

## General Inspection Checklist for Swing ( EN )

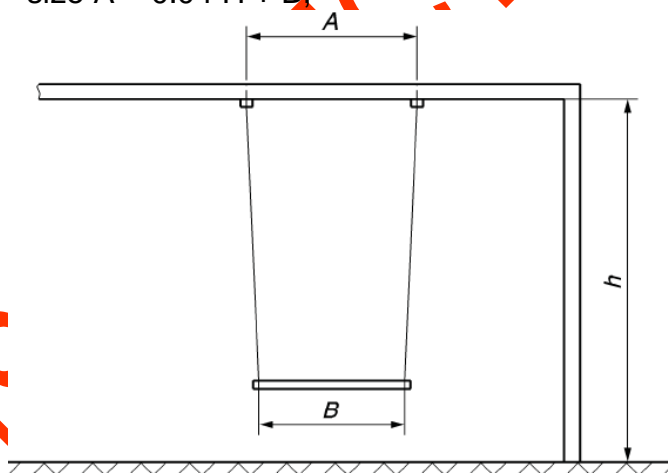
**Scope:**

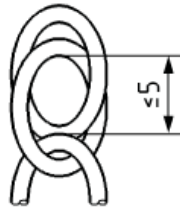
A general quality inspection checklist for child swing for domestic use if clients have not defined their requirement.

**Defective Classification**

- \* **Critical Defect** – Defects which could result in hazardous or unsafe conditions for individuals using or maintaining the product as well as defects contravening legal regulations;
- \* **Major Defect** – Function defects reducing the usability or solidity of the product as well as obvious visual defects reducing the sales value of the product.
- \* **Minor Defect** – Defects that are unlikely to reduce the use of the product, but nevertheless may influence the sale.

Item Code	Details	Defective classification		
		Critical	Major	Minor
1	<b>Packaging check (For all sample size)</b>			
	Non-conform found	Reject		
2	<b>General appearance (For all sample size)</b>			
	Sharp point and sharp edge	√		
	Live insert/ mildew	√		
	Knives, blades, needles and similar sharp foreign object contamination.	√		
	Incorrect material used		√	
	Wrong color or style or type		√	
	Excessive/ unpleasant odor		√	
	Damaged/incorrect warning/caution label or marking	√		
	Missing/incorrect other label or marking		√	
	Wrong instruction, missing instruction	√		
	Deformed, scratched, dirty mark, dent mark		√	√
	Poor coating, plating, polish		√	√
	Hole, Gap, Opening do not comply with standard's requirement, can injure fingers or other parts of the body	√		
Corners and exposed edges on moving part shall have a min radius of 3mm, ( except swing elements with a mass of 1000g or less, should be rounded )	√			
Bolt ends, threaded bolt ends or other similar rigid protruding	√			

	from swing which constitute a puncture hazard to a child shall be protected, the protection shall not be removed when tested according to EN71-1 8.4.2.3 60+/-2N over 5s, maintain the force for 10s, no any detached																							
	Swing intended for children under 36 months, the seats of swing without back rest and safety device	√																						
	Dead knot / hole mark of wood		√																					
	Corrosion / rust mark on metal parts		√																					
<b>3</b>	<b>Bar Code verification (3pcs, at least 1 sample/item)</b>																							
	Non-conform found	Reject																						
<b>4</b>	<b>Data Measurement &amp; On-site Test (3pcs, at least 1 sample/item)</b>																							
<b>A</b>	Size check																							
	a1) The measured data (e.g. overall size, seat size ) is out of Spec tolerance range	Reject																						
	a2) Means of suspension for swing elements (e.g. rope) minimum diameter / width 10mm, if less than 10mm	Reject																						
	a3) Min clearance between adjacent swing elements, and adjacent structures for swing with crossbeam height > 1200mm not match below table																							
	<p>Table 2 — Minimum clearances between adjacent swing elements and adjacent structures</p> <table border="1"> <thead> <tr> <th>Clearances in millimetres between:</th> <th>Free-swinging elements</th> <th>Semi-flexible elements</th> <th>With rigid means of suspension</th> <th>Adjacent structure of swing device</th> </tr> </thead> <tbody> <tr> <td>Free-swinging elements</td> <td>450</td> <td>450</td> <td>450</td> <td>300</td> </tr> <tr> <td>Semi-flexible elements</td> <td>450</td> <td>300</td> <td>300</td> <td>300</td> </tr> <tr> <td>Elements with rigid means of suspension</td> <td>450</td> <td>300</td> <td>300</td> <td>300</td> </tr> </tbody> </table>	Clearances in millimetres between:	Free-swinging elements	Semi-flexible elements	With rigid means of suspension	Adjacent structure of swing device	Free-swinging elements	450	450	450	300	Semi-flexible elements	450	300	300	300	Elements with rigid means of suspension	450	300	300	300	Reject		
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	<p>a4) Lateral stability of swing element ( except rigid means of suspension )</p> <p>size <math>A = 0.04 H + B</math></p> 			Pass																				
	<p>a5) Min clearance between swing element and ground</p> <p>for crossbeam height ≤ 1200mm 200mm</p> <p>for crossbeam height &gt; 1200mm 350mm</p>			Pass																				
	a6) if the swing with chain, max opening of chain should be 5mm, if beyond 5mm	Reject																						



