



Test Report **No.:** **64.190.22.3153.01-00**
Dated: **2022-12-15**

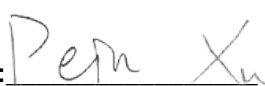
Applicant: Ningbo Bestgym Fitness Equipment Co., Ltd.
Address: No.13, Wangdong Industrial Road, Shangtian, Fenghua, Ningbo, Zhejiag, China
Sample Submission: The sample was submitted by applicant and identified.
Product Name: EXERCISE BIKE
Identification/Style No.: BGB220
Order No.: /
Manufacturer: /
Address: /
Country of Origin: /
Buyer: /
Export to: /
Receipt Date of Sample: 2022-12-01
Date of Testing: From 2022-12-01 to 2022-12-14
Test Result: Refer to the data listed in following pages

- All the tests were subcontracted to Xiamen Products Quality Supervision & Inspection Institute.

<u>Test Specification(s) or Test Item(s):</u>	<u>Conclusions:</u>
1. EN ISO 20957-1:2013 (Excluding clause 5.15 to 5.18)	<u>Pass</u>
2. EN ISO 20957-10: 2017 (Excluding clause 5.12 & 5.13)	<u>Pass</u>


Hardline Laboratory

TÜV SÜD Certification and Testing (China) Co., Ltd.
 Guangzhou Branch

Tested By: 

Pein Xu
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Reviewed By: 

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Designated Reviewer

Note: (1) "General Terms & Conditions" applied. For full version, please visit: <http://www.tuv-sud.cn/cn-scn/terms-and-conditions>
 2) Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question and is not generally applicable evaluation of the quality of other products in regular production. For further details, please see testing and certification regulation, chapter A-3.4. 3) The conclusion of test result was drawn according to corresponding regulation or standard method and/ or client's requirement

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Description of the test subject:

1	Product Description	EXERCISE BIKE Usage classes: H, Bodymass: 120kg
2	Dimensions / Weight	1260mmx550mmx1205mm/ 40.6kg

Sample photo(s)



Test Results:

EN ISO 20957-1:2013			
Clause	Requirement – Test	Measurements Results – Remarks	Verdict
5	Safety requirements		
5.2	<p>Stability of equipment The stationary training equipment shall be stable in any direction, in training, folding and storage positions.</p> <p>Test in training position Place the equipment on a $(10^{+2}_{-0})^\circ$incline surface, in the most onerous position. Perform exercise(s) that involve(s) the user's mass, with the equipment loaded with a person weighing (100 ± 5)kg, using the minimum as well as the maximum load, over the full range of exercise motion.</p> <p>In addition, if applicable, perform exercise(s) that does not involve the user's mass, using the minimum as well as the maximum load, over the full range of exercise motion. The equipment shall not tip over in either test. The test person shall not lean or try to influence the balance of the machine.</p> <p>Test in folded/storage position Place equipment, folded according to the user's manual, on a $(10^{+2}_{-0})^\circ$incline surface. The equipment shall not tip over in either test.</p>		P
	External construction		
5.3.1	<p>Edges and corners All edges and corners of surfaces supporting bodies shall have a radius $r \geq 2,5$mm. All other edges of components which are accessible to the user or to third parties shall be free of burrs, rounded or protected.</p>		P
5.3.2	<p>Tube ends When tested in accordance with 6.3.2, accessible tube ends shall be closed off, e.g. by parts of the equipment or by plugs. If plugs are used, they shall remain in position at the end of the endurance load test, as described in the relevant parts of the applicable specific standards. If no endurance test is described in a specific standard the pullout force of the plug shall be ≥ 20 N.</p>		P
5.3.3	Squeeze and shear points within the accessible hand and foot area		P

