



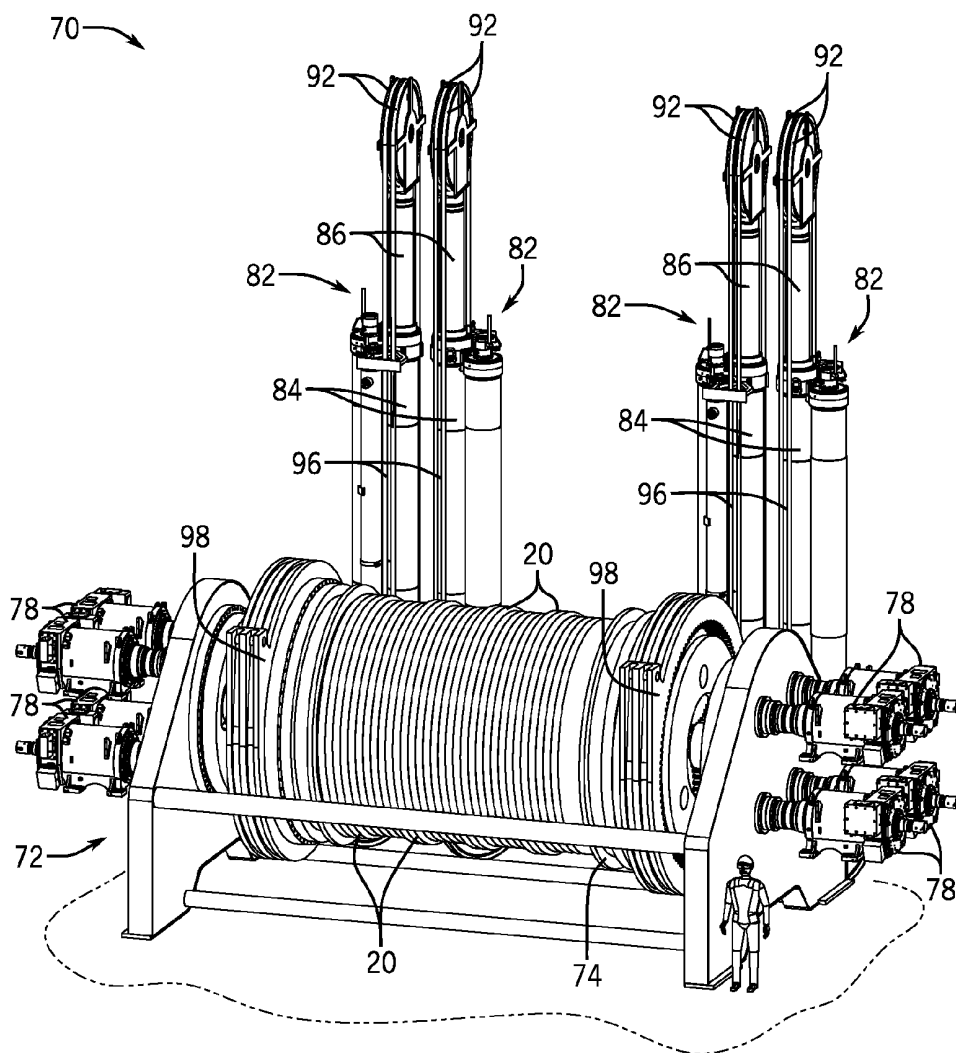
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Bergan et al.(10) **Pub. No.: US 2015/0361736 A1**(43) **Pub. Date: Dec. 17, 2015**(54) **HEAVE COMPENSATION WINCHES****B66D 1/50** (2006.01)**B66D 1/22** (2006.01)(71) Applicant: **Cameron Sense AS, Kristiansand (NO)**(52) **U.S. Cl.**(72) Inventors: **Håkon F. Bergan, Kristiansand (NO);**
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Songe (NO)CPC **E21B 19/006** (2013.01); **B66D 1/22**
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(57)

ABSTRACT

Various hoisting systems with heave compensation are provided. In one embodiment, an apparatus includes a winch having a rotatable drum and a heave compensation system with both active and passive drive input devices. The heave compensation system can be coupled to the rotatable drum so that the active and passive drive input devices can each be used to drive rotation of the rotatable drum in response to heaving motion of the winch. Additional systems, devices, and methods are also disclosed.



