

Operator: _____

Location:_____

Revision history Revision 0 – 2017-02-06 Revision 2 – 2018-11-19 Änderungen n. Angaben JF FH The first allowed version Assembly Instructions All rights reserved © Copyright 2017 Huck Seiltechnik GmbH

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The equipment must be installed by someone with the necessary expertise in strict compliance with the instructions from Huck Seiltechnik GmbH that are <u>delivered</u> with the equipment . Use only the Installation instructions that are delivered with this equipment!

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

1 Introduction Assembling

1.1 General information

This equipment should be installed, inspected, maintained and operated in accordance with ASTM F1487-17 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 level 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 in case of any other questions.



After installation the 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.



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 ASTM F1487-17.

Drawings / Views

All optical drawings are showing only the measurements/dimensions and are not standard technical views of the complete item. The Images (individual drawings) are not to scale!

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 below upper edge ground level/play area.

2 Data sheet: Midi Birds Nest Tree, Art. 4652-10

- 1. Component zone: Ø 8.16 m (321.25 inches)
- 2. Safety zone: Ø 8.16 m (321.25 inches)
- 3. Fall height 2000 mm (78.75 inches)
- 4. Minimum compressed loose-fill surfacing depths (refer to ASTM F1292 and ASTM F2223-10)

| Inches | of | (loose fill material) | Protects to | Fall height (feet) |
|---|---------------------------|-----------------------|-------------|--------------------|
| 4* | | r | 6.6 | |
| 14.9 Sand | | | | 6.6 |
| 11.9 | 11.9 Pea gravel | | | |
| 8.5 | 8.5 Wood mulch(non-CCA) 6 | | | |
| 6 | | Wood chips | | 6.6 |
| *Shredded/recycled rubber loose-fill surfacing does not compress in the same manner as other loose-fill materials. However, care should be taken to | | | | |

5. Name and overall dimension of the largest component:
1x Steel post length 208.66" (5300 mm), Ø 7.63" (Ø 193,7)

maintain a constant depth as displacement may still occur.

- 6. Name and weight of the heaviest component: 1x Steel post, approx. 291 pounds (131 kg)
- 7. Intended age group: 5 to 12 years

8. Please note that this equipment is set in concrete.

Concrete: C25/30

Required concrete: 99 ft³ (2,8 m³)

Foundations/area to be excavated: excavated (All foundations must be brought to equal level!)

4 x 51.18" long x 51.18" wide, total depth 27.56" including 3.94" drainage **1** x 51.18" long x 51.18" wide, total depth 51.18" including 3.94" drainage **(4** x 1300 mm long x 1300 mm wide, total depth 700 mm including 100 mm drainage)

(1 x 1300 mm long x 1300 mm wide, total depth 1300 mm including 100 mm drainage)



Round off foundation edges (min.R = 100 mm)! Types of foundation soil are "A&B" (natural ground).

Soil type A : Cohesive, plastic soils with unconfined compressive strength greater than 1.5 ton per square foot (tsf)(144 kPa), and meeting several other requirements (with a lateral soil pressure of 25 psf per ft of depth.

Soil type B: Cohesive soils with unconfined compressive strength between 0.5 tsf (48 kPa) and 1.5 tsf (144 kPa), or unstable dry rock, or soils which would otherwise be Type A (with a lateral soil pressure of 45 psf per ft of depth.

In case of sandy and soft soils, the total size of the foundations have to be enlarged by at least 50%!

- 9. Assembly time, once foundations completed: 3 hours. Required assistants: 3 persons.
- 10. Any spare parts which may be required can be obtained directly from your supplier.
- 11. We hereby confirm that this item of play equipment has been tested and certified in accordance with the play equipment standard ASTM F1487-17.