**Figure 9 — Maximum opening in chains for swings**

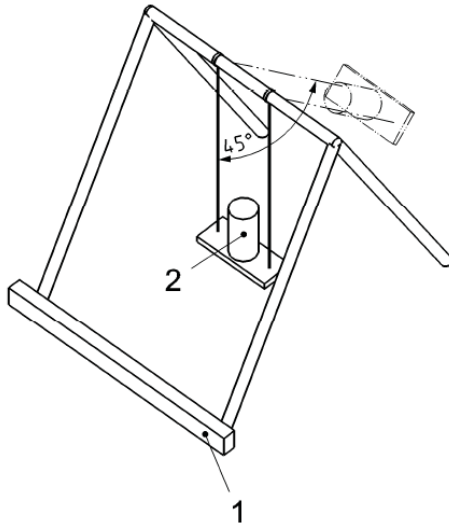
<b>B</b>	Weight check			
	The measured data is out of spec tolerance range	Reject		
<b>C</b>	Assembly check			
	Assembly the swing according to the instruction manual, should not find any unsafe, malfunction defect, cannot be assembled.	Reject		
<b>D</b>	Tension test for small part			
	Any projection that a child can grasp with at least the thumb and forefinger or the teeth. Apply a force to pull on small parts: 50N when the largest accessible dimension is 6mm or less; 90N when the largest accessible dimension greater than 6mm The force gradually within 5s and maintain force for 10s;			
	Any small part, sharp point and edge be found or refer to client's requirement	Reject		
	Tension test for seams and material			
	For soft-filled toys containing small parts Apply a force of 70+/-2N over a period of approximately 5s, maintain 10s, then insert Accessibility probe under a force of 10N or less For other-filled toys Apply a force of 70+/-2N over a period of approximately 5s, maintain 10s, then insert rod of front part dia 12mm and radiused end, under a force of 10N or less	Reject		
<b>E</b>	Actual use check			
	Actual use the swing as normally, during the test, should not find any unsafe, malfunction defect, or cannot comply with claiming or client's requirement.	Reject		
<b>F</b>	Stability check			
	For swing height more than 1200mm Apply 500+/-20 N horizontal forces per user on suspension points gradually and simultaneously.	Reject		

Table 4 — Examples of horizontal forces

Number of children	Number of suspension points	Force in N (newton) per suspension point
1	1	500
1	2	250
1	4	125
2	1	1 000
2	2	500
2	4	250
3	1	1 500
3	2	750
3	4	375
4	1	2 000
4	2	1 000
4	4	500

For swing height 1200mm or less

Apply 25+/-0.2kg on seat secured, raise the seat to 45 angle or the max angle and release it ( stop 1 shall be used to prevent swing move )



The unit tip over

Strength check

For swing height more than 1200mm

Apply a load of 200+/-10kg on each swing device in turn for 1 hour; then apply a load of 50+/-2kg on each sitting simultaneously for 1 hour

For swing height 1200mm or less

Apply a load of 66+/-3kg for 1 hour

During the test, should not find any unsafe, malfunction defect, or broken, damaged.

Reject

Determination of impact from swing elements

TBA

Flexible plastic sheeting without any backing thickness measurement for size > 100x100mm

The film thickness is less than 0.038mm;

Or min 1% of the area with holes in any area of 30x30mm

Reject



7	<b>Carton drop according to ISTA-1A (1 carton/item)</b>			
	Critical defect or malfunction or broken carton cannot be shipped;	Reject		
	Wrinkle carton or slightly visual defect on unite such as slightly scratch or deformation which that does not affect the shipment	Record in report		

\*\*\*Note\*\*\*: Check the product from 50cm distance,  
 if you can see the defect, then class as a major defect.  
 if you can't see the defect, then class as a minor defect.

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TIS INSPECTION CHECKLIST