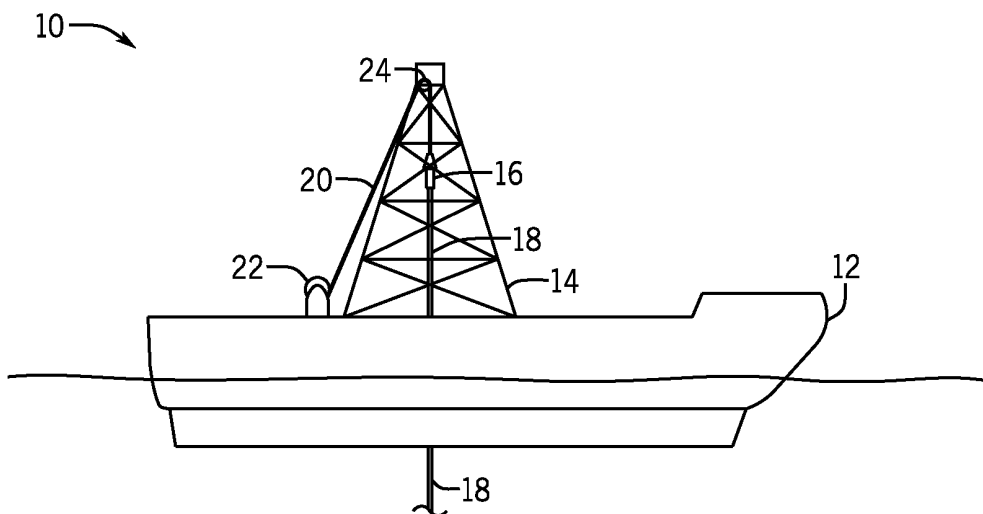


FIG. 1

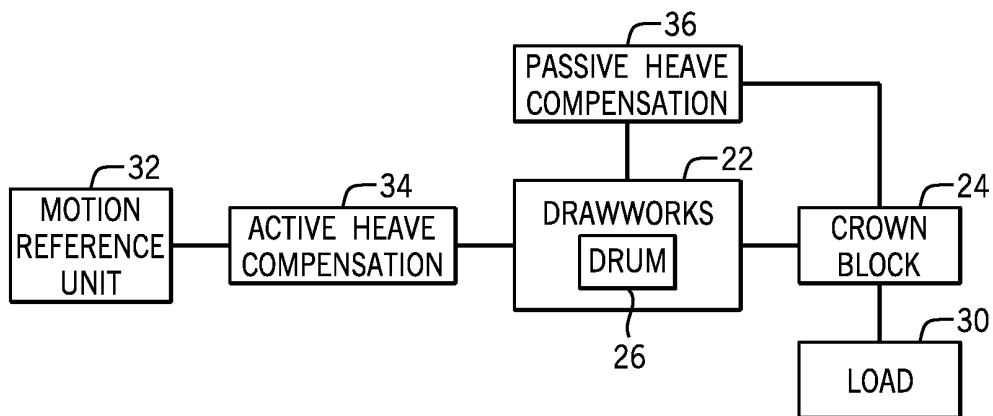


FIG. 2

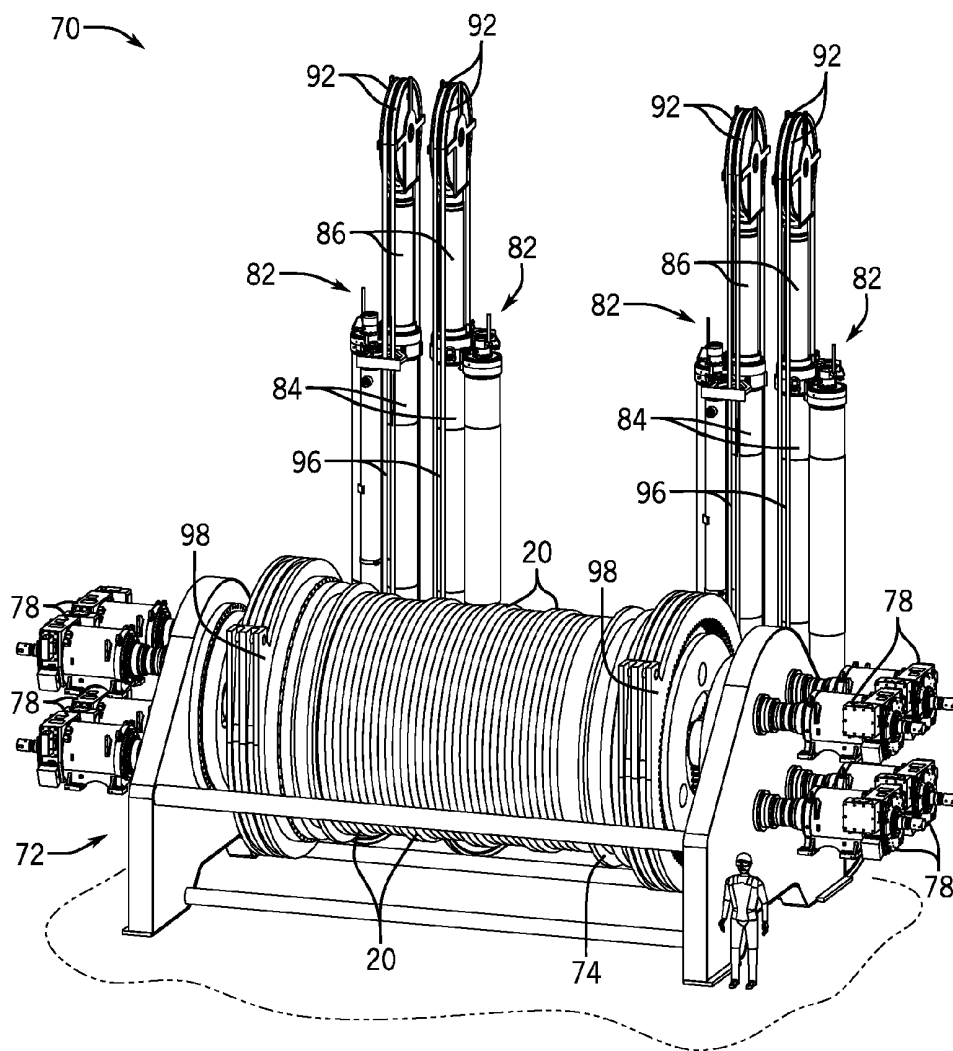


FIG. 3

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