CHC
財團法人自行車暨健康科技工業研究發展中心
Cycling & Health Tech Industry R&D Center
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Test Report

財團法人自行車暨健康科技工業研究發展中心 檢測實驗室 2024-01-30 Cycling & Health Industry R&D Center Testing Laboratory

Contract No.	：24011801B
Issue Date	：Jan. 30, 2024
Applicant	：CHANGEBIKE CO., LTD
Address	：266-1 Yuying Rd. Dajia Dist. Taichung city, Taiwan
Product	：Frame(Mountain)
Model No.	：DF-9XX
Test Standard	：As shown in the test report
Test Results	：Pass

Note：(1) The test sample(s) is provided by the applicant and the CHC test result(s) are shown below.
(2) This test report refers only to the test result(s) of the sample(s) tested, and the measurement uncertainty will not be considered. The above content follows regulations from corresponding authorities.
(3) There is a total of 6 pages in this report which shall not be abstracted and partially copied.
(4) There is only one test report for the applicant.

Approved by： Chen-Neng Chu Tested by： Zhuang, Mu-Wei

FORM NO：RI 20-08

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Contract No. : 24011801B

Sample Received Date:2024.01.18 Testing Date(s): 2024.01.24 ~ 2024.01.29 Environmental Conditions : 20~22°C, 56~60%RH

1. Test sample :

The samples are shown in Fig. 1. Specification of the samples are shown in Tab. 1.

1(a)Sample 1

1(b)Sample 2

Fig. 1 Test samples

Tab. 1 Specification of the sample

Sample	Specification			Comments
Frame (Model No. : DF-9XX)	Material	Metal		PRODUCT INFORMATION (Provided by applicant) : The length of rigidity fork is 470 mm.
	Weight (kg)	Sample 1	2.94	
		Sample 2	2.68	

2. Test item : As shown in Tab. 2.

Tab. 2 Test item summary

No.	Test item	Requirement:	Test method:
		ISO 4210-2:2023	ISO 4210-6:2023
1	Frame - Fatigue test with horizontal forces	Sec. 4.8.5	Sec. 4.4
2	Frame - Fatigue test with pedalling forces	Sec. 4.8.4	Sec. 4.3
3	Frame - Fatigue test with vertical force	Sec. 4.8.6	Sec. 4.5
4	Frame - Impact test (falling mass)	Sec. 4.8.2	Sec. 4.1
5	Frame and front fork assembly - Impact test (falling frame)	Sec. 4.8.3	Sec. 4.2

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3. Test equipment：As shown in Tab. 3.

Tab. 3 Test equipment

Equipment	Serial number	Comments
Fatigue test machine	CE-07, CE-04	
Impact test machine	CE-10	

4. Test results：As shown in Tab. 4.

Tab. 4 Test results

No.	Test item	Requirement	Condition	Results
1	Frame - Fatigue test with horizontal forces	No cracks or fractures.	Forward: 1200 N, Rearward: 600 N 3 Hz, 50,000 cycles	Pass (Fig. 2)
2	Frame - Fatigue test with pedalling forces		1,200 N, 3 Hz 100,000 cycles	Pass (Fig. 3)
3	Frame - Fatigue test with vertical force		1,200 N, 3 Hz 50,000 Cycles	Pass (Fig. 4)
4	Frame - Impact test (falling mass)	No cracks or fractures Deformation: < 10 mm (Dummy fork)	Load : 22.5 kg Drop height: 360 mm	Pass (Deformation: 9 mm, Fig. 5)
5	Frame and front fork assembly - Impact test (falling frame)	No cracks or fractures Deformation: < 60 mm	Load : Seat-post : 30 kg Steering head :10 kg Bottom bracket : 50 kg Drop height : 300 mm Drop twice	Pass (Deformation: 24 mm, Fig. 6)

