

New regulations for certificates, testing seals and Internet entries.

The previous system has proven reliable for the last nine years, however now the time has come for an important step in EFBe's development. As partially mentioned in the last newsletter, our new *Full Test* will be using new certificates and testing seals from September 2005. This will mean the following changes for our business partners:

Certificates and testing seals for frames

The newly developed certificates and testing seals will only be issued upon the successful completion of the *Full Test*. Frames must successfully withstand all three loads of a specified performance class. The process will remain broadly similar to the previous riding out-of-saddle testing certificates. The following must be considered when applying for a certificate and testing seal:

1. The validity period is printed on the certificate/seal. It contains the year in which the test was successfully completed as well as the following year.

2. On successful completion of EFBe's test, the test sample is archived for inspection purposes until the end of the validity period and then destroyed. If the certificate/seal is no longer being used for promotional purposes the test sample can be claimed.
3. The certificates and testing seals are not only for racing and MTB frames, but also for trekking/city frames.

Certificates and testing seals for components

As requested by various manufacturers, the same system of certificates/seals will be used for the fatigue tests of all safety relevant components (forks, handlebars/stems, seat posts, and cranksets).

Internet database for frames

Only finished frames will be added to the new *Full Test* Internet database, not prototypes and unvarnished test samples. The previous Internet list for riding out-of-saddle fatigue tests will no longer be updated. However, due to the high level of interest, it will stay online for at least another year.

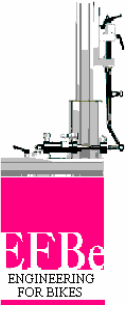
To ensure fair frame weight specifications, MTB and road frames will currently be supplied with a comparison weight, adding set values to the measured weight of any missing accessories such as the saddle post clamp, etc. The details will be explained on our website.

Special conditions for existing certificates and testing seals

Unfortunately, due to the current conversion, the devaluation of existing certificates/seals and Internet entries cannot be avoided. As a compromise we offer the following conditions for all certificates/seals and Internet entries from the years 2004 and 2005:

An upgrade under special conditions will be possible until the 31.12.2005. The conditions





consist of a *Full Test* of the respective frame model in any particular performance class. The price of the complete *Full Test* under these conditions and for this period of time has been reduced from 980,- to 490,- euros.

When selecting the performance level, pay close attention to the partial accumulation of damage effects of the three fatigue tests. In many cases it is therefore recommended to carry out the *Full Test* in a lower performance level than that of the completed riding out-of-saddle fatigue test.

Revised website

September will not only see the implementation of the new certificate/seal system, but also of our revised and improved website. We will also be presenting our new corporate image. The whole process involves dealing with many detailed changes. As a result, minor errors are not going to be an impossibility. We would therefore like to ask for your patience if something is not going exactly according to plan. Critical feedback is also very welcome.

New rigidity tests for frames

We now offer an improved measuring method for both specified frame rigidity values.

1. Track-holding properties (or torsion rigidity): a method of measuring the track consistency of the bike and its resistance against shimmying.
2. Out-of-saddle rigidity (bottom bracket rigidity): description of the frame's resistance against the out-of-saddle forces. A high level of out-of-saddle rigidity ensures a good conversion of the rider performance into driving power.

Our previous test bench is flexible and can be used to measure a diversity of rigidity values. Its great flexibility also means that measuring procedures are more time consuming.

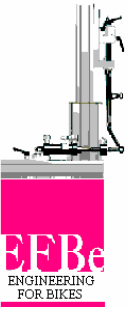
We have modified the past procedures in order to achieve easily operated, specialized testing procedures and improved measuring accuracy. The new designs minimize the number of errors resulting from the test benches own insufficient rigidity. Data acquisition occurs at the touch of a button on the PC.

Only disadvantage: As a result of the conducted changes, current measurements cannot be directly compared to the previously gathered data. We will however soon have access to a larger data pool and with it a better method of comparing the data.



Improved torsional rigidity test method

1. A double tube load lever now replaces the compensation calculation which was necessary due to the deflection of the load lever.
2. Transferring the head tube movement over its face surfaces eliminates any possible measuring errors caused by previous cone clamp movements.
3. The support in the middle of the head tube reduces the load exclusively to torsion. Conversions from N/mm in Nm^0 are possible.



Improved out-of-saddle rigidity test method

1. Load discharge without a crank dummy, directly into the bottom bracket axle simplifies the installation of the test sample.
2. Possibility to test either entire frame and front fork unit, or just the frame.
3. A lever mechanism enables effortless lifting of the 80 kg load using foot pedal.



Reduced testing costs

Due to the considerable reduction in testing time, we were able to reduce the price of a frame rigidity test from 240,- down to 120,- euros.

Quality assurance for carbon frames

Like all EFBe testing procedures, the new rigidity tests can also be purchased. Not to be ignored: For carbon frames, a 100% inspection of the rigidity values is a suitable and inexpensive method to control the quality of manual production.