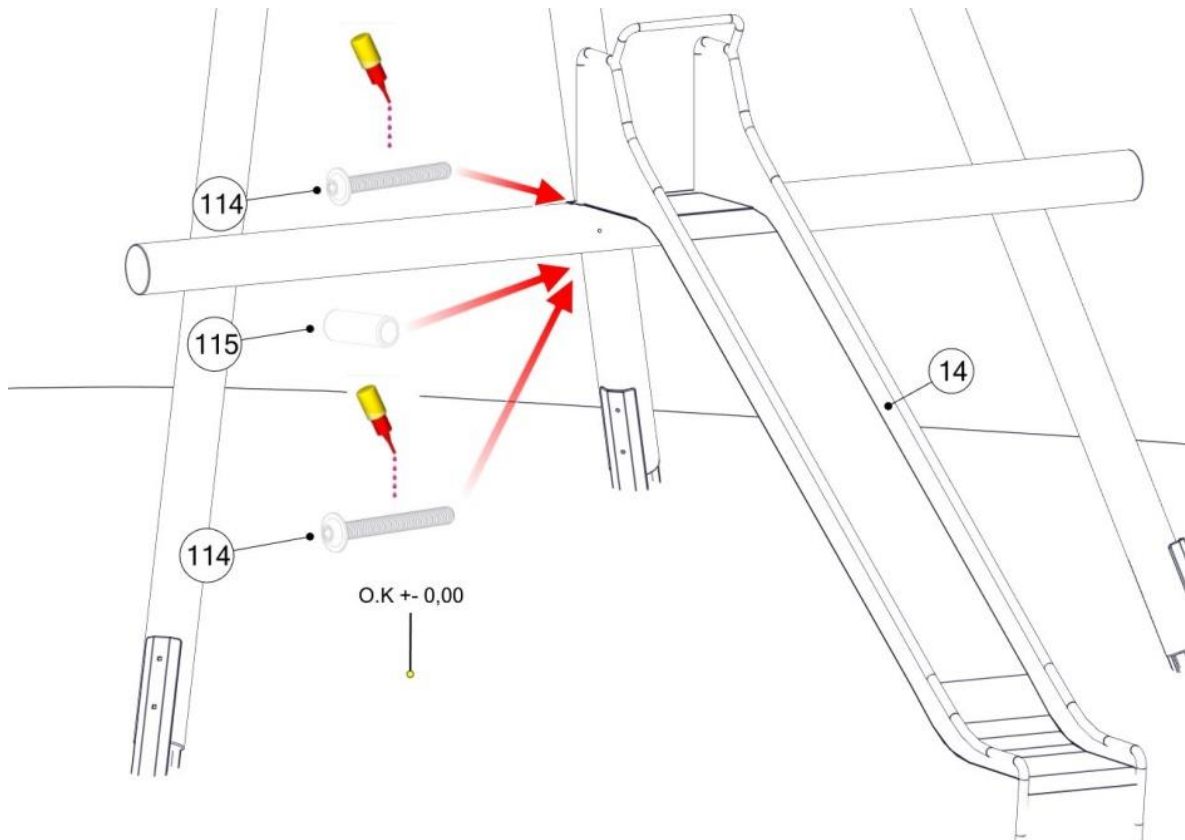


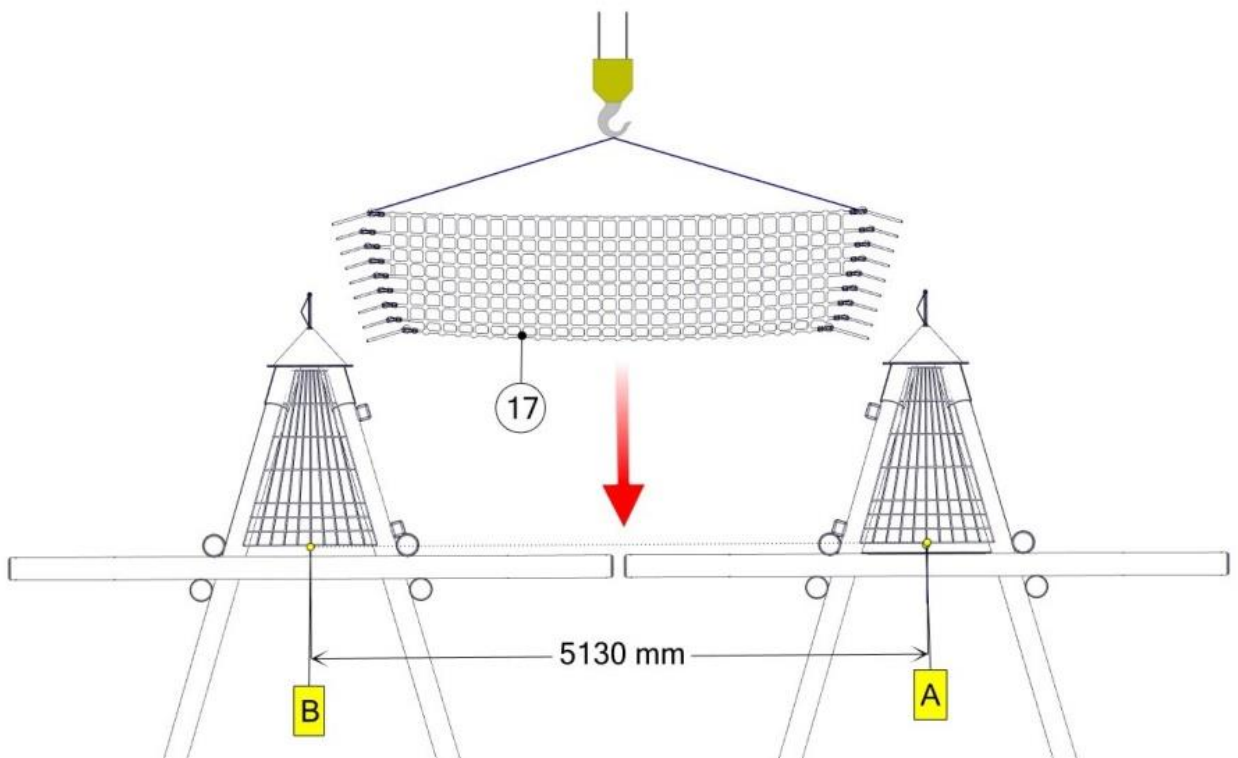
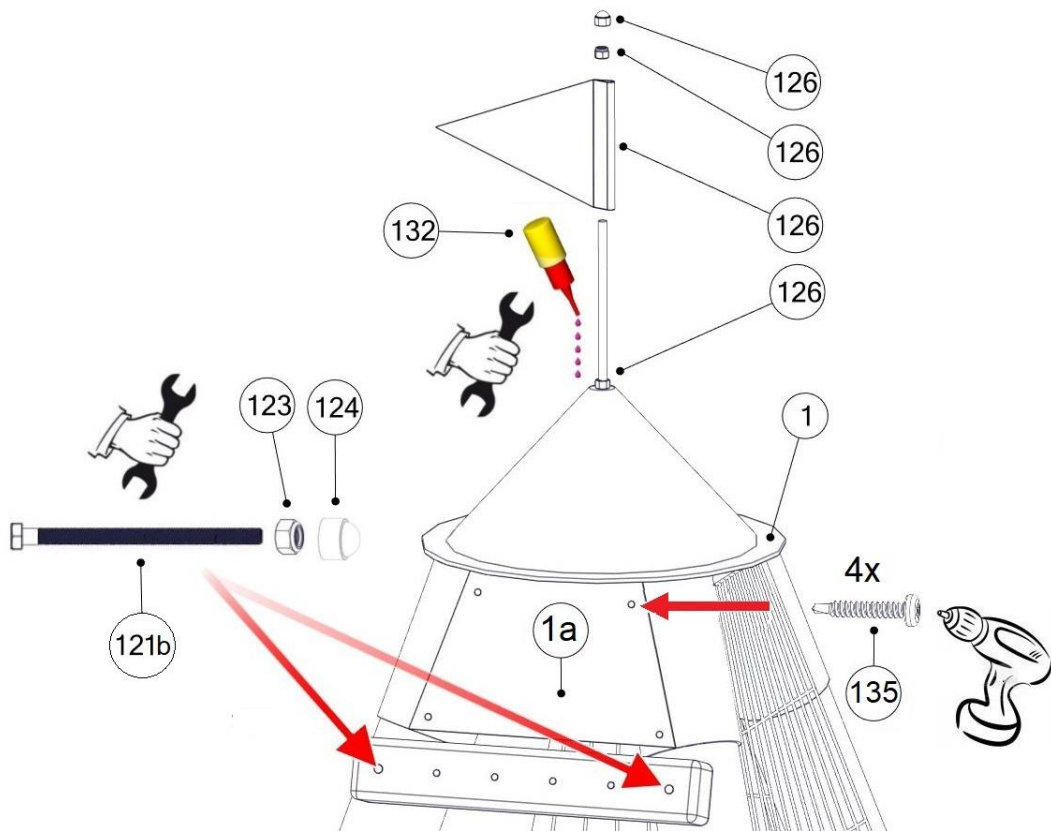


