

SHENZHEN DengFu Sports Equipment Co.,Ltd
Frame ISO4210 Test Report



深圳市登富体育用品有限公司

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物性測試報告

TEST REPORT OF PHYSICAL PROPERTY

測試編號： PROJECT NO.:	Frame-0001
測試日期： TEST DATE:	2016.12.28
委測部門： ENTRUST TEST DEPT.:	开发
產品型號： PRODUCT TYPE:	FM098-56
測試目的： TEST PURPOSE:	物性测试 Physical Property

1. 產品由申請人提供，本實驗室測試，測試結果詳見內頁。

Products sent by applicant have been tested by our laboratory. The test result is included in this test report.

2. 本報告結果僅對申請人所送樣品有效。

This report is responsible for sample only, not for the use of suit.

3. 未經本部門同意不得隨意複製此報告。

This test report contains (3) pages, it can not be abstracted and copied separately.

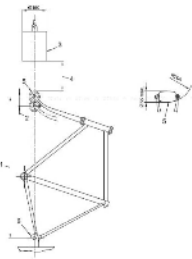
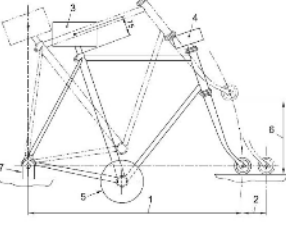
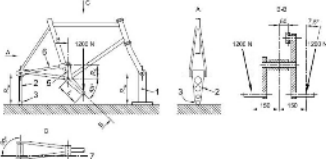
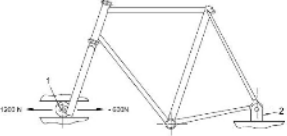
4. 報告兩份副本，一份申請者，原件品管課存檔。

This report has two copies, one for applicant and another reserves in laboratory.

核准： Approve:		審核： Verify:		試驗者： Inspector:	吴卫
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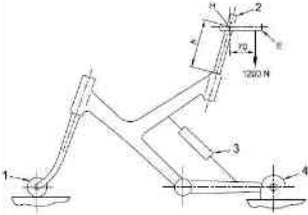
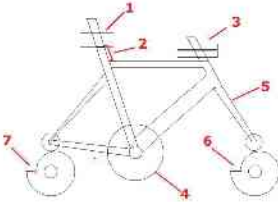
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<input checked="" type="checkbox"/> ISO4210		<input type="checkbox"/> EN							
Customer/Supplier:			Test Report N°:		Test Date: 2016.12.25				
Frame/Item N: FM098-56			Issue Date: 2016.11.28						
Part Description:									
Drawing N°:		Frame Type	<input type="checkbox"/> MTB 1-5	<input checked="" type="checkbox"/> Racing 1-5	<input type="checkbox"/> City & Trekking 1,3,5	<input type="checkbox"/> Children 1-2			
		车型	山地车	公路车	城市车	童车			
Material: <input type="checkbox"/> Steel <input type="checkbox"/> Alloy <input checked="" type="checkbox"/> Carbon <input type="checkbox"/> Other		Test Picture 测试图示		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test result 测试结果	Conclusion 判定
Description of test items 测试项目描述				MTB	Race	City	Children		
1 Impact test (Falling mass) 车架回后冲击测试 1. Weight of drop hammer: 22.5kg 2. Drop height: (H) mm 3. Permanent deformation ≤ (k)mm Requirement: a. General front fork < (a) mm b. Rigid solid-steel bar < (b) mm No visible cracks No fractures				H	360	212	180	120	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Failed
				a	30	30	30	20	
				b	10	15	10	20	
2 Impact test (Falling frame) 前倒冲击测试 Keep the frame and front fork assembly upright. Then fix (H/T) kg, (S/T) kg and (B/B) kg at the top of the head tube, vertical post of seat cushion and its five-through respectively until the roller keeps a clearance of (h) mm from the anvil. Allow the frame and front fork assembly to fall freely to the anvil and then repeat the operation. The permanent deformation below (i) mm is acceptable.				H/T	10	10	10	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Failed	
				S/T	30	30	50		30
				BB	50	50	30		/
				h	300	200	200		
				i	60	15	20		
3 Pedaling fatigue test 踏力疲劳测试 Apply an acting force of $F=(F2)N \pm 0.5\%$ to the both pedal spindle (equivalent test piece). Then apply it to the (150) mm center line of the frame in the vertical section at an angle of inclination of $7.5^\circ \pm 0.5\%$. Apply a test force within 5 per cent of the maximum acting force to the main shaft of the pedal. Perform (d) cycles.				F2	1200	1100	1000	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Failed	
				d	100000 Cycles				
4 Horizontal fatigue test 水平力疲劳测试 Fix the frame and rear fork on the test instrument by normal means of installation without limit of the required rotation (for the rear axle). Apply a horizontal force of + (F3) N toward the front fork end and - (F4) N backward. Repeat the operation for (j) cycles. The acting force may freely travel in the test.				F3	1200	600	/	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Failed	
				F4	600	600			
				j	50000	100000			

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5 Vertical fatigue test 垂直力疲劳测试	1. Insert a round steel tool into the seat tube by 75mm and then fix it. 2. Extend the tool from the top of the middle tube by 250mm (see the figure). 3. Keep a clearance of 70mm between the round steel tool and the extended tool (see the figure). Apply a vertical force of 0-(F1) N downward with a frequency of 25Hz and perform (c) test cycles.		F1	0-1200	1200	0-1000		<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Failed
6 Vibration fatigue test 震动疲劳测试	1.ST(KG) 2.ST distance=120mm 3.HI(KG) 4.BB(KG) 5.Fork 6.Drop height=30mm 7.Drop height=30mm (Not ISO Standard)		H/T	20	10	20		<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Failed
			S/T	30	20	30		
			BB	40	40	40		
			20000 Cycles					
Passing Criteria	<p>No breakage or visible crack shall appear in any part of the frame/front fork assembly after the test.</p> <p>(The suspension damper may be substituted by an artificial tool).</p> <p>(For carbon fiber frames, the peak deflections during the test at the point where the forces are applied shall not increase by more than 20% of initial value)</p> <p style="text-align: center;">For a full explanation of the testing method requirements please refer to the relevant EN standard.</p>							
Comment	<p>Fatigue testing frequency used:</p> <p>Peddling Fatigue: Hz Horizontal Fatigue: Hz Vertical Fatigue: Hz</p> <p>Other Comments:</p>							

Approved by:

Checked by:

Tested by: 吴卫

Photograph of Test Frame

测试照片

1. Impact test (Falling mass)

车架前叉组向后冲击



2. Impact test (Falling frame)

车架前倒冲击测试



3. Pedaling fatigue test

踩踏疲劳测试



4. Horizontal fatigue test

水平拉力疲劳测试



5. Vertical fatigue test

垂直拉力疲劳测试



6. Vibration fatigue test

震动疲劳测试

