

Datasheet: Douglas Fir Swing Frame suspension height 2,50 m (Art.-No. 4577-1-250) incl. post shoes

- 1 Space required: 4.20 x 4.00 m, safety area: 4.20 x 8.20m
Height of fall
2.35 m

2	Surface material	Description	Minimum thickness	Maxim height og drop
		mm	of layer (mm)	mm
	Grass / topsoil			<= 1000*
	Chipped bark	granular size 20 to 80	400	<= 3000
	Wood chippings	granular size 5 to 30	400	<= 3000
	Sand	granular size 0.2 to 2	400	<= 3000
	Gravel	granular size 2 to 8	400	<= 3000
	other surface materials	as tested in accordance with HIC		critical drop height as tested

3 **Name and overall dimension of the largest item of equipment:**

1 Wooden post, Length 4,00 m, Ø 18 cm, (72 kg)

4 **Weight of the heaviest item of equipment:**

1 pack Douglas posts; 230 kg (set of two scissor frames incl. Post shoes)

5 **Attention! System for concrete foundation !**

Concrete: C25/30

Concrete necessary: 1.25 m³

Round off foundation edges (min. R = 100 mm)! Sizes of foundations are "7-8" (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%!

- 6 **Size of foundations:** depth 0.90m, width 70 cm x 100 cm (incl. Drainage layer of 0.10m height)
concrete foundation block of 40 cm

7 Any spare parts which may be needed can be obtained directly from your supplier or from your manufacturer.

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

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.

- ASSEMBLY INSTRUCTIONS -

Multiple swing frame Art. No. 4577-1-250, made of douglas fir with a suspension height of 2.50m

Package contents:

- 4 wooden posts, Ø 16cm, 4.05m long, installed like scissors
(incl. post shoes)
- 1 cross beam, Ø 18cm, 4.00m long,
- 1 carton of accessories:
 - 4 cover caps, Ø 16cm, red + screws
- 2 cover caps, Ø 18cm, red + screws
- 4 bolts M16 x 360mm
- 4 washers for M16
- 4 stop nuts M16
- 4 cover caps for M16

Play equipment:

different play equipments (therefore see package contents and freight documents)

Required devices:

1 wood drilling machine, Ø 17 / 18 x 350mm

Required assembly space:

4.20 x 4.00m / 4.20 x 8.20m **incl. safety area**

Height of fall:

2.35m

Recommended ground surface:

Sand, gravel, chipped bark, etc.

Round off foundation edges (min.R = 100 mm)! Sizes of foundations are "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 %

Assembly instruction:

1. Measure out the assembly space including required safety area. Dig out the foundations in accordance to the foundation plan. Take care that rubble drain bed is 10cm (see sketch). **Attention!** Treat the wooden parts as described in the enclosed leaflet (maintenance tips for handling the douglas wood).
2. Lay the cross beam on the ground. (**Attention:** do not remove the steel belt!).
3. Lay the uprights on the ground and stretch them in accordance to the measurement.
3.1 Before assembling the bolts at the connection of the pair of stand poles and the carriage bolts of the post shoes have to be retightened.
4. For stabilization of the scissors position during the installation
5. For stabilization of the scissors position during the installation, fit a temporary lath on the upper edge of the marking tape and nail it to the upper edge of the playing level! Measuring of the temporary lath is 2.60m (middle post to middle post).
6. Set down the two scissors frames into the foundation.
7. Put on the top beam with a projecting end on both sides of 1.49m (fix them rectangular to the uprights posts; see sketch).
Attention! The drillings are \varnothing 17cm in vertical line! Go through the existing drillings of the wood post to set the drillings on the cross beam. To avoid that the wood tears out while drilling, you should hold a board against it, secure the cross beam with the 4 bolts

M16 x 360, the washers, the lock nuts and cover caps. **Attention!** The lock nuts have to point to the top!

8. Set in concrete C25/30 in accordance with the foundation plan, at least 40cm deep (see enclosed sketch).
9. After the setting time (at least 8 days) fix the swing bearing. Take care that bearing is fastened straight, so that you can attach the play equipment.
For the big Bird's Nest Art. No. 4650 (bearing on the inside) and for the Huck Honeycomb Art. No. 4550 (bearing on the outside) you always have to fit in the double joint bearing Art. No. 4608-1 (pay attention to the turn direction of the main bearing: upper axis shows askance to the swing direction; lower axis shows in swing direction).