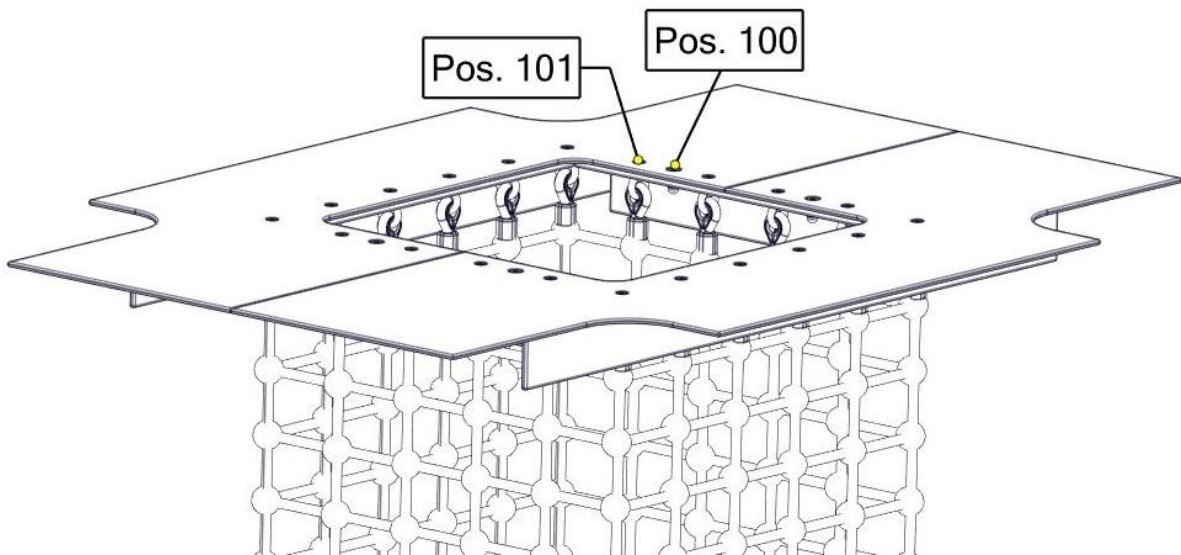
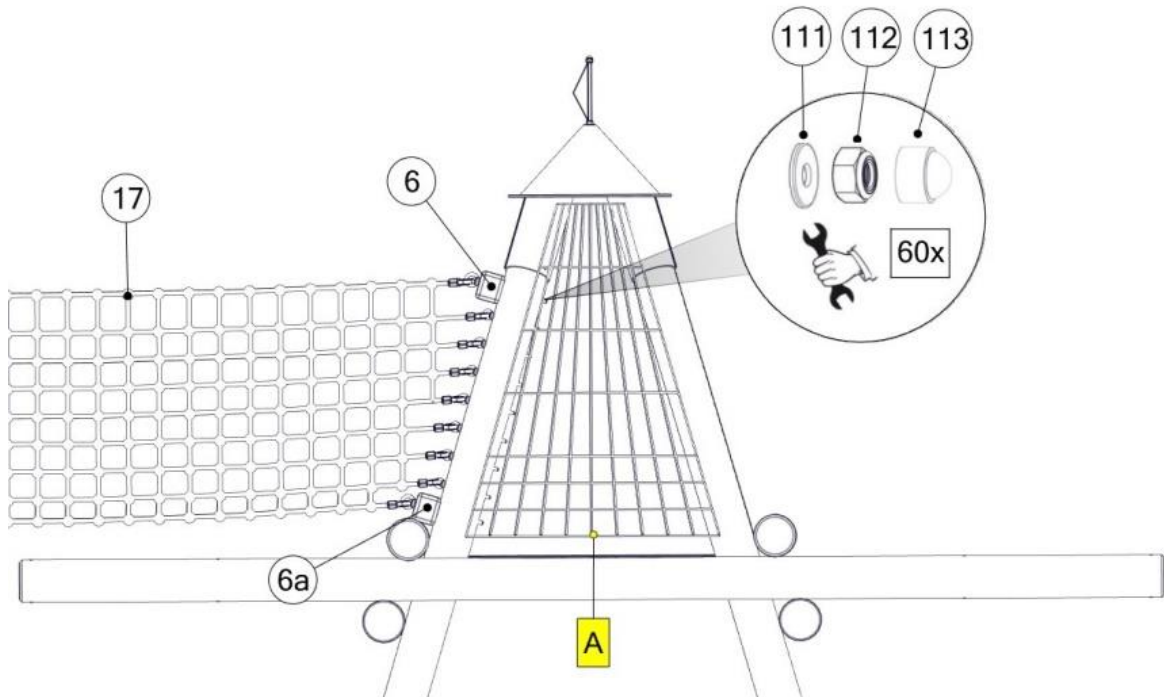


