

EN-14781



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SGS



Mechanical & Hardgoods Lab.

TEST REPORT

REPORT NO. TH90084/2008
PAGE NO. 1 OF 6
DATE: Oct. 15, 2008

PRO-LITE INTERNATIONAL LTD.

1F, No. 128, FU CHIANG ST., TAICHUNG TAIWAN R.O.C.

The following merchandise was submitted and identified by the applicant as:

Product Description: Racing Carbon Frame
Style/Item No.: Galileo Full Carbon Frame
Manufacturer/Vendor: TAIWAN
Country of Origin: TAIWAN
Sample Quantity: 1 pcs
Sample Received Date: Sep. 23, 2008
Test Period: Sep. 24, 2008 ~ Oct. 14, 2008

We have tested the submitted sample(s) as requested and the following results were obtained:

Test Required: For compliance with Clause 4.8.2.2, Clause 4.8.3.2, Clause 4.8.4.2 and Clause 4.8.5.2 of EN 14781:2005 Racing bicycles – Safety requirements and test methods.

Test Methods: According to Clause 4.8.2.3, Clause 4.8.3.3, Clause 4.8.4.3 and Clause 4.8.5.3 of EN 14781:2005 Racing bicycles – Safety requirements and test methods.

Sequence of Testing: Clause 4.8.4.3, Clause 4.8.5.3, Clause 4.8.2.3 and Clause 4.8.3.3.

Test Result: (SEE ATTACHED SHEETS)

Conclusion: In our opinion, the submitted sample(s) comply with Clause 4.8.2.2, Clause 4.8.3.2, Clause 4.8.4.2 and Clause 4.8.5.2 of EN 14781:2005 Racing bicycles – Safety requirements and test methods.

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Signed for and on behalf of
SGS Taiwan Ltd.

Rex Su
Team Leader

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Test Result:

Clauses:

4.8.2 Frame and front fork assembly – impact test (falling mass)

4.8.2.2 Requirement

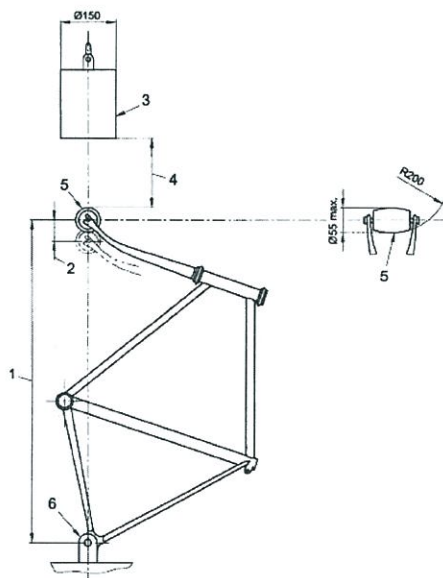
When tested by the method described in 4.8.2.3, there shall be no visible cracks or fractures in the assembly and there shall be no separation of any parts of any suspension system.

The permanent deformation measured between the axes of the wheel axles (the wheel-base — see 3.23) shall not exceed the following values:

- 30 mm where a fork is fitted;
- 15 mm where a solid-steel bar is fitted in place of a fork.

4.8.2.3 Test method

Figure:



Actual Finding:

Test clause	Requirement	Test Result
Clause 4.8.2.3	< 30 mm	1.5 mm
Remark	There was no visible crack on the sample after testing.	

Note: The solid test fork provided by SGS Taiwan substituted for the fork and the solid test fork is 371 mm in length.

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Test Result:

Clauses:

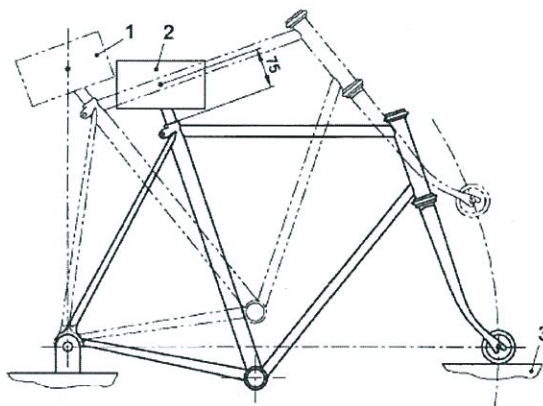
4.8.3 Frame and front fork assembly – impact test (falling frame)

4.8.3.2 Requirement

When tested by the method described in 4.8.3.3, there shall be no visible cracks or fractures in the assembly and after the second impact, the permanent deformation measured between the axes of the wheel axles (the wheel-base – see 3.23) shall not exceed 15 mm for a frame-fork assembly and there shall be no separation of any parts of any suspension system.