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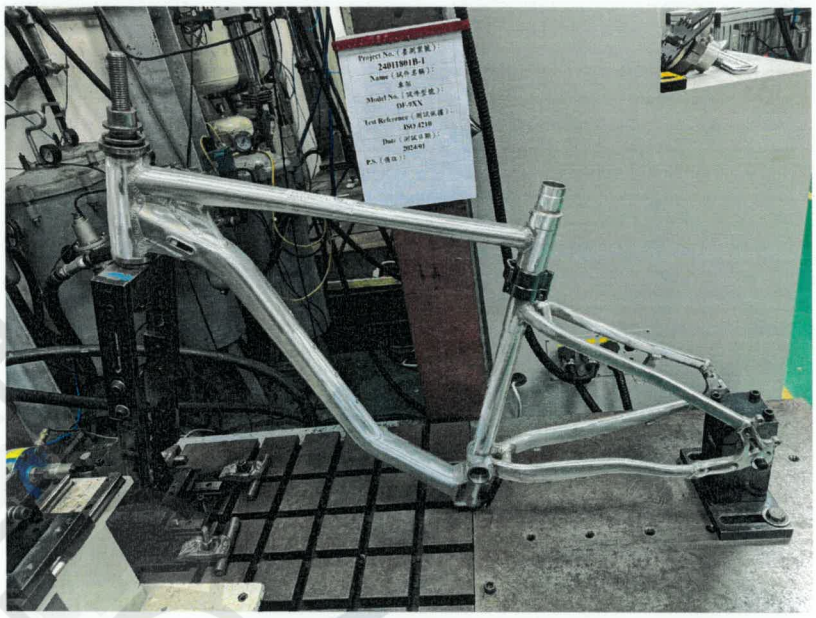

Fig. 2 Frame - Fatigue test with horizontal forces (Sample 1)

Fig. 3 Frame - Fatigue test with pedalling forces (Sample 2)

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Fig. 4 Frame - Fatigue test with vertical force (Sample 2)

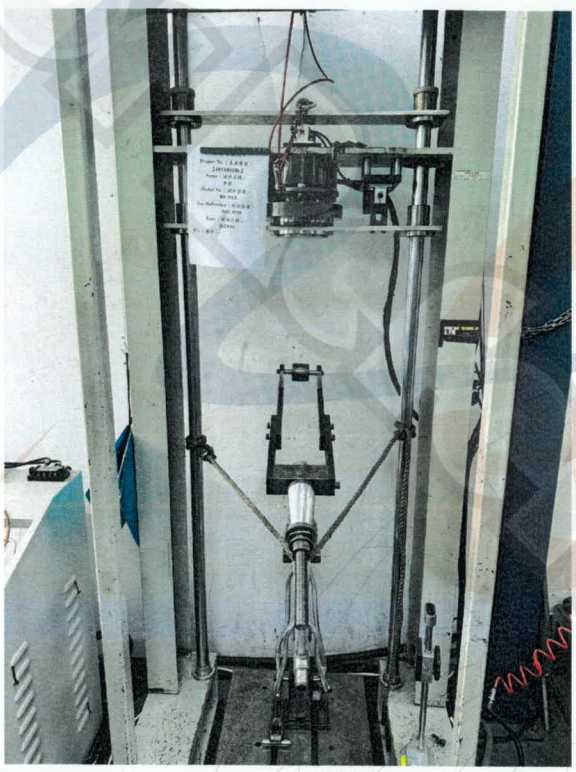

Fig. 5 Frame - Impact test (falling mass) (Sample 2)

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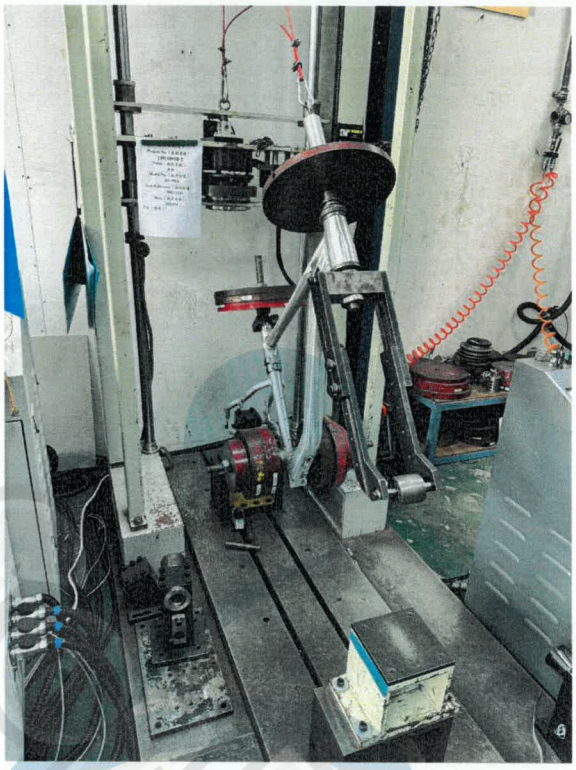

Fig. 6 Frame and front fork assembly - Impact test (falling frame) (Sample 2)

End of this report.