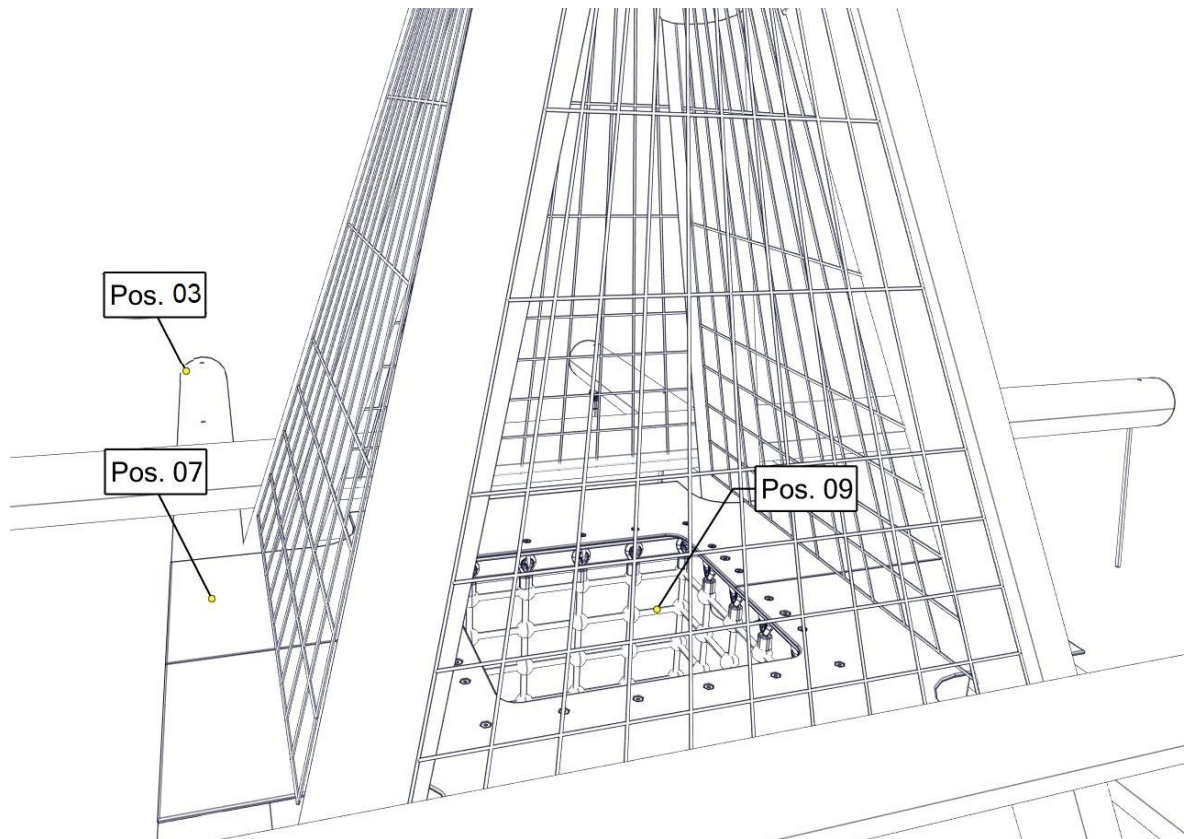
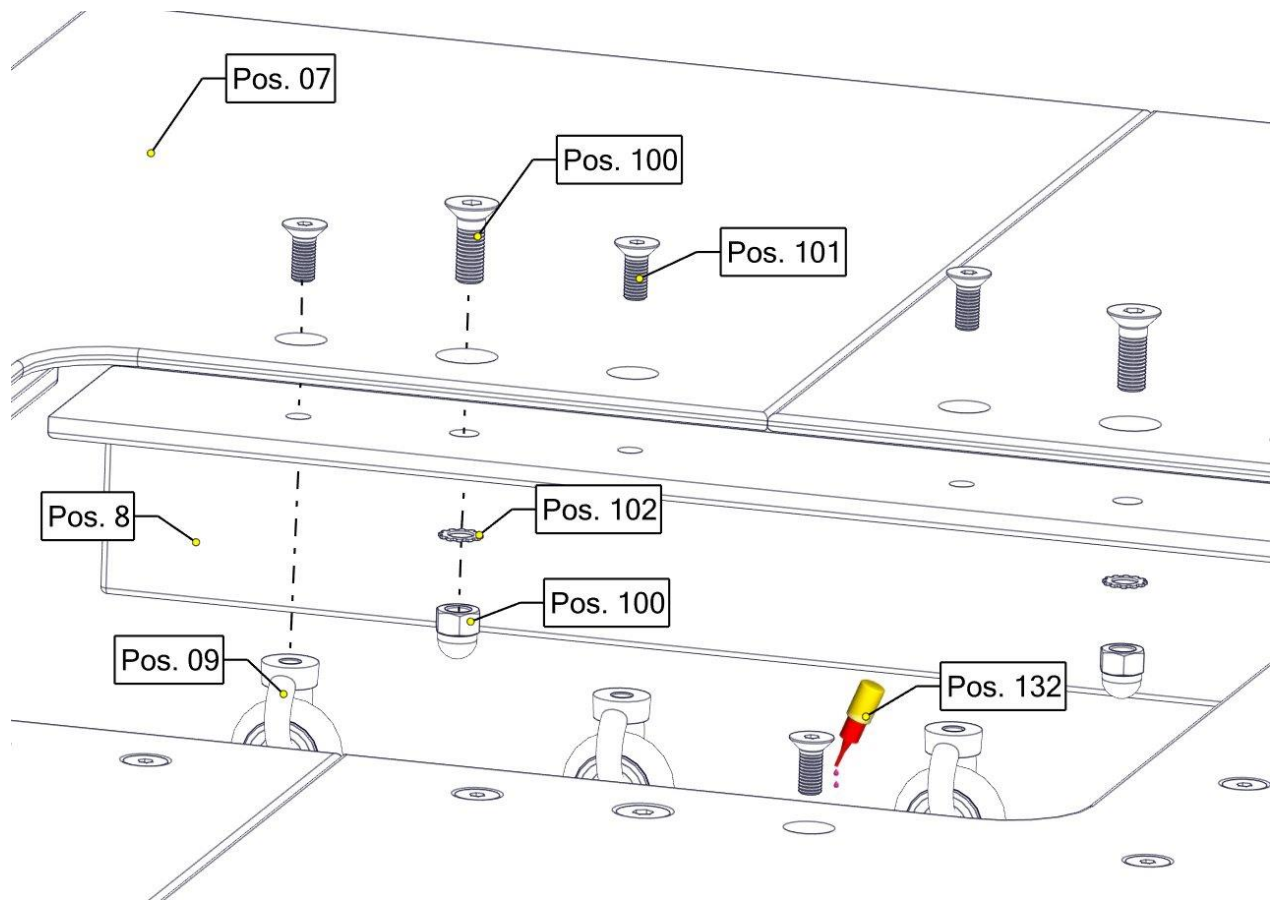


