

United States Golf Association

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Notice To Manufacturers

Change to the Method of Measurement for Spring-Like Effect

On February 24, 2003, the USGA announced a proposal to change the method of measurement for clubhead spring-like effect to the pendulum tester that the USGA and the R&A have developed jointly. Comments have been received, those comments have been analyzed, and some changes have been made.

The USGA I&B and Executive Committees have approved the pendulum tester as the official USGA test method for spring-like effect. The pendulum will become the official tester for determining conformance to Rule 5, Appendix II limiting the spring-like effect of the clubhead on January 1, 2004.

The updated detailed Technical Description is attached. The measurement protocol will soon be available for download on the USGA website (www.usga.org). In brief summary, the Pendulum Tester measures the flexibility or spring-like effect of a driver head by striking the club face at low impact speeds with a defined metal mass suspended on a pendulum. The normal procedure calls for the measurement to be made at the face center. The metal mass is instrumented to measure a time of contact between it and the club face. This time of contact is directly related to the amount of spring-like effect of the clubhead. The greater this time of contact, the greater the spring-like effect. The time measured is called the Characteristic Time (CT) of the clubhead.

The pendulum device measures Characteristic Time in microseconds. The limit of CT will be 239 microseconds. Clubs measured by the USGA will be considered non-conforming if they exceed the limit by an amount in excess of the allowed test tolerance (18 microseconds). Please note that the 239 microsecond limit is slightly higher than the previously proposed limit of 232 microseconds. This is entirely due to changes in the analysis method, not effectively a change to the limit. Full details of analysis method changes are included in the Technical Description.

Clubs that previously have been ruled conforming or non-conforming on the COR tester will remain in the same conformance status as determined by the COR measurement. All clubs received on or after January 1, 2004 to be evaluated by the USGA for spring-like effect, will be measured for conformance by the Pendulum Tester. As is currently done, clubs intended for use in both USGA and R&A areas of responsibility should generally be submitted to both the USGA and the R&A for overall conformance rulings. Since there will be two official pendulum testers – one at the USGA, one at the R&A – official CT measurement will normally be made by the ruling body governing the location of the submitting company.

Current practice by the USGA is to measure the spring effect of clubs with 15 degrees or less of loft. However, the USGA will continue to monitor innovations of all clubs regarding spring effects and reserves the right to conduct additional research prior to issuing conformance rulings as appropriate.

Questions regarding pendulum tester should be addressed to the USGA, attention Dick Ruge, P.O. Box 708, Far Hills, NJ 07931, Fax 908-234-0138, e-mail: drugge@usga.org.