

ABSTRACT

A contoured golf club face provides increased structural integrity for a given weight and size is described and shown along with a method for its design.

5 The contoured golf club face includes a vertical stiffening region, a tapered horizontal stiffening region, four similar contoured quadrants of increasingly thinning material toward the center of each quadrant, and thickening regions at face/sole and face/crown

10 intersection regions. The thicknesses of adjoining regions are gradually blended to provide a smooth contoured surface. The present golf club face is light weight, is structurally resistant to impact deformation, is resistant to initial and long-term failure, has its

15 mass center located at its sweet spot, exhibits inertial axes which are aligned with vertical and horizontal axes (i.e. primary club force directions: ball impact force and club centrifugal force directions), and produces acoustical tones. A club incorporating the present

20 contoured golf club face may be provide a certain first acoustical sound when used to hit a ball with a certain first specific area of the face (e.g. the sweet spot or sweet spot region) and to provide a different second acoustical sound when used to hit a ball with an area of

25 the face other than that first area (e.g. other than the sweet spot or sweet spot region). Thus, the present invention may be used to provide an educational tool for use in teaching and/or learning to consistently impact a ball on the optimal region of the club face.

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