



The Royal and Ancient Golf Club of St Andrews
Fife, Scotland, KY16 9JD

Ref: IB03SLE

25th November 2003

To: **ALL MANUFACTURERS**

INTRODUCTION OF THE PENDULUM TEST TO MEASURE 'SPRING-LIKE' EFFECT

I am writing further to my memorandum dated 24th February 2003 regarding The Royal and Ancient Golf Club of St. Andrews' (the "R&A's") proposed introduction of a new, simpler test, called the Pendulum Test, to measure the amount of 'spring-like' effect in driving clubs.

The purpose of this Notice is to confirm that the R&A's Implements and Ball Committee has decided to proceed with this proposal and to adopt the Pendulum Test for determining a club's conformance to Appendix II, 5a of the Rules of Golf from 1st January 2004. This test will replace the current Coefficient of Restitution ("COR") test. All of the comments received from manufacturers as a result of the February memorandum have been carefully considered, and you should be aware that they have led to a number of changes to the original proposal. For your information, an updated technical description is attached. The updated measurement protocol will also be available from the R&A's website (www.randa.org) next week.

The Pendulum Test, which has been jointly developed by the R&A and the United States Golf Association (the "USGA"), is designed to measure the flexibility of a driving club using a defined steel mass suspended on a pendulum. The instrumented steel mass strikes the club face (usually at its centre) at low impact speeds and the associated characteristic time is calculated in microseconds. The limit of the characteristic time will be set at 239 microseconds (plus a tolerance of 18 microseconds). This limit is slightly higher than the one originally proposed, and this is due to changes which have been made to the original test protocol, partly as a result of manufacturer input.

As already stated in our February memorandum, the conformance status of driving clubs previously submitted and ruled upon using the current COR test will remain unchanged and these clubs will not be retested using the Pendulum Test. All driving club submissions which are received on or after 1st January 2004 will be measured for conformance by the Pendulum Test.

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In practice, there will be two official testing devices – one at the R&A and one at the USGA. Clubs intended for sale and/or use in both R&A and USGA areas of responsibility should continue to be submitted to both organisations for independent conformance rulings. However, the official measurement of characteristic time will normally be made by the ruling body governing the location of the submitting company.

For the avoidance of doubt, the R&A's current interpretation of a 'driving club' is that it is a club with a loft of 15 degrees or less. However, the R&A will continue to monitor design innovations of all clubs in respect of 'spring-like' effect and, where appropriate, any club may be subjected to further testing prior to a conformance ruling.

If you have any questions regarding the implementation or technical details of the new Pendulum Test, please do not hesitate to contact me.

Yours faithfully


DAVID RICKMAN
Rules Secretary

Encl.