We recommend to use a jigsaw with a steel saw blade for the bolt length -adjusting of the joints. If an angle grinder is used, the surface of the wood can get dark because of chemical reaction by contact with flying sparks (no impairment to the safety ness and durability of the frame).

Install it with the enclosed safety chain. The safety chain is prepared so that you only have to fit in the eye bolts (turn direction shows to swing direction) which are installed in the drillings accordance to the foundation plan. Hang up the free end of the chain on the

second link from the equipment chain (counted from the top) with the already installed shackle. For the safety swing seat Art. No. 4712 is the simple bearing enough!

ATTENTION! For the use of other hanging up-equipments (as bird's nest Art. No. 4650/ 4550) you can take the drillings distance for the bearing from the enclosed foundation plan.

10. For all swings you have to take care that there is at least a distance of 45cm measured from the bottom to the deepest point of the swing. Possibly it is necessary to short the chain!

11. Fix the enclosed cover caps with VA- wood screws at the top of the wooden posts.

12. Fit all screwed connections additional with the enclosed glue. Secure the bolts with a knock.

13. Cover all left drillings (from above) with the plastic caps.

At the projecting ends (left and right side) of the top beam it is possible to install an equipment like the pendulum seat, swing seat, rope ladder and other one-point-bearing equipment. Attention! You are only allowed to fix the one-point-bearing equipment on the exterior drillings. The fixing of the climbing net is even possible.

Tips for maintenance

Latest after 3 days check all bearings and suspension-connections. Retighten if necessary. All bolts must be periodically tightened due to wood shrinking.

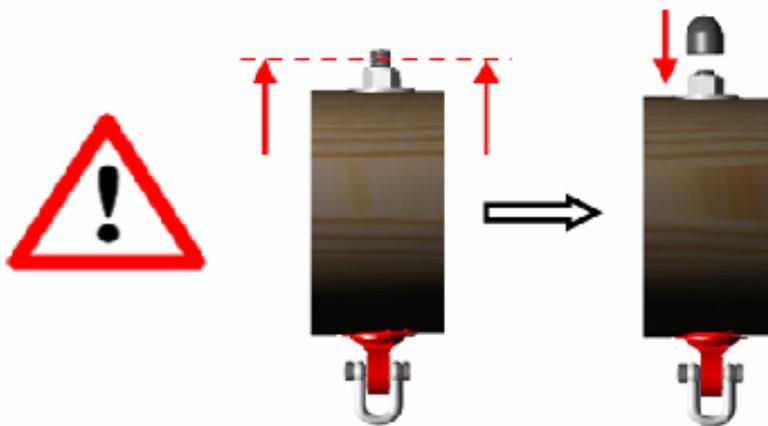
The bearings are maintenance-free and depending on the use-frequency. We recommend to check them regularly of wear and tear.

We recommend you to use a silicon spray for the plastic socket from time to time.

From our years of experience, we recommend to check the complete item each week.

You have to block off the complete item in case of incompleted installation, dismanteling or during repair of the play equipment.