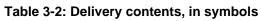
3 Delivery contents (parts list with part numbers)

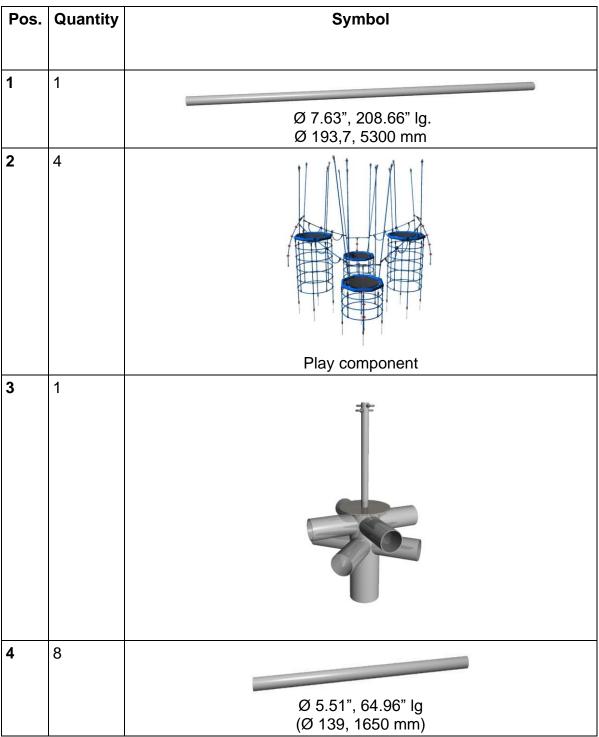
3.1 In words

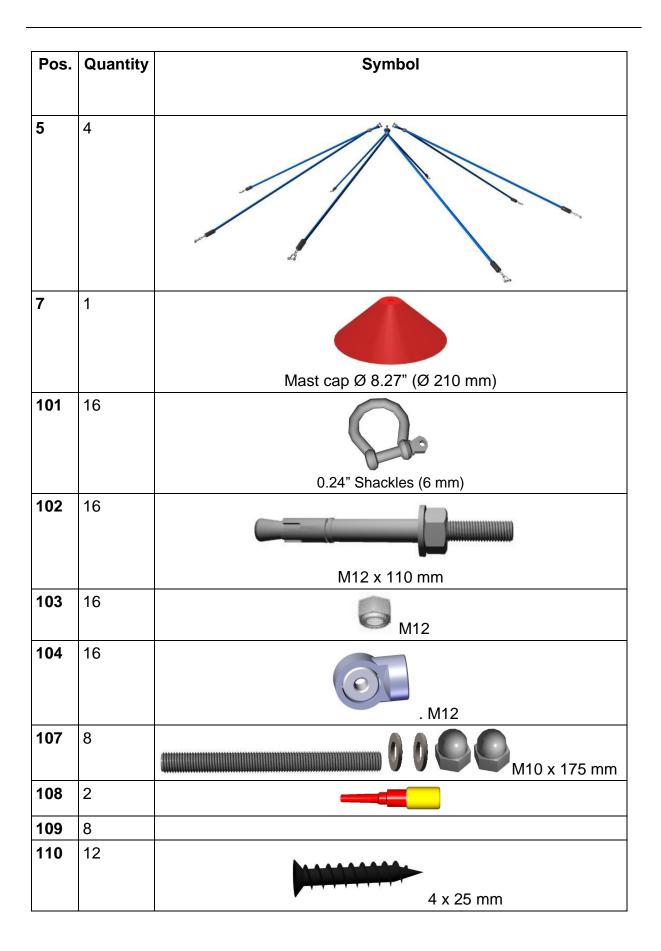
Table 3-1: Delivery contents, in words

| Pos. | Pos. Quantity Element / Description | | Size | 0.K. | Missin g |
|-------------|--|----------------------------------|--------------------------------------|------|-------------|
| 1 | 1 | Steel post | Ø7.63" x 208.66" | | |
| | | | (Ø 193,7, 5300 mm) | | |
| 2 | 1 | Play component | | | |
| 3 | 1 | Steel crossbeam connector | | | |
| 4 | 8 | Crossbeams | Ø5.51", 64.96" lg | | |
| | | | (Ø 139, 1650 mm) | | |
| 5 | 4 | Top ropes | | | |
| 7 | 1 | Mast cap | Ø 8.27" (Ø 210 mm) | | |
| 101 | 16 | Shackle | 0.24" | | |
| 102 | 16 | Rawlplug | M12 x 110 mm | | |
| 103 | 16 | Nyloc nut+ washer + | M12 | | |
| | | nut cap | | | |
| 104 | 16 | Bearing adapter | aring adapter M12 | | |
| 107 | 8 | Threaded bolt, washer, acorn nut | d bolt, washer, acorn . M10 x 175 mm | | |
| 108 | 2 | Loctite | | | |
| 109 | 8 | Allen screws | M12 x 25 mm | | |
| 110 | 12 | Screws | 4x25 mm | | |
| 111 | 1 | Steel base plate | 19.69" x 19.69" | | |
| | | | (500 mm x 500 mm) | | |
| ٨ | 1 | Middle Foundation Pipe | Ca. Ø10" x 33.5" | | |
| <u> /!\</u> | | (provided by Customer) | (Ø 250 mm x 850 mm) | | |

