

TEST REPORT
EN 14960-1
Inflatable play equipment
Part 1: Safety requirements and test methods

Report Number: LTR22021401S01
Tested by(+ signature).....: Lebron Su
Witnessed by(+ signature): Kelly Zhang
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Date of issue.....: Feb. 22, 2022
Total number of pages: 12 pages






Name of Testing Laboratory preparing the Report.....: **Guangdong Lintek Certification Group Co., Ltd.**
Address.....: 4F, Building B, No. 1165 Guanguang Road, Xinshiqiao Village, Guanlan Street, Longhua District, Shenzhen, China

Applicant's name: **HENAN CZJK INFLATABLES CO.,LTD**
Address.....: Room CBD1030, Free Trade Zone Kaifeng Henan China

Test specification:
Standard.....: EN 14960-1:2019
Test procedure: Test Report
Non-standard test method: N/A

Test Report Form No.: EN 14960-1:2019
Test Report Form(s) Originator: Lintek-Lab
Master TRF.....: Dated 2019-05-07

Test item description: **bouncy castles**
Trademark: N/A
Manufacturer: **HENAN CZJK INFLATABLES CO.,LTD**
Room CBD1030, Free Trade Zone Kaifeng Henan China
Model and/or type reference: A001

List of Attachments (including a total number of pages in each attachment): Attachment 1: EUT PHOTOS		
Summary of testing: The product covered by this report has been tested and complies with the applicable requirements of this standard.		
Tests performed (name of test and test clause): EN 14960-1:2019	Testing location: Guangdong Lintek Certification Group Co., Ltd. 4F, Building B, No. 1165 Guanguang Road, Xinshiqiao Village, Guanlan Street, Longhua District, Shenzhen, China	
Summary of compliance with National Differences (List of countries addressed): <input checked="" type="checkbox"/> The product fulfils the requirements of EN 14960-1:2019		
Copy of marking plate: The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.		
<table border="1"> <tr> <td> <p>bouncy castles Model: A001</p>  <p>HENAN CZJK INFLATABLES CO.,LTD Room CBD1030, Free Trade Zone Kaifeng Henan China Made in China</p> </td> </tr> </table>		<p>bouncy castles Model: A001</p>  <p>HENAN CZJK INFLATABLES CO.,LTD Room CBD1030, Free Trade Zone Kaifeng Henan China Made in China</p>
<p>bouncy castles Model: A001</p>  <p>HENAN CZJK INFLATABLES CO.,LTD Room CBD1030, Free Trade Zone Kaifeng Henan China Made in China</p>		

Possible test case verdicts:

- test case does not apply to the test object: N/A
- test object does meet the requirement.....: P (Pass)
- test object does not meet the requirement: F (Fail)

Testing

Date of receipt of test item: Feb. 14, 2022

Date (s) of performance of tests: Feb. 14, 2022 to Feb. 22, 2022

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

Throughout this report a comma / point is used as the decimal separator.

Manufacturer's Declaration.

The application for obtaining a Test report includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided.....:

- Yes
- Not applicable

General disclaimer:

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 Unless otherwise stated: (a) the results shown in this document refer only to the sample(s) tested and (b) such sample(s) are retained for 3 months.

General product information:

1. The product is bouncy castles, test model : A001.

EN 14960			
Clause	Requirement + Test	Result - Remark	Verdict
4	Safety requirements		P
4.1	Materials		P
4.1.1	Fabrics		P
	Fabrics of:		P
	a) minimum tear strength 350 N (see test method Annex E)		P
	b) minimum tensile strength 1 850 N (see EN ISO 1 421)		P
	c) minimum coating adhesion 1 00 N (see EN ISO 241 1)		P
4.1.2	Thread		P
4.1.3	Netting		P
4.1.4	Ropes		P
4.1.5	Zips		P
4.1.6	Dangerous substances and decorative finishes		N/A
4.2	Design		P
4.2.1	Anchorage		P
4.2.2	Structural Integrity		P
4.2.3	Access/egress		P
4.2.4	Blowers		P
4.2.5	Entrapment		P
4.2.5.1	General		P
4.2.5.2	Entrapment of the head and neck		P
	Hazardous situations in which this type of entrapment can be encountered include the following:		P
	- completely bound openings through which a user may slide feet first or head first;		P
	- partially bound or V-shaped openings;		P
	- other openings (e.g. shearing or moving openings).		P
	a) Completely bound openings		P
	b) Partially bound and V-shaped openings		P
	c) Other openings (e.g. shearing or moving openings)		N/A
4.2.5.3	Entrapment of clothing/hair		P
	Inflatables shall be constructed so that hazardous situations including:		P
	a) gaps or V-shaped openings, in which a part of clothing can become trapped while or immediately before the user is undergoing a forced movement		P

