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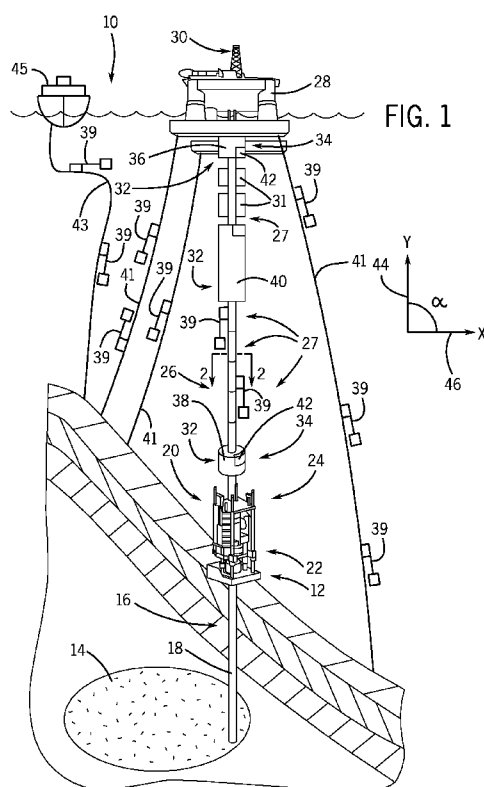
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(54) Title: POUNDING TUNE MASS DAMPER SYSTEMS AND CONTROLS



(57) Abstract: A vibration dampener, including, a first beam comprising a first mounting end portion and a first peripheral end portion, wherein the first peripheral end portion comprises a tunable mass, and the first beam is configured to vibrate in tune with a vibrational frequency of a structure supporting the first beam at the first mounting end portion, a second beam comprising a second mounting end portion and a second peripheral end portion, wherein the second peripheral end portion comprises a ring disposed about the first beam, and a viscoelastic material disposed between the first beam and the ring, wherein the viscoelastic material is configured to dampen vibrational energy as the first beam vibrates toward the ring until the viscoelastic material becomes compressed between the first beam and the ring during the course of the impact.



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