3.2 In symbols

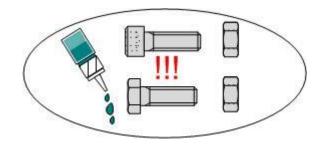






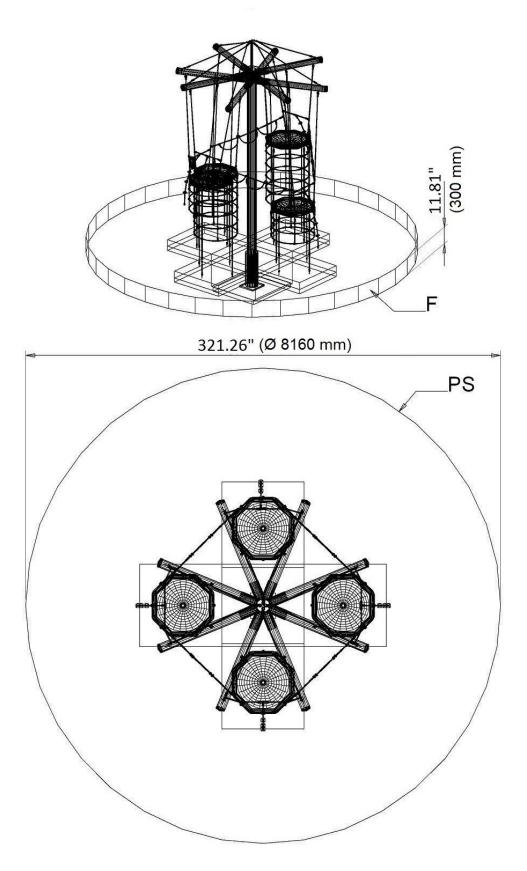
| Pos. | Quantity | Symbol |
|------|----------|--|
| 111 | 1 | |
| | | 19.69" x 19.69" (500 mm x 500 mm) |
| | 1 | |
| | | Middle Foundation Pipe |
| | | (provided by Customer) ca. Ø 10" X 33.5" long |
| | | (Ø 250 x 850 mm) |

Loctite-Thread locking adhesive

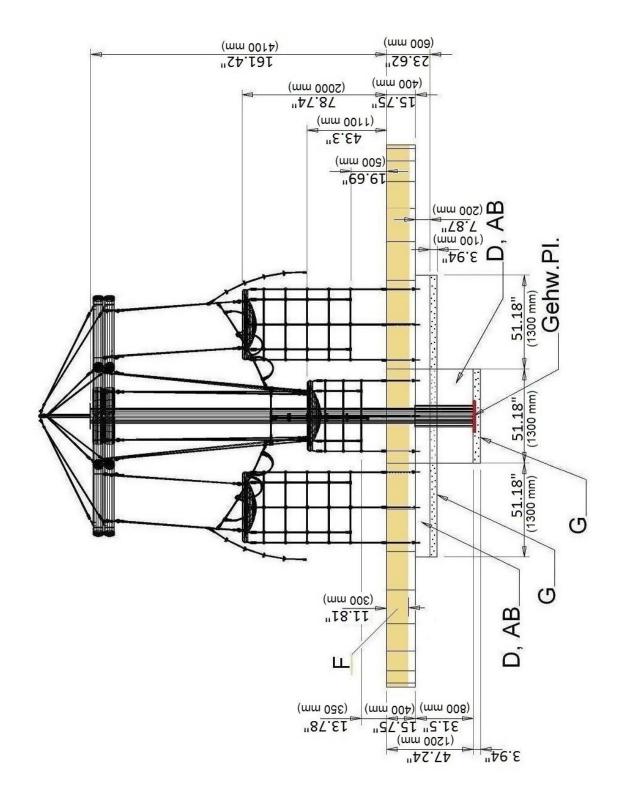


Glue all screws, nuts and sleeves with loctite. No less than 5 drops! (Except for Nyloc nuts)