EN ISO 20957-1:2013			
Clause	Requirement – Test	Measurements Results – Remarks	Verdict
	<p>Squeeze and shear points between moving parts, between moving parts and fixed parts, or between a moving part and the floor shall be guarded or shall have a minimum clearance of at least 60 mm, except as follows:</p> <p>a) if only the fingers are at risk, the dimension shall be at least 25 mm;</p> <p>b) if third party access is prevented by the user's body position, and where the user is able to immediately stop the movement, the distance shall be at least 25 mm;</p> <p>c) if the angle between two adjacent moving parts or between a rigid part and an adjacent moving part is always 50 degrees or greater, it is not considered a shear point;</p> <p>d) open and obvious stops are excluded; however, if the stop is the part which is moving, then it shall pass no closer than 25mm from any fixed frame member throughout its range of movement.</p> <p>All products shall fulfil the above requirements during use.</p> <p>For foldable products during folding or unfolding, the above requirements are waived if the following three requirements are simultaneously met:</p> <ul style="list-style-type: none"> - inadvertent movement is not possible during folding, unfolding, transportation and/or storage; - access to squeeze and shear points remain at all times in the user's field of vision; - the user can stop the motion at any time. 		
5.3.4	<p>Squeeze and shear points as well as rotating and reciprocating points in the accessible hand and foot area</p> <p>The distance between movable parts or between a movable and a fixed part shall be at least 60 mm except as follows:</p> <p>a) if only fingers are at risk, the dimension shall not be less than 25 mm;</p> <p>b) if the distance between the moving part and fixed part, or between two moving parts, does not change during use or setup, the distance shall be greater than 25 mm or less than 9,5 mm;</p> <p>c) open and obvious stops are excluded. However, if the stop is the part which is moving, then it shall pass no closer than 25 mm to any fixed frame member throughout its range of movement.</p>		P
5.3.5	<p>Weights and resistant means</p> <p>The range of motion of all weights attached to the stationary training equipment shall be limited to that required to perform the exercise. Test in accordance with 6.3.4.</p>		N/A

EN ISO 20957-1:2013			
Clause	Requirement – Test	Measurements Results – Remarks	Verdict
	Weights and resistant means with stored energies (e.g. bungee cords, elastic tubes, mechanical springs) shall move freely and return to the starting point. Weights shall be securely retained during use.		
5.4	Entrapment of the user The possibility of users not being able to exit the equipment when using it according to the user's manual shall be avoided (e.g. providing assisted means of escape).		N/A
5.5	Adjustment components and locking mechanisms Adjustment components and locking mechanisms on the stationary training equipment shall function securely, be conspicuous, self-evident and safely accessible to the user. The possibility of unintended change shall be eliminated. Adjustment components and locking mechanisms e.g. knobs and levers shall not interfere with the user's range of movement. Weight selection pins shall be fitted with a retention device to prevent unintended change or movement during the exercise.		P
5.6	Ropes, belts, chains and attachment components		
5.6.1	General Ropes, belts, chains and their attachment components (e.g. snap links, shackles, carabineers, clamps or similar) shall have a safety factor against breakage of 6 times the maximum possible tension that can be developed. The design of the pulleys and the bending radius shall be in accordance with the applicable requirements of the rope, belt or chain manufacturers. Ropes, belts, chains and their attachment components shall not break and function as described in the user's manual.		N/A
5.6.2	Ropes and belts Rope and belt ends shall be, as a minimum, flush with the end of the termination means and shall be visible for inspection. Pressed connections shall not be subjected to bending. Rope and belt ends and grips shall have no sharp edges or frayed ends.		N/A
5.6.3	Rope and belt guides A means shall be provided to prevent a rope or a belt becoming unintentionally disengaged during use or set-up.		N/A

EN ISO 20957-1:2013			
Clause	Requirement – Test	Measurements Results – Remarks	Verdict
5.7	<p>Pull-in points Pull-in points of rope or belt drives up to 1800mm height shall be protected except if the surface pressure is $\leq 90 \text{ N/cm}^2$ or when access to the pull-in point is prevented by the user's body during exercising. This may be achieved by ensuring that the angle between the rope and the guard is not less than 50° in all positions. The guard shall not rotate together with the pulley. Pull-in points for chains, gears and sprockets shall be protected in accordance with ISO 12100. For flywheels the test finger shall not become trapped when tested in accordance with 6.8.</p>		P
5.8	Hand grips		
5.8.1	<p>Integral handgrips Gripping positions shall be easily identifiable and designed to reduce slipping (e.g. textured, coated, knurled).</p>		N/A
5.8.2	<p>Applied handgrips When tested in accordance with 6.10, applied handgrips shall not be removed. Applied handgrips shall be equipped with a surface that reduces hand slip.</p>		P
	<p>Apply a force of 70 N carefully to the handgrip by means of an appropriate pulling device.</p>		
5.8.3	<p>Rotating handgrips Rotating handgrips shall be secured during use and shall be designed to reduce slipping (e.g. textured).</p>		N/A
5.9	<p>Endurance test The stationary training equipment shall function as specified in the manufacturer's instructions after the test has been carried out.</p>	Class H	P
5.10	<p>Isometric test requirements If the stationary training equipment is designed to perform an isometric test, then the load or force on the user's body shall be displayed with an accuracy of $\pm 10\%$ in the range of measurement given in the user's manual and the read outs shall be SI units.</p>		N/A
5.11	<p>Heart rate measurement system The function of the heart rate measurement system shall be indicated on the display when the equipment is receiving a usable signal from the user, e.g. a blinking heart.</p>		N/A
5.12	<p>Heart rate control mode The function of the heart rate measurement system shall be permanently indicated on the display when the</p>		N/A

