

28 September 2009

TO: ALL MANUFACTURERS

GROOVE GEOMETRY

Introduction

I refer to my memorandum dated 27 July 2009 clarifying certain aspects of the 2010 groove specifications and proposing two additional requirements on groove geometry. That memorandum was prompted by the submission of certain products and the emergence of various patent applications containing or describing groove designs with cross-sections or features that might circumvent the intent of the new groove specifications effective 1 January 2010.

After careful consideration of the responses received from manufacturers, including the views of those not in agreement with the contents of the memorandum, R&A Rules Limited ("The R&A") has decided to proceed with its clarified interpretation of the groove edge and to adopt the additional requirements regarding groove walls and the base.

The R&A remains of the view that the new groove specifications announced in August 2008, which have been widely supported throughout the game, are in the best interests of golf. Despite the intent of the new Rule being widely accepted and understood, it is now evident that the Rule as originally drafted would benefit from a greater level of precision, which will ensure that its intent is not circumvented by novel design. Consequently, and notwithstanding the close proximity of the implementation date of 1 January 2010, The R&A is of the view that the regulations should be clarified and supplemented. Such clarification and guidance on any existing Rule is considered to be beneficial to all concerned.

Groove Specifications – Effective 1 January 2010

For your information, a full copy of the updated 2010 groove specifications is attached to this memorandum. The decision now taken with regard to groove geometry affects the following two clauses in particular:

- (i) "Grooves must have a **plain**, symmetrical cross-section, with sides which do not converge."

The R&A's definition/interpretation of a 'plain' groove is that:

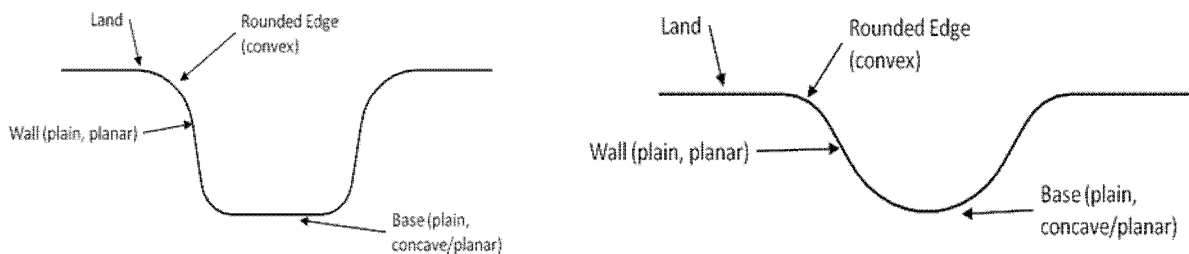
- o The groove starts where there is a significant departure from the plane of the face and this is joined to the side (or wall) of the groove via the edge. The side (or wall) continues to the base of the groove.
- o The sides (or walls) of the groove must be substantially plain and planar. This disallows features such as bends, indentations in or protrusions from the wall.
- o The base of the groove must also be substantially plain and join the two opposing sides (or walls) of the groove using a concave shape or a plane.

- o Groove edges must be a convex curve and must not include serrations, gear teeth or other similar features.
- (ii) "For clubs whose loft angle is greater than or equal to 25 degrees, groove edges must **be substantially in the form of a round** having an effective radius which is not less than 0.010 inches (0.254 mm) when measured (by the two circles method) and not greater than 0.020 inches (0.508 mm)."

This clause has been modified to clarify that the edge must be in the form of a round. The R&A's interpretation of this clause can be further explained as follows:

- o The round must comprise an arc to which the groove wall and the land are tangential. As such, the ends of the "round" coincide with the ends of the edge - one end marking the joint to the land and one end marking the start of the groove wall.
- o The R&A reserves the right to define the extent of the groove edge. Edge configurations, including (but not limited to) chamfers, fillets, notches, etc. do not conform to the Rules since they are not in the form of a round. An allowance may be made for edge regions not strictly fulfilling this requirement as a result of production variations, but any such variations must be minimal and not part of the club's intended design.

Based on the above, the following images are illustrative examples of permissible groove geometries:



For the avoidance of doubt, with the exception of drivers and putters, all new models of clubs manufactured on or after 1 January 2010 must comply with the requirements described above and in the attached document. All of the interpretative information detailed above will be published in the next revision of *A Guide to the Rules on Clubs and Balls*.

If you have any questions regarding any of the above, please do not hesitate to contact me.

Yours faithfully

David Rickman

DAVID RICKMAN

Director of Rules and Equipment Standards