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(54) Title: LIQUID COOLED BRAKE WITH SUPPORT COLUMNS

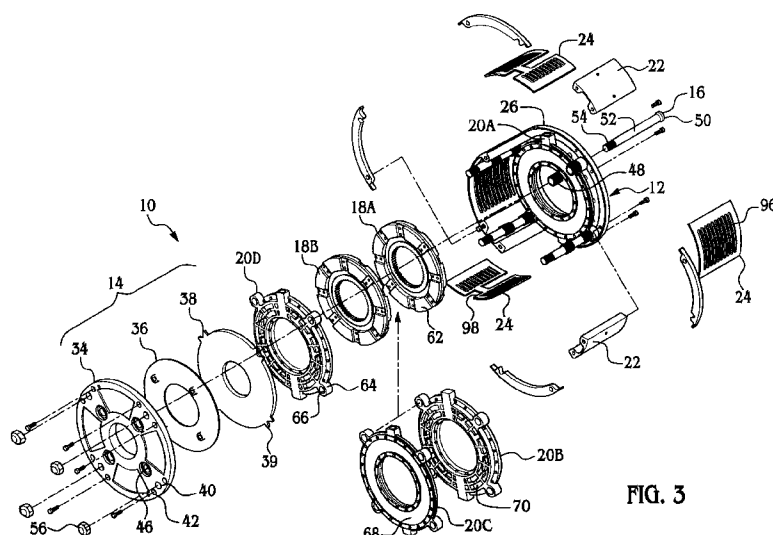


FIG. 3

(57) Abstract: A liquid cooled brake is provided having a housing that provides strong yet lightweight structural support. The brake includes end plates (26,34) disposed about a driven shaft and axially spaced from one another. A plurality of axially extending pins (16) connect the end plates. A friction plate (18a, 18b) is coupled to the driven shaft for rotation therewith and is axially movable relative to the driven shaft. Another friction plate (20a) defines a fluid jacket (70) and is coupled to the pins (16). The friction plate (20a) is fixed against rotation, but axially movable, relative to the pins. A pressure plate (38) is configured for selective movement towards the friction plates. Support columns (22) are disposed radially outwardly of each pin (16) and fixed to the end plates. The support columns prevent undue strain on the pins. Ventilated guards (24) may also be located between each pair of columns (22) to limit access to internal working components of the brake.

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