



CHC

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Test Report



Contract No : 16092106B
Issue Date : Sep. 30, 2016
Applicant : GOOD FOCUS CORP.
Address : No.293, Sec.1, Fuxing E. Rd. Chubei City, Hsinchu County, Taiwan
Product : Brake pad (Mountain)
Model No : GF-Q108A-1
Test Standard : As shown in the test report



- Note : (1)The product is supplied by the applicant which has been tested by CHC and the test result is shown in this test report.
(2)This test report is responsible only for the tested product, not for the suit.
(3)Total 6 pages in this report which shall not be abstracted and partial copied.
(4)There is only one test report for the applicant.

Approved by : *Chen-Neng Chan*

Tested by : *John, Chen-Han*

FORM NO : RI 20-04



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1. Test sample :

The sample is shown in Fig. 1. Specification of the sample is shown in Tab. 1 .



1(a)



1(b)

Fig. 1 Test sample

Tab. 1 Specification of the sample

Sample	Specification		Comments
Wheel (Model No : GF-Q108A-1)	Weight (g)	103	





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2. Test item : As shown in Tab. 2

Tab. 2 Test item summary

No.	Test item		Requirement	Test method
1	Braking performance (Machine test method)	Dry condition	ISO 4210:2015 - Part 2 : Sec. 4.6.8.1.2	ISO 4210:2014 -Part 4 : Sec. 4.6.5.7 c) 1)
		Wet condition		ISO 4210:2014 -Part 4 : Sec. 4.6.5.7 c) 2)
		Linearity		ISO 4210:2014 -Part 4 : Sec. 4.6.5.3
2	Brakes- Heat-resistance test		ISO 4210:2015 - Part 2 : Sec. 4.6.9.2	ISO 4210:2014 - Part 2 : Sec. 4.7
3	Mechanical endurance test		DIN 79100:2000 - Sec. 5.6.5.2	

3. Test equipment : As shown in Tab. 3.

Tab. 3 Test equipment

Equipment	Serial number	Comments
Brake test machine	DE-01	

4. Test result : As shown in Tab. 4

Tab. 4 Test result

No.	Test item		Requirement:	Condition	Result
1	Braking performance (Machine test method)	Dry condition	Front : ≥ 425 N	12.5 km/hr, Load: 100 kg	Pass, Fig. 2, Tab. 5
		Wet condition	Front : ≥ 220 N		Pass, Fig. 2, Tab. 5
		Linearity	Between $\pm 20\%$		Pass, Fig. 3
		Ratio between wet and dry	> 0.4		Pass, Tab. 5
2	Brakes- Heat-resistance test		$\geq 60\%$	75 Wh	Pass, Tab. 6 Fig. 4



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No.	Test item	Requirement	Condition	Result
3	Mechanical endurance test	There shall be any fractures or visible cracks in the any part of brake system.	1. V: 12.5 km/hr \pm 5 %. 2. Loading: 100 kg. 3. Braking 3 sec and release 3 sec for 3,000 cycles. 4. Deceleration efficiency could not over 2.20 m/s ² \pm 10 %.	Pass Fig. 5

Tab. 5 Measured braking force under different braking operate-force
Unit : N

Braking operate-force ($F_{Op} / F_{Op\ intend}$)		40	60	80	100	120	140	160	180
Front	$F_{Br\ average}^D$	184	283	369	438	532	---	---	---
	$F_{Br\ average}^W$	143	193	232	293	316	---	---	---
	$F_{Br\ average}^W : F_{Br\ average}^D$	0.77	0.68	0.63	0.67	0.59	---	---	---

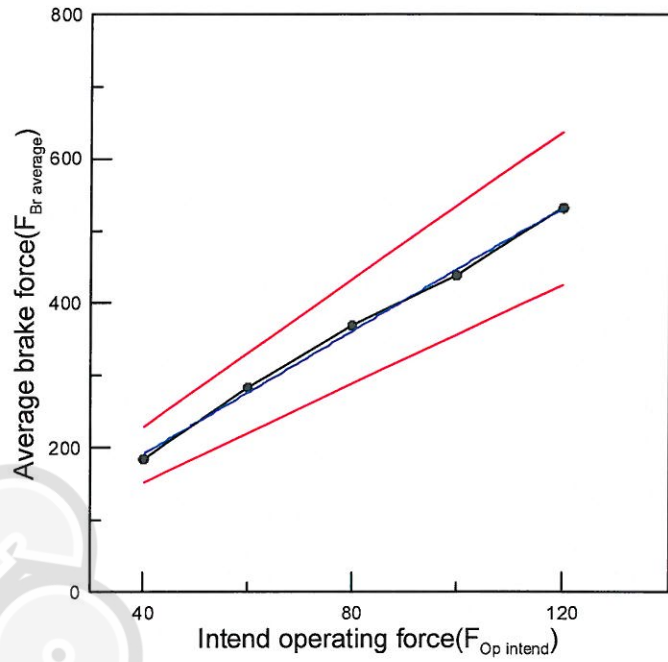
Note : (---) It is unable to continue and test for tire to skid.



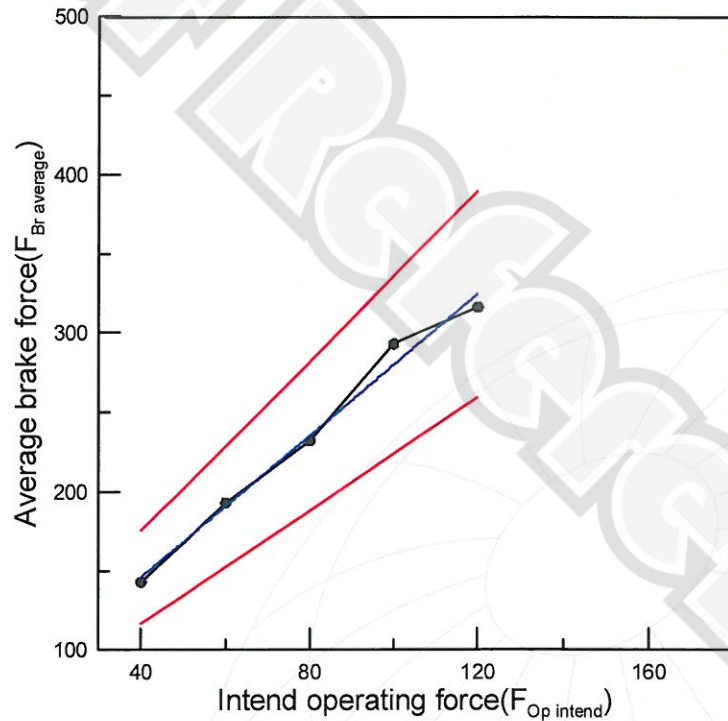
Fig 2 Braking performance test



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3(a) Front brake - Dry condition



3(b) Front brake - Wet condition

Fig 3 Braking performance - Linearity curve



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Tab. 6 Braking performance after the heat resistance test

Brake condition		Before	After	Ratio	Requirement
Front	$F_{Br\ average}^D$ ($F_{op} : 120\ N$)	532	556	104 %	>60 %
	$F_{Br\ average}^W$ ($F_{op} : 120\ N$)	316	338	107 %	

The 43 mm gap between the hand-brake lever and the handlebar-grip after the test.



Fig. 4 Brakes - Heat resistance test



Fig. 5 Mechanical endurance test

End of this report.