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Clause	Requirement + Test	Result - Remark	Verdict
	b) protrusions, in which clothing entrapment can be encountered are not created		P
4.2.5.4	Fingers entrapment		P
	Openings within the free space, where the user is subjected to forced movement, and holes which have a lower edge more than 1,0 m above the platform when tested in accordance with Annex D (D.4), shall conform to one of the following requirements:		P
	a) 8 mm finger rod (see Figure 2), when applied with a force of 30 N, shall not pass through the minimum cross section of the opening and the profile of the opening shall be such that the rod cannot be locked in any position when set in motion as given in Figure D.1 0; or		P
	b) if the 8 mm finger rod passes through the opening, the 25 mm finger rod (see Figure 1 0), when applied with a force of 30 N shall also pass through the opening provided that the opening does not permit access to another finger entrapment site		P
4.2.5.5	Body entrapment		P
	Inflatable tunnels:		P
	- An inflatable tunnel of 75 cm length or less shall, for the purposes of this standard, be regarded as a squeeze.		P
	- A tunnel of between 75 cm and 2,0 m length shall be of at least 50 cm internal diameter		P
	- A tunnel of more than 2,0 m length shall be of at least 75 cm internal diameter		P
	Inflatable squeeze:		P
	- A squeeze shall not be longer than 75 cm		P
	- The diameter of the initial opening shall be at least 40 cm		P
	- The smallest aperture of the squeeze shall allow the large head probe to pass through with the application of a force of 222 N		P
	- The entire length of the inner squeeze panel shall be capable of being expanded to at least 40 cm diameter		P
4.2.6	Hard objects, sharp angles and edges		P
4.2.7	Electrical installations		P
4.2.8	Siting		P
4.2.9	Containment		P
4.2.10	Wall heights on slopes		P
4.2.11	Run-out		P

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Clause	Requirement + Test	Result - Remark	Verdict
4.2.12	Ventilation		P
4.3	Number of users		P
	These include:		P
	a) height of the user		P
	b) size of the playing area		P
	c) type of activity, e.g. bouncing, sliding		P
	d) inflated shapes mounted on the playing area		P
	e) access and egress		P
4.4	Supervision		P

6	Information to be provided by the supplier/manufacturer		P
6.1	General product information		P
	The information shall:		P
	a) be printed legibly and in a simple form		P
	b) be conveyed using illustrations wherever possible		P
	c) include, at least, details of installation, operation, inspection and maintenance		P
6.2	Pre-information		P
	This information shall include, at least, the following where relevant:		P
	a) height clearance and space required to operate the equipment safely		P
	b) surfacing requirement		P
	c) overall packed dimensions and weight		P
	d) intended age range or height range and number of users allowed		P
	e) certification of conformity with this standard		P
6.3	Installation information		P
	The supplier/manufacturer shall provide installation information which shall include, at least, the following:		P
	a) list of equipment		P
	b) method of anchorage and number of anchor points		P
	c) maximum safe wind speed		P
	d) siting, height and space requirement		P
	e) maximum allowable slope of the site		P
	f) crowd control measures		P

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Clause	Requirement + Test	Result - Remark	Verdict
	g) need to keep users off of the inflatable during inflation and deflation		P
	h) type and size of blower required		P
6.4	Operating information		P
	The supplier/manufacture shall provide operating information which shall include, at least, the following information and instructions:		P
	a) constant supervision		P
	b) admit users to the inflatable in a controlled and safe manner		P
	c) restrict the maximum height of the user to the design height		P
	d) restrict the maximum number of users at one time to the design number		P
	e) use at least the minimum number of operating personnel		P
	f) users to remove their footwear		P
	g) users to remove hard, sharp or dangerous objects from their person		P
	h) users to remove glasses when practicable		P
	h) users to remove glasses when practicable		P
	j) keep the entrance free from obstruction		P
	k) prohibit the users from climbing or hanging on the containing walls		P
	l) prohibit somersaults and rough play		P
	m) operator and/or attendants to watch the activity on the inflatable constantly		P
	n) operator and/or attendants to use a whistle or other signal to attract the attention of the users		P
	o) operator and/or the attendants to separate larger, more boisterous users from smaller ones		P
	p) inflatable to be evacuated during re-fuelling of a blower powered by an internal combustion engine		P
6.5	Inspection and maintenance information		
7	Inspection, maintenance and alteration		P
7.1	Inspection		P
7.1.1	Routine Inspection		P
	The check shall include that:		P
	- site is suitable;		P