EN ISO 20957-1:2013			
Clause	Requirement – Test	Measurements Results – Remarks	Verdict
	equipment is receiving a usable signal from the user, e.g. a blinking heart. The loss of heart rate signal shall result in effort intensity remaining at the same intensity for maximum 60s and then decrease until the minimum intensity is reached. The rate of decrease shall be at least 10% in each 20s time period.		
5.13	Electrical safety Concerning electrical and electronic aspects of stationary training equipment EN 60335-1 shall be applied. For medical devices EN 60601-1 shall be applied.		N/A
5.14	Loading		
5.14.1	Intrinsic loading Each piece of equipment loaded with the user's bodymass shall withstand a force F of 2,5 times the bodymass. After the test the equipment shall not be broken and shall still function as intended by the manufacturer.	The user's bodymass:120kg, Test load:300kg.	P
	Carry out the test quasi-statically. Apply the load F in the most onerous position when used according to the instructions in the user's manual on a surface area of 300mm×300mm for 5 min on the stationary training equipment. Only equipment that requires anchoring for normal use shall be fixed during the test.		
5.14.2	Extrinsic loading When tested according to 6.3.4 and loaded with the user's bodymass and/or reaction forces or moments of the user as well as other forces or moments caused by any other source (e.g. additional weights supported by a stand),each piece of equipment shall withstand a load F according to Formula (1): $F=[Gk + 1,5G] \cdot 2,5 \cdot 9,81 \text{ m/s}^2$		N/A
5.15	Care and maintenance Care and, if applicable, maintenance advice shall be provided with each piece of equipment.		N/T
5.16	Assembly instructions If the stationary training equipment requires assembly, then a manual shall be supplied (in the national language), giving clear and accurate assembly instructions relating to the stationary training equipment and with an emphasis on safe assembly.		N/T
5.17	General instructions for use Each item of stationary training equipment shall be accompanied by a user's manual, in the national language including at least the following information.		N/T
5.18	Marking		N/T

EN ISO 20957-1:2013			
Clause	Requirement – Test	Measurements Results – Remarks	Verdict
	Stationary training equipment shall be permanently marked.		



EN ISO 20957-10: 2017			
Clause	Requirement – Test	Measurements Results – Remarks	Verdict
5	Safety requirements		
5.1	External construction		
5.1.1	<p>Transmission elements and rotating parts, squeeze and shear points Training equipment where the pedal cranks have a greater diameter than the housing shall have a distance between the pedal cranks and the stationary parts of the construction of ≥ 10 mm. This requirement does not apply if the housing has a greater diameter than the pedal crank. Transmission elements shall be covered in accordance with ISO 12100. All other parts shall be tested with the test finger in accordance with ISO 20957-1. The test finger shall not become entrapped or come into contact with moving parts which do not have a smooth surface. The radius of the edge of the flywheel shall be $\geq 2,5$ mm. The edges of the pedals shall be free of burrs, rounded or protected in some other way. Test in accordance with 6.1.1 and 6.2.</p>		P
5.1.2	<p>Temperature of accessible surfaces Accessible surfaces of the training equipment shall not have a temperature $> 65^{\circ}\text{C}$. Test in accordance with 6.3,</p>		P
5.2	Intrinsic loading		
5.2.1	<p>Seat pillar The seat pillar shall be tested in the most onerous position with a vertical load of 2,5 times the maximum user's body mass as specified in the user's manual or 2 500 N, whichever is greater. Test in accordance with 6.4. During the tests of the seat pillar, the training equipment shall not tip over. The clamped seat pillar shall not slip by more than 5 mm into the seat tube during the test. After the test, the training equipment shall not be broken and shall still function as intended by the manufacturer.</p>	<p>Class H Maximum weight of user: 120kg. Test load on seat pillar: 300kg.</p>	P
5.2.2	<p>Handlebar The handlebar shall be tested with a vertical load of 1,5 times the maximum user's body mass specified in the user's manual or 1 500 N, whichever is greater. The same handlebar shall then be tested with a horizontal load. The load shall be 0,5 times the maximum body mass as specified in the user's</p>	<p>Maximum weight of user: 120kg Test load applied vertically: 180kg, Test load applied horizontally: 60kg.</p>	P