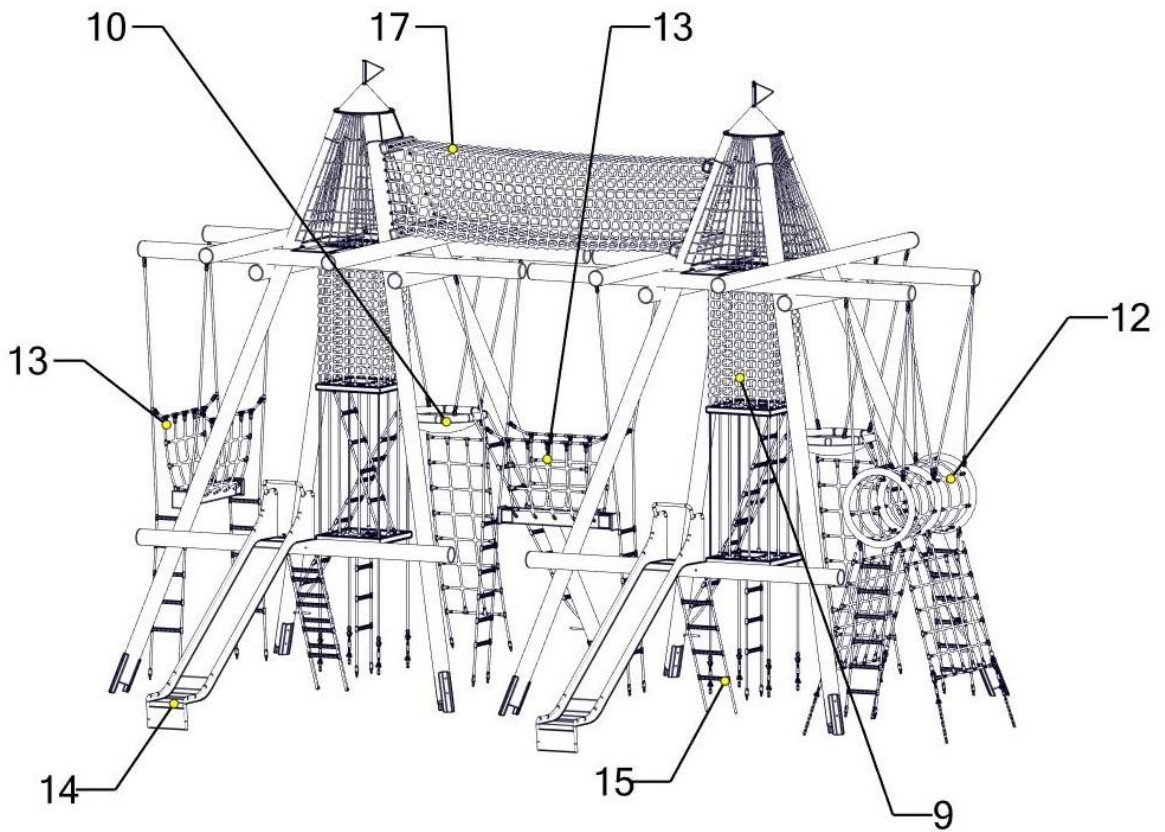
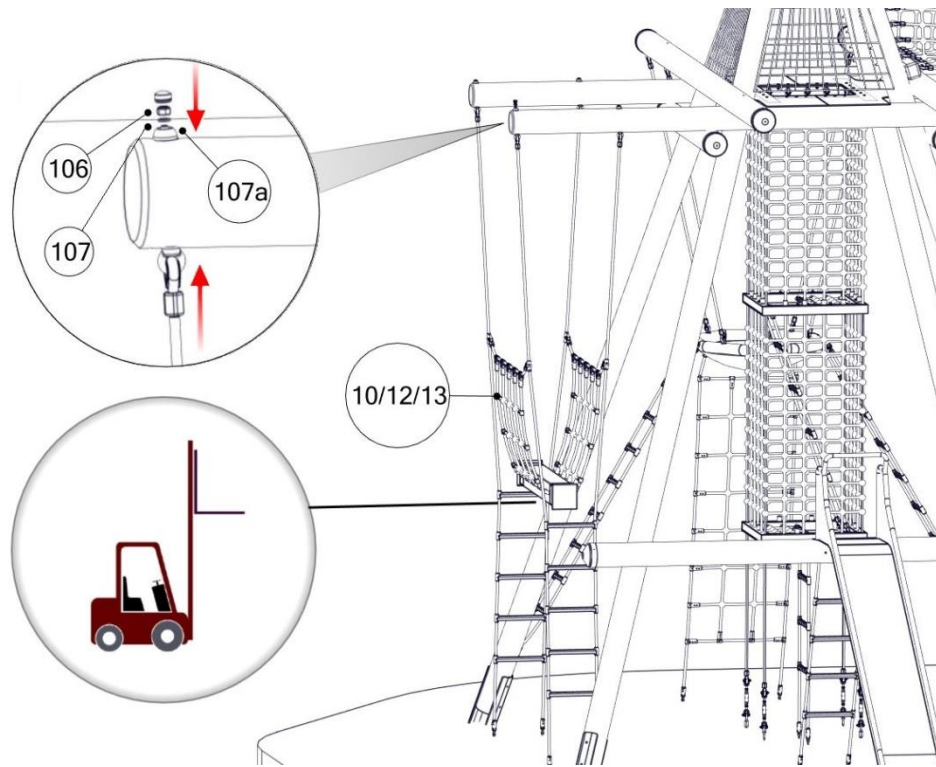