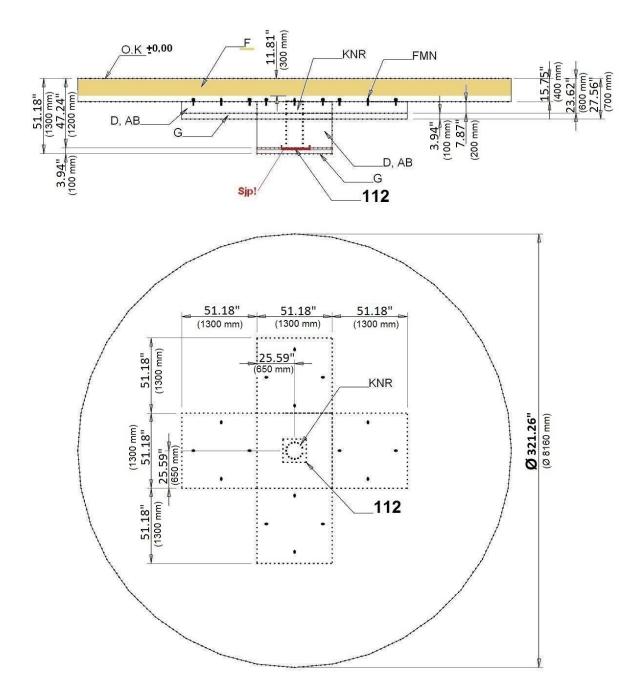
4 View Safety zone

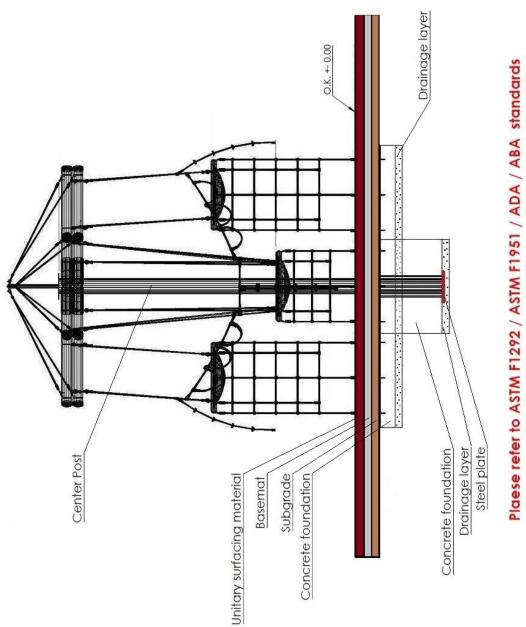


5 Foundation plan - Side view

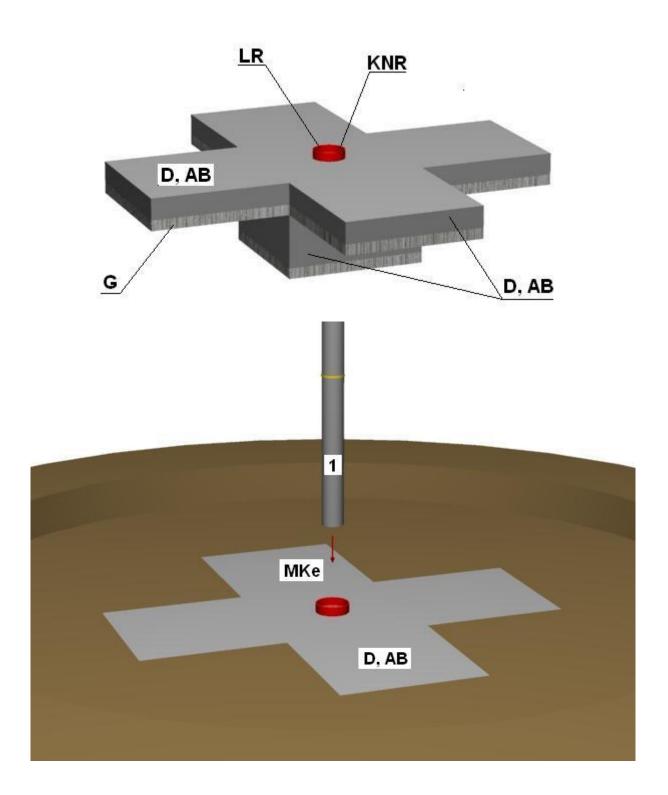


