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(54) Title: FOIL STRUCTURE FOR PROVIDING BUOYANCY AND LIFT

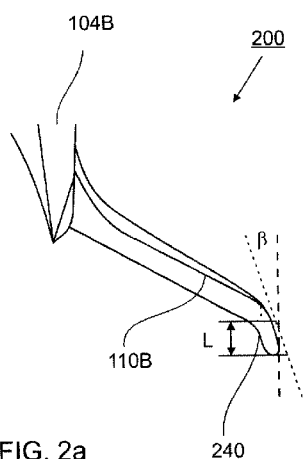


FIG. 2a

(57) Abstract: A foil structure for providing buoyancy and lift to a floating device is provided. The foil structure comprises an elongated left hand side floating device section and an elongated right hand side floating device section. The left hand side floating device section and the right hand side floating device section are placed at a predetermined distance to a longitudinal axis of the floating device and oriented substantially parallel thereto. A left hand side foil and a right hand side foil protrudes from the left hand side floating device section and the right hand side floating device section, respectively, towards a vertical plane through the longitudinal axis and is oriented at an acute angle to a horizontal plane. A leading edge of each foil intersects the respective floating device section in proximity to a bow portion thereof. Each foil extends along the respective floating device section and terminates in proximity to a stern portion thereof. Each foil has a top surface with a front portion thereof being angled downward towards the leading edge. The angled front portion is determined such that wave penetration is assisted and instabilities due to buoyancy change are substantially dampened.