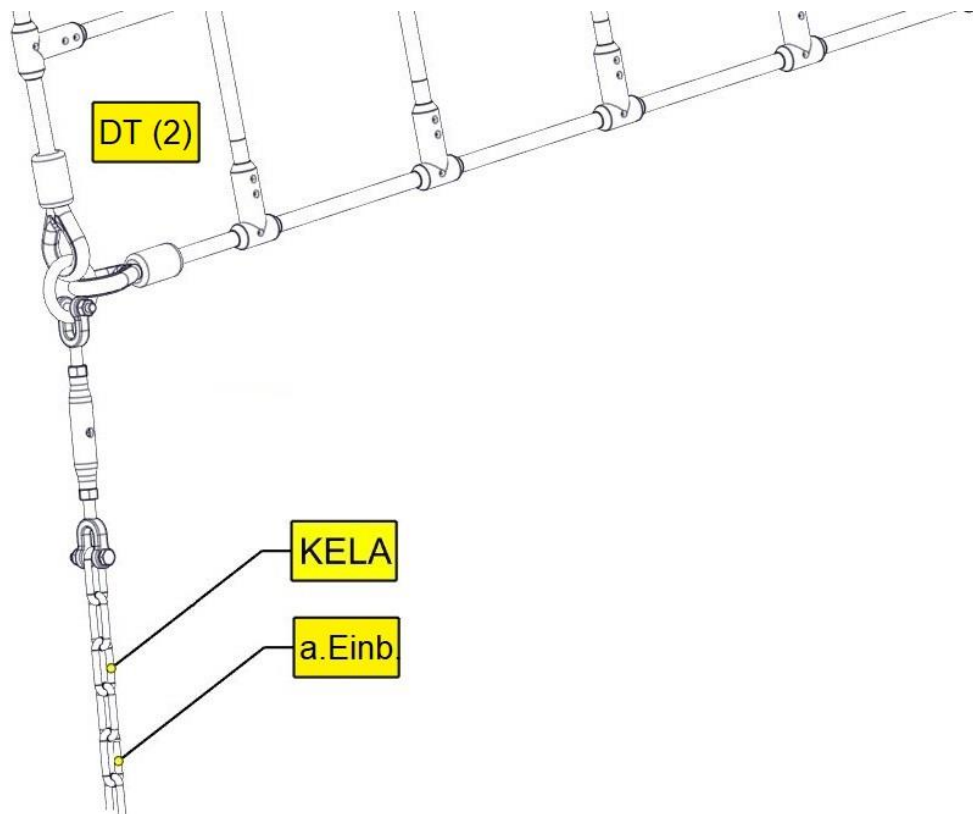
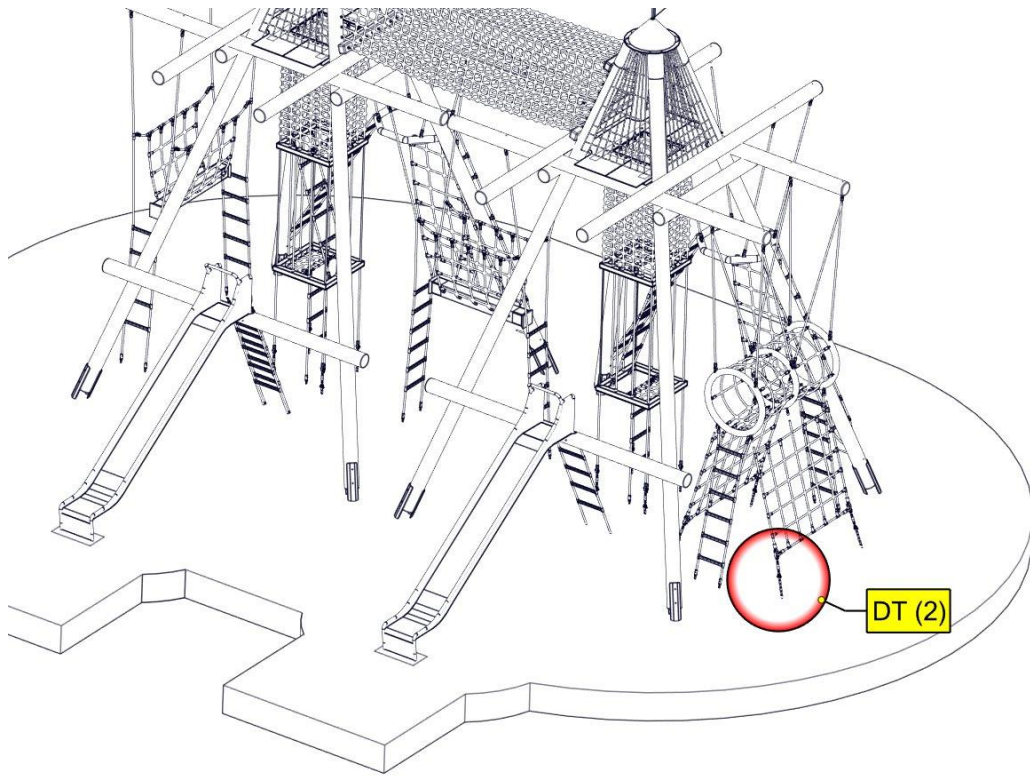