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Clause	Requirement + Test	Result - Remark	Verdict
	- all anchorages are secure and in place;		P
	- ancillary equipment is in position (e.g. impact-absorbing mats);		P
	- there are no significant holes or rips in the fabric or seams;		P
	- correct blower is being used;		P
	- internal air pressure is sufficient to give a firm and reliable footing;		P
	- there are no exposed electrical parts and no wear on cables;		P
	- plugs, sockets, switches, etc. are not damaged;		P
	- connection tube and blower are firmly attached to each other;		P
	- blower is safely positioned and its mesh guards are intact.		P
7.1.2	Annual inspection		P
	It shall include checks of:		P
	- previous inspection reports and certificates where appropriate;		P
	- identification of the inflatable and blower (e.g. serial numbers);		P
	- anchorage system for wear, rips or chafing;		P
	- type and number of ground anchors or ballast for conformity with the design specification;		P
	- inflatable structure for wear or rips in the fabric;		P
	- walls and towers (when fitted) for firmness and uprightness;		P
	- internal air pressure to be sufficient to give a reliable and firm footing;		P
	- internal ties for wear and tear, particularly at loose or exposed ends;		P
	- bed seams, wall-to-bed seams and wall-to-tower connections;		P
	- mesh guards at the inlet and outlet of the blower;		P
	- condition of the impellor and blower casing;		P
	- condition of electrical wiring and/or installations;		P
	- presence of the fuel cap (petrol-engined blowers).		P
7.2	Maintenance		P
7.2.1	General		P
7.2.2	Routine maintenance		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Preventative measures to maintain levels of safety and performance. Such measures include:		P
	- cleaning the inflatable;		P
	- removal of debris and contaminants;		P
	- rust control on the blower;		P
	- cleaning the blower air intake.		P
7.2.3	Corrective maintenance		P
	Measures to correct defects or to re-establish the necessary levels of safety. Such measures include:		P
	- replacement of worn or defective parts;		P
	- repair of splits or delaminated seams;		P
	- repair of holes and cuts;		P
	- repair or replacement of defective structural components.		P
7.3	Alteration		P
8	Marking		P
	Each inflatable shall be legibly and permanently marked with, at least, the following:		P
	- type and size of blower required;		P
	- maximum height of user;		P
	- maximum number of users;		P
	- unique identifying number(s);		P
	- year of manufacture;		P
	- name and address of one of either the supplier/manufacturer, importer or authorised representative;		P
	- number and date of this European Standard.		P
	Each blower shall be legibly and permanently marked with, at least, the following:		P
	- type and size;		P
	- unique identifying number;		P
	- year of manufacture;		P
	- name and address of the supplier/manufacturer;		P
	- number and date of this European Standard.		P
9	Documentation		P

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Clause	Requirement + Test	Result - Remark	Verdict
	The controller shall keep available documentation and records relating to the safety of the equipment. These shall include:		P
	- information provided by the supplier/manufacturer;		P
	- certificate of inspection and testing;		P
	- records of inspection;		P
	- records of maintenance;		P
	- records of alteration;		P
	- accident reports.		P
Annex A	Calculation of number of anchor-points		P
	The number of anchor-points required shall be calculated independently for each side using the following formulae and values		P
Annex B	The Beaufort Scale of wind force		P
	The Beaufort Scale is a scale for measuring the strength or velocity of wind where the various strengths are represented by numbers.		P
Annex C	Test method for grounding		P
	a) Draw an imaginary 1 ,0 m square grid on the surface to be tested, starting 0,5 m from the edge. In cases where d is less than 1 ,0 m, the testing point shall be in the middle of d.		P
	b) Place the weight indicated in the Table C.1 , in turn, onto each point where the grid lines intersect.		P
	c) Spread the weight applied at each point over a circle of 36 cm diameter.		P
Annex D	Test methods for entrapment		P
D.1	General		P
	Unless stated otherwise, tolerances of the probes in this annex are as follows:		P
	a) ± 1 mm for dimensions; and		P
	b) $\pm 1^\circ$ for angles.		P
D.2	Head and neck entrapment		P
D.2.1	Completely bound openings		P
D.2.1.1	Apparatus		P
D.2.1.2	Procedure		P
D.2.2	Partially bound and V-shaped openings		P

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Clause	Requirement + Test	Result - Remark	Verdict
D.2.2.1	Apparatus		P
D.2.2.2	Procedure		P
D.3	Entrapment of clothing (Toggle test) Entrapment of clothing (Toggle test) Entrapment of clothing (Toggle test)		P
D.3.1	Apparatus		P
	Test device, as shown in Figure D.7 a), comprising:		P
	- toggle, as shown in Figure D.7 b), made of polyamides (PA) (e.g. nylon), polytetrafluoroethylene (PTFE), which have been found to be suitable materials;		P
	- chain, as shown in Figure D.7 c);		P
	- collar, detachable and with good slip;		P
	- pole.		P
D.3.2	Procedure		P
D.4	Finger entrapment		P
D.4.1	Apparatus		P
D.4.2	Procedure		P

Annex E	Test method for tear strength		P
E.1	Maximum value tongue tear, apparatus		P
E.2	Preparation of test specimens		P
E.3	Conditioning		P
E.4	Preconditioning		P
E.5	Characteristics of test atmospheres		P
E.6	Methods of conditioning		P
E.7	Procedure		P
E.8	Calculation and expression of results		P
E.9	Test report		P

EUT PHOTOS



Fig.01 Overall view

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