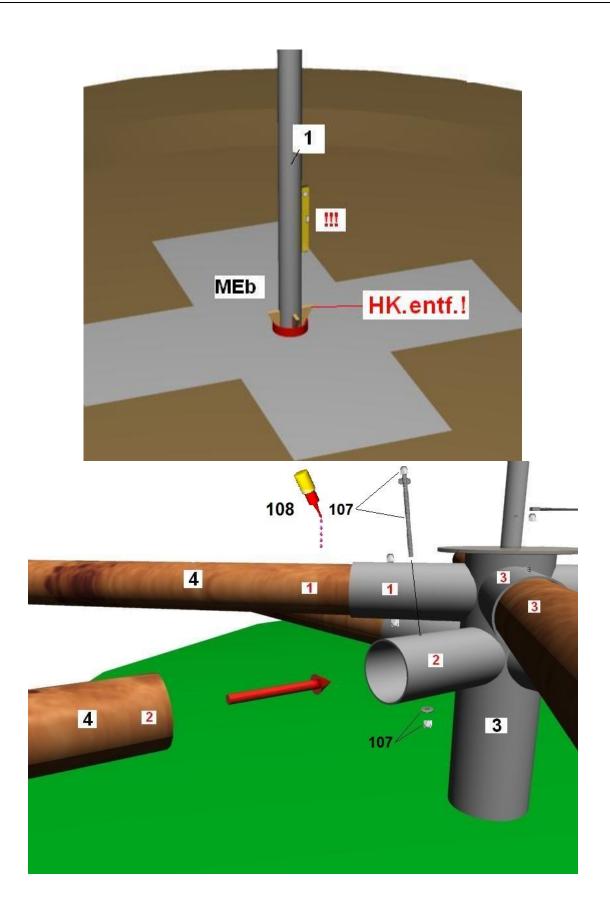
6 Foundation plan

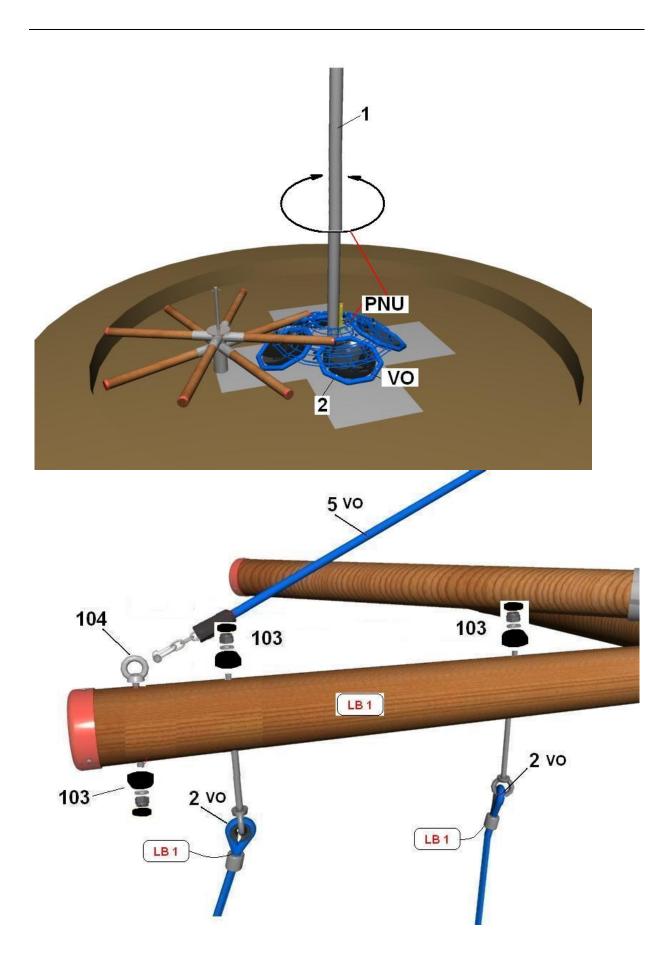


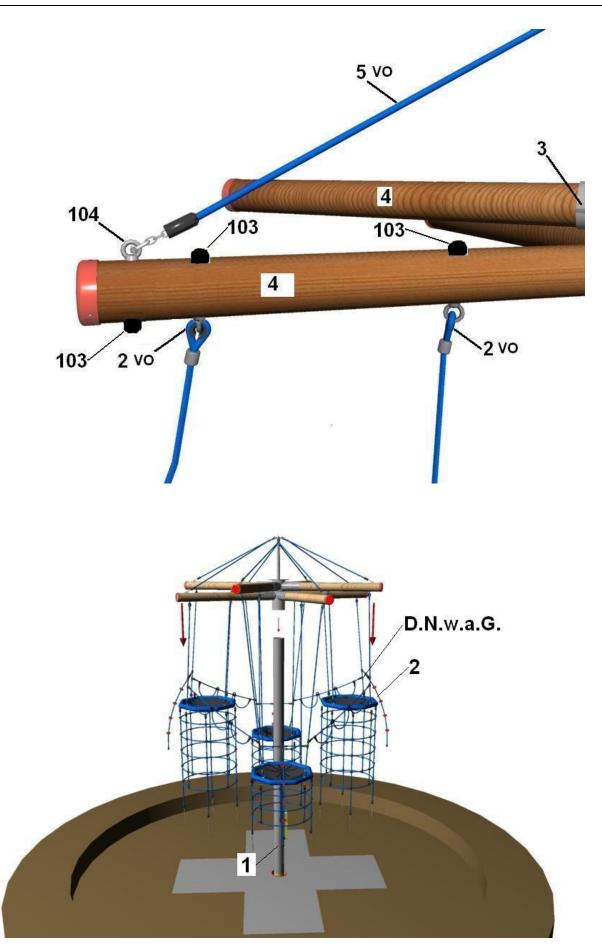


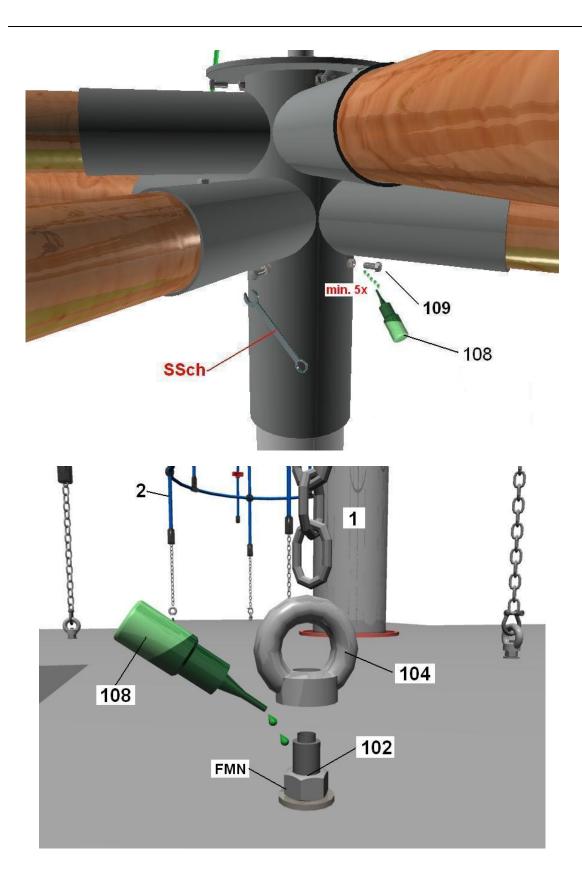
Plaese refer to ASTM F1292 / ASTM F1951 / ADA / ABA standards when choosing the thickness of Unitary surfacing material. IPEMA certified surfacing manufacture-Installers are highly recommended.