EN ISO 20957-10: 2017			
Clause	Requirement – Test	Measurements Results – Remarks	Verdict
	<p>manual or 500 N, whichever is greater, applied horizontally in a forward direction.</p> <p>After the test, the training equipment shall not be broken and shall still function as intended by the manufacturer.</p> <p>Test in accordance with 6.5.</p>		
5.2.3	<p>Pedal</p> <p>The pedals shall withstand a load of 2,5 times the maximum user's body mass as specified in the user's manual or 2 500 N, whichever is greater. Test in accordance with 6.8.</p> <p>After the test, the training equipment shall not be broken and shall still function as intended by the manufacturer.</p>	<p>Maximum weight of user: 120kg</p> <p>Test load on pedal: 300kg.</p>	P
5.3	Seat pillar adjustment		
5.3.1	<p>General</p> <p>The height and the horizontal position, if applicable, of the seat shall be adjustable without a tool for class S training equipment.</p> <p>For class H training equipment, if a tool is required to adjust the seat height, it shall be provided by the manufacturer.</p>	Class H	P
5.3.2	<p>Insertion depth</p> <p>The seat pillar shall have a permanent mark indicating the minimum insertion depth of at least 1,5 times the cross-section reference dimension (e.g. diameter or longest diagonal use of a rectangular tube) into the seat tube. The mark is not required if the minimum insertion depth is given by the design.</p> <p>Test in accordance with 6.1.1 and 6.1.2.</p> <p>If the clamping mechanism of the horizontal adjustment becomes loose, the seat shall remain attached and support the user.</p> <p>Test in accordance with 6.1.3.</p>	<p>The cross section reference dimension:70mm.</p> <p>The minimum insertion depth:143mm.</p>	P
5.4	Handlebar		
5.4.1	<p>Handlebar stem adjustment</p> <p>The handlebar stem shall be adjustable or different grip positions shall be possible.</p> <p>If a tool is required to adjust the handlebar stem, it shall be provided by the manufacturer.</p>		P

EN ISO 20957-10: 2017			
Clause	Requirement – Test	Measurements Results – Remarks	Verdict
5.4.2	<p>Insertion depth The handlebar stem shall have a permanent mark indicating the minimum insertion depth of at least 1,5 times the cross-section reference dimension (e.g. diameter or longest diagonal use of a rectangular tube) into the frame. The mark is not required if the minimum insertion depth is given by the design. Test in accordance with 6.1.1 and 6.1.2. If the clamping mechanism of the horizontal adjustment becomes loose, the handlebar shall remain attached and support the user. Test in accordance with 6.1.3.</p>	<p>The cross section reference dimension:70mm. The minimum insertion depth:170mm.</p>	P
5.5	<p>Pedals The pedals shall include retention means which retain the foot in a position preventing unintended movement. Test in accordance with 6.1.2 and 6.1.3.</p>		P
5.6	<p>Stability The training equipment shall not tip over. Test in accordance with 6.6.</p>		P
5.7	<p>Locking system Exercise bicycles without freewheel for home use (class H) shall be equipped with a locking system. The locking system shall be able to hold ≥ 100 Nm torque applied to the crankshaft. The crank shall not rotate $>45^\circ$ when loaded. NOTE The locking system is provided to help prevent uncontrolled use or movement of any rotating parts of high inertia of the training equipment by persons, especially children. Test in accordance with 6.10.</p>	Class H	P
5.8	Emergency braking system		
5.8.1	<p>Effectiveness Exercise bicycles without freewheel shall be equipped with an emergency brake. This brake shall be capable of bringing the training equipment to a stop (in both directions) within one complete revolution of the crank and can be activated with a downward applied force (push) of ≤ 100 N or an upward applied force (pull) of ≤ 50 N. Test in accordance with 6.7.1.</p>		P

