

Customer:  
Contact person:  
EFBE Date of Order:  
Fax-No.:

LAMINAR ENT. CO. LTD.  
Simon Chang  
2013-01-08  
+886 4 25 39 19 73

Landabsatz 25, D-45731 Waltrop  
tel + 49 (0) 2309 78407-0 fax -10  
info@efbe.de www.efbe.de

## Testreport

Computer controlled fatigue test of a  
Bicycle handlebar + stem  
Test item no. 134153

### Test sample data

	handlebar	stem
Manufacturer	Lagear	Lagear
Model name	HB-MBR 780/32	LB
Identity no.	No	No
weight (g)		7/174
Suspension	No	
Coating	Yes	Yes
Width / clamping width (mm)	780 / 680	
Clamping torque (Nm)	8	6
Clamping diameter (mm)	31,8	28,4
Length stem (mm)		100
Remarks	None	

### Test description

The handlebar / stem was fatigue tested following EFBE-Standard 7520. This means a computer controlled and documented single stage test (Wöhler-test) with an error less than 1% and a standard deviation less than 0,5%. In case of suspension test samples the test is carried out with spring rate, spring preload and damping at maximum.

#### Fatigue test handlebar/stem EFBe TP-M (LDKTPM)

The **test arrangement** is loading the handlebar ends antiphase and inphase. It is corresponding to EN 14764, clause 4.7.7.

The **requirements** are corresponding EFBe-class **Top Performance** for **mountain bikes (TP M)**:

	Anti phase	In phase
<b>Top load:</b>	+270 N	+ 450 N
<b>bottom load:</b>	- 270 N	- 450 N
<b>Allocated number of cycles:</b>	100 000	100 000

These requirements are equivalent to the requirements of EN 14766.

### Test result:

**Anti phase:** The allocated number of loads was reached without any crack or fracture.

**In phase:** The allocated number of loads was reached without any crack or fracture.

**The test was passed.**

**Remarks:** None

Test engineer: i.A. V. Stobberg  
End of testing: 2013-01-19

Waltrop 2013-01-21 .....  
stamp, sign

This test report may not be reproduced but with complete wording. It contains the result of a one-time type testing and no statements about quality of serial production components are made. Readings of dimensions, torques and weights without engagement.

**Caution!**  
**Fatigue tested parts cannot be used further on.**  
**Acute danger of fracture!**