Drawings / Views

All optical drawings are showing only the measurements/dimensions and are no mandatory technical views of the complete item.

We reserve the right to change technical details of our articles which are serving for the further development of our articles and are reasonable for the customer.

Measurement tolerances

Because of the properties and characteristics of the components, minor measurement tolerances compared to the indication on the sketches are possible.

This concerns all shown measurements except the foundation measurements resp. measurements below upper edge ground level/play area.

5 Post installation checks



Notice

If the equipment has not been installed safely, you must ensure that the public is prevented from using it.

5.1 Marking filler depth

- Labelling the posts to show the depth of material provided as fall protection (i.e. loose filler).

5.2 The equipment has not been installed safely in the following cases:

- Safe equipment installation is not complete.
- The protective surface has not been installed yet.
- Appropriate maintenance work cannot guarantee operational safety.

5.3 Removal of all assembly aids

- Please make sure that all assembly aids have been removed from the playing area. The equipment must not be approved for use until this check has been made.

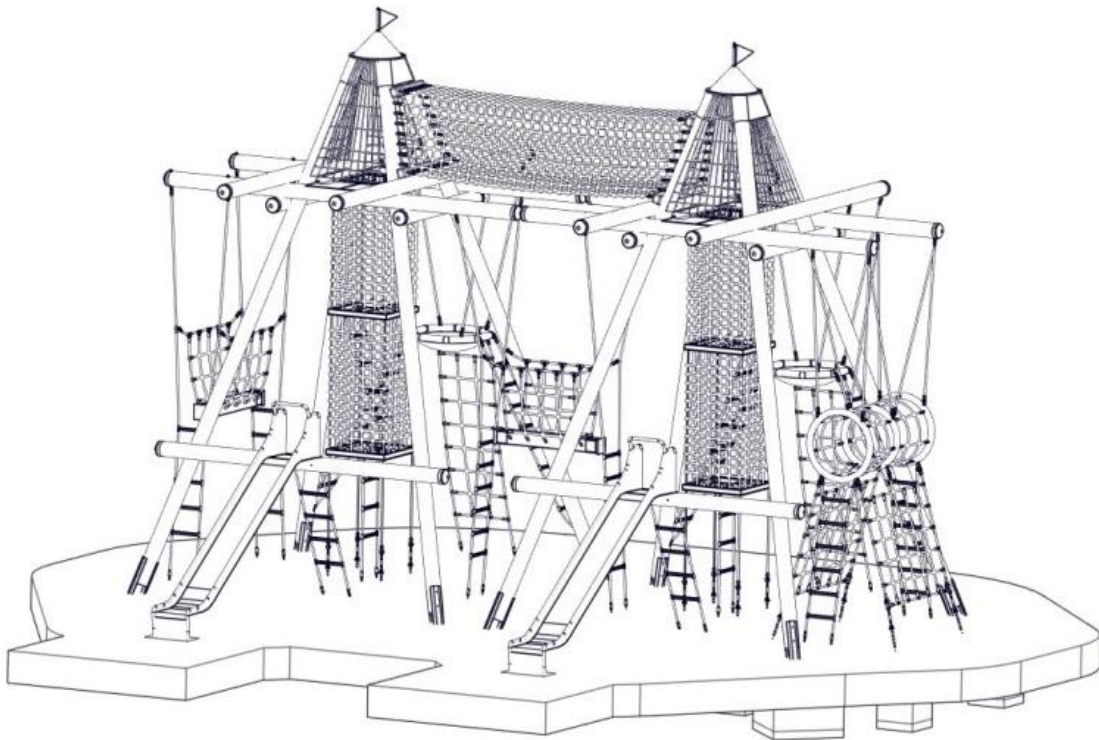
5.4 Information about inspection of the equipment before it is used for the first time

- There are no special inspection requirements to be met before the equipment is used for the first time.