EN ISO 20957-10: 2017			
Clause	Requirement – Test	Measurements Results – Remarks	Verdict
5.8.2	<p>Actuator integrity</p> <p>For friction-based mechanical brake systems, the actuator shall withstand a load of (300 ± 5) N in the direction of movement of the actuator. For other types of brake systems (e.g. magnetic), the actuator shall withstand a load of five times the measured value required to trigger the brake system in the direction of movement of the actuator.</p> <p>Test in accordance with 6.7.2.</p> <p>After the test, the actuator shall not be broken and shall still function as intended by the manufacturer.</p>		P
5.8.3	<p>Visibility</p> <p>The actuator shall be easily accessible and visible from the user's position.</p> <p>The actuator of the emergency brake shall be coloured RED. If there is a background, the background shall be coloured YELLOW. Test in accordance with 6.1.2.</p>		P
5.9	<p>Endurance for the pedal crank assembly</p> <p>The pedal crank assembly shall withstand a dynamic load of 75 % of the maximum user's body mass as specified in the user's manual or (750 ± 10) N, whichever is greater, for</p> <p>a) 1 000 000 cycles at a frequency of ≤ 25 Hz for class S, and</p> <p>b) 120 000 cycles at a frequency of ≤ 25 Hz for class H.</p> <p>Test in accordance with 6.8.</p>	Class H	P
5.10	<p>Foot clearance</p> <p>The vertical distance between any rigid component of the pedal and the floor or the pedal and any frame member shall be ≥ 60 mm.</p> <p>Test in accordance with 6.1.1 and 6.1.2.</p>	Distance:107mm	P

EN ISO 20957-10: 2017			
Clause	Requirement – Test	Measurements Results – Remarks	Verdict
5.11	<p>Power display</p> <p>Exercise bikes without freewheel and with a watt display shall not be called ergometer. Test in accordance with 6.1.2.</p> <p>For values ≥ 50 W, the accuracy of the power display shall be within the tolerance of ± 10 % and for values of < 50 W, the accuracy of the power display shall be within the tolerance of ± 5 W. Test in accordance with 6.9.A constant power mode is not allowed. Test in accordance with 6.1.2.</p> <p>For class S: If the heart rate is displayed, a warning placed in a conspicuous position on the display console shall be given: "WARNING! Heart rate monitoring systems may be inaccurate. Over-exercise may result in serious injury or death. If you feel faint, stop exercising immediately." Test in accordance with 6.1.2.</p> <p>A heart rate controlled mode is not allowed. Test in accordance with 6.1.2.</p> <p>Marking as class A, class B or class C training equipment is prohibited. Test in accordance with 6.1.2.</p> <p>No specification as class A, class B or class C training equipment shall be given in the instructions for use.</p> <p>Information about accuracy range with speed (rpm) and power (in W) shall be given in the instructions for use.</p>		N/A
5.12	<p>Additional instructions for use</p> <p>In addition to the general instructions for use in ISO 20957-1, the manufacturer shall give instructions for the safe use with at least the following information: information on the risk caused by spinning pedals and/or exposed flywheel with the absence of a freewheel system; instructions of the method required to operate the emergency brake; instructions describing the method required to stop the rotation of the pedals and flywheel, and end the training; instructions describing the operation of the locking mechanism for class H; instructions to explain that class S training equipment shall always be used in a supervised environment; instructions describing the requirement to use the foot positioning system described in 5.5; for designs that do not ensure a minimum insertion depth of the handlebar and the seat, instructions to</p>		N/T

EN ISO 20957-10: 2017			
Clause	Requirement – Test	Measurements Results – Remarks	Verdict
	explain the importance of adjusting the handlebar and the seat to suit the user: “This adjustment shall not exceed the mark indicating the minimum insertion depth.”		
5.13	<p>Additional marking</p> <p>Home use (class H) training equipment without freewheel shall be marked with a warning label instructing the user to lock the training equipment when not in use: "WARNING — Lock the equipment when not in use."</p> <p>Class S training equipment without freewheel shall be marked with a warning label instructing that the equipment shall be used in a supervised environment: "WARNING — Use the stationary training equipment in a supervised environment." All labels shall be placed in a visible position.</p>		N/T

Abbreviation: P=Pass; F=Fail; N/A = Not Applicable; N/T=Not Tested; N/R=Not Requested

Remark:

- 1 The test results exclusively base on the submitted sample.

-End of Test Report-