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 .09.02
委 測 部 門 : ENTRUST TEST DEPT.:	开发
產 品 型 號 : PRODUCT TYPE:	TR011-510#
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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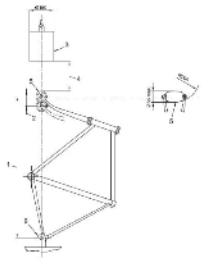
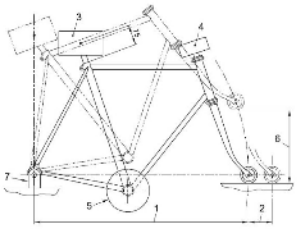
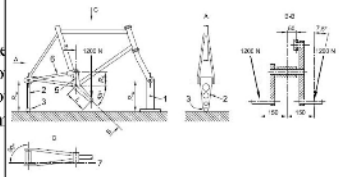
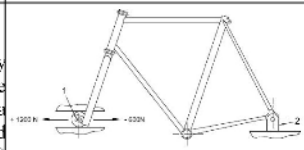
☑ ISO4210	☐ EN

Customer/Supplier:	Test Report N°:	Test Date: 2016.09.02
Frame/Item N: TR011	Issue Date: 2016.09.02	
Part Description:		

Drawing N°:	Frame Type 车型	☐ MTB 1-5 山地车	☑Racing 1-5 公路车	☐ City & Trekking1,3,5 城市车	☐ Children 1-2 童车

Material: ☐Steel ☐Alloy ☑Carbon ☐Other

Description of test items 测试项目描述	Test Picture 测试图示		☐ MTB	☑ Race	☐ City	☐ Children	Test result 测试结果	Conclusion 判定
1 Impact test (Falling mass) 车架向后冲击测试 **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		☑ Pass ☐ 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 (BB) kg at the top of the head tube, vertical pos of seat cushion and its five-through respectivcly until the rolle keeps a clearance of (h) mm from the anvil. Allow the frame and front fork assembly to fall freely to the anvil and then repea the operation. The permanent deformation below (i) mm is acceptable.		H/T	10	10	10			☑ Pass ☐ 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±0.5% to the both pedal spindle (equivalent test piece). Then apply it to the (150) mm center line o the frame in the vertical section at an angle of inclination o 7.5°±0.5%. Apply a test force within 5 per cent of the maximun acting force to the main shaft of the pedal. Perform(d) cycles.		F2	1200	1100	1000			☑ Pass ☐ 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				☑ Pass ☐ Failed
		F4	600	600				
		j	50000	100000				

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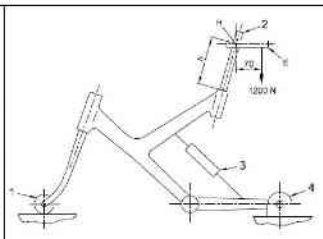
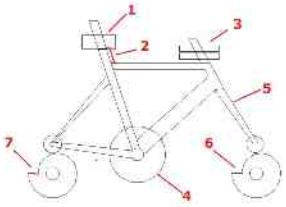
5 Vertical fatigue test 垂直力疲劳测试	**1.** Insert a round steel tool into the seat tube by 75mm and then fix it. **2.** Extend the tool from the top of the middle tube by 250mm (see the figure). **3.** Keep a clearance of 70mm between the round steel tool and the extended tool (see the figure). Apply a vertical force of 0-(F1) N downward with a frequency of 25Hz and perform (c) test cycles.		F1	0-1200	1200	0-1000			☑ Pass ☐ Failed
			c	50000 Cycles	50000 Cycles	50000 Cycles			
6 Vi bration fatigue test 震动疲劳测试	1.ST(KG) 2.ST distance=120mm 3.HT(KG) 4.BB(KG) 5.Fork 6.Drop height=30mm 7.Drop height=30mm (Not ISO Standard)		H/T	20	20	20			☐ Pass ☐ Failed
			S/T	30	30	30			
			BB	40	40	40			
			20000 Cycles						

Passing Criteria	**No breakage or visible crack shall appear in any part of the frame/front fork assembly after the test.** **(The suspension damper may be substituted by an artificial tool).** (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) **For a full explanation of the testing method requirements please refer to the relevant EN standard.**
Comment	**Fatigue testing frequency used:** **Peddling Fatigue: Hz Horizontal Fatigue: Hz Vertical Fatigue: Hz** **Other Comments:**

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