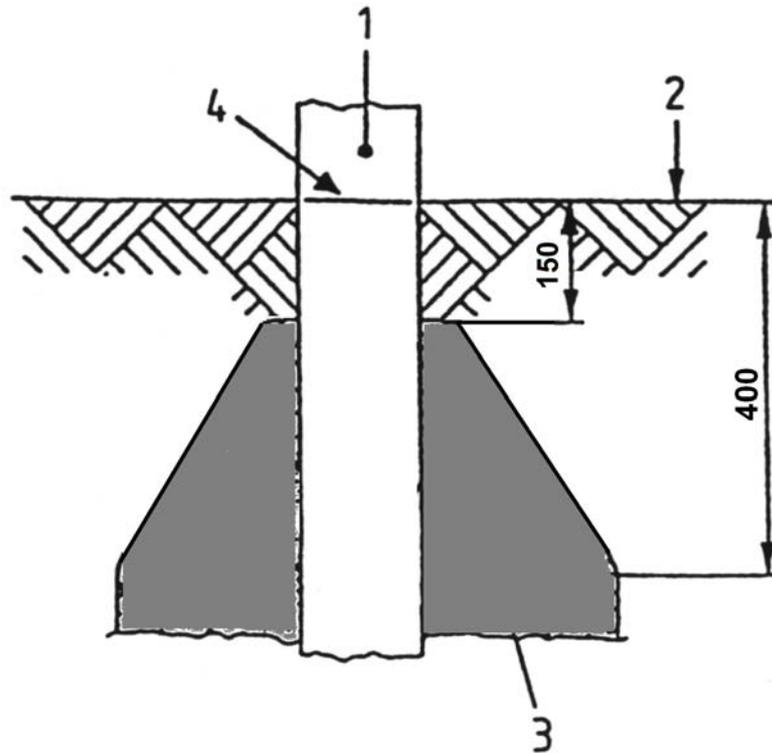
Because of the natural characteristics of wood it is normal that shrinking and swelling occur due to heat and moisture. For example a wood post with a \varnothing of 180mm can vary between 173mm and 183mm. In occurrence it is necessary that bolts and screws be retightened and eventually shortened!



Securing bolts and nuts !

All bolts, nuts, cylinder nuts, etc. (except for Nyloc nuts) must be secured with at least 5 drops of Loctite!





- 1. Post
- 2. Playing surface
- 3. Top of foundation
- 4. Basic level mark

If the playing surface is sand you have to make the top of foundation round (as you see in the upper sketch), if you let in the foundation 20 cm deep under the upper edge of the playing surface.

In any case it is very important that you slope the top of foundation to prevent accumulation of water (danger of rotting).

GENERAL TIPS FOR MAINTENANCE

Wood as a construction material is a problem for evaluation because it is a vividness material.

As we know from experience you cannot prevent children from running in splinters. But by the splinting of beams, children can get hurt badly.

You cannot avert cracks in the wood.

You will find a reduction of the safety in the following cases:

General cracks through the cross beam of a swing or ropeway (especially by torch growth and twisted growth). If the wood center rots because it got wet on a non impregnated part.

Cracks in the climbing area where children can get stuck with their fingers (>8mm) and in the same time there is a risk of breaking.

There is not a danger if there are cracks in the uprights in the following case.

You should not fill up cracks with elastic material. Otherwise the water, which gets in, cannot dry out and you have the risk of rotting.

We recommend treating the swing frame with a water resistant varnish every 3 years!

Periodic Maintenance Instructions

Douglas swing frame Art.-No. 4577-1-250

w = weekly m = monthly y = yearly

w m 1/4y 1/2y

14. Check the area where persons using the equipment might fall or slip for hard objects or foundations which have worn free.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Check stability of the uprights.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16. Check all connection components and fittings for wear and see that they fit firmly; tighten up if necessary. Exchange damaged parts.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Check moving metal parts for easy movement and wear; exchange if necessary. There is no need to lubricate joints since only maintenance-free joints are used.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Check all attachments, such as chains, ropes, nets, etc. for damage and renew if necessary.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Check rubber parts, sleeves, etc. for wear or damage and exchange if necessary.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Check the surface quality of plastic and metal components for damage and exchange if necessary.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Check the surface quality of wooden parts for damage caused by weathering or other external factors and rectify, exchanging if necessary.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

It is recommended that the **checking and maintenance work** is carried out at the intervals shown, since wear and tear, which reduces safety and the equipment's ability to function properly, will be caused by normal play use, the effects of the weather and also by malicious damage. **Where faults adversely affect safety, urgent action is required either by immediate repair work or by dismantling the equipment or taking it out of use.**

Those faults which affect the way the equipment functions reduce its play value and incite malicious damage, possibly rendering it unsafe. Here, too, immediate repairs should be undertaken.

Maintenance and repairs should only be carried out by trained personnel. General: Any item of play equipment which is regularly checked cannot become so damaged as to be dangerous. This presumes, of course, that regular checks are followed, where necessary, by repair work.

Maintenance Record

Day of Inspection	Inspector's Name	Equipment is			Faults	Faults rectified by	Date
		OK	Useable	Out of order			

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.: 4577-1-250

Type of item: Douglas swing frame

Serial number: _____

Customer or operator (Town, Council, School, 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: _____