4.8.3.3 Test method

Figure:



Result

Pass

Actual Finding:

Test clause	Requirement	Test Result
Clause 4.8.3.3	< 15 mm	1.9 mm
Remark	There was no visible crack on the sample after testing.	

Note: The solid test fork provided by SGS Taiwan substituted for the fork and the solid test fork is 371 mm in length.

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Test Result:

Clauses:

4.8.4 Frame – fatigue test with pedalling forces

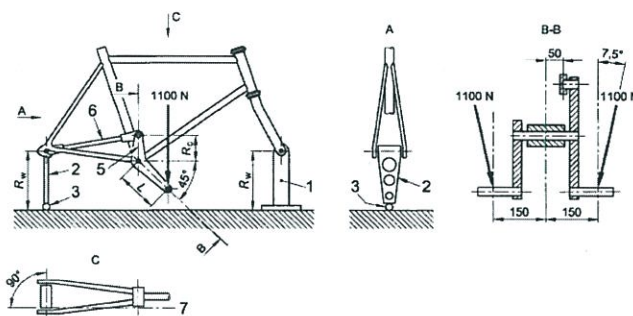
4.8.4.2 Requirement

When tested by the method described in 4.8.4.3, there shall be no visible cracks or fractures in the frame, and there shall be no separation of any parts of any suspension system.

For carbon- fibre frames, the peak deflections during the test at the points where the test forces are applied shall not increase by more 20 % of the initial values.

4.8.4.3 Test method

Figure:



Actual Finding:

Test clause	Test conditions				Test Result (cycle)
		Force	Frequency	Cycles	
Clause 4.8.4.3	Requirement	1,100 N	< 25 Hz	100,000	100,000
	Actual	1,100 N	3 Hz		
Remark	There was no visible crack on the sample after testing.				

	Peak deflections during	
	Initial values	Final values
Left	19.78 mm	20.42 mm
Right	21.54 mm	22.71 mm

Note: The solid test fork provided by SGS Taiwan substituted for the fork and the solid test fork is 371 mm in length.

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Test Result:

Clauses:

4.8.5 Frame – fatigue test with horizontal forces

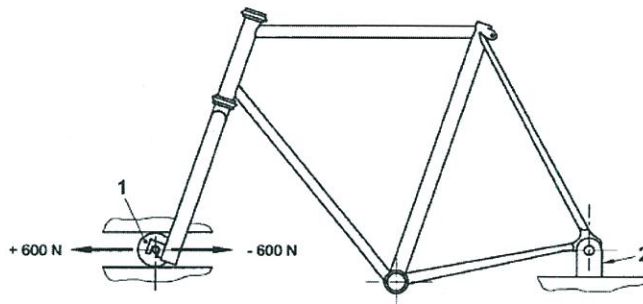
4.8.5.2 Requirement

When tested by the method described in 4.8.5.3, there shall be no visible cracks or fractures in the frame and there shall be no separation of any parts of any suspension system.

For carbon- fibre frames, the peak deflections during the test in either direction from the mean position shall not increase by more than 20% of the initial values.

4.8.5.3 Test method

Figure:



Result

Pass

Actual Finding:

Test clause	Test conditions				Test Result (cycle)
		Force	Frequency	Cycles	
Clause 4.8.5.3	Requirement	+ 600 N - 600 N	< 25 Hz	100,000	100,000
	Actual	+ 600 N - 600 N	3 Hz		
Remark	There was no visible crack on the sample after testing.				

	Peak deflections during	
	Initial values	Final values
Single	14.40 mm	14.97 mm

Note: The solid test fork provided by SGS Taiwan substituted for the fork and the solid test fork is 371 mm in length.

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----- Picture page -----



Photo "A" Appearance of sample

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