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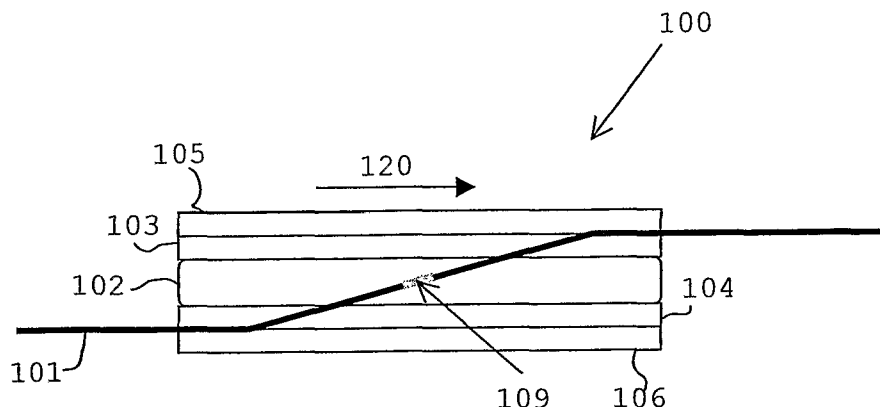
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(54) Title: A FIBER OPTIC FORCE SENSOR FOR MEASURING SHEAR FORCE



(57) Abstract: A fiber optic force sensor (100) for measuring shear force includes an optical fiber (101) with at least one optical core and Bragg grating (109) formed in a portion of the optical core, a first stack of layers including an upper protection layer (105) and an upper anchoring layer (103), and a second stack of layers including a lower protection layer (106) and a lower anchoring layer (104). The first stack of layers is arranged above the second stack of layers with the upper anchoring layer (103) facing the lower anchoring layer (104). A first portion of the optical fiber is threaded through a hole provided in the upper anchoring layer (103) to be anchored between the upper anchoring layer (103) and the upper protection layer (105). A second portion of the optical fiber is threaded through a hole provided in the lower anchoring layer (104) to be anchored between the lower anchoring layer (104) and the lower protection layer (106). The portion of the optical core with the Bragg grating (109) is arranged between the anchored first and second portions of the optical fiber (101).

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