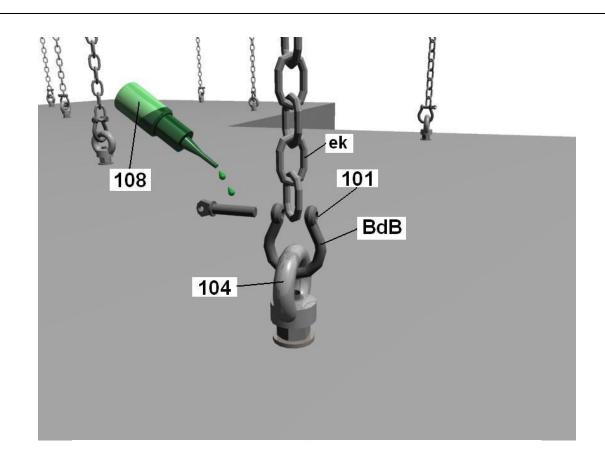














| | Shortcuts and Abbreviations for Diagrams: | | | | |
|------------|--|--|--|--|--|
| AB | Setting time min. 7–8 days | | | | |
| В | Baton positioned on site to secure the anchor chain | | | | |
| BdB | Anchor the nets to the ground with type-6 shackles | | | | |
| D | C25/30 concrete (for foundations) Q.ty required ~2.8 m ³ | | | | |
| D.be. | Fill in around the central mast with concrete. (between drainage tube and central mast) | | | | |
| D.N.w.a.G. | After installing connect nets at this position using pos.# 110 (am T-Stück verschraubt) | | | | |
| Ek | Chains should be shortened during installation if necessary. | | | | |
| F | Fall protection | | | | |
| FMN | Install rawlplugs after complete installment of the play component | | | | |
| G | Drainage layer | | | | |
| Gehw.Pl. | Paving stone or sidewalk stone (not included in delivery contents) | | | | |
| HK.entf! | Wedges must be removed after concreting! | | | | |
| KNR | Plastic pipe (not included in delivery contents) | | | | |
| LR | Plastic pipe (not included in delivery contents) | | | | |
| Meb | Observe burried depth marking | | | | |
| Mke | Place central post in plastic pipe | | | | |
| O.K | Top level ground surface | | | | |
| PNU | Place the net pack around the center post | | | | |
| PS | Space required including Safety area | | | | |
| SjP! | Paving stone/sidewalk stone must be level with drainage layer | | | | |
| SSch | After mounting Steel crossbeam connector tighten and secure bolts with loctite | | | | |
| | | | | | |

See drawings for details of shortcuts

7 Post installation checks



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

7.1 Marking filler depth

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

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

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

7.3 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 carried out.

7.4 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.

7.5 Retighten bolts

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



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8 Introduction Maintenance

8.1 General informations

This equipment should be installed, inspected, maintained and operated in accordance with ASTM F1487-17 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 to the user.

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.

These maintenance instructions are based on the standard ASTM F1487-17

9 General maintenance information

9.1 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.

9.2 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.

9.3 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/Thread grinding 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.

9.4 Spare parts

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

9.5 Identifying spare parts

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

9.6 Special instructions for the disposal of individual equipment components

No special instructions are necessary.

9.7 Actions to be taken during the break-in period

No later than 2 weeks after assembly, all screwed connections should be checked and tightened if necessary. Ropes connected to foundations **must** be retensioned

9.8 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 (refer to ASTM F1292 and ASTM F2223).

9.9 Defects



Damages must be repaired as soon as they are detected. If serious defects that affect the safeness cannot be repaired straight away, the equipment then must be closed with immediate effect to prevent further use.

9.10 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.

9.11 Preventing equipment use

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

9.12 Claims/liability for defects (steel posts)

Steel posts and footings are covered by our guarantee if refular maintenance is carried out and recorded in writing.