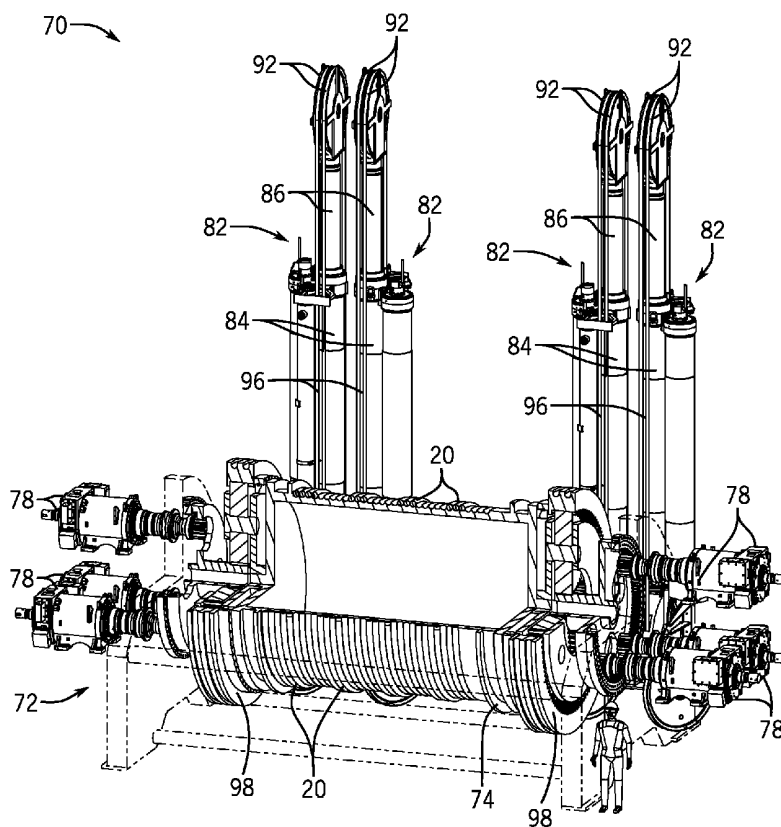


FIG. 4

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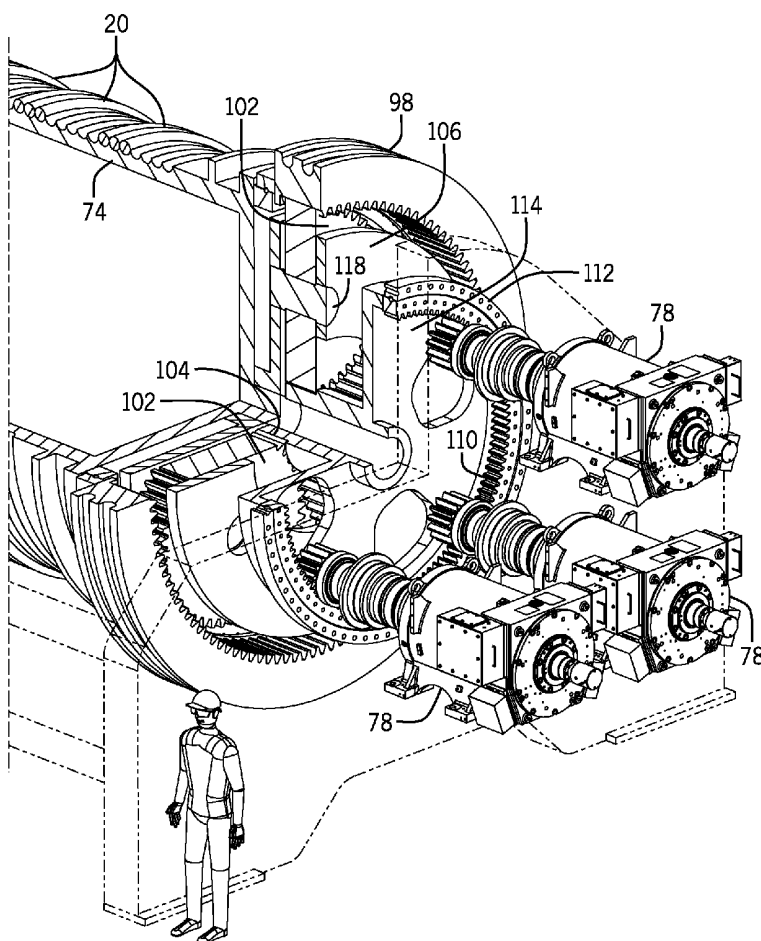


FIG. 5

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