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(54) Title: DETECTING SURFACE CRACKS USING ACOUSTIC SIGNALS

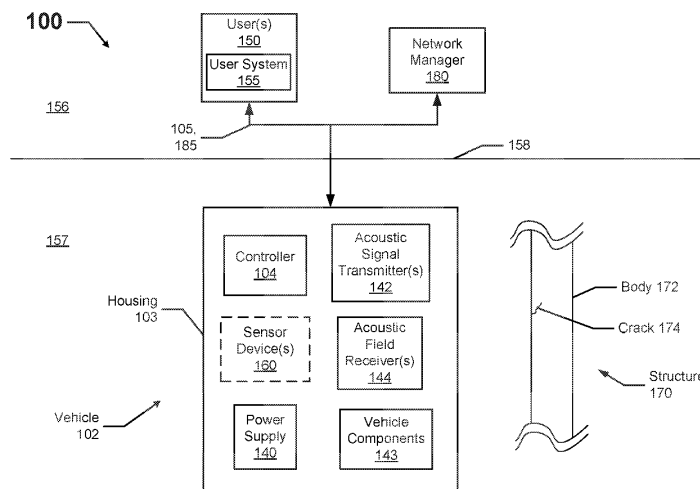


FIG. 1

(57) Abstract: A system for detecting cracks in an underwater structure can include an acoustic signal transmitter configured to be disposed proximate to, but without physically contacting, the underwater structure, where the acoustic signal transmitter is configured to emit acoustic signals. The system can also include an acoustic field receiver configured to be disposed proximate to, but without physically contacting, the underwater structure, where the acoustic field receiver is configured to receive resulting acoustic fields. The system can further include a controller that is configured to receive the resulting acoustic fields from the acoustic field receiver. The controller can also be configured to analyze the resulting acoustic fields signal. The controller can further be configured to detect, based on analyzing the resulting acoustic fields, a crack in the underwater structure.

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