5.5 Retighten bolts

- After one week of play, please retighten all bolts again. Later upon respective maintenance.

B Maintenance Instructions **Birds Nest Tower “Black Forest”** **Art. 4652-23**



Revision history

Revision 0 – 2015-03-04

The first released version

Revision 07 – 2020-09-04

Sechskantschraube M16 x 400 mm hinzu FH

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6 Introduction Maintenance

6.1 General informations

This equipment should be installed, inspected, maintained and operated in accordance with EN 1176-7 guidelines.



Please note: Providing any necessary repairs are carried out, a piece of play equipment that is inspected regularly cannot become so damaged that it is dangerous.

Any spare parts which may be required can be obtained directly from your supplier.



This equipment should only be assembled, maintained and repaired by **persons with the necessary expertise**.

A copy of the inspection record should be given to the operator, who must confirm receipt.

**This maintenance instruction is based on the standard
“EN 1176-1:2017”.**

7 General maintenance information

7.1 Maintenance intervals

Maintenance intervals are based on average use. Please note that more frequent inspections and/or maintenance are required if the play equipment is subject to intensive use.

7.2 Inspection frequency

The frequency of inspections must be based on actual use. Factors that affect frequency include vandalism, location (e.g. coastal proximity), air pollution and the age of the equipment.

7.3 Maintenance products and procedures

All nuts and bolts are hot-dip galvanised or stainless steel. One of the characteristics of stainless steel is that uncontrolled cold welding may occur when the nuts are tightened. To prevent this, it is necessary to spray the nuts and bolts with Teflon spray or another similar lubricant.

7.4 Spare parts

All spare parts must conform to the manufacturer's specifications.

7.5 Identifying spare parts

All spare parts are listed in the parts list. The parts list follows the installation requirements.

7.6 Special instructions for the disposal of individual equipment components

No special instructions are necessary for the disposal of individual equipment components.

7.7 Special measures during the break-in period

No later than 2 weeks after assembly, all screwed connections should be checked and tightened if necessary.

7.8 Drainage holes

All drainage holes should be kept clear.

7.9 Maintenance of protective surfaces

Surfaces providing fall protection must also be maintained regularly. It is particularly important to maintain the correct level of loose surface material and add more if necessary.

7.10 Faults



Faults must be repaired as soon as they are detected. If serious defects that compromise safety cannot be repaired straight away, the public must be prevented from using the equipment with immediate effect.

7.11 Loose screws



Loose screws always cause quality problems and put safety at risk. Therefore, loose screws should always be tightened and checks carried out to ensure that there are no missing screws (e.g. look out for holes you can see through).

7.12 Preventing equipment use

Use of the equipment should be prevented in the event of incomplete installation, disassembly, maintenance, repairs and faults.

7.13 Claims/liability for faults

Steel posts and footings are guaranteed if regular maintenance is carried out and recorded in writing. Our general terms and conditions apply. Maintenance first takes place after 3 years. The steel posts must be excavated as far as the concrete foundations and checked for corrosion.

Zinc paint should be applied to any corroded areas and scratches.

Check ropes for abrasion. Retreat any that are very worn.

Specific maintenance advice

8 Maintenance timetable

8.1 Special advices

8.1.1 Maintenance interval

We strongly advise you to carry out inspections and maintenance work within the specified periods as use of the equipment, the weather and malicious vandalism cause wear and tear that compromises the safety and function of the equipment.

8.1.2 Maintenance intervals in the event of intensive use

Please note that more frequent inspections and/or maintenance are required if the play equipment is subject to intensive use.

8.1.3 Faults that compromise safety



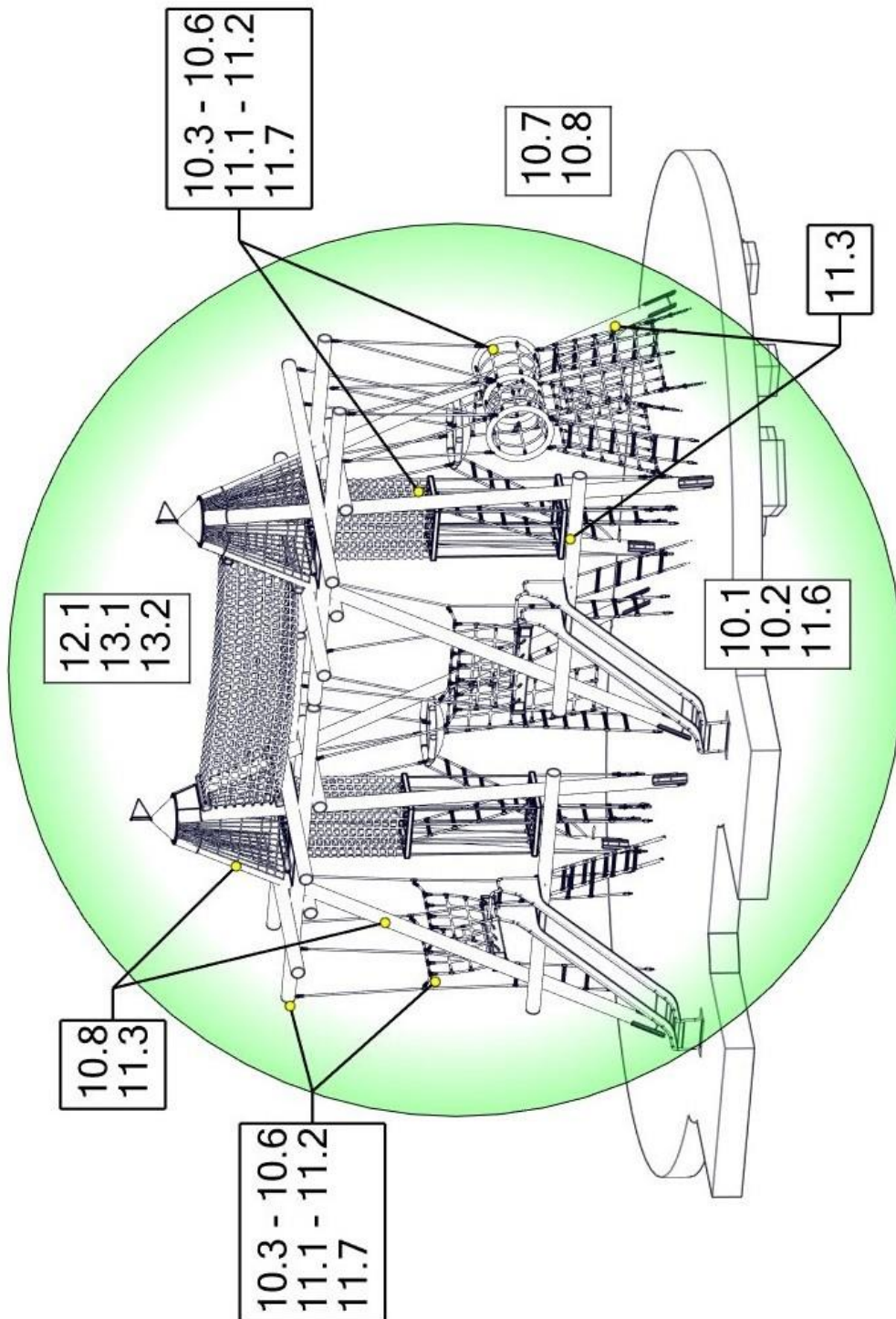
In the event of a fault that compromises safety, quick action must be taken. This may involve repairing it immediately or shutting down and dismantling the equipment.

8.1.4 Faults that compromise function



Faults that compromise function should also be repaired immediately. Such faults lower the value of the equipment to the user and encourage malicious vandalism, which may render the equipment less safe. Any damage should also be repaired immediately.

9 Regular maintenance



10 Monthly maintenance

- **11.1** Check the spaces between the equipment and the ground (clearance and height of fall).
- **11.2** Check the ground surface in the area with fall protection for hard objects and loose foundations.
- **11.3** Check all connecting elements and fittings for wear and tear and tighten if necessary. Replace damaged or missing parts.
- **11.4** Check that moving metal parts (joints, springs, etc.) move smoothly and are not worn. Replace if necessary. It is not necessary to lubricate joints as we only use maintenance-free metal roller bearings.
- **11.5** Check all attachments such as chains, ropes, nets, etc. for damage and replace if necessary.
- **11.6** Check rubber parts, sleeves, etc. for wear and tear or damage and replace if necessary.
- **11.7** If necessary, remove excess padding material from the post footings due to danger of rotting.
- **11.8** Check the surface of wooden parts for damage caused by the weather or external influences and mould. Repair or replace if necessary.
- **11.9** Check the surface of plastic and metal parts, e.g. slides, for damage and replace if necessary.

11 Quarterly maintenance

- **12.1** Detailed inspection of the operation and stability of the equipment paying particular attention to any wear and tear.
- **12.2** Tighten all forms of attachment.
- **12.3** Repaint and retreat surfaces.
- **12.4** Maintenance of fall protection surfaces.
- **12.5** Lubrication of joints.
- **12.6** Check the height of the fall and top up with loose filler if necessary. If the posts are labelled, top up as far as the mark.
- **12.7** Retighten all bolts

12 Half yearly maintenance

- **12.1** Stability (check posts, bracing, foundations, etc.). Ascertaining whether there are any changes in equipment safety as a result of repairs that have been carried out or components that have been added or replaced.



Annual Maintenance

13 Annual maintenance

- **13.1** Ascertaining that the equipment, foundations and surfaces are safe for operation.
- **13.2** In particular, the equipment should be checked for decay and corrosion. It may be necessary to dig out or excavate certain components in order to do so. Zinc paint should be applied to corroded areas and scratches.



The equipment must be inspected by someone **with the necessary expertise** in strict compliance with the instructions issued by Huck Seiltechnik GmbH.

A copy of the inspection record should be given to the operator, who must confirm receipt.

14 Maintenance printout

Name of item: Birds Nest Tower “Black Forest”/ Art. No. 4652-23 _____

Location: _____

Customer or operator: _____

(Town, Town council, Kindergarten)

Date of inspection	Inspector	O.K.	Accessible	Barriered	Defects	Repaired by	Date

Please copy and return once a year after main inspection has been carried out to the manufacturer by Telefax 0049 6443 83 11 79. Place the confirmation form in your existing play equipment files.

15 Hand over document



After the installation of the equipment pass the installation and maintenance documents to the operator. The operator has to receive the hand over documents. The complete filled and signed hand over document should be sent to the supplier.

Art.-No.: 4652-23

Type of item: Birds Nest Tower "Black Forest"

Serial number:

Customer or operator (Town, Town council, Kindergarten, etc.):

Competent person in charge:

Installation company (address):

Responsible assistant (assembler):

Received the complete assembly instructions, maintenance instructions and maintenance printout.

(Signature of operator)
(Stamp)

(Signature of installation company)

Date: _____
