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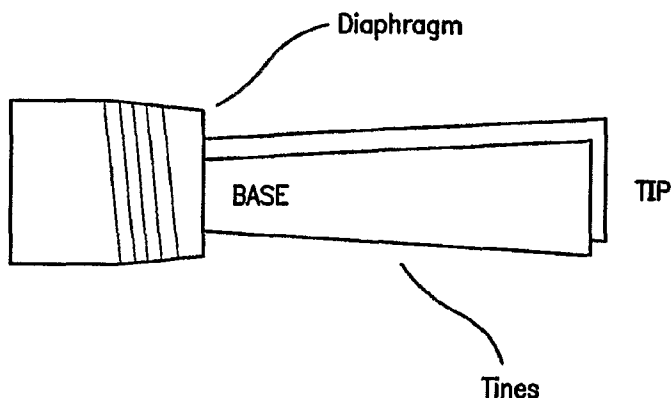
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(54) Title: METAL LOSS RATE SENSOR AND MEASUREMENT USING A MECHANICAL OSCILLATOR

Components of Commercial Tuning Fork Level Sensor (Fork A)



(57) Abstract: The present invention is a mechanical oscillator metal loss sensor for use in a corrosive or erosive environment. The elements include a means for mechanical excitation, and a mechanical oscillator with two regions that corrode differently, where the regions are determined to affect specific influences on the resonance parameters, wherein said mechanical oscillator has a resonant frequency, f , and a quality factor, Q . In a preferred embodiment, the mechanical oscillator has the shape of a tuning fork.