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[54] **ULTRASONIC FLUID DENSITOMETER FOR PROCESS CONTROL**

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[*] Notice: This patent is subject to a terminal disclaimer.

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[58] Field of Search 73/32 A, 30.01, 73/30.04, 54.41, 64.53

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[57] **ABSTRACT**

The present invention is an ultrasonic fluid densitometer that uses at least one pair of transducers for transmitting and receiving ultrasonic signals internally reflected within a material wedge. A temperature sensor is provided to monitor the temperature of the wedge material. Density of a fluid is determined by immersing the wedge into the fluid and measuring reflection of ultrasound at the wedge-fluid interface and comparing a transducer voltage and wedge material temperature to a tabulation as a function of density.

6 Claims, 3 Drawing Sheets