Our general terms and conditions apply. Maintenance of steel posts first take place after 3 years. The steel posts must be excavated down to the concrete foundations and checked for corrosion. Zinc paint should be applied to any corroded areas and scratches Check ropes for abrasion, replace ropes where coating is worn down the steel core.

9.13 Maintenance timetable

9.14 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.

9.15 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.

9.16 Defects that compromise safety



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

9.17 Defects that compromise function



Defects that compromise function should also be repaired immediately. Such defects 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.

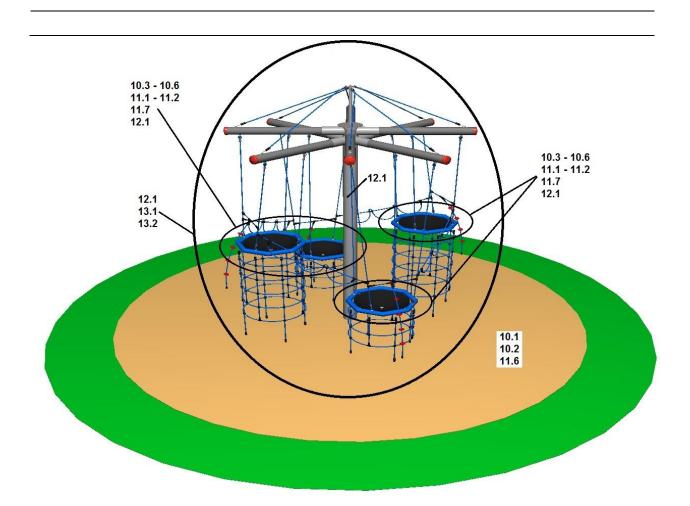
10 Monthly maintenance

- 10.1 Check the spaces between the equipment and the ground (clearance and height of fall).
- 10.2 Check the ground surface of fall protection for hard objects and loose foundations.
- 10.3 Check all connecting elements and fittings for wear and tear and tighten if necessary. Repair or replace damaged or missing parts.
- 10.4 Check that moving metal parts (joints, springs, etc.) move smoothly and are not worn. Repair or replace if necessary. It is not necessary to lubricate joints as we only use maintenance-free metal roller bearings.
- 10.5 Check all attachments such as chains, ropes, nets, etc. for damage and tension, repair or replace if necessary.
- 10.6 Check rubber parts, sleeves, etc. for wear and tear or damage and repair or replace if necessary.
- 10.7 If necessary, remove excess padding material from the post footings due to danger of rotting.
- 10.8 Check the surface of wooden parts for damage caused by the weather or external influences and mold. Repair or replace if necessary.
- 10.9 Check the surface of plastic and metal parts, e.g. slides, for damage and replace if necessary.
- 11 Quarterly maintenance
- 11.1 Detailed inspection of the operation and stability of the equipment paying particular attention to any wear and tear.
- 11.2 Tighten all forms of attachment.
- 11.3 Repaint and retreat surfaces if necessary.
- **11.4** Maintenance of fall protection surfaces.
- 11.5 Lubrication of joints.
- 11.6 Check height of fall protection material and fill up with filler if necessary. If the posts are labelled, fill up to the mark.
- 11.7 Retension the tension ropes after a period of 3 months. Afterwords please check in equal intervals.
- 11.8 Retighten all bolts.
- 12 Half yearly maintenance
- 12.1 The stability of supporting posts, supports, foundations etc. has to be checked. The safety level of the entire system has to be checked after repairs have been carried out or additional system components have been installed or replaced.



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.



14 Maintenance printout

Name of item: Midi Birds Nest Tree _____ / Art. No. 4652-10 _____

Location: _____

Customer or operator:

(Town, Town council, Kindergarten)

| Date of inspection | Inspector | 0.K. | Accessible | Barriered | Defects | Repaired by | Date |
|--------------------|-----------|------|------------|-----------|---------|----------------|------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Please copy and return once a year after main inspection has been carried out to the owner/ operator

by Telefax

Place the confirmation form in the 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 out and signed Hand over document should be copied and sent to the supplier.

Art.-No.: 4652-10 Type of item: Midi Birds Nest Tree 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) | (Signature of Installation Company) |
|-------------------------|-------------------------------------|
| (Stamp